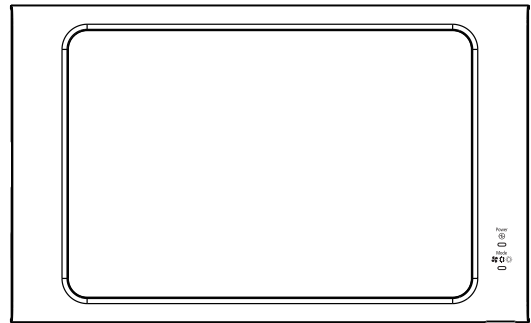


# ***Operation Manual***

*VRF Central Touchscreen Controller*

*Model: CCXL01*



## **IMPORTANT:**

*READ AND UNDERSTAND  
THIS MANUAL BEFORE USING  
THIS CENTRAL CONTROLLER.  
KEEP THIS MANUAL FOR  
FUTURE REFERENCE.*

**P5417066**



## **Important Notice**

- Johnson Controls Inc. pursues a policy of continuing improvement in design and performance in its products. As such, Johnson Controls Inc. reserves the right to make changes at any time without prior notice.
- Johnson Controls Inc. cannot anticipate every possible circumstance that might involve a potential hazard.
- This central controller is designed for VRF air conditioning applications only.  
Do not use this product for anything other than the purposes for which it was intended for.
- The installer and system specialist shall safeguard against leakage in accordance with local pipefitter and electrical codes. The following standards may be applicable, if local regulations are not available. International Organization for Standardization: (ISO 5149 or European Standard, EN 378). No part of this manual may be reproduced in any way without the expressed written consent of Johnson Controls Inc.
- This central controller is operated and serviced in North America and comes with a full complement of the appropriate Safety, Danger, Caution and Warnings.
- If you have questions, please contact your distributor or contractor.
- This manual provides common descriptions, basic and advanced information to maintain and service this central controller which you operate as well for other models.
- This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.
- No part of this manual may be reproduced without the expressed written permission of Johnson Controls, Inc.

## **Product Inspection upon Arrival**

1. Upon receiving this product, inspect it for any damages incurred in transit. Claims for damage, either apparent or concealed, should be filed immediately with the shipping company.
2. Check the model number, electrical characteristics (power supply, voltage, and frequency rating), and any accessories to determine if they agree with the purchase order.
3. The standard utilization for this unit is explained in these instructions. Use of this equipment for purposes other than what it designed for is not recommended.
4. Please contact your local agent or contractor as any issues arise involving installation, performance, or maintenance arise. Liability does not cover defects originating from unauthorized modifications performed by a customer without the written consent of Johnson Controls, Inc.  
Performing any mechanical alterations on this product without the consent of the manufacturer will render your warranty null and void.



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## 1. Safety Summary

### Signal Words

 <b>WARNING</b>	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	Indicates information considered important, but not hazard-related (for example, messages relating to property damage).

### General Precautions

 <b>WARNING</b>	To reduce the risk of serious injury or death, read these instructions thoroughly and follow all warnings or cautions included in all manuals that accompanied the product and are attached to the unit. <i>Refer back to these safety instructions as needed.</i>
--------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- This system, including this central controller, should be installed by personnel certified by Johnson Controls, Inc. Personnel must be qualified according to local, state and national building and safety codes and regulations. Incorrect installation could cause leaks, electric shock, fire or an explosion. In areas where Seismic Performance requirements are specified, take appropriate measures during installation to guard against possible damage or injury that might occur in an earthquake.  
If the unit is not installed appropriately, injuries may occur because of the falling unit.
- Use appropriate Personal Protective Equipment (PPE), such as gloves, protective goggles and electrical protection equipment and tools suited for electrical operation purposes.
- When transporting, be careful when picking up, moving and mounting these units.  
Although the central controller may be packed using plastic straps, do not use them for transporting from one location to another. Do not stand on or put any material on the central controller.
- When installing the central controller cables to the units, do not touch or adjust any safety devices inside the indoor or outdoor units. All safety features, disengagement, and interlocks must be in place and functioning correctly before the equipment is put into operation. If these devices are improperly adjusted or tampered with in any way, a serious accident can occur. Never bypass, wire around, or jump-out any safety device or switch.
- Use only Johnson Controls recommended, provided as standardized, or replacement parts.
- Johnson Controls will not assume any liability for injuries or damage caused by not following steps outlined or described in this manual. Unauthorized modifications to Johnson Controls products are prohibited as they...
  - May create hazards which could result in death, serious injury or equipment damage;
  - Will void product warranties;
  - May invalidate product regulatory certifications;
  - May violate OSHA standards;

<b>NOTICE</b>	Take the following precautions to reduce the risk of property damage.
---------------	-----------------------------------------------------------------------

- Do not touch the main circuit board or electronic components in the controller or remote devices. Make sure that dust and/or steam does not accumulate on the circuit board.
- When installing the unit in a hospital or other facility where electromagnetic waves are generated from nearby medical and/or electronic devices, be prepared for noise and electronic interference "Electromagnetic Interference (EMI)". Do not install where the waves can directly radiate into the electrical box, controller cable, or controller. Inverters, appliances, high-frequency medical equipment, and radio communications equipment may cause the unit to malfunction. The operation of the unit may also adversely affect these same devices. Install the unit at least 10 ft. (approximately 3m) away from such devices.
- Locate the wireless controller at a distance of at least three feet (approximately 1m) between the indoor unit and electric lighting. Otherwise, the receiver part of the unit may have difficulty receiving operation commands.

- If the wired controller is installed in a location where electromagnetic radiation is generated, make sure that the wired controller is shielded and cables are sleeved inside conduit tube.
- If there is a source of electrical interference near the power source, install noise suppression equipment (filter).
- During the test run, check the unit's operation temperature. If the unit is used in an environment where the temperature exceeds the operation boundary, it may cause severe damage. Check the operation temperature boundary in the manual. If there is no specified temperature, use the unit within the operation temperature boundary of 32 to 104°F (0 to 40°C).
- Read installation and appropriate user manuals for connection with peripheral devices. If a warning window appears on the screen, the product stops, does not work properly or works intermittently, immediately stop using the equipment.

## Installation Precautions

### WARNING

Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death:

- If the remote sensors are not used with this controller, then do not install this controller...
  - In a room where there is no thermostat.
  - Where the unit is exposed to direct sunshine or direct light.
  - Where the unit is in close proximity to a heat source.
  - Where hot/cold air from the outdoors, or a draft from elsewhere (such as air vents, diffusers or grilles) can affect air circulation.
  - In areas with poor air circulation and ventilation.
- Perform a test run using the controller to ensure normal operation. Safety guards, shields, barriers, covers, and protective devices must be in place while the compressor/unit is operating. During the test run, keep fingers and clothing away from any moving parts.

After installation work for the system has been completed, explain the "Safety Precautions," use, and maintenance of the unit to the customer according to the information in all manuals that accompanied the system. All manuals and warranty information must be given to the user.

## Electrical Precautions

### WARNING

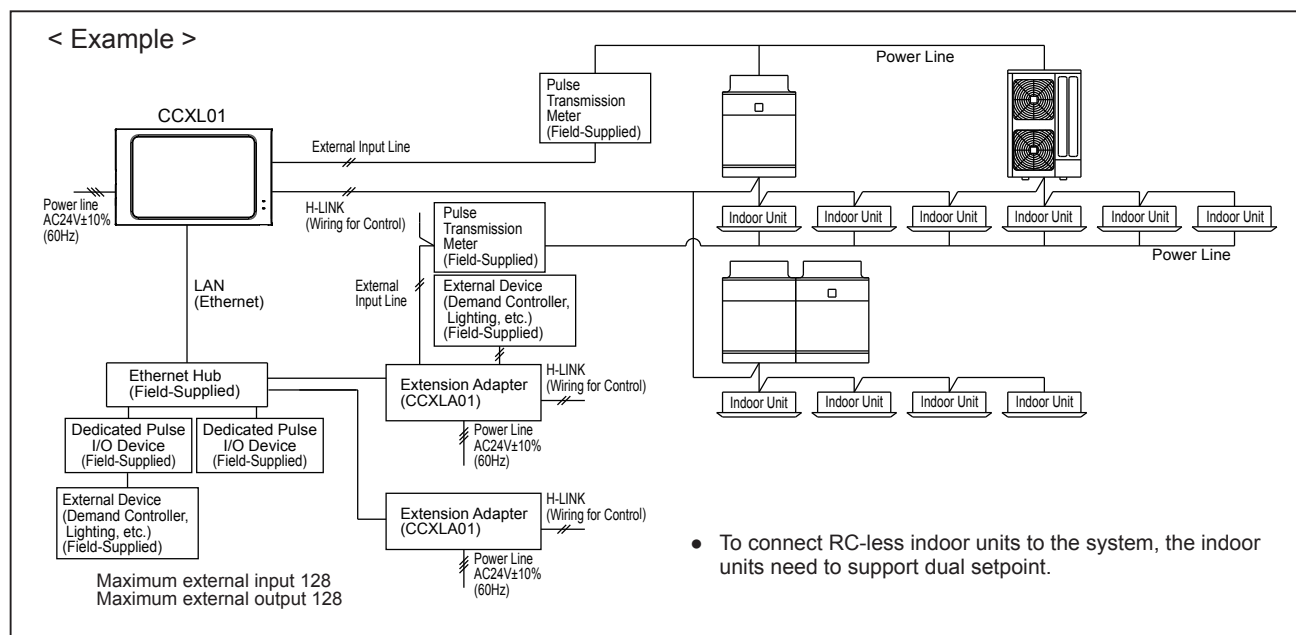
Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death:

- Only use electrical protection equipment and tools suited for this installation.
- Insulate the wired controller against moisture and temperature extremes.
- Use specified cables between units and the controller.
- Communication cabling shall be a minimum of 18-Gauge, 2-Conductor, Stranded Shielded Copper. Shielded cable must be used in all areas. When shielded cabling is applied, proper bonding and termination of the cable shield is required as per Johnson Controls guidelines. Plenum and riser ratings for communication cables must be considered per application and local code requirements.
- The polarity of the input terminals is important, so be sure to match the polarity when using contacts that have polarity.
- Highly dangerous electrical voltages may be used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause serious injury or death.
- Before installing the controller or remote devices, ensure that the indoor and outdoor unit operation has been stopped. Further, be sure to wait at least five minutes before turning off the main power switch to the indoor or outdoor units. Otherwise, water leakage or electrical breakdown may result.
- Do not open the service cover or access panel to the indoor or outdoor units or controllers without turning OFF the main power supply. Before connecting or servicing the controller or cables to indoor or outdoor units, open and tag all disconnect switches. Never assume electrical power is disconnected. Check with a meter and equipment.

- Use an exclusive power supply at the controller's rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker, and so forth) with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications.
- Clamp electrical wires securely with a cord clamp after all wiring is connected to the terminal block. In addition, run wires securely through the wiring access channel.
- When installing the power lines, do not apply tension to the cables. Secure the suspended cables at regular intervals, but not too tightly.
- Make sure that the terminals do not come into contact with the surface of the electrical box. If the terminals are too close to the surface, it may lead to failures at the terminal connection.
- Do not clean with, or pour water into, the controller as it could cause electric shock and/or damage the unit. Do not use strong detergent such as a solvent. Clean with a soft cloth.
- Check that the ground wire is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground wiring.
- If there are frequent occurrences with blown fuses or flipped circuit breakers, shut down the system immediately and contact your service contractor.

## 2. System Configuration

VRF Central Touchscreen Controller is connected to H-LINK and used for the central control and monitoring of the air conditioners.



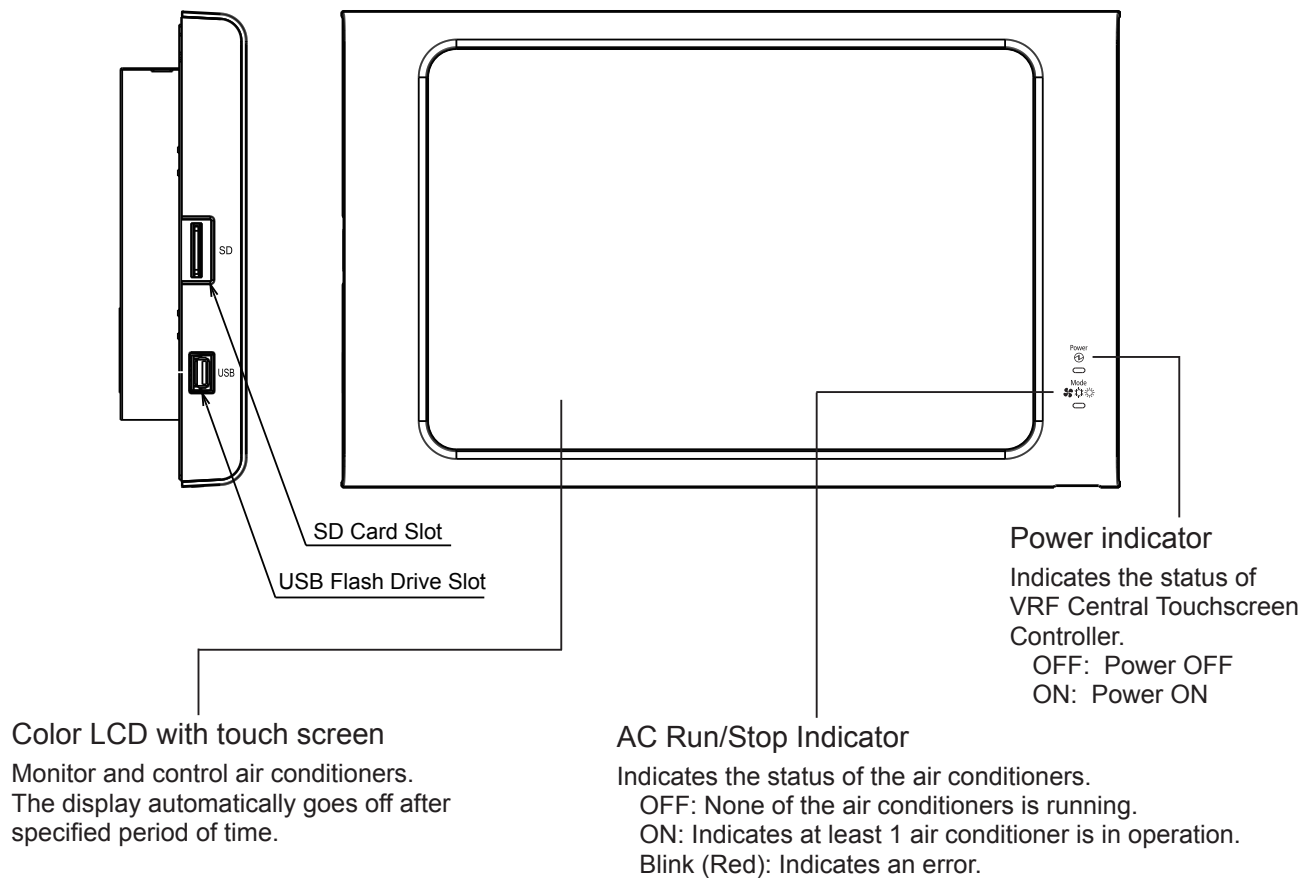
### NOTICE:

- Adequate monitoring and control may not be assumed upon occurrence of device failure. It is strongly recommended to prepare alternate plan (as to use Remote Control Switch (RCS) to control/monitor air conditioners) for such cases.
- Conduct test run on all indoor units to ensure system is operating correctly.
- Upon recovery, make change or control again as necessary if air conditioning system is not working as expected.
- VRF Central Touchscreen Controller, Extension adapter and their peripherals are assumed to be always ON. Energy calculation, usage history and other history records for period within which any of the device was turned OFF may not be available.
- Controlling and monitoring on the system are all based on the clock on VRF Central Touchscreen Controller. Correct operation may not be expected due to unnecessary clock setting change on VRF Central Touchscreen Controller.
- Use keyboard exclusively for inputting character strings.
- 60, 61, 64 and 65 alarm indicates communication failure between air conditioners and this system. Hence each value shown on screen may not be of actual value.
- The screen-shot image in this manual may differ from the actual controller image.
- While you are reading pulse via external input, pulse count is not accumulated when power is cut or checking connection. This may affect to usage accumulation and calculation. This important item needs to be well discussed with customer prior to system launch.

Terms	Definitions
RC-less, (Remote Controller-less) unit	This term indicates indoor unit without remote controller connected to it. This does not include instances where multiple indoor units are connected or set to be controlled and monitored by a single remote controller.
Facility unit	The units are monitored or controlled by this software through external input/output(s).
PIO (dedicated extension pulse input/output device)	In this document, PIO refers to programmable logic controller with 128 input/output each manufactured by Industrial Equipment Systems Co. Ltd. VRF Central Touchscreen Controller (CCXL01) and VRF Central Touchscreen Controller Adapter (CCXLA01) can monitor/control 2 PIO devices respectively.

