

# Service Manual

# Touch Screen Controller

Model name:

**BMS-CT2560U-E**  
**(BMS-CT1280TU)**  
**(BMS-CT2560U-TR)**  
**(BMS-CT2560U-UL)**





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# Safety Precautions

- This section explains safety precautions you must follow in order to prevent harm to the user and other persons and damage to property.
- "Display Description" explains the classification of the degree of harm or damage that may occur if the unit is handled incorrectly, while "Symbol Description" indicates the meanings of symbols.

Display Description	Symbol Description
 <b>WARNING</b> Indicates "Content that is expected to result in death or serious injury (*1) to the user in the case of incorrect handling".	 ⚡ indicates prohibited actions. Specifically prohibited contents are indicated with a picture and/or text in or near the symbol.
 <b>CAUTION</b> Indicates "Content that is expected to result in minor injury (*2) to the user or damage to property (*3) in the case of incorrect handling".	 ● indicates instructions which must be followed. The actual contents of the instructions are indicated with a picture and/or text in or near the symbol.

\* 1: Serious injury refers to lasting after effects such as blindness, injury, burns (high temperature / low temperature), electric shock, bone fracture, or poisoning, etc. and injuries that require hospitalization/long-term outpatient treatment.

\* 2: Minor injury refers to injuries, burns, or electric shocks, etc. that do not require hospitalization or long-term outpatient treatment.

\* 3: Damage to property refers to extended damage related to houses, household goods, livestock, or pets, etc.

## WARNING



Turning off the circuit-breaker

- **Set the circuit-breaker to "OFF" before starting work**  
Failing to do so may result in a high-voltage electric shock, leading to death or injury.



Prohibited

- **Do not turn on the circuit-breaker when the cover is removed**  
Doing so may result in a high-voltage electric shock leading to death or injury.

## CAUTION



Check earth connection

- **Check that the earth wire (\*) is connected to the unit earth terminal before beginning troubleshooting and repair work**  
If the earth wire is not connected, there is the risk of electric shock in the event of an electric leakage occurring.



Modification prohibited

- **Do not modify the product**  
Also, do not disassemble or modify the parts.  
Doing so may cause fire, electric shock, or injury.



Children must be kept away

- **Only qualified engineers should be allowed on a troubleshooting or repair work site. Children and all other third parties must be kept away**  
There is a risk of injury from tools or disassembled parts.  
Inform the customer that children and other third parties must be kept away from the work site.



Insulation

- **After connecting a crimp terminal to a cut lead wire, place the closed-end facing up and clean it**  
If connections are not properly processed, electrical leakage, ignition or other accident could occur on the customer's premises.



Wiring Precautions During Assembly

- **After repairs are complete, be sure to reassemble the disassembled parts and connect and route the wires to restore the equipment to its original state. Make sure internal wires are not trapped in the cabinets, panels, or other parts**  
An assembly or wire connection problem may result in a short circuit, ignition or other accident on the customer's premises.



Insulation check

- **After the work is completed, be sure to test between the live and dead metal parts (earth terminal) with an insulation resistance tester (500 V) to confirm that the insulation resistance is 2 MΩ or higher**

A low insulation resistance value may result in a short circuit, electric shock or other accident on the customer's premises.



Risk of electric shock

- **If you have to inspect a circuit that is energized, for example, take precautions such as wearing rubber gloves to avoid direct contact with a live part**

Touching a live part may result in an electric shock.



Check after repair

- **Check that there are no abnormalities after completing the repair work**

Failure to perform this check may result in fire, electric shock, or injury.

Turn off the earth leakage breaker before performing an inspection.

- **After completing the repair work, perform a test run and check that there are no abnormalities such as smoke or unusual noise**

Failure to perform this check may result in fire or electric shock.

Perform a test run after installing the front panel and cabinets.



Repair and reinstallation work

- **Installation and reinstallation work should be performed by your vendor or a qualified electrician**

Attempting to carry out installation work on your own, and doing so incorrectly, may result in electric shock or fire.

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# 1 Product Overview

## 1-1. Function list

### Specifications

#### Detailed specifications

<b>Power supply</b>	220-240 V AC 50/60 Hz
<b>Consumed current</b>	1.17 A
<b>Operating temperature/ humidity range</b>	0°C to 40°C, 10% to 90% RH (no dew condensation)
<b>Dimensions (mm)</b>	H136×W205×D10(+80) (Embedded dimensions shown in parenthesis)
<b>Mass</b>	1.34 kg (Touch Screen Controller) 0.45 kg (power adapter)
<b>LCD</b>	Type 7 TFT liquid crystal, 800×480, 167,000 colours (Luminance 800 cd/m <sup>2</sup> , contrast ratio 600:1)
<b>Touch Screen</b>	Projection-capacitive type
<b>Communication ports</b>	· RS-485 port ×1 (for connecting four digital I/O interfaces and four watt hour meter interfaces) · LAN port ×1 (for connecting PC)
<b>USB port</b>	USB memory stick connection port ×2
<b>External contact input</b>	8 inputs
<b>External contact output</b>	4 inputs
<b>Included PC software (Requires a separate PC (*1))</b>	· Remote Control Software · Energy Report Software · Section Configuration Software

\*1Conditions for PC connection (operating environment)

OS: Windows 10

LAN port: 10BASE-T or 100BASE-TX wired LAN port

Other: mouse/keyboard, printer (if printing is required)

## Function list

Key Features		
<b>Control</b>	ON/OFF	
	Mode	
	Set temp.	
	Fan speed	
	Wind direction	
	Lock setting of remote control	
	Ventilation → ON/OFF	
	Ventilation → Mode	
	Ventilation → Fan speed	
	Night operation	
	Filter sign reset	
	Soft Cooling	
	Energy saving ratio [%]	
	Saving operation	
	Forced Thermo OFF	
	Return Back	
	Eco Temperature Shift	
	Set temp. range limit	
	<b>Monitoring</b>	ON/OFF
		Mode
Set temp.		
Fan speed		
Wind direction		
Lock setting of remote control		
Ventilation → ON/OFF		
Ventilation → Mode		
Ventilation → Fan speed		
Soft Cooling		
Energy saving ratio [%]		
Eco Temperature Shift		
Set temp. range limit		
Outdoor temp.		
Power Level		
Return Back		
Power peak cut		
Filter Sign		
<b>Schedule</b>	Setting unit (Per unit)	
	Setting unit: Weekly schedule (per day of the week)	
	Setting unit: Special day schedule (per date)	
	Setting time (00:00 to 23:59)	
	Setting content	ON/OFF
		Mode
		Set temp.
		Local remote controller operation lock/unlock
		Return Back
		Night operation
		Energy saving ratio [%]
Ventilation operation		
Vent. Mode		
Maximum number of schedules per day 64		

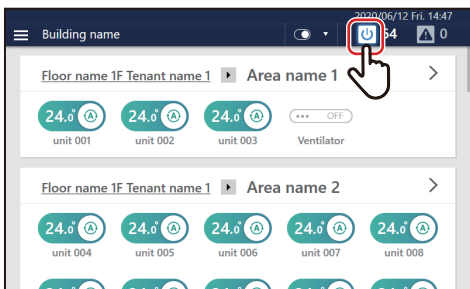
Key Features			
<b>External input</b>	Inputs	Main unit	8 inputs
		DIO interface	8 inputs x 4 units
	Functions	Power pulse measurement	
		Demand Interlocking	
		Fire Alarm Interlocking	
		Locking Interlocking	
		Stop Interlocking	
		Operation Interlocking	
		For external device ON/OFF indication	
		For external device check code display	
<b>External output</b>	Outputs	Main unit	4 outputs
		DIO interface	4 outputs x 4 units
	Functions	Air conditioner check code output	
		Operation output	
		System Controller check code output	
		Operation output to external device	

# 1-2. Basic Usage

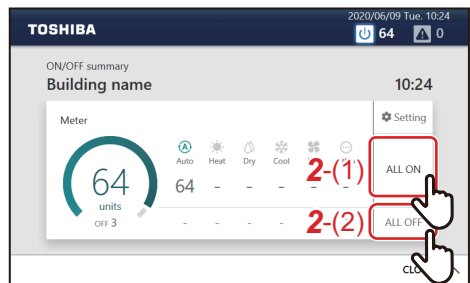
This section explains the basic setting method for operation Start/Stop and air conditioning, the setting method for the operation schedule, and the confirmation method for the overall air conditioning system.

## Start/Stop Operation

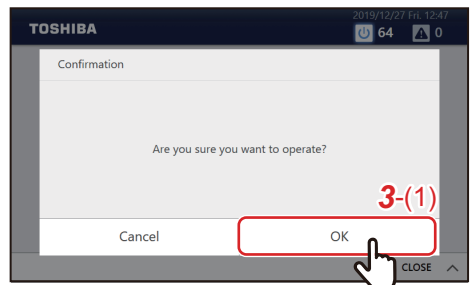
### Overall air conditioning system operation method



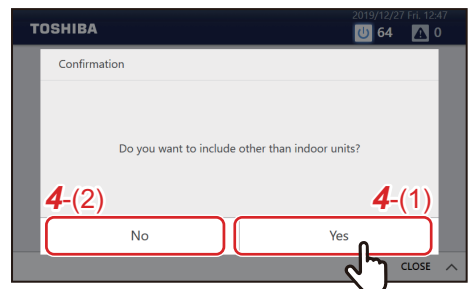
1 Tap 



2 Tap [2-(1)] or [2-(2)]



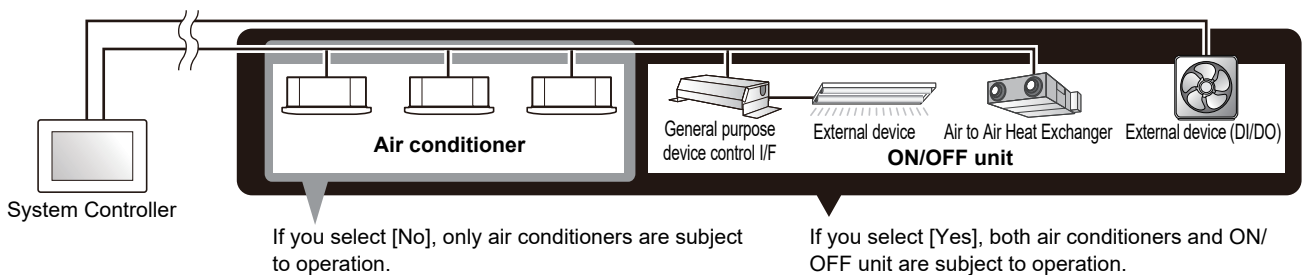
3 Check the contents of the message and tap [3-(1)]



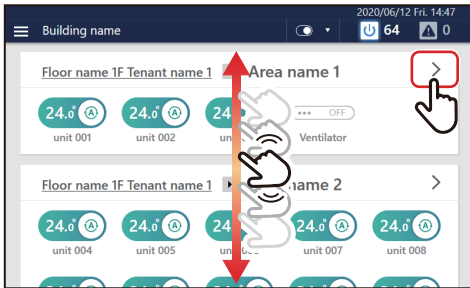
4 When the screen on the left appears, check the contents of the message and tap [4-(1)] or [4-(2)] \*

All air conditioners and ON/OFF unit start/stop operation.

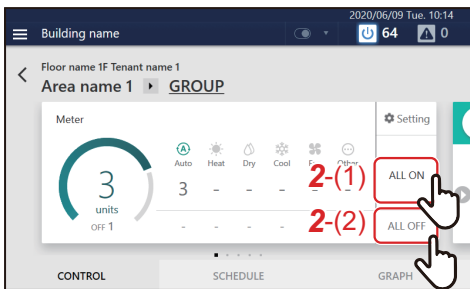
\* About confirmation pop-up selection



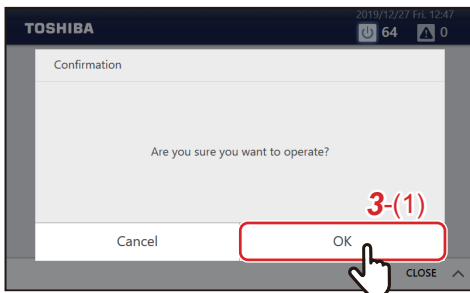
## Group unit operation method



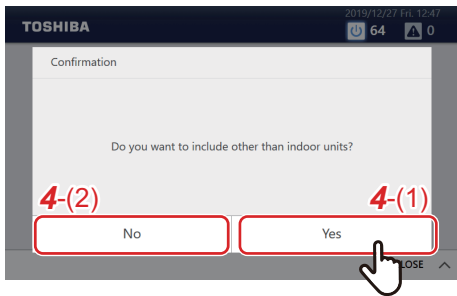
**1** Scroll the home screen to display the group you want to change the settings for, then tap >



**2** Tap [2-(1)] or [2-(2)]



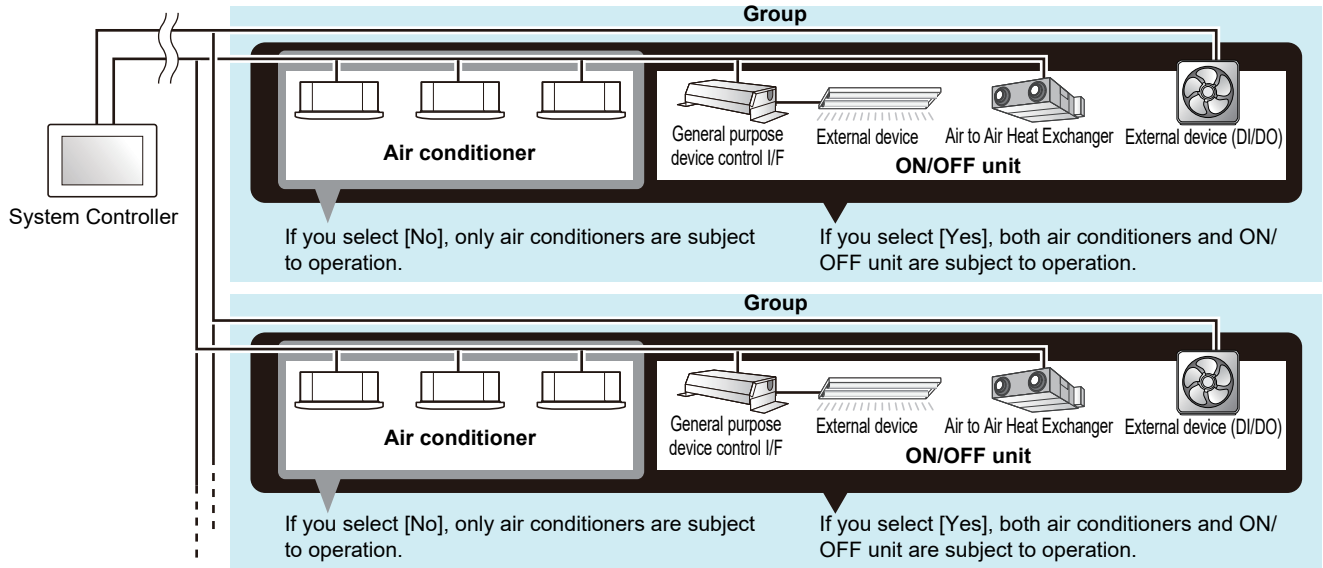
**3** Check the contents of the message and tap [3-(1)]



**4** When the screen on the left appears, check the contents of the message and tap [4-(1)] or [4-(2)] \*

All group air conditioners and ON/OFF equipment turn ON or OFF.

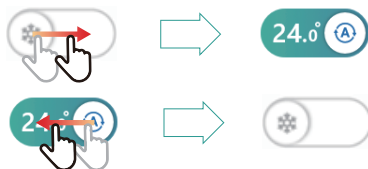
\* About confirmation pop-up selection



**Operation method in units of air conditioner or ON/OFF unit**

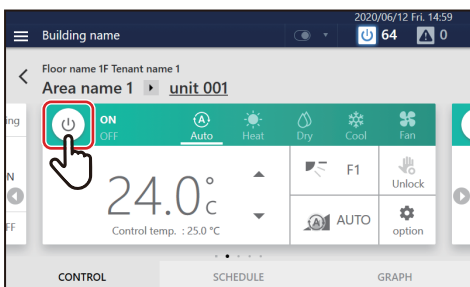


**1** Scroll the home screen and display the air conditioner or ON/OFF unit that you want to change the settings for



**2** Drag or flick the of the corresponding switch

Drag or flick to the right to start operation.  
 Drag or flick to the left to stop operation.

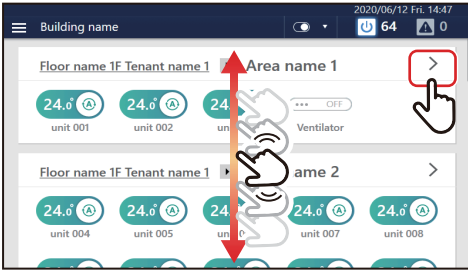


**NOTE**

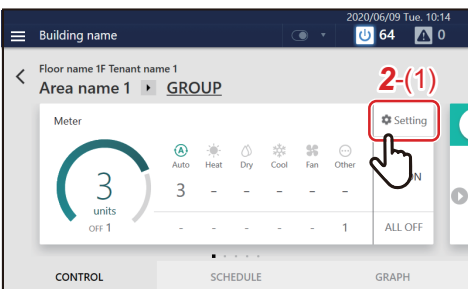
You can also start/stop operation by tapping the power icon on the [CONTROL] tab on the individual control screen displayed by tapping the switch.

# Change the Air Conditioning Settings

## Group unit operation method



**1** Scroll the home screen to display the group you want to change the settings for, then tap >



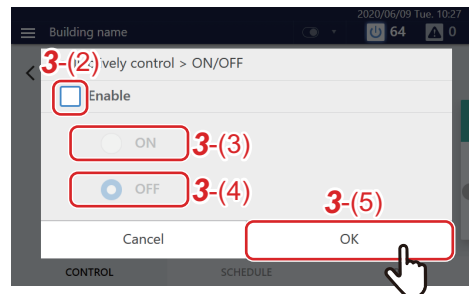
**2** Tap [2-(1)]  
The batch settings screen is displayed.



**3** Change settings

**Example: When changing the operation status settings**

**3-1** Tap [3-(1)]  
The operation status settings screen is displayed.


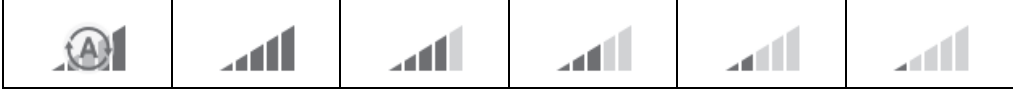
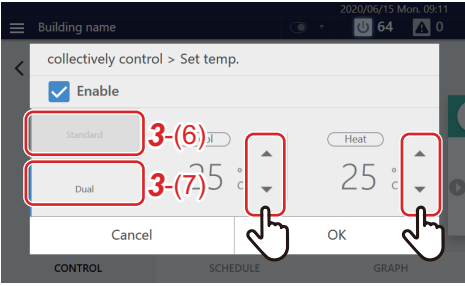


**3-2** Set the check box of [3-(2)] to   
You can now change the settings.

**3-3** Select [3-(3)] or [3-(4)] and tap [3-(5)]  
Return to the batch settings screen.

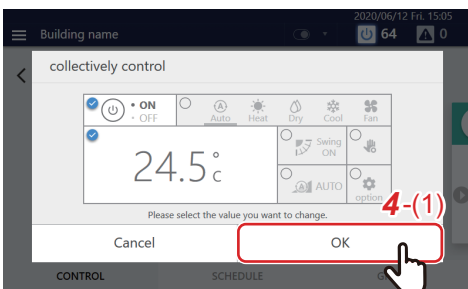
**3-4** Change the other items with reference to steps 3-1 to 3-3  
For the setting details, see the following table.

No.	Name	Functions
1	ON/OFF	Can be set to [ON/OFF].
2	Mode	Can be set to [Auto/Heat/Dry/Cool/Fan]. <b>NOTE</b> <ul style="list-style-type: none"> <li>A bar is displayed at the bottom of the icon for the currently selected mode.</li> <li>Operation modes that cannot be set are not displayed.</li> </ul>

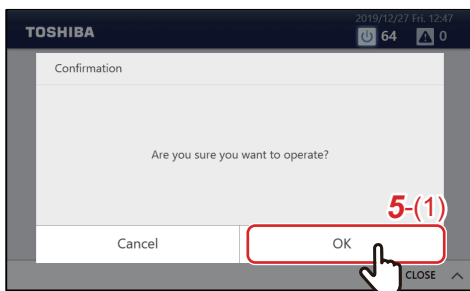
No.	Name	Functions
3	Wind direction	<p>Tap ◀ ▶ to switch to the following.</p>  <p>• <b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>
4	Fan Speed	<p>Tap ◀ ▶ to switch to the following.</p>  <p>• <b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>
5	Set temp.	<p>Tap ▲ ▼ to change the set temperature.</p> <p>• <b>NOTE</b></p> <ul style="list-style-type: none"> <li>When set to a temperature outside the setting range limit of each operation mode, the temperature is changed to the upper or lower limit of the setting range.</li> <li>If there are Dual Set Point compatible models in the group, two tabs will be displayed. When you tap [3-(6)], one set temperature is displayed, and when you tap [3-(7)], two set temperatures are displayed. Tap ▲ ▼ to change the set temperature.</li> </ul> 

• **NOTE**

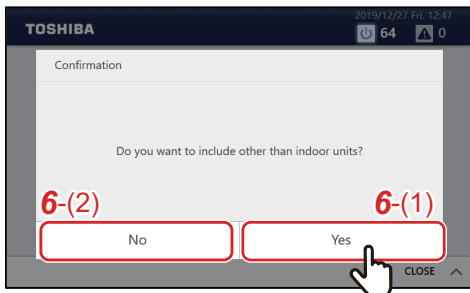
- For models that do not have the function set, the setting change is ignored.
- For the setting of [Lock] [Unlock] of [3-(8)], see "Local Remote Controller Lock" (P.44 in Owner's Manual).
- For the [Option] settings of [3-(9)], see "Set Operation Details" (P.46 in Owner's Manual).



**4** Confirm that the changed item is checked, and tap [4-(1)]

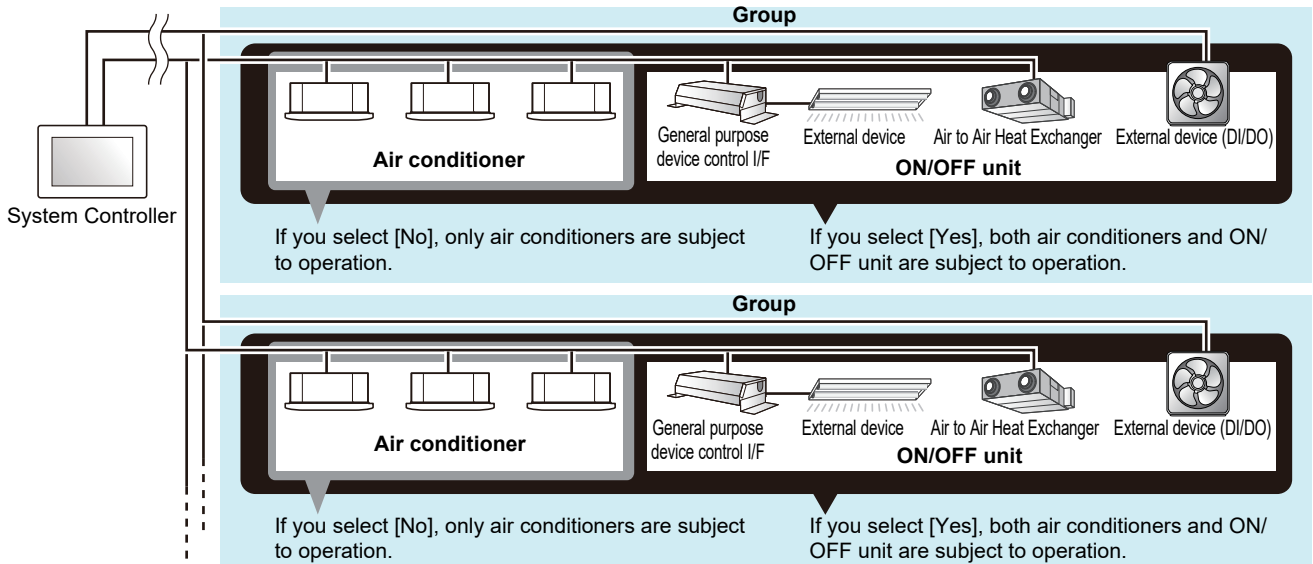


**5** Check the contents of the message and tap [5-(1)]



**6** When the screen on the left appears, check the contents of the message and tap [6-(1)] or [6-(2)] \*  
The settings of the entire group are changed.

**\* About confirmation pop-up selection**

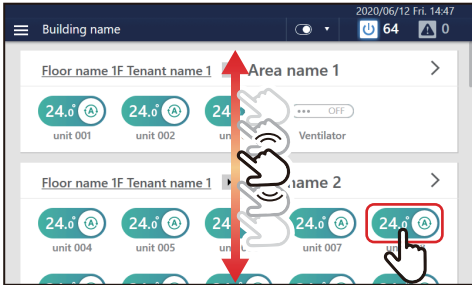




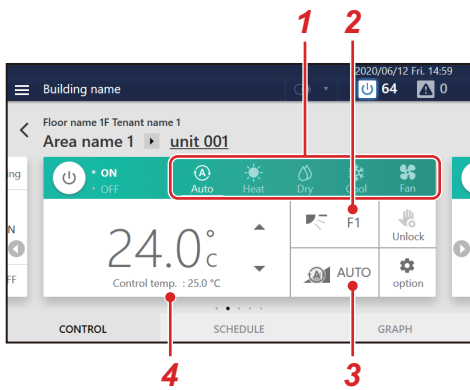
## Air conditioner unit operation method

### NOTE


To change the settings, it is necessary to set to the operation status. (P.9)




**1** Scroll the home screen, display the air conditioner you want to change the settings for, then tap the switch



**2** Change settings

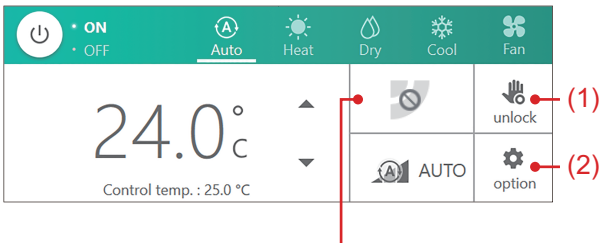
No.	Name	Functions						
1	Mode	<p>Can be set to [Auto/Heat/Dry/Cool/Fan].</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>A bar is displayed at the bottom of the icon for the currently selected mode.</li> <li>Operation modes that cannot be set are not displayed.</li> </ul>						
2	Wind direction	<p>Tap to switch to the following.</p>  <table border="1"> <thead> <tr> <th>Operation Mode</th> <th>Setting Range</th> </tr> </thead> <tbody> <tr> <td>Auto (Cool)/Cool/Dry</td> <td>Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)</td> </tr> <tr> <td>Auto (Heat)/Heat/Fan</td> <td>Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)</td> </tr> </tbody> </table> <p><b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>	Operation Mode	Setting Range	Auto (Cool)/Cool/Dry	Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)	Auto (Heat)/Heat/Fan	Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)
Operation Mode	Setting Range							
Auto (Cool)/Cool/Dry	Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)							
Auto (Heat)/Heat/Fan	Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)							

No.	Name	Functions
3	Fan Speed	Tap to switch to the following.  <b>NOTE</b> Depending on the connected model, it may not be configurable.
4	Set temp.	Tap ▲ ▼ to change the set temperature. <b>NOTE</b> <ul style="list-style-type: none"> <li>If the operation mode is FAN, the temperature cannot be set.</li> <li>"Control temp." shows the indoor temperature detected by the indoor unit after partial compensation.                               *Depending on conditions such as the installation site of the indoor unit, it may differ from actual room temperature.</li> <li>In frost protection, preparing for operation, preparing for heating operation, etc., an icon and a text are displayed in this area.</li> </ul>

**NOTE**

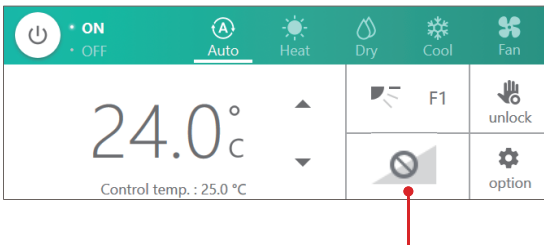
- For the setting of [(1)], see "Local Remote Controller Lock" (P.44 in Owner's Manual).
- For the setting of [(2)], see "Set Operation Details" (P.46 in Owner's Manual).
- If there is no corresponding function, that item is not displayed.

**Example of a model without a flap**



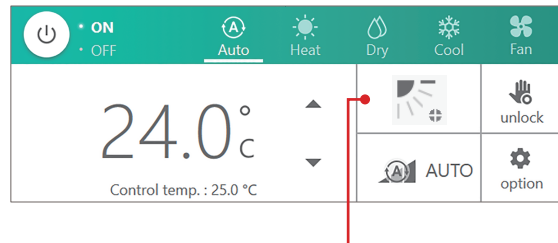
Since you cannot set the air direction, it does not change even if you tap it.

**Example of a model where only a certain fan speed can be set**



Since you cannot change the fan speed, it does not change even if you tap it.

**Example of a case in which the wind direction cannot be changed**



Because the flap is locked, you cannot change the wind direction even if you tap it.

# 1-3. Scheduled functions

## Set the Operation Schedule

You can configure the air conditioners or the ON/OFF unit with a “Weekly schedule”, through which settings such as operation start/stop are changed depending on the specified time for any day from Sunday to Saturday, or a “Special day schedule”, through which settings are changed for special days such as national holidays or special holidays. The operation schedule is set on the [SCHEDULE] tab of the group screen or individual control screen.

**NOTE**

If a day is set in both the Weekly schedule and the Special day schedule, the Special day schedule applies and the Weekly schedule is disabled for that day.

### Screen description

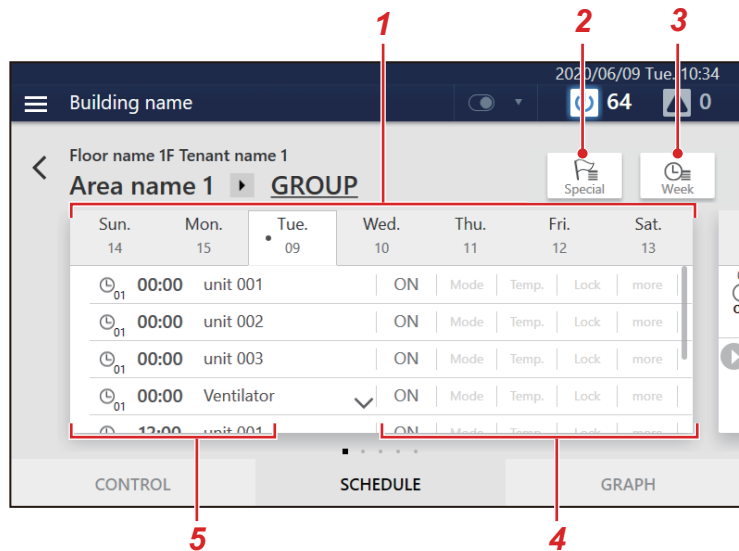
This section explains how to view the [SCHEDULE] tab when setting the operation schedule.

**NOTE**

Refer to the description of the [CONTROL] tab for the display items that are not explained. (P.20, 22 in Owner's Manual)

### Group screen

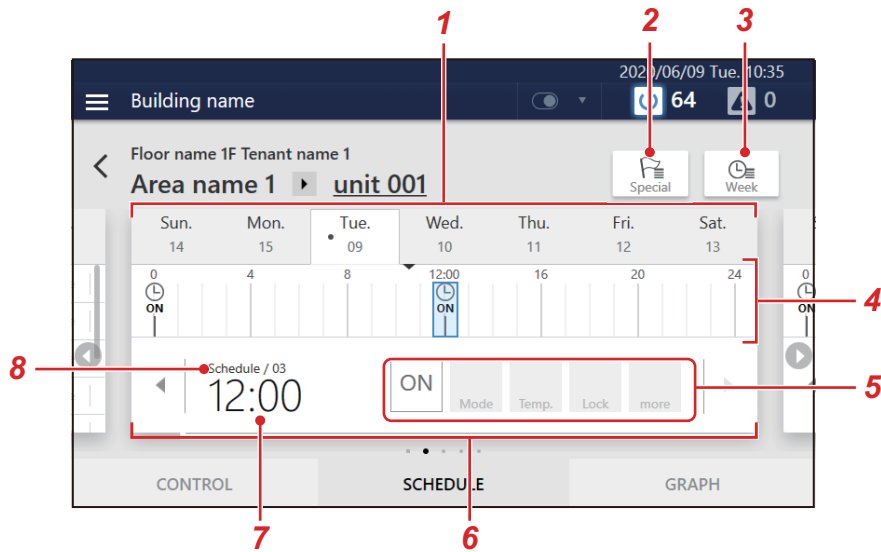
The schedule set for the air conditioners or ON/OFF unit in the group is displayed in list format in time units.



No.	Functions
1	You can switch the display in day-of-week units.
2	Displays the setting screen of Special day schedule.
3	Displays the setting screen of Weekly schedule.
4	The schedule settings content (ON/OFF, Mode, Temp., Lock, more) is displayed.
5	The times when the schedule is executed and the air conditioners and ON/OFF unit for which the schedule is executed are displayed.

## Individual control screen

The schedule set for the air conditioner or ON/OFF unit being displayed is displayed on a 24-hour time scale.



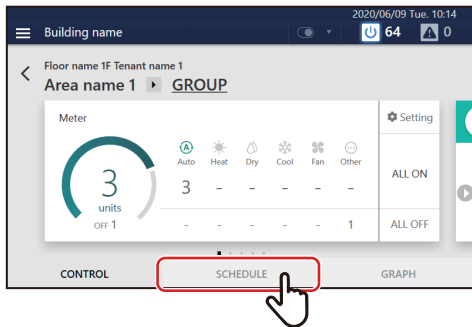
No.	Functions
1	You can switch the display in day-of-week units.
2	Displays the setting screen of Special day schedule.
3	Displays the setting screen of Weekly schedule.
4	🕒 is displayed at the times when the schedule is set. When operation start/stop is set, [ON] or [OFF] is displayed below 🕒 . When setting change is set, ⚙️ is displayed below 🕒 . Also, the currently displayed schedule is displayed in blue.
5	The schedule settings content (ON/OFF, Mode, Temp., Lock, more) is displayed.
6	You can switch the display to the previous or next schedule.
7	The times when the schedule will be executed are displayed.
8	The schedule setting number is displayed.

## Create a new weekly schedule

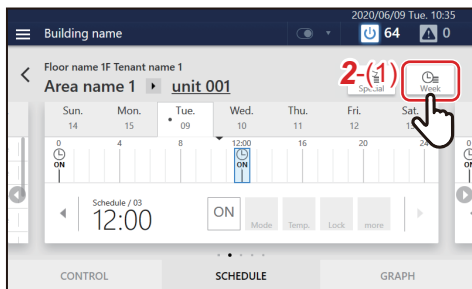
In a Weekly schedule, you can set:

- Start time
- Day(s) of the week
- Air conditioner(s) or ON/OFF unit
- ON/OFF

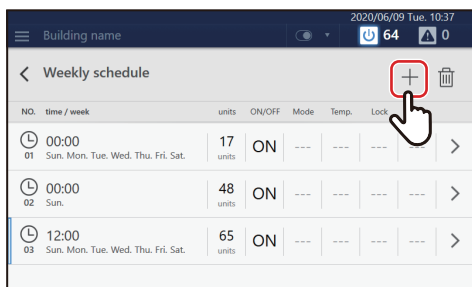
Schedule settings can be applied from either the group screen or the individual control screen. In the following procedure, the individual control screen is used to explain.



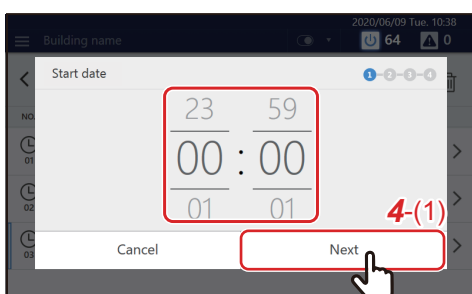
**1** Tap [SCHEDULE] on the group screen or individual control screen



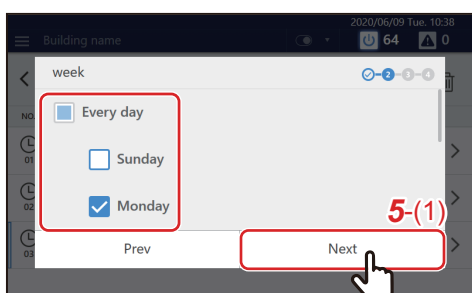
**2** Tap [2-(1)]



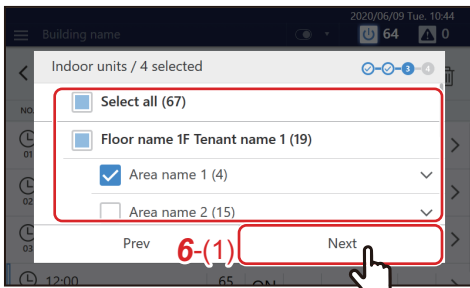
**3** Tap +



**4** Tap or flick to set the start time and tap [4-(1)]



**5** Select the day of the week to execute and tap [5-(1)]



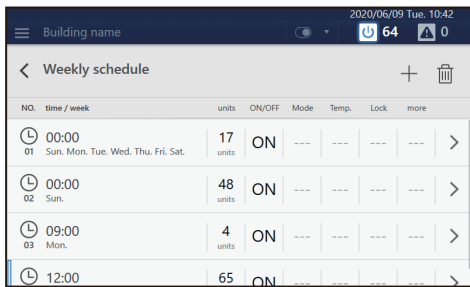
**6 Select the air conditioner(s) or ON/OFF unit for setting the schedule and tap [6-(1)]**

You cannot select a model that has already been scheduled at the same time.



**7 Tap the check box of [7-(1)] and set it to , then select [7-(2)] or [7-(3)] and tap [7-(4)]**

You can only set [ON/OFF] here.



A schedule has been registered.

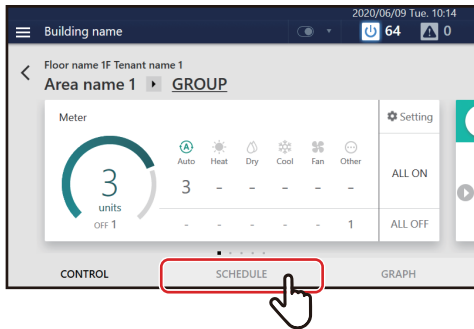
**NOTE**

- When setting details such as operation mode or set temperature, etc. as a schedule, refer to "Change the Operating Schedule" (P.21).
- When deleting a registered schedule, refer to "Delete the operation schedule" (P.27).

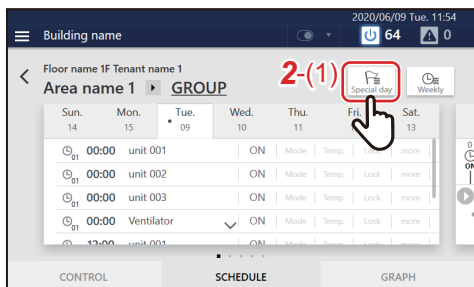
## Create a new special day schedule

In a Special day schedule, you can register special days, such as national holidays and special holidays, to configure a special day schedule that differs from the Weekly schedule.

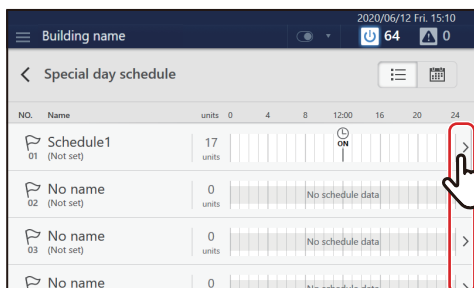
Schedules can be configured from the group screen or the individual control screen. The following procedure is explained using the individual control screen.



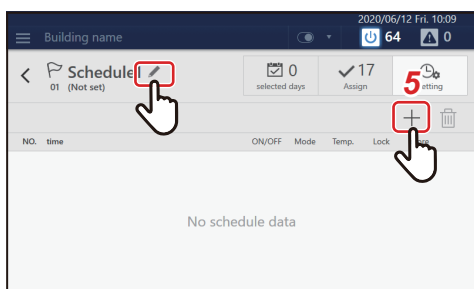
**1** Tap [SCHEDULE] on the group screen or the individual control screen



**2** Tap [2-(1)]

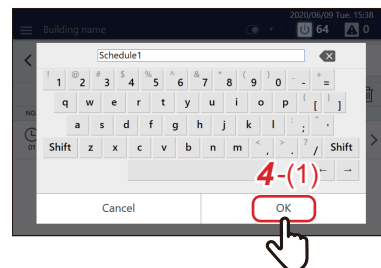



**3** Tap >




**4** Tap  and set the schedule name

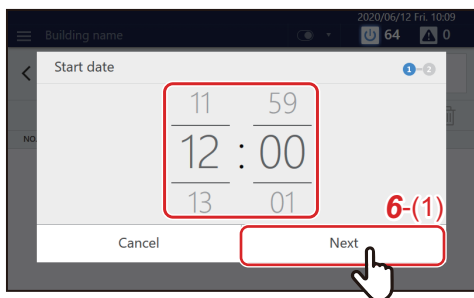
A keyboard is displayed. Enter the name and then tap [4-(1)].



**5** Tap  to go to step 6

### NOTE

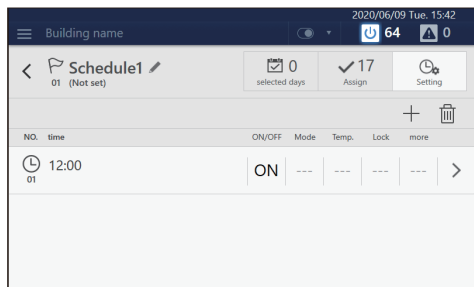
- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap  to delete one character.



**6** Tap or flick to set the start date, and then tap [6-(1)]



**7** Tap the check box of [7-(1)] and set it to , then select [7-(2)] or [7-(3)] and tap [7-(4)]  
You can only set [ON/OFF] here.



The schedule is registered.

**NOTE**

- When setting details such as the mode or the set temperature to a schedule, refer to "Change the details of the special day schedule" (P.23)
- When deleting a registered schedule, refer to "Delete the operation schedule" (P.27).



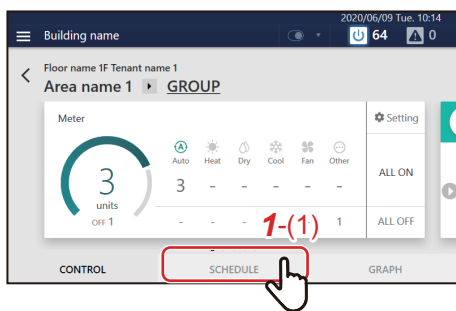
# Change the Operating Schedule

The operating schedule settings can be changed from the [Menu] button, the group screen, or the individual control screen. There are two types of operating schedules: Weekly schedule and Special day schedule. The following procedure is explained using the individual control screen.

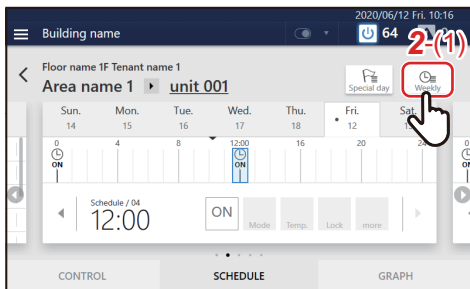
## NOTE

If a day is set in both the Weekly schedule and the Special day schedule, the Special day schedule applies and the Weekly schedule is disabled for that day.

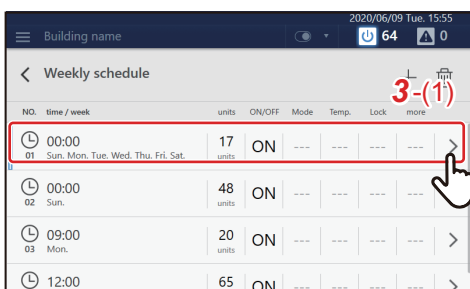
## Change the details of the weekly schedule



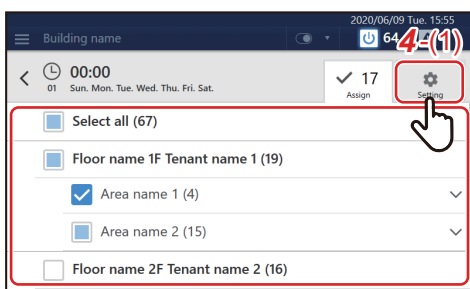
**1** Tap [1-(1)] on the group screen or the individual control screen



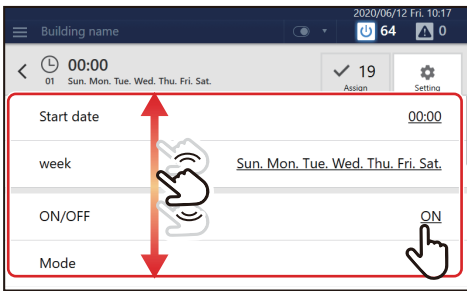
**2** Tap [2-(1)]



**3** Tap [3-(1)] of the schedule you want to modify

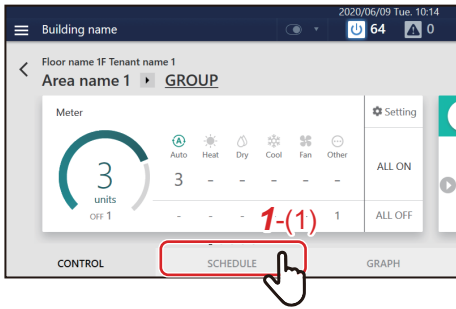


**4** Modify the target air conditioner(s) or ON/OFF unit, then tap [4-(1)]

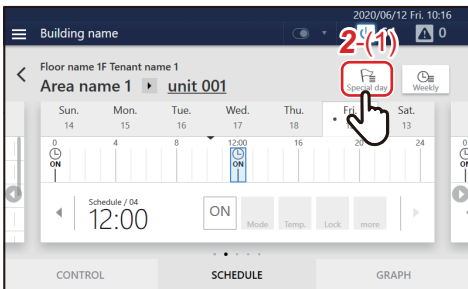


- 5** Scroll the screen and tap the value of the item you want to set. After changing the setting, tap [OK]  
See "Setting items list" (P.25) for the items that can be configured.

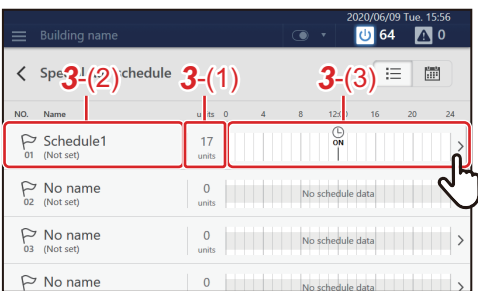
# Change the details of the special day schedule



**1** Tap [1-(1)] on the group screen or the individual control screen

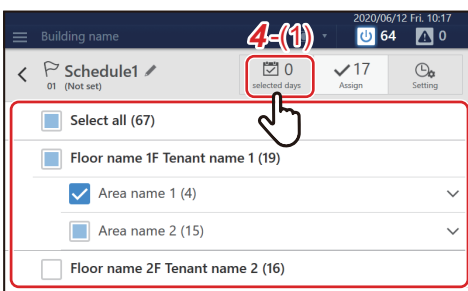


**2** Tap [2-(1)]

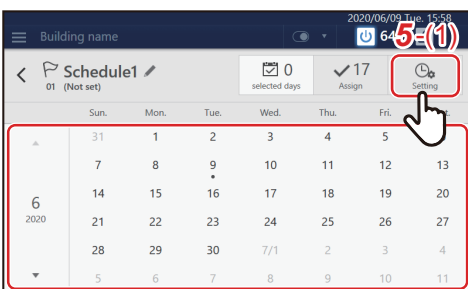


**3** Tap [3-(1)] of the schedule you want to modify

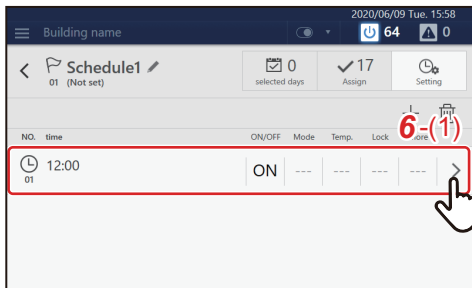
- [3-(1)] Unit setting: Go to step 4
- [3-(2)] Special day setting: Go to step 5
- [3-(3)] Operating schedule setting: Go to step 6



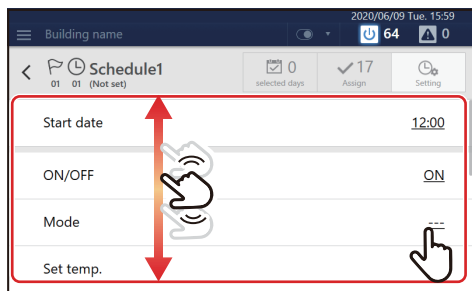
**4** Modify the target air conditioner(s) or ON/OFF unit, then tap [4-(1)]



**5** Tap the date you want to configure, modify the settings, and then tap [5-(1)]

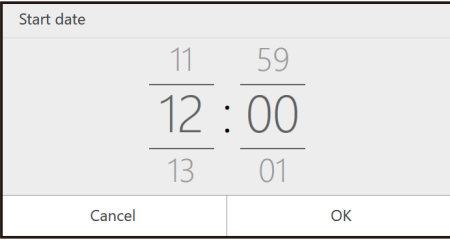
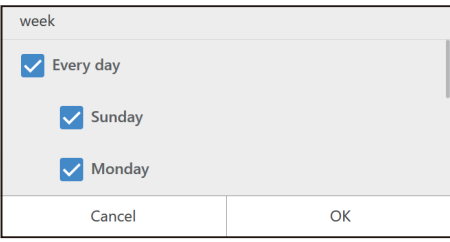

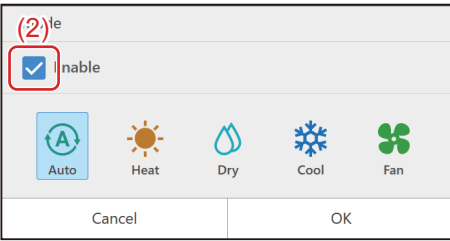
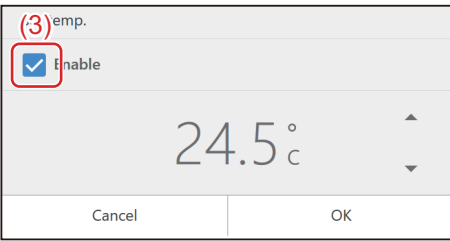
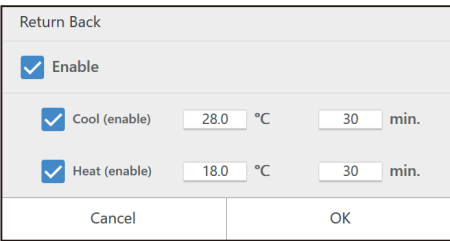


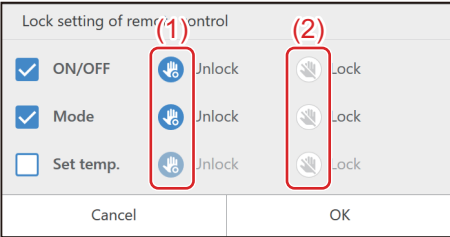
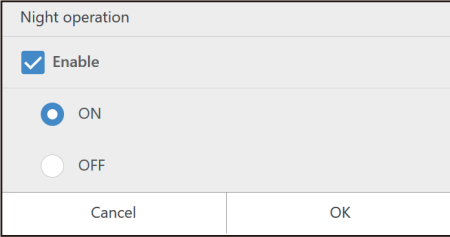
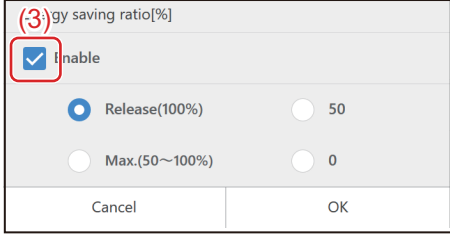
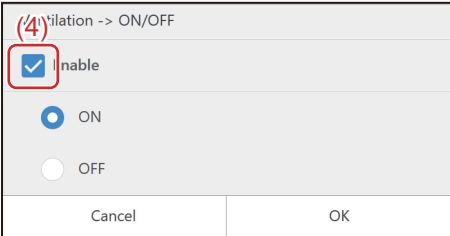
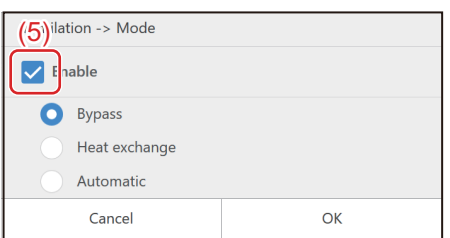
**6** Tap [6-(1)] of the time you want to modify



**7** Scroll the screen and tap the value of the item you want to set. After changing the setting, tap [OK]  
See "Setting items list" (P.25) for the items that can be configured.

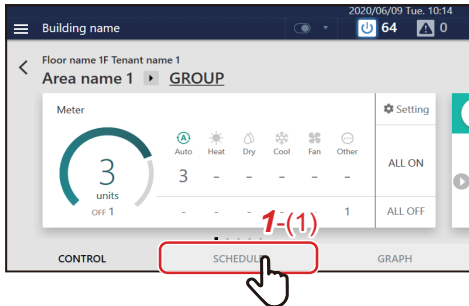
## Setting items list

Setting Items	Setting Procedure
<p><b>Time setting [Start date]</b></p> 	<p>Tap or flick to change the time.</p>
<p><b>Day of the week setting [week]</b></p> 	<p>Set the check box(es) of the day(s) of the week on which you want to execute the schedule to <input checked="" type="checkbox"/>.</p> <p><b>NOTE</b></p> <p>The day of the [week] setting is not displayed in Special day schedule.</p>
<p><b>Operation setting [ON/OFF]</b></p> 	<p>To enable the setting, set the check box of [(1)] to <input checked="" type="checkbox"/> and select a value.</p>
<p><b>Operation mode setting [Mode]</b></p> 	<p>To enable the setting, set the check box of [(2)] to <input checked="" type="checkbox"/> and select a value.</p>
<p><b>Set temperature setting [Set temp.]</b></p> 	<p>To enable the setting, set the check box of [(3)] to <input checked="" type="checkbox"/>, tap ▲ ▼, then change the set temperature.</p>
<p><b>Return Back settings [Return Back]</b></p> 	<p>An energy saving function whereby if you temporarily change the set temperature to one which increases the load, you can automatically return to the energy saving set temperature after a certain time has elapsed. For example, if you set COOL to 28°C/30 minutes, then if the set temperature is set to below 28°C, the Unit will return to 28°C 30 minutes after the change.</p> <p><b>NOTE</b></p> <p>Displayed in the case of a compatible air conditioner.</p>

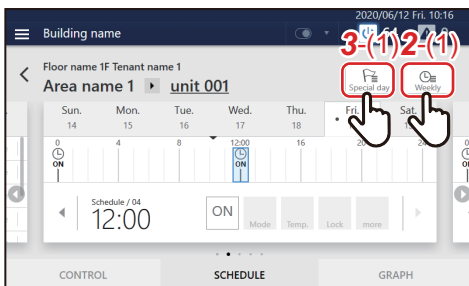
Setting Items	Setting Procedure
<p><b>Local operation prohibition setting</b> <b>[Lock setting of remote control]</b></p> 	<p>Tap the check box of the function whose setting you want to change to set it to <input checked="" type="checkbox"/>, then select [(1)] or [(2)].</p>
<p><b>Night operation setting</b> <b>[Night operation]</b></p> 	<p>You can change the [ON/OFF] of the night operation of the target device.</p>
<p><b>Save operation setting</b> <b>[Energy saving ratio[%]]</b></p> 	<p>To enable the setting, set the check box of [(3)] to <input checked="" type="checkbox"/>. For details, see "Control air conditioner power" (P.50 in Owner's Manual)".</p>
<p><b>Ventilation operation setting</b> <b>[Ventilation -&gt; ON/OFF]</b></p> 	<p>You can turn ON/OFF the operation of the ventilator connected to the air to air heat exchanger(s) or air conditioner(s). To enable the setting, set the check box of [(4)] to <input checked="" type="checkbox"/> and apply the setting.</p>
<p><b>Vent. Mode</b> <b>[Ventilation -&gt; Mode]</b></p> 	<p>You can set the ventilation mode of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s). To enable the setting, set the check box of [(5)] to <input checked="" type="checkbox"/> and apply the setting. For details, see "Set ventilation mode" (P.48 in Owner's Manual).</p>

## Delete the operation schedule

You can delete the schedule from either the group screen or the individual control screen. In the following procedure, the individual control screen is used.

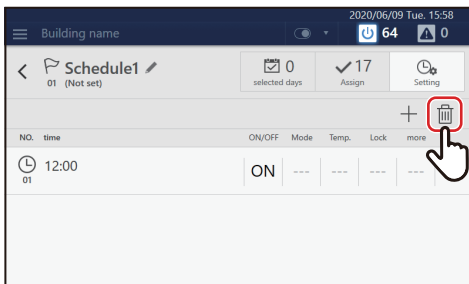
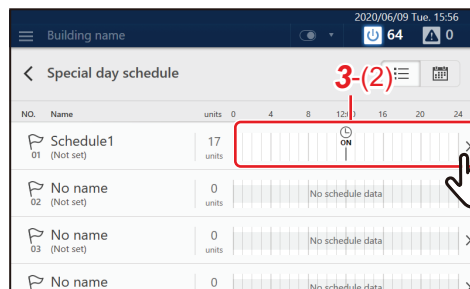


**1** Tap [1-(1)] on the group screen or individual control screen



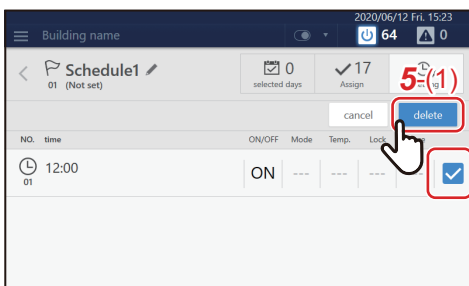
**2** Tap [2-(1)] to go to step 4

**3** (In case of Special day setting) tap [3-(1)]  
Tap [3-(2)] of the schedule you want to modify to go to step 4.



**4** Tap 

(Some displayed items differ between the Weekly schedule screen and the Special day schedule screen, but the procedure shown below is the same.)



**5** Set the check box of the schedule you want to delete to  then tap [5-(1)]

# 1-4. External I/O

## Number of points

The external input has the following number of input points.

Equipment	Input/Output	Number of points
Main unit	External input	8 points
	External output	4 points
DIO I/F 1	External input	8 points
	External output	4 points
DIO I/F 2	External input	8 points
	External output	4 points
DIO I/F 3	External input	8 points
	External output	4 points
DIO I/F 4	External input	8 points
	External output	4 points

\* It is necessary to implement crossover wiring with RS-485 for DIO I/F and the main unit.

## Functions

The following functions can be set for the main unit and DIO I/F 1 to 4, respectively.

Input/Output	I / O Function	Functions	Settings	
Input	Electric power	Count the power pulses. Measure a pulse waveform of 50 msec or more as one pulse.	• Pulse constant (kWh/pulse)	
	Control	Stop	When ON, stops the specified air conditioner.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release)
		Run	When ON, runs the specified air conditioner.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release)
		Lock	When ON, controls the specified air conditioner to the specified setting contents.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release) • Pattern 0 (Stop at ON, do nothing at OFF)/ Pattern 1 (Stop at ON, "Run/Stop" at OFF switch prohibit release)/ Pattern 2 (Stop at ON + "Run/Stop" switching prohibited, "Run/Stop" at OFF switching prohibited release)/ Pattern 3 (Stop/Run)
		Fire alarm	At ON, turn OFF the specified air conditioner and set the local remote prohibited status, and at OFF, release the local remote control prohibited status.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release)
		Demand	At ON, perform demand control on the specified air conditioner.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release) • Indoor unit (Thermo OFF (no delay release)/ Thermo OFF (10 seconds delay)/ Thermo OFF (20 seconds delay)/ Thermo OFF (30 seconds delay)/ Thermo OFF (60 seconds delay)/ FAN/ Stop + local remote control operation prohibited/ FAN + local remote control mode change prohibited) • Outdoor unit (0%/60%/70%/80%)
Operation monitoring of external equipment	At ON, displays the associated external equipment as Operation status, and at OFF, displays it as Stop status.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release)		



Input/Output	I / O Function		Functions	Settings
Input	Control	Alarm monitoring of external equipment	At ON, displays the associated external equipment as Alarm detected status, and at OFF, displays it as No alarm.	• a contact (ON at signal input, OFF at release)/ b contact (OFF at signal input, ON at release)
Output	Control	Air conditioner alarm output	One or more specified air conditioners turn ON when an alarm occurs and turn OFF when the alarm goes OFF.	• a contact (at ON, signal output, at OFF, output Stop) fixed
		Operation output	One or more specified air conditioners turn ON when operating, and turn OFF when all turn OFF.	• a contact (at ON, signal output, at OFF, output Stop) fixed
		System alarm output	With this system excluding air conditioners, it turns ON when an alarm occurs and turns OFF when the alarm goes OFF.	• a contact (at ON, signal output, at OFF, output Stop) fixed
		Refrigerant leakage output *During normal operation, do not set.	Turns ON when a refrigerant leakage signal is detected and turns OFF when the detection stops.	• a contact (at ON, signal output, at OFF, output Stop) fixed * During normal operation, do not set.
		Operation output to external equipment	Turns ON when the associated external equipment is operated and turns OFF when stopped.	• a contact (at ON, signal output, at OFF, output Stop) fixed

\* Each function can be set in [Server/Interface] - [Interface Settings] in the Setting File Creation Software 2.

# 1-5. Energy Report Software

This software downloads data, such as indoor unit operating time and electric power consumption, from the System Controller, so the following functions can be used.

- Energy monitor screen: Allows you to use downloaded data to make graphs to visually check comparisons of operating data and to compare the past data of a specific unit or that of other indoor units, or for separate groups, such as floors or tenants.
- Report screen: Allows you to use the downloaded data to create monthly reports, daily reports, and more.

Function	Function outline	Note
Trend graph display	Displays a graph of electric power consumption and operating times of the air conditioners managed with the System Controller.	A graph can be displayed for days (in units of one hour), weeks (in units of one day), months (in units of one day), and years (in units of one month). In addition, a no-comparison graph can include outdoor temperature, indoor temperature, and set temperature.
Air conditioning load graph display	Displays a graph of the air conditioning load status of the air conditioners managed with the System Controller.	A graph can be displayed for cooling operation, heating operation, and overall air conditioning load in 11 levels. A graph can be displayed for days (in units of one hour), weeks (in units of one day), months (in units of one day), and years (in units of one month).
Ranking table of air conditioners	A ranking list can be displayed using the operating data of indoor units managed with the System Controller. You can display comparisons of each unit or group.	The electric power consumption and operating time can be compared.
Report output	Creates a report based on the operating results of each indoor unit measured by the System Controller.*	Reports can be exported in Excel <sup>®</sup> file format, CSV file format, or PDF file format.
Billing schedule settings	A billing schedule is a schedule you can set for when billed prices vary over multiple time periods or different days.	Even if a schedule is set, these settings are not reflected in the System Controller unless the billing schedule is uploaded. If you create or change a schedule, be sure to upload it.
Warning history display	You can display the history of warnings within a specified period.	

## CAUTION

---

- Using the accumulated power meter with pulse output, the system calculates the distribution of power accumulated by pulse conversion according to the load proportion estimated for each air-conditioner. The result is not calculated based on the Measurement Act and cannot be used officially.
  - Even if the operation hour is the same, the amount of power consumed varies depending on operating conditions such as the location of the air-conditioner, the set temperature, and the outdoor temperature.
  - The air-conditioner stays on for protection, even while stopped, and power is consumed. Therefore the system also calculates power consumed while the air-conditioner is not in use.
  - The system calculates the distribution of power according to the load proportion estimated for each air-conditioner. Therefore the result may differ from the actual amount of power consumed.
  - If a single power meter is installed in multiple air-conditioners, the total power is distributed. The result may differ when a power meter is installed in each air-conditioner.
  - The system calculates the pulse output using the accumulated power meter with pulse output. The result may differ from the actual amount of power consumed depending on the precision of the power meter. In particular, when the amount of electricity consumed in operation is low (when stopped, etc.), the result may differ from the actual amount of power consumed.
  - Please note that we bear no responsibility for any damage or problems that occur due to the system's distribution calculation, data loss, etc.
  - The calculation result contains rounding errors.
  - The system only supports the distribution calculation of power consumed by the air-conditioner. Please note the above when you use it.
-

# 1-6. Remote monitoring

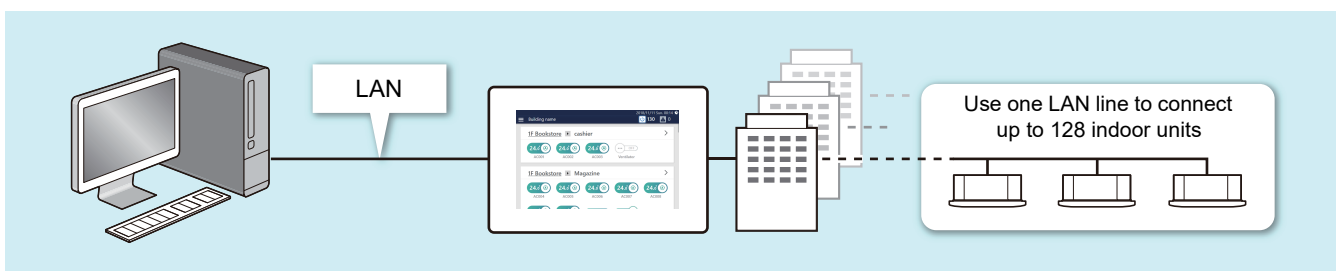
## Settings for Remote Monitoring with a PC

You can monitor and control the Unit by accessing it from a PC. This section explains the settings for the Unit and the PC. Please see "9. Remote monitoring using a PC" (P.84 in Owner's Manual) for the system diagram and the PC operating environment.

**NOTE**

Some functions cannot be used from a PC. For details, please see "List by Lock Level/Level" (P.93 in Owner's Manual)

### System diagram



### Unit settings

- 1** Set the user account for remote operation (P.72 in Owner's Manual)
- 2** Set the IP address (P.75 in Owner's Manual)
- 3** Set a destination to send email when a Check Code is issued (P.76 in Owner's Manual)

### PC settings

#### Settings

IP address/ Subnet mask	Set it to be the same network as the Unit. (For details, see the "Network Configuration Guide".) (Example: the Unit 192.168.2.80/PC 192.168.2.90/subnet 255.255.255.0)
Port	Release port number 8801.
Drive C	Ensure that you have 500 MB or more free space and start up as a user with read/write authority.

#### Operating Environment

The following environment is necessary to use this function.

OS	Windows 10
.NET Framework	4.6.2
Web browser	Microsoft Edge, Internet Explorer 11, Google Chrome latest version

## Install the software

- 1** Open the web browser of your PC
- 2** Access "http://[server name or IP address]/touchscreencontroller/[language code]/download.html"

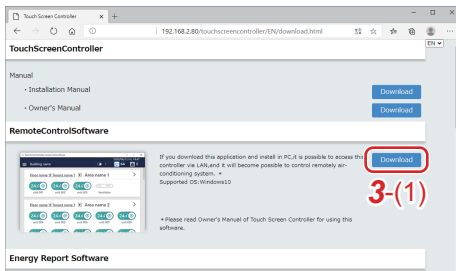
Server name or : For the IP address, enter the value set in step **2** of "Unit settings" (P.32).  
IP address

Language code: Enter the following value according to the language.

Language	Language Code
Japanese	JA
English	EN
French	FR
German	DE
Italian	IT
Spanish	ES
Portuguese	PT
Dutch	NL
Greek	EL

Language	Language Code
Russian	RU
Turkish	TR
Swedish	SV
Finnish	FI
Danish	DA
Norwegian	NO
Polish	PL
Bulgarian	BG
Romanian	RO

Language	Language Code
Estonian	ET
Latvian	LV
Croatian	HR
Slovak	SK
Slovene	SL
Hungarian	HU
Czech	CS
Chinese	ZH
Korean	KO



- 3** Click [3-(1)]
- 4** Save the file according to the browser message
- 5** Double-click on the saved "installer\_touchscreencontroller.exe" to unzip/install (setup.exe)

When the installation is completed, a shortcut icon is created on the desktop.



### NOTE

If .NET Framework 4.6.2 is not installed on the PC, this software will not work properly.  
Be sure to download and install .NET Framework 4.6.2 from the above website.

## Remote Monitoring Using a PC

You can monitor and control the Unit by accessing it from a PC. This section explains the system diagram and the operating environment. For settings, etc., see "Settings for Remote Monitoring with a PC" (P.32).

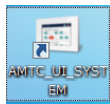
### NOTE

Some functions cannot be used from a PC. For details, please see "List by Lock Level/Level" (P.93 in Owner's Manual).

## Log in to Remote Control Software

### NOTE

Up to 16 users can log in at the same time.



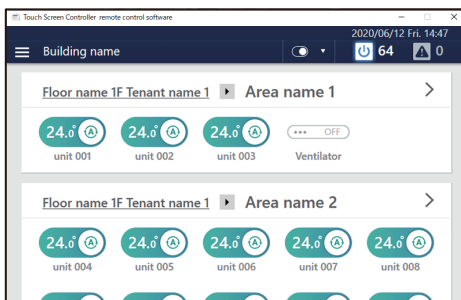
**1** Double-click "AMTC\_UI\_\*\*\*\*" on the desktop



**2** Enter [User ID] [password], then click [2-(1)]

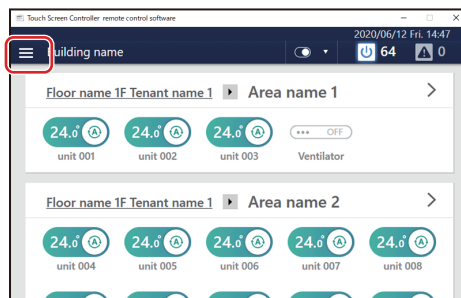
User ID/password:

Use the user account set up in step **1** of "Unit settings" (P.32).

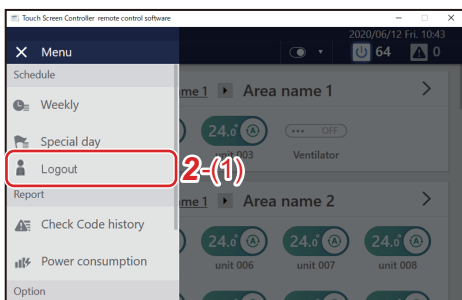


The Remote Control Software home screen is displayed.

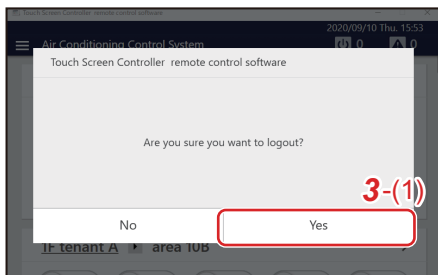
## Log out from Remote Control Software



**1** Click 

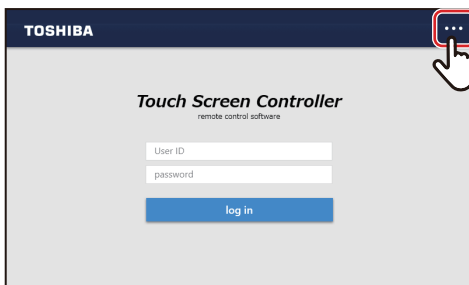


**2** Click [2-(1)]

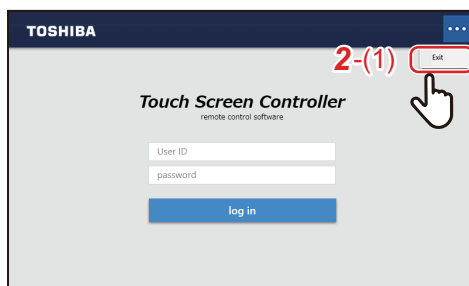


**3** Click [3-(1)]  
You are logged out from the Remote Control Software.

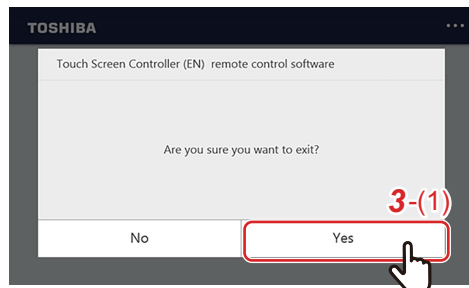
## Exit Remote Control Software



**1** Tap [1-(1)]



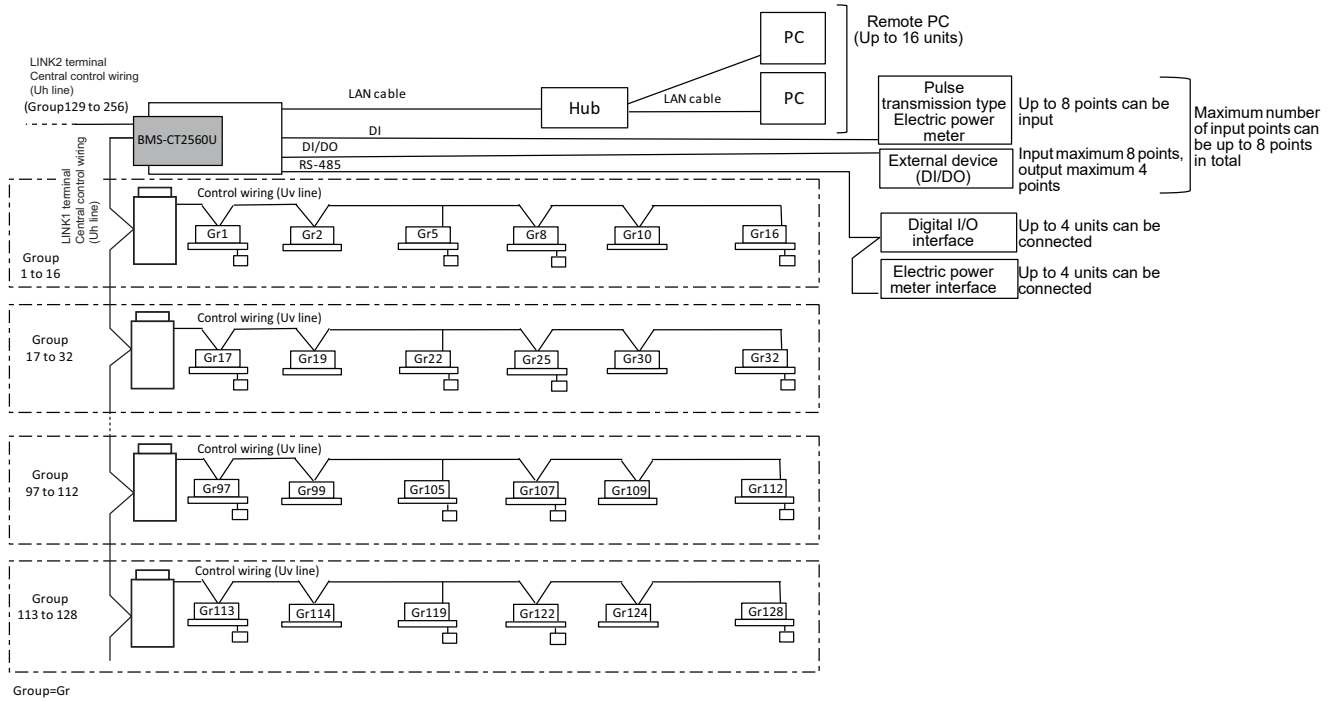
**2** Tap [2-(1)]



**3** Tap [3-(1)]  
Exit the Remote Control Software.

# 2 System Configuration

## 2-1. System configuration diagram

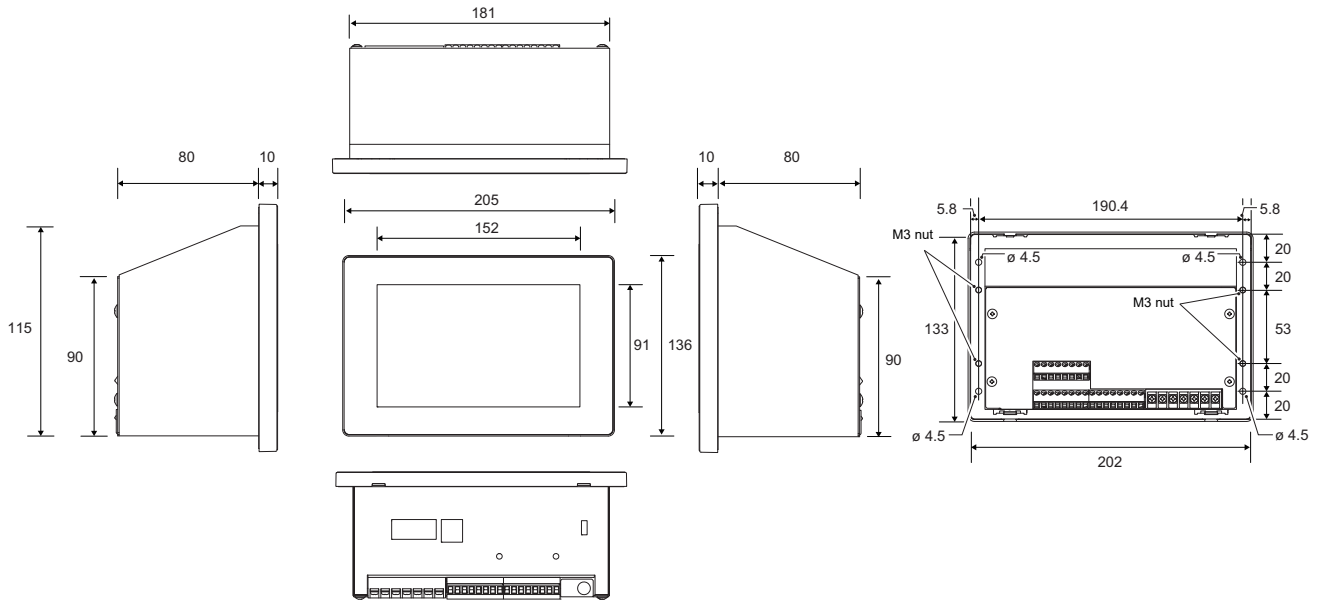




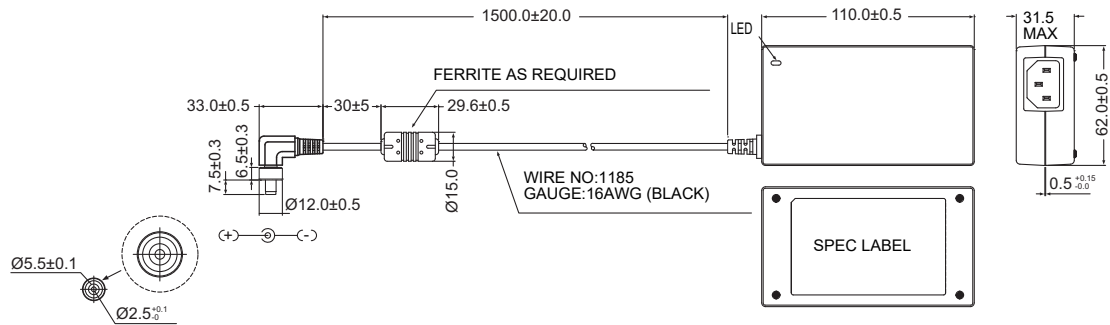
## 2-2. Outline drawing

### ■ Outline drawing

#### System Controller



#### Power adapter



# 3 Initial Settings

You can select the initial setting procedure from the following three variations.

Regarding "3-3.Setting up by the controller only", these settings cannot be done for models whose software version is earlier than 10.1.7.0.

Also, if you are setting up with just a controller, the following settings cannot be done.

- Linked control settings
- Master/slave settings for indoor units
- Floor and tenant settings
- Digital input/output interface and electric power meter interface settings
- Building name settings
- Power peak cut settings

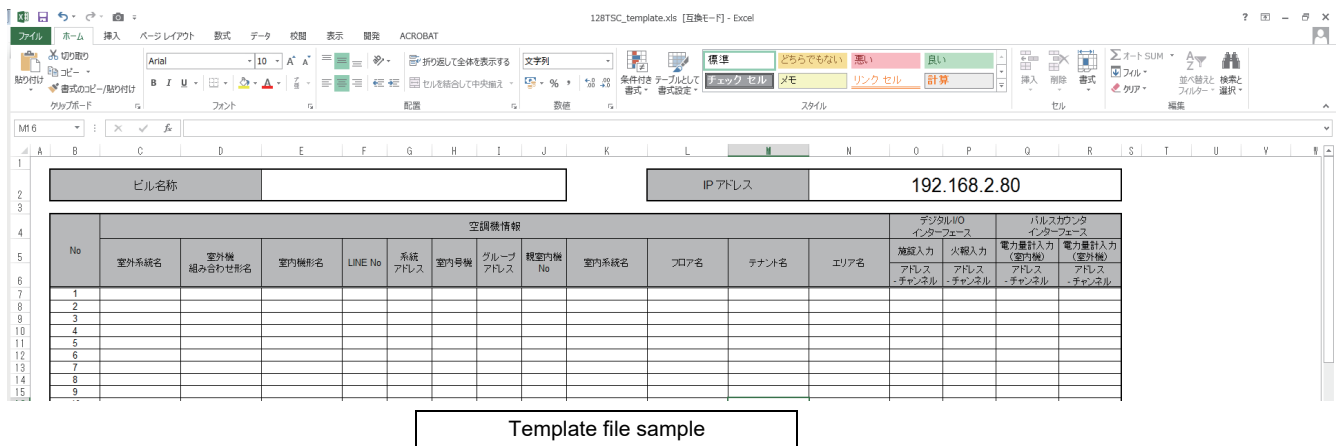
## 3-1. Setup Using Template File of SFC2

Control functions that use power peak cut conditions cannot be set when using a template.

Set the control functions that use power peak cut conditions by the method that uses SFC2.

### When using the template function of the Setting File Creation Software 2

- (1)Start up the Setting File Creation Software 2, select [Tools] - [Export Template] - [Touch Screen Controller] - [BMS-CT256U-E/-TR], and then export a template file.
- (2)Input the various items, "Building Name", "IP Address", "Air Conditioner Information", "Digital I/O Interface", and "Electric Power Meter Interface", in the template file.



Template file sample

- (3)Start up the Setting File Creation Software 2. Select [Tools] - [Import] - [Touch Screen Controller] - [BMS-CT256U-E/-TR], and then import the data for the template file.

### Uploading Setting Data

\* If connecting to the LAN is difficult after the installation work, do "Uploading Setting Data" before "3-13.Installation work". If connecting to the LAN is easy after the installation work, then you could do "Uploading Setting Data" after "3-13.Installation work".

- (1)Confirm whether the settings match the system at the site.
- (2)Use a LAN cable to connect the Touch Screen Controller to the computer on which the Setting File Creation Software 2 is installed.
- (3)Turn on the power to the controller, and confirm that the HOME screen is displayed (takes about 4 minutes).
- (4)Put the computer's IP address to 192.168.2.80, the same network as the Touch Screen Controller.
- (5)Display the "Upload Settings" by using "File" - "Upload" in the Setting File Creation Software 2.
- (6) Use the [ping] button to confirm the connection to the Touch Screen Controller.
- (7) Use the "Upload" button to upload the setting file to the Touch Screen Controller.

## 3-2. Setup without Using a Template in SFC2

### When not using the template function of the Setting File Creation Software 2

- (1) Start up the Setting File Creation Software 2. Select [Create New] - [Touch Screen Controller] - [BMS-CT256U-E/-TR], and then input each of the items, that were input for the "When not using the template function of the Setting File Creation Software 2" work, into the setting screen of the Setting File Creation Software 2.  
Set the control functions that use power peak cut conditions by using the Setting File Creation Software 2.

Item	Data
Building name	
Lock Linkage Mode	0: Setting No.0
Simply Setting Mode Valid/Void	0: Void
Touch Screen Controller (CT128 Series) Group Setting	0: Header
Energy Monitoring	1: Valid(Distribution by capacity demand)
Stand-by power counting	1: Proportional sharing on indoor unit horse power codes.
Filter sign display mode	1: display
Select Touch Screen Display Language	0: Japanese
Temperature display: Interval	0: Unit 1 C.
Temperature display: C./F.	0: C.
Lower limit Temperature of Indoor unit graph	-10
Upper limit Temperature of Indoor unit graph	40
Dual Set Point Schedule Valid/Void (Use only Touch Screen Controller(CT128 Series) Ver 10.1.*.*)	0: Void
Decimal Separator Setting (.Dot) / ,(Comma) (Use only Touch Screen Controller(CT128 Series) Ver 10.1.*.*)	0: ,(Dot)
Daylight-saving time shift (minutes)	60
Flap Setting(group control)	0: Void
Memory refresh	0: Void
Display Leak Detection Valid/Void	0: Void
Power peak cut conditions	0: N/A
Power measurement method	1: Measurement method
CONTACT Info.	

### Uploading Setting Data

\* If connecting to the LAN is difficult after the installation work, do "Uploading Setting Data" before "3-13.Installation work". If connecting to the LAN is easy after the installation work, then you could do "Uploading Setting Data" after "3-13.Installation work".

- (1) Confirm whether the settings match the system at the site.
- (2) Use a LAN cable to connect the Touch Screen Controller to the computer on which the Setting File Creation Software 2 is installed.
- (3) Turn on the power to the controller, and confirm that the HOME screen is displayed (takes about 4 minutes).
- (4) Put the computer's IP address to 192.168.2.80, the same network as the Touch Screen Controller.
- (5) Display the "Upload Settings" by using "File" - "Upload" in the Setting File Creation Software 2.
- (6) Use the [ping] button to confirm the connection to the Touch Screen Controller.  
Use the "Upload" button to upload the setting file to the Touch Screen Controller.

### 3-3. Setting up by the controller only

With this controller (software version 10.1.7.0 and later), air-conditioning units can be registered and area names and other settings below can be configured without using the Setting File Creation Software 2 that is required for conventional setup. A conventional setup using the Setting File Creation Software 2 is necessary when other settings are required.

Setting items that can be configured by the controller (without using the Setting File Creation Software 2)

No.	Setting Item	Setting Menu
1	Indoor unit registration	[Menu]-[Service settings]-[Central management address Setting]
2	Indoor unit area setting	[Menu]-[Indoor unit area setting]
3	Indoor unit name setting (single-byte alphanumeric characters only)	[Menu]-[Indoor unit name setting]
4	Area name setting (single-byte alphanumeric characters only)	[Menu]-[Area name setting]

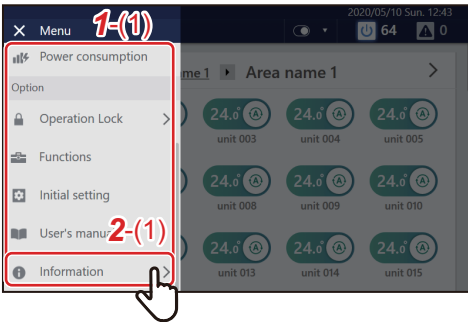
### 3-4. How to Start and Stop Service Settings


The [Service settings] are normally hidden. You can use the following procedure to display the [Service settings] and open the service menu.

You can do operations for the following 9 items in [Service settings].

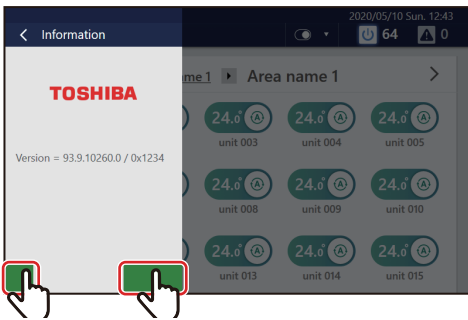
Item	Function
Cancel service mode	Exits the service menu and hides the [Service settings].
Digital IO Confirmation	You can confirm the state of digital input/output interfaces connected to or built-in to the main unit.
Check pulse input	You can display the pulse constant counted by the electric power meter interfaces connected to or built-in to the main unit.
Communication Quality	Displays the number of connected Uh and Uv lines, and their usage rate, retry rate, collision rate, and baud rate.
Comm settings	You can make the communication settings for the main unit.
Old controller setting	You can do the settings if you are combining use of Central Control Devices that are not compatible with TU2C-LINK.
Function settings	You can set remote controller less settings and the method for searching indoor units that are connected.
Comm software update	This screen is not used. Do not operate it.
Central management address Setting	You can set and change the setting file and Central management address of the indoor units.

## Starting the service settings



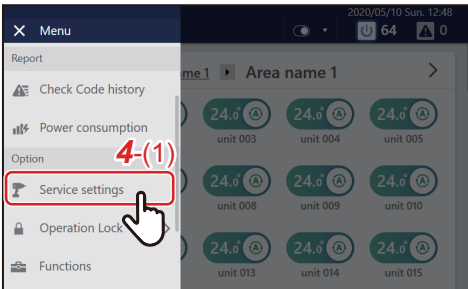
**1** Tap   
[1-(1)] appears.

**2** Scroll through the menu list and tap [2-(1)]  
The Information screen appears.



**3** Tap and hold the lower left and lower right of the Information screen at the same time for about five seconds

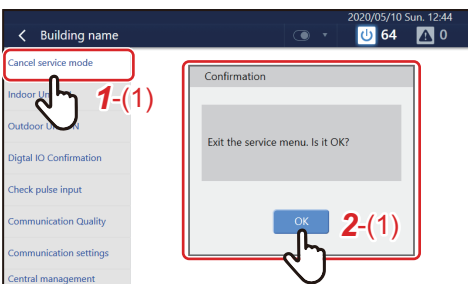
After the sections that were tapped and held turn green, tap < to return to the menu.



**4** Tap [4-(1)]

The [Service settings] are displayed, and the service menu starts.

## Exiting the service settings



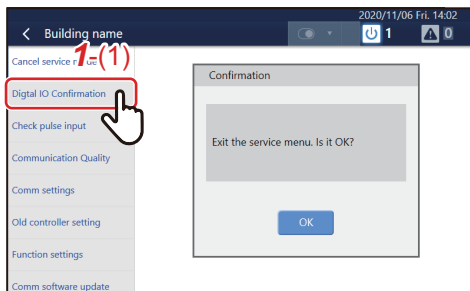
**1** Tap [1-(1)]

**2** Tap [2-(1)]

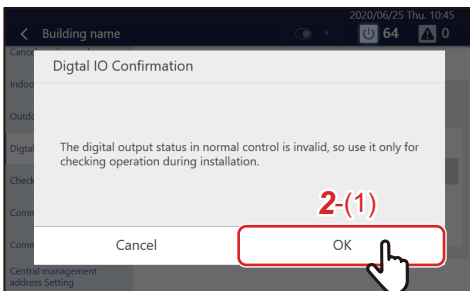
The service menu is exited, and the [Service settings] are hidden.

## 3-5. Digital IO Confirmation

You can confirm operations of digital input/output connected to or inside the main unit.



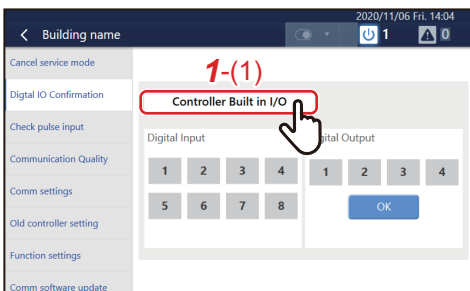
**1** Tap [1-(1)] in the Service settings.



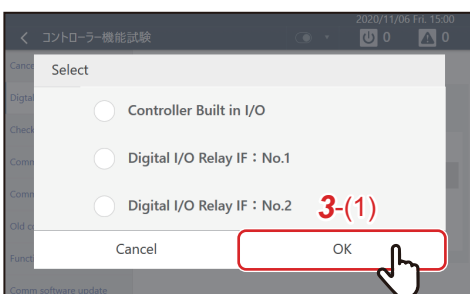
**2** Tap [2-(1)].

"The digital output status in normal control is invalid, so use it only for checking operation during installation." is displayed.

### Confirming Digital Input Signals



**1** Tap [1-(1)].



**2** Select a digital input/output interface or I/O built-in to the main unit.

You can confirm the state of digital input/output interfaces that are connected to the main unit or the I/O built-in to the main unit.

Controller: "Controller Built in I/O"

Each IF: "Digital I/O Relay IF: No.x"

\* x is the address

**3** Tap [3-(1)].

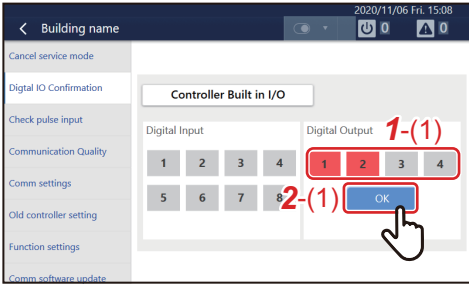
Digital Input is displayed.

Displays the state of the channels of either the I/O built-in to the main unit or the digital input/output interface, that was set up in steps 2 and 3.

- Displayed blue when signals are being input.
- Displayed grey when signals are not being input.
- Displayed greyed-out when they cannot be selected or controlled.



## Confirming Digital Output Signals



### 1 Tap [1-(1)] in Digital Output.

To confirm digital output signals, set the interface that you want to confirm in the same way as in steps 2 and 3 in "Confirming Digital Input Signals".

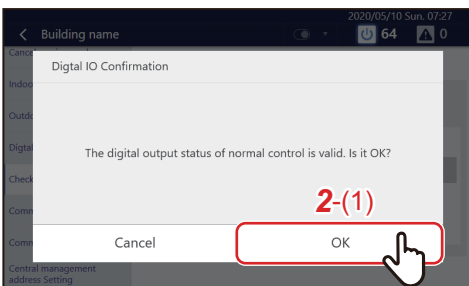
To confirm the signal is being output, tap the channel to confirm.

- If the channel is red, the output is controlled.
- If the channel is grey, the output is not controlled.

### 2 Tap [2-(1)].

Output control is executed.

## Exiting Digital IO Confirmation



### 1 Do operation to move to another screen

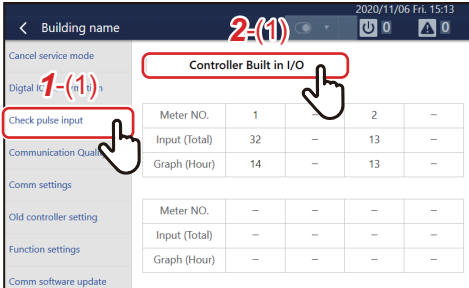
"The digital output status of normal control is valid. Is it OK?" is displayed.

### 2 Tap [2-(1)].

## 3-6. Check pulse input

Displays the number of pulses counted in 30 seconds for each channel of the electric power meter interface that is set or the built-in I/O of the controller that is set for the electric power meter interface.

A "-" is displayed for channels that are not set for an electric power meter interface.



**1** Tap [1-(1)] in the Service settings.

Meter NO.: Meter number

Input (Total): Total pulse count

Graph (Hour): Number of pulses counted within the last hour of the current time

**2** Tap [2-(1)].

**3** Select a controller or Diol/F (1-4) to display

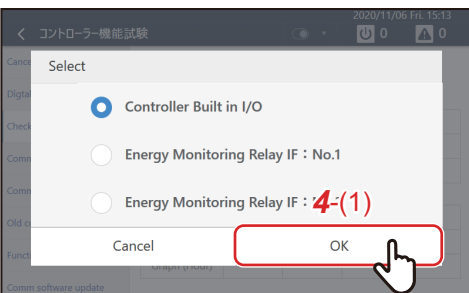
Controller: "Controller Built in I/O"

Each IF: "Digital I/O Relay IF: No.x"

\* x is the address

**4** Tap [4-(1)].

The electric power pulse of the selected electric power meter is displayed.





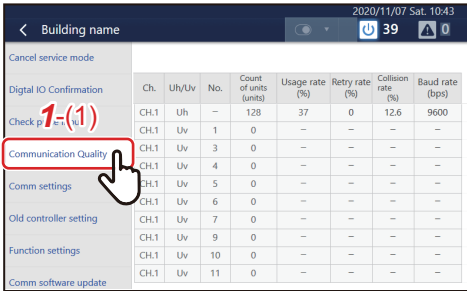
## 3-7. Communication Quality

The communication quality of the Uh and Uv lines for each channel are displayed.

Or, displays the number of each connected Uh and Uv line, and their usage rate, retry rate, collision rate, and baud rate. The displayed information is regularly updated every 30 minutes.

### NOTE

The Uv information is not displayed for outdoor units that do not support the communication quality display.



Ch.	Uh/Uv	No.	Count of units (units)	Usage rate (%)	Retry rate (%)	Collision rate (%)	Baud rate (bps)
CH.1	Uh	-	128	37	0	12.6	9600
CH.1	Uv	1	0	-	-	-	-
CH.1	Uv	3	0	-	-	-	-
CH.1	Uv	4	0	-	-	-	-
CH.1	Uv	5	0	-	-	-	-
CH.1	Uv	6	0	-	-	-	-
CH.1	Uv	7	0	-	-	-	-
CH.1	Uv	9	0	-	-	-	-
CH.1	Uv	10	0	-	-	-	-
CH.1	Uv	11	0	-	-	-	-

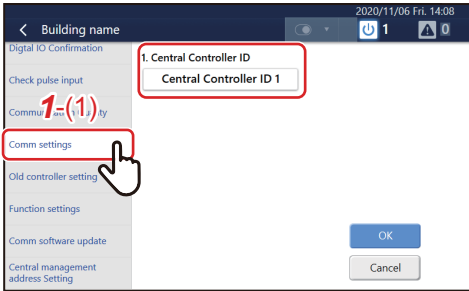
### 1 Tap [1-(1)] in the Service settings.

The usage rate, retry rate, and collision rate increase proportionally to the number of connected units.

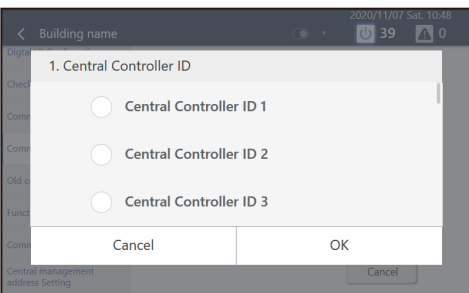
If the usage rate, retry rate, and collision rate are high, even though there are only a few units connected, it could be caused by poor wiring installation or the incorrect type of wiring, etc.

## 3-8. Comm settings

This section explains how to do communication settings for the main unit.



**1** Tap [1-(1)].



**2** Set the Central Controller ID

Do the settings according to the following workflow.

### Setting Workflow

1. Are 2 or more Central Control Devices connected?

Yes: Set to Central Controller ID 1.

No: Do setting 2.

2. Are 1 or more Central Control Devices that are not compatible with TU2C-LINK connected to the main unit?

Yes: Set the former controller.

No: Do setting 3.

3. For the Central Control Device model, with the best functions, being connected

Yes: Set Central Controller ID 1.

No: Set Central Controller ID 2 to 20.

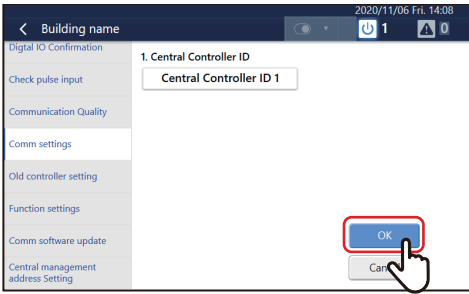
### NOTE

Set them so they are not the same as other Central Control Devices.

If the Central Controller IDs are duplicated, then abnormalities will occur on the duplicated controllers.

ID	Meaning
Central Controller ID 1	<p>Set under the following conditions</p> <ul style="list-style-type: none"> <li>• Set only when the number of Central Control Devices connected is 1.</li> <li>• Do not set this when other Central Control Devices are being used in combination, and the main unit is being used as a master unit.</li> </ul> <p>* If Central Control Devices that are not compatible with TU2C-LINK are included, do the settings as for the former controller.</p> <p>* When connecting multiple Central Control Devices, be sure to set 1 unit as "Central Controller ID 1".</p>
Central Controller ID2 to 20	<p>Set under the following conditions</p> <ul style="list-style-type: none"> <li>• When combining use of other Central Control Devices and the main unit is a slave unit, set Central Controller IDs so they are not duplicated.</li> </ul>
Former controllers	<p>Set under the following conditions</p> <ul style="list-style-type: none"> <li>• Set when Central Control Devices, that include models that are not compatible with TU2C-LINK, are used in combination with the main unit.</li> </ul> <p>* To execute this setting, be sure to do the settings according to the "Old controller setting" screen on page 48.</p>

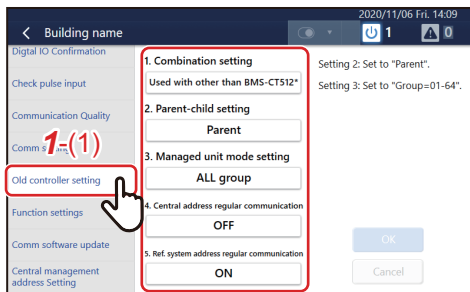
### 3 Tap the OK button



## 3-9. Old controller setting

This setting screen is for combining Central Control Devices that are not compatible with TU2C-LINK.