### 3. Parts Names and Functions

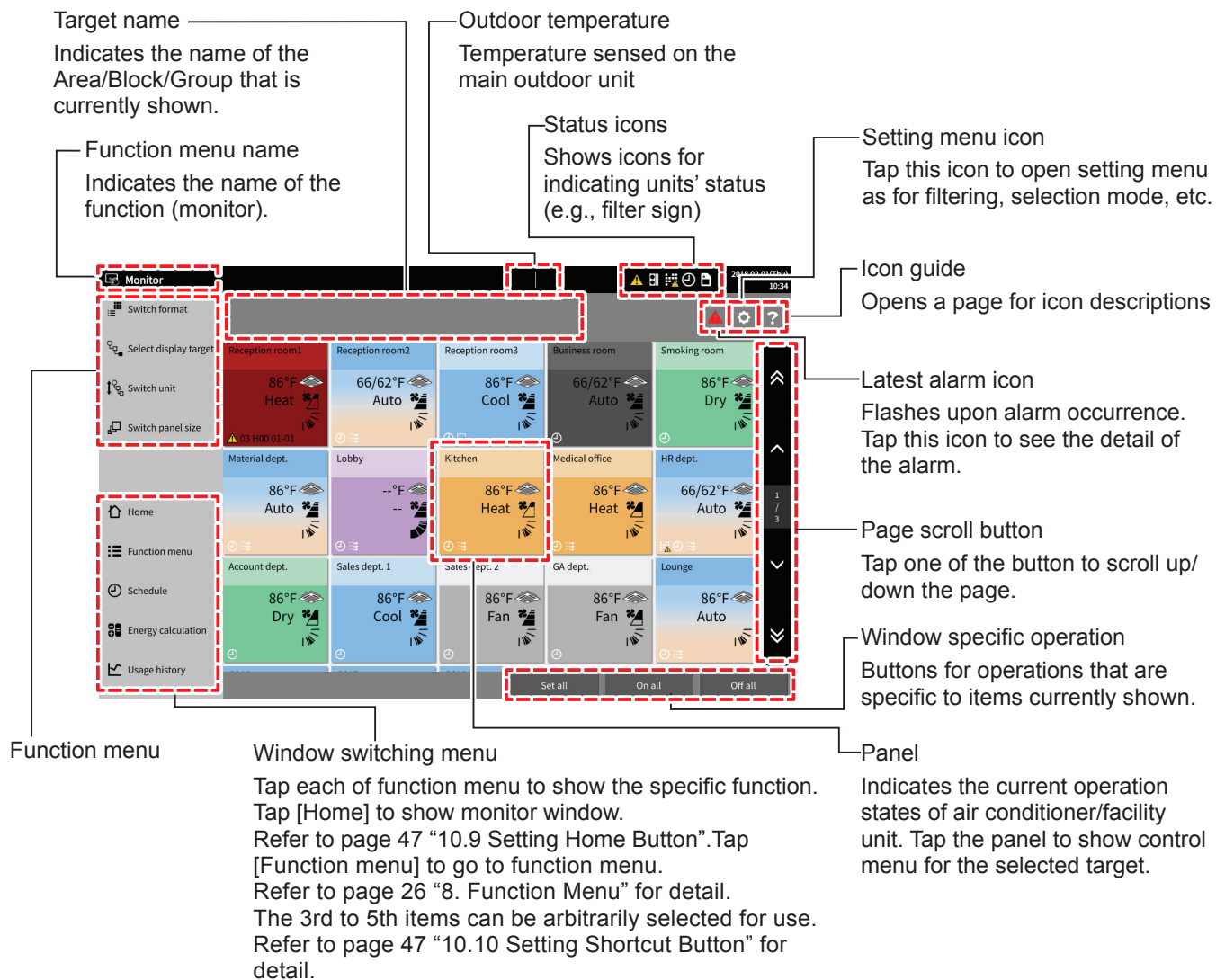
#### 3.1 Overview



**NOTE:**

Remove the protective laminate sheet on LCD (liquid crystal display) before using this product.

## 3.2 Window

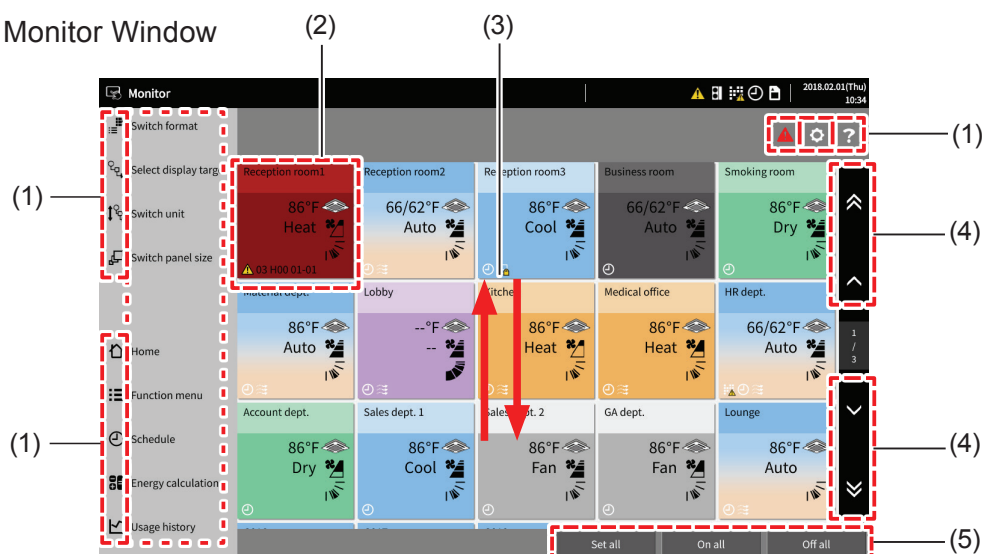


### NOTICE:

- The actual image may differ from the illustration above.

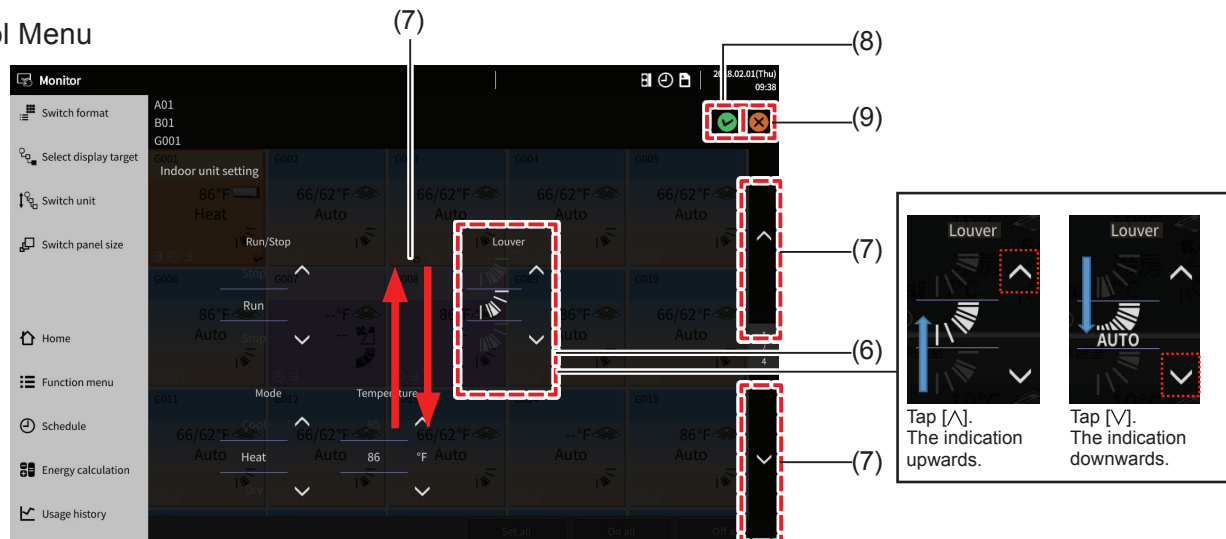
## 4. Basic Window Operation

### Monitor Window



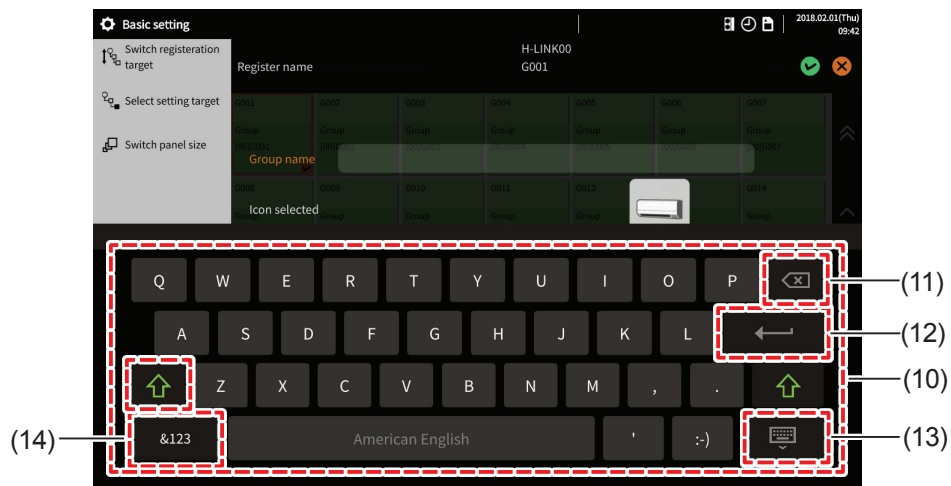
- (1) Tap each icon (item). Menu is shown.
- (2) Tap a panel. Menu for controlling selected item is shown.  
Panels being selected are shown in orange.
- (3) Vertically swipe (\*1) or flick (\*2) on panel list window to show next page.
- (4) Tap page switch button.  
“^” or “v” Short tap: Next line      “^” or “v” Long tap: Line forwarding  
“^^” or “vv” Short tap: Next page      “^^” or “vv” Long tap: To the first/last page
- (5) Operation for the current display button:  
They are used for “Simultaneous”/ quick operations.

### Control Menu

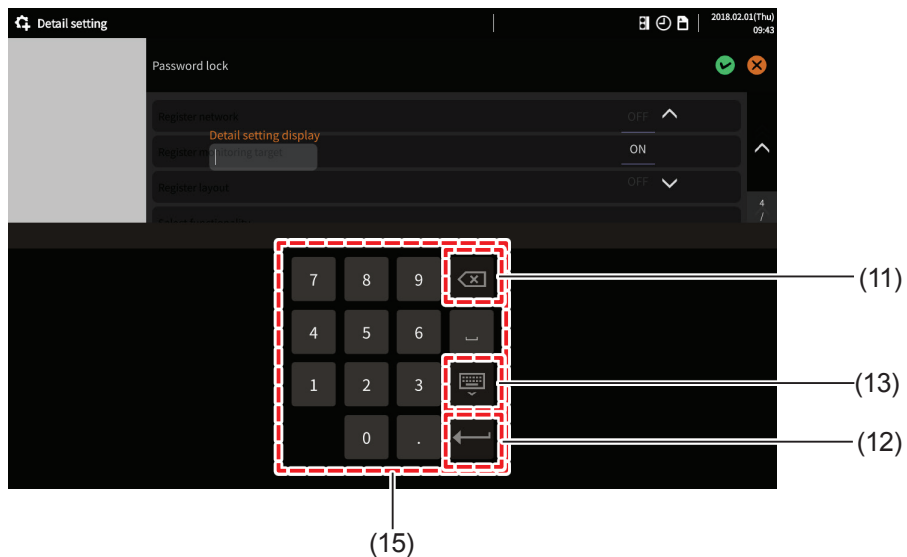


- (6) Tap “^” or “v” or swipe (\*1)/flick (\*2) vertically over the setting item.  
Select contents/value for the item.
  - (7) Tap page scroll button or swipe (\*1)/flick (\*2) over the page.  
Scroll up/down the page.  
The page can be scrolled up/down by swiping/flicking whenever scroll buttons are shown on the display.
  - (8) Tap “☑” Complete icon.  
Confirm and save the setting.  
If the setting contents extend to multiple pages, all the contents are saved by one tap on the icon.
  - (9) Tap “✕” Cancel icon.  
Discard/cancel the setting.
- (\*1) Move finger across a screen  
(\*2) Quickly brush surface with fingertip.

## QWERTY



## Numeric Keypad



- (10) Software keyboards (character strings) input
- (11) Deletes the last character. Long tap to delete all.
- (12) Confirm the contents.
- (13) Confirm the contents and exit from the keyboard window.
- (14) Switches between abc/123/#+=.
- (15) Software keyboards (numbers) input  
This is to input numbers such as for passwords.



## 5. Quick Reference

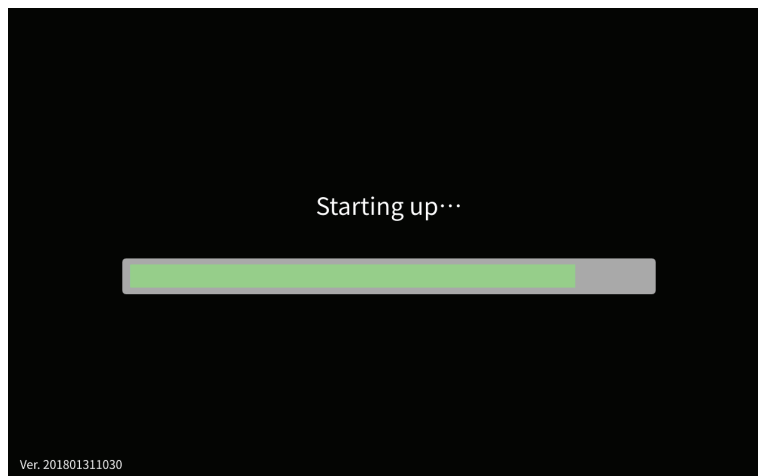
### 5.1 Function Reference Table

Main functionalities are as follows.

Screen Display	Function	Page
Monitor Window	Switching display format (panel/list/layout)	Page 13
	Selecting display target	Page 16
	Switching display unit (area/block/group/unit)	Page 17
	Switching panel size	Page 17
	Checking the latest alarm	Page 19
	Filtering/Sorting display target	Page 20
	Icon guide	Page 21
	ON/OFF Setting on air conditioners and facility units	Page 22
	Prohibiting/Allowing remote controller operations	Page 23
	Filter sign reset/Deactivating schedule for a day	Page 24
	Setting control on outdoor units	Page 25
Schedule Window	Switching season patterns	Page 31
	Selecting setting target	Page 31
	Setting operation patterns	Page 32
	Setting summer/winter season	Page 34
	Setting exception days/holidays	Page 35
	Registering schedule	Page 36
	Editing operation patterns	Page 37
	Simple setting	Page 38
Basic Setting Window	Setting date and time	Page 41
	Registering monitoring target names and more	Page 41
	Setting window and sound	Page 45
	Adjusting brightness	Page 46
	Setting auto dimming time	Page 46
	Service contact information	Page 47
	Home button setting	Page 47
	Setting shortcut button	Page 48
	Setting daylight saving time	Page 49
	Screen Cleaning	Page 49
Usage History Window	Showing graphical view for selected target	Page 52
	Acquiring new data	Page 53
	Setting aggregation period	Page 54
	Setting graphical view	Page 55
History Window	Showing alarm history	Page 57
	Showing external input and output history	Page 59
	Showing pulse input history	Page 60
	Filtering lists	Page 61
	Setting period	Page 62

## 6. Power ON Procedure

After completing test run on air conditioners, turn ON the power of VRF Central Touchscreen Controller. "Starting up..." is shown for few seconds and then the window switches to Monitor Window.



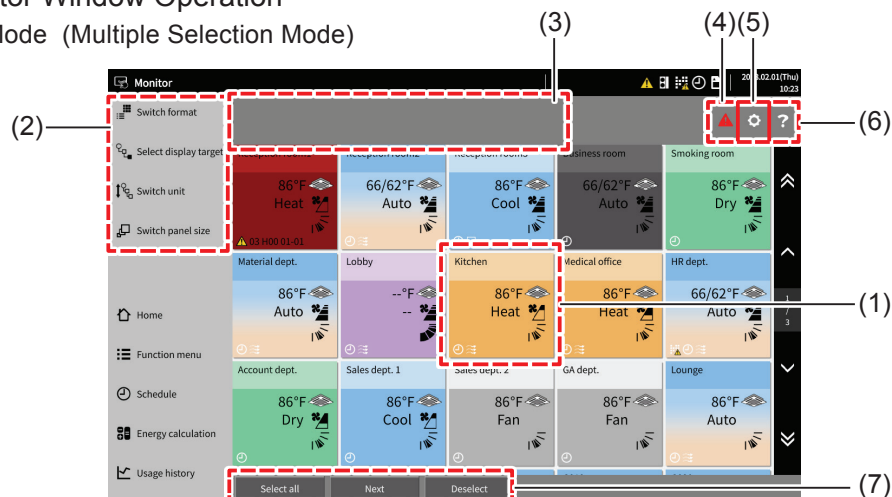
### NOTE:

Date and time setting is cleared when the power is not provided for a certain period of time. Refer to page 41 "10.2 Setting date and time" to set year/month/day/hour/minute.

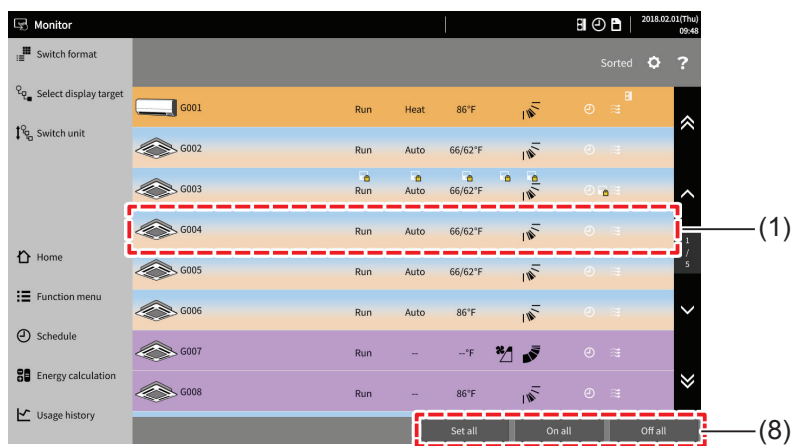
## 7. Monitor

### 7.1 Monitor Window Operation

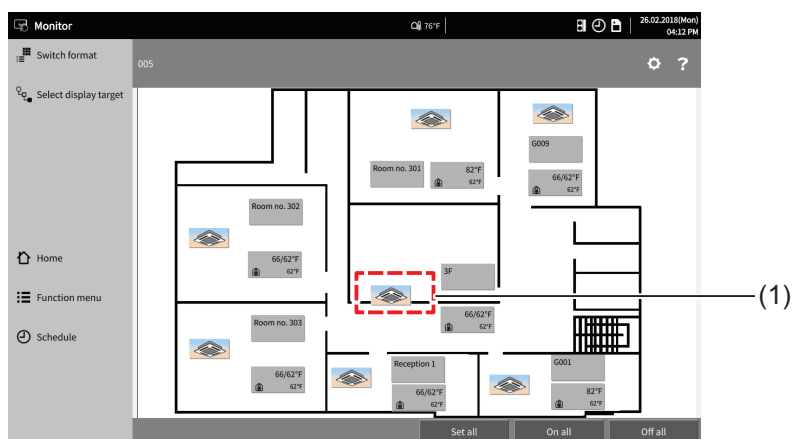
#### Panel Mode (Multiple Selection Mode)



#### List Mode (Single Selection Mode)




#### Layout Mode (Single Selection Mode)



- (1) Regarding the contents shown for each panel/list/layout, refer to “7.2 (1) Switching display format”. Tap each panel/list to open Control menu. Refer to page 22 “7.3 Control” for detail.

- (2) Tap each item to edit contents.
  - Switch format: Opens a menu to switch display format between “Panel”, “List (normal mode)”, “List (Temperature mode)”, “List (Power consumption mode)” and “Layout”.  
Refer to page 13 “7.2 (1) Switching display format” for detail.
  - Selecting display target: Opens a window to select display target from tree view.  
Refer to page 16 “7.2 (2) Selecting display target”.
  - Switching display unit: Opens a window to select display unit between “area”, “block”, “group”, “unit”.  
This is shown only in panel or list display. Refer to page 17 “7.2 (3) Switching display unit”.
  - Switching panel size: Opens a window to select panel size from 7 patterns.  
Refer to page 17 “7.2 (4) Switching panel size” for detail.

\* unit: Indoor unit/Outdoor unit  
 group: Collection of units  
 block: Collection of groups  
 area: Collection of blocks
- (3) Displays Area name, Block name, and Group name of the current selected target.
- (4) The icon flashes in this area when any alarm is ON. Tap the icon to show the location of alarm occurrence and service contact information.  
Refer to page 19 “7.2 (5) Check the latest alarm” for detail.
- (5) Tap  for filtering/sorting (for List mode only) and switching between single/multiple selection mode.  
Refer to page 20 “7.2 (6) Filtering and sorting display target” for detail.
- (6) Shows descriptions on icons shown at the upper part of the screen and in panel/list.  
Refer to page 21 “7.2 (7) Icon guide”.
- (7) While in multiple selection mode, the following items are shown.  
 [Select All]: Select all units that are currently shown in the window.  
 [Next]: Modify setting of the selected targets.  
 Refer to page 22 “7.3 Control” for detail of Control menu.  
 [Deselect]: Cancel all the target selection.
- (8) While in single selection mode, the following items are shown.  
 [Set All]: Set all units that are currently shown in the window.  
 Refer to page 22 “7.3 Control” for detail of Control menu.  
 [ON All]: Turn on all units that are currently shown in the window.  
 [OFF All]: Turn off all units that are currently shown in the window.

**NOTE:**


When a setting change is made on the CCXL01, the contents are displayed (locked) on the CCXL01 for a certain period of time.

During this period, operation made on remote controller does not affect the contents of the monitor window.

Setting ON/OFF on air conditioners and facility unit.


## 7.2 Monitor


### (1) Switching Display Format (panel/list/layout)



1

1. Tap **Switch Format**.  
The window for switching format is shown.





2

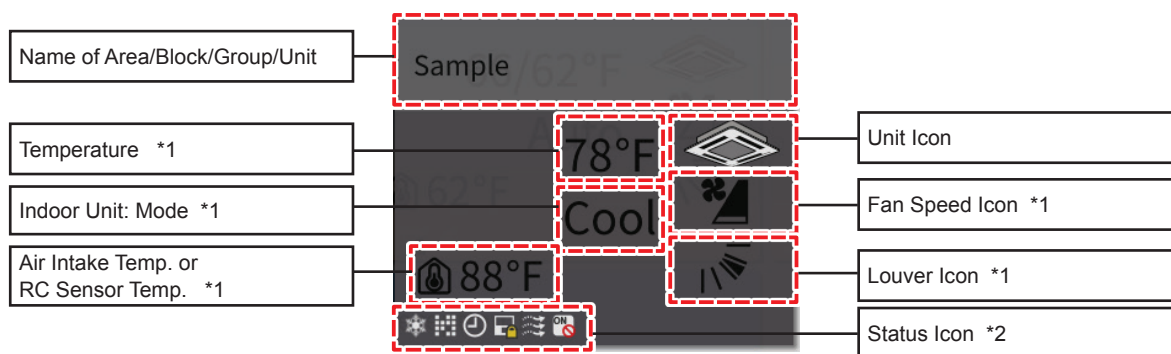
2. Tap the desired format.  
Monitor window in specified format is shown.

- The current format is shown in orange.
- The item Layout is available only when a layout is registered.

- 3 types of format (panel, list, layout) are provided in the monitor window.

- Panel

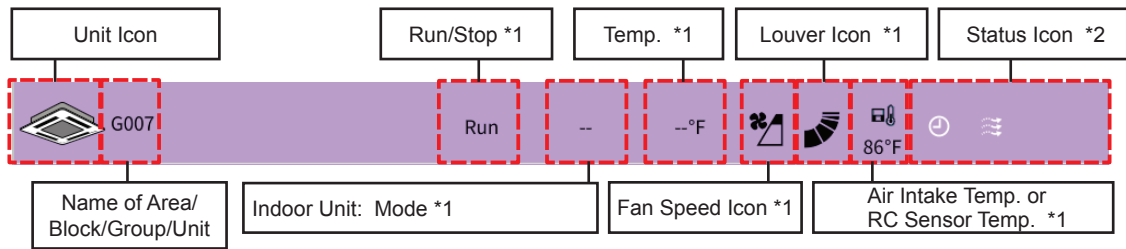
Operation status of air conditioners and facility units are shown in the panel (the largest) as the following. 7 panel sizes are provided to best select the appropriate size for status and air conditioners that you want displayed. Regarding the contents shown for each panel size, refer to page 17 “7.2 (4) Switching panel size”.



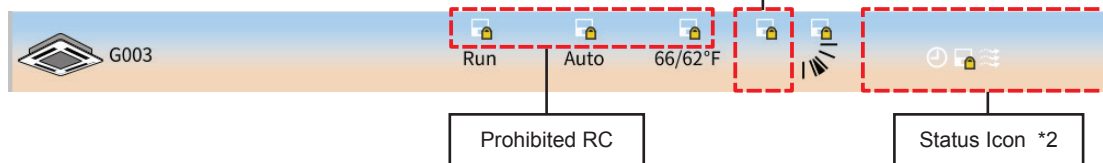
\*1, \*2: Refer to page 15.

- **List**  
Operation status of air conditioners and facility units are shown in the following list.  
Normal, Temperature, and Power consumption modes are provided for list display.  
Up to 8 lists are shown in the window.

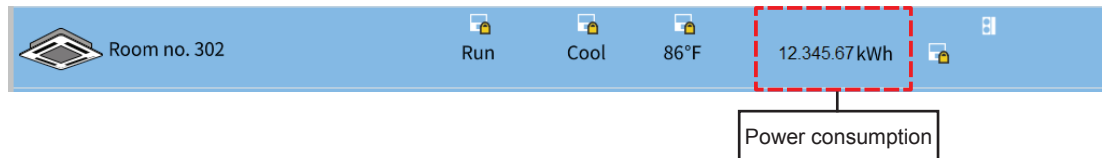
#### Normal Mode



#### Temperature Mode



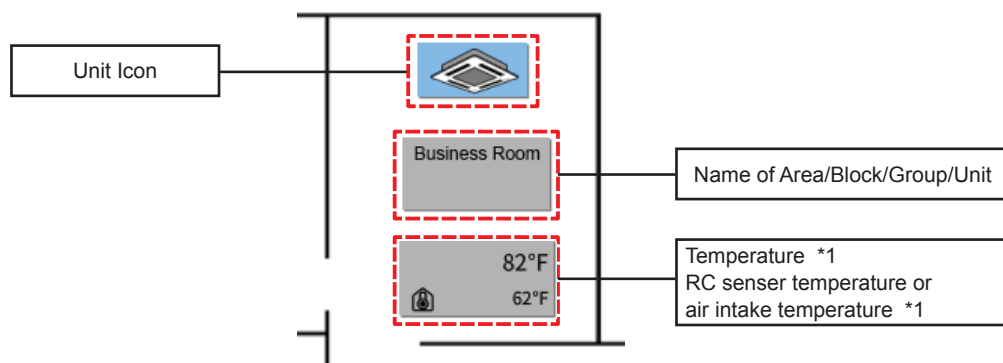
#### Power Consumption Mode



#### NOTES:

- Power consumption mode is available only when meters are in use.
- The rates period: Starts: The next day of meter reading day  
Ends: Yesterday (The day before “current day”)

- **Layout**  
Layout is available when a layout is registered.  
Layout display provides intuitive operation for monitoring and controlling air conditioners and facility units.  
Layout can be shown in 2D bird’s eye view.



\*1: Each item is shown as follows. In the area, block, group display, "--" is indicated when multiple states co-exist among units that belong to the same upper criteria. (e.g., When Group 1 contains unit 1 and 2, and unit 1 is in Auto and unit 2 is in Cool mode, then the state indicates "--".)

Note that Fan speed and Louver have specific icon to indicate mode co-existence.

- Run/Stop  
"Run", "Stop", "--" (mode co-existence)
- Operation mode  
Indoor unit: "Cool", "Heat", "Dry", "Fan", "Auto", "--" (mode co-existence)
- Temperature  
Temperature within the range specified for each unit is shown.  
If unit supports dual setpoints, 2 temperatures (Auto cool/Auto heat) are shown when the operation mode is set to "Auto".
- Air intake temperature or RC sensor temperature and outdoor temperature: Air intake temperature and ambient temperature are hidden on the default setting. To show the temperature, refer to page 45 "10.5 Setting display/sound".
- Fan speed: Fan speed is shown with the icon below.

Fan Speed	Low--	Low	Med--	Med	High	High2	Auto	Coexist*
Icon								

\*Coexist: 2 or more fan speeds are set in the area, block or group.

- Louver: Louver is shown with the icon below.

Louver	1	2	3	4	5	6	7	Auto	Coexist*
Icon									

\*Coexist: 2 or more louver positions are set in the area, block or group.

\*2: Regarding the description for each icon, refer to page 21 "7.2 Monitor (7) Icon guide.

This area shows currently active alarm code if there is one.

#### NOTES:

Status indication colors for panel/list/layout are as follows.

Operation	Run (Cool)	Run (Heat)	Run (Dry)	Run (Fan)	Run (Auto)	Run (mode coexisted*)
ON(mode color)	Light blue	Orange	Light green	Light gray	Light blue and orange	Light purple
OFF(no mode color)	Yellow green					


\*coexist: 2 or more operation modes are set in the area, block or group.

Operation	Alarm	Stop
ON(mode color)	Red	Gray
OFF(no mode color)	Red	Gray

\* Regarding Mode color setting, refer to page 45 "10.5 Setting window and sound".

- Prioritization display for "Alarm" and "others" are as follows.
  - "Alarm"
  - other
- Prioritization display for a panel with multiple groups/blocks registered is as follows.
  - Shows in color for alarm if one or more unit is in alarm states.
  - Shows in color for Run if at least one air conditioner is running AND NONE of the units is in an alarm state.

## (2) Selecting display target



1

Monitor

Switch format

Switch unit

Switch panel size

Home

Function menu

Schedule

Energy calculation

Usage history

Select all

Next

Deselect

Reception room1: 86°F Heat

Reception room2: 66/62°F Auto

Reception room3: 86°F Cool

Business room: 66/62°F Auto

Smoking room: 86°F Dry

Material dept.: 86°F Auto

Lobby: 66°F

Kitchen: 86°F Heat

Medical office: 86°F Heat

HR dept.: 66/62°F Auto

Account dept.: 86°F Dry


Sales dept. 1: 86°F Cool

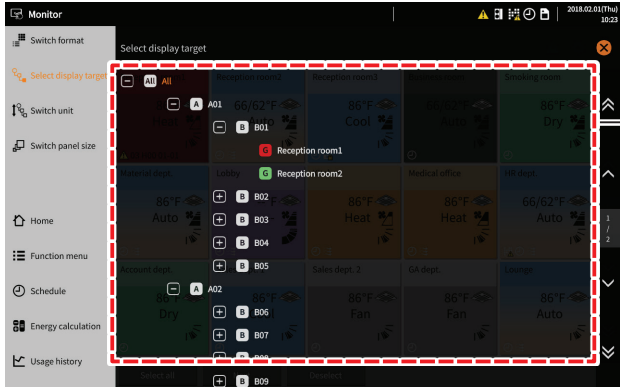
Sales dept. 2: 86°F Fan

GA dept.: 86°F Fan

Lounge: 86°F Auto

1. Tap **Select Display Target**.  
Select Display Target is shown.





2

Monitor

Switch format

Switch unit

Switch panel size

Home

Function menu

Schedule

Energy calculation

Usage history

Select display target

All

A01

B01

Reception room1

Reception room2

Material dept.

Lobby

Medical office

HR dept.

Account dept.

Sales dept. 1

Sales dept. 2

GA dept.

Lounge

A02

B02

B03

B04

B05

B06

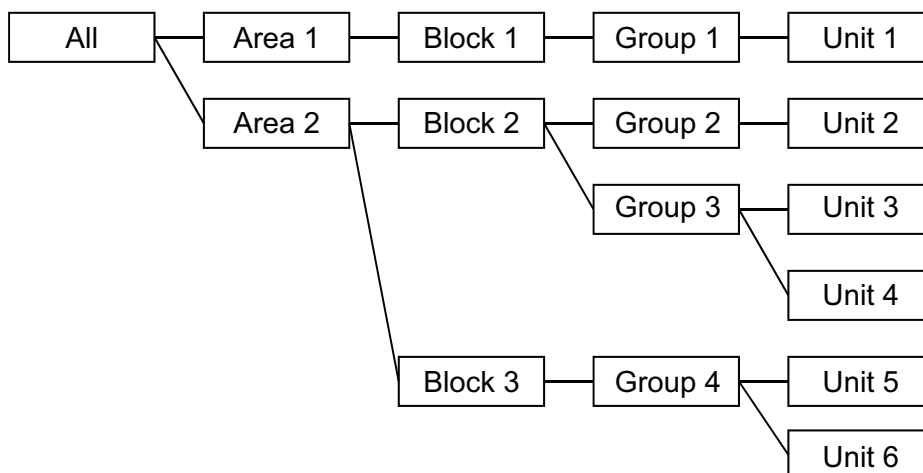
B07

B08

B09

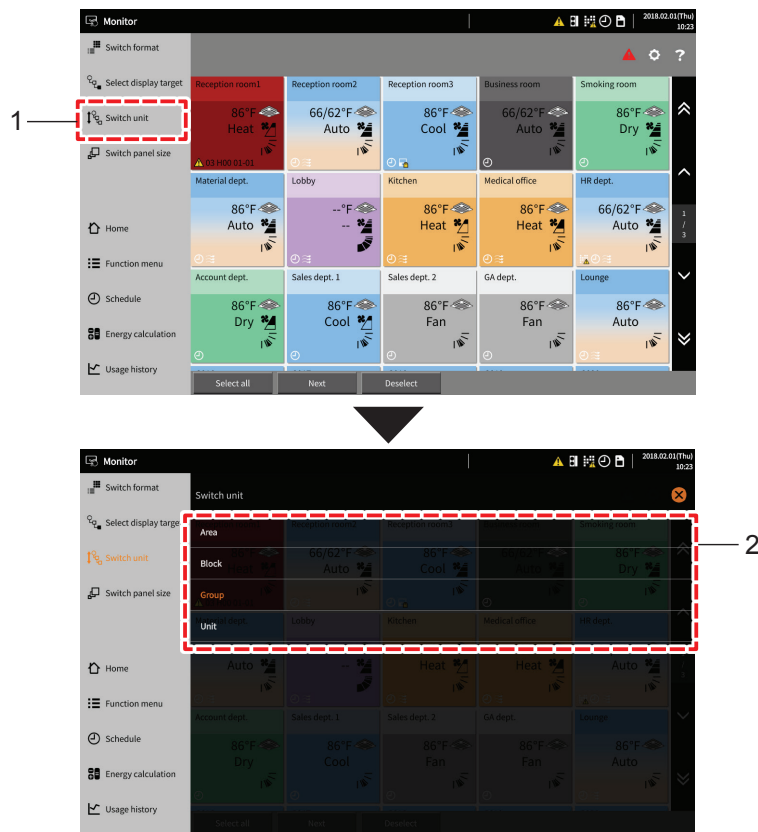
2. Tap name to show monitor window for selected target.
  - The current target is shown in orange.
  - + indicates the selected target has subordinates such as block/group. Tap + to open the tree to show subordinates.
  - indicates the subordinates are currently shown. Tap – to close the tree branch.

- VRF Central Touchscreen Controller monitors and controls targets assorted/described in [All]-[Area]-[Block]-[Group]-[Unit]. Example is as follows. For monitoring, only the subordinate of currently selected monitoring target is shown. In the example below, if Area 1 is selected as monitoring target, only Block 1 is displayed and Block 2 and Block 3 are not.