\* This screen can only be set if "Old controller setting" is selected in the "Comm settings" screen.



**1** Tap [1-(1)].

### 1 Combination setting

Select models to use in combination.

Item	Description
Used with other than BMS- CT512*	Set when used with models other than BMS-CT512*. (The address used when doing TU2C-LINK communications is 0x300)
Used with BMS-CT512*	Set when used with BMS-CT512*. (The address used when doing TU2C-LINK communications is other than 0x300)

### 2 Parent-child setting

When using in combination with Smart BMS manager or web compatible central remote controller

- Smart BMS manager/web compatible central remote controller: Setting not needed
- Main unit: Set as slave unit

Item	Description
Parent	Set this when the main unit is used independently or is used as a master unit connected to other Central Control Devices. (Put only one master unit on TU2C-LINK.)
Child	Set this when there are 2 or more main units or other Central Control Devices are being used in combination and one is being used as a slave unit. (Put only one master unit on TU2C-LINK.)

#### ● NOTE

When "used with BMS-CT512\*" is set in the combination settings, this setting cannot be changed.  
The address used when doing TU2C-LINK communications is changed.

### 3 Managed unit mode setting

Do not change this setting from the initial value (ALL group).

#### ● NOTE

When "Used with BMS-CT512\*" is set in the combination settings, this setting cannot be changed.

### 4 Central address regular communication

Do not change this setting from the initial value (OFF).

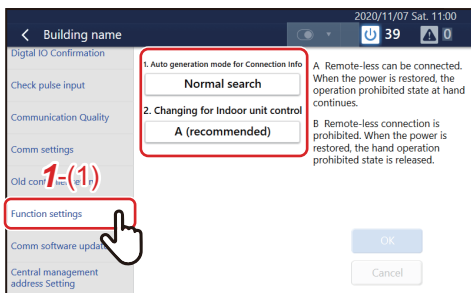
## 5 Ref. system address regular communication

This setting turns periodic communications between indoor units and outdoor units on and off.

Item	Description
ON	Set one of the main units to "ON" if at least one of the following conditions is applicable. <ul style="list-style-type: none"><li>• There is only one Central Control Device</li><li>• There are 2 or more main units used in combination</li><li>• There is another Central Control Device used in combination</li></ul> (Periodic communication is executed.)
OFF	Set to "OFF" if conditions are different from those above. (Periodic communication is not executed.)

# 3-10. Function settings

You can set remote controller less settings and the method for searching indoor units that are connected.



1 Tap [1-(1)].

## 1 Auto generation mode for Connection info

Item	Description
Normal search	<p>Search air conditioners by using line indoor address.</p> <ul style="list-style-type: none"> <li>If the line indoor address is not set, you cannot confirm connections.</li> <li>Custom (package) indoor units will not operate normally if duplicate refrigeration system numbers are set in the refrigeration systems 1 to 28. If an address is set that does not operate normally, set the central management address for the custom (package) indoor unit at the local remote controller, and then change the search settings to central management address search.</li> </ul> <p>[Duplicate indoor unit number in system] Does not operate normally</p> <ul style="list-style-type: none"> <li>Indoor unit A: Refrigeration system number = 1, Indoor unit number = 1</li> <li>Indoor unit B: Refrigeration system number = 1, Indoor unit number = 1</li> </ul> <p>[No duplicate indoor unit number in system] Operates normally</p> <ul style="list-style-type: none"> <li>Indoor unit A: Refrigeration system number = 1, Indoor unit number = 1</li> <li>Indoor unit B: Refrigeration system number = 2, Indoor unit number = 2</li> </ul> <p>[No duplicate indoor unit number in system] Operates normally</p> <ul style="list-style-type: none"> <li>Indoor unit A: Refrigeration system number = 29, Indoor unit number = 1</li> <li>Indoor unit B: Refrigeration system number = 29, Indoor unit number = 2</li> </ul>
Full search	<p>Set when used with BMS-CT512*. (The address used when doing TU2C-LINK communications is other than 0x300)</p>

## 2 Changing for indoor unit control

With indoor units that are not compatible with TU2C-LINK, you can set whether to connect by remote controller less or to prohibit local operations after recovering from a power outage.

Item	Description
A (recommended)	<ul style="list-style-type: none"> <li>It is possible to connect a remote controller less unit.</li> <li>When the power is shut down and then restored, prohibition of remote control operations is continued.</li> </ul>
B	<ul style="list-style-type: none"> <li>It is not possible to connect a remote controller less unit. A warning is detected if the remote controller is disconnected.</li> <li>When the power is shut down and then restored, prohibition of local remote control operations is released.</li> </ul>

\* When 2 or more Central Control Devices are connected, do the same settings for all the Central Control Devices.

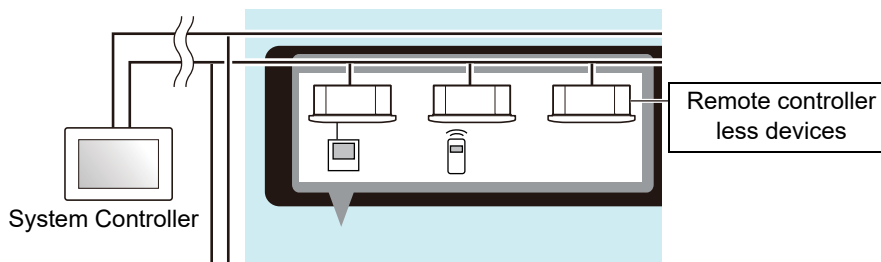
\* The B settings cannot be done if a controller is connected that periodically communicates with the indoor units, once every 4 seconds, such as a 128 Touch Screen Controller or 64 Central Remote Controller (not compatible with TU2C-LINK).

## Settings to Connect a Machine That Has No Remote Control

When you use a remote controller less unit to connect indoor units that are compatible with TU2C-LINK, you need to use one of the following methods to do remote controller less settings for the indoor unit. If these settings are not done, a Check Code E03 (Indoor - Remote controller communication error) is detected.

- On the wired remote controller or energy-saving neo remote controller, change DN [103] from 0 (with remote controller) → 1 (remote controller less)
- On the System Controller being used, change DN [103] from 0 (with remote controller) → 1 (remote controller less) for the relevant indoor units\*

\*Limited to compatible Central Control Devices.



## 3-11. Comm software update

This screen is not used. Do not operate it.

### About L20 (Duplicated central control addresses) Warnings

When you connect the System Controller, set a central management address (DN03) for each indoor unit. Central management addresses require that you register separate numbers for each indoor unit, but if you mistakenly register the same central management address for different indoor units, an L20 (duplicated central control addresses) warning will be detected by System Controller or the local remote control.

With TU2C-LINK, the System Controller detects an L20. With TU2C-LINK, the remote controls belonging to the individual indoor units detect an L20. The System Controller, which is incompatible with TU2C-LINK, may not be able to detect an L20, depending on conditions\*, if the indoor unit is compatible with TU2C-LINK. Be sure to do a one-to-one test for the System Controller and indoor units.

There are some models on which you can check for duplications on the central management address list screen, depending on the model of the System Controller.

\* Central Control Devices whose model name does not contain "U"

[Conditions]

When the same central management address is set for indoor units using different coolant systems in a system of outdoor units and indoor units that are compatible with TU2C-LINK and a Central Control Device that is incompatible with TU2C-LINK.

# 3-12. Central management address Setting

Using the [Central management address Setting], the central management addresses and setting file of the indoor units can be configured and changed.

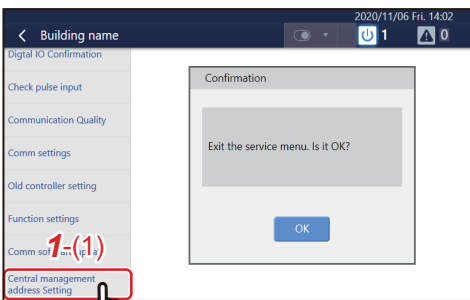
To change the settings, start the service settings using "3-4.How to Start and Stop Service Settings" (P.40).

**NOTE**

If you leave the Central management address Setting screen, a restart is required.

## Setting and changing central management addresses

**1 Tap [1-(1)] of the [Service settings] items**

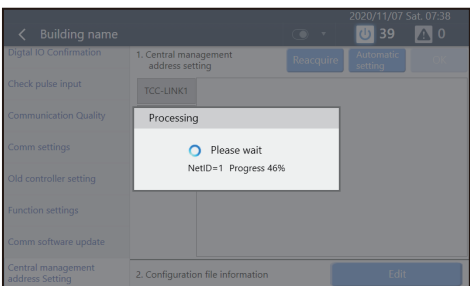
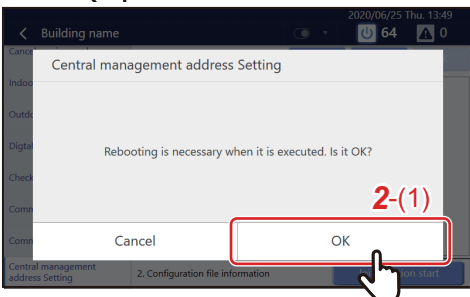


The following message appears: [Rebooting is necessary when it is executed. Is it OK?]

**2 Tap [2-(1)]**

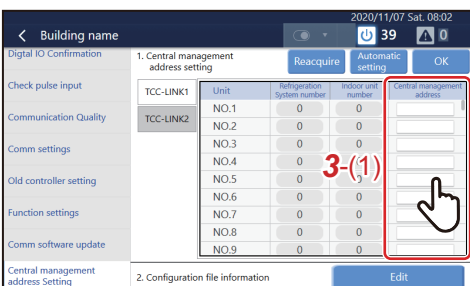
Connection information is acquired. (takes a maximum of about 10 minutes)

If the connection information is acquired, the Central management address Setting screen appears.

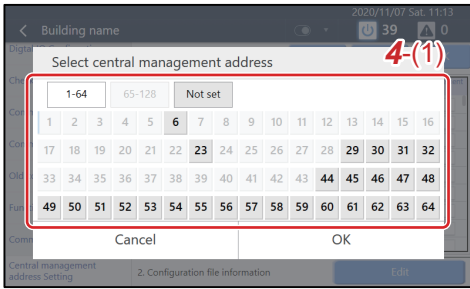


**3 Using [3-(1)], tap a Central management address to be configured or changed**

The Central management address selection screen appears.



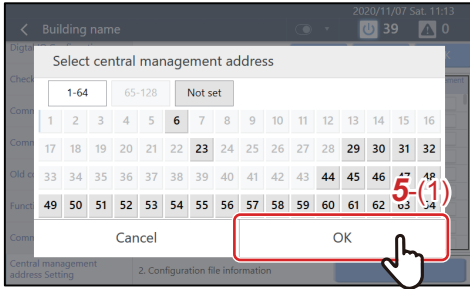




**4** Using [4-(1)], tap the Central management address to be configured or changed

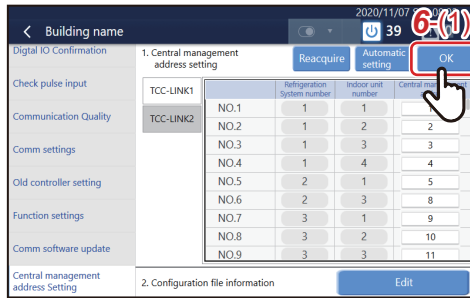
**NOTE**

A blue vertical line appears to the left of the selected Central management address.



**5** Tap [5-(1)]

The Central management address of the selected indoor unit is configured.



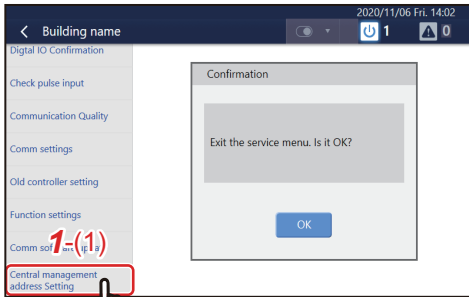
**6** Tap [6-(1)]

The configured content is confirmed.

## Automatic assignment

Central management addresses can be assigned automatically to all indoor units. Following section explains the automatic assignment procedure.

### 1 Tap [1-(1)] of the [Service settings] items

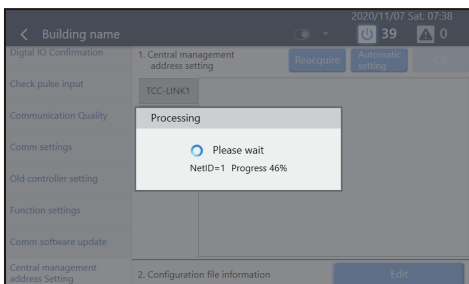
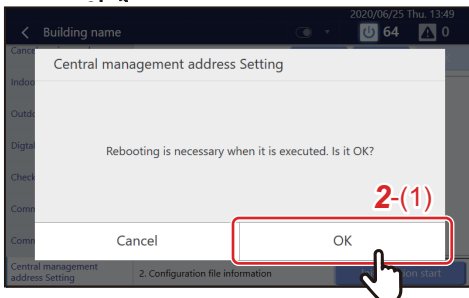


The following message appears: [Rebooting is necessary when it is executed. Is it OK?]

### 2 Tap [2-(1)]

Connection information is acquired. (takes a maximum of about 10 minutes)

If the connection information is acquired, the Central management address Setting screen appears.

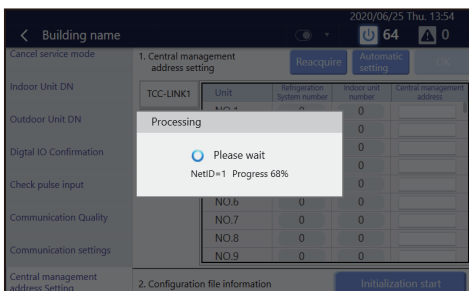
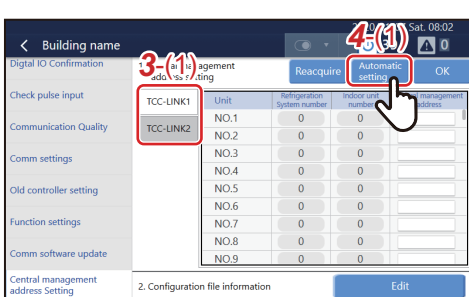


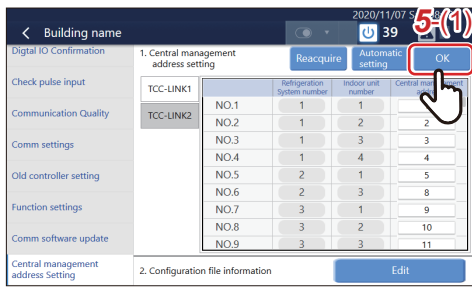
### 3 Select Central management addresses to be automatically assigned from [3-(1)]

If this is tapped, the following message appears: [Automatic assignment of TU2C-LINK1 (or TU2C-LINK2) will be performed. Continue?]

### 4 Tap [4-(1)]

Automatic assignment of the Central management address is performed for the selected TU2C-LINK. (takes a maximum of about 6 minutes)



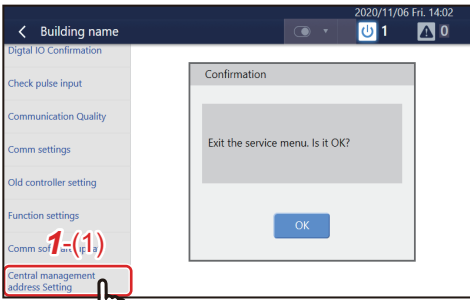


**5** Tap [5-(1)]  
The configured content is confirmed.

# Reacquisition

The connection information of the indoor units can be re-acquired. Following section explains the reacquisition procedure.

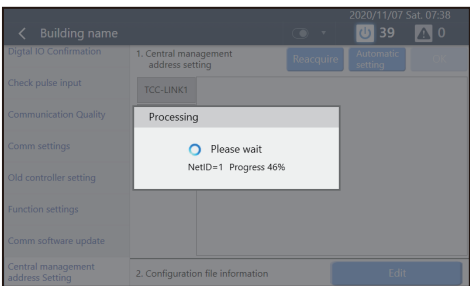
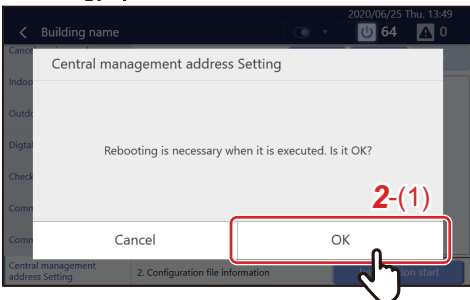
**1 Tap [1-(1)] of the [Service settings] items**



The following message appears: [Rebooting is necessary when it is executed. Is it OK?]

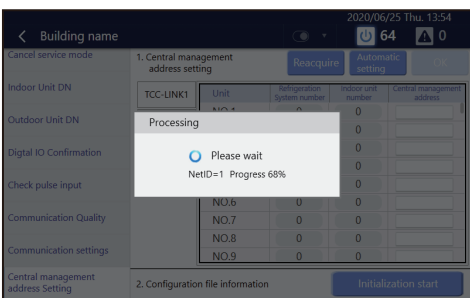
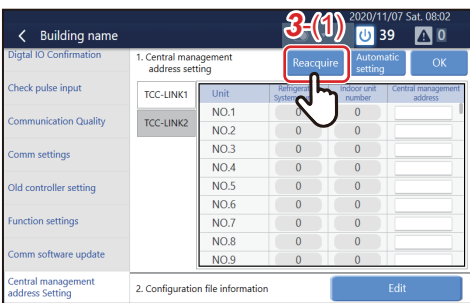
**2 Tap [2-(1)]**

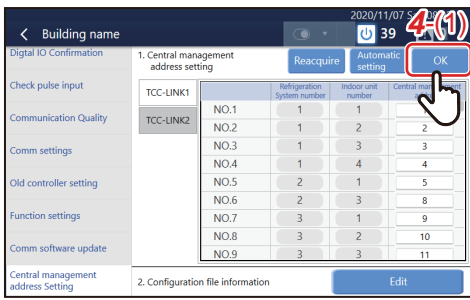
Connection information is acquired. (takes a maximum of about 10 minutes)  
If the connection information is acquired, the Central management address Setting screen appears.



**3 Tap [3-(1)]**

Connection information is re-acquired. (takes a maximum of about 10 minutes)





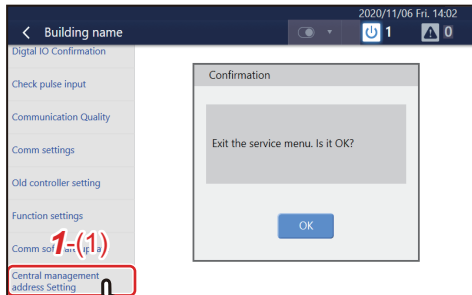
**4** Tap [4-(1)]  
The configured content is confirmed.

## Setting file information

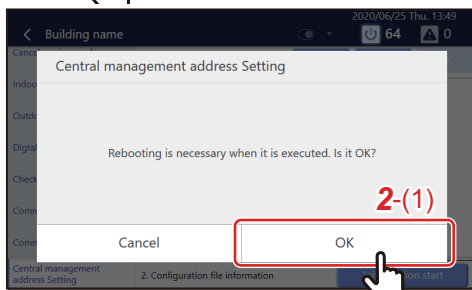
A setting file can be created based on acquired indoor unit connection information.

Indoor units can be registered without using the Setting File Creation Software 2 during installation of this controller, expansion of indoor units, or relocation of equipment.

Following section explains the procedure to create or change the setting file.



**1 Tap [1-(1)] of the [Service settings] items**

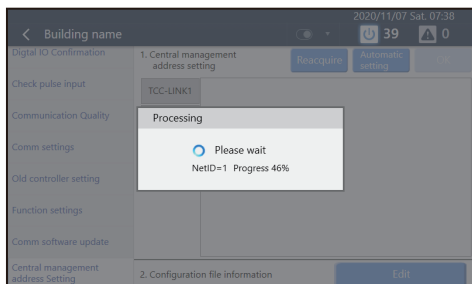


The following message appears: [Rebooting is necessary when it is executed. Is it OK?]

**2 Tap [2-(1)]**

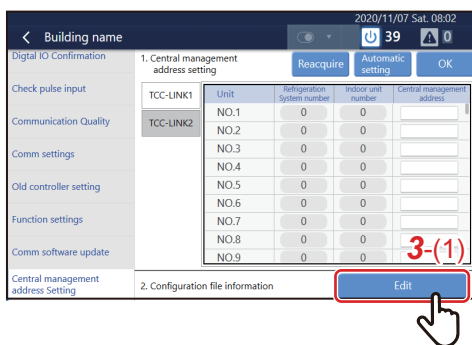
Connection information is acquired. (takes a maximum of about 10 minutes)

If the connection information is acquired, the Central management address Setting screen appears.



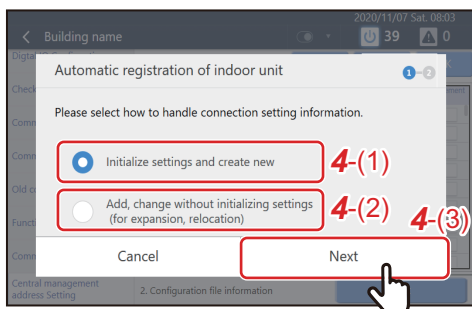
**3 Tap [3-(1)]**

The Automatic registration of indoor unit pop-up appears.

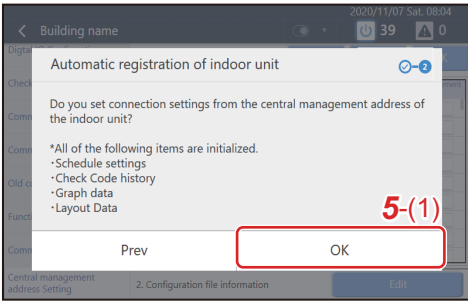


**4 Select [4-(1)] or [4-(2)], and then tap [4-(3)]**

Select [4-(1)] for [Initialize settings and create new] or select [4-(2)] for [Add, change without initializing settings (for expansion, relocation)].



**[Initialize settings and create new]**

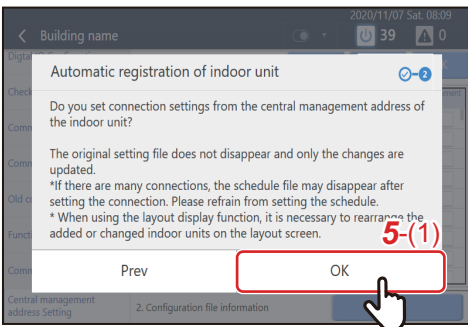


**5 Tap [5-(1)]**

The automatic registration settings start (takes a maximum of about 10 minutes).

Refer to <Indoor unit automatic registration selection items> below, for a detailed description.

**[Add, change without initializing settings (for expansion, relocation)]**



**<Indoor unit automatic registration selection items>**

Item	Content
Initialize settings and create new	<ul style="list-style-type: none"> <li>• Initialize settings and create a setting file based on connection information.</li> <li>• All items such as indoor unit names and area information are deleted.</li> </ul> <p>* All of the following items are initialized.</p> <ul style="list-style-type: none"> <li>• Schedule settings</li> <li>• Check Code history</li> <li>• Graph date</li> <li>• Layout Date</li> </ul>
Add, change without initializing settings (for expansion, relocation)	<ul style="list-style-type: none"> <li>• Change the setting file based on connection information without initializing the setting file.</li> <li>• The names for newly added indoor units are configured automatically.</li> <li>• Items such as indoor unit names and area information are retained.</li> <li>• Items that are not included in the newly acquired information are deleted from the setting file.</li> </ul> <p>* If there are many connections, the schedule file may disappear after setting the connection. Please refrain from setting the schedule.</p> <p>* When using the layout display function, it is necessary to rearrange the added or changed indoor units on the layout screen.</p>

**3-13. Installation work**

Installs the main unit. For the installation method, refer to the installation manual that came with the product.

**3-14. Trial operation**

- (1) Confirm that the settings are reflected on the TouchScreenController(CT256series) screen normally by switching ON/OFF, changing the set temperature, and changing the Mode from the remote control of each air conditioner.
- (2) From the TouchScreenController(CT256series) screen, switch ON/OFF, change the set temperature, and change the Mode and confirm that the air conditioners operate normally.

# 4 Troubleshooting

	Phenomenon	Question	Confirmation items
1	The LCD does not display.	Is the power turned on?	Check that the power is not turned off by the breaker or the like. There is a green LED at the lower rear of the main unit and a green LED on the AC adapter that indicate that power is being supplied.
2			Check that the wiring of the power outlet and AC adapter is not disconnected. There is a green LED at the lower rear of the main unit and a green LED on the AC adapter that indicate that power is being supplied.
3		Has the backlight gone out?	The LCD turns off when there is no operation for a certain period of time. Touch the touch panel to turn on. The brightness and display time can be changed using [Backlight].
4		Is the backlight brightness dark?	Adjust the brightness using [Backlight].
5	The operated air conditioner does not run.	Does the operated air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
6		Has a check code been detected?	The air conditioner will not operate when a check code has been detected. Erase the check code.
7		Are you operating with the local remote control?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control, it will stop. The latter operation of this Unit or the local remote control overrides the former.
8		Is the air conditioner stopped due to the schedule setting of the local remote control or the like?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control schedule, it will stop. The latter operation of this Unit or the local remote control overrides the former.
9		Are you operating with the PC app "Remote Control Software"?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the PC app "Remote Control Software", it will stop. The latter operation of this Unit or the "Remote Control Software" overrides the former.
10	I want to turn off the power.	From [Menu], turn off the power.	Select [Menu]-[Functions]-[shut down].
11	I want to reboot.	Reboot from the menu.	Select [Menu]-[Functions]-[System reboot].
12	The air conditioner settings change arbitrarily.	Are you operating with the local remote control?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control, it will stop. The latter operation of this Unit or the local remote control overrides the former.
13		Is the air conditioner stopped due to the schedule setting of the local remote control or the like?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control schedule, it will stop. The latter operation of this Unit or the local remote control overrides the former.
14		Have you applied settings such as stop using an external input signal?	When stop, etc. is set by an external input signal using the external interlocking function, the air conditioner stops automatically when a signal is input.
15		Are you operating with the PC app "Remote Control Software"?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the PC app "Remote Control Software", it will stop. The latter operation of this Unit or the "Remote Control Software" overrides the former.
16	The schedule does not work.	Is the schedule disabled?	Please confirm the Scheduler Operation settings.
17		Does the scheduled air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
18		Is a Special day schedule set?	If a day is set in both the Weekly schedule and a Special day schedule, the Special day schedule will apply for that day.



	Phenomenon	Question	Confirmation items
19	The air conditioner doesn't cool. The air conditioner doesn't heat.	Is demand control turned on?	Demand control suppresses the capability of the outdoor unit in order to reduce power consumption. Therefore, it may take time to reach the set temperature.
20		Is the forced thermo OFF control turned on?	Forced thermo OFF is a control to stop the operation of the outdoor unit. Therefore, the indoor unit acts as a fan.
21		Is the power saving control turned on?	Power saving suppresses the capability of the outdoor unit. Therefore, it may take time to reach the set temperature.
22	The LCD does not turn off.	Has a check code been detected?	The LCD will still be on when a check code has been detected. Erase the check code.
23	Sometimes the LCD becomes black for a moment.	The LCD's antistatic control is working.	Temporarily stop the LCD periodically to prevent LCD burn-in. Not a malfunction.
24	The setting displayed on the local remote control does not match the setting displayed on this Unit.	Does the operated air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
25	When local remote control operation is prohibited, if there is a power failure, the local remote control prohibited status will be cancelled when the power returns.	-	Set [Menu] - [Service settings] - [Function settings] as shown below. Set [Changing for indoor unit control] to [A].
26	FILTER information can be reset even when the FILTER sign is not displayed.	The FILTER signs lights up depending on the accumulated operation time.	As the operation time accumulates, the FILTER sign lights up when the preset operation time is reached. The FILTER sign information can be reset to clear the accumulated time for cases such as when FILTER cleaning is carried out before the FILTER sign turns on.
27	I want to check the software version.	Reboot from the Information menu.	The version is displayed under [Menu] - [Information].
28	The webpage of the Controller is not displayed.	Is the power to the System Controller on?	If the power to the System Controller is not on, you cannot connect to the webpage. Confirm if the power is on.
29		Is the LAN cable connected?	The webpage is not displayed unless the PC and the LAN of this Unit are connected. Check the LAN cable connection and network settings.
30		Have you set the IP address?	You cannot connect to the Unit unless the IP address of the PC is set. For details, see (P.26 in Owner's Manual).
31		Do you use a proxy server?	If the setting is such that a proxy server is used, exclude the IP address of the System Controller.
32	Reboot from time to time.	Please check for noise and the power supply status.	The main unit may restart if noise in the surroundings or an unstable power supply cause the operation of the software to be unstable. Please check the surrounding environment.
33	I cannot start the Remote Control Software.	Is "Error 1001" displayed?	Please download .Net Framework 4.6.2 from the download website of this software and install it.
34		Is the LAN cable connected?	This software will not start unless the PC and the LAN of this Unit are connected. Check the LAN cable connection and network settings.
35		Is the IP address of the access destination set to the IP address of the controller main unit?	The IP address (or server name) to be entered during installation is the IP address of the controller main unit. It is not the IP address of the PC. If it is incorrect, please do the following and then reinstall. 1. Uninstall the application 2. Delete the install destination directory 3. Delete the desktop and start menu shortcuts
36		Is the PC on which the software was installed Windows 10?	Windows 10 is supported. The software may not operate correctly when installed on a PC with a different OS.

	Phenomenon	Question	Confirmation items
37	I cannot log in to the Remote Control Software.	Have you logged in as the same user from another PC?	Each user can log in from only one PC at the same time.
38		Is the Windows display style set to classic style?	Please select a display style other than classic style. You can change the display style from [Start] - [Control Panel] - [Appearance and Personalization] - [Change the theme]. This software supports Windows 10.
39	I cannot log in to Remote Control Software from another PC after the LAN is disconnected.	Have you logged in with the same user ID?	You must log in again from a PC with the LAN disconnected and log out normally.
40		Have you accessed the software from more than 8 PCs?	Up to 8 PCs can be accessed at the same time. The software may not operate correctly if you connect to more than 9 PCs.
41		Did you assign the PC's IP address using a DHCP server?	This Unit judges whether it is accessed from the same PC using the IP address. If the PC address is changed partway through by the DHCP server, you may not be able to log in again after LAN disconnection. Please set the PC that accesses this Unit to a fixed IP or reboot the Unit and erase the login information.
42	The language does not switch with the Remote Control Software.	Does the login user for the Windows being used have write permission for the Remote Control Software storage location?	Please allow write permission below the folder where Remote Control Software is saved (initial setting: C:\Program Files\TOSHIBA Carrier Corporation). Right-click on the TOSHIBA Carrier Corporation folder, select the [Properties] - [Security] Name, click the "Edit" button and check [Allow] for [Full control] under different settings.
43	The schedule setting changes have not been reflected.	Are you trying to change the schedule settings on both the Remote Control Software and the main unit?	To change the schedule settings, please set only one of either the main unit or the Remote Control Software.
44	I would like to use the software with other centralized controllers.	Centralized controllers that can be used together within the same network.	It is possible to use up to 8 units together with all centralized controllers including this Unit. Ask service personnel to use them in combination.
45	I want to use multiple units in combination.	Number of units that can be used in combination in the same network.	It is possible to use up to 8 units together with all centralized controllers including this Unit. Ask service personnel to use them in combination.
46	The LCD sometimes turns black for a moment.	The LCD's antistatic control is working.	This is not a malfunction. The LCD may turn black temporarily to remove static electricity.
47	The multi outdoor unit's option board control does not work.	Do you want to use the multi outdoor unit's option board?	When the centralized controller is connected, the functions of the outdoor unit's option board become ineffective. Only one of the centralized controller and the outdoor unit's option board can be used.
48	The Unit does turn ON/OFF even though the operation interlock signal/stop interlock signal is input.	Has the interlock signal been input from the time of activation?	Since the interlock signal confirms the state by detecting the rising edge and falling edge, if the interlock signal is input from the time of activation, interlock control will not be performed. Please set so that the interlock signal turns OFF at the time of activation.

## Check Code List

Check Code	Check Code Names
A00	No error
A01	Flow switch operation error
A02	Water temperature decrease error
A04	Activation of water heat exchanger frost protection
A06	Ignition failed
A27	Abnormal increase at temperature sensor for refrigerant heating outlet
A31	Other thermal component error
C05	Sending error in TU2C-LINK central control device
C06	Receiving error in TU2C-LINK central control device
C12	Batch alarm of general-purpose interface
C15	Error codes for thermal storage unit
E01	Communication error between indoor and remote controller
E02	Sending error of remote controller
E03	Communication error between indoor and remote controller
E04	Communication circuit error between indoor and outdoor
E06	Decrease of No. of indoor units
E07	Communication circuit error between indoor/outdoor
E08	Duplicated indoor addresses
E09	Duplicated master remote controllers
E10	Communication error between indoor P.C.board
E11	Communication error at optional PCB in indoor unit
E12	Automatic address start error
E13	Periodic communication error (DX-kit -> 0 - 10 V I/F) at indoor unit <-> 0 - 10 V interface
E14	Periodic communication error between indoor unit and 0 to 10 V interface
E15	No indoor automatic address
E16	Capacity over/No. of connected indoor units
E17	Bad reception from flow selector (FS) unit
E18	Communication error between indoor header and follower units
E19	Outdoor header units quantity error
E20	Other line connected during automatic address
E21	Header thermal storage units quantity error
E22	Decrease of No. of thermal storage units
E23	Sending error in communication between outdoor units
E25	Duplicated follower outdoor address
E26	Decrease of No. of connected outdoor units
E28	Follower outdoor unit error
E31	IPDU communication error
F01	Indoor TCJ sensor error
F02	Indoor TC2 sensor error
F03	Indoor TC1 sensor error
F04	TD1 sensor error
F05	TD2 sensor error
F06	TE1/TE2 sensor error
F07	TL sensor error
F08	TO sensor error

Check Code	Check Code Names
F09	TG sensor error
F10	Indoor TA/TSA sensor error
F11	Indoor TF/TFA sensor error
F12	TS1 sensor error
F13	TH sensor error
F14	TR sensor error
F15	Outdoor temp. sensor misconnection (TE1/TL)
F16	Outdoor pressure sensor misconnection (Pd/Ps)
F17	TOA sensor error
F18	TRA sensor error
F19	Indoor heat exchanger temperature sensor (TF) error
F20	PL (fluid piping pressure) sensor error
F22	TD3 sensor error
F23	Ps sensor error
F24	Pd sensor error
F25	Indoor heat exchanger temperature sensor (TA) error
F26	Indoor heat exchanger temperature sensor (TC2) error
F29	Indoor other error
F30	Occupancy sensor error
F31	Outdoor EEPROM error
H01	Compressor break down
H02	Magnet switch / Overcurrent operation / Compressor error
H03	Current detection circuit error
H04	Comp-1 case thermo operation
H05	Outdoor temp. sensor misconnection (TD1)
H06	Low pressure protective operation
H07	Low oil level protection
H08	Oil level temp. sensor error
H14	Comp-2 case thermo operation
H15	Outdoor temp. sensor misconnection (TD2)
H16	Oil level circuit / Magnet switch / Overcurrent error
H25	Outdoor temp. sensor misconnection (TD3)
J01	Flow selector (FS) unit has bad reception from indoor unit (main unit)
J03	Flow selector (FS) unit is duplicated
J10	Float SW operating at flow selector (FS) unit
J11	TCS sensor error in flow selector (FS) unit
J12	Sensor 2 error in flow selector (FS) unit
L02	Inconsistency error of outdoor units
L03	Duplicated indoor header units
L04	Duplicated outdoor line address
L05	Duplicated indoor units with priority
L06	Duplicated indoor units with priority
L07	Group line in individual indoor unit
L08	Indoor group/Address unset
L09	Indoor capacity unset
L10	Outdoor capacity unset

Check Code	Check Code Names
L12	Flow selector system error
L17	Inconsistency error of outdoor units
L18	FS unit error
L20	Duplicated central control addresses
L21	200 V applied voltage error
L22	There are units in the group that do not support DX-KIT.
L23	Setting abnormality
L24	Flow selector unit is set incorrectly
L26	Over No. of conneced thermal strage units
L27	Thermal storage units quantity error
L28	Maximum number of outdoor units exceeded
L29	No. of IPDU error
L30	Auxiliary interlock in indoor unit
L31	IC error
P01	Indoor fan motor error
P02	Boost circuit error
P03	Discharge temp. TD1 error
P04	High-pressure switch detection error
P05	Phase-missing detection / Phase order error
P07	Heat sink overheat error
P08	Intake air temperature error
P10	Indoor overflow error
P12	Indoor fan motor error
P13	Outdoor liquid back detection error
P15	Gas leak detection
P17	Discharge temp. TD2 error
P18	Discharge temp. TD3 error
P19	4-way valve inverse error
P20	High-pressure inverse error
P22	Outdoor fan IPDU error
P26	G-Tr short circuit protection error
P29	Comp position detection circuit error
P30	Group terminal unit error
P31	Follower indoor unit error (Group error)
S01	Communication error between air conditioner and BMS
S02	BMS-IFLSV Communication error
S03	Group terminal unit error
S04	BMS-IFWH Communication error
S06	BMS-IFWH Communication error
S07	BMS-IFDD Communication error
S08	Communication error
S09	Communication error
S12	Other error
S14	Start failure
S15	File access error
S16	IP address setup error

Check Code	Check Code Names
S17	File load error
S21	Mail transmission error
S22	Internal communication error
S23	Setting file read error
S25	Schedule file read error
S26	Schedule file write error
S27	Daily report/Monthly report file read error
S28	Daily report/Monthly report file write error
S29	Application error
S30	System error
S32	Alarm activation
S33	System controller address duplication error

# 5 Service Parts

No.	Component name	Component code	Overview	Q'ty
1	Power adapter	4316V581	Power supply adapter for Touch Screen Controller	1

# **Installation Manual**



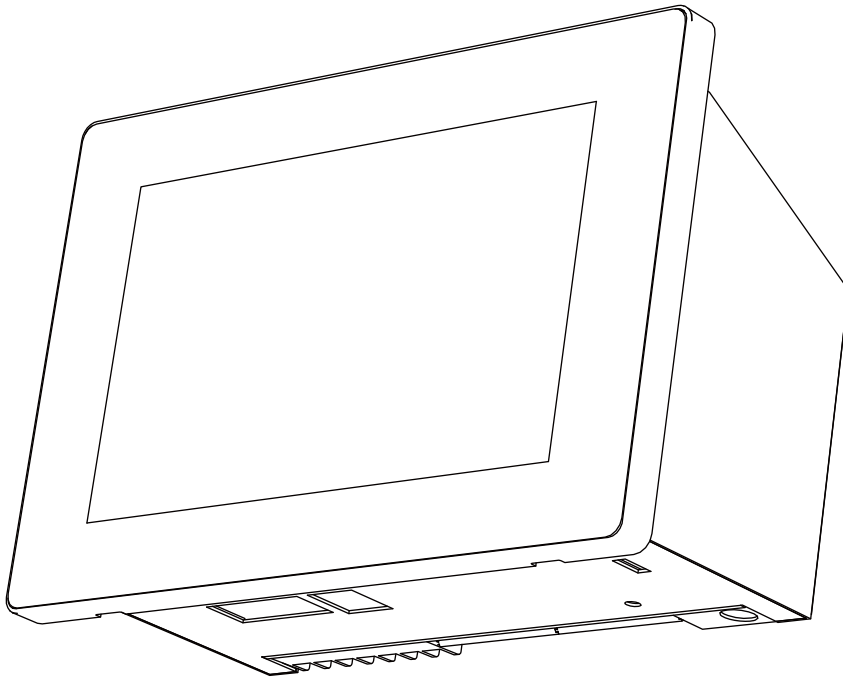
# TOSHIBA

## Central Control Device (Touch Screen Controller) Installation Manual

For commercial use

Model name:

**BMS-CT2560U-E**  
**(BMS-CT1280TU)**  
**(BMS-CT2560U-TR)**  
**(BMS-CT2560U-UL)**



---

• Save These Instructions!

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ENGLISH

- Thank you for purchasing the system controller.
- Please read this installation manual carefully before installation, and perform the work only in the correct manner.



# Contents

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# 1 Precautions for safety




- Read these “Precautions for safety” carefully before installation.
- The precautions described below include important items regarding safety. Observe them without fail. Understand the following details (indications and symbols) before reading the body text, and follow the instructions.
- After the installation work has been completed, perform a trial operation to check for any problems. Explain how to use and maintain the unit to the customer.  
Ask customer to keep this Manual at accessible place for future reference.

Indication	Meaning of Indication
 <b>WARNING</b>	Text set off in this manner indicates that failure to adhere to the directions in the warning could result in serious bodily harm (*1) or loss of life if the product is handled improperly.
 <b>CAUTION</b>	Text set off in this manner indicates that failure to adhere to the directions in the caution could result in serious bodily injury (*2) or damage (*3) to property if the product is handled improperly.

- \*1: Serious bodily harm indicates loss of eyesight, injury, burns, electric shock, bone fracture, poisoning, and other injuries which leave aftereffect and require hospitalization or long-term treatment as an outpatient.  
 \*2: Bodily injury indicates injury, burns, electric shock, and other injuries which do not require hospitalization or long-term treatment as an outpatient.  
 \*3: Damage to property indicates damage extending to buildings, household effects, domestic livestock, and pets.

Symbols	Meaning of Symbols
	“  ” Indicates prohibited items. The actual contents of the prohibition are indicated by a picture or text placed inside or next to the graphic symbol.
	“  ” Indicates compulsory (mandatory) items. The actual contents of the obligation indicated by a picture or text placed inside or next to the graphic symbol.

## **WARNING**

	<ul style="list-style-type: none"> <li>• <b>Ask an authorized dealer or qualified installation professional to install or reinstall this unit.</b> Inappropriate installation may result in electric shock or fire.</li> <li>• <b>Electrical work must be performed by a qualified electrician in accordance with this installation manual.</b> <b>The work must satisfy all local, national and international regulations.</b> Inappropriate work may result in electric shock or fire.</li> <li>• <b>Be sure to turn off all main power supply switches before starting any electrical work.</b> Failure to do so may result in electric shock.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Do not modify the unit.</b> A fire or an electric shock may occur.</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Always connect to ground</b> Improper grounding may result in an electric shock. Before connecting the power, carry out Class D grounding according to the “Engineering Standard for Electric Work” and the “Internal Wiring Regulations”.</li> </ul>

### Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

 **CAUTION****• Do not install in the following locations:**

- Locations where combustible gas may leak
- Locations with high humidity or water
- Dusty locations
- Locations in direct sunlight and locations subject to high temperatures
- Locations within 1 m from televisions or radios
- Outdoors, under awnings, or other locations exposed to rain and dew
- Locations exposed to outside air containing corrosive gases or salinity
- Locations with frequent vibrations

**• Do not operate the touch panel with mechanical pencils or other pointed objects.****• In installation work, use wiring with the correct ampacity.**

Failure to do so may result in excessive heat or fire.

**• Use specified cables and connect them securely, and do not subject connecting terminals to external force.**

Doing so may result in broken cables, excessive heat or fire.

**• Always install a circuit breaker on the primary side of the power supply.****• Clean the touch panel by wiping with an eyeglasses cleaner or other soft cloth. To remove oil-based ink, wipe with a cloth that has been moistened with a neutral detergent and then wrung out, and finish by wiping with a soft, dry cloth. Do not use commercial OA cleaners, cleansers, or other liquid cleaners containing abrasives.****• When attaching to a metal lath, wire lath or wooden structure with metal boards, attach it to the control panel, etc. without attaching it to the wall.****• Do not swallow the coin cell battery.**

There is a risk of injury due to chemical reaction if the battery is accidentally swallowed.

**CAUTION** This device uses a lithium battery. Follow all local regulations when disposing of it.

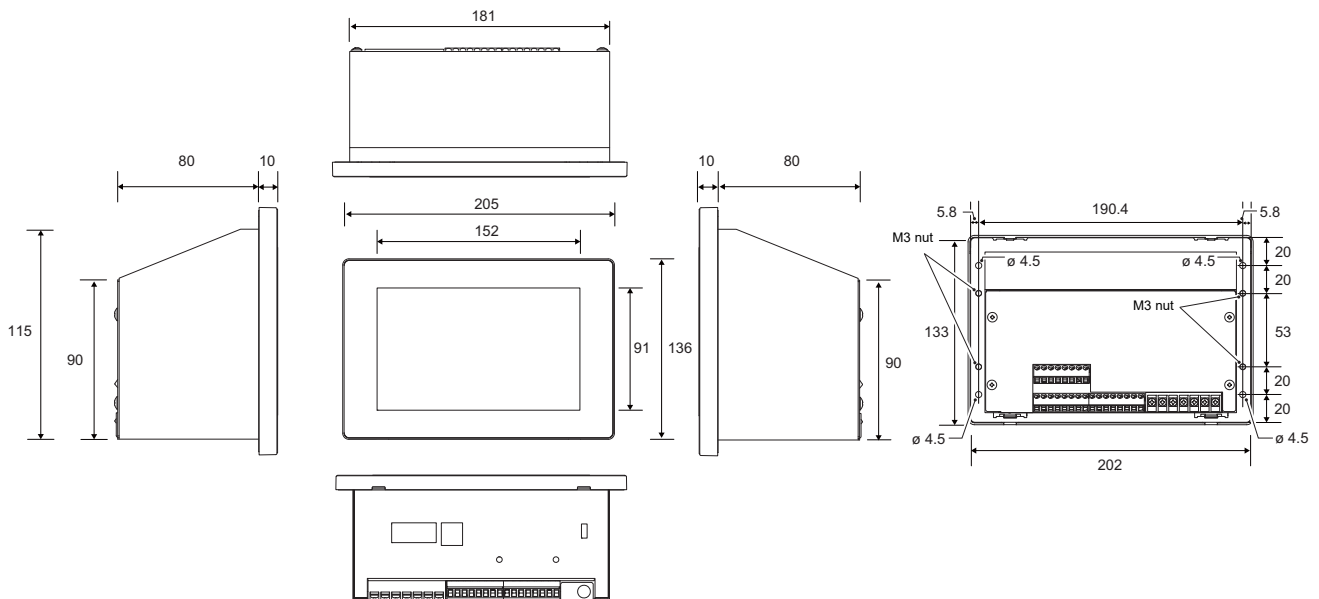
# 2 Specifications

Product name		Touch Screen Controller
Model Name		BMS-CT2560U-E, BMS-CT2560U-TR
Power supply		220-240 V AC* 50/60 Hz
Consumed current		1.17 A
Number of connected units	Indoor unit	Up to 256 units (LINK1 terminal: maximum 128 units, LINK2 terminal: maximum 128 units)
	ON/OFF unit	Maximum 60 units
	Power meter interface	Up to 4 units
	Digital I/O interface	Up to 4 units
Communication ports		<ul style="list-style-type: none"> <li>•RS-485 port ×1</li> <li>•LAN port ×1</li> </ul>
USB port		USB memory stick connection port ×2
External contact input		8 inputs
External contact output		4 outputs
Operating temperature/humidity range		0°C to 40°C, 10% to 90% RH (no condensation)
Dimensions		H136×W205×D10 (+80) (Embedded dimensions shown in parenthesis)
Mass		1.34 kg (System Controller) 0.45 kg (power adapter)

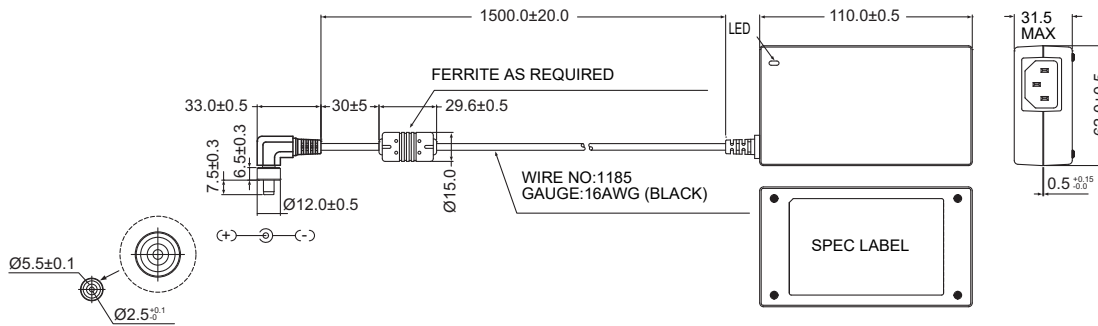
\* Power cord for 220-240 V power adapter is to be arranged on site.