### (3) Switching display unit (area/block/group/unit)



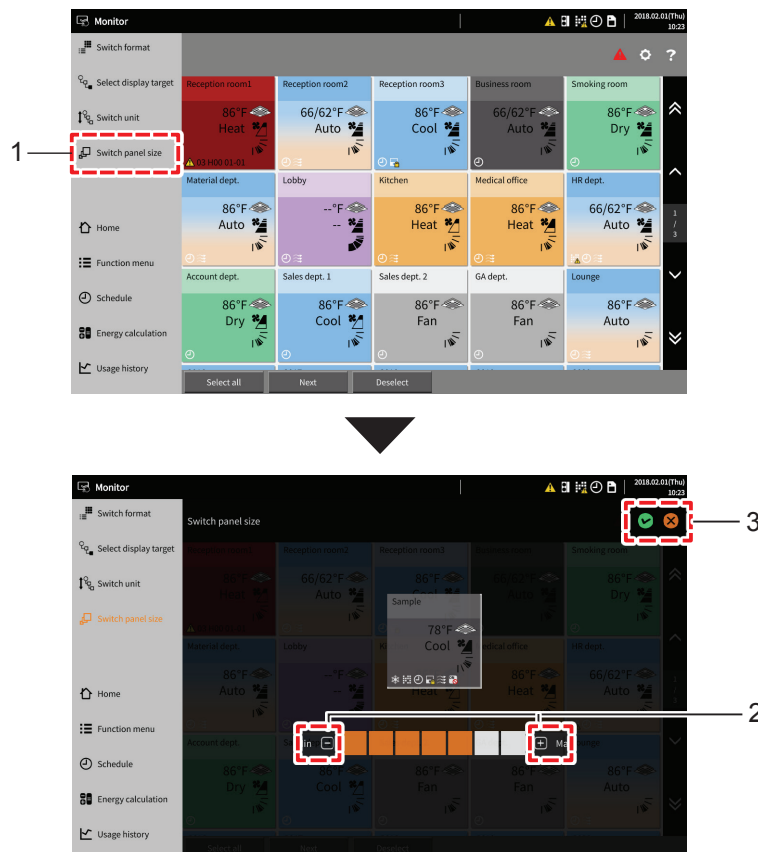
1. Tap **Switch Unit**.  
The window for switching unit is shown.

2. Tap the desired unit.  
Monitor window in specified unit is shown.

- The current target is shown in orange.

Note that only the subordinate of the current unit is shown.  
This window is not shown for Layout display.

### (4) Switching panel size



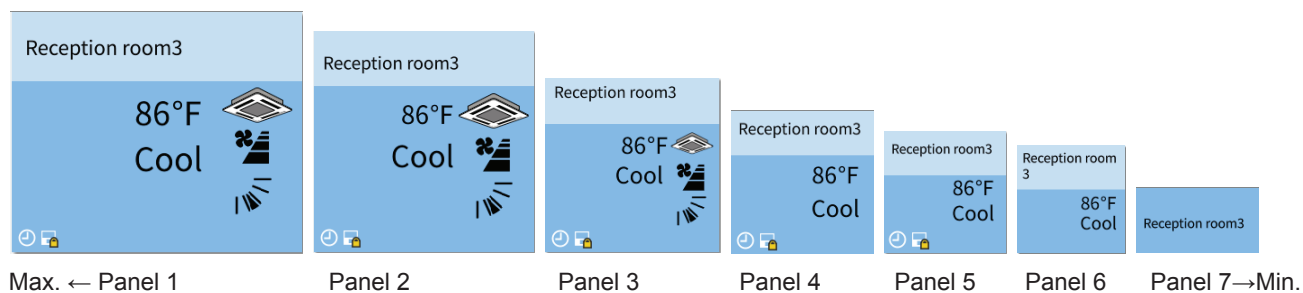
1. Tap **Switch Panel Size**.  
The window for switching panel size is shown.

2. Tap + or – to change panel size.

3. Tap to confirm setting and return to monitor window.  
Tap to discard setting and to return to monitor window.

Note that this window is not shown for List/Layout display.

- Panel sizes are shown as follows:



#### < Indoor Unit >

Function	Panel 1	Panel 2	Panel 3	Panel 4	Panel 5	Panel 6	Panel 7
Name of Area Block/Group/	Names are shown in 2 lines. If the character length of the name exceeds the specified range, the last letter is substituted with "...".						
Temperature	√	√	√	√	√	√	—
Operation mode	√	√	√	√	√	√	—
Air intake temperature/RC sensor temperature	√	√	√	—	—	—	—
Unit Icon	√	√	√	—	—	—	—
Fan Speed	√	√	√	—	—	—	—
Louver	√	√	√	—	—	—	—
Status icon	10	8	6	5	4	—	—

#### < Facility units >

Function	Panel 1	Panel 2	Panel 3	Panel 4	Panel 5	Panel 6	Panel 7
Name of Area Block/Group/	Names are shown in 2 lines. If the character length of the name exceeds the specified range, the last letter is substituted with "...".						
Operation mode	√	√	√	√	√	√	—
Unit Icon	√	√	√	—	—	—	—
Status icon	√	√	√	√	√	—	—


## (5) Checking the latest alarm



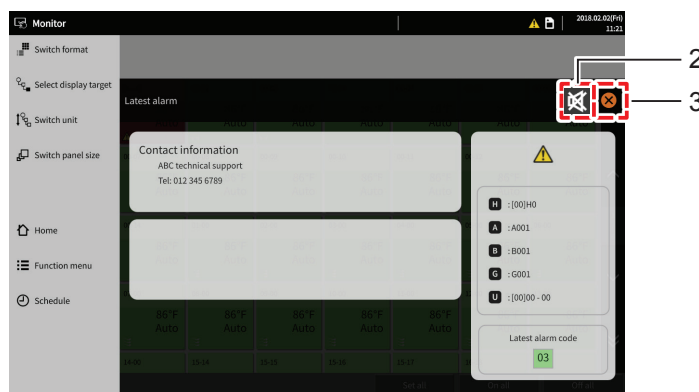
1. Tap .


Note that this icon is not indicated if no alarm states are detected.

- In the default setting, alarm sound upon alarm occurrence is not muted.  
Refer to page 45 “10.5 Setting window and sound-Alarm sound”.

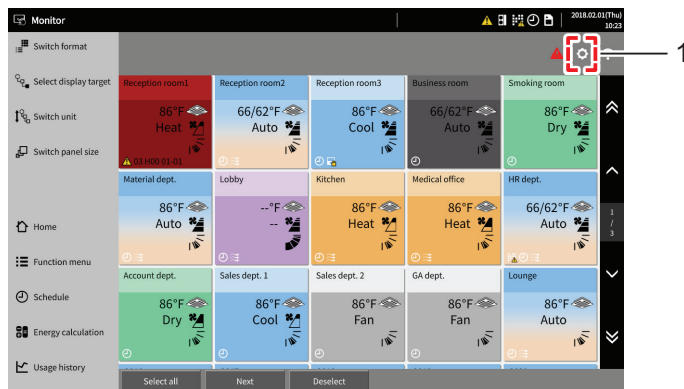
2. Tap  to silence the alarm sound.

- This icon is indicated only when the Alarm sound is set as “ON (repeat)”.

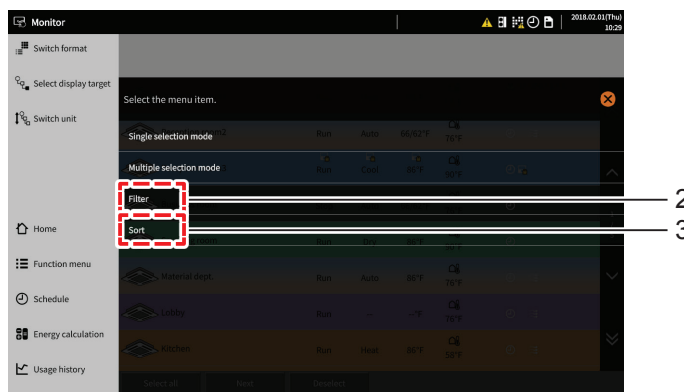


3. Tap  to return to monitor window.

## (6) Filtering/Sorting display target

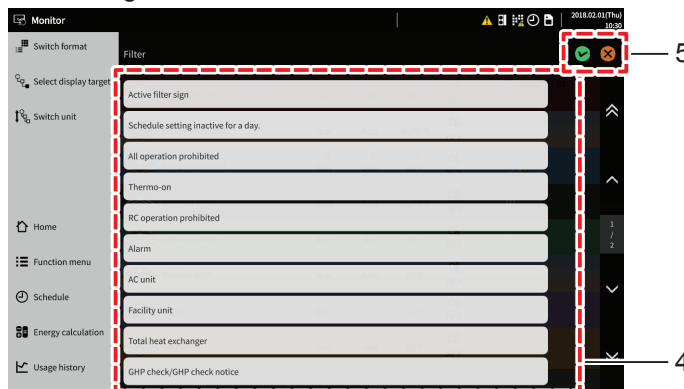


1. Tap .  
Setting menu is shown.



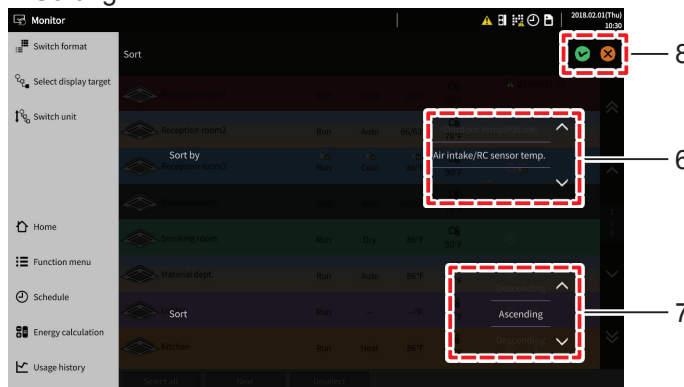
2. Tap **Filter** to narrow down the target.
3. Tap **Sort** to sort the order.  
Note that Sort is only available for list display.

### < Filtering >



4. Tap criteria used to filter the list.  
The selected item is shown in orange. The target meeting all the criteria specified is shown.
5. Tap to confirm setting and return to monitor window.  
Tap to discard setting and to return to monitor window.  
  - To cancel the filter, tap the list again and then tap .






























### < Sorting >



6. Select the item for sorting.  
Lists are not sorted while “—” is selected.
7. Items can be sorted in ascending/descending order.
8. Tap to show monitor window with item contents confirmed.  
Tap to discard setting and to return to monitor window.

(7) Icon guide

Icons shown at the upper part of the screen and in the panel/list are as follows.

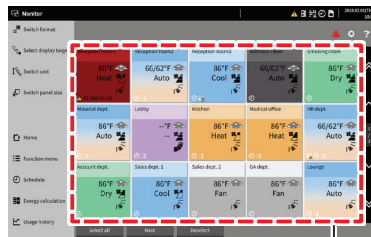
Icon	Icon guide		Shown on upper part of the window	Shown on the panel/list
	Schedule	ON	Indicates schedule item is set	
		Inactive for a day	—	Indicates the scheduled item is deactivated for one day
	Outdoor Unit Control		Indicates that capacity control or lower noise is set for outdoor unit.	
	Demand Control *1	ON	Not in Use	
		In control	Not in Use	
	External media (SD card or USB flash memory)	Not inserted	Indicates no external media has been inserted.	—
		Inserted	Indicates external media has been inserted. If this icon is shown even when external media is inserted, remove it and then insert again.	—
		Memory shortage (notice)	Indicates the memory of the external media is running out. Free memory area in the external media.	—
		Memory shortage (alert)		—
	Filter sign		Indicates the filter for the air conditioner needs cleaning. After cleaning the air filter, clear this icon from control menu - filter sign reset.	
	Filter cleaning unit fault		Indicates that the filter cleaning unit is in fault condition. Check the unit.	
	Alarm		Indicates abnormal condition has occurred.	
	Emergency stop		Indicates emergency stop signal has been received on external input function	—
	RC operation prohibit		—	Indicates this unit has item prohibited to be controlled via RC.
	RC less		—	Indicates one or more air conditioners are not connected to RC
	Thermo-ON		—	Indicates thermo-ON on one or more units.
	Operation restriction	On All	—	Indicates On All operation is restricted
		Off All	—	Indicates Off All operation is restricted
		On/Off all	—	Indicates On/Off operation is restricted
		All operation	—	Indicates all operation is restricted
	Air intake temperature		—	Indicates air intake temperature
	Ambient temperature		—	Indicates ambient temperature
	Indoor temperature		—	Indicates indoor temperature
	Outdoor temperature		Indicates outdoor temperature	
	Information		Indicates external input signal is received	—
	24h ventilation mode		—	Indicates that 24h ventilation is set on the total heat exchanger
	GHP check	Notice	Not in Use	
		Alert	Not in Use	
	Heat storage operation		Not in Use	

\*1: The icon for demand control appears only when the demand control function is activated.

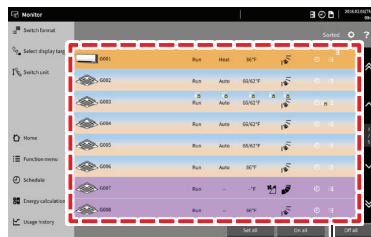
## 7.3 Control

### (1) Setting operation state of air conditioners/facility units

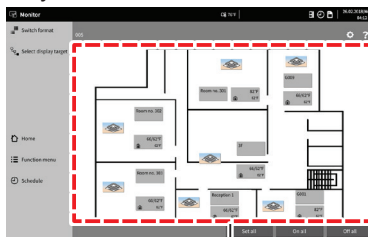
#### Panel



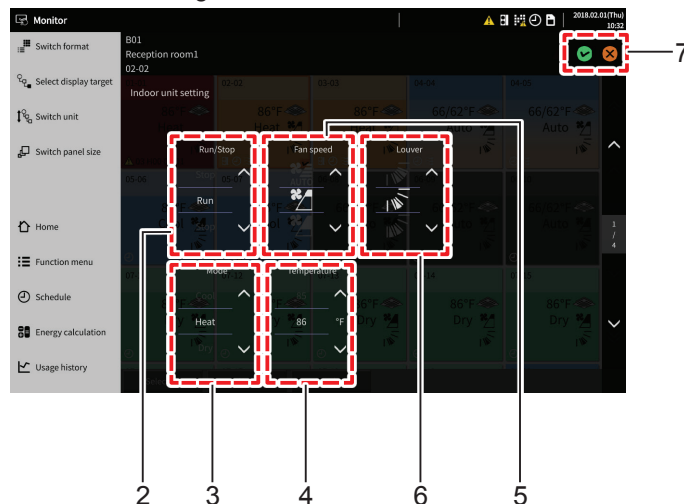
#### List



#### Layout



#### Indoor unit setting



1. Setting operation state on monitor window. Tap the target. Control menu is shown.

Tap < and > for each item to change setting.

2. Run/Stop  
Select from Run and Stop.

3. Operation Mode  
Select from Cool, Heat, Dry, Fan.
4. Temperature  
The resolution for the temperature is 1°F or 0.5°C.
  - Operative range may differ depending on operation mode.
  - If the unit supports dual setpoints, 2 temperatures (Auto cool/Auto heat) are shown when the operation mode is set to "Auto". Set those temperatures as Auto cool temp. is 4°F(2°C) or higher than Auto heat temp.

5. Fan speed

Fan Speed	Low	Low	Med	Med	High	High2	Auto	Coexist
Icon								

6. Louver

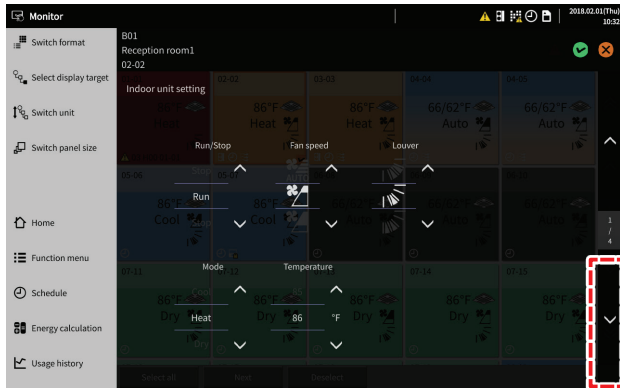
Louver	1	2	3	4	5	6	7	Auto	Coexist
Icon									

7. Tap to confirm setting and to return to monitor window.  
Tap to discard setting and to return to monitor window.

- Setting range for each item may differ depending on units. Refer to installation manual and operation manual for each unit for detail.
- While selecting multiple targets and If multiple contents co-exist for a setting, "--" is shown. When different setting contents co-exist for multiple targets, the setting change is not reflected even if confirmed. In this scenario, the setting for each item stays as it was before the change.

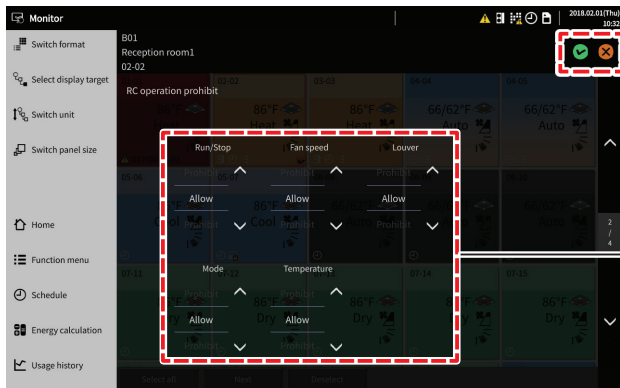
(2) Allow/prohibit RC operation.



This is to restrict operation from remote controller. Prohibit RC operation to invalidate operation from remote controller for particular function/item.