## ■ Outline drawing

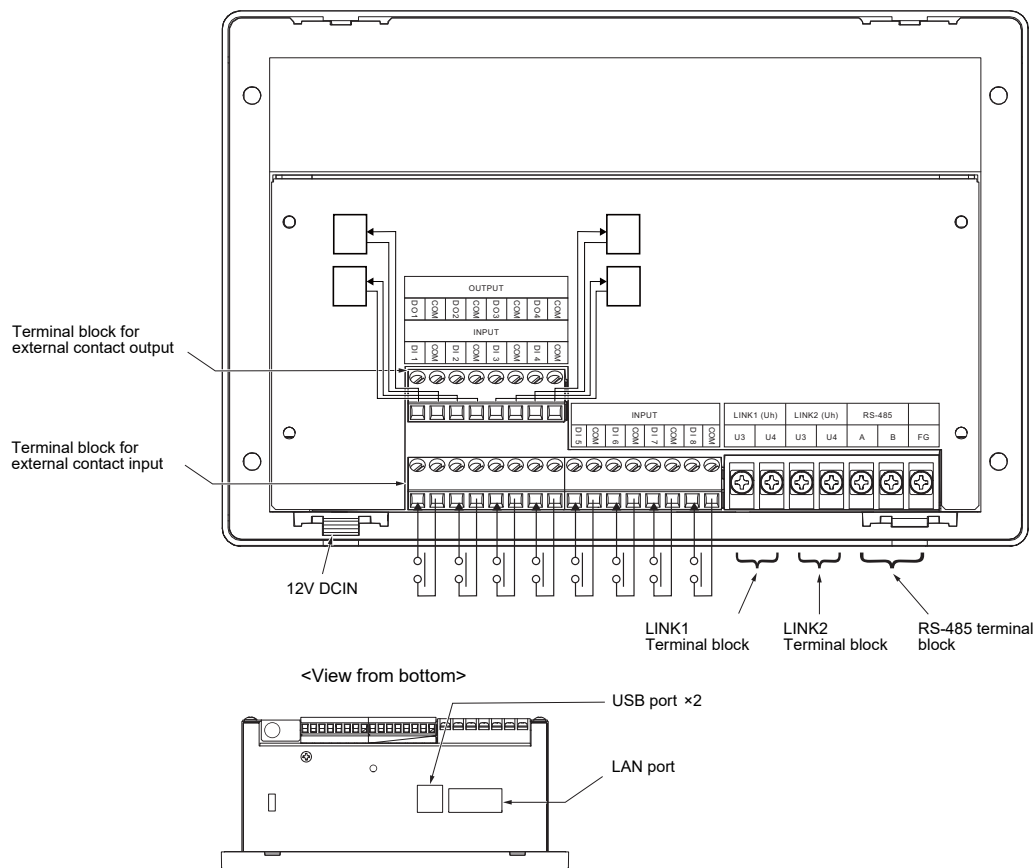
### System Controller



**Power adapter**



**Component Names**



Name	Function
12V DCIN	Connect the power adapter
Terminal block for external contact output	Connect the external contact output
Terminal block for external contact input	Connect the external contact input
LINK terminal block	Connect the central control wiring
RS-485 terminal block	Connect the RS-485 terminal block
USB	For service
LAN	Can be connected to a PC via LAN communication and monitored and controlled

## ■ Before Installation

Confirm that all the parts listed below are included in the package.

### Included Items

No.	Component name	Quantity	Remarks
1	System Controller	1	
2	Power adapter	1	
3	Owner's Manual	1	
4	Installation Manual	1	
5	Fixing screw	4	Fixing screw (M4×12) for attaching the main unit from the front
6	Fixing screw	4	Fixing screw (M3×8) for attaching the main unit from the rear
7	Closed end connector	2	RS-485 cable crimp connector
8	Cable tie	2	For fixing the power adapter
9	Double-sided tape	1	For fixing the power adapter

### Wiring specifications

Use the following wiring material to connect signal wires and power supply wires. (Locally procured)

No.	Wiring	Wire type / wire diameter / wire length
1	For LINK terminal	Refer to "Design of Control Wiring" (P.13).
2	For RS-485	2-core shielded wires
		1.25 mm <sup>2</sup> , up to 500 m (total extension distance)
3	For digital I/O	Two-core cable 0.3 mm <sup>2</sup> , up to 100 m
4	For Ethernet	LAN cable (category 5 or above) Maximum length: 100 m

# 3 Installation

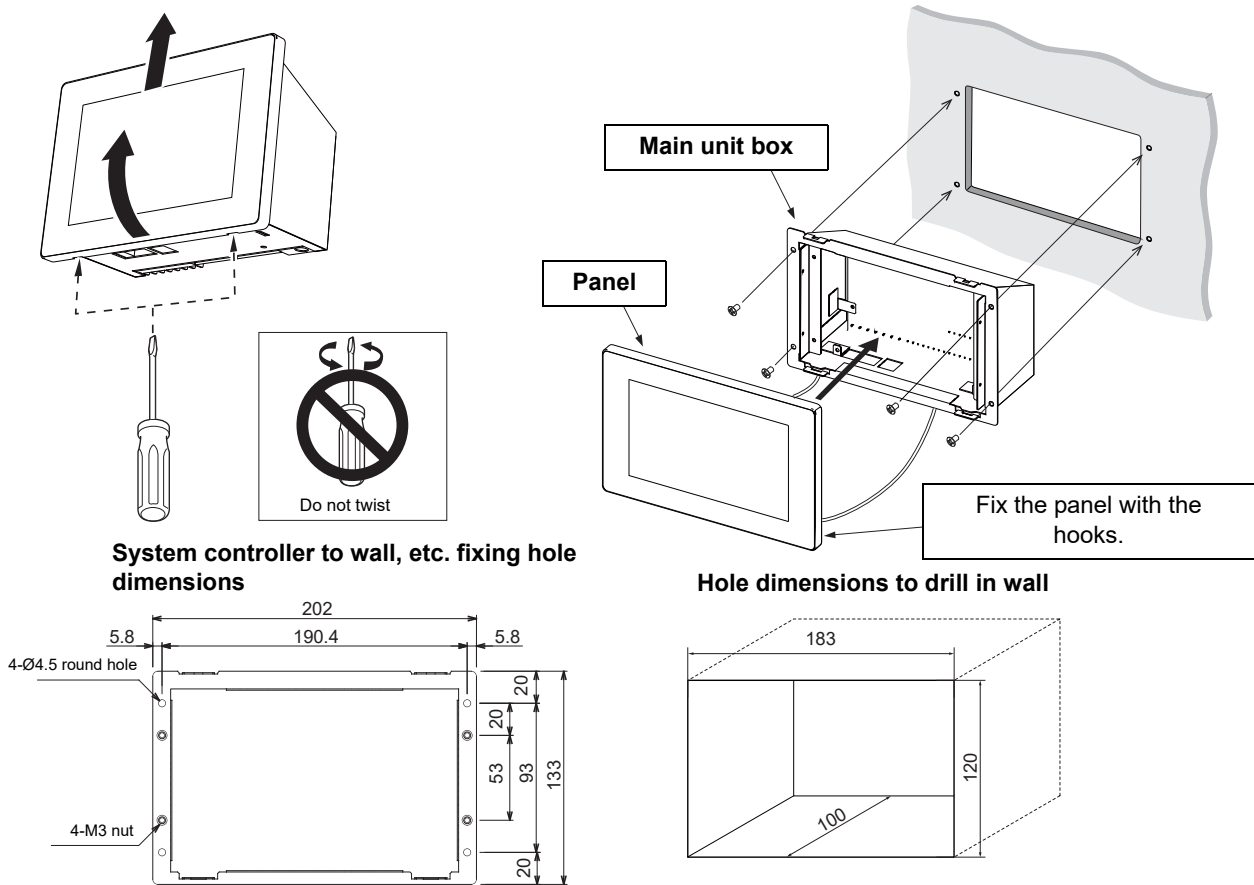
## ⚠ CAUTION

- Do not wire communication lines or input/output wiring next to power supply wiring, etc., or house them in the same metal pipe. Doing so may result in failure.
- Install the main unit away from noise sources.

### 3-1. Installation of Main Unit Box and Panel

The main unit box can be mounted either from the front or from the rear.

#### 3-1-1. When Installing from the Front



\* Since the left and right mounting screws are attached close to each other, please drill the left and right dimensions as accurately as possible.

- 1 Connect the central control wiring, AC adapter, and LAN cable to the main unit.
- 2 Fit the main unit on to the wall and switch board.
- 3 Insert a flat head screwdriver, etc. into the groove on the left and right of the bottom of the panel. There will be a snapping sound and the panel will come off.

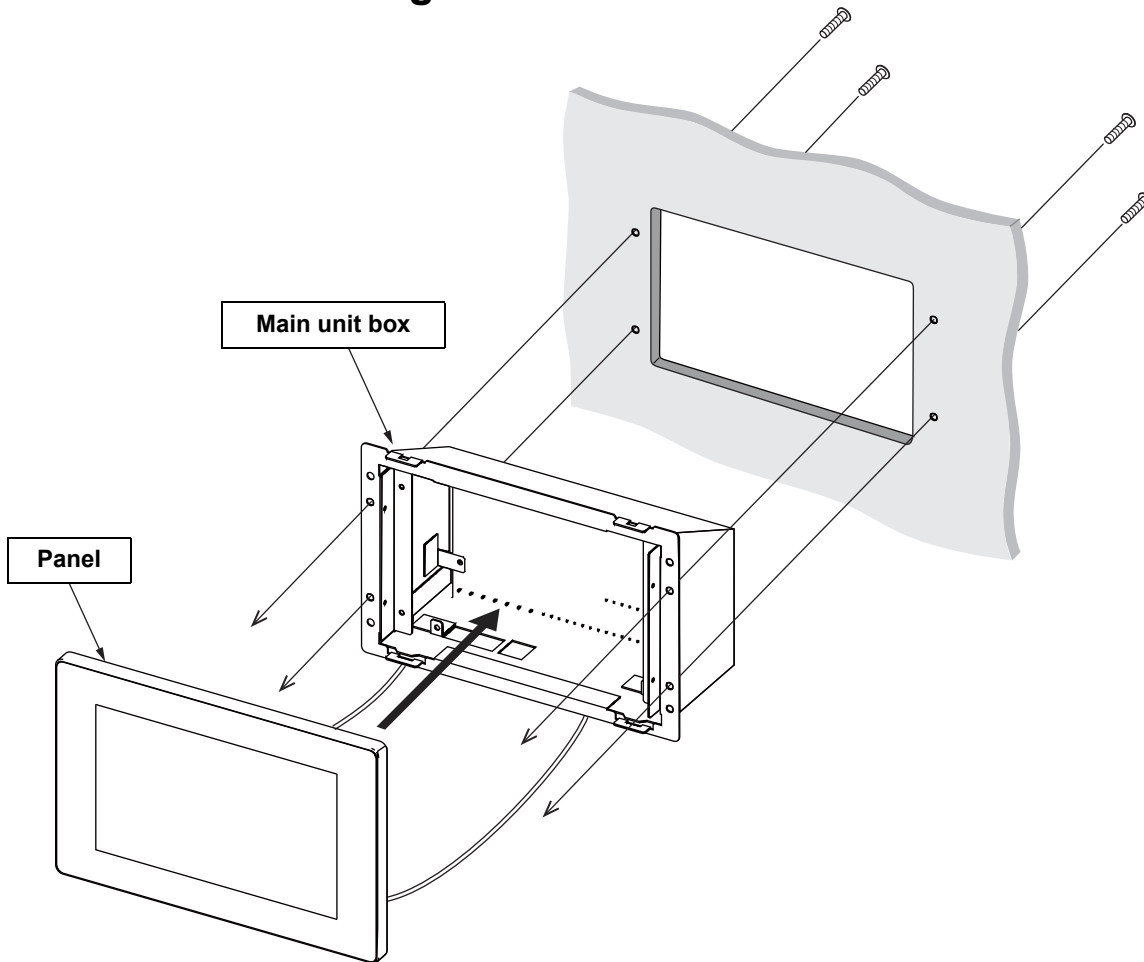
#### REQUIREMENT

- Just insert the screwdriver and do not twist it.
- To prevent the panel from falling, support it during removal.

- 4 Fix the 4 main unit screws.
- 5 Close the panel by hooking the panel rear to the top of the main unit. There will be a snapping sound and the panel will be fixed.
- 6 When installation is completed, peel off the transparent film.

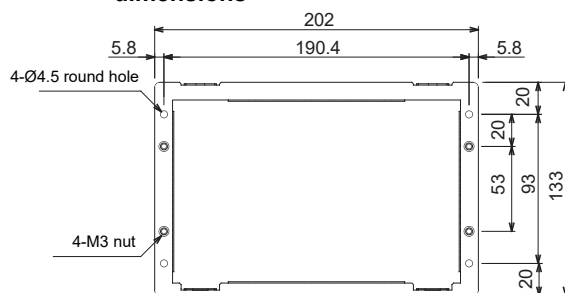


### 3-1-2. When Installing from the Rear

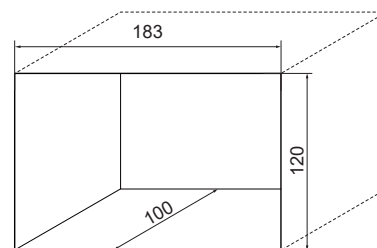


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System controller to wall, etc. fixing hole dimensions



Hole dimensions to drill in wall



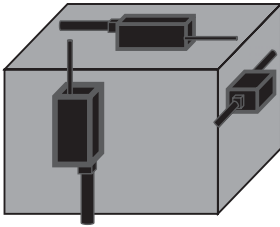
\* Although the panel and the main unit box are separated to explain the screw attachment part in an easy to understand manner, it is not necessary to remove the main unit box from the panel in actual installation work.

- 1** Drill four  $\text{Ø}4$  holes in the switchboard, wall, etc.
- 2** Fit the main unit on the switch board, wall, etc.
- 3** Fix from the rear of the main unit. Please use the supplied  $\text{M}3 \times 8$  screws.
- 4** Connect the central control wiring, AC adapter, and LAN cable to the main unit.
- 5** When installation is completed, peel off the transparent film.

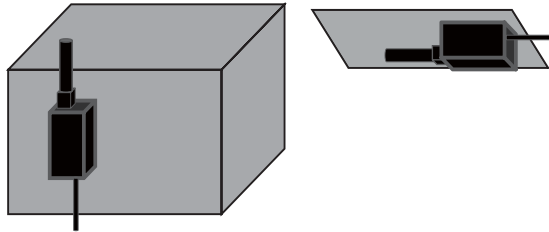
## 3-2. Attaching the Power Adapter

The power adapter can be installed on a flat surface or on a wall. Do not install it in any other orientation. Fix with the attached binding band and double-sided tape.

### Installation allowed



### Installation not allowed



\* Install so that the power cable that connects to 220-240 V AC does not face upward.

### REQUIREMENT

#### Do not install in the following locations.

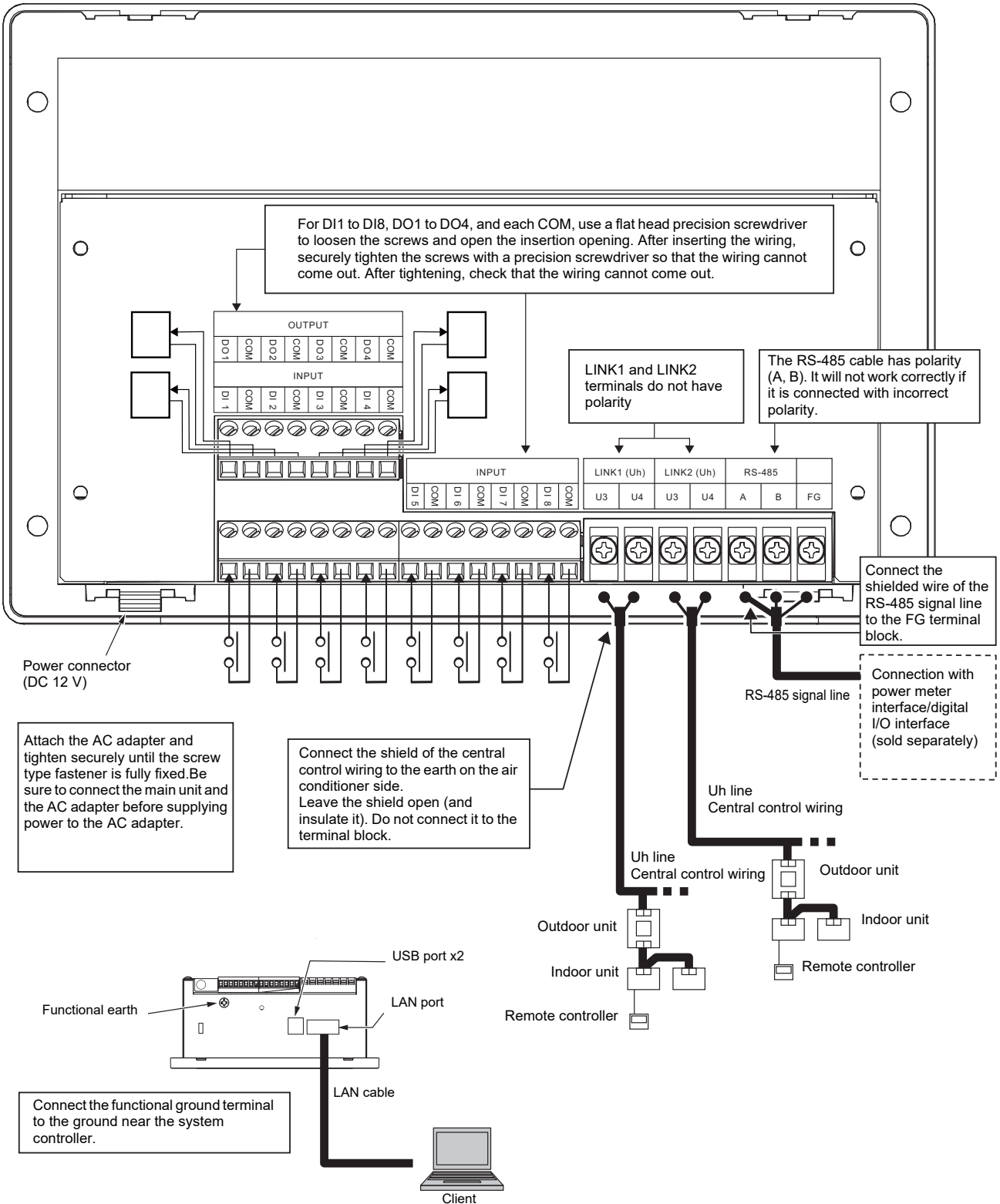
- Locations with high humidity or water
- Dusty locations
- Locations in direct sunlight and locations subject to high temperatures
- Locations within 1 m from televisions or radios
- Outdoors, under awnings, or other locations exposed to rain and dew

### 3-3. Power, Signal, and Earth Line Connections

Connect the power, signal and earth lines to the specified terminal blocks.

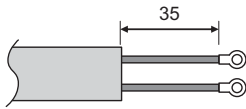
**REQUIREMENT**

Attach round crimp terminals to all LINK 1, LINK 2, and RS-485 wiring, and tighten the screws securely. After tightening, check that the wiring cannot come out.

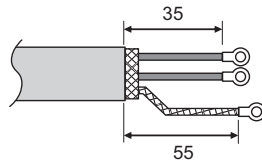


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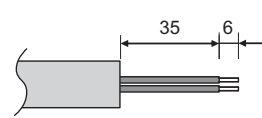
Central control wiring stripping length



RS-485 cable wire stripping length

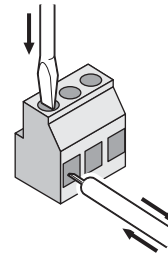
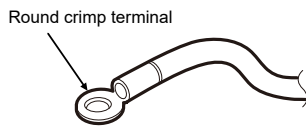


Digital I/O cable stripping length



Attach a round crimp terminal to each wire of the power line and signal line.

Loosen the screws with a screwdriver, insert the digital I/O cable, and tighten the screws securely.



**Termination resistance setting**

- RS-485 termination resistance setting .....Set at both ends of the RS-485 communication line. Set one end at the main unit and the other end at the interface. The termination resistance of the main unit is already set as a factory default. Refer to the interface installation manual to set the termination resistance of the interface.
- LINK termination resistance setting .....For the central control wiring (Uh line), set the two terminating resistors at both ends of the wiring between this Unit and the air conditioner to ON "Close" as much as possible.

**Shield grounding process**

- RS-485 cable wire shielded wire ..... Connect to the FG terminal block.
- Central control wiring shielded wire .....When using the system controller with one unit, open the shielded wire of the central control wiring and perform insulation processing.  
When using the system controller with multiple units, connect the shield of the central control wiring to the closed end and open the shield at the final end of the system controller to perform insulation processing.  
Perform the central control wiring shield grounding on the air conditioner side.

**REQUIREMENT**

- Be sure to install a circuit breaker or all-pole isolating switch (with a contact breaking distance of at least 3 mm) on the primary side of the power supply.
- Fasten the screws to the terminal block with torque of 0.5 N•m.

## ■ Design of Control Wiring

### Communication method and model name

The TU2C-LINK model (U series) can be used together with previous models (other than U series).

For details of the model and communication method, see the following table.

Communication method	TU2C-LINK (U series)	TCC-LINK (other than U series)
Outdoor unit	MMY-MUP <sup>***</sup> ↑ _____ U series model	Other than on the left (MMY-MAP <sup>***</sup> , MUY-MAP <sup>***</sup> , etc.)
Indoor unit	MM*-UP <sup>***</sup> ↑ _____ U series model	Other than on the left (MM*-AP <sup>***</sup> , etc.)
Wired remote controller	RBC-AMSU <sup>**</sup> ↑ _____ U series model	Other than on the left
Wireless remote controller receiver	RBC-AXRU <sup>**</sup> ↑ _____ U series model TCB-AXRU <sup>**</sup> ↑ _____ U series model	Other than on the left
System controller	***_***U <sup>**</sup> ↑ _____ U series model	Other than on the left

U series outdoor units: Super Multi u series (MMY-MUP<sup>\*\*\*</sup>)

Outdoor units other than U series: Super Module Multi i series (MMY-MAP<sup>\*\*\*</sup>), etc.

**When the connected outdoor unit is Super Multi u series (U series)**

Follow the wiring specifications in the table below even when there is a mix of U series and non-U series in the connected indoor units or remote controllers.

**Wiring specifications**

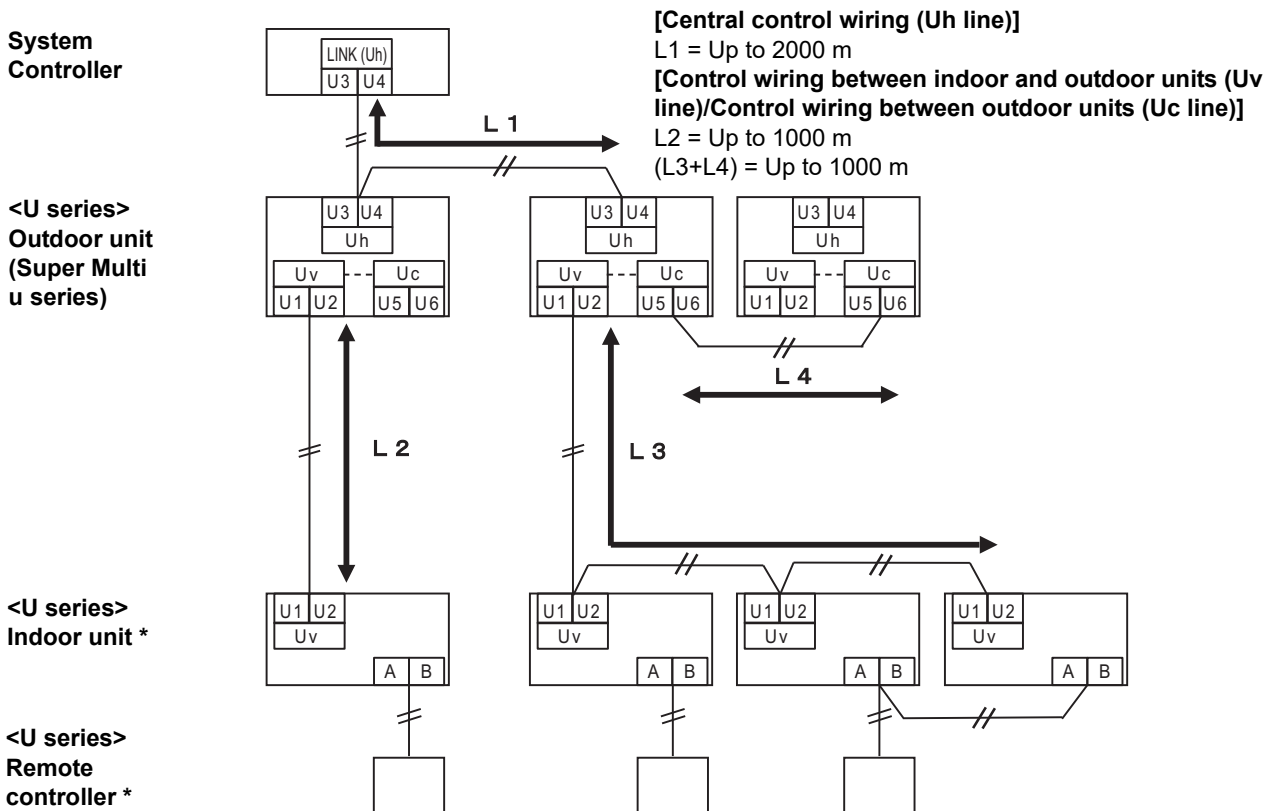
Item	Communication line
	Central control wiring (Uh line)
Wire diameter *	1.0 to 1.5 mm <sup>2</sup> (up to 1000 m)
	2.0 mm <sup>2</sup> (up to 2000 m)
Wire type	2-core, non-polar
Wire types that can be used	Shielded wire

\* For wiring size described as X to Y mm<sup>2</sup>, use a size within that range. For other cases, it is the minimum size.

**REQUIREMENT**

When wiring the control wiring between indoor and outdoor units (Uv line)/control wiring between outdoor units (Uc line) and the central control wiring (Uh line), use the same wire type and diameter for each line. Using a mixture of different wire types and diameters may cause a communication error.

**System diagram**



\* The wiring specifications in the system diagram above are the same even when the indoor unit or remote controller are other than the U series.

**When the connected outdoor units are other than Super Multi u series (U series)**

**Wiring specifications**

Item	Communication line
	Control wiring between indoor and outdoor units and central control wiring
Wire diameter *	1.25 mm <sup>2</sup> (up to 1000 m)
	2.0 mm <sup>2</sup> (up to 2000 m)
Wire type	2-core, non-polar
Wire types that can be used	Shielded wire

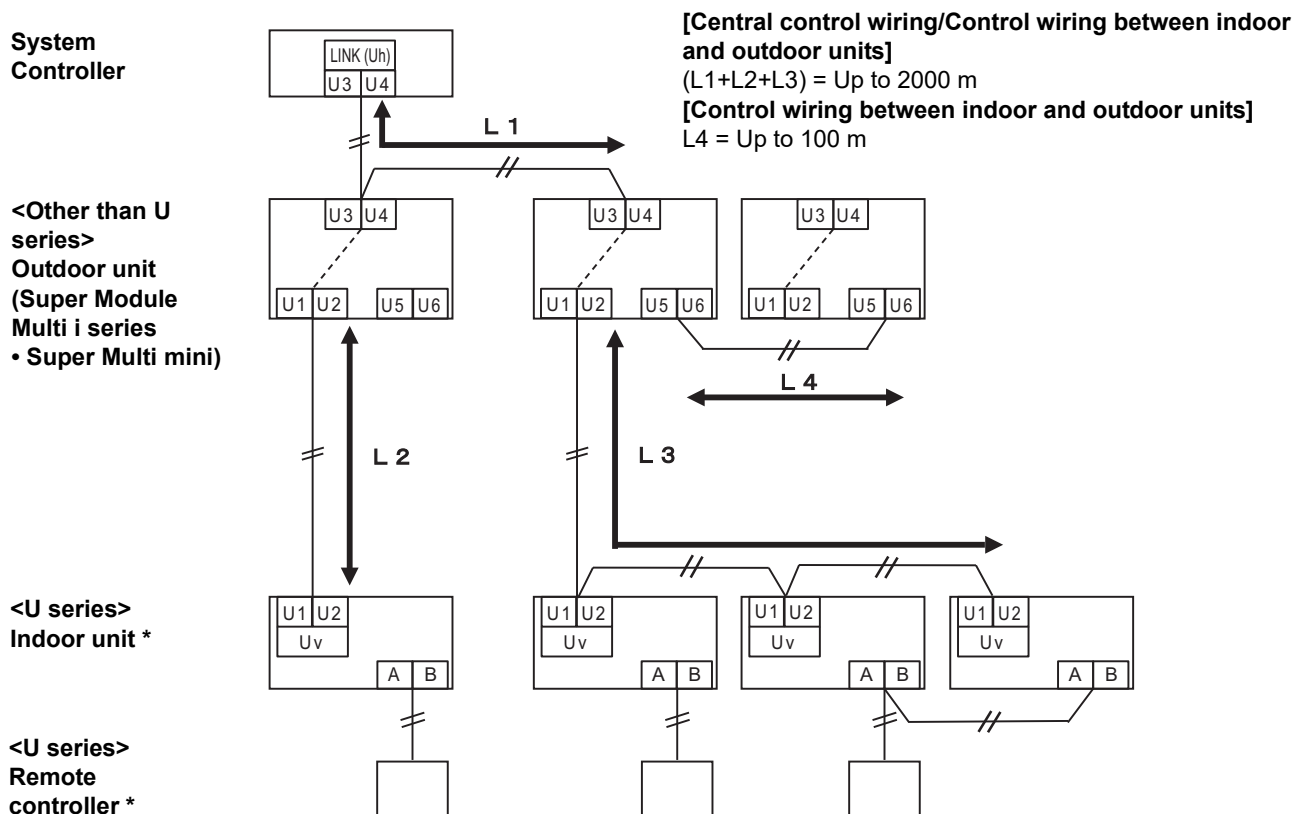
\* For wiring size described as X to Y mm<sup>2</sup>, use a size within that range. For other cases, it is the minimum size.

**REQUIREMENT**

When wiring the control wiring between indoor and outdoor units/central control wiring and the control wiring between outdoor units, use the same wire type and diameter for each line.  
Using a mixture of different wire types and diameters may cause a communication error.

**System diagram**

EN



\* The wiring specifications in the system diagram above are the same even when the indoor unit or remote controller are other than the U series.

**When connecting to a previous model custom air conditioner, air to air heat exchanger, or general purpose equipment control interface**

Follow the wiring specifications in the table below even when there is a mix of U series and non-U series in the connected indoor units or remote controllers.

**Wiring specifications**

Item	Communication line
	Central control wiring (Uh line)
Wire diameter *	1.25 mm <sup>2</sup> (up to 1000 m)
	2.0 mm <sup>2</sup> (up to 2000 m)
Wire type	2-core, non-polar
Wire types that can be used	Shielded wire

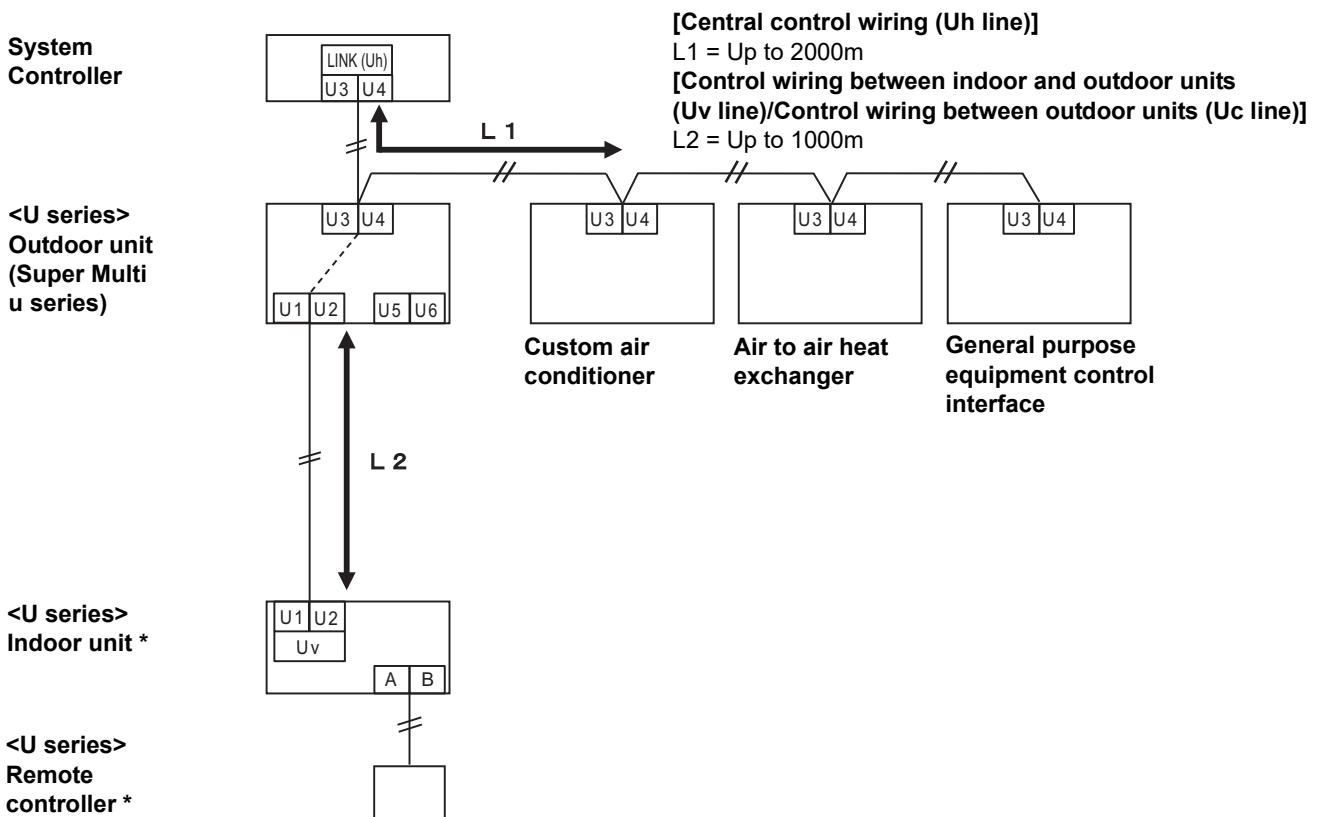
\* For wiring size described as X to Y mm<sup>2</sup>, use a size within that range. For other cases, it is the minimum size.

**REQUIREMENT**

When wiring the control wiring between indoor and outdoor units (Uv line)/control wiring between outdoor units (Uc line) and the central control wiring (Uh line), use the same wire type and diameter for each line.

Using a mixture of different wire types and diameters may cause a communication error.

**System diagram**



\* The wiring specifications in the system diagram above are the same even when the indoor unit or remote controller are other than the U series.



### ■ Connection to External Devices

Example of connection to external equipment which is connected to digital input/output terminal.

Name	I/O Item	System controller side		External device side		
		I/O conditions	Terminal name	Circuit example	I/O conditions	
DO1 Output common	State output	Contact permissible voltage/current 24 V DC/35 mA	DO1			Wiring length: Within 100 m
DO2 Output common			DO2			
DO3 Output common			DO3			
DO4 Output common			DO4			
DI1 Input common	Control input	No-voltage contact A Pulse or static  * No-voltage contacts compatible with very small current should be selected 5 V DC/3 mA	DI1			Pulse width: 50 msec or more  Wiring length: Within 100 m
DI2 Input common			DI2			
DI3 Input common			DI3			
DI4 Input common			DI4			
DI5 Input common			DI5			
DI6 Input common			DI6			
DI7 Input common			DI7			
DI8 Input common			DI8			

- \* Wire the cables so that the user does not touch the power supply directly.
- \* On the external device side, use a basically insulated power circuit and place it in a location where the user cannot touch it.

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## ■ Wiring connections

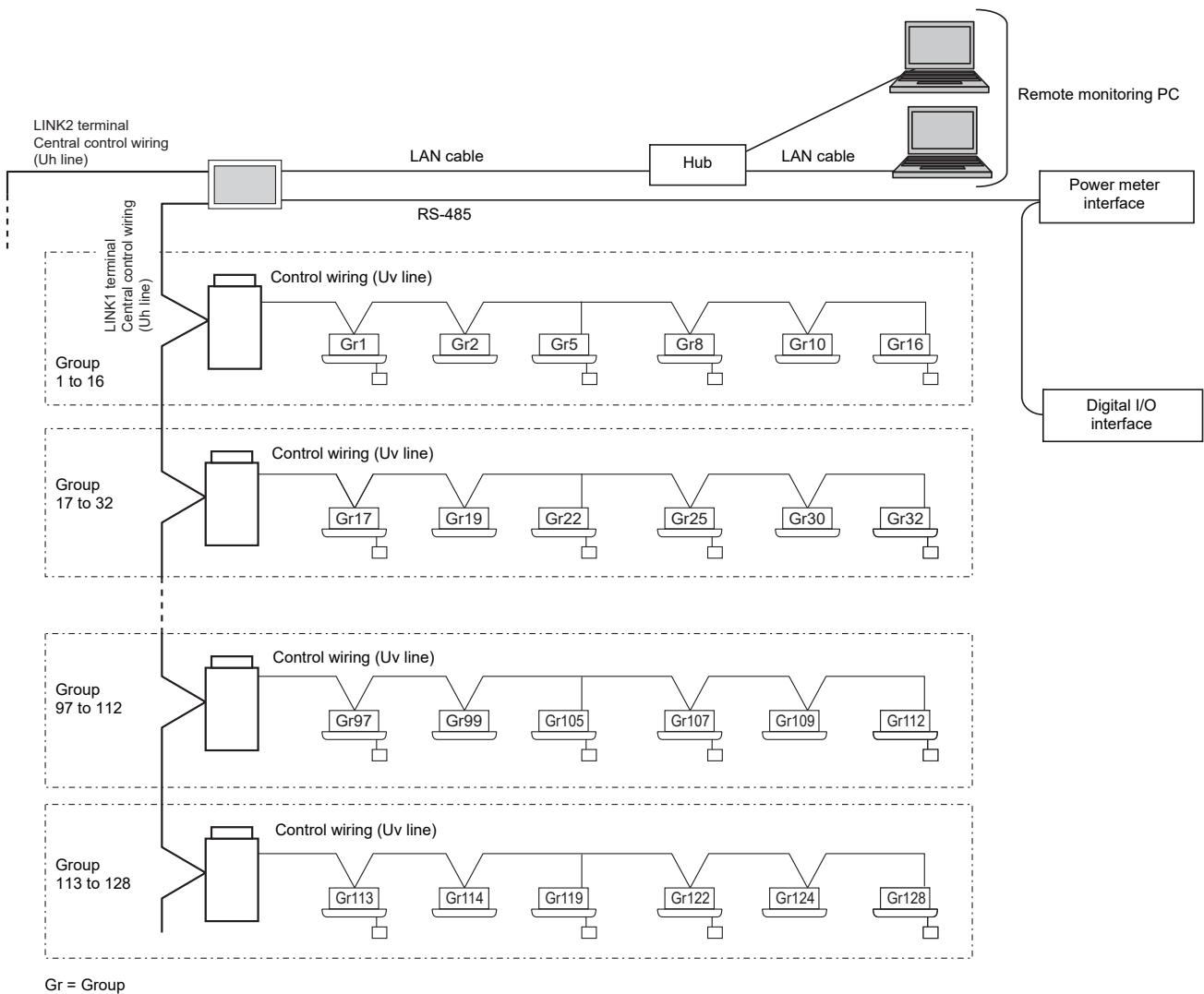
This section shows wiring connection examples with the indoor units, power meter interface, digital I/O interface, and remote monitoring PC.

### Air conditioning unit group settings

- Indoor units can be set together for each group unit.
- Groups 1 to 64 correspond to the central control addresses 1 to 64 of the indoor units.
- The central control wiring has two communication lines, LINK1 terminal and LINK2 terminal. There are 128 groups in each communication line, and there are 256 groups and 256 zones together.

### Interface connection

Connect the power meter interface and the digital I/O interface to the RS-485 cable line. For details of the connection method refer to the interface installation manual.



### NOTE

When you remove the rear panel of this Unit, there is SW100 which is the termination resistance between LINK1 and LINK2 terminals.  
 For the central control wiring (Uh line), set the two terminating resistors at both ends of the wiring between this Unit and the air conditioner to ON "Close" as much as possible.

# **Owner's Manual**

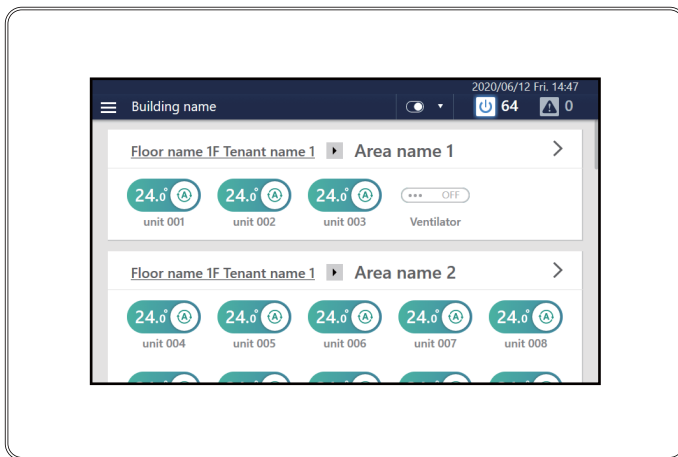
For commercial use

# Touch Screen Controller

## Model Name

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**BMS-CT2560U-E**  
**(BMS-CT1280TU)**  
**(BMS-CT2560U-TR)**  
**(BMS-CT2560U-UL)**



- Thank you for purchasing this System Controller.
- In order to use this product safely and correctly, please read this operation manual carefully before use and make sure that you fully understand the contents.  
In particular, please be sure to read the "Safety Precautions".
- After reading this manual, be sure to keep it in a place where the operator of the Unit can always view it.

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# 1 Quick Start Guide

## Basic Usage

To start/stop the air conditioner(s)		→ "Start/Stop Operation" (P.29)
To change the set temperature		→ "Change the Air Conditioning Settings" (P.32)
To change the Mode (Cool/Heat/Auto/Dry/Fan)		→ "Change the Air Conditioning Settings" (P.32)
To check whether you have forgotten to turn off the air conditioner(s)	Batch ON/OFF screen	→ "Monitor the Overall Air Conditioning System" (P.43)
To check for current malfunctions	Check code screen	→ "Monitor the Overall Air Conditioning System" (P.43)





## Advanced Usage Please use the following functions as necessary.

To set start/stop timer		→ "Set the Operation Schedule" (P.37)
To configure and confirm the energy saving settings	Return Back	→ "Configure and confirm the Return Back settings" (P.50)
	Eco Temperature Shift	→ "Change to energy saving temperature" (P.51)
	Change Temperature Range	→ "Set the temperature change range" (P.51)
	Save Mode	→ "Control air conditioner power" (P.50)
	Schedule settings	→ "Set the Operation Schedule" (P.37)
	Power peak cut schedule	→ "Set demand control schedule of outdoor unit" (P.65)
To operate the Total Heat Exchange Unit		→ "Turn ON/OFF the ventilation function" (P.48)
To cancel the FILTER Sign after filter cleaning		→ "Erase FILTER Sign" (P.49)
To connect to a PC that has energy report software installed and display the energy usage and power usage report	Connect to a PC that has energy report software installed and display the energy usage	→ "Setting when Using Energy Report Software" (P.28)
	IP Address Setting	→ "Set the IP address of the Touch Screen Controller" (P.75)
	Output to USB memory	→ "Output data to a USB memory stick" (P.68)
	Connect to a PC that has energy report software installed and display the power usage report	→ "Power Distribution System Using the Energy Report Software (PC Software)" (P.86)
To output the daily and monthly report files, the check code files, and the setup files by USB		→ "Output data to a USB memory stick" (P.68)

# 2 Safety Precautions

This section explains safety precautions you must follow in order to prevent harm to the user and other persons and damage to property.



"Display Description" explains the classification of the degree of harm or damage that may occur if the unit is handled incorrectly, while "Symbol Description" indicates the meanings of symbols.

Display Description	Symbol Description
 <b>WARNING</b> Indicates "Content that is expected to result in death or serious injury (*1) to the user in the case of incorrect handling".	 ⊘ indicates prohibited actions. Specifically prohibited contents are indicated with a picture and/or text in or near the symbol.
 <b>CAUTION</b> Indicates "Content that is expected to result in minor injury (*2) to the user or damage to property (*3) in the case of incorrect handling".	 ● indicates instructions which must be followed. The actual contents of the instructions are indicated with a picture and/or text in or near the symbol.





\* 1: Serious injury refers to lasting after effects such as blindness, injury, burns (high temperature / low temperature), electric shock, bone fracture, or poisoning, etc. and injuries that require hospitalization/long-term outpatient treatment.  
 \* 2: Minor injury refers to injuries, burns, or electric shocks, etc. that do not require hospitalization or long-term outpatient treatment.  
 \* 3: Damage to property refers to extended damage related to houses, household goods, livestock, or pets, etc.

## ⚠ WARNING




### Installation Precautions

 Request installation <b>Ask the dealer from whom you purchased the unit or a professional for installation work.</b> Installation requires specialised technical expertise. If you attempt to perform installation work yourself and perform the work incorrectly, it may cause fire, electric shock, or injury.	 Use specified products <b>Use a designated TOSHIBA air conditioner.</b> Please use a designated TOSHIBA air conditioner. Using products other than specified may cause fire, electric shock, or water leakage. Also, please ask a professional for installation work.
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### Usage Precautions






 Prohibited <b>Do not operate the switches with wet hands.</b> Doing so may cause electric shock or failure.	 Prohibited <b>Do not wet the System Controller.</b> Please be careful not to get the System Controller wet.
 Compulsory <b>Turn off the power if anything is abnormal (burnt odour etc.).</b> Continued use may cause fire or electric shock. Please ask the dealer from whom you purchased the product.	 Compulsory <b>Do not use a power source other than the specified model.</b> Using a power source other than the specified model may cause fire or failure. Please use 220-240 V AC.

### Relocation/Repair Precautions




 Prohibited <b>Do not remodel.</b> Doing so may cause fire or electric shock.	 Request <b>Please ask the dealer from whom you purchased the unit for repair.</b> Faulty repair may cause fire or electric shock.
 Request relocation <b>Contact a specialist or the dealer from whom you purchased the unit to relocate and re-install the air conditioner.</b> Faulty installation may cause fire, electric shock or injury.	

**⚠ CAUTION**


**Installation Precautions**

 Check the installation location	<p><b>Do not install in areas with high humidity or vibration.</b>                  Doing so may cause a failure.</p>	 Check the installation location	<p><b>Do not install in direct sunlight or near heat sources.</b>                  Doing so may cause a failure.</p>
 Check the installation location	<p><b>Do not install in areas where noise is generated.</b>                  Doing so may cause malfunction.</p>	 Check the installation location	<p><b>Do not install this product in a place where combustible gas may leak.</b>                  Gas leaking and accumulating around the product may cause a fire.</p>
 Check the installation location	<p><b>Do not use this device in locations where children may be present.</b></p>		

**Usage Precautions**

 Prohibited	<p><b>Do not drop the product or apply strong shock.</b>                  Doing so may cause a failure.</p>	 If anything is abnormal turn off the power	<p><b>If this product malfunctions, turn off the original power supply, and then contact the dealer from whom you purchased the product to ask for repair.</b>                  Continued operation with an abnormality may cause fire or electric shock.</p>
 Instructions	<p><b>When cleaning and checking, turn off the earth leakage breaker.</b>                  Failing to do so may cause injury.</p>		

**Precautions on Connection to External Devices**

 Prohibited	<p><b>Do not connect the System Controller to the Internet.</b>                  Never connect it. We shall assume no responsibility for any problems arising from the connection. Only a connection to the local area is possible.</p>
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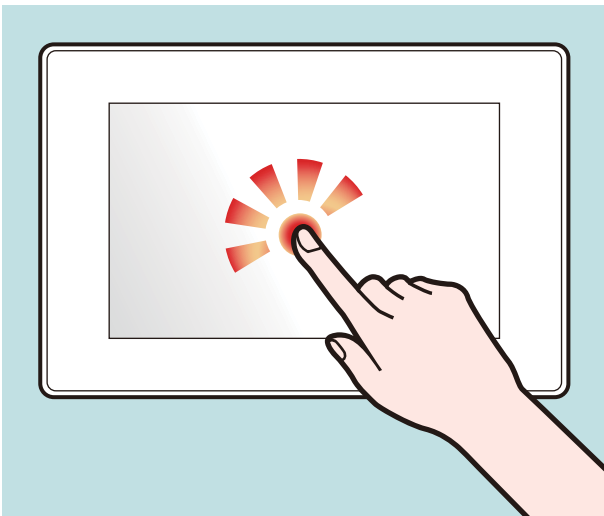
# 3 Operating Method and Screen Structure

## Touch Panel Operation Method

Explains the basic touch panel operation method.

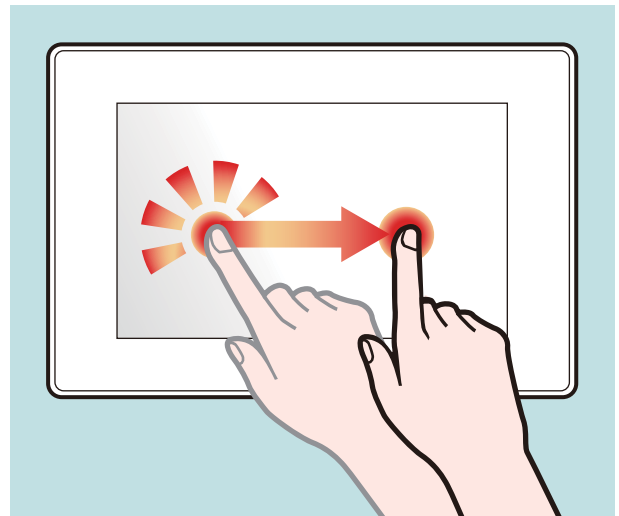
### **Tap**

Touch your finger lightly on the screen and release it immediately.



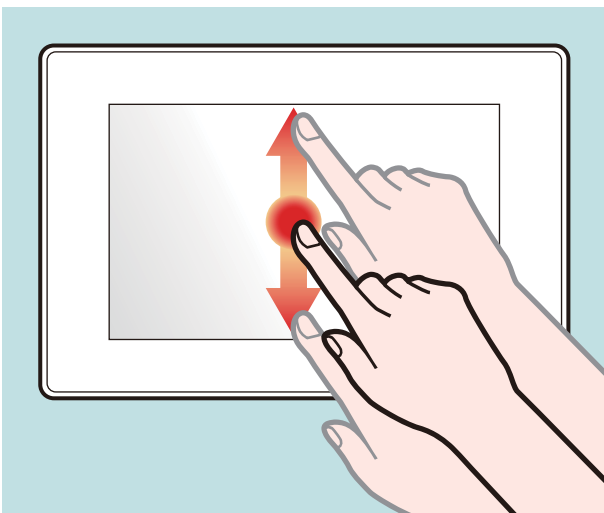
### **Drag**

Tap an object on the screen, hold your finger down, and move.



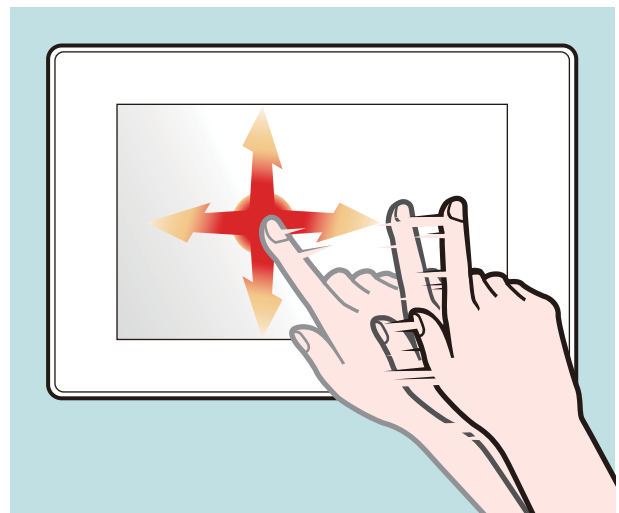
### **Swipe**

Touch your finger lightly on the screen and move it in the desired direction.



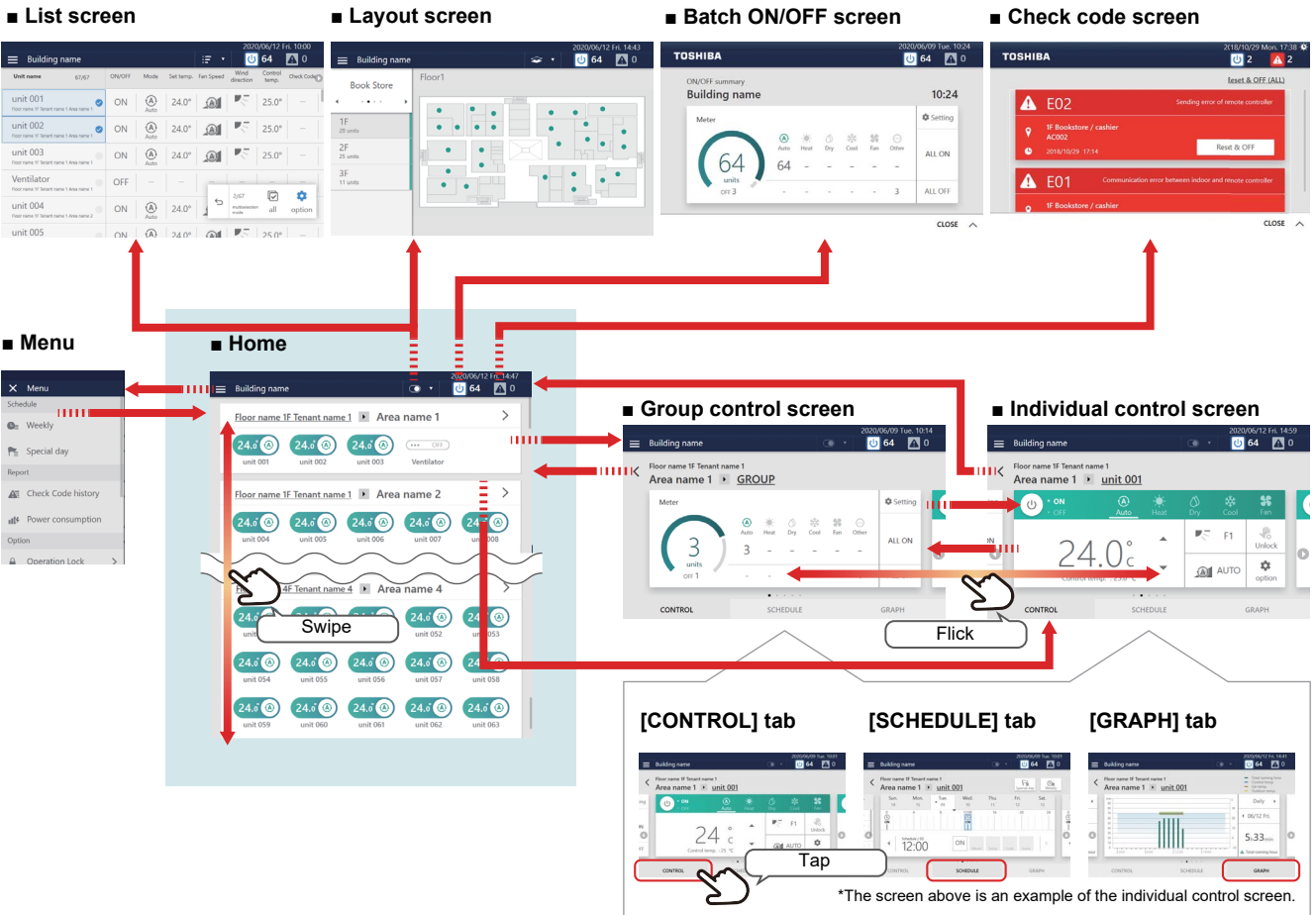
### **Flick**

Touch the screen with your finger and move your finger quickly up, down, to left or the right.



# Screen Structure

The main screen structures used by this Unit are as follows. The screen can be switched by tapping (or flicking in some cases).



Each screen shows a display example. The display content may vary with the usage environment settings.

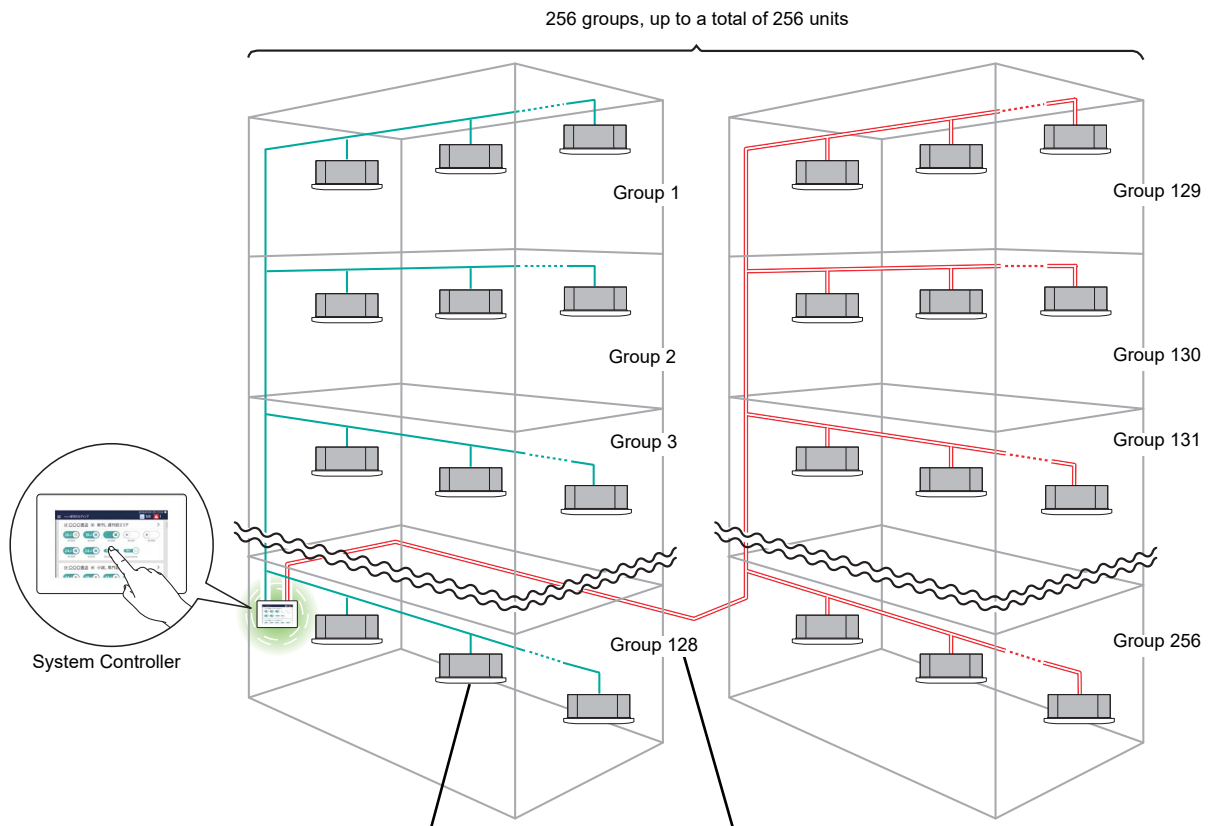
Home screen	You can check the operation status of the air conditioner(s) and ON/OFF unit in a list. You can also start/stop individual operation. (P.13)	
List screen	You can check the operation status of the air conditioner(s) and ON/OFF equipment in a list. You can start and stop operation and configure the basic settings. (P.16)	
Layout screen	You can check the operation status of the air conditioner(s) and ON/OFF equipment in a layout. You can also start and stop individual operations. (P.18)	
Group screen	You can check/change the settings in group units. The group screen consists of three tabs: "CONTROL", "SCHEDULE" and "GRAPH". (P.20)	
Individual control screen	You can check/change the settings of the air conditioner(s) and ON/OFF unit individually. The individual control screen consists of three tabs: "CONTROL", "SCHEDULE" and "GRAPH". (P.22)	
Batch ON/OFF screen	You can check the operation status of the whole air conditioning system numerically. You can also start/stop the operation of the whole air conditioning system and configure the detailed settings. (P.43)	
Check code screen	You can confirm check codes that are occurring in the whole air conditioning system in a list. (P.43)	
[CONTROL] tab	You can check the detailed operation status. You can change the settings such as ON/OFF. (P.29)	
[SCHEDULE] tab	You can control the Weekly schedule and the Special day schedule. (P.39)	
[GRAPH] tab	Group screen	You can check the operation time in group units. (P.59)
	Individual control screen	You can check the operation time in air conditioner or ON/OFF unit in units. (P.59)
Menu	You can configure settings for administrators such as screen display change and demand control. (P.61)	

# 4 Before Usage

## Air Conditioning System Configurations

The system configurations that this Unit can control are as follows:

<b>All</b>
Set all air conditioners at once.




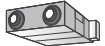

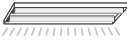

<b>Unit</b>
Set the air conditioners individually.

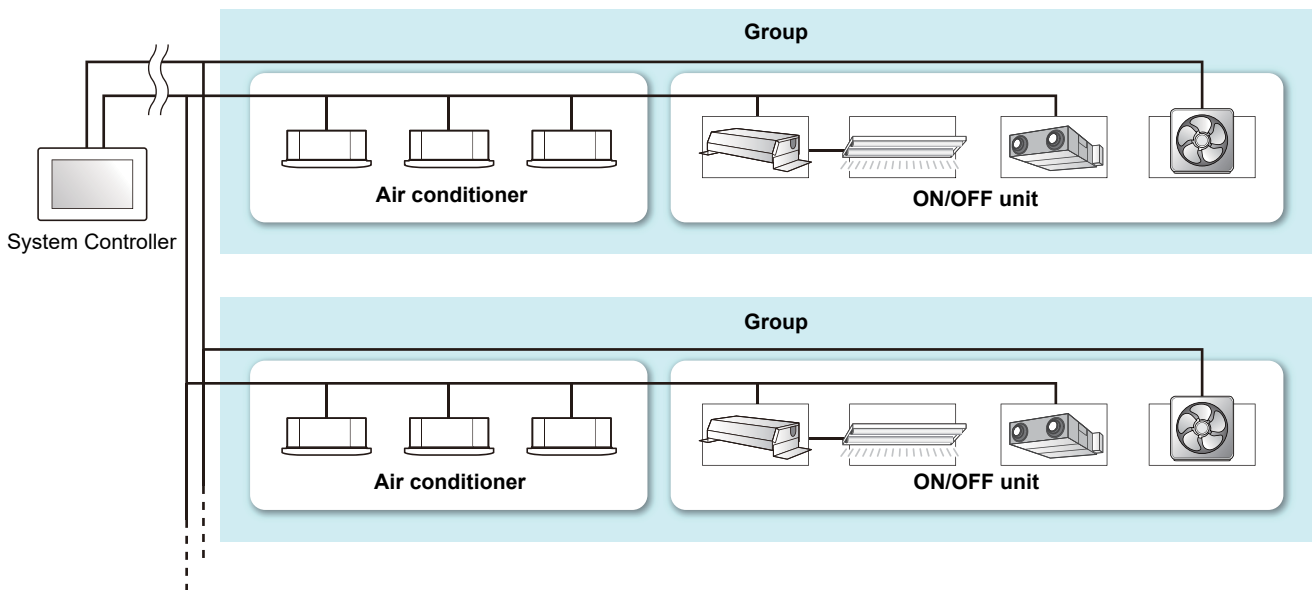
<b>Group</b>
All air conditioners and ON/OFF unit are divided into 1 to 256 groups, and settings are configured for each group at once.

- There are three units that can be controlled: All, Group, and Unit.
- The maximum number of groups (Floor, Tenant, and Area combinations) that can be controlled is 256.
- The maximum number of units (air conditioners and ON/OFF units) that can be controlled is 256 for air conditioners and 60 for ON/OFF units.\*
- \* The maximum number of air conditioners may change depending on the model combination.

## Control Target Devices

In this Unit, the following devices can be controlled and monitored.

Device names shown in this manual	Target devices	
<p>Air conditioner</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">                     You can set air conditioning and heating operation                 </div> <p>(256 units)</p>	<ul style="list-style-type: none"> <li>• Multi air conditioners for buildings (Ceiling cassette, ceiling embedded, ceiling hanging, air to air heat exchanger with coil, etc.)</li> <li>• Custom air conditioners for stores and offices</li> <li>• Package air conditioners for facilities</li> <li>• Hot Water Module (* For use outside Japan only)</li> <li>• DX-Coil Interface TA type (* For use outside Japan only)</li> </ul>	
<p>ON/OFF unit</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;">                     You cannot set air conditioning or heating operation (Operation can be turned ON/OFF.)                 </div> <p>(60 units)</p>	<ul style="list-style-type: none"> <li>• Air to Air Heat Exchanger</li> <li>• General purpose device control interface</li> <li>• External device (DI/DO) (Air to Air Heat Exchanger, Lighting, Ventilation fan, etc.)</li> </ul>	   



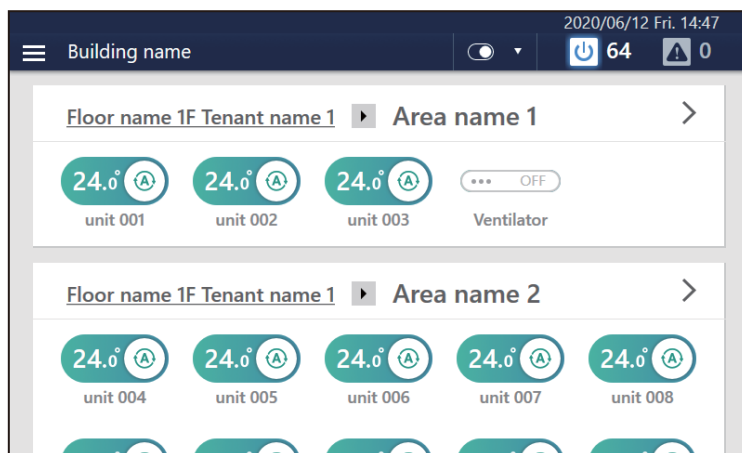
## About the Main Screens

This section explains the home screen, list screen, layout screen, and the [CONTROL] tabs of the group screen and the individual control screen.

**NOTE**

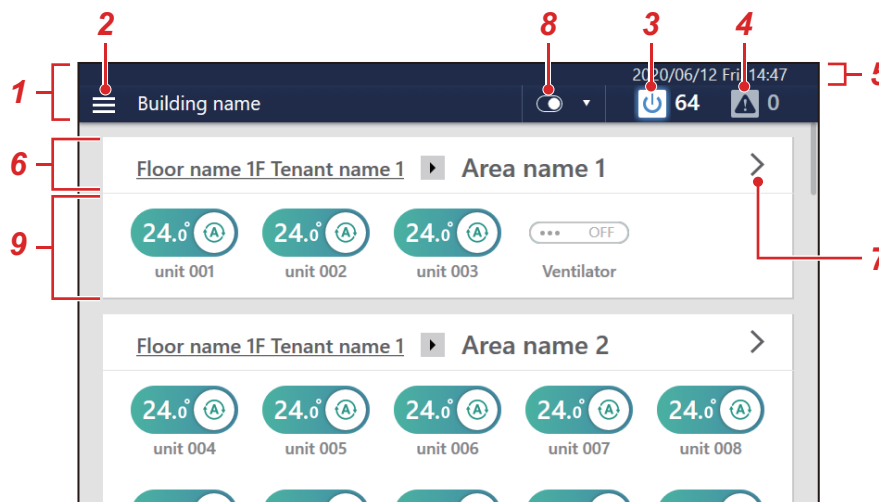
Depending on the language settings and the theme settings, the screen languages and display colours differ. The screens shown in the manual use the "English" display setting and the "Type A" theme setting. For details of the display settings, refer to "Set the screen display" (P.70) and for details of the theme settings, refer to "Set the screen theme" (P.71).

### Home (switch screen)

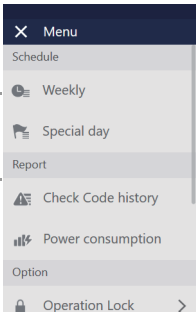
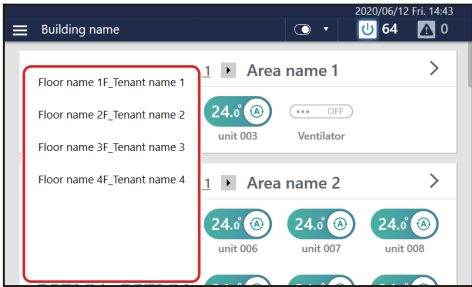















































### Screen description

Switches for all air conditioners and ON/OFF unit are displayed for each group. You can change the group displayed by scrolling the screen.





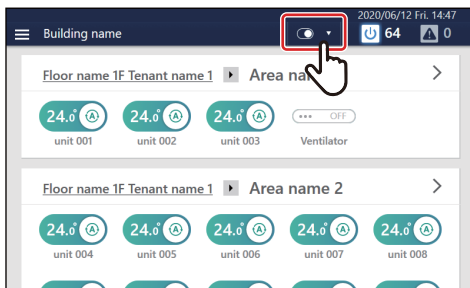
No.	Name (Icon)	Functions										
1	Header area	It is displayed even on screens other than the home screen. The operation content is common to each screen.										
2	Menu button (☰)	<p>Tap to display the menu. You can display various reports and detailed settings for the Unit.</p> <p><b>NOTE</b></p> <p>The display content of the menu may partially differ depending on the conditions.</p> 										
3	ON/OFF meter button (⏻/⏿)	Tap to display the batch ON/OFF screen. (P.43) Lights up when there is an air conditioner or ON/OFF unit in operation.										
4	Check Code button (⚠️/⚠️)	Lights up red when a malfunction has been detected. (P.43) Tap to display the check code screen.										
5	Status display section	<p>Displays the current date and time. Also, the following will be displayed depending on the status and settings of the air conditioning system.</p> <table border="1"> <tr> <td></td> <td>Displays when a demand signal is detected.</td> </tr> <tr> <td></td> <td>Displays during demand control of an outdoor unit. (P.65)</td> </tr> <tr> <td></td> <td>Displays when you operate remotely from a computer. (P.84)</td> </tr> <tr> <td></td> <td>Displays while outputting data to a USB memory stick. (P.68)</td> </tr> <tr> <td></td> <td>Displays when the daylight saving time (summer time) setting is ON. (P.70)</td> </tr> </table>		Displays when a demand signal is detected.		Displays during demand control of an outdoor unit. (P.65)		Displays when you operate remotely from a computer. (P.84)		Displays while outputting data to a USB memory stick. (P.68)		Displays when the daylight saving time (summer time) setting is ON. (P.70)
	Displays when a demand signal is detected.											
	Displays during demand control of an outdoor unit. (P.65)											
	Displays when you operate remotely from a computer. (P.84)											
	Displays while outputting data to a USB memory stick. (P.68)											
	Displays when the daylight saving time (summer time) setting is ON. (P.70)											
6	Group name display section	<p>Displays the name of the group that displays the switch (the name of the group to which the displayed switch belongs). Tap the underlined name in the group name to display the drop-down menu. You can jump to other groups.</p> 										
7	FORWARD button ( > )	Tap to display the group screen. (P.20)										
8	Screen switching button	Switches the display between the home screen (switch screen), list screen, and layout screen.										

No.	Name (Icon)	Functions																				
9	Switch	<p>The air conditioner or ON/OFF unit switch registered in each group is displayed, and the name is displayed below the switch.</p> <table border="1"> <tr> <td data-bbox="643 349 788 640">  </td> <td data-bbox="788 349 1457 640"> <p>Displays the operation status of the air conditioner(s).   means operating state. The set temperature is displayed on the left and the operation mode is displayed on the right. Drag or flick  to the left to stop the operation.   is the stopped state. Only the set operation mode is displayed. Drag or flick  to the right to start the operation.                      Tap the overall switch to switch to the [CONTROL] tab on the individual control screen. (P.22)</p> </td> </tr> <tr> <td data-bbox="643 640 788 779">  </td> <td data-bbox="788 640 1457 779"> <p>Displays the operating condition of the air conditioner.                      Operation of the air conditioner(s) is locked. (P.63)</p> </td> </tr> <tr> <td data-bbox="643 779 788 875">  </td> <td data-bbox="788 779 1457 875"> <p>A malfunction in progress. Tap to switch to the [CONTROL] tab on the individual control screen and check the details of the check code. (P.24)</p> </td> </tr> <tr> <td data-bbox="643 875 788 949">  </td> <td data-bbox="788 875 1457 949"> <p>Operation is impossible due to power outage (hibernation state).</p> </td> </tr> <tr> <td data-bbox="643 949 788 1070">  </td> <td data-bbox="788 949 1457 1070"> <p>Displays the operation status of the ON/OFF unit.                      Drag  left or right to change the operation status.</p> </td> </tr> <tr> <td data-bbox="643 1070 788 1169">  </td> <td data-bbox="788 1070 1457 1169"> <p>Displays the operation status of the ON/OFF unit.                      The operation status cannot be changed.                      The Unit is locked or output control cannot be performed.</p> </td> </tr> <tr> <td data-bbox="643 1169 788 1267">  </td> <td data-bbox="788 1169 1457 1267"> <p>Displayed when the FILTER Sign appears.</p> </td> </tr> <tr> <td data-bbox="643 1267 788 1364">  </td> <td data-bbox="788 1267 1457 1364"> <p>Displayed during operation preparation.</p> </td> </tr> <tr> <td data-bbox="643 1364 788 1462">  </td> <td data-bbox="788 1364 1457 1462"> <p>Displayed during heating preparation.</p> </td> </tr> <tr> <td data-bbox="643 1462 788 1561">  </td> <td data-bbox="788 1462 1457 1561"> <p>Displayed when the output of the air conditioner is limited.</p> </td> </tr> </table>		<p>Displays the operation status of the air conditioner(s).   means operating state. The set temperature is displayed on the left and the operation mode is displayed on the right. Drag or flick  to the left to stop the operation.   is the stopped state. Only the set operation mode is displayed. Drag or flick  to the right to start the operation.                      Tap the overall switch to switch to the [CONTROL] tab on the individual control screen. (P.22)</p>		<p>Displays the operating condition of the air conditioner.                      Operation of the air conditioner(s) is locked. (P.63)</p>		<p>A malfunction in progress. Tap to switch to the [CONTROL] tab on the individual control screen and check the details of the check code. (P.24)</p>		<p>Operation is impossible due to power outage (hibernation state).</p>		<p>Displays the operation status of the ON/OFF unit.                      Drag  left or right to change the operation status.</p>		<p>Displays the operation status of the ON/OFF unit.                      The operation status cannot be changed.                      The Unit is locked or output control cannot be performed.</p>		<p>Displayed when the FILTER Sign appears.</p>		<p>Displayed during operation preparation.</p>		<p>Displayed during heating preparation.</p>		<p>Displayed when the output of the air conditioner is limited.</p>
	<p>Displays the operation status of the air conditioner(s).   means operating state. The set temperature is displayed on the left and the operation mode is displayed on the right. Drag or flick  to the left to stop the operation.   is the stopped state. Only the set operation mode is displayed. Drag or flick  to the right to start the operation.                      Tap the overall switch to switch to the [CONTROL] tab on the individual control screen. (P.22)</p>																					
	<p>Displays the operating condition of the air conditioner.                      Operation of the air conditioner(s) is locked. (P.63)</p>																					
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	<p>Operation is impossible due to power outage (hibernation state).</p>																					
	<p>Displays the operation status of the ON/OFF unit.                      Drag  left or right to change the operation status.</p>																					
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	<p>Displayed during heating preparation.</p>																					
	<p>Displayed when the output of the air conditioner is limited.</p>																					

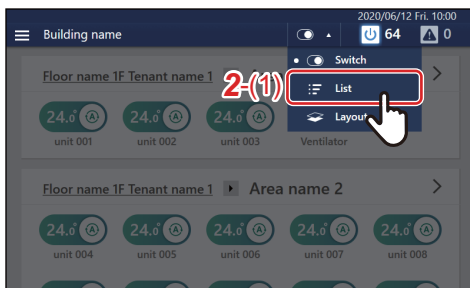
List screen

Building name		2020/06/12 Fri. 09:59	64	0				
Unit name	67/67	ON/OFF	Mode	Set temp.	Fan Speed	Wind direction	Control temp.	Check Code
unit 001 Floor name 1F Tenant name 1 Area name 1		ON	Auto	24.0°			25.0°	—
unit 002 Floor name 1F Tenant name 1 Area name 1		ON	Auto	24.0°			25.0°	—
unit 003 Floor name 1F Tenant name 1 Area name 1		ON	Auto	24.0°			25.0°	—
Ventilator Floor name 1F Tenant name 1 Area name 1		OFF	—	—	—	—	—	—
unit 004 Floor name 1F Tenant name 1 Area name 2		ON	Auto	24.0°			25.0°	—
unit 005		ON	Auto	24.0°			25.0°	—

How to display the screen

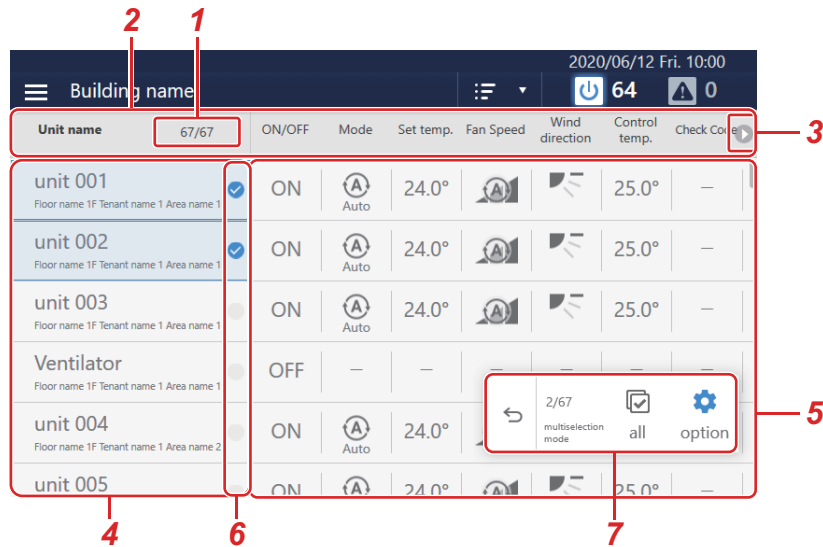


- 1 From the home screen, tap . A pulldown menu appears.



- 2 Tap [2-(1)]. The list screen appears.

**Screen description**

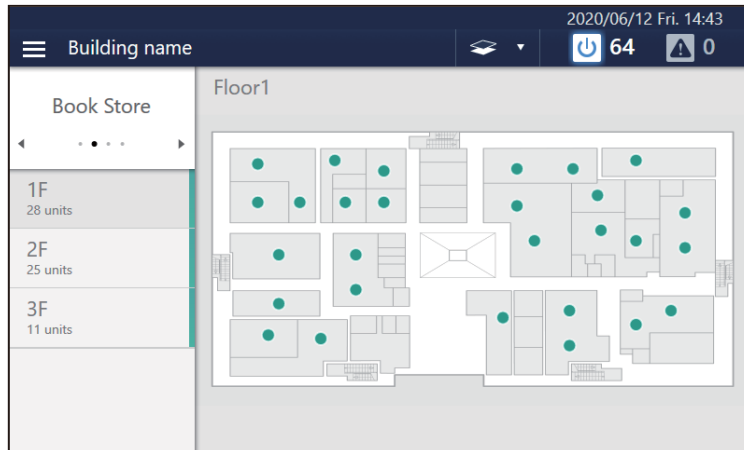


No.	Name (Icon)	Functions
1	Filter button	Tap to display the unit selection screen. You can select the units to display on the unit selection screen.
2	List title	Displays the title of each list. Tap the title to sort the items in ascending order. Tap it again to sort the items in descending order.
3	Display switching button	Moves you to the right page to display the hidden list items.
4	Unit name list	Displays unit names. Under a unit name, group name of that unit is displayed.
5	Unit status list	Displays the status of each unit on a display item-by-display item basis. For an item without a function, a "-" is displayed.
6	Check box for collective setting	Enables you to select a unit subject to collective setting. Each time you tap it, the unit is selected/deselected.
7	Multiselection mode	Displayed if you select the check box for collective setting, so that you can set multiple units. If you tap another check box for collective setting while multiselection mode is displayed, the unit(s) will be added to the units subject to collective setting.  multiselection mode: Displays the number of selected units. all: Each time you tap it, all the units in the group are selected or deselected. option: Opens the collective setting change screen. ↩ : Exits multiselection mode.

## Layout screen


**NOTE**

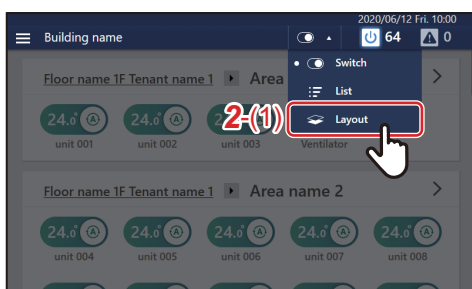
- This function is displayed only when the layout screen is registered.
- For details on how to configure the layout screen, refer to the Operating Instructions of the Section Configuration Software.



### How to display the screen

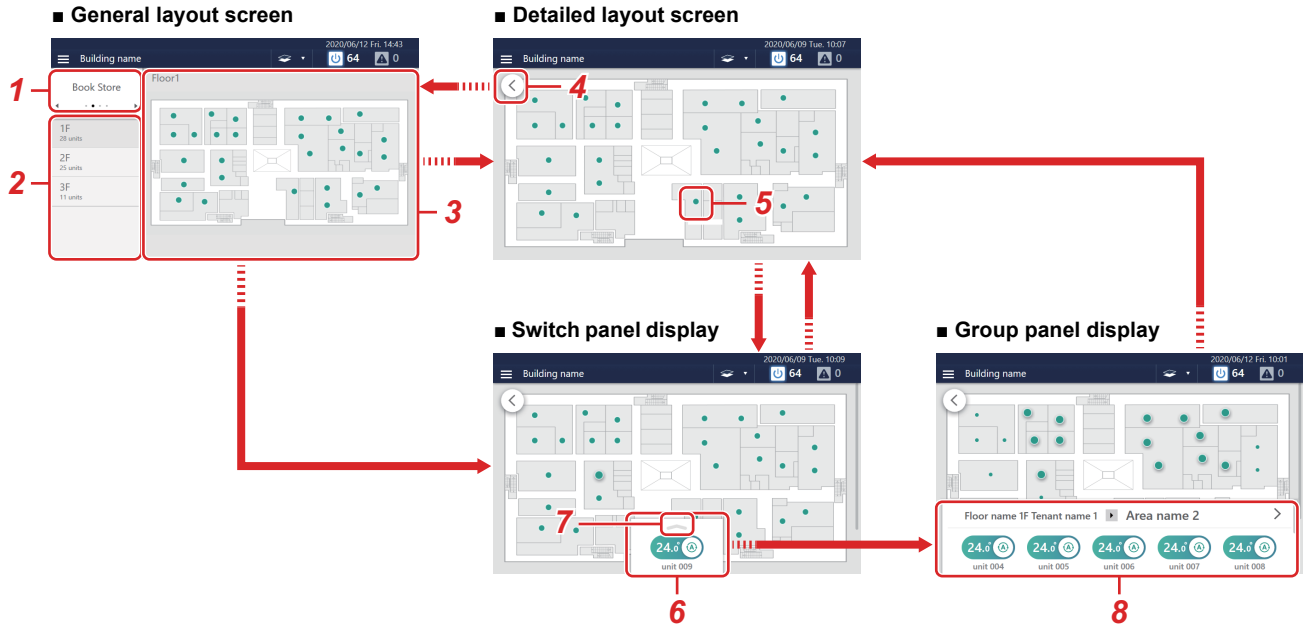


- 1 From the home screen, tap **  
A pulldown menu appears.



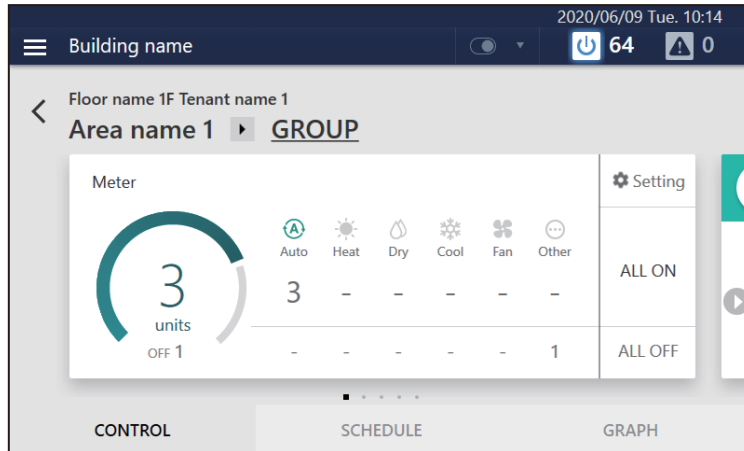
- 2 Tap [2-(1)]**  
The layout screen appears.

### Screen description



No.	Name (Icon)	Functions
1	Building display area	By swiping to the right or left in the building display area, you can change the selected building.
2	Level display area	You can select the floor to display in the floor layout.
3	Floor layout area	Tap to display the floor layout on the entire screen.
4	BACK button	Returns you to the general layout screen.
5	Unit icon	Enables you to confirm the position of a unit on the floor layout.
6	Selected unit	Displays the operating status of the tapped unit.
7	Group display button	Tap to display the operating status of the group.
8	Group display	Displays the operating status of units group by group.

**Group control screen ([CONTROL] tab)**

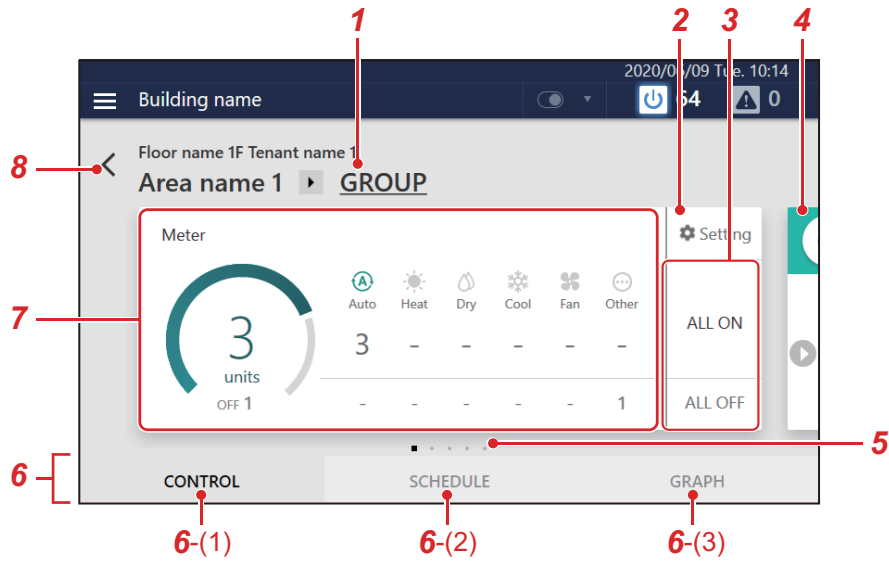


**How to display the screen**



- 1** Scroll the home screen to display the group you want to change the settings for, then tap >  
The [CONTROL] tab of the group screen is displayed.

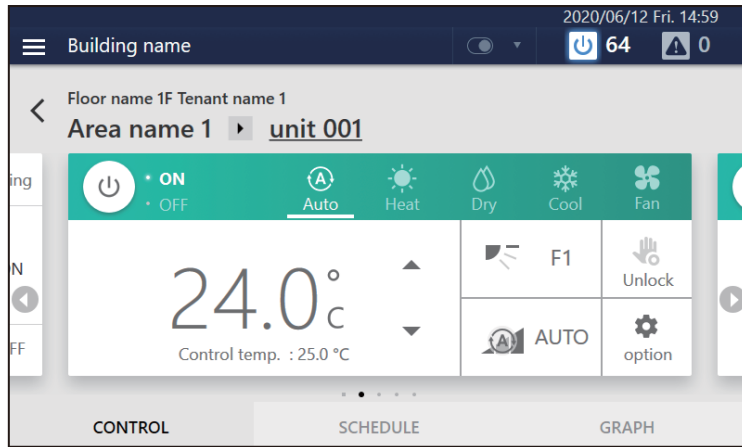
**Screen description**



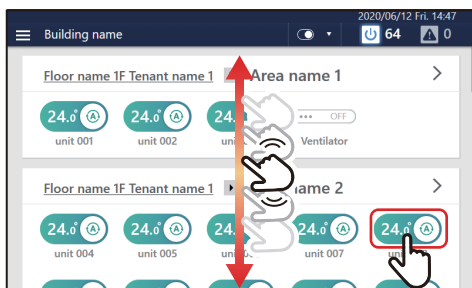
No.	Name (Icon)	Functions
1	Group name	Displays the name of the currently displayed group. Tap to display the drop-down menu. You can switch the display to the individual control screen for another air conditioner or ON/OFF unit registered in the group. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: 20px;">                         GROUP                          unit 001                          unit 002                          unit 003                          Ventilator                     </div>
2	Setting	You can change overall settings of the group such as Mode, set temperature, air direction, and fan speed simultaneously. (P.32)
3	ALL ON/ALL OFF	You can turn the whole group ON/OFF simultaneously. (P.30)
4	Next screen	Tap to display the individual control screen of the air conditioner or ON/OFF unit registered in the group. You can flick the group screen to display it.
5	Display position	Only the number of air conditioners or ON/OFF unit registered in the group <input type="checkbox"/> is displayed. For the currently displayed screen, <input checked="" type="checkbox"/> is displayed.
6	Switch tab	Tap to switch to the "6-(1)", "6-(2)" or "6-(3)" tab of the group screen.
7	Run	The ON/OFF meter on the left side can be used to check the total number of units operated in the group. On the right side you can check the number of units in each operation mode. The upper row shows the number of units in operation and the lower row shows the number of units stopped. If there are devices that do not have an operation mode, they will be displayed in [Other].
8	BACK button ( < )	Returns to the Home.



**Individual control screen ([CONTROL] tab)**



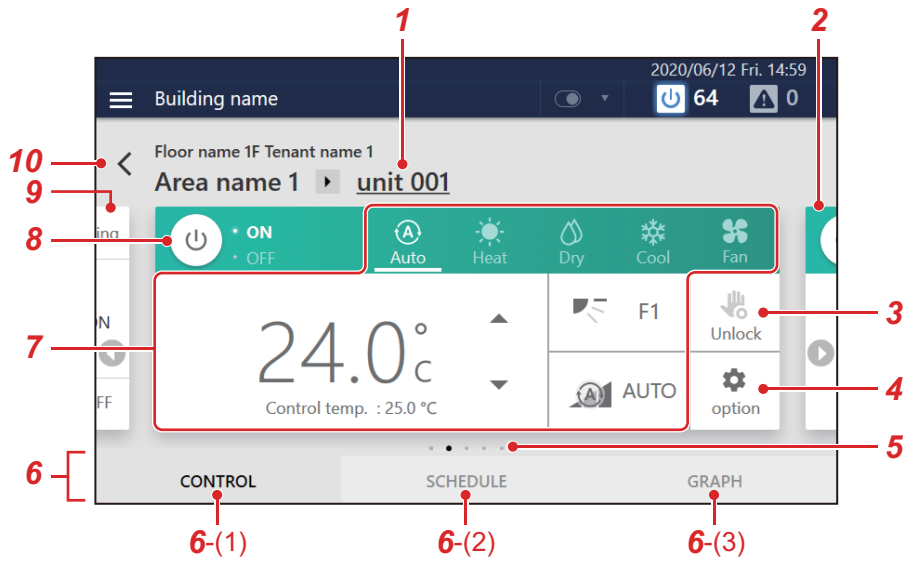
**How to display the screen**



- 1** Scroll the home screen, display the air conditioner or ON/OFF unit that you want to change the settings for, then tap the switch

The [CONTROL] tab of the individual control screen is displayed.

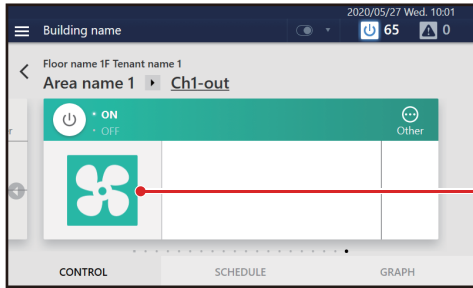
**Screen description**



Each screen shows a display example for an air conditioner. The display content may vary with the usage environment settings.

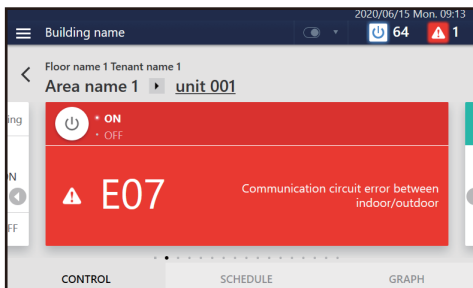
No.	Name (Icon)	Functions					
1	Unit name	The name of the air conditioner or ON/OFF unit currently displayed is shown. Tap to display the drop-down menu. You can switch the display to the group screen or another air conditioner or ON/OFF unit registered in the group. <table border="1" style="float: right; margin-top: 10px;"> <tr><td>GROUP</td></tr> <tr><td>unit 001</td></tr> <tr><td>unit 002</td></tr> <tr><td>unit 003</td></tr> <tr><td>Ventilator</td></tr> </table>	GROUP	unit 001	unit 002	unit 003	Ventilator
GROUP							
unit 001							
unit 002							
unit 003							
Ventilator							
2	Next screen	Tap to display the individual control screen for other air conditioners or ON/OFF unit registered in the group. You can also flick and display the individual control screen being displayed.					
3	Lock setting of remote control	You can restrict the operating range of the local remote controller of the air conditioner(s) or ON/OFF unit. (P.44) If it is not restricted, [👉] is displayed. If there are restricted items, [🚫] is displayed.					
4	option	You can set or confirm the details of the operation method. (P.46)					
5	Display position	Only the number of devices registered in the group [ ] is displayed. For the currently displayed screen, [ ] is displayed.					
6	SWITCH tab	Tap to switch to the "6-(1)", "6-(2)" or "6-(3)" tab of the individual control screen.					
7	Setting area	You can change basic settings such as operation mode, set temperature, air direction, and fan speed. (P.35)					
8	ON/OFF	Tap to switch between ON/OFF.					
9	Previous screen	Tap to display the individual control screen for other air conditioners or ON/OFF unit registered in the group. You can also flick and display the individual control screen being displayed. The group screen appears at the beginning.					
10	BACK button ( < )	Returns to the home screen.					

**NOTE**

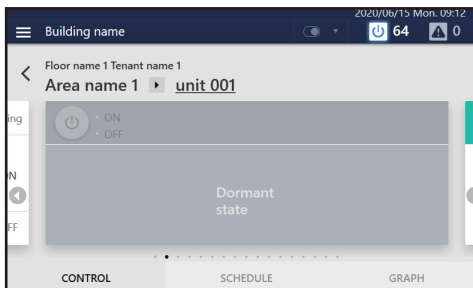


- For ON/OFF unit, only configurable items are displayed.

Icons are displayed only when they are registered. (P.71)



- If a malfunction occurs, an check code is displayed. Operation other than operation ON/OFF is not possible.



- Operation is impossible due to power outage (hibernation state).

# 5 Perform Initial Settings

## CAUTION

You cannot connect the Unit to the Internet. Never connect it.  
To connect to an external device, use a local area connection.

## Unit Settings

Have service personnel perform the following work.

- 1 Check the installation and wiring of the main unit**  
Follow the installation instructions to complete the installation and wiring work.
- 2 Check the wiring between the remote controller, indoor unit, and outdoor unit**  
Check that the address from the remote controller to the Unit is correct, and switch ON/OFF, Cool/Heat and confirm that operation is normal.
- 3 Create a local setting file with the setting file creation software**  
Input necessary information based on local air conditioner information and display language settings, etc. into a PC on which the setting file creation software is installed to create a local settings file.
- 4 Upload the local settings file**  
Connect the Unit to the PC via LAN and upload the local settings file.  
While uploading, the Unit restarts.
- 5 Confirm the setting contents**  
Check that the screen display of the Unit is set according to the local settings file, perform ON/OFF, and confirm that the Unit operated on the screen matches the Unit that actually starts to operate.

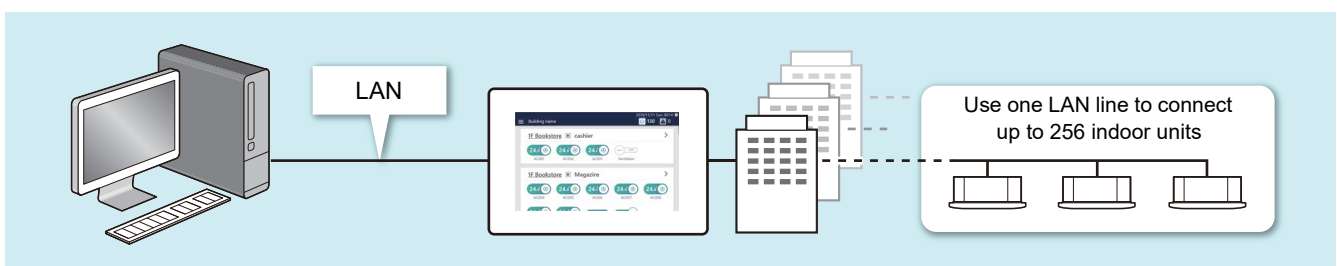
## Settings for Remote Monitoring with a PC

You can monitor and control the Unit by accessing it from a PC. This section explains the settings for the Unit and the PC. Please see "9. Remote Monitoring Using a PC" (P.84) for the system diagram and the PC operating environment.

### NOTE

Some functions cannot be used from a PC. For details, please see "List by Lock Level/Level" (P.93)

## System diagram



**Unit settings**

- 1** Set the user account for remote operation (P.72)
- 2** Set the IP address (P.75)
- 3** Set a destination to send email to when a malfunction occurs (P.76)

**PC settings**

**Settings**

IP address/ Subnet mask	Set it to be the same network as the Unit. (Example: the Unit 192.168.2.80/PC 192.168.2.90/subnet 255.255.255.0)
Port	Release port number 8801.
Drive C	Ensure that you have 500 MB or more free space and start up as a user with read/write authority.

**Operating environment**

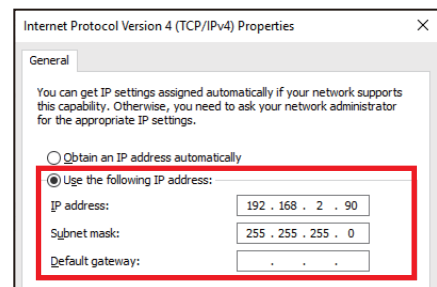
The following environment is necessary to use this function.

OS	Windows 10
.NET Framework	4.6.2
Web browser	Microsoft Edge, Internet Explorer 11, Google Chrome latest version

**How to set the IP address of the PC**

- 1** Display the properties of the network to connect to the System Controller
- 2** Check "Internet Protocol Version 4 (TCP / IPv4)" and click the [Properties] button
- 3** Select "Use the following IP address", set IP address to 192.168.2.\*\*\* and Subnet mask to 255.255.255.0, and click the OK button\*

\* For "\*\*\*\*", enter an address different from that of the System Controller to connect.



**NOTE**

If your PC is set to use a proxy server, exclude the IP address of the System Controller.

**Install the software**

- 1** Open the web browser of your PC
- 2** Access "http://[server name or IP address]/touchscreencontroller/[language code]/download.html"

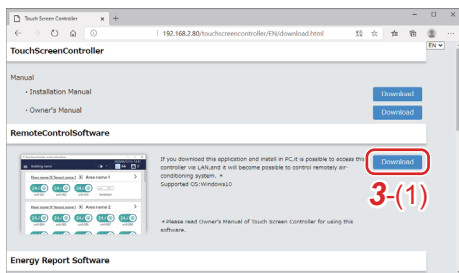
Server name or IP address : For the IP address, enter the value set in step **2** of "Unit settings" (P.26).

Language code: Enter the following value according to the language.

Language	Language Code
Japanese	JA
English	EN
French	FR
German	DE
Italian	IT
Spanish	ES
Portuguese	PT
Dutch	NL
Greek	EL

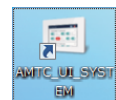
Language	Language Code
Russian	RU
Turkish	TR
Swedish	SV
Finnish	FI
Danish	DA
Norwegian	NO
Polish	PL
Bulgarian	BG
Romanian	RO

Language	Language Code
Estonian	ET
Latvian	LV
Croatian	HR
Slovak	SK
Slovene	SL
Hungarian	HU
Czech	CS
Chinese	ZH
Korean	KO



- 3** Click [3-(1)]
- 4** Save the file according to the browser message
- 5** Double-click on the saved "installer\_touchscreencontroller.exe" to unzip/install (setup.exe)

When the installation is completed, a shortcut icon is created on the desktop.



**NOTE**

If .NET Framework 4.6.2 is not installed on the PC, this software will not work properly. Be sure to download and install .NET Framework 4.6.2 from the above website.

## Setting when Using Energy Report Software

By using the energy report software, you can display the operation status and operation history of the air conditioners aggregated by this Unit on a PC screen. You can also easily check and output reports (monthly report/daily report) for electric power distribution with a PC. When using the energy report software, apply the following settings.

### • NOTE

For details on how to use the Energy Report Software, refer to the Operating Instructions of the Energy Report Software.

### Unit settings

#### **1** Set the IP address of the Unit (P.75)

### PC settings

#### **1** Install the Energy Report Software on the PC

#### **2** Register the target system (this Unit) in the Energy Report Software

### • NOTE

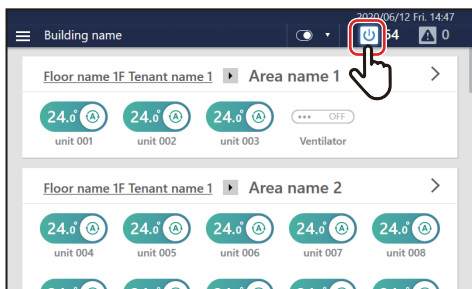
For details, refer to the Operating Instructions of the Energy Report Software.