Indoor Unit Setting

RC Operation prohibit Setting



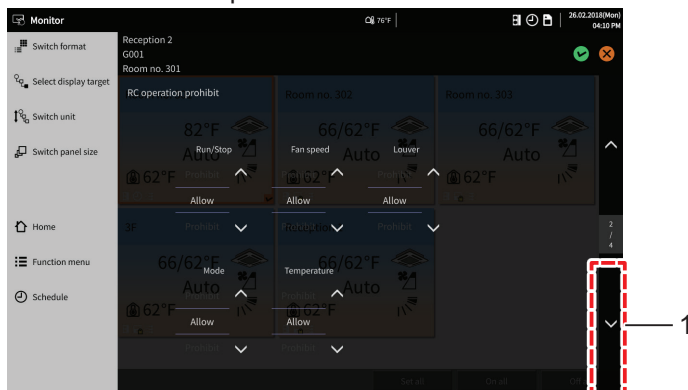
1. Refer to the previous page “(1) Setting operation state of air conditioners/facility units” and tap [v] to scroll down a page.
  
2. Tap ^ or v for each item to select “Allow” or “Prohibit” on RC operation prohibit window.
  - “RC operation prohibit” function is available for “Run/Stop”, “Mode”, “Temperature”, “Fan speed”, and “Louver”.
  
3. Tap  to confirm setting and to return to monitor window. Tap  to discard setting and to return to monitor window.

**NOTICE:**

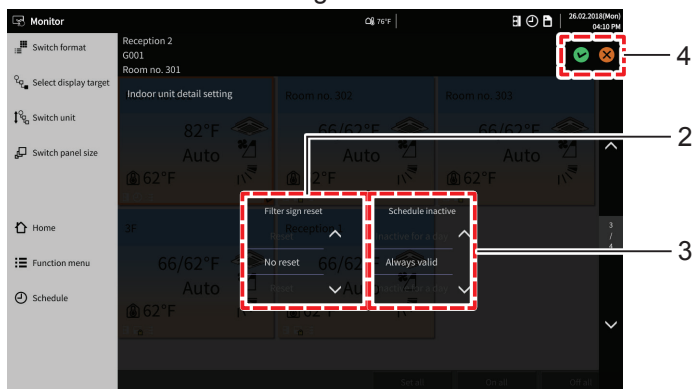
- While air conditioner is running, stop command from remote controller is valid even when RC operation is prohibited. After stopping air conditioner from remote controller, remote controller also can Run the unit. This exception is intended for a use for emergency only and must not be for daily use.
- Do not use Allow/prohibit RC operation function if Power ON/OFF (d1 and d3) are set on Select Functionality. Set operation lock function on RC to restrict RC operation with the use of power ON/OFF (optional) function.
- Allow/prohibit RC setting may be cleared upon communication failure. Check the contents and set allow/prohibit RC again.
- If other central controller AND the following is connected to the system, “RC operation prohibit” function cannot be used.  
In this case, none of the central controller shall set “RC operation prohibit” function. Setting “RC operation prohibit” in such scenario may cause malfunction.
  - On wall type (if CIW01/CIS01 is connected, RC operation prohibit function is available.)

- (3) Indoor unit detail setting
- Filter sign reset
  - Schedule inactive for a day

### < Prohibited RC operation >



### < Indoor Unit Detail Setting >



1. Refer to the previous page “(2) Allow/prohibit RC operation” and tap v to scroll down a page.

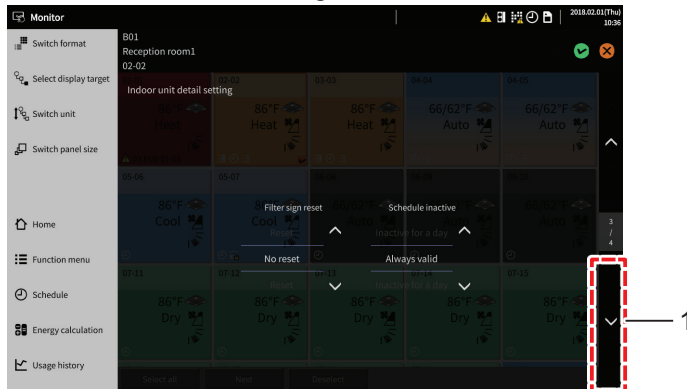
Tap ^ and v for each item to change setting.

2. Filter sign reset  
Select Reset to reset the filter sign.
  - Filter sign can be reset on all units with filter sign indicated or only on selected unit(s). Refer to Installation manual.
3. Inactive for a day  
Select “Inactive for a day” to inactivate scheduled items for the current day.
4. Tap to confirm setting and to return to monitor window.  
Tap to discard setting and to return to monitor window.



- (4) Setting control on outdoor units.  
Set Capacity Control and Lower Noise for outdoor units in the system.

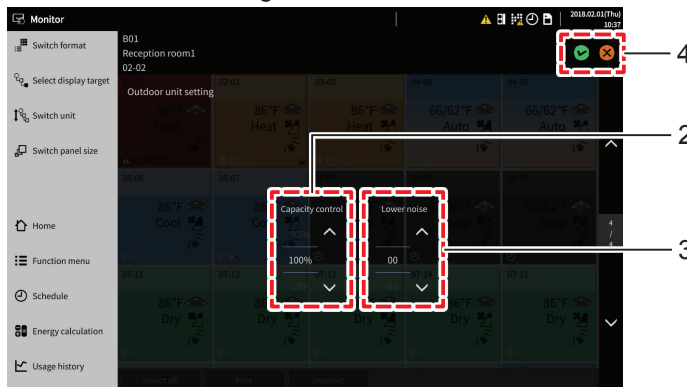
#### < Indoor Unit Detail Setting >



1. Refer to the previous page “(3) Filter sign reset and Inactive for a day” and tap v to scroll down a page.

Tap ^ and v for each item to change setting.

#### < Outdoor Unit Setting >



2. Capacity control  
Select from “0%”, “40%” ~ “100%” (5% resolution).
3. Lower noise  
Select from “00” ~ “09”.
4. Tap to confirm setting and to return to monitor window.  
Tap to discard setting and to return to monitor window.

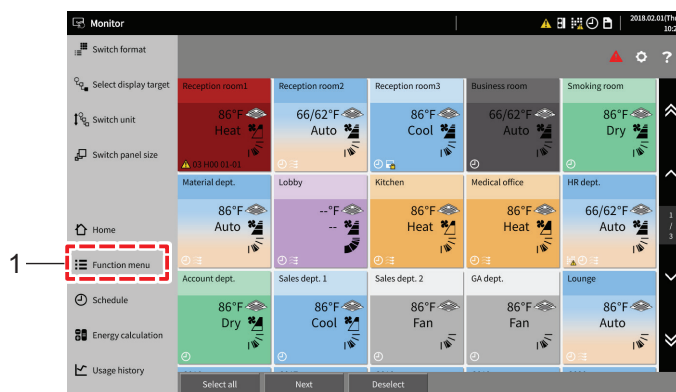
#### NOTICE:

- Setting range for each item may differ depending on units. Refer to installation manual and operation manual for each unit for detail.
- This setting is valid only for the outdoor unit that is applicable for this function. Refer to Installation and maintenance manual to activate Capacity Control and Lower Noise to set outdoor units. Contact your distributor regarding the applicable outdoor units.
- VRF Central Touchscreen Controller shows values set from itself for Capacity Control and Lower Noise. The values may differ from actual values, if they were set physically on the outdoor unit or from other controllers.
- This outdoor unit setting may affect other groups and blocks that are connected to the same outdoor unit.
- The setting is reflected approximately 15 minutes after setting.

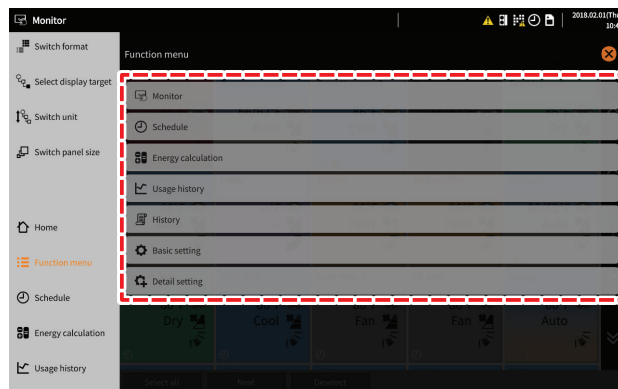
## 8. Function Menu


### 8.1 Showing Function Menu Window

Setting item is shown in a list.



1. Tap “Function Menu”.  
Function Menu window is shown.



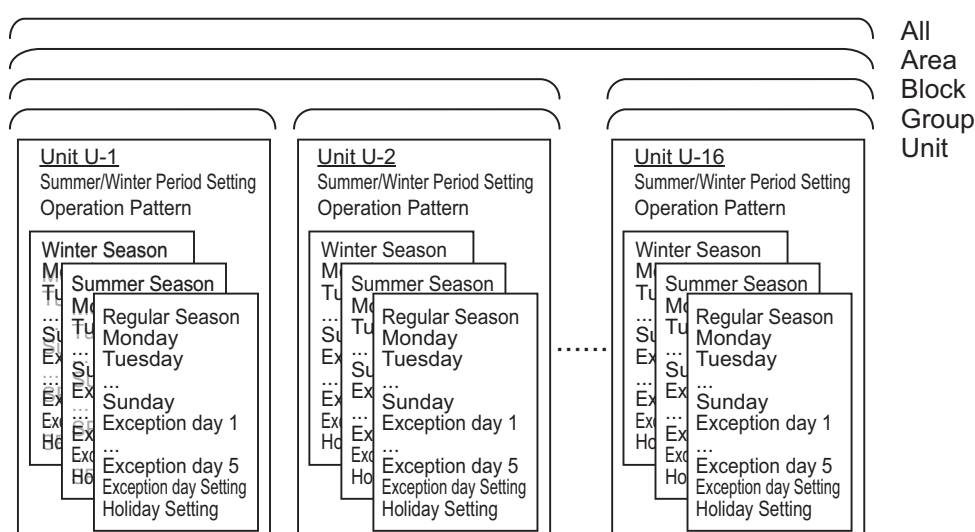
2. Select item to show each function window.  
Tap  to exit from Function Menu.

## 9. Schedule

The following items can be set in Schedule function.

Register and check schedule item for air conditioners. Schedule can be set as follows:

- (1) Schedule can be set and executed on each Group/Block/Area.
- (2) Up to 16 items can be scheduled for each day of the week and exception day.
- (3) Up to 16 operation patterns can be registered for each group.
- (4) Operation pattern can include Run/Stop, Mode, Temperature, Fan Speed, Louver, RC Operation Prohibit, Capacity Control for Outdoor Unit, Lower Noise. (Some items may not be available depending on indoor unit. Refer to the Installation and maintenance manual and the operation manual for each indoor unit for details.)
- (5) Schedule items can be set respectively for Normal season, Summer season and Winter season.
- (6) Exception day (Exception day 1~Exception day 5) and holidays can be registered on up to December 31 next year. (Maximum 2 years)
- (7) The maximum length for name of exception day is 10 characters.
- (8) Scheduled item is executed upon passing the specified time. The state on air conditioner may not be of the scheduled item even after turning the unit ON if the power of the unit was OFF at the time specified in the scheduled item.
- (9) Schedule registration consists of All/Area/Block/Group as illustrated below.



- (10) Reflect the edited contents either by [Overwrite All] or [Overwrite Only Where Changed]
- (11) All the schedule for day of the week, for exception day, and operation pattern is expanded from upper set to subordinate sets (All>Area>Block>Group) if the contents are updated via [Overwrite All]. Edited contents are identified for each item as described in the table below to expand from upper set to subordinate sets (All>Area>Block>Group). If the contents are updated via [Overwrite Only Where Changed] upon setting indoor/outdoor units simultaneously, the latest setting takes precedence.

Edited range	Editing items
Pattern information 1	Run / Stop
	Operation mode
	Temperature
	Fan speed
	Louver
	RC operation prohibited - Run / Stop
	RC operation prohibited - Operation mode
	RC operation prohibited - Temperature
	RC operation prohibited - Fan speed
	RC operation prohibited - Louver
	Capacity control
	Lower noise
Pattern information 2- Pattern information 16	Same as the above
Schedule info.	Each day of the week (Mon-Sun)
	Each exception day (1-5)
	Holiday setting
Exception day (last year)/Exception day (this year)	1/1 - 12/31, Individual/Summer start date/Summer end date
Exception day (this year)/Summer/Winter	Winter start date/Winter end date

(12) The example for Overwrite Where Only Changed is as follows.

**Example 1:** Changing schedule information (scheduled time and operation pattern No.) for a day of the week / exception day.

Setting pattern 3 in Area A, Monday 04:00 and Tuesday 02:00 (Before change)

Schedule for Area A

Monday	00:00 AM	-	04:00 AM
	Pattern 1	-	Pattern 3
Tuesday	-	02:00 AM	-
	-	Pattern 3	-

Schedule for the subordinate Block/Group of Area A

Monday	00:00 AM	-	04:00 AM
	Pattern 1	-	Pattern 2
Tuesday	00:00 AM	-	04:00 AM
	Pattern 1	-	Pattern 2



When the schedule is registered, then pattern number at 4:00 on Monday and pattern number at 2:00 on Tuesday is overwritten to subordinate Block/Group of Area A.

Schedule for Area A

Monday	00:00 AM	-	04:00 AM
	Pattern 1	-	Pattern 3
Tuesday	-	02:00 AM	-
	-	Pattern 3	-

Schedule for the subordinate Block/Group of Area A

Monday	00:00 AM	-	04:00 AM
	Pattern 1	-	Pattern 3
Tuesday	00:00 AM	02:00 AM	04:00 AM
	Pattern 1	Pattern 3	Pattern 2

**Example 2:** Changing operation pattern

Setting "Stop" in pattern 2 for Area A (before setting completion)

Schedule for Area A

Operation Pattern 1	Run	Cool	68°F
Operation Pattern 2	Stop	Heat	77°F

Schedule for the subordinate Block/Group of Area A

Operation Pattern 1	Run	Fan	72°F
Operation Pattern 2	Run	Heat	73°F



When the schedule is registered, only "Run/Stop" information in pattern 2 for Area A is overwritten to the subordinate Block/Group of Area A.

Schedule for Area A

Operation Pattern 1	Run	Cool	68°F
Operation Pattern 2	Stop	Heat	77°F

Schedule for the subordinate Block/Group of Area A

Operation Pattern 1	Run	Fan	72°F
Operation Pattern 2	Stop	Heat	73°F

**Example 3:** Switching the season

Setting "December 1 to January 31" for winter period on Area A. (Before setting completion)

Schedule for Area A

Season	Period	Exception day 1	Exception day 2	Exception day 3
Summer	7/1~9/30	-	-	-
Winter	12/1~1/31	-	-	-
Regular	Other	-	-	-

Schedule for the subordinate Block/Group of Area A

Season	Period	Exception day 1	Exception day 2	Exception day 3
Summer	8/1~9/30	8/3,9/4	9/18	-
Winter	11/1~2/28	1/1,1/2	1/10	-
Regular	Other	-	-	-



When the schedule is registered, all season periods and exception days for all seasons are overwritten to subordinate Block/Group of Area A.

Schedule for Area A

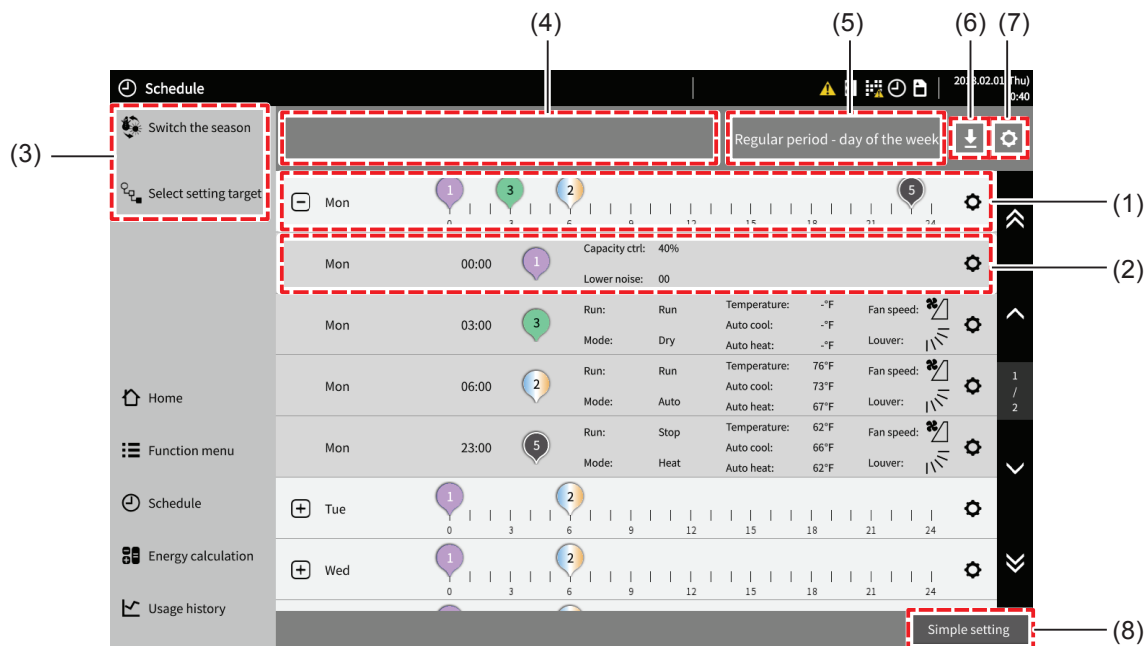
Season	Period	Exception day 1	Exception day 2	Exception day 3
Summer	7/1~9/30	-	-	-
Winter	12/1~1/31	-	-	-
Regular	Other	-	-	-