# 6 Basic Usage

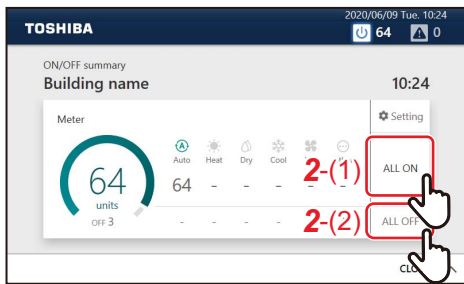
This section explains the basic setting method for operation Start/Stop and air conditioning, the setting method for the operation schedule, and the confirmation method for the overall air conditioning system.

## Start/Stop Operation

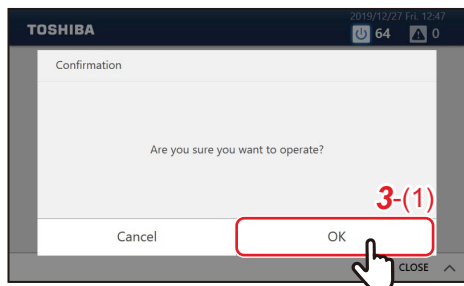
### Overall air conditioning system operation method



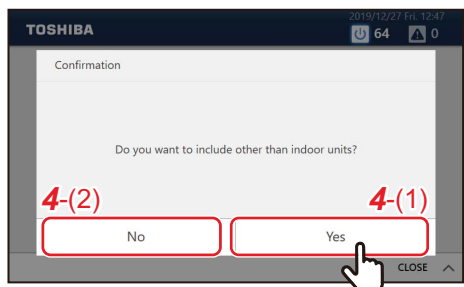
1 Tap  



2 Tap [2-(1)] or [2-(2)]



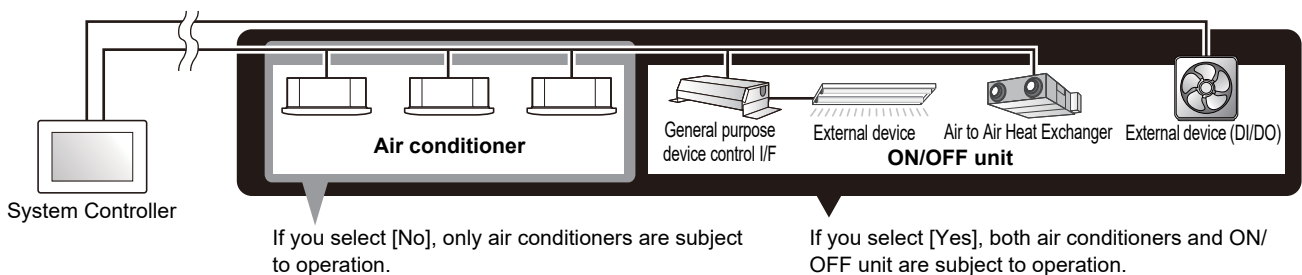
3 Check the contents of the message and tap [3-(1)]



4 When the screen on the left appears, check the contents of the message and tap [4-(1)] or [4-(2)] \*

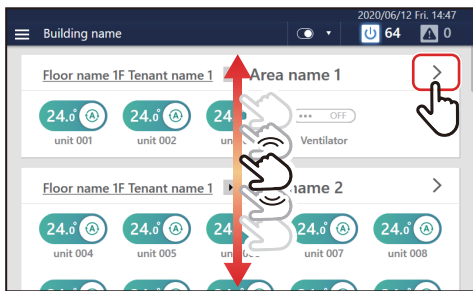
All air conditioners and ON/OFF unit start/stop operation.

\* About confirmation pop-up selection

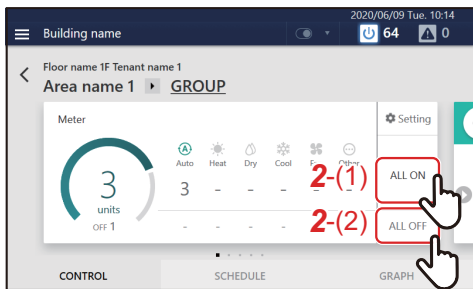




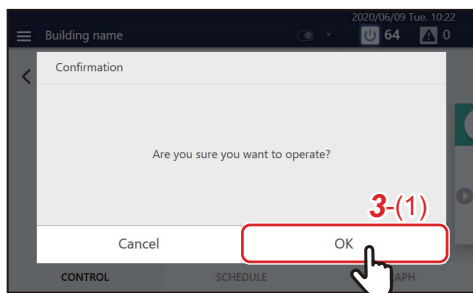
**Group unit operation method**



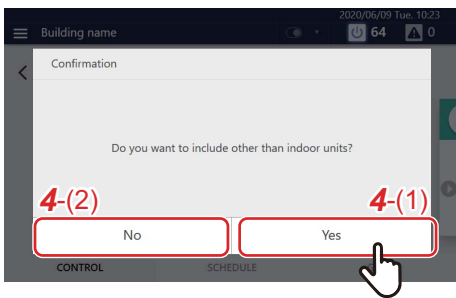
**1** Scroll the home screen to display the group you want to change the settings for, then tap >



**2** Tap [2-(1)] or [2-(2)]



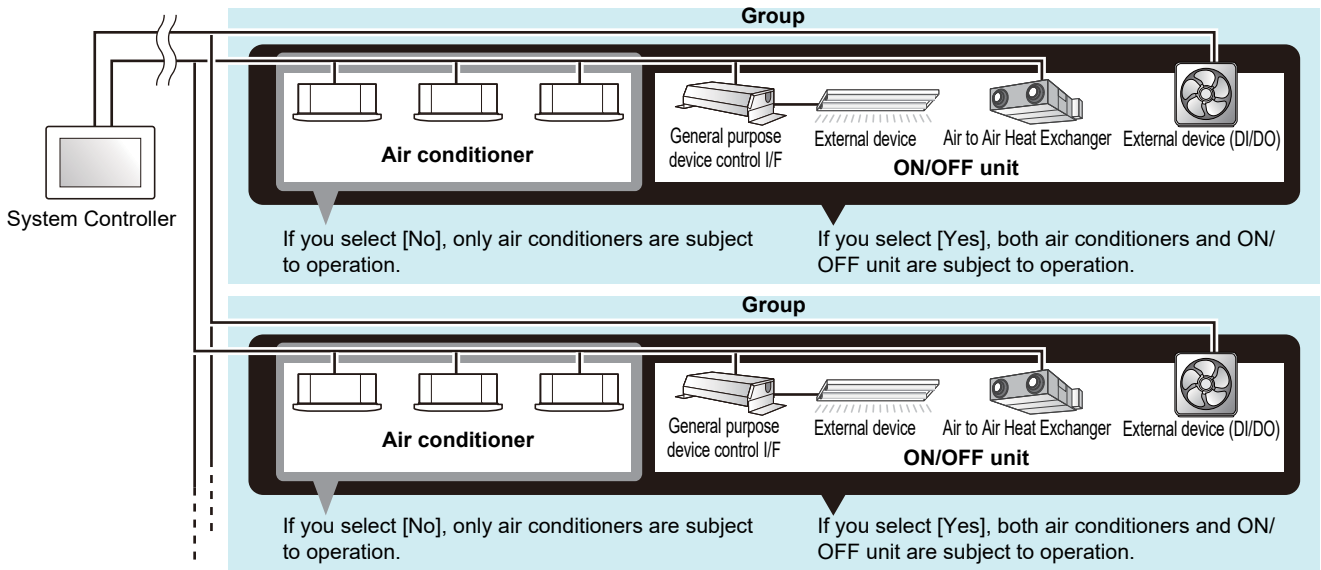
**3** Check the contents of the message and tap [3-(1)]



**4** When the screen on the left appears, check the contents of the message and tap [4-(1)] or [4-(2)] \*

All group air conditioners and ON/OFF equipment turn ON or OFF.

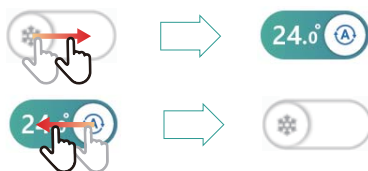
\* About confirmation pop-up selection



**Operation method in units of air conditioner or ON/OFF unit**

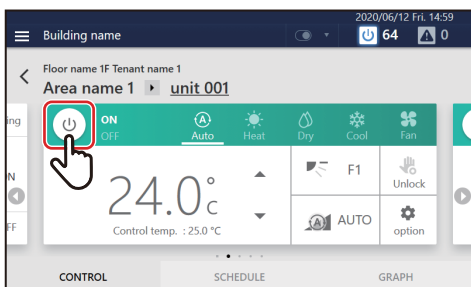


**1** Scroll the home screen and display the air conditioner or ON/OFF unit that you want to change the settings for



**2** Drag or flick the of the corresponding switch

Drag or flick to the right to start operation.  
Drag or flick to the left to stop operation.

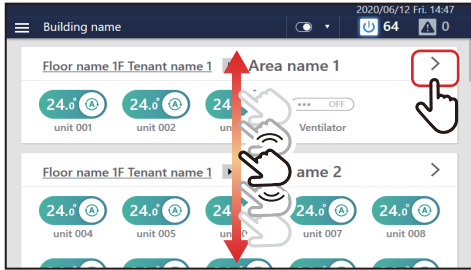


**NOTE**

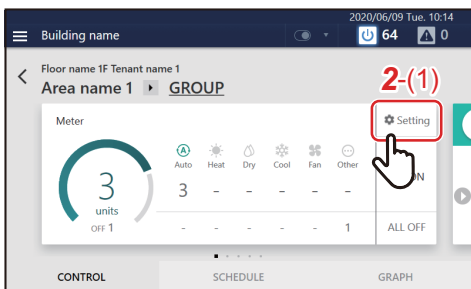
You can also start/stop operation by tapping the power icon on the [CONTROL] tab on the individual control screen displayed by tapping the switch.

# Change the Air Conditioning Settings

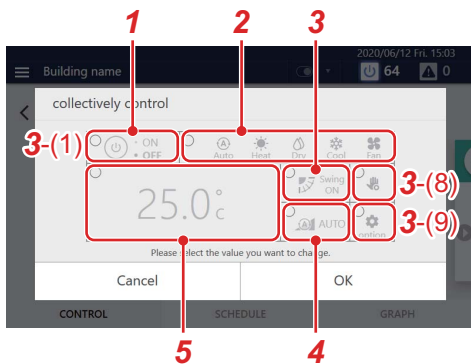
## Group unit operation method



**1** Scroll the home screen to display the group you want to change the settings for, then tap >



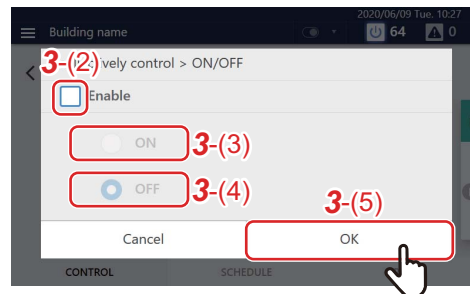
**2** Tap [2-(1)]  
The batch settings screen is displayed.



**3** Change settings

**Example: When changing the operation status settings**

**3-1** Tap [3-(1)]  
The operation status settings screen is displayed.



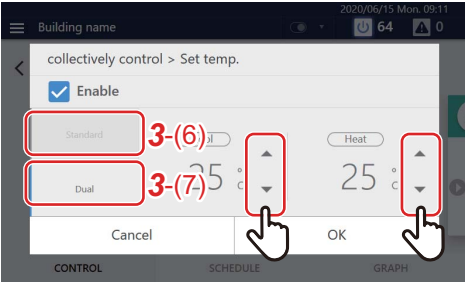


**3-2** Set the check box of [3-(2)] to   
You can now change the settings.

**3-3** Select [3-(3)] or [3-(4)] and tap [3-(5)]  
Return to the batch settings screen.

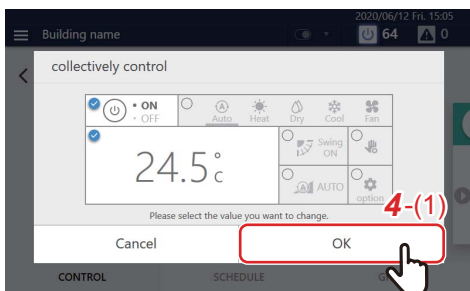
**3-4** Change the other items with reference to steps 3-1 to 3-3  
For the setting details, see the following table.

No.	Name	Functions
1	ON/OFF	Can be set to [ON/OFF].
2	Mode	Can be set to [Auto/Heat/Dry/Cool/Fan].  <div style="background-color: #cccccc; padding: 2px;"> <b>NOTE</b> </div> <ul style="list-style-type: none"> <li>A bar is displayed at the bottom of the icon for the currently selected mode.</li> <li>Operation modes that cannot be set are not displayed.</li> </ul>

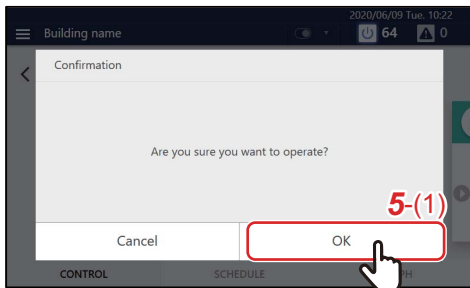
No.	Name	Functions
3	Wind direction	<p>Tap ◀ ▶ to switch to the following.</p>  <p>• <b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>
4	Fan Speed	<p>Tap ◀ ▶ to switch to the following.</p>  <p>• <b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>
5	Set temp.	<p>Tap ▲ ▼ to change the set temperature.</p> <p>• <b>NOTE</b></p> <ul style="list-style-type: none"> <li>When set to a temperature outside the setting range limit of each operation mode, the temperature is changed to the upper or lower limit of the setting range.</li> <li>If there are Dual Set Point compatible models in the group, two tabs will be displayed. When you tap [3-(6)], one set temperature is displayed, and when you tap [3-(7)], two set temperatures are displayed. Tap ▲ ▼ to change the set temperature.</li> </ul> 

• **NOTE**

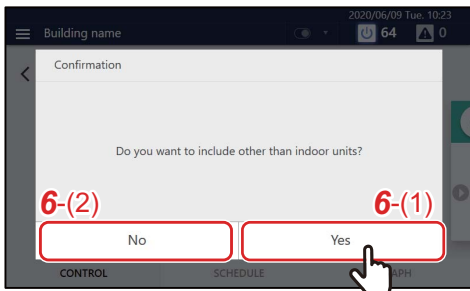
- For models that do not have the function set, the setting change is ignored.
- For the setting of [Lock] [Unlock] of [3-(8)], see "Local Remote Controller Lock" (P.44).
- For the [Option] settings of [3-(9)], see "Set Operation Details" (P.46).



**4** Confirm that the changed item is checked, and tap [4-(1)]

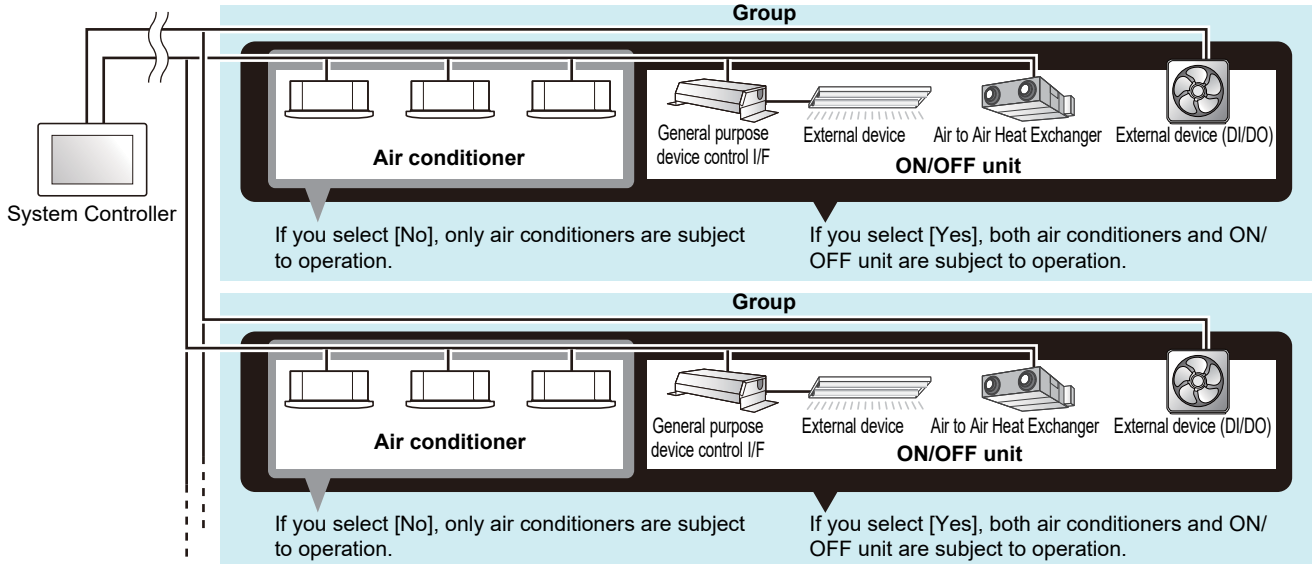


**5** Check the contents of the message and tap [5-(1)]



**6** When the screen on the left appears, check the contents of the message and tap [6-(1)] or [6-(2)] \*  
The settings of the entire group are changed.

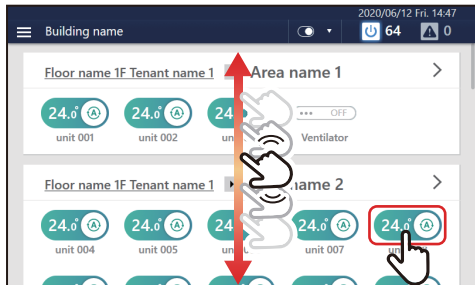
**\* About confirmation pop-up selection**



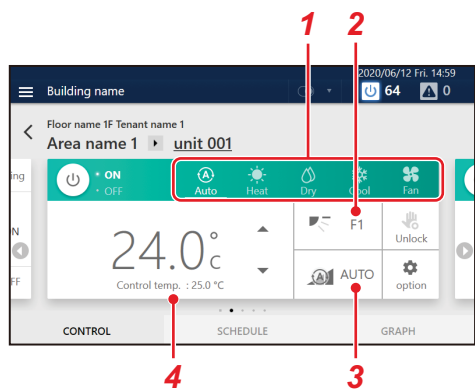
**Air conditioner unit operation method**

**NOTE**

To change the settings, it is necessary to set to the operation status. (P.31)




**1** Scroll the home screen, display the air conditioner you want to change the settings for, then tap the switch



**2** Change settings

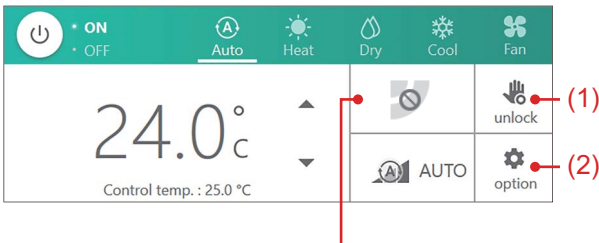
No.	Name	Functions						
1	Mode	<p>Can be set to [Auto/Heat/Dry/Cool/Fan].</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>A bar is displayed at the bottom of the icon for the currently selected mode.</li> <li>Operation modes that cannot be set are not displayed.</li> </ul>						
2	Wind direction	<p>Tap to switch to the following.</p> <table border="1"> <thead> <tr> <th>Operation Mode</th> <th>Setting Range</th> </tr> </thead> <tbody> <tr> <td>Auto (Cool)/Cool/Dry</td> <td>Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)</td> </tr> <tr> <td>Auto (Heat)/Heat/Fan</td> <td>Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)</td> </tr> </tbody> </table> <p><b>NOTE</b></p> <p>Depending on the connected model, it may not be configurable.</p>	Operation Mode	Setting Range	Auto (Cool)/Cool/Dry	Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)	Auto (Heat)/Heat/Fan	Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)
Operation Mode	Setting Range							
Auto (Cool)/Cool/Dry	Swing ON→Swing OFF→F1→F2→F3→Swing ON (Return to the beginning)							
Auto (Heat)/Heat/Fan	Swing ON→Swing OFF→F1→F2→F3→F4→F5→Swing ON (Return to the beginning)							

No.	Name	Functions
3	Fan Speed	Tap to switch to the following.  <b>NOTE</b> Depending on the connected model, it may not be configurable.
4	Set temp.	Tap ▲ ▼ to change the set temperature. <b>NOTE</b> <ul style="list-style-type: none"> <li>If the operation mode is FAN, the temperature cannot be set.</li> <li>"Control temp." shows the indoor temperature detected by the indoor unit after partial compensation.   *Depending on conditions such as the installation site of the indoor unit, it may differ from actual room temperature.</li> <li>In frost protection, preparing for operation, preparing for heating operation, etc., an icon and a text are displayed in this area.</li> </ul>

**NOTE**

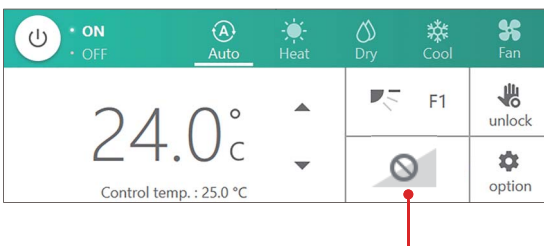
- For the setting of [(1)], see "Local Remote Controller Lock" (P.44).
- For the setting of [(2)], see "Set Operation Details" (P.46).
- If there is no corresponding function, that item is not displayed.

**Example of a model without a flap**



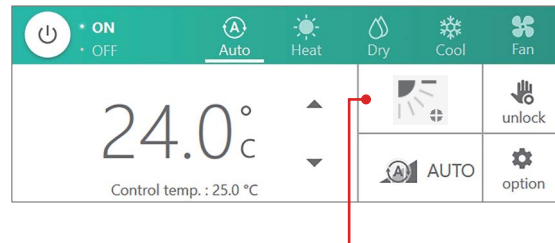
Since you cannot set the air direction, it does not change even if you tap it.

**Example of a model where only a certain fan speed can be set**



Since you cannot change the fan speed, it does not change even if you tap it.

**Example of a case in which the wind direction cannot be changed**



Because the flap is locked, you cannot change the wind direction even if you tap it.

## Set the Operation Schedule

You can configure the air conditioners or the ON/OFF unit with a “Weekly schedule”, through which settings such as operation start/stop are changed depending on the specified time for any day from Sunday to Saturday, or a “Special day schedule”, through which settings are changed for special days such as national holidays or special holidays. The operation schedule is set on the [SCHEDULE] tab of the group screen or individual control screen.

**NOTE**

If a day is set in both the Weekly schedule and the Special day schedule, the Special day schedule applies and the Weekly schedule is disabled for that day.

### Screen description

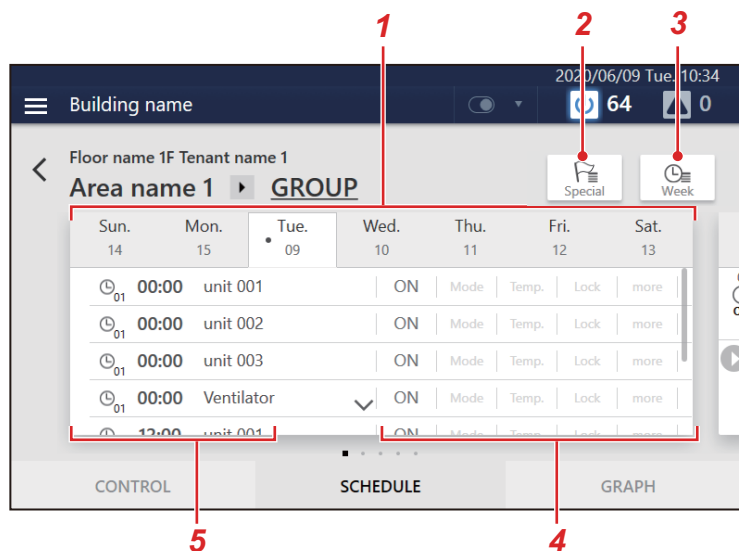
This section explains how to view the [SCHEDULE] tab when setting the operation schedule.

**NOTE**

Refer to the description of the [CONTROL] tab for the display items that are not explained. (P.20, 22)

### Group screen

The schedule set for the air conditioners or ON/OFF unit in the group is displayed in list format in time units.

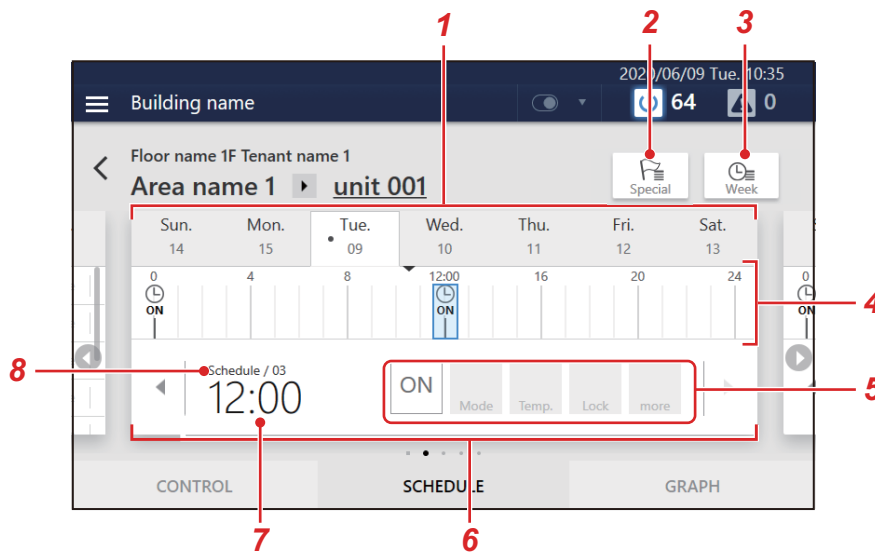


No.	Functions
1	You can switch the display in day-of-week units.
2	Displays the setting screen of Special day schedule.
3	Displays the setting screen of Weekly schedule.
4	The schedule settings content (ON/OFF, Mode, Temp., Lock, more) is displayed.
5	The times when the schedule is executed and the air conditioners and ON/OFF unit for which the schedule is executed are displayed.



### Individual control screen

The schedule set for the air conditioner or ON/OFF unit being displayed is displayed on a 24-hour time scale.



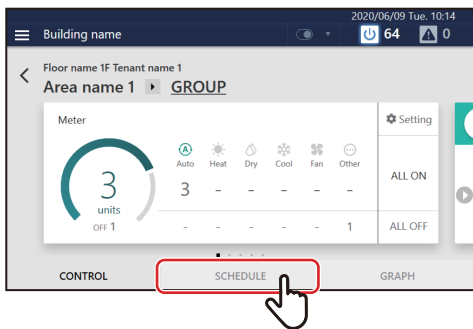
No.	Functions
1	You can switch the display in day-of-week units.
2	Displays the setting screen of Special day schedule.
3	Displays the setting screen of Weekly schedule.
4	🕒 is displayed at the times when the schedule is set. When operation start/stop is set, [ON] or [OFF] is displayed below 🕒. When setting change is set, ⚙️ is displayed below 🕒. Also, the currently displayed schedule is displayed in blue.
5	The schedule settings content (ON/OFF, Mode, Temp., Lock, more) is displayed.
6	You can switch the display to the previous or next schedule.
7	The times when the schedule will be executed are displayed.
8	The schedule setting number is displayed.

## Create a new weekly schedule

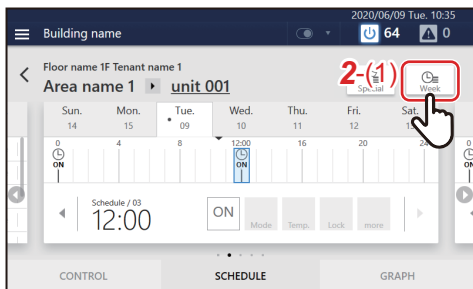
In a Weekly schedule, you can set:

- Start time
- Day(s) of the week
- Air conditioner(s) or ON/OFF unit
- ON/OFF

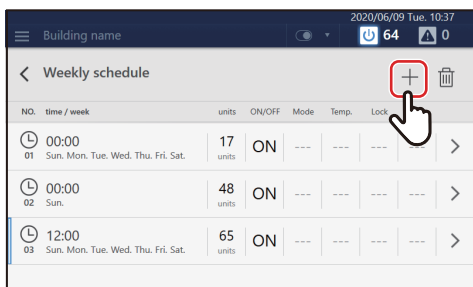
Schedule settings can be applied from either the group screen or the individual control screen. In the following procedure, the individual control screen is used to explain.



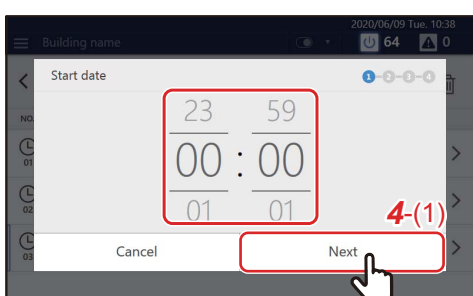
**1** Tap [SCHEDULE] on the group screen or individual control screen



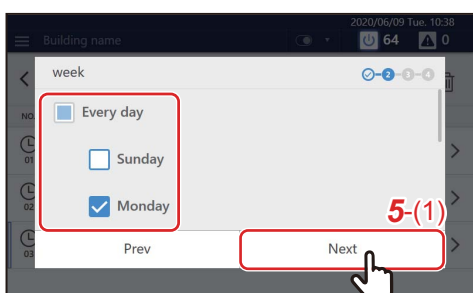
**2** Tap [2-(1)]



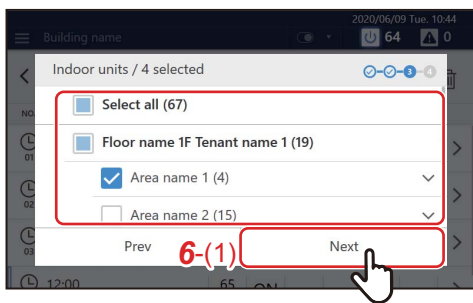
**3** Tap +



**4** Tap or flick to set the start time and tap [4-(1)]



**5** Select the day of the week to execute and tap [5-(1)]



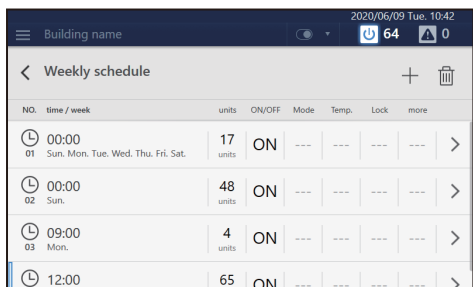
**6** Select the air conditioner(s) or ON/OFF unit for setting the schedule and tap [6-(1)]

You cannot select a model that has already been scheduled at the same time.



**7** Tap the check box of [7-(1)] and set it to , then select [7-(2)] or [7-(3)] and tap [7-(4)]

You can only set [ON/OFF] here.



A schedule has been registered.

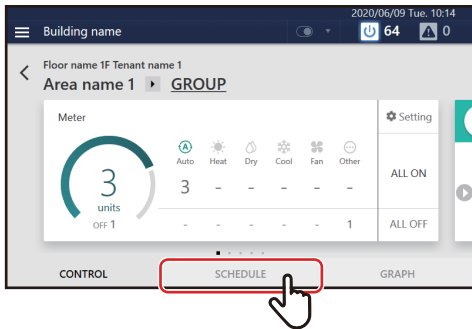
**NOTE**

- When setting details such as operation mode or set temperature, etc. as a schedule, refer to "Change the Operating Schedule" (P.52).
- When deleting a registered schedule, refer to "Delete the operation schedule" (P.58).

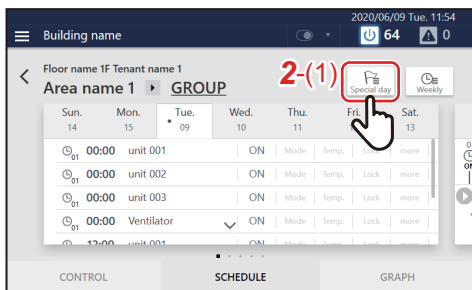
## Create a new special day schedule

In a Special day schedule, you can register special days, such as national holidays and special holidays, to configure a special day schedule that differs from the Weekly schedule.

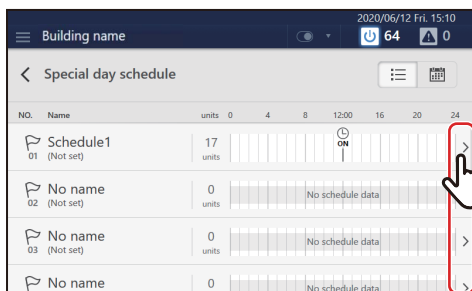
Schedules can be configured from the group screen or the individual control screen. The following procedure is explained using the individual control screen.



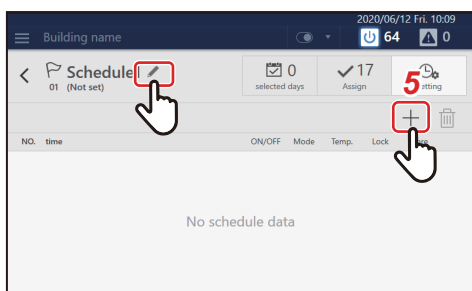
**1** Tap [SCHEDULE] on the group screen or the individual control screen



**2** Tap [2-(1)]

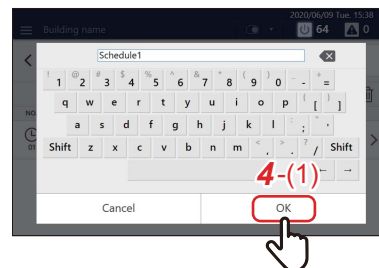


**3** Tap >




**4** Tap  and set the schedule name

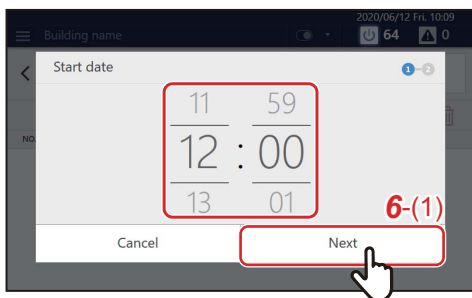
A keyboard is displayed. Enter the name and then tap [4-(1)].



**5** Tap  to go to step 6

**NOTE**

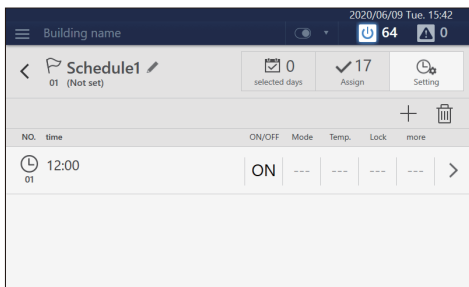
- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap  to delete one character.



**6** Tap or flick to set the start date, and then tap [6-(1)]



**7** Tap the check box of [7-(1)] and set it to , then select [7-(2)] or [7-(3)] and tap [7-(4)]  
You can only set [ON/OFF] here.



The schedule is registered.

#### NOTE

- When setting details such as the mode or the set temperature to a schedule, refer to "Change the details of the special day schedule" (P.54)
- When deleting a registered schedule, refer to "Delete the operation schedule" (P.58).

## Monitor the Overall Air Conditioning System

To check the operation status of the overall air conditioning system, tap / to display the batch ON/OFF screen.  
 To check the malfunction occurrence status, tap / to display the check code screen.



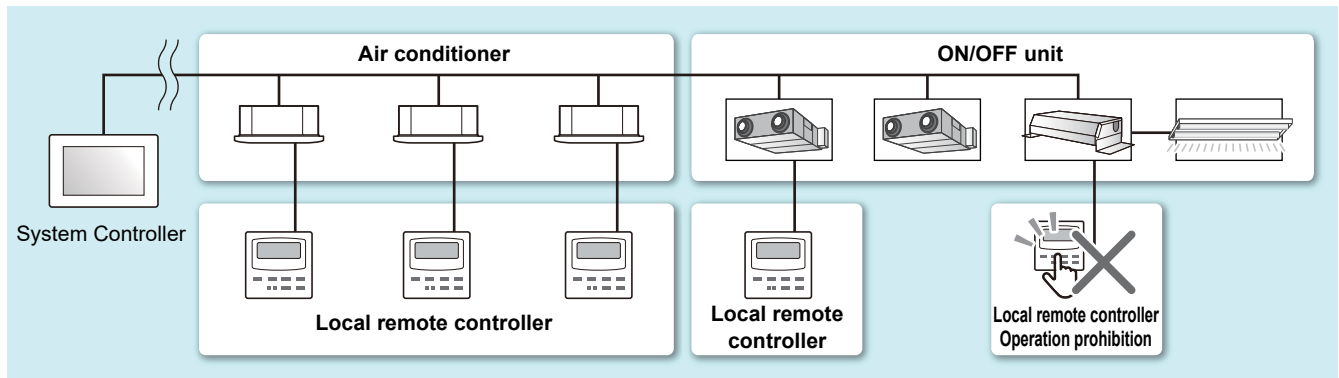
No.	Functions
1	Displays the overall number of operating units as ON/OFF meters and numerical values.
2	Displays the number of units for each operation mode. The upper row shows the number of units in operation and the lower row shows the number of units stopped. If there is ON/OFF unit, it is displayed in [Other].
3	You can change the operation status of the overall air conditioning system. (P.29) For the Option settings, see step 3 on (P.32).
4	Tap to close the batch ON/OFF screen. <ul style="list-style-type: none"> <li>NOTE</li> </ul> You can also tap /  to close.
5	The check code, check content, notice code, notice content, occurrence location, and occurrence time are displayed.
6	Stop operation of all air conditioners and ON/OFF unit where check codes are displayed and erase the check code (s). <ul style="list-style-type: none"> <li>NOTE</li> </ul> For some ON/OFF unit, only the operation stops, and the check code (s) are not erased.
7	Stop the applicable air conditioner(s) or ON/OFF unit and erase the check code (s). <ul style="list-style-type: none"> <li>NOTE</li> </ul> For some ON/OFF unit, only the operation stops, and the check code (s) are not erased.
8	Tap to close the check code screen. <ul style="list-style-type: none"> <li>NOTE</li> </ul> You can also tap /  to close.

# 7 Various Functions

This section explains detailed settings on the [CONTROL] tab, how to change the schedule on the [SCHEDULE] tab, and how to check the power usage on the [GRAPH] tab.

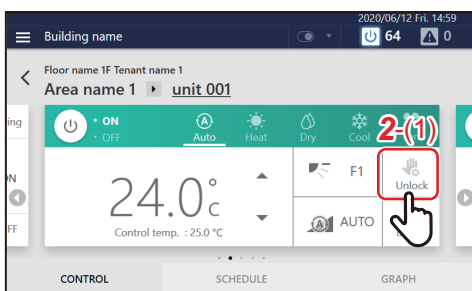
## Local Remote Controller Lock

You can restrict operation of the local remote controllers that belong to each air conditioner.



- 1 Display the [CONTROL] tab of the air conditioner(s) whose setting you want to change (P.20,22)  
When changing in group units, display the batch settings screen (P.32)

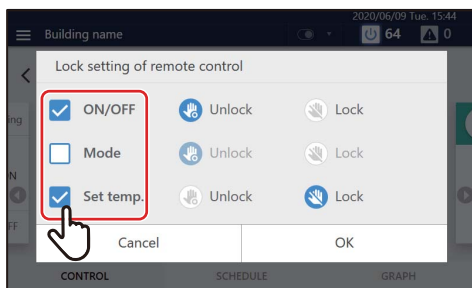
In the following procedure, the [CONTROL] tab of the individual control screen is used to explain.



- 2 Tap [2-(1)]

• NOTE

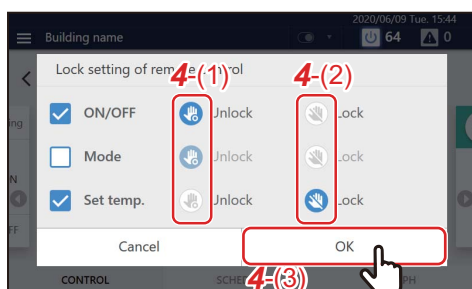
appears if it is not locked. appears if there is a locked item.



- 3 Tap the check box of the function whose setting you want to change to set it to

• NOTE

The display items vary depending on the model.



- 4 Select [4-(1)] or [4-(2)], then tap [4-(3)]

• REQUIREMENT

If you set the check box to  before tapping [4-(3)], the setting will not be applied.

**NOTE**

When local remote control operation is prohibited, if there is a power failure, the local remote control prohibited status will be cancelled when the power returns.

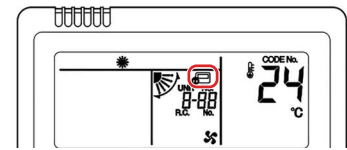
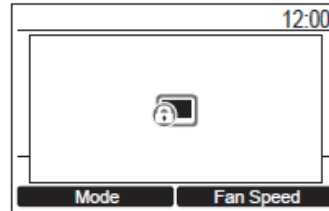
Ask service personnel if you want to continue the local remote control prohibited status after returning from a power failure.

**NOTE**

If you perform an operation that is locked with the local remote controller, the lock screen or a message will be displayed.

**Lock screen example  
(Energy saving neo remote controller)**

**(Wired remote controller)**



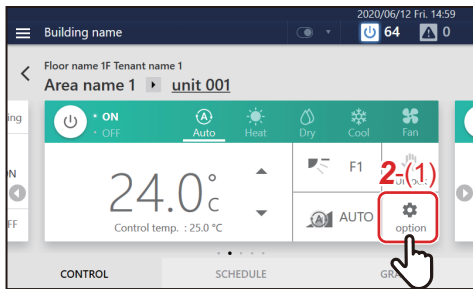


## Set Operation Details

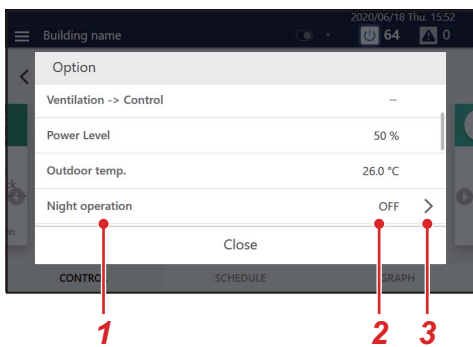
You can check the current settings of the air conditioner(s) or ON/OFF unit, and set the details of the operation method.

- 1** Display the [CONTROL] tab of the air conditioner(s) or ON/OFF unit whose setting you want to change (P.22)  
 When changing in group units, display the batch settings screen (P.32)

In the following procedure, the individual control screen is used to explain.



**2** Tap [2-(1)]



The option screen appears.

No.	Functions
<b>1</b>	The function name appears.
<b>2</b>	The currently set contents are displayed. If the settings are invalid, "-" is displayed.
<b>3</b>	When the settings can be changed, > is displayed. Tap to display the settings screen.

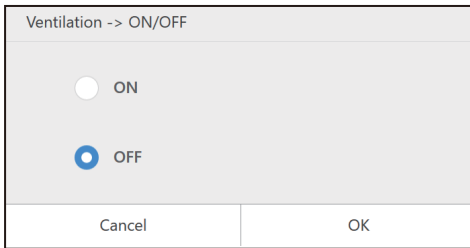
- 3** Scroll up and down to display the items you want to set/check

#### 4 To change, tap > to display the settings screen, then tap [OK] after changing the settings

For details on the confirmation/setting contents of each item, refer to the following. The items displayed depend on the model and state.

Function Name	Overview	Setting Items	Reference Page
Ventilation → ON/OFF	Controls the operation of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s).	ON/OFF	P.48
Ventilation → Mode	Controls the ventilation mode of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s).	Bypass/Heat exchange/ Automatic	P.48
Ventilation → Fan speed	Controls the operation of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s).	High/Middle/ Supply air > Exhaust air/ Exhaust air > Supply air	P.48
Ventilation → Control	24-hour ventilation/Nighttime heat purge	–	–
Power Level	You can monitor the output status of the air conditioner(s).	–	P.48
Outdoor temp.	You can monitor the outdoor temperature detected by the outdoor unit.	–	P.49
Night operation	You can configure the low-noise setting of the indoor unit.	ON/OFF	P.49
Filter sign reset	You can clear the FILTER Sign. You can clear the Hour.	OK/Cancel	P.49
Inspection	You can check the check code that has occurred.	–	–
Soft Cooling	You can set to Middle COOL.	ON/OFF	P.49
Energy saving ratio [%]	You can control the cooling/heating output of the air conditioner(s).	Release (100%)/ Max.(50 - 100%)/50/0	P.50
Saving operation	You can operate the indoor unit by saving the power.	ON/OFF	P.50
Forced Thermo OFF	You can release Thermo OFF.	Invalid	P.50
Return Back	You can control Return Back.	Cool (Release, Valid), Heat (Release, Valid)	P.50
Power peak cut	You can monitor whether the outdoor unit is controlling demand.	Valid, Invalid	P.50
Eco Temperature Shift	You can set whether to change (shift) the set temperature.	OK/Cancel	P.51
Set temp. range limit	You can change the set temperature range for each operation mode.	18°C to 29°C * It may differ depending on the region and model.	P.51

**Turn ON/OFF the ventilation function**



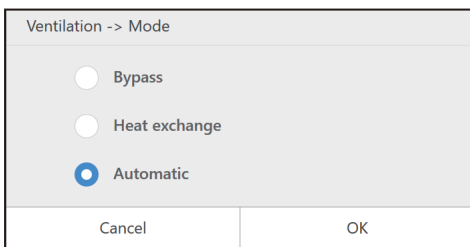
You can turn ON/OFF the operation of the ventilator connected to the air to air heat exchanger(s) or air conditioner(s).

**NOTE**  
Depending on the connected model, it may not be configurable.

**Set ventilation mode**

You can set the ventilation mode of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s). The settings screen displayed differs depending on the setting state of [Ventilation → ON/OFF].

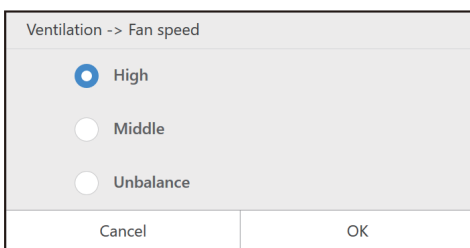
**◆When [ON] is selected under [Ventilation → ON/OFF]**



**Bypass:** Outdoor air is taken into a room as it is.  
**Heat exchange:** Exchanging heat between the outdoor air and return air and making the temperature and humidity of the outdoor air closer to those of the return air before supplying it.  
**Automatic:** Total Heat Ventilation and Bypass Ventilation are switched automatically.

**NOTE**  
Depending on the connected model, some or all items may not be configurable.

**Setting the ventilation fan speed**



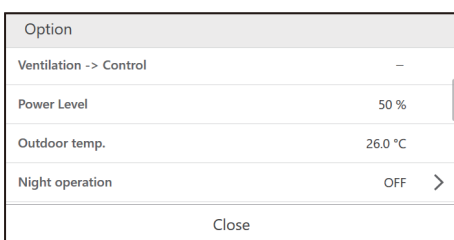
You can set the ventilation fan speed of the ventilator connected to the air to air heat exchange unit or the air conditioner. The choices displayed depend on the model.

**NOTE**

- Depending on the connected model, it may not be configurable.
- It is displayed when [Ventilation → ON/OFF] is [ON] and setting change is possible.

\* Details for unbalance settings vary depending on the settings of the connected model.

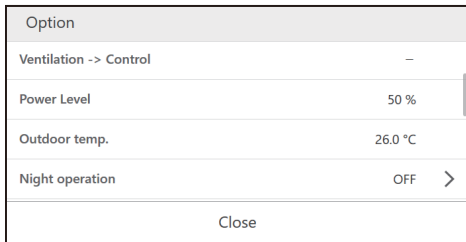
**Check the output status of the air conditioner(s)**



You can check how much power the air conditioner is using for operation.

**NOTE**  
Depending on the connected model, it may not be displayed.

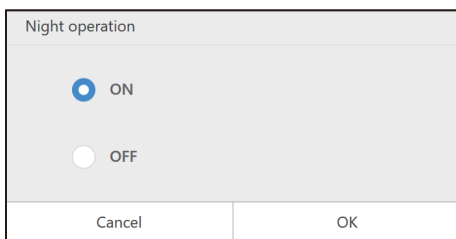
**Check the outdoor temperature detected by the outdoor unit**



You can check the outdoor temperature detected by the outdoor unit.

- **NOTE**
- Depending on the connected model, it may not be displayed.
- Depending on conditions such as the location of the outdoor unit installation, it may differ from the actual outdoor temperature.

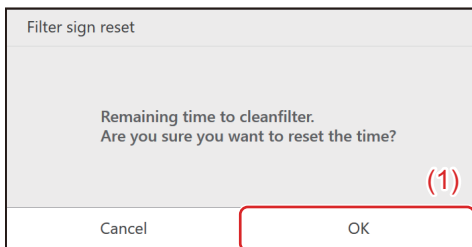
**Make the night operation setting for the outdoor unit**



Monitor and control the ON or OFF state of the night operation of the target device.

- **NOTE**
- Depending on the connected model, it may not be displayed.

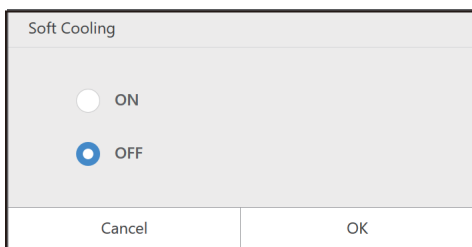
**Erase FILTER Sign**



When a device has operated for a certain period of time, a warning (FILTER Sign) is displayed to indicate that the filter should be cleaned. After filter cleaning, tap [(1)].

- **NOTE**
- Depending on the connected model, it may not be displayed.
- If you set the air conditioners where a sign is displayed to [OK], the cumulative time for the sign display is set to 0.

**Set Middle COOL**



Middle COOL can be turned ON/OFF. When turned ON, the air direction is set to up, and the maximum power is restricted.

- **NOTE**
- Depending on the connected model, it may not be displayed.
- The settings screen is displayed when the air conditioner is in operation and the operation mode is COOL.

## Control air conditioner power

An energy saving function whereby you can operate the air conditioner with suppressed cooling/heating power.

Release (100%): Save Mode is not performed.

Max.(50 - 100%): Operate with the highest save rate.

50: Operate at 50% save rate.

0: Operate at 0% cooling/heating power (Thermo OFF).

### • NOTE

Depending on the connected model, it may not be displayed.

## Set saving operation

With one of the energy-saving functions, monitor and control the ON or OFF state of the saving operation of the air conditioner.

### • NOTE

Depending on the connected model, it may not be displayed.

## Release thermo OFF

"Thermo OFF" refers to an energy saving function that controls demand to restrict the cooling/heating power of the air conditioner such that the outdoor unit compressor is stopped. When this state is reached, the air conditioner becomes a fan and cold/hot air is no longer output.

To release Thermo OFF, display the settings screen and press [OK].

### • NOTE

Depending on the connected model, it may not be displayed.

## Configure and confirm the Return Back settings

You can configure and check the Return Back setting temperature and setting time of each operation mode that are set in the operating schedule.

### • NOTE

- Depending on the connected model, it may not be displayed.
- For information on Return Back, see "Return Back settings" (P.56).

## Monitor demand control of outdoor unit

You can monitor the demand rate [%], outdoor line No., and schedule No. of the outdoor unit connected to the selected air conditioner.

Display the settings screen to check the demand status of the outdoor unit.

### • NOTE

Depending on the connected model, it may not be displayed.

### Change to energy saving temperature

An energy saving function that changes (shifts) the set temperature according to the current operation mode as follows.

Operation Mode	Set Temperature Shift Width
Cool/Dry	Current set temperature +2°C shift
Heat	Current set temperature -2°C shift
Auto/Fan	Remain at current set temperature

**NOTE**

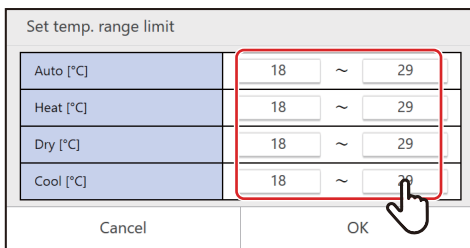
Depending on the connected model, it may not be displayed.

### Set the temperature change range

You can set the set temperature range for each operation mode.

**NOTE**

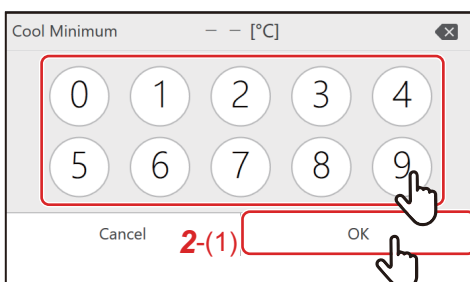
- Depending on the connected model, it may not be displayed.
- If the current set temperature of the air conditioner is outside of the set temperature range after the change, it will be changed to the temperature within the range after the change.



**1** Tap the upper/lower limit temperature you want to change

**NOTE**

Depending on the connected model, it may not be configurable.



**2** Tap the number, enter the temperature, and tap [2-(1)]

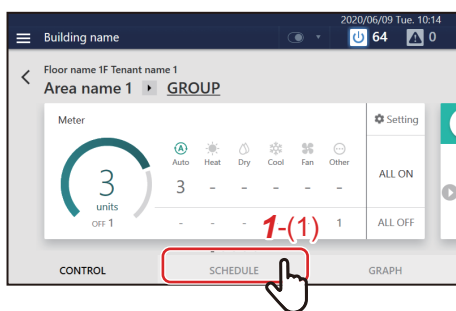
## Change the Operating Schedule

The operating schedule settings can be changed from the [Menu] button, the group screen, or the individual control screen. There are two types of operating schedules: Weekly schedule and Special day schedule. The following procedure is explained using the individual control screen.

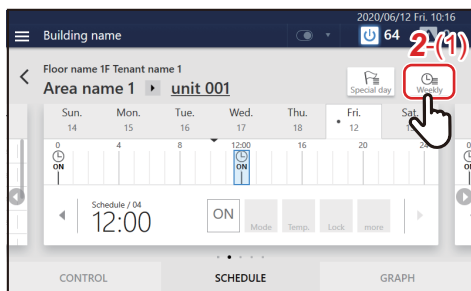
**NOTE**

If a day is set in both the Weekly schedule and the Special day schedule, the Special day schedule applies and the Weekly schedule is disabled for that day.

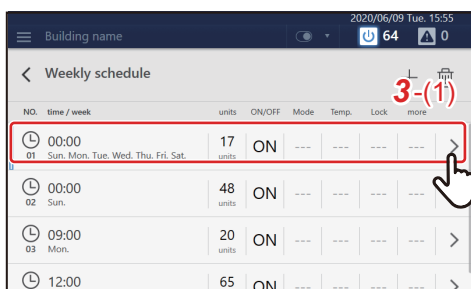
### Change the details of the weekly schedule



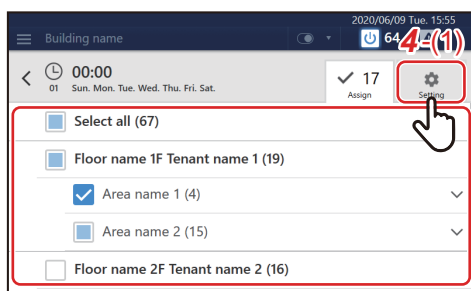
**1** Tap [1-(1)] on the group screen or the individual control screen



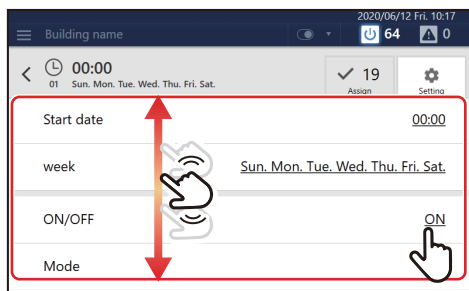
**2** Tap [2-(1)]



**3** Tap [3-(1)] of the schedule you want to modify



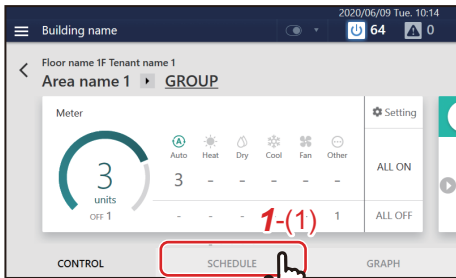
**4** Modify the target air conditioner(s) or ON/OFF unit, then tap [4-(1)]



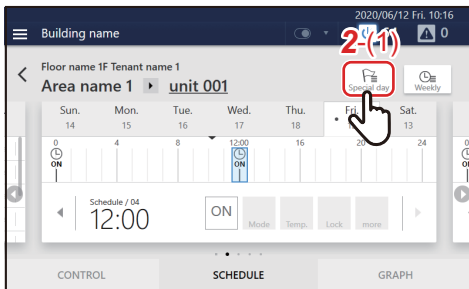
- 5** Scroll the screen and tap the value of the item you want to set. After changing the setting, tap [OK]  
See "Setting items list" (P.56) for the items that can be configured.



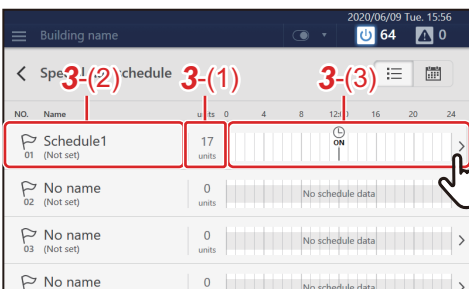
**Change the details of the special day schedule**



**1** Tap [1-(1)] on the group screen or the individual control screen

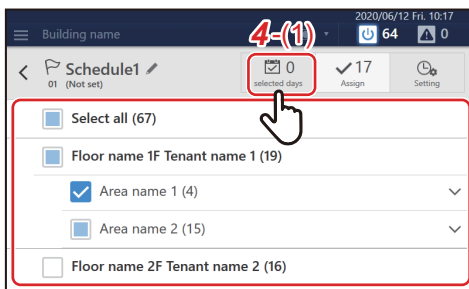


**2** Tap [2-(1)]

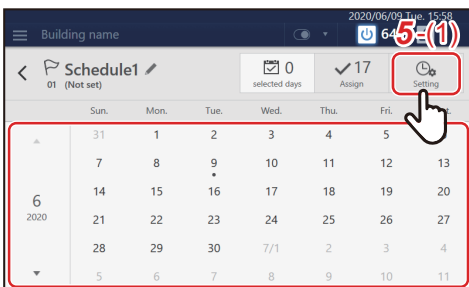


**3** Tap [3-(1)] of the schedule you want to modify

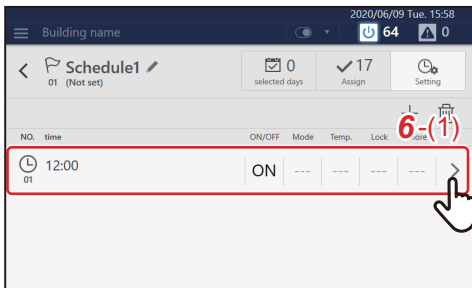
- [3-(1)] Unit setting: Go to step 4
- [3-(2)] Special day setting: Go to step 5
- [3-(3)] Operating schedule setting: Go to step 6



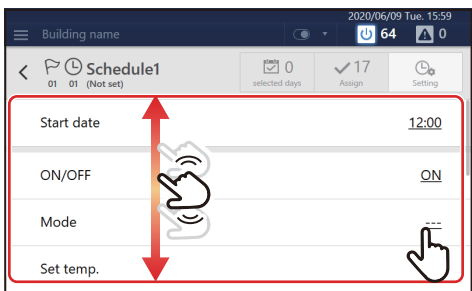
**4** Modify the target air conditioner(s) or ON/OFF unit, then tap [4-(1)]



**5** Tap the date you want to configure, modify the settings, and then tap [5-(1)]

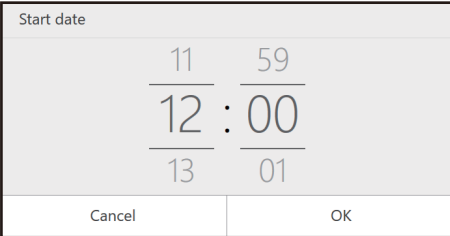
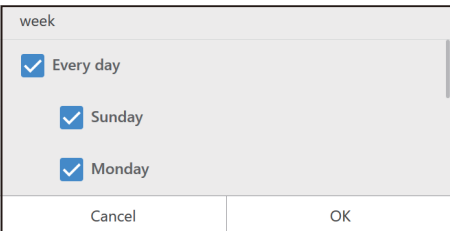

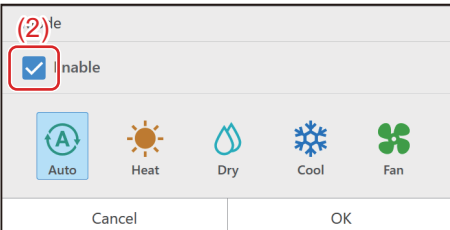
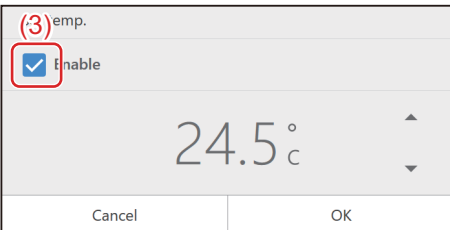
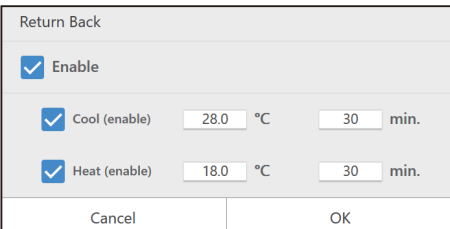


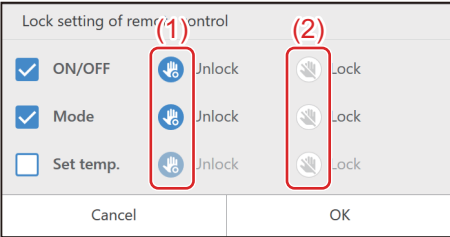
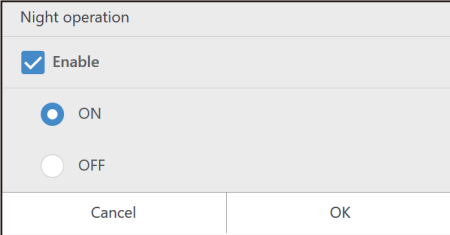
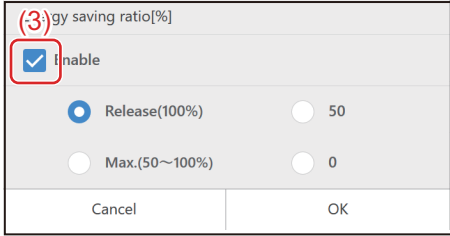
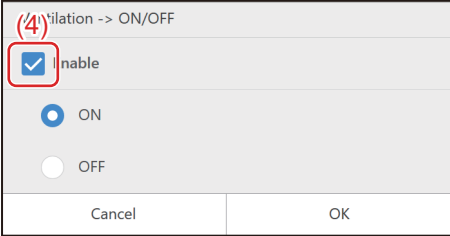
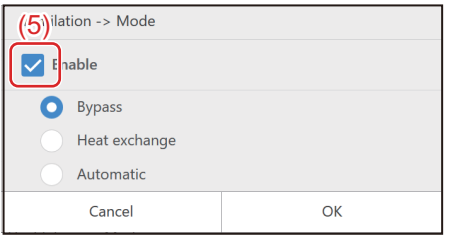
**6** Tap [6-(1)] of the time you want to modify



**7** Scroll the screen and tap the value of the item you want to set. After changing the setting, tap [OK]  
See "Setting items list" (P.56) for the items that can be configured.

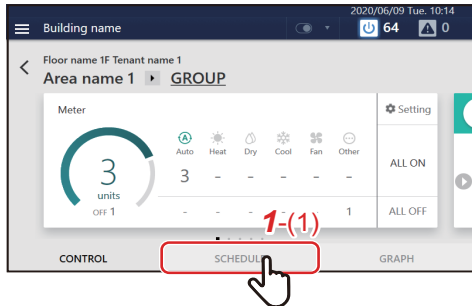
Setting items list

Setting Items	Setting Procedure
<p><b>Time setting [Start date]</b></p> 	<p>Tap or flick to change the time.</p>
<p><b>Day of the week setting [week]</b></p> 	<p>Set the check box(es) of the day(s) of the week on which you want to execute the schedule to <input checked="" type="checkbox"/>.</p> <p><b>NOTE</b></p> <p>The day of the [week] setting is not displayed in Special day schedule.</p>
<p><b>Operation setting [ON/OFF]</b></p> 	<p>To enable the setting, set the check box of [(1)] to <input checked="" type="checkbox"/> and select a value.</p>
<p><b>Operation mode setting [Mode]</b></p> 	<p>To enable the setting, set the check box of [(2)] to <input checked="" type="checkbox"/> and select a value.</p>
<p><b>Set temperature setting [Set temp.]</b></p> 	<p>To enable the setting, set the check box of [(3)] to <input checked="" type="checkbox"/>, tap ▲ ▼, then change the set temperature.</p>
<p><b>Return Back settings [Return Back]</b></p> 	<p>An energy saving function whereby if you temporarily change the set temperature to one which increases the load, you can automatically return to the energy saving set temperature after a certain time has elapsed. For example, if you set COOL to 28°C/30 minutes, then if the set temperature is set to below 28°C, the Unit will return to 28°C 30 minutes after the change.</p> <p><b>NOTE</b></p> <p>Displayed in the case of a compatible air conditioner.</p>

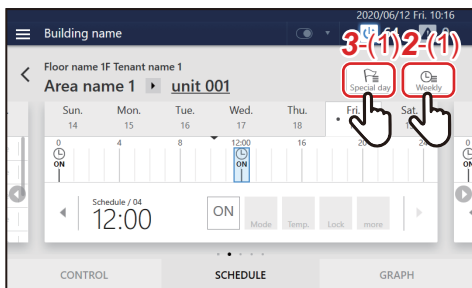
Setting Items	Setting Procedure
<p><b>Local operation prohibition setting</b>  <b>[Lock setting of remote control]</b></p> 	<p>Tap the check box of the function whose setting you want to change to set it to <input checked="" type="checkbox"/>, then select [(1)] or [(2)].</p>
<p><b>Night operation setting</b>  <b>[Night operation]</b></p> 	<p>You can change the [ON/OFF] of the night operation of the target device.</p>
<p><b>Save operation setting</b>  <b>[Energy saving ratio[%]]</b></p> 	<p>To enable the setting, set the check box of [(3)] to <input checked="" type="checkbox"/>. For details, see "Control air conditioner power" (P.50)".</p>
<p><b>Ventilation operation setting</b>  <b>[Ventilation -&gt; ON/OFF]</b></p> 	<p>You can turn ON/OFF the operation of the ventilator connected to the air to air heat exchanger(s) or air conditioner(s). To enable the setting, set the check box of [(4)] to <input checked="" type="checkbox"/> and apply the setting.</p>
<p><b>Vent. Mode</b>  <b>[Ventilation -&gt; Mode]</b></p> 	<p>You can set the ventilation mode of the ventilator connected to the air to air heat exchanger(s) or the air conditioner(s). To enable the setting, set the check box of [(5)] to <input checked="" type="checkbox"/> and apply the setting. For details, see "Set ventilation mode" (P.48).</p>

**Delete the operation schedule**

You can delete the schedule from either the group screen or the individual control screen. In the following procedure, the individual control screen is used.

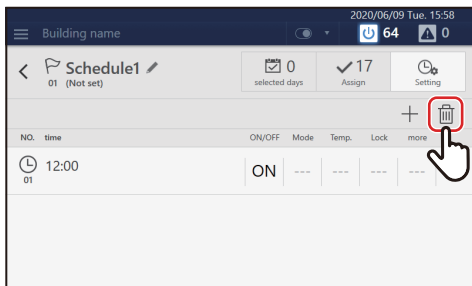
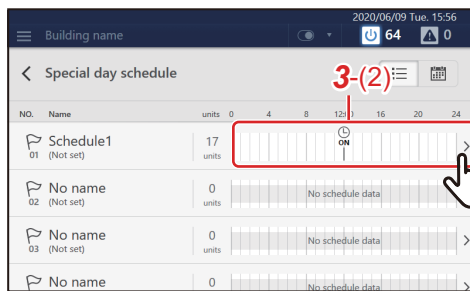


**1** Tap [1-(1)] on the group screen or individual control screen



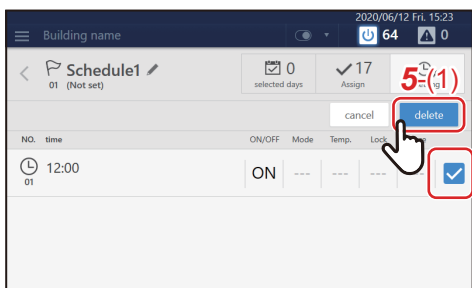
**2** Tap [2-(1)] to go to step 4

**3** (In case of Special day setting) tap [3-(1)] Tap [3-(2)] of the schedule you want to modify to go to step 4.



**4** Tap

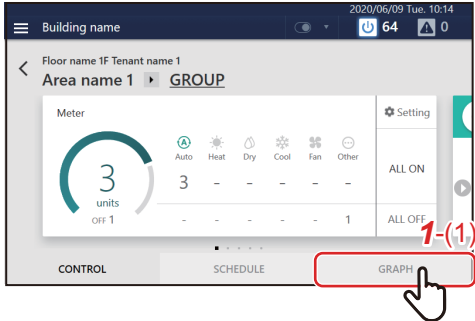
(Some displayed items differ between the Weekly schedule screen and the Special day schedule screen, but the procedure shown below is the same.)



**5** Set the check box of the schedule you want to delete to  then tap [5-(1)]

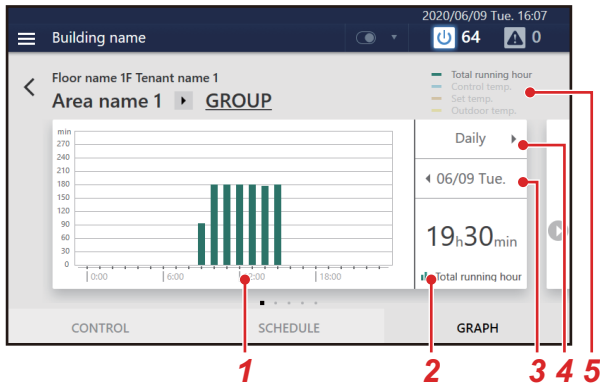
## Confirm the Operation Time

In the [GRAPH] tab of the group screen or individual control screen, you can check the operation time for each group, air conditioner or ON/OFF unit.

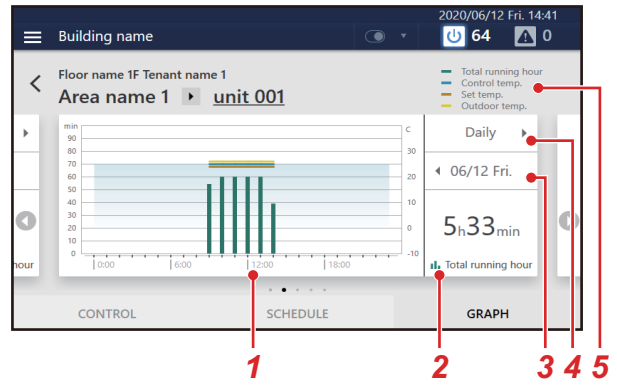


- 1 Tap [1-(1)] on the group screen or individual control screen  
The operation graph appears.

### Group screen



### Individual control screen

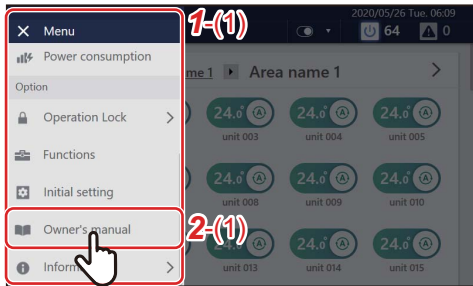


No.	Functions
1	The hourly or daily operation hours are shown as a bar graph. For the individual control screen, the outdoor temperature, room temperature, and set temperature are displayed as a line graph.
2	The operation hours for the displayed summary period is displayed.
3	Displays the currently displayed date. Tap ◀ ▶ to switch the date. Tap the centre to select the display period from the calendar screen.
4	You can change the summary unit to day or month.
5	The legend for the graph appears.

## Display the Owner's Manual on the Screen

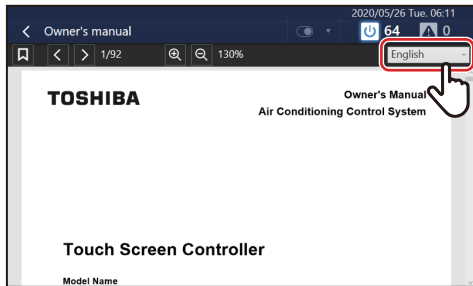
You can browse the owner's manual on the screen.

### How to display the owner's manual



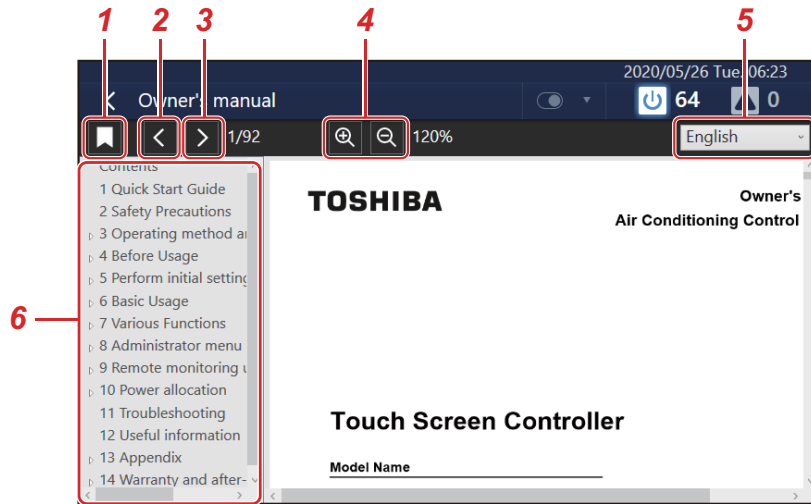
**1** Tap [1-(1)] Menu appears.

**2** Tap [2-(1)]



**3** Select the display language  
The owner's manual is displayed.

### Owner's manual screen description



No.	Name (Icon)	Functions
1	Bookmark	You can switch bookmarks between display and non-display.
2	Previous page	Displays the previous page.
3	Next page	Displays the next page.
4	Enlarge, reduce	Used to enlarge and reduce the display.
5	Language selection	Select the display language.
6	Bookmark list	Displays the title of each chapter. Tap a title to display the relevant page.

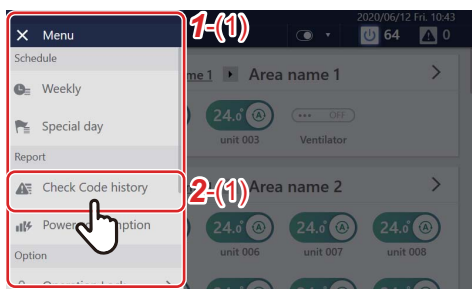
# 8 Administrator Menu


## Confirm Check Code History

You can display failures that have occurred in a list, including currently occurring ones. This can be used for grasping the status of the site such as investigating the cause of a failure and the recovery status.

### NOTE

The past 1,000 check codes are displayed.



- 1 Tap  [1-(1)] appears.
- 2 Tap [2-(1)]

Date/Time	Group	Area	Unit	Code
2020/06/15 09:16	Floor name 1 Tenant name 1	Area name 1	unit 002	E06
2020/06/15 09:12	Floor name 1 Tenant name 1	Area name 1	unit 001	E07
2020/06/15 08:50	Floor name 1 Tenant name 1	Area name 1	unit 001	E07
2020/06/15 08:49	Floor name 1 Tenant name 1	Area name 1	unit 001	E01
2020/05/11 08:36	Outdoor unit	Outdoor system name 1	S01	

The detected check codes are listed in chronological order.

Currently occurring check codes are displayed with a red.

Past check codes are displayed with a white background.

Tap  to display the details of the check code contents.

You can delete the check code history.

## Confirm Notice Code History

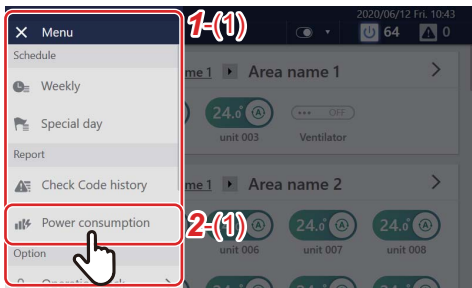
You can display notices that have occurred in a list, including currently occurring ones. For details, confirm with the dealer.



## Confirm the Power Consumption on a Graph

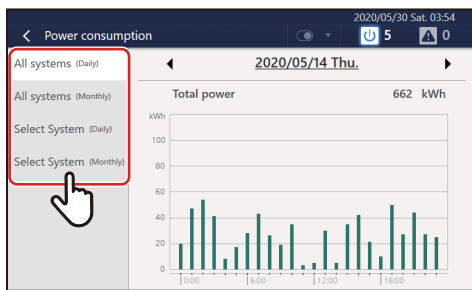
Pulse values are graphed and the electric power can be visually confirmed.

\* This function can be displayed when the electric power is measured by connecting this Unit to a pulse oscillation type watt hour meter.



**1** Tap [1-(1)] appears.

**2** Tap [2-(1)]



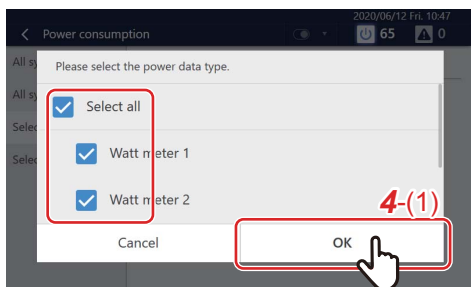
**3** Tap the data type to be displayed

All systems (Daily): You can display the total electric power on a daily basis on a graph.

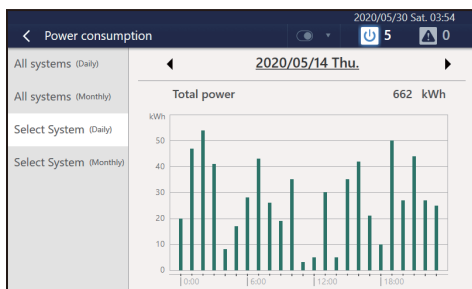
All systems (Monthly): You can display the total electric power on a monthly basis on a graph.

Select System (Daily): You can select the watt hour meter to sum and display the daily electric power on a graph.

Select System (Monthly): You can select the watt hour meter to sum and display the monthly electric power on a graph.



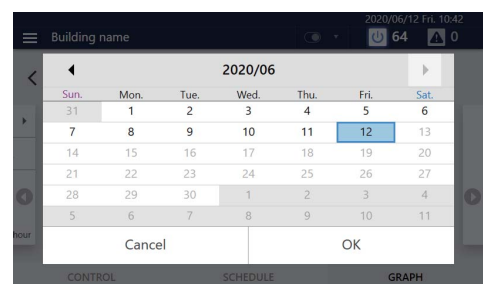
**4** To select [Select System(Daily)] or [Select System(Monthly)], set the check box of the watt hour meter to sum to  and tap [4-(1)]



An electric power graph is displayed.

**NOTE**

Tap to change the summary period to display. You can also tap the displayed date to display the calendar and change the summary period.

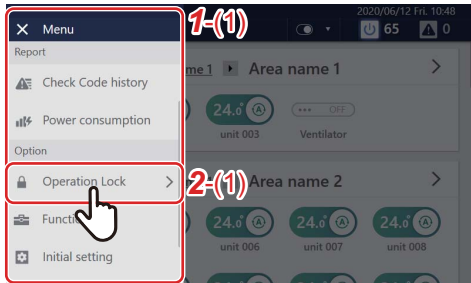


## Restrict Operation of the Touch Screen Controller

You can restrict the operation range of the Unit by locking it.

This section explains how to set and release the lock.

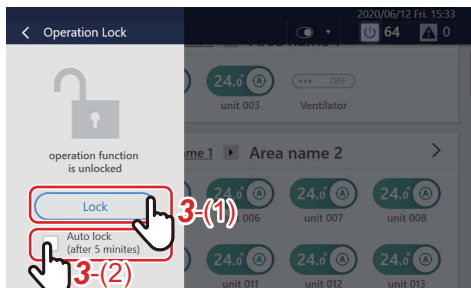
For the restriction range, see "Set the operation lock level" (P.74).



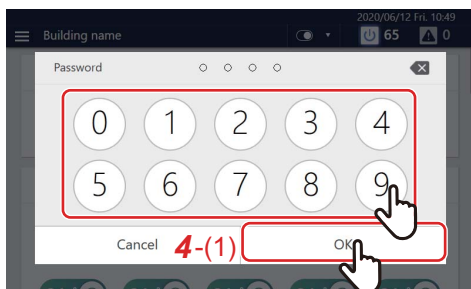
**1** Tap [1-(1)]  
[1-(1)] appears.

**2** Tap [2-(1)]

Below, the screen for release is explained.




**3** Tap [3-(1)]  
To change the auto lock settings, tap [3-(2)]




**4** Tap the number, enter the 4-digit password, then tap [4-(1)]

The lock is set or released.

### NOTE

- The initial set password is "1048".
- There are two levels of protection when locking. (P.74)
- Tap  to delete one character.

### NOTE

- You can change the password. (P.74) If you do not know the password, please contact your administrator.
- If you enter the wrong password three times when unlocking, password input is restricted for 30 minutes.
- When automatic lock is set, the Unit will be locked automatically after 5 minutes have passed after an operation has completed.
- When the lock is set, if you tap a function that cannot be operated, the message "operation function is locked" is displayed. Also,  appears in the menu.

## [Functions] Menu Settings

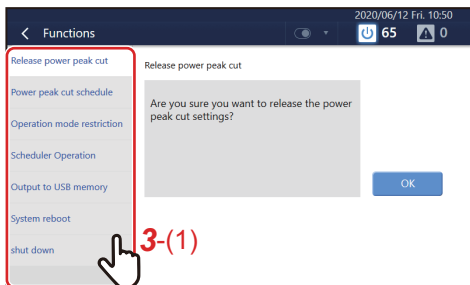
On the [Functions] menu, demand control of outdoor units and summation of data for power distribution can be performed.

### How to display the [Functions] menu



**1** Tap [1-(1)] appears.

**2** Tap [2-(1)] [3-(1)] appears.

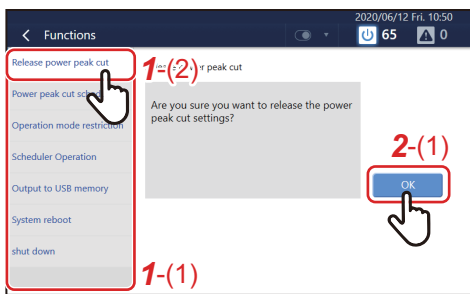


**3** Tap the item you want to set with [3-(1)]  
The settings screen of the selected item appears on the right.

For details on the setting contents of each item, refer to the following.

- Release power peak cut (P.64)
- Power peak cut schedule (P.65)
- Operation mode restriction (P.67)
- Scheduler Operation (P.67)
- Output to USB memory (P.68)
- System reboot (P.68)
- Shut down (P.68)

### Release demand control of outdoor unit



**1** Tap [1-(2)] with [1-(1)]

**2** Tap [2-(1)]  
Outdoor demand set for all outdoor units is released.

**NOTE**

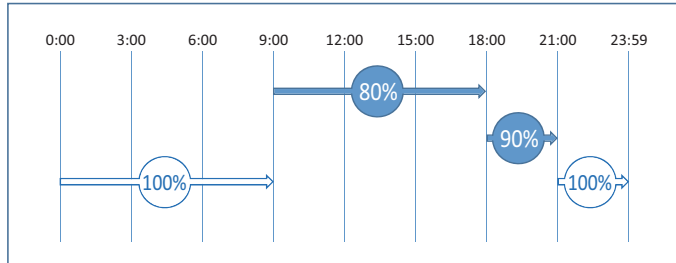
- Outdoor demand can be set by the "Power peak cut schedule". (P.65)  
Outdoor demand may function with digital input set locally. In this case it can also be released.
- When you release the Power peak cut, the setting value of [Power peak cut] on the option screen changes to the release state. (P.50)

### Set demand control schedule of outdoor unit

The demand function of the outdoor unit can be managed with the schedule to 100% to 0% according to the peak time zone.

#### Setting example:

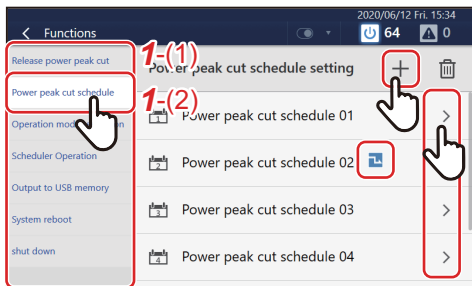
If you set "80%" for 9:00 to 18:00,  
 "90%" for 18:00 to 21:00, and  
 "100% (No power peak cut)"  
 for 21:00 to 9:00 on next day



**NOTE**

- Cannot be set when the Outdoor Demand Schedule is disabled. Please enable the Outdoor Demand Schedule. (P.67)
- Demand levels that can be set are "100% (No power peak cut)", "90%", "80%", "70%", "60%" and "0%".
- Up to 10 schedules can be created.

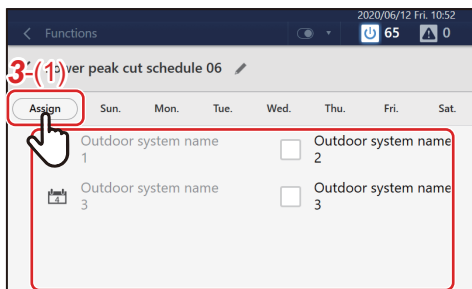
### Add/change power peak cut schedule



- 1 Tap [1-(2)] with [1-(1)] (P.64)
- 2 Tap + to register new  
 To change, tap > of the schedule you want to change

**NOTE**

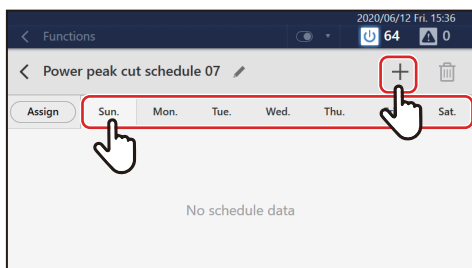
When the demand function is functioning at the current time, appears.



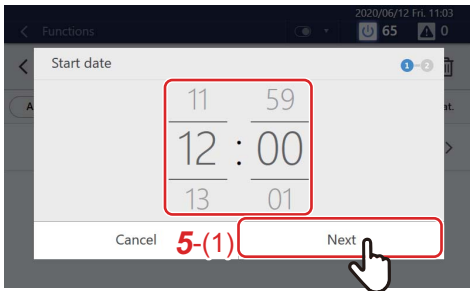
- 3 Tap [3-(1)] and set the check box of the outdoor unit for setting the Power peak cut schedule to

**NOTE**

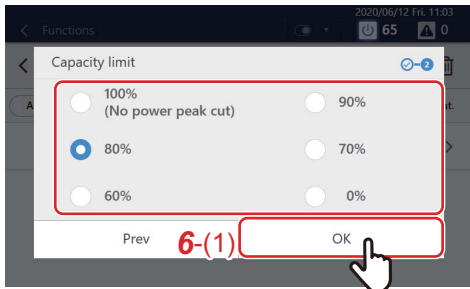
The schedule number ( ) will be displayed on outdoor units that have already been scheduled. Cannot be selected.



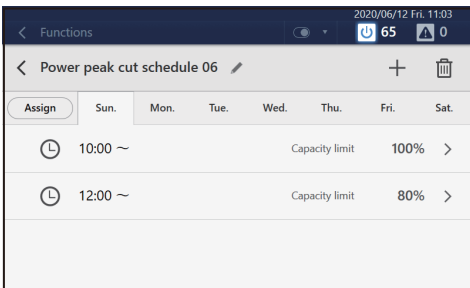
- 4 Tap the day of the week tab to start the schedule, then tap +  
 To change an already registered schedule, tap > on the corresponding schedule



**5** Tap or flick to set the start time and tap [5-(1)]



**6** Select the outdoor demand level and tap [6-(1)] to add a demand schedule



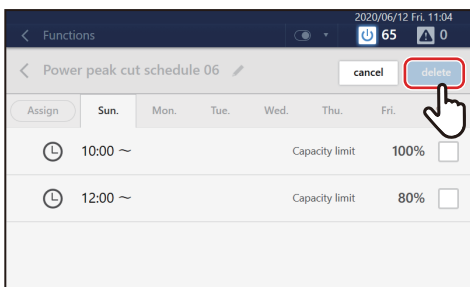
**7** To add a schedule such as change/release of demand level, repeat steps 4 to 6

**NOTE**

- The outdoor demand initiated by the schedule is released in the following cases.
  - When 100% (No power peak cut) is set in the schedule
  - When demand control of the outdoor unit has been released (P.64)
- Demand control continues even across days.
 

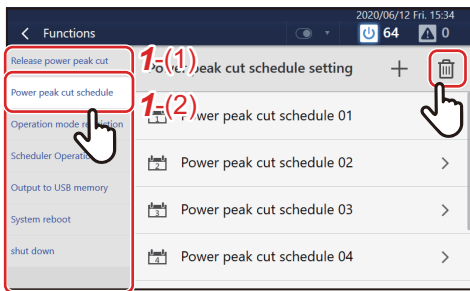
Example: When the demand rate is set to 0% on Monday at 21:00 and release is set at 9:00 on Tuesday

→ The demand rate is set to 0% from Monday at 21:00 to Tuesday at 9:00 and demand release occurs at 9:00 on Tuesday



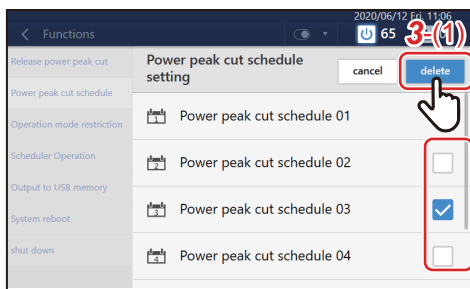
**8** Tap and set the check box of the demand setting you want to delete to , then tap "delete"

## Delete a power peak cut schedule



**1** Tap [1-(2)] with [1-(1)] (P.64)

**2** Tap

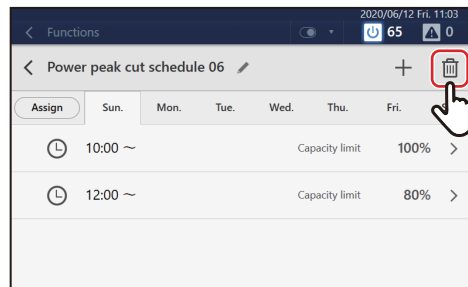


**3** Set the check box of the schedule you want to delete to , then tap [3-(1)]

The selected schedule will be deleted.

### NOTE

Also, when deleting a registered time, tap and operate similarly.



## Restrict operation mode

When using an outdoor unit that cannot operate cooling and heating at the same time, you can restrict its operation mode so that it can only be set for either cooling or heating.

**1** Tap [Operation mode restriction] in the [Functions] menu (P.64)

**2** Select the operation mode and tap [OK]

### NOTE

- Settings are reflected in all outdoor units.
- Even with restriction, the operation mode of the [CONTROL] tab can be selected. When a restricted operation mode is selected, the Thermo OFF state is set.

## Set the operating schedule or the power peak cut schedule

You can disable registered Operation Schedules and Power peak cut schedules so that they do not operate.

**1** Tap [Scheduler Operation] in the [Functions] menu (P.64)

**2** Set the check box to  if you do not want to operate each schedule, or set the check box to  to operate them, then tap [OK]

## Output data to a USB memory stick

You can output data for energy report software to a USB memory stick.

- 1** Connect the USB memory stick to the slot in the Unit
- 2** Tap [Output to USB memory] in the [Functions] menu (P.64)
- 3** Tap [OK]

### NOTE

If the USB memory stick is not connected, [OK] will not be enabled.

## Restart the unit

You can restart the Unit.  
The schedule is not executed during restart.

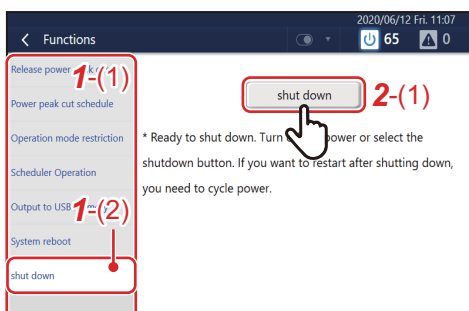
- 1** Tap [System reboot] in the [Functions] menu (P.64)
- 2** Tap [OK]

## Exit the system

Terminate the operation of the Unit.

### NOTE

This function turns off the power to the System Controller.  
It does not stop the air conditioners connected to the Unit.



- 1** In [1-(1) Functions], tap [1-(2) shut down]
- 2** Tap [2-(1) shut down]

## [Initial setting] Menu Settings

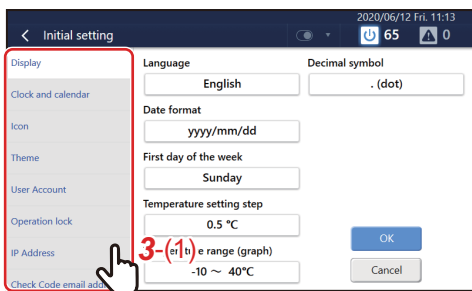
On the [Initial setting] menu, you can change the Unit screen display and the settings for remote operation, etc.

### How to display the [Initial setting] menu



**1** Tap .  
[1-(1)] appears.

**2** Scroll through the menu list and tap [2-(1)].  
[3-(1)] appears.



**3** Tap the item you want to set with [3-(1)].  
The settings screen of the selected item appears on the right.

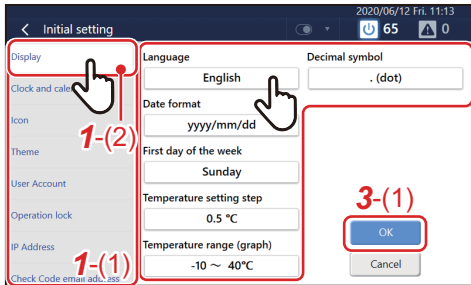
For details on the setting contents of each item, refer to the following.

- Display (P.70)
- Clock and calendar (P.70)
- Icon (P.71)
- Theme (P.71)
- User Account (P.72)
- Operation lock (P.74)
- IP Address (P.75)
- Check code email address (P.76)
- Indoor unit area setting (P.77)
- Indoor unit name setting (P.79)
- Area name setting (P.79)
- Backlight (P.80)
- Power peak cut (P.80)



## Set the screen display

You can change the display settings of the screen, such as language and date display format.



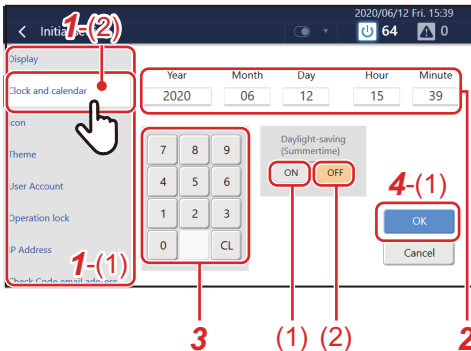
- 1 Tap [1-(2)] with [1-(1)] (P.69)**
- 2 Tap the item you want to change**

- Language:** You can change the display language of the screen.
- Date format:** You can change the format of the date displayed in the upper right of the screen.
- First day of the week:** You can change the first day of the week displayed on the calendar or schedule to Sunday or Monday.
- Temperature setting step:** You can change the temperature setting step to 0.5°C or 1°C. However, it cannot be changed if the display unit is Fahrenheit.
- Temperature range (graph):** You can change the temperature range displayed on the [GRAPH] tab.
- Decimal symbol:** You can change the decimal symbol displayed on the screen between [. (dot)] and [, (comma)].

- 3 Select the value you want to change, then tap [3-(1)]**


## Set the current date and time

You can change the date and time displayed in the upper right of the screen.



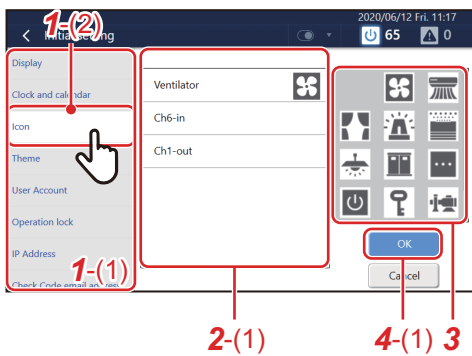
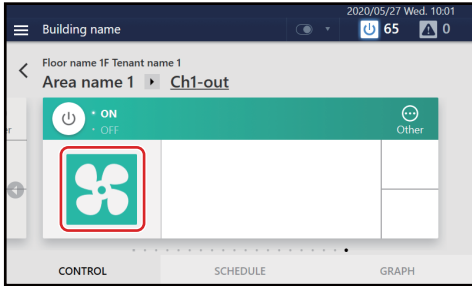
- 1 Tap [1-(2)] with [1-(1)] (P.69)**
- 2 Tap the item you want to change**  
The characters of the selected item change to red.
- 3 Tap the numeric keypad to enter a number**
- 4 Tap [4-(1)]**

**NOTE**

You can set daylight saving time with [Daylight-saving (Summertime)]. When set to [(1)], the time moves one hour forward, and when set to [(2)], it moves one hour back. While daylight saving time is set,  appears in the upper right corner of the screen.

### Set icons of devices other than air conditioners

You can display icons of each device on the [CONTROL] tab of devices other than air conditioners such as ventilation fan or lighting.



- 1** Tap [1-(2)] with [1-(1)] (P.69)
- 2** Tap the device you want to set with [2-(1)]
- 3** Tap the icon you want to set in the icon list  
The selected icon is displayed in [2-(1)].
- 4** Tap [4-(1)]

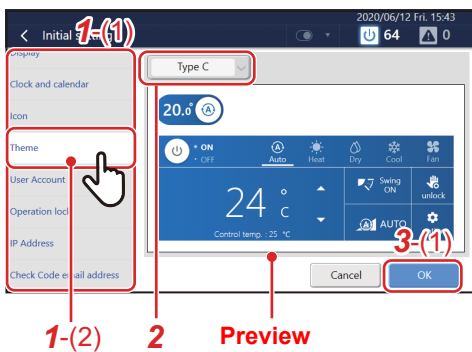
**NOTE**

- To delete a set icon, select the device with [2-(1)] and then tap the space at the top left of the icon list.
- The following icons can be set:

	Ventilation fan/Circulator		Room air conditioner		Curtain		Alarm		Humidifier/Dehumidifier		Lighting
	Cubicle		Water storage tank		General switch		Security		Pump		Camera

### Set the screen theme

You can set the theme of the home screen and the details/control screen.



- 1** Tap [1-(2)] with [1-(1)] (P.69)
- 2** Tap the drop-down menu and select a theme  
The selected theme appears in the preview. Operate the switch or tap the power supply or operation mode button to check the display after the change.
- 3** Tap [3-(1)]

## Set an account for remote operation

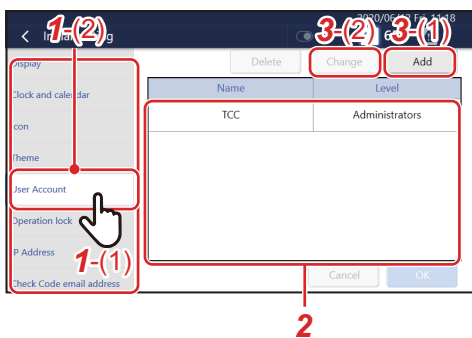
You can set a user account to operate the Unit remotely.

\* Remote operation can be used when the Unit is connected via LAN to a PC on which the Remote Control Software is installed.

**NOTE**

- 128 users can be registered.
- Up to 16 users can log in at the same time.
- At least one user must be registered.

### Add/change user account



- 1 Tap [1-(2)] with [1-(1)] (P.69)
- 2 To change, tap the row you want to change in the list

**NOTE**

The following users are registered in advance. You can also change/delete users.