Schedule for the subordinate Block/Group of Area A

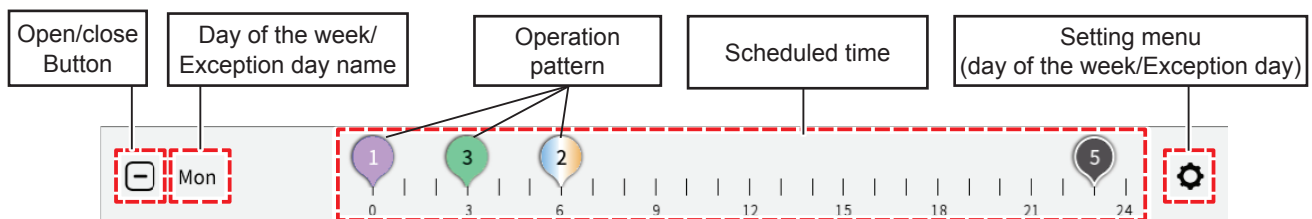
Season	Period	Exception day 1	Exception day 2	Exception day 3
Summer	7/1~9/30	-	-	-
Winter	12/1~1/31	-	-	-
Regular	Other	-	-	-

## 9.1 Schedule Window Operation

### Regular season-day of the week

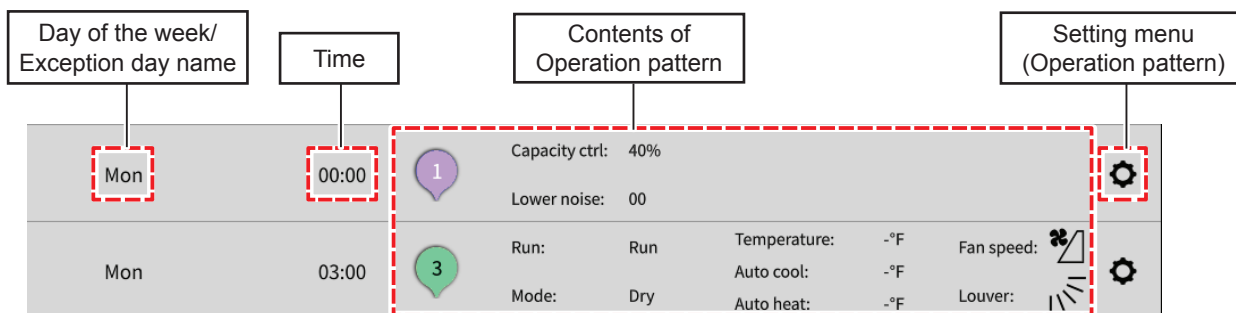


#### (1) day of the week/exception day name



- **Open/close button**  
Tap + to show (2) operation pattern list. Tap – to hide (2) operation pattern list.
- **Day of the week/Exception day name**  
Select a day of the week on (3) Switching season, to show the day of the week. The first day of the week depends on the setting in page 45 “10.5 Setting display/sound”.  
Select an exception day on (3) Switching season, to show the exception day. The name of exception day can be edited on page 35 “9.3 (3) Setting exception days/holidays”.
- **Scheduled time**  
Schedules for each day of the week and exception days are shown. The time format depends on the setting in page 44 “10.4 Setting locale”.
- **Operation pattern**  
Shows the operation pattern placed on time axis.  
Tap the operation pattern to show the detail of the pattern.  
Tap and hold the operation pattern balloon and drag to change scheduled time.
- **Setting menu (day of the week/Exception day)**  
Tap ⚙ for “New registration”, “Day of the week all delete”, “Day of the week all copy”, and/or “Day of the week all paste”.  
New registration: Register new schedule item on each day of the week and exception day.  
Day of the week all delete: Delete all the scheduled items shown on the day of the week/exception day list.  
Day of the week all copy: Copy all the scheduled item shown on day of the week/exception day list.  
Day of the week all paste: Paste copied items.

## (2) Operation pattern list




### ■ Day of the week/exception day name

(1) Same name as in the day of the week/exception day list is shown.


### ■ Time

Time specified for this schedule item.

### ■ Contents of operation pattern

The list above shows the operation pattern for indoor unit. The list below shows the operation pattern for outdoor unit. Prohibited RC operation is shown with “”.

### ■ Setting menu (Operation pattern)

Tap  to edit/delete the operation pattern.

Edit: Edit scheduled item shown on operation pattern list.

Delete: Delete scheduled item shown on operation pattern list.

## (3) Tap each item to switch displayed contents.

- Switch the season: Open a window for schedule setting selected from 6 patterns of combinations of day of the week/exception day and regular/summer/winter season. Refer to page 31 “9.2 (1) Switching season patterns”.
- Selecting setting target: Opens a window to select display target for schedule from tree view. Refer to page 31 “9.2 (2) Selecting setting target”.

## (4) Displays Area name, Block name and Group name of the current selected target.

## (5) Shows schedule pattern selected on (3) Switching season. Select summer/winter to show specified summer/winter period.

## (6) Tap to confirm and save the settings. This icon flashes in red when contents are changed. Make sure to tap this icon to save changes to the contents. Otherwise the changes are not registered.

## (7) Following menu is available on tapping .

- Operation pattern: Refer to page 32 “9.3 (1) Setting operation patterns” for detail.
- Summer/Winter period setting: Set period each for summer and winter for setting seasonal schedule. Refer to page 34 “9.3 (2) Setting summer/winter season” for detail.
- Setting exception schedule: Set annual schedule for national holidays and vacations. Refer to page 35 “9.3 (3) Setting exception days/holidays”.
- Setting contents activation: Reflect the edit either by [Overwrite All] or [Overwrite Only Where Changed]. Refer to page 27 “9. Schedule (10) and (11)” for detail.
- Save/Load: Save and/or load scheduled items. Refer to page 63 “Saving and loading data” for detail.

## (8) [Simple Setting] provides seamless setting for generation and registration of schedule items.

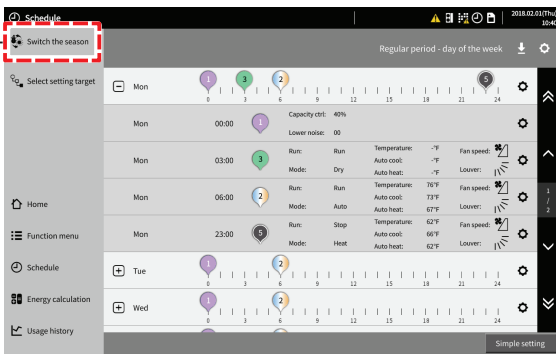
Refer to page 38 “9.5 Simple setting” for detail.

### NOTICE:

- Items need to be scheduled at least 15 minutes later from the current time.

## 9.2 Switching display

### (1) Switching season pattern



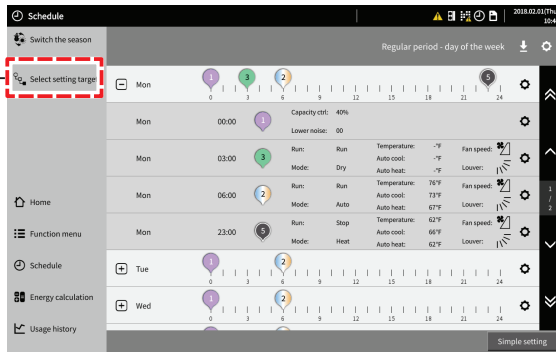
1 — Switch the season

2 —

1. Tap **Switch the season**.  
The window for switching season is shown.
2. Tap the desired season.  
Schedule window for selected season pattern is shown.

- The current season pattern is shown in orange.


### (2) Selecting setting target



1 — Select setting target

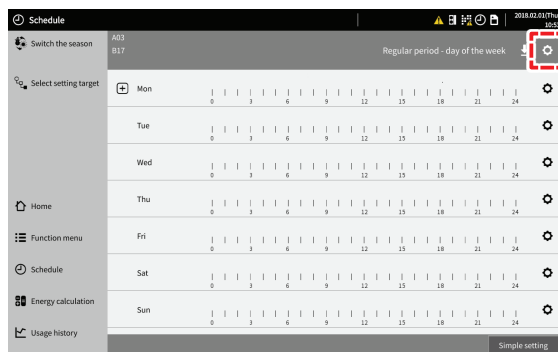
2 —

1. Tap **Select setting target**.  
Select Display Target is shown.
2. Tap name to show schedule window for selected target.

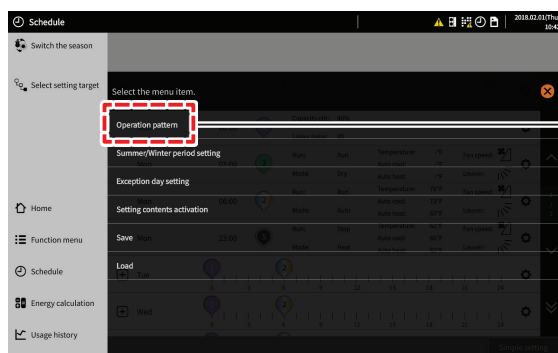
- The current target is shown in orange.
- Tap + to open the tree to show subordinates.
- Tap – to close the tree branches.
-  indicates the setting in the subordinates is inconsistent.

## 9.3 Setting

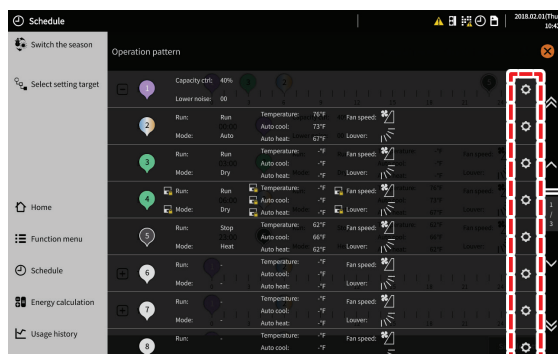
### (1) Setting operation patterns



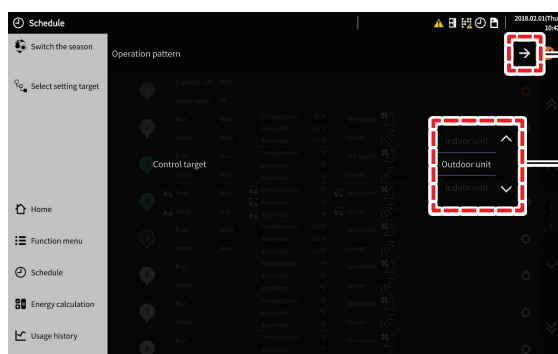
1. Tap .  
Setting menu is shown.



2. Tap **Operation pattern**.  
The window for setting operation pattern is shown.



3. Tap for desired operation pattern.  
The window for selecting target for operation pattern is shown.

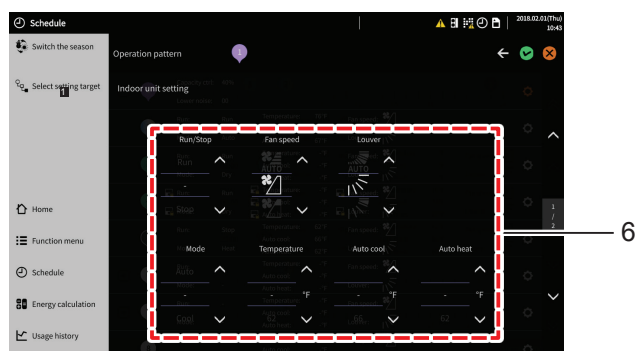


4. Select indoor unit or outdoor unit as a setting target.
5. Tap → to go to operation pattern setting window for the selected target.  
If the indoor unit is selected, step 6 is shown.  
If the outdoor unit is selected, step 9 is shown.
- Indoor units and outdoor units cannot simultaneously be set for one operation pattern.

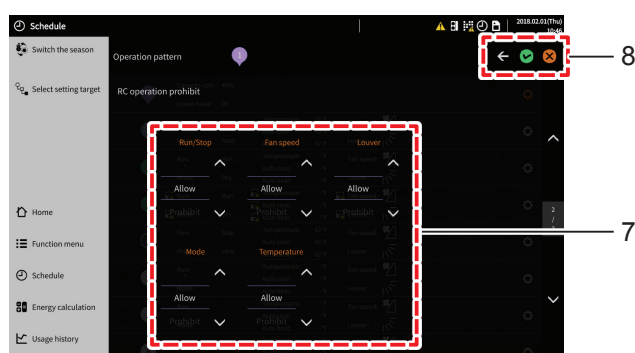
Continue to next page.



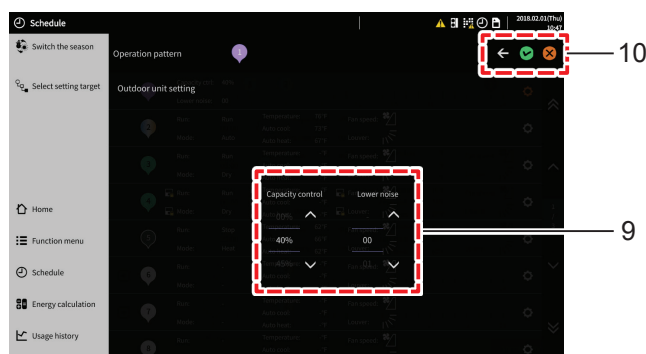
Continued from previous page.



6. Tap ^ and v for each item to change setting.  
Refer to page 22 “7.3 (1) Setting operation state of air conditioners/ facility units” for detail.  
Select “-” to indicate “not specified”.



7. Tap ^ and v for each item to change setting.  
Select from “Allow” or “Prohibit”.  
Select “-” to indicate “not specified”.
8. Tap [Confirm] to confirm setting and to return to step 3 operation pattern setting.  
Tap [Discard] to discard setting and to return to monitor window.  
Tap ← to go to the previous page.



9. Tap ^ and v for each item to change setting.  
Refer to page 25 “7.3 (4) Setting control on outdoor units” for detail.  
Select “-” to indicate “not specified”.
10. Tap [Confirm] to confirm setting and to return to step 3 operation pattern setting.  
Tap [Discard] to discard setting and to return to monitor window.  
Tap ← to go to the previous page.

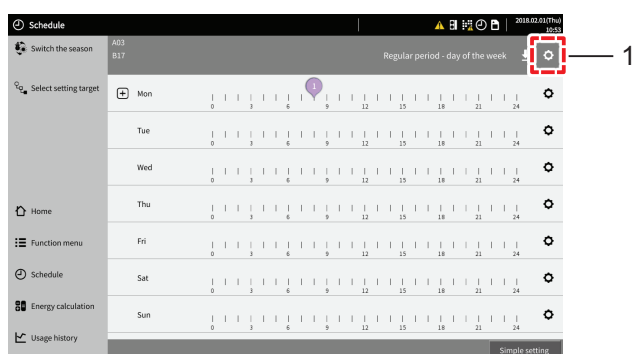
#### NOTE:

Colors for each operation pattern are as follows.

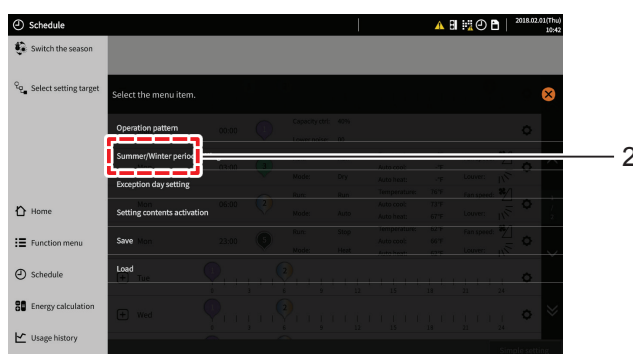
Unit types	Indoor unit						Outdoor unit	Air conditioner	
	Run / - (No setting)					Run		Stop	Mode No. setting
Setting	Cool	Heat	Dry	Fan	Auto	-	Capacity control Lower noise setting		
ON(Mode color)	Light blue	Orange	Light green	Light gray	Light blue and Orange	Yellow green	Purple	Gray	White
OFF(No mode color)	Yellow green						Purple	Gray	White

(\*1) Regarding Mode color setting, refer to page 45 “10.5 Setting window and sound”.

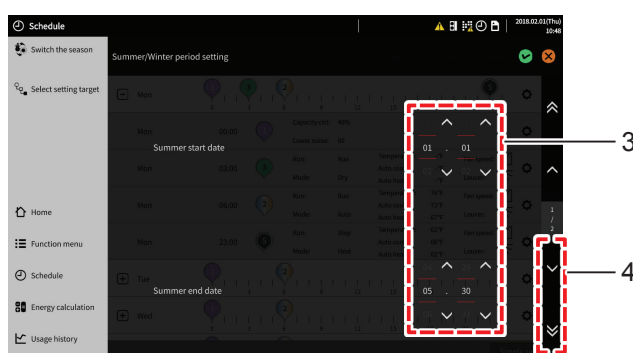
## (2) Setting summer/winter season



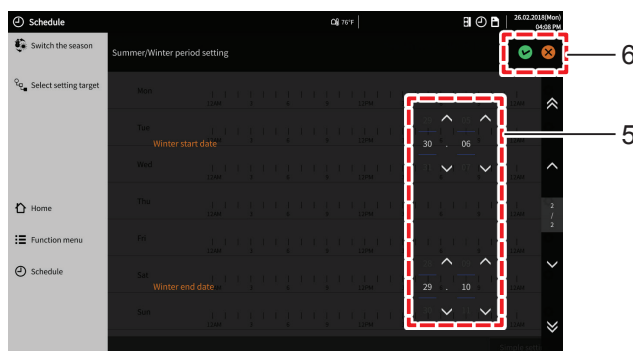
1. Tap .  
Setting menu is shown.



2. Tap **Summer/Winter period setting**.  
The window for setting summer/winter period is shown.



3. Tap ^ or v to set start and end date for summer period.
4. Tap v to scroll a page down.  
The page for winter period setting is shown.