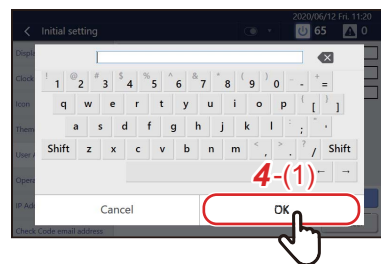
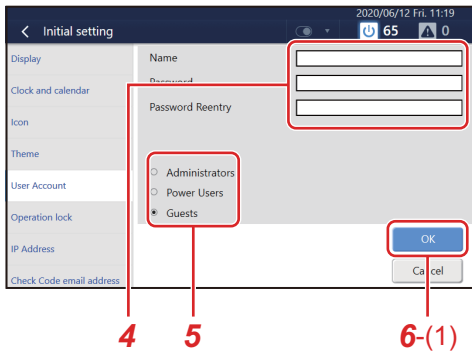
Name: TCC  
 Password: TCC  
 Level: Administrators

- 3 Tap [3-(1)] or [3-(2)]

In the following procedure, the screen in the case of addition is used to explain.

- 4 Set Name (only when adding) and password

Tap the entry field to display the keyboard. After entering the characters, tap [4-(1)].



**NOTE**

- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap to delete one character.

## 5 Set level

Administrators : All functions can be used.

Power Users : The following functions cannot be used.

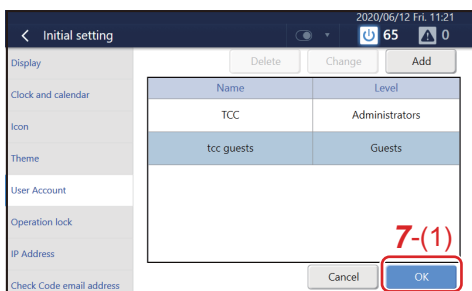
- Confirm/change the operation schedule
- [Menu] > Functions
- [Menu] > Initial setting

Guests : Only the operation status can be confirmed. The settings cannot be changed.

**NOTE**

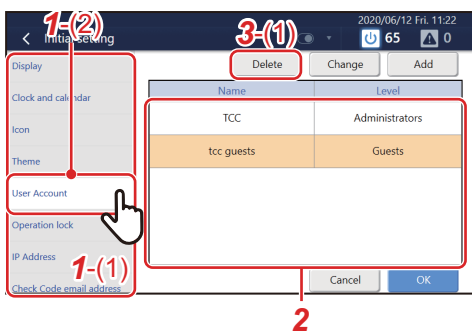
For details on the functions that can be used for each level, see "List by Lock Level/Level" (P.93).

## 6 Tap [6-(1)]



## 7 Tap [7-(1)]

### Delete a user account

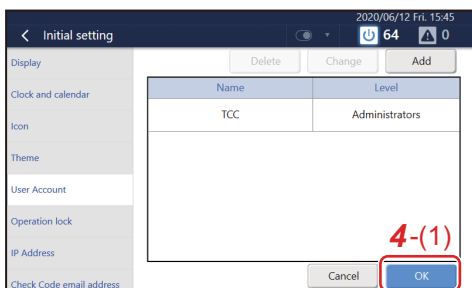


## 1 Tap [1-(2)] with [1-(1)] (P.69)

## 2 Tap the row you want to delete

## 3 Tap [3-(1)]

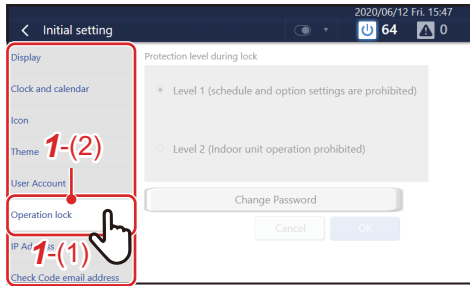
It will be deleted from the list.



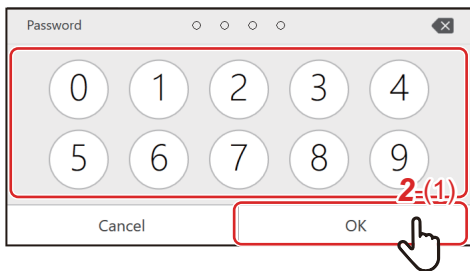
## 4 Tap [4-(1)]

Deletion is confirmed.

**Set the operation lock level**



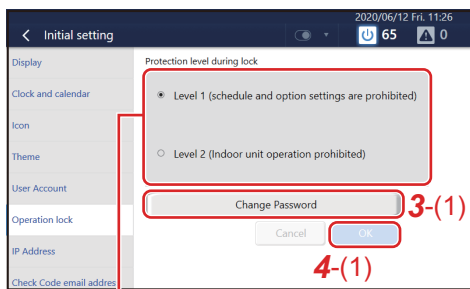
**1** Tap [1-(2)] with [1-(1)] (P.69)



**2** Enter the password and tap [2-(1)]

**NOTE**

The factory default setting password is "1048".



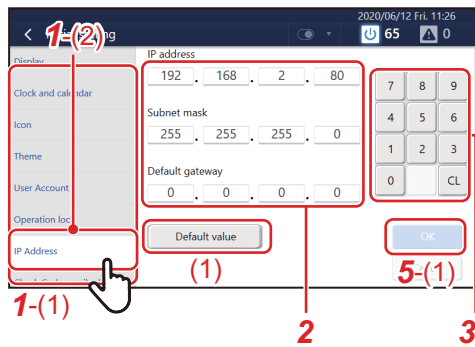
**3** Select the protection level during lock

**NOTE**

You can change the password that sets the operation lock. Tap [3-(1)] to display the change password input screen. Enter the changed password, tap [OK], re-enter it on the re-entry screen, then tap [OK]. 4-digit passwords can be set.

**4** Tap [4-(1)]

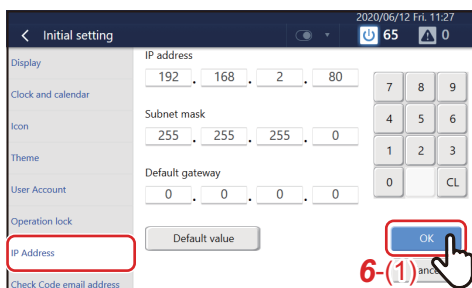
## Set the IP address of the Touch Screen Controller



- 1** Tap [1-(2)] with [1-(1)] (P.69)
- 2** Tap the value you want to change  
The characters of the selected item change to red.
- 3** Tap the numeric keypad to enter a number
- 4** If there are other values you want to change, repeat steps 2 and 3
- 5** Tap [5-(1)]  
The IP address is reset.

### NOTE

- The initial setting is as follows:  
IP address: 192.168.2.80  
Subnet mask: 255.255.255.0  
Default gateway: 0.0.0.0
- To return a changed value to the specified value, tap [(1)]. Tap [OK] on the confirmation screen to reset the IP address.



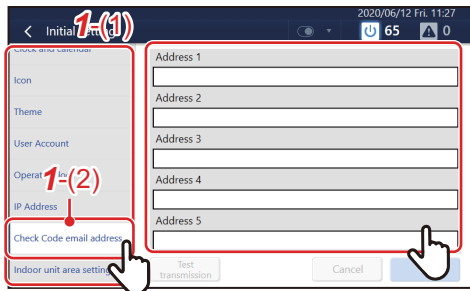
- 6** Tap [6-(1)]  
The Unit restarts.

## Set check code email destination

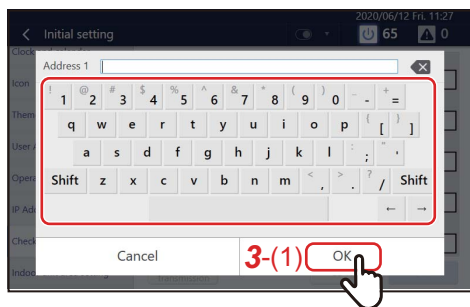
You can set the email address to send email to when an error occurs.

### NOTE

Up to five email addresses can be set.




- 1 Tap [1-(2)] with [1-(1)] (P.69)
- 2 Tap the address field to register



- 3 Enter the email address on the keyboard, then tap [3-(1)]

### NOTE

- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap  to delete one character.

- 4 Tap [OK]

### NOTE

To test-send to the registered email address, tap [Test transmission], which displays after you tap [OK].

## Change the area set for an indoor unit

In [Indoor unit area setting], you can move the indoor unit A in area X to area Y.



**NOTE**

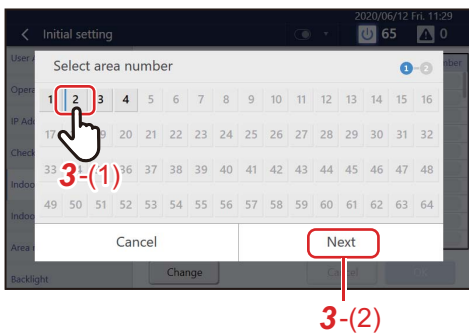
- [1] All areas. The area numbers, such as area 1 and area 2, are allocated automatically in the upper section of the home screen.
- [2] Each indoor unit in the area.

The procedure below is used as an example to explain how to move the indoor unit (unit 001) set in area 1 to area 2.

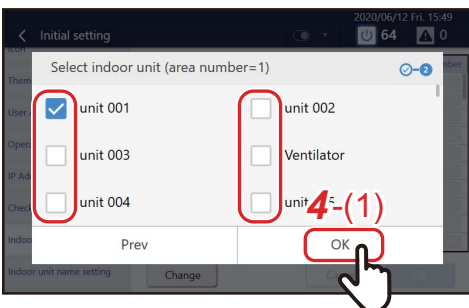
- 1 Tap [1-(2)] in [1-(1)] (P.69)
- 2 Tap [2-(1)]



- 3 Select [3-(1)] and tap [3-(2)]

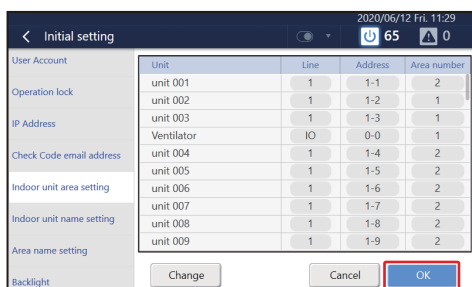


- 4 Set the check box of the indoor unit (unit 001) you want to move to area 2 to  and tap [4-(1)]

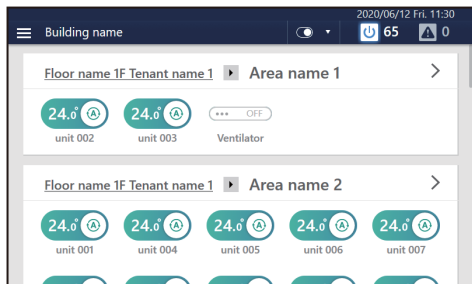




**5** Tap [5-(1)]

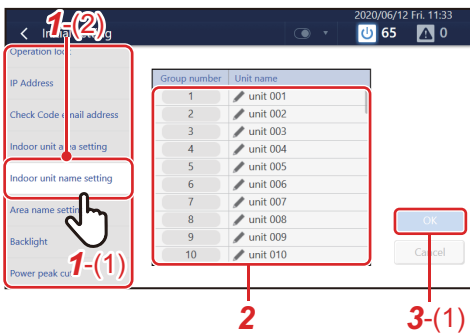


5-(1)

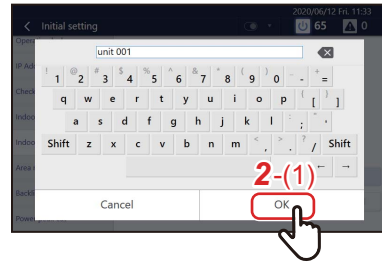


The indoor unit (unit 001) is moved to area 2.

**Set the name of an indoor unit**



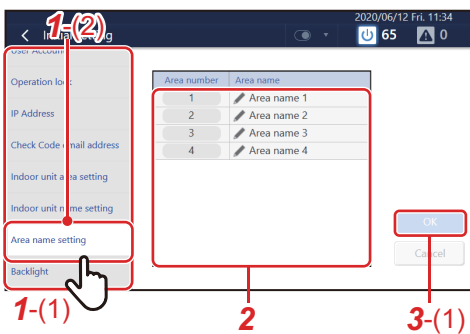
- 1 Tap [1-(2)] in [1-(1)] (P.69)
- 2 Tap the name you want to change in the list  
A keyboard is displayed. Enter the name and then tap [2-(1)].



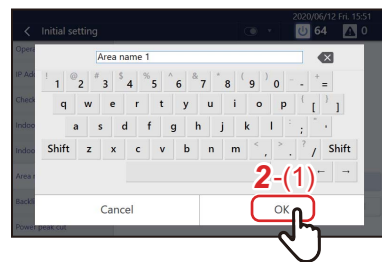
- **NOTE**
- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap to delete one character.

- 3 Tap [3-(1)]

**Set the area name**



- 1 Tap [1-(2)] in [1-(1)] (P.69)
- 2 Tap the name you want to change in the list  
A keyboard is displayed. Enter the name and then tap [2-(1)].

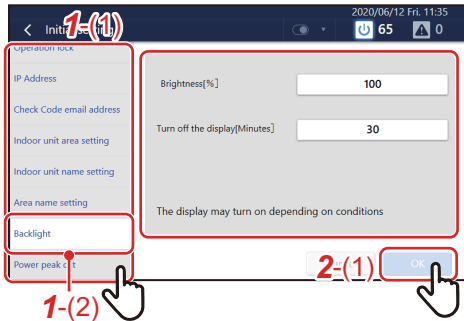


- **NOTE**
- Tap [Shift] to toggle between upper case letters and lower case letters, and numbers and symbols.
- Tap to delete one character.

- 3 Tap [3-(1)]

### Set the screen brightness

You can set the brightness of the screen and the duration after the end of the operation. In (1, 3, 10, 30, 60, 360 (6 hours), 720 (12 hours) minutes)



- 1 Tap [1-(2)] with [1-(1)] (P.69)
- 2 Select the brightness and tap [2-(1)]

### Set power consumption control conditions

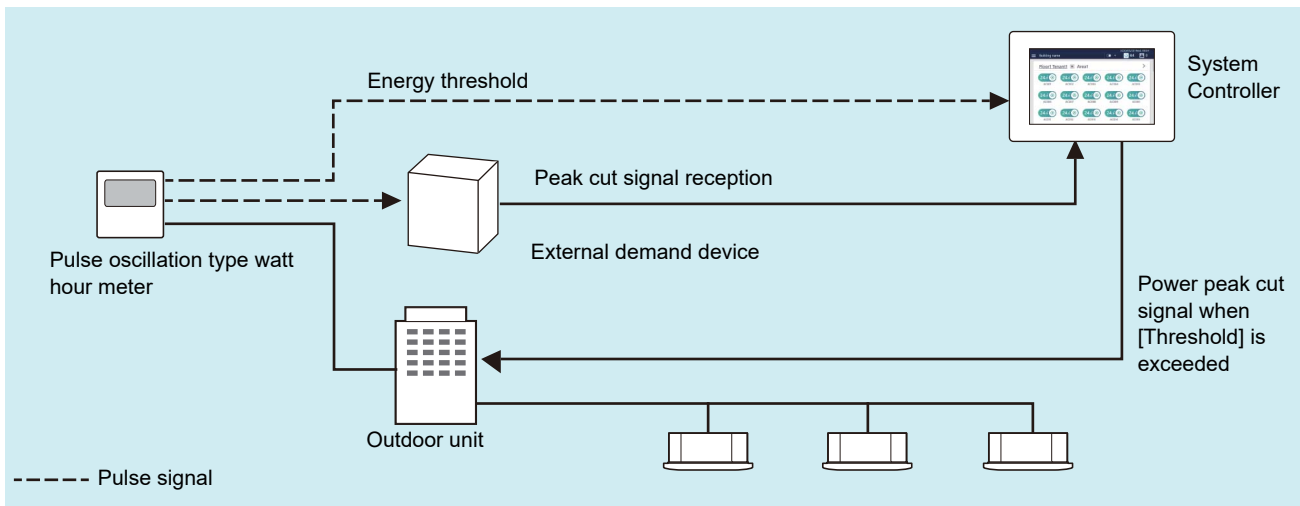
You can set the conditions for controlling power consumption peaks.

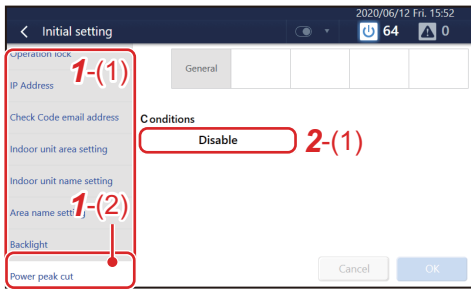
Based on the pulse signal from the pulse oscillation type watt hour meter, the power usage is calculated, and if it exceeds the power usage threshold, an operation control signal is sent to the outdoor unit.

There are two different settings:

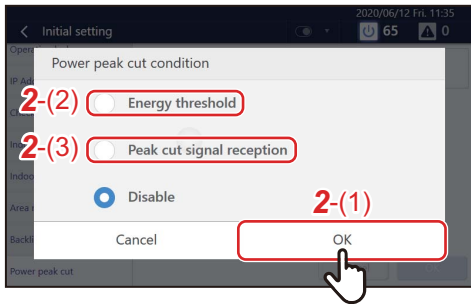
- Energy threshold: Controls operation based on the pulse signal from the pulse oscillation type watt hour meter.
- Peak cut signal reception: Controls operation based on the signal from the external demand device.

### System diagram





**1** In [1-(1)], tap [1-(2)]



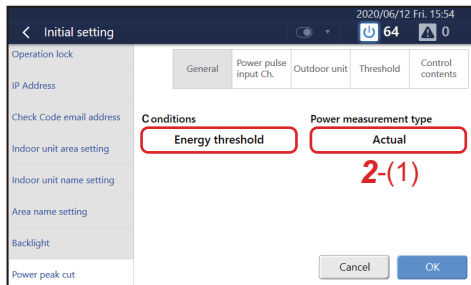
**2** Select Power peak cut and tap [2-(1)]

- [2-(2)]: Go to "Set Energy threshold"
- [2-(3)]: Go to "Set Peak cut signal reception"

**NOTE**

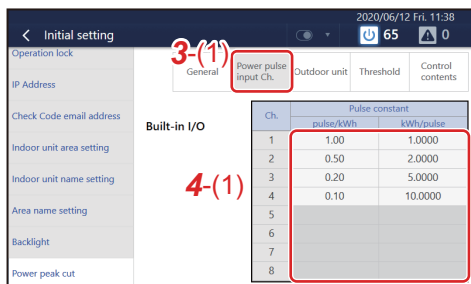
Before setting these items, initial settings are required. For details, contact service personnel.

**Set Energy threshold**



**1** Select [Energy threshold]

**2** Tap [2-(1)] and select between [Actual] and [Presumption]

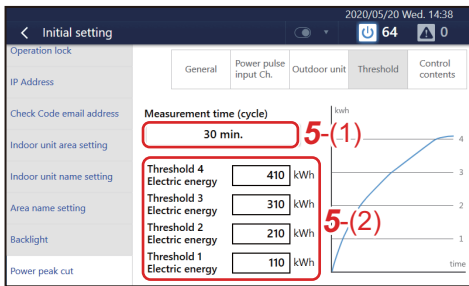


**3** Tap [3-(1)]

**4** Tap [4-(1)] and set the pulse constant for each of channels 1 to 8

**NOTE**

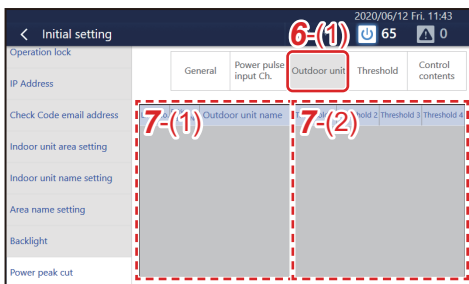
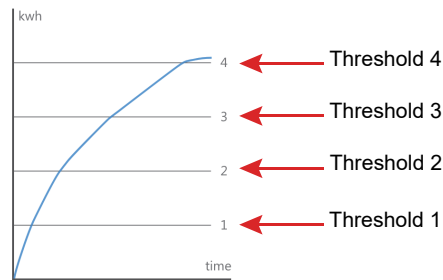
- Ensure that the pulse constant matches the output pulse of the pulse oscillation type watt hour meter connected to the Unit.
- Channels 1 to 8 correspond to external input terminals DIs 1 to 8.
- Enter each pulse constant in either the [pulse/kWh] or [kWh/pulse] field. In the field in which no pulse constant is entered, the reciprocal of the entered value is displayed.
- Before setting these items, initial settings are required. For details, contact service personnel.



## 5 Set data in [5-(1)] and [5-(2)]

### NOTE

- In Measurement time, set the measurement time for power usage.
- For Threshold 1 to Threshold 4, set the power usage in the measurement time cycle.
- A threshold of 0 means that no threshold is set.
- Enter thresholds, starting with Threshold 1, in such a way that the threshold gets larger as the number increases. You cannot skip any number.
- If the actual power usage is 250 kWh, Threshold 1 (110 kWh) and Threshold 2 (210 kWh) are exceeded. Thus, power peak cut controls 1 and 2 are executed.



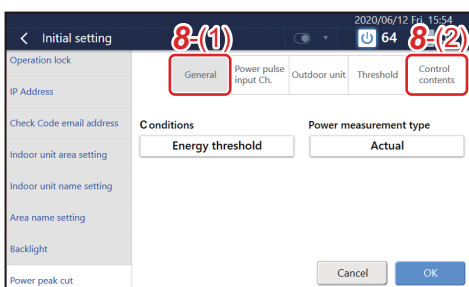
## 6 Tap [6-(1)]

## 7 Set the controls to execute if the thresholds that are set in step 5 are exceeded

- [7-(1)] Outdoor unit selection: Select a target outdoor unit
- [7-(2)] Control contents selection: Select the power peak cut control to execute if the threshold is exceeded

### NOTE

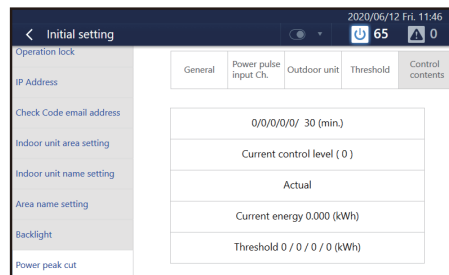
- You can set power peak cut controls with seven stages from 100% (no restriction) to 0% (operation stop).
- You can set them for each of the outdoor units connected to the Unit.
- Before setting thresholds for outdoor units, initial settings are required. For details, contact service personnel.



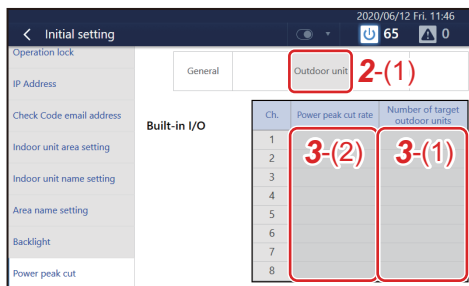
## 8 Tap [8-(1)] and tap [OK]

### NOTE

Tap [8-(2)] to check the setting contents.



## Set Peak cut signal reception



**1** Select [Peak cut signal reception]

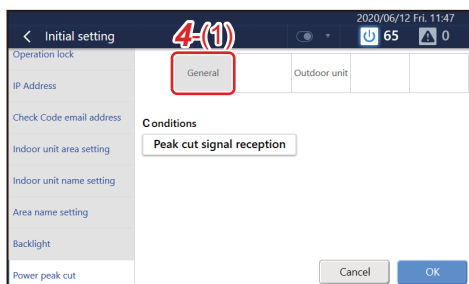
**2** Tap [2-(1)]

**3** Enter the power peak cut control to execute when the power peak cut signal is entered

- [3-(1)] Outdoor unit selection: Select a target outdoor unit
- [3-(2)] Control contents selection: Select the capacity limit to use when the power peak cut signal is entered

### NOTE

- You can set them with seven stages from 100% (no restriction) to 0% (operation stop).
- You can set them for each of the outdoor units connected to the Unit.
- Before setting power peak cut controls, initial settings are required. For details, contact service personnel.



**4** Tap [4-(1)] and tap [OK]

# 9 Remote Monitoring Using a PC

You can monitor and control the Unit by accessing it from a PC. This section explains the system diagram and the operating environment. For settings, etc., see "Settings for Remote Monitoring with a PC" (P.25).

## NOTE

Some functions cannot be used from a PC. For details, please see "List by Lock Level/Level" (P.93).

## Log in to Remote Control Software

## NOTE

Up to 16 users can log in at the same time.



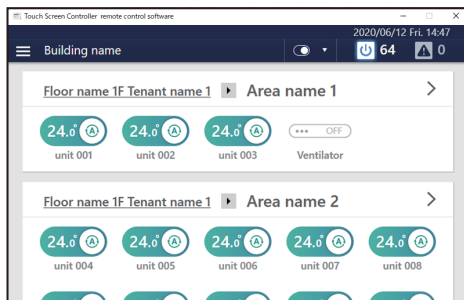
**1** Double-click "AMTC\_UI\_\*\*\*\*" on the desktop



**2** Enter [User ID] [password], then click [2-(1)]

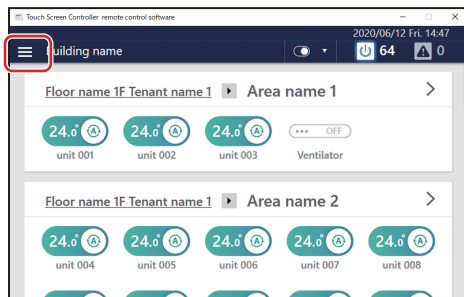
User ID/password:

Use the user account set up in step **1** of "Unit settings" (P.26).

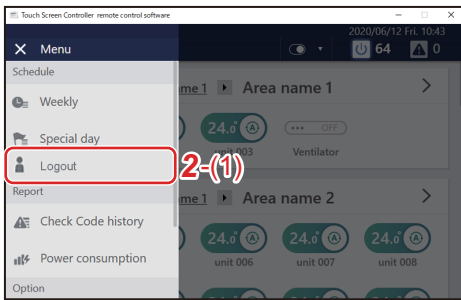


The Remote Control Software home screen is displayed.

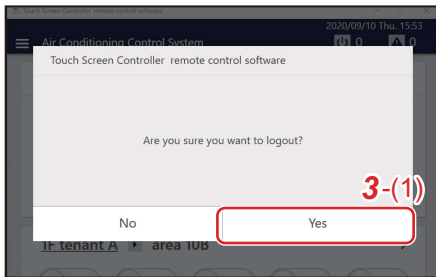
## Log out from Remote Control Software



**1** Click 

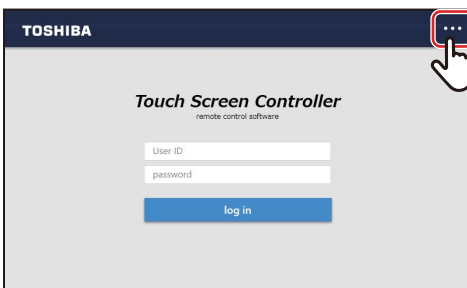


**2** Click [2-(1)]

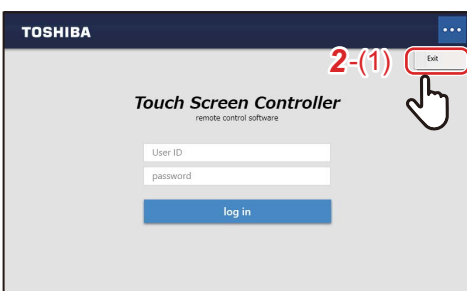


**3** Click [3-(1)]  
You are logged out from the Remote Control Software.

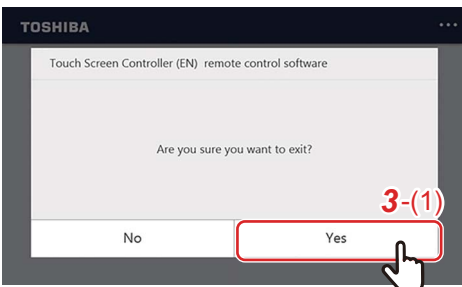
### Exit Remote Control Software



**1** Tap ...



**2** Tap [2-(1)]



**3** Tap [3-(1)]  
Exit the Remote Control Software.



# 10 Power Distribution

## Power Distribution System Using the Energy Report Software (PC Software)

In normal houses, a contract is made with the electric power company for each house, but in buildings such as offices and shops, a contract is made between the building owner and the electric power company, and the building owner pays the total electricity bill. Therefore, in some cases the building owner distributes the electricity fee that they paid in bulk to each tenant and invoices for a fee.

With energy report software, you can distribute the electric power based on data such as the operating time of the air conditioner(s) and the ON/OFF equipment recorded by the Unit. In addition, you can easily summarize the operation results in a report format and calculate the billing amount.

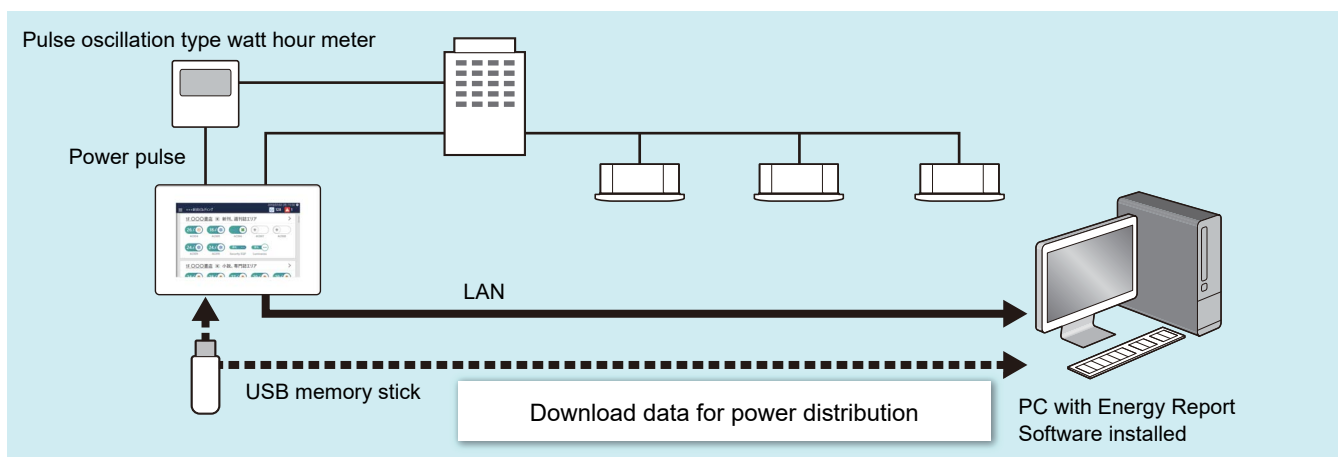
### Example report

Toshiba Building										
Air conditioner power distribution result Monthly report List										
Metering term										
Starting date Jan/01/2019										
Ending date Jan/31/2019										
Classification										
No.	System	Floor	Tenant	Area	Unit	Operating time[h]	Power [kWh]	Normal hours		
								Operating time[h]	Power [kWh]	Operating time[h]
1	ENR_test	Floor1	Tenant1	Area1	AC001	323.70	3,742.44	85.22	901.97	78.55
2	ENR_test	Floor1	Tenant1	Area1	AC002	331.55	3,582.63	83.13	893.77	79.85
3	ENR_test	Floor1	Tenant1	Area1	AC003	346.37	3,570.40	84.88	818.22	82.97
4	ENR_test	Floor2	Tenant2	Area2	AC004	339.97	3,670.81	83.42	886.18	84.68
5	ENR_test	Floor2	Tenant2	Area2	AC005	333.37	3,590.72	81.83	896.71	83.28
6	ENR_test	Floor3	Tenant3	Area3	AC006	331.55	3,582.63	83.13	893.77	79.85
7	ENR_test	Floor3	Tenant3	Area3	AC007	339.97	3,670.81	83.42	886.18	84.68
8	ENR_test	Floor3	Tenant3	Area3	AC008	333.37	3,590.72	81.83	896.71	83.28

### CAUTION

This system calculates the distribution of the power by load ratio estimated for each air conditioner. The result may differ from the actual power consumed. In addition, the result is not calculated based on the Measurement Act and cannot be used officially.

### System diagram



## How to use the power distribution system

### 1 Download the data for power distribution

Save the data for power distribution to the PC using one of the following procedures.

1) Download by LAN connection

Download the data using the Energy Report Software.

2) Copy the data to a USB memory stick

Output the data to the USB memory stick using the Unit's [Output to USB memory] and import the data using the Energy Report Software.

### 2 Create monthly reports and daily reports

Create a monthly report or daily report from [Change display] - [Report] in the Energy Report Software.

### 3 From the [Monthly report] screen or the [Daily report] screen, click the month or day you want to display

### 4 Click the [Output] button

#### • NOTE

For details, refer to the Operating Instructions of the Energy Report Software.

# 11 Troubleshooting

Phenomenon	Question	Confirmation items
The LCD does not display.	Is the power turned on?	Check that the power is not turned off by the breaker or the like. There is a green LED at the lower rear of the main unit and a green LED on the AC adapter that indicate that power is being supplied. Check that the wiring of the power outlet and AC adapter is not disconnected. There is a green LED at the lower rear of the main unit and a green LED on the AC adapter that indicate that power is being supplied.
	Has the backlight gone out?	The LCD turns off when there is no operation for a certain period of time. Touch the touch panel to turn on. The brightness and display time can be changed using [Backlight].
	Is the backlight brightness dark?	Adjust the brightness using [Backlight].
The operated air conditioner does not run.	Does the operated air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
	Has a check code been detected?	The air conditioner will not operate when a check code has been detected. Erase the check code.
	Are you operating with the local remote control?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control, it will stop. The latter operation of this Unit or the local remote control overrides the former.
	Is the air conditioner stopped due to the schedule setting of the local remote control or the like?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control schedule, it will stop. The latter operation of this Unit or the local remote control overrides the former.
	Are you operating with the PC app "Remote Control Software"?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the PC app "Remote Control Software", it will stop. The latter operation of this Unit or the "Remote Control Software" overrides the former.
I want to turn off the power.	From [Menu], turn off the power.	Select [Menu]-[Functions]-[shut down].
I want to reboot.	Reboot from the menu.	Select [Menu]-[Functions]-[System reboot].
The air conditioner settings change arbitrarily.	Are you operating with the local remote control?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control, it will stop. The latter operation of this Unit or the local remote control overrides the former.
	Is the air conditioner stopped due to the schedule setting of the local remote control or the like?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the local remote control schedule, it will stop. The latter operation of this Unit or the local remote control overrides the former.
	Have you applied settings such as stop using an external input signal?	When stop, etc. is set by an external input signal using the external interlocking function, the air conditioner stops automatically when a signal is input.
	Are you operating with the PC app "Remote Control Software"?	Even if the air conditioner is run with this Unit, if it is stopped afterwards with the PC app "Remote Control Software", it will stop. The latter operation of this Unit or the "Remote Control Software" overrides the former.
The schedule does not work.	Is the schedule disabled?	Please confirm the Scheduler Operation settings.
	Does the scheduled air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
	Is a Special day schedule set?	If a day is set in both the Weekly schedule and a Special day schedule, the Special day schedule will apply for that day.
The air conditioner doesn't cool. The air conditioner doesn't heat.	Is demand control turned on?	Demand control suppresses the capability of the outdoor unit in order to reduce power consumption. Therefore, it may take time to reach the set temperature.
	Is the forced thermo OFF control turned on?	Forced thermo OFF is a control to stop the operation of the outdoor unit. Therefore, the indoor unit acts as a fan.
	Is the power saving control turned on?	Power saving suppresses the capability of the outdoor unit. Therefore, it may take time to reach the set temperature.

Phenomenon	Question	Confirmation items
The LCD does not turn off.	Has a check code been detected?	The LCD will still be on when a check code has been detected. Erase the check code.
Sometimes the LCD becomes black for a moment.	The LCD's antistatic control is working.	Temporarily stop the LCD periodically to prevent LCD burn-in. Not a malfunction.
The setting displayed on the local remote control does not match the setting displayed on this Unit.	Does the operated air conditioner match the actual air conditioner?	Operate another air conditioner and check if the actual air conditioner operates.
I would like to frequently change detailed settings such as the set temperature and operation mode for all air conditioners.	Only "ON" and "OFF" can operate all air conditioners at once.	You can set the set temperature and operation mode, etc. for all air conditioners group by group. Please group the air conditioners.
When local remote control operation is prohibited, if there is a power failure, the local remote control prohibited status will be cancelled when the power returns.	-	Ask service personnel if you want to continue the local remote control prohibited status after returning from a power failure.
FILTER information can be reset even when the FILTER sign is not displayed.	The FILTER sign lights up depending on the accumulated operation time.	As the operation time accumulates, the FILTER sign lights up when the preset operation time is reached. The FILTER sign information can be reset to clear the accumulated time for cases such as when FILTER cleaning is carried out before the FILTER sign turns on.
I want to check the software version.	Reboot from the Information menu.	The version is displayed under [Menu] - [Information].
The webpage of the Controller is not displayed.	Is the power to the System Controller on?	If the power to the System Controller is not on, you cannot connect to the webpage. Confirm if the power is on.
	Is the LAN cable connected?	The webpage is not displayed unless the PC and the LAN of this Unit are connected. Check the LAN cable connection and network settings.
	Have you set the IP address?	You cannot connect to the Unit unless the IP address of the PC is set. For details, see P.26.
	Do you use a proxy server?	If the setting is such that a proxy server is used, exclude the IP address of the System Controller.
Reboot from time to time.	Please check for noise and the power supply status.	The main unit may restart if noise in the surroundings or an unstable power supply cause the operation of the software to be unstable. Please check the surrounding environment.
I cannot start the Remote Control Software.	Is "Error 1001" displayed?	Please download .Net Framework 4.6.2 from the download website of this software and install it.
	Is the LAN cable connected?	This software will not start unless the PC and the LAN of this Unit are connected. Check the LAN cable connection and network settings.
	Is the IP address of the access destination set to the IP address of the controller main unit?	The IP address (or server name) to be entered during installation is the IP address of the controller main unit. It is not the IP address of the PC. If it is incorrect, please do the following and then reinstall. 1. Uninstall the application 2. Delete the install destination directory 3. Delete the desktop and start menu shortcuts
	Is the PC on which the software was installed Windows 10?	Windows 10 is supported. The software may not operate correctly when installed on a PC with a different OS.
I cannot log in to the Remote Control Software.	Have you logged in as the same user from another PC?	Each user can log in from only one PC at the same time.
	Is the Windows display style set to classic style?	Please select a display style other than classic style. You can change the display style from [Start] - [Control Panel] - [Appearance and Personalization] - [Change the theme]. This software supports Windows 10.

Phenomenon	Question	Confirmation items
I cannot log in to Remote Control Software from another PC after the LAN is disconnected.	Have you logged in with the same user ID?	You must log in again from a PC with the LAN disconnected and log out normally.
	Have you accessed the software from more than 8 PCs?	Up to 8 PCs can be accessed at the same time. The software may not operate correctly if you connect to more than 9 PCs.
	Did you assign the PC's IP address using a DHCP server?	This Unit judges whether it is accessed from the same PC using the IP address. If the PC address is changed partway through by the DHCP server, you may not be able to log in again after LAN disconnection. Please set the PC that accesses this Unit to a fixed IP or reboot the Unit and erase the login information.
The language does not switch with the Remote Control Software.	Does the login user for the Windows being used have write permission for the Remote Control Software storage location?	Please allow write permission below the folder where Remote Control Software is saved (initial setting: C:\Program Files\TOSHIBA Carrier Corporation). Right-click on the TOSHIBA Carrier Corporation folder, select the [Properties] - [Security] Name, click the "Edit" button and check [Allow] for [Full control] under different settings.
The schedule setting changes have not been reflected.	Are you trying to change the schedule settings on both the Remote Control Software and the main unit?	To change the schedule settings, please set only one of either the main unit or the Remote Control Software.
I would like to use the software with other centralized controllers.	Centralized controllers that can be used together within the same network.	It is possible to use up to 8 units together with all centralized controllers including this Unit. Ask service personnel to use them in combination.
I want to use multiple units in combination.	Number of units that can be used in combination in the same network.	It is possible to use up to 8 units together with all centralized controllers including this Unit. Ask service personnel to use them in combination.
The LCD sometimes turns black for a moment.	The LCD's antistatic control is working.	This is not a malfunction. The LCD may turn black temporarily to remove static electricity.
The multi outdoor unit's option board control does not work.	Do you want to use the multi outdoor unit's option board?	When the centralized controller is connected, the functions of the outdoor unit's option board become ineffective. Only one of the centralized controller and the outdoor unit's option board can be used.
The Unit does turn ON/OFF even though the operation interlock signal/stop interlock signal is input.	Has the interlock signal been input from the time of activation?	Since the interlock signal confirms the state by detecting the rising edge and falling edge, if the interlock signal is input from the time of activation, interlock control will not be performed. Please set so that the interlock signal turns OFF at the time of activation.

# 12 Useful Information

The following cases are not faults with the Unit.

Problem	Cause
When an air conditioner is stopped, its operation status is displayed on the LCD display part of the Touch Screen Controller.	This is because even when an air conditioner is stopped, you can set its operation from the Touch Screen Controller.
The display does not switch even if you operate the Touch Screen Controller.	<ul style="list-style-type: none"> <li>• The function is not provided by the air conditioner.</li> <li>• There may be an error in the operation method. Please check the operation explanation of the function.</li> <li>• This is because switching of HEAT and COOL in the operation mode is prohibited.</li> </ul>
It is not set even when operating the Touch Screen Controller.	

Please check the following before requesting service.

Problem	Cause	Solution
The air conditioner does not operate even when I press the Run/Stop switch on the Touch Screen Controller.	Has a power outage occurred?	If the LCD of the Touch Screen Controller does not display, press the ON/OFF button of the Touch Screen Controller again after energizing the controller.
The check lamp of the Touch Screen Controller lights up.	Is the air conditioner protection device operating?	Please see the air conditioner operation manual and check the operation.
On the LCD display part of the Touch Screen Controller $\triangle$ (Abnormality) and the check code S01 is displayed.	Is a power outage affecting the air conditioner?	After restoring power to the air conditioner, the display will disappear after waiting a few minutes.

If you have investigated the above and there is still an abnormality, please contact the dealer from whom you purchased the Unit with the part number and problem.

Under no circumstances conduct repairs by yourself. Doing so is dangerous.

Moreover, if the LCD display part of the Touch Screen Controller displays  $\triangle$  (Abnormality) and a check code, please also inform the dealer of these items.

# 13 Appendix

## Specifications

### Detailed specifications

Power supply	220-240 V AC 50/60 Hz
Consumed current	1.17 A
Operating temperature/humidity range	0°C to 40°C, 10% to 90% RH (no dew condensation)
Dimensions (mm)	H136×W205×D10(+80) (Embedded dimensions shown in parenthesis)
Mass	1.34 kg (Touch Screen Controller) 0.45 kg (power adapter)
LCD	Type 7 TFT liquid crystal, 800×480, 167,000 colours (Luminance 800 cd/m <sup>2</sup> , contrast ratio 600:1)
Touch Screen	Projection-capacitive type
Communication ports	· RS-485 port ×1 (for connecting four digital I/O interfaces and four watt hour meter interfaces) · LAN port ×1 (for connecting PC)
USB port	USB memory stick connection port ×2
External contact input	8 inputs
External contact output	4 inputs
Included PC software (Requires a separate PC (*1))	· Remote Control Software · Energy Report Software · Section Configuration Software

\*1 Conditions for PC connection (operating environment)

OS: Windows 10

LAN port: 10BASE-T or 100BASE-TX wired LAN port

Other: mouse/keyboard, printer (if printing is required)

**Function list**

Key Features		
<b>Control</b>	ON/OFF	
	Mode	
	Set temp.	
	Fan speed	
	Wind direction	
	Lock setting of remote control	
	Ventilation → ON/OFF	
	Ventilation → Mode	
	Ventilation → Fan speed	
	Night operation	
	Filter sign reset	
	Soft Cooling	
	Energy saving ratio [%]	
	Saving operation	
	Forced Thermo OFF	
	Return Back	
	Eco Temperature Shift	
	Set temp. range limit	
	<b>Monitoring</b>	ON/OFF
		Mode
Set temp.		
Fan speed		
Wind direction		
Lock setting of remote control		
Ventilation → ON/OFF		
Ventilation → Mode		
Ventilation → Fan speed		
Soft Cooling		
Energy saving ratio [%]		
Eco Temperature Shift		
Set temp. range limit		
Outdoor temp.		
Power Level		
Return Back		
Power peak cut		
Filter Sign		
<b>Schedule</b>	Setting unit (Per unit)	
	Setting unit: Weekly schedule (per day of the week)	
	Setting unit: Special day schedule (per date)	
	Setting time (00:00 to 23:59)	
	Setting content	ON/OFF
		Mode
		Set temp.
		Local remote controller operation lock/unlock
		Return Back
		Night operation
		Energy saving ratio [%]
Ventilation operation		
Vent. Mode		
Maximum number of schedules per day 64		

Key Features			
<b>External input</b>	Inputs	Main unit	8 inputs
		DIO interface	8 inputs x 4 units
	Functions	Power pulse measurement	
		Demand Interlocking	
		Fire Alarm Interlocking	
		Locking Interlocking	
		Stop Interlocking	
		Operation Interlocking	
		For external device ON/OFF indication	
		For external device check code display	
<b>External output</b>	Outputs	Main unit	4 outputs
		DIO interface	4 outputs x 4 units
	Functions	Air conditioner check code output	
		Operation output	
		System Controller check code output	
		Operation output to external device	

## Glossary

### ◆Power peak cut

The maximum demand power, which is the power value used to calculate the electricity fee from the electric power company.

The monthly electricity fee is composed of the "basic fee" and the "power fee". The "power fee" is calculated according to the usage of electricity in the month, but the "basic fee" is determined according to the month when the Power peak cut was the highest in the past year. Since the time when Power peak cut increases, such as summer, is limited, keeping Power peak cut to the average is a key point to reduce the basic fee.

### ◆During power peak cut control

Control to cut the peak of electric power usage.

### ◆Flap

A part that changes the air direction at the outlet. It is also called a louvre.

### ◆ON/OFF unit

Indicates devices that cannot control or monitor the set temperature or operation mode among the managed devices.

Main equipment includes lighting settings, air to air heat exchangers, ventilation fans, etc.

### ◆Thermo OFF

An energy saving function whereby when the temperature of a room reaches the set temperature, the outdoor unit compressor stops to switch from cooling/heating to fan operation.

Although the indoor unit (air conditioner) is in operation, the outdoor unit repeatedly turns ON/OFF depending on the room temperature.

## List by Lock Level/Level

Refer to the following table for the functional differences depending on the operation of the main Unit and remote operation, the level of the operation lock of the main Unit and the level of the user account.

(O: Full functional operation △: Partially restricted –: Cannot be used)

Item	Unit Operation			Remote Operation			
	Operation Lock None	Operation Lock - Level 1	Operation Lock - Level 2	Administrators	Power Users	Guests	
Home screen	○	○	△	○	○	△	
List screen	○	○	△	○	○	△	
Layout screen	○	○	△	○	○	△	
Batch ON/OFF screen	○	○	△	○	○	△	
Check Code screen	○	○	△	○	○	△	
Group screen	[CONTROL] tab	○	–	–	○	○	–
	[SCHEDULE] tab	○	–	–	○	–	–
	[GRAPH] tab	○	○	–	○	○	–
Individual control screen	[CONTROL] tab	○	○	–	○	○	–
	[SCHEDULE] tab	○	–	–	○	–	–
	[GRAPH] tab	○	○	–	○	○	–



Item			Unit Operation			Remote Operation			
			Operation Lock None	Operation Lock - Level 1	Operation Lock - Level 2	Admini strators	Power Users	Guests	
Menu	Schedule	[Weekly] tab	○	–	–	○	–	–	
		[Special day] tab	○	–	–	○	–	–	
	Report	Check Code history	○	○	○	○	○	○	
		Power consumption	○	○	○	○	○	○	
	Option	Operation Lock		○	○	○	○	○	○
		Functions	Release power peak cut	○	–	–	○	–	–
			Power peak cut schedule	○	–	–	○	–	–
			Operation mode restriction	○	–	–	○	–	–
			Scheduler Operation	○	–	–	○	–	–
			Output to USB Memory	○	–	–	–	–	–
			System reboot	○	–	–	○	–	–
			Shut down	○	–	–	○	–	–
		Initial setting	Display	○	–	–	○	–	–
			Clock and calendar	○	–	–	○	–	–
			Icon	○	–	–	○	–	–
			Theme	○	–	–	○	–	–
			User Account	○	–	–	–	–	–
			Operation Lock	○	–	–	○	–	–
			IP Address	○	–	–	–	–	–
			Check Code email address	○	–	–	–	–	–
			Indoor unit area setting	○	–	–	–	–	–
			Indoor unit name setting	○	–	–	–	–	–
		Area name setting	○	–	–	–	–	–	
		Backlight	○	–	–	–	–	–	
	Power peak cut	○	–	–	–	–	–		
	User's manual		○	○	○	–	–	–	
	Information screen		○	○	○	○	○	○	
	Logout		–	–	–	○	○	○	

# 14 Warranty and After-Sales Service

## About the Warranty

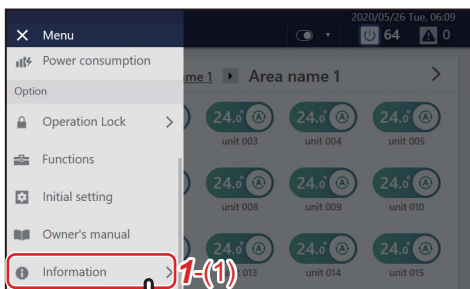
- The warranty period is one year from date of purchase.

## About After-Sales Service

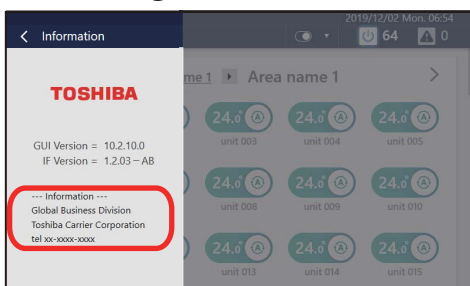
- Please check "11. Troubleshooting" (P.88) before requesting a repair. If this does not solve the problem, immediately shut off the power supply and contact us.
- Please inform us of the following when requesting a repair.
  - **Customer name**
  - **Address, phone number**
  - **Product model name and serial number**
  - **Installation date**
  - **Failure status (as much detail as possible)**

## Contact for after-sales service

For after-sales service, please contact here.



- 1 Tap , then tap [1-(1)]  
The contact information is displayed.



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\* @version 3.0 (December 2000)

\*

\* Optimised ANSI C code for the Rijndael cipher (now AES)

\*

\* @author Vincent Rijmen <vincent.rijmen@esat.kuleuven.ac.be>

\* @author Antoon Bosselaers <antoon.bosselaers@esat.kuleuven.ac.be>

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