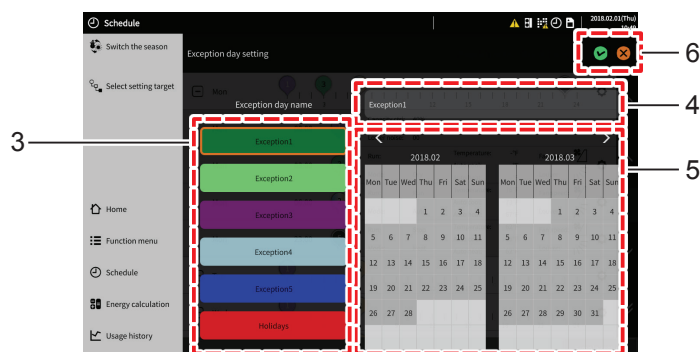
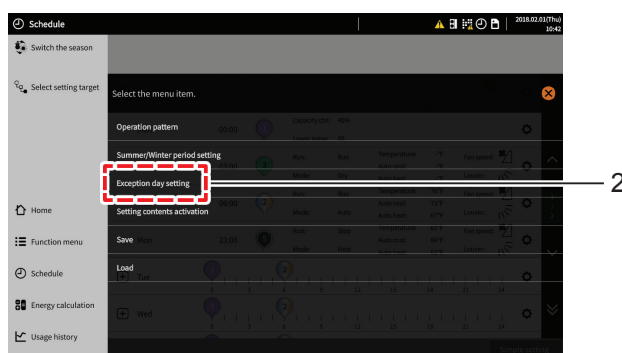
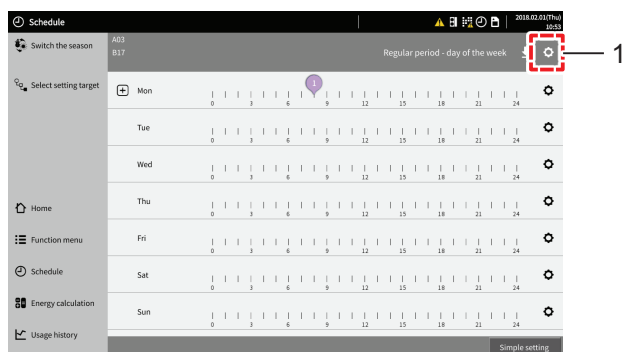


5. Tap ^ or v to set start and end date for winter period.  
Tap to confirm setting and to return to schedule window.  
Tap to discard setting and to return to schedule window.

- Check the season period at the beginning of each year to maintain the contents of summer/winter period setting.
- Each season needs to have 2 or more days.
- February 29 (leap day) is considered as follows when specified for start date or end date.

Specified date	Process on the leap year	Year that is not the leap year
Set start date to February 29	Start date: February 29	Start date: March 1
Set end date as February 29	End date: February 29	End date: March 1

### (3) Setting exception days/holidays



1. Tap . Setting menu is shown.

2. Tap **Exception day setting**. The window for exception day setting is shown.

3. Tap exception day or holiday to set.

4. The keyboard is shown. Regarding keyboard operation, refer to page 8 "Basic window operation". Exception day name must be 10 characters or less.

5. Tap any date to set as an exception day and then the date is shown in the color specified for the exception day.

Tap < > or flick over the calendar to flip the page.

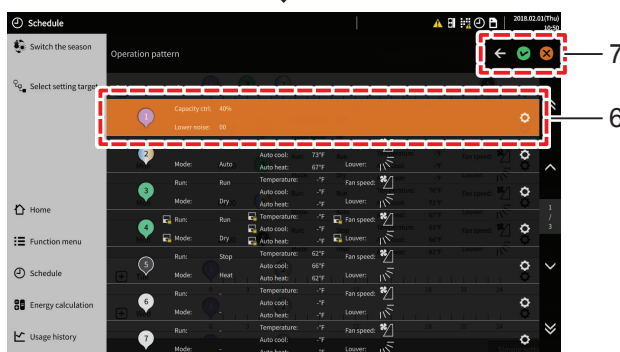
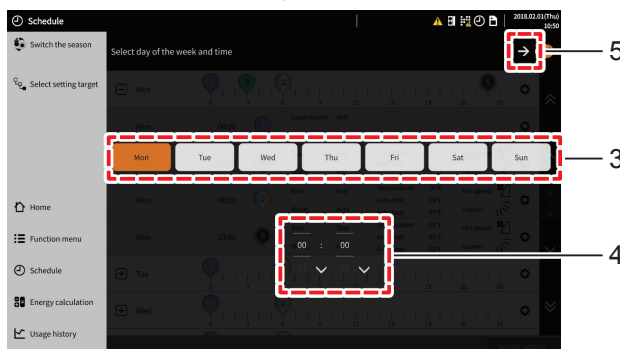
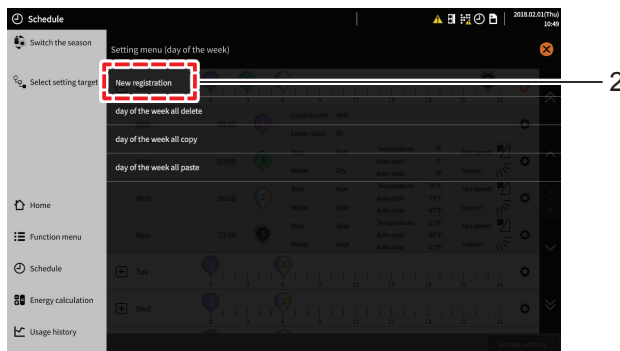
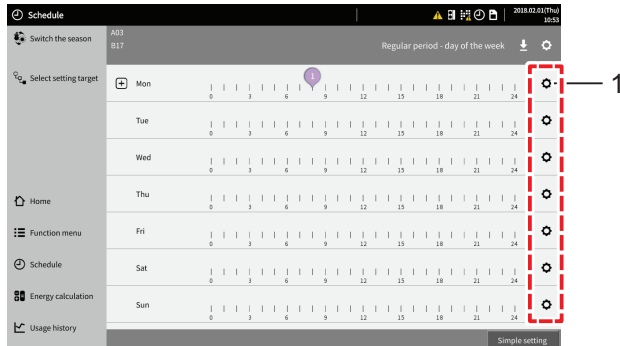
- Up to December 31 next year can be registered as an exception day.
  - Exception days need to be registered once a year to maintain schedule operation based on exception days.
6. Tap to confirm setting and to return to schedule window. Tap to discard setting and to return to schedule window.

## 9.4 Registration

### (1) Registering schedule


#### NOTICE:

- Items need to be scheduled at least 15 minutes later from the current time.



Continue to next page.

1. Refer to page 31 "9.2 Switching display" to select season pattern and setting target.

Then tap  for the day of week/exception day to show the menu window.

2. Tap **New Registration**.

The window for day of the week (exception day)/ time is shown.

- Tap **Day of the week all delete** to delete all the scheduled items shown on the day of the week/exception day list.
- Tap **Day of the week all copy** to copy all the scheduled items shown on day of the week/exception day list.
- Tap **Day of the week all paste** to paste copied items.

3. Selected button is shown in orange.


- To deselect the item, tap the desired item again.


4. Tap  $\wedge$  or  $\vee$  to set schedule time.

5. Tap  $\rightarrow$  to confirm setting and to go to select operation pattern window.

6. Tap the desired operation pattern and then the selected operation pattern is shown in orange.

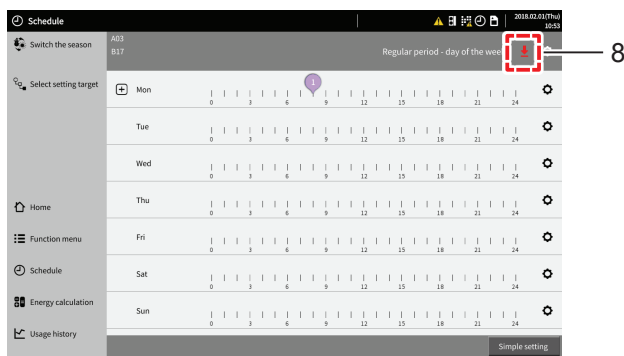
Refer to page 32 "9.3 Setting (1) Setting operation patterns" to change operation pattern.


7. Tap  to confirm setting and to return to schedule window.

Tap  to discard setting and to return to schedule window.

Tap  $\leftarrow$  to go to the previous page.

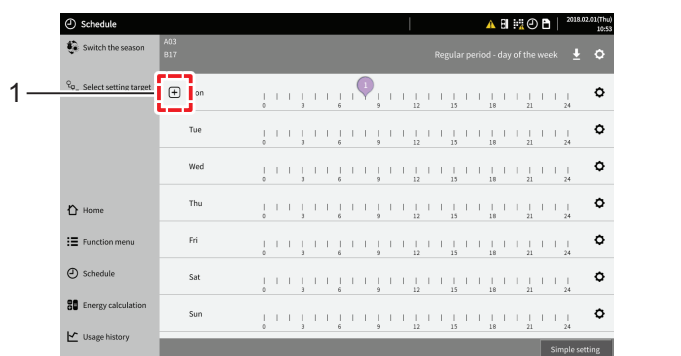
Continue from previous page.



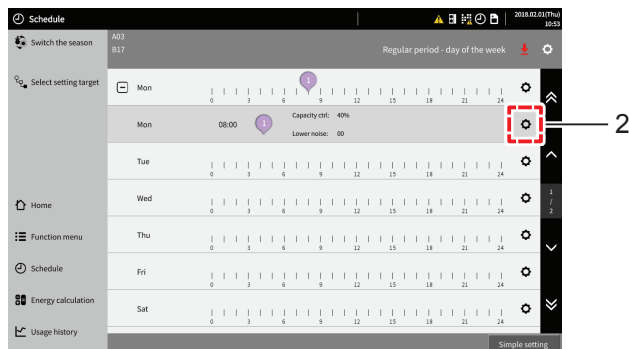
8. Upon finishing setting, tap  to register the contents.


- Make sure to tap this icon to save changes to the contents. Otherwise the changes are not registered.

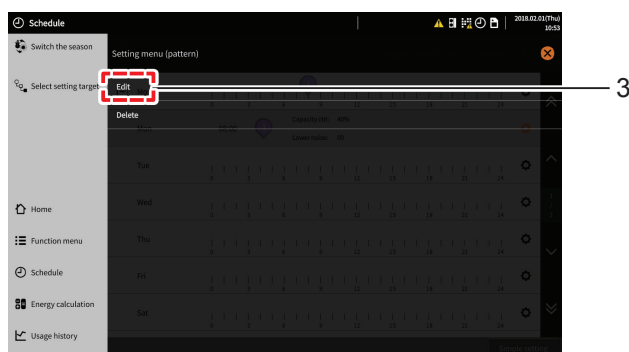
## (2) Editing operation patterns





1. Tap + for the list of day of the week or exception day that contains operation pattern to edit. Operation pattern list is shown.



2. Tap  in the operation pattern list. Setting menu for the operation pattern list is shown.



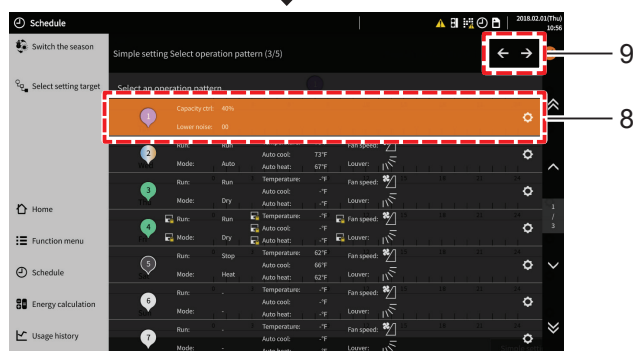
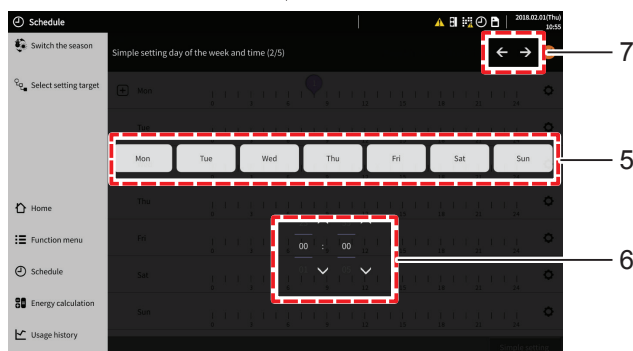
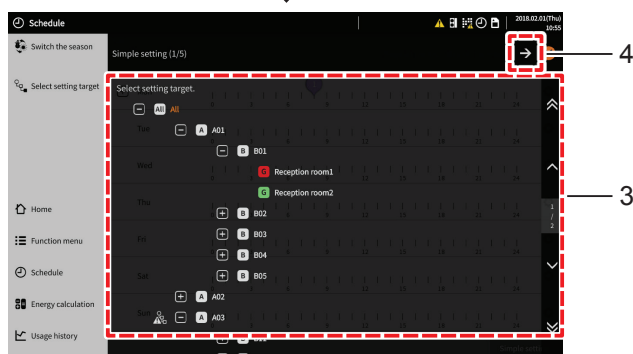
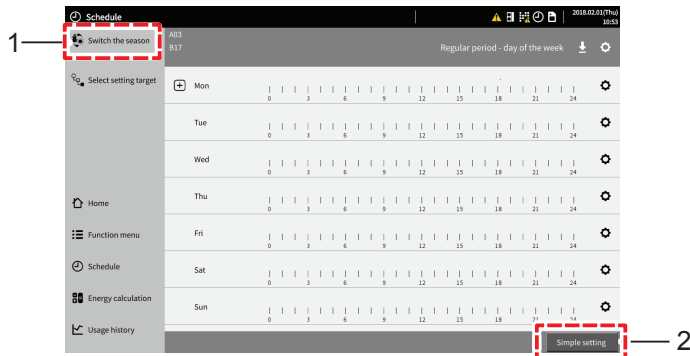
3. Tap **Edit** to return to the page shown in page 36 “9.4 (1) Registering schedule”. Repeat the steps to edit the schedule setting. Tap  to return to the schedule window. Tap  to go to the previous page.

## 9.5 Simple setting

**Simple setting** provides easy creation and edit of the schedule by the following steps: **setting target** > **setting day of the week (exception day)** > **time** > **scheduling contents** > **confirmation** > **complete**.

### NOTICE:

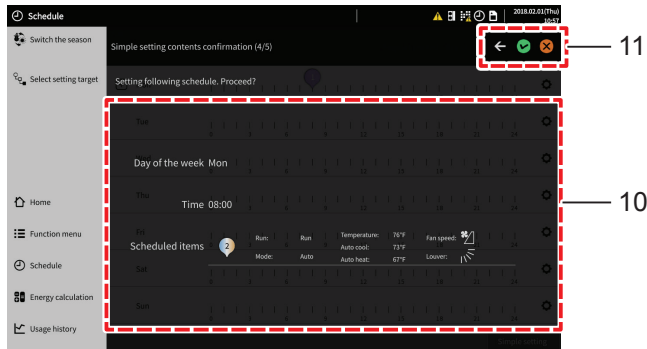
- Items need to be scheduled at least 15 minutes later from the current time.



Continue to next page.

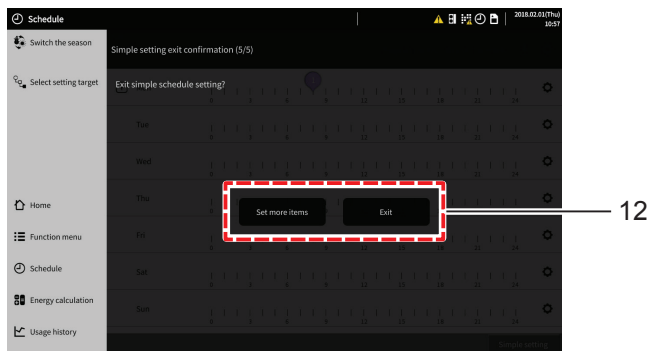
1. Tap **Switch the season** to switch schedule window to show the desired season pattern. Refer to page 31 “9.2 Switching display (1) Switching season pattern” for details.
2. Tap **Simple setting**. Simple setting window is shown.
3. Tap the name of the setting target. The target is shown in orange.
4. Tap → to set schedule for the setting target.
  - Tap + to open the tree to show subordinates.
  - Tap – to close the tree branch.
  - indicates the setting in the subordinates is inconsistent.
5. Tap desired day of the week/exception day. Selected day is shown in orange.
  - To deselect the item, tap the desired item again.
6. Tap ^ or v to set schedule time.
7. Tap → to confirm setting and go to the selecting operation pattern setting window. Tap ← to go to the previous page.
8. Tap the desired operation pattern and selected operation pattern is shown in orange. Refer to page 32 “9.3 Setting (1) Setting operation patterns” to change the operation pattern.
9. Tap → to confirm setting and go to the next confirmation window. Tap ← to go to the previous page.

Continue from previous page.

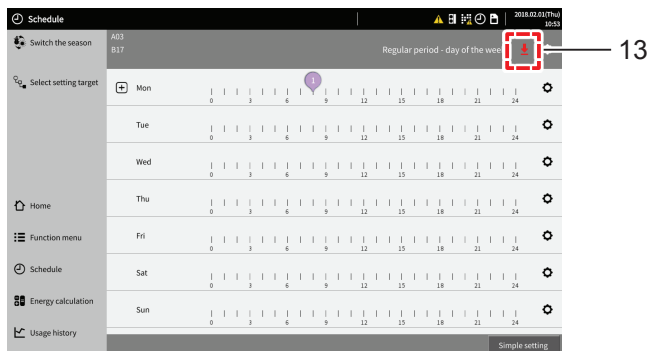


10. Confirm setting.

11. Tap to confirm setting and to return to schedule window.  
Tap to discard setting and to return to schedule window.  
Tap to go to the previous page.



12. Tap **Set more items** to register another schedule item. Repeat step (3) to (12).  
Tap **Exit** to close simple setting.



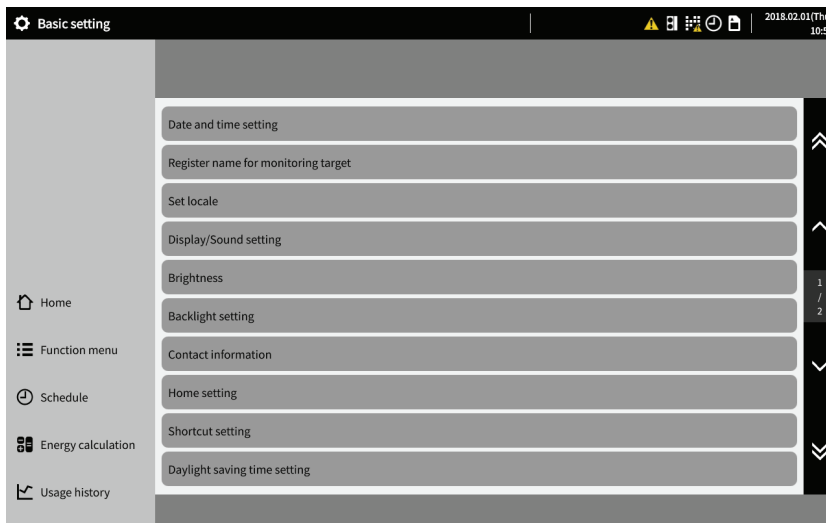
13. Upon finishing setting, tap to register the contents.

- Make sure to tap this icon to save changes to the contents. Otherwise the changes are not registered.

- Scheduled items are executed on each group. Check all schedule items for All/Area/Block to avoid any schedule collision and inconsistency.
- On tree view for **Select setting target**, is shown for upper sets that include subordinates with an inconsistent schedule configured.

## 10. Basic

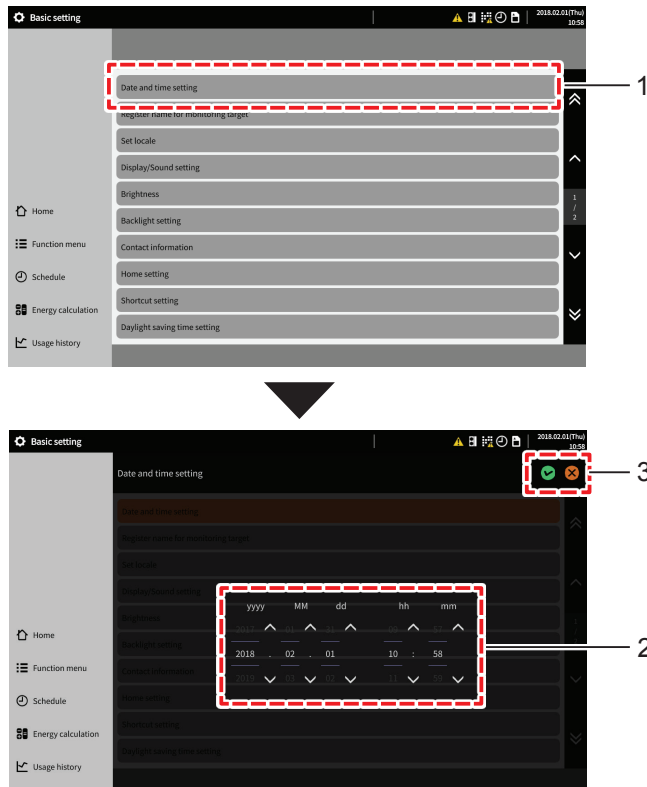
### 10.1 Window Operation for Basic Settings



- (1) Date and time setting  
Set the current date and time. Refer to page 41 “10.2 Setting date and time” for details.
- (2) Register name for monitoring target:  
Register name for area/block/group/unit, icons and operation restriction.  
Refer to page 41 “10.3 Registering Monitoring Target Names and more”.
- (3) Locale setting  
Change language, date and time format, and each unit.  
Refer to page 44 “10.4 Setting locale” for details.
- (4) Setting window and sound  
Edit setting for display and sound such as indoor temperature display and alarm sound.  
Refer to page 45 “10.5 Setting window and sound” for details.
- (5) Adjusting brightness  
Adjust the brightness of the backlight.  
Refer to page 46 “10.6 Adjusting brightness” for details.
- (6) Backlight setting  
Change auto dimming time for the backlight.  
Refer to page 46 “10.7 Auto Dimming Backlight” for details.
- (7) Contact information  
Shows service contact information and the latest alarm.  
Refer to page 47 “10.8 Showing Service Contact Information” for details.
- (8) Home setting  
Set home button positioned on the left-center of the window.  
Refer to page 47 “10.9 Setting home button” for details.
- (9) Shortcut setting  
Set shortcut button positioned on the left bottom of the window.  
Refer to page 48 “10.10 Setting shortcut button” for details.
- (10) Daylight saving time setting  
Activate/deactivate daylight saving time.  
Refer to page 49 “10.11 Setting daylight saving time” for details.
- (11) Display for cleaning  
This is used for cleaning display surface.  
Refer to page 49 “10.12 Cleaning display” for details.



## 10.2 Setting Date and Time



1. Tap **Date and time setting**.  
The window for date and time setting is shown.

2. Tap ^ or v for each item to set date and time.

3. Tap to confirm setting and return to Basic setting window.  
Tap to discard setting and to return to Basic setting window.

## 10.3 Registering Monitoring Target Names and more



1. Tap **Register name for monitoring target**.  
The window for registering name for monitoring target is shown.

Refer to the next page “(1) Window operation for registering name for monitoring target”

## (1) Window operation for registering name

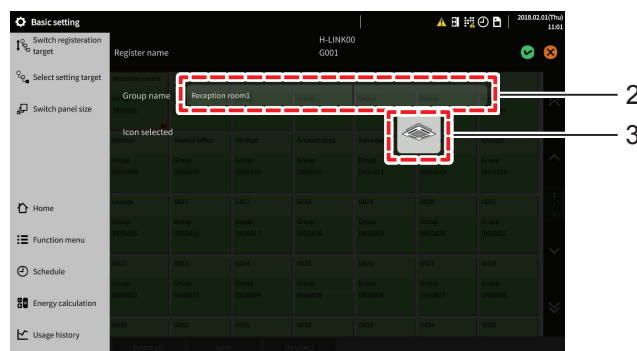


- (a) Tap panel to register each name, icon and/or restriction on operation. Refer to the next page “(2) Registering names, icons and restrictions on operation” for details.
- (b) Tap each item to switch the displayed contents.
  - Switch registration target: The same window for **Switch registration target** on monitor window is shown. Refer to page 17 “7.2 (3) Switching display unit” for details.
  - Select setting target: The same window for **Select display target** on monitor window is shown. Refer to page 16 “7.2 (2) Selecting display target” for details.
  - Switch panel size: The same window for **Switch panel size** on monitor window is shown. Refer to page 17 “7.2 (4) Switching panel size” for details.
- (c) Tap ← to return to Basic setting window.
- (d) Tap ↓ to confirm setting and to save contents. This icon flashes in red when contents are changed.  
NOTE:  
 Make sure to tap this icon to save changes to the contents. Otherwise the changes are not registered.
- (e) Tap ⚙ to switch single selection mode and multiple selection mode.
- (f) Buttons are shown for multiple selection modes. Refer to page 11 “7.1 Monitor window operation” for details.

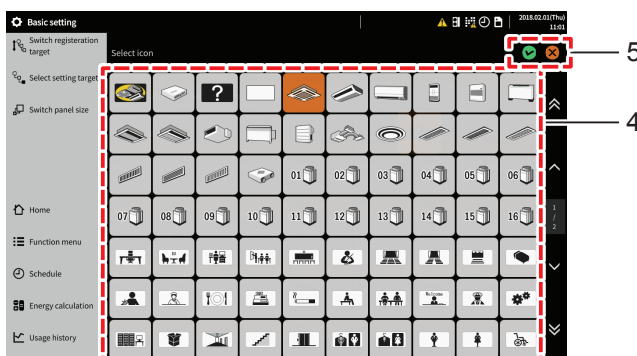
## (2) Registering Names, Icons and Restrictions on Operation



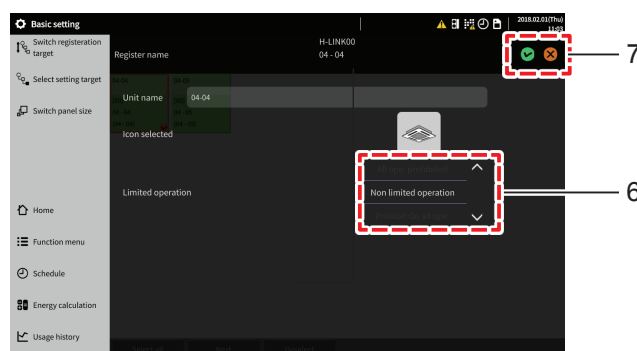
1. Tap panel to show window for registering names.



2. Shows current registered name. Tap input field for name to enter information on keyboard. Regarding keyboard operation, refer to page 8 "3. Basic Window Operation". Names must be 16 characters or less.
3. Shows registered icon. Tap icon to show window to change icon.

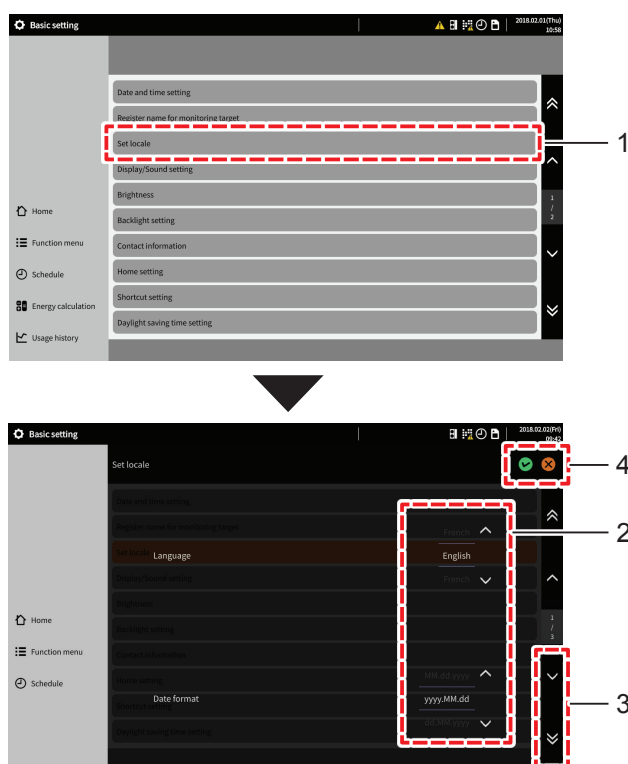


4. Selected icon is shown in orange.
5. Tap to confirm setting and to return to name registration window. Tap to discard setting and to return to name registration window



6. Tap or to set restriction on air conditioner/facility units operation. Set restriction on operation for On all/Off all and/or All operation.
  - Restriction on operation is shown only when the target is the "unit".
  - On all/Off all are for restricting effective range for **On all/Off all** button on monitor window.
7. Tap to confirm setting and to return to register name for monitoring target window. Tap to discard setting and to return to register name for monitoring target window.

## 10.4 Setting Locale



1. Tap **Set locale**.  
Locale setting window is shown.
2. Tap ^ or v for each item to change setting.  
Set "Language", "Date format", "Time format", "Temperature unit" and "Flow unit".
3. Tap v to scroll a page down.
4. Tap to confirm setting and return to Basic setting window.  
Tap to discard setting and to return to Basic setting window.

The following items can be set in locale setting.

- Language: English/French
- Date format: Set the order for year/month/day and delimitation in between.
- Time format: Choose between "12H hh:mm AM" (12 hours notation) and "24H hh:mm" (24 hours notation).
- Temperature unit: Choose between "°C" and "°F".
- Flow unit: Choose between "m<sup>3</sup>" and "ft<sup>3</sup>".

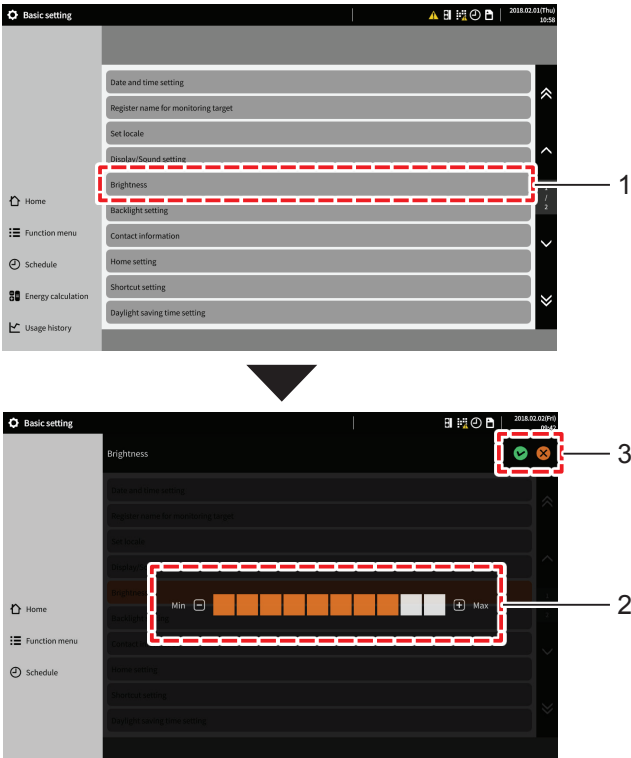
## 10.5 Setting Window and Sound



1. Tap **Display/Sound setting**.  
Display/Sound setting window is shown.
  
2. Tap ^ or v for each item to change setting.  
Set "RC operation prohibit control", "Switch indoor temperature", "Mode color", "Day of the week start setting", "Alarm sound" and "Volume".
3. Tap v to scroll a page down.
4. Tap to confirm setting and return to Basic setting window.  
Tap to discard setting and to return to Basic setting window.

The following items can be set in Display/sound setting.

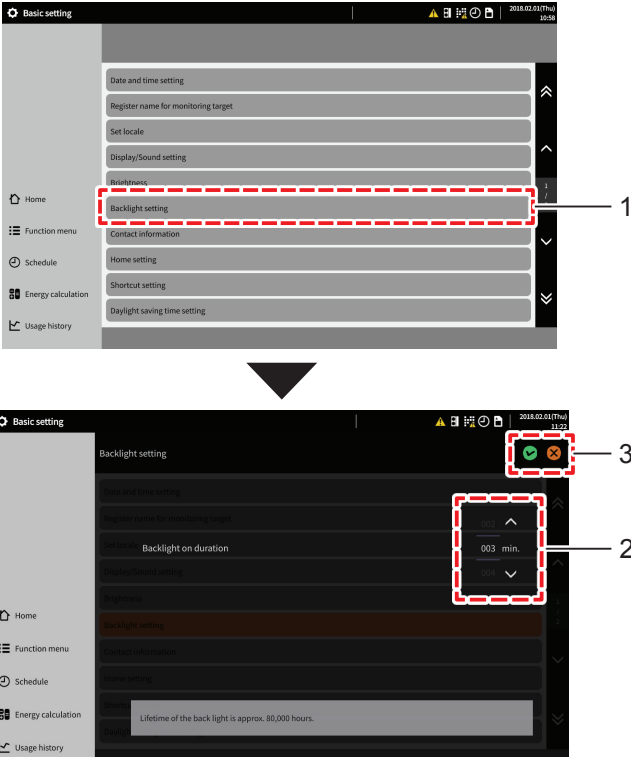
- RC operation prohibit control: Set whether "RC operation prohibit control" is shown or hidden in monitor/schedule window. Set "Hide" if RC operation prohibit control is not available in the system.
- Switch indoor temperature: Choose the representative for indoor temperature on monitor window from "OFF", "Indoor temperature", "Always show RC sensor temperature", "Always show air intake temperature". Set C8 in Select functionality if RC sensor temperature is the representative. RC sensor temperature takes precedence to be shown as indoor temperature though either RC sensor temperature (RC thermo or remote thermo) or air intake thermo is shown as indoor temperature. RC sensor temperature and air intake temperature may not be available on some unit types. Indicated RC sensor temperature may differ from actual temperature while in saving mode.
- Mode color: Set the operation color for panels, lists, and layouts in the monitor and schedule display to change in accordance with the operation mode.
- Day of the week start setting: Specify Monday or Sunday for starting day of the week.
- Alarm sound: Specify one from ON (once), ON (3 times), ON (10 times), or ON (repeat) for audio sound when the alarm occurs.
- Volume: Set the volume for alarm sound from Max, Med, or Min.
- Sorting criteria for Auto mode (dual setpoint): Specify Auto cool temperature or Auto heat temperature to be used for sorting criteria in list sorting on Monitor window.



## 10.6 Adjusting Brightness



1. Tap **Brightness**.  
The window for adjusting brightness is shown.
2. Tap + or – to adjust brightness of the backlight. 10 phases are provided.
3. Tap  to confirm setting and return to Basic setting window.  
Tap  to discard setting and to return to Basic setting window.

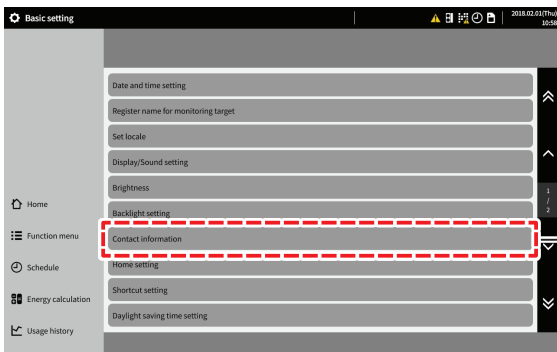
## 10.7 Setting Auto Dimming Time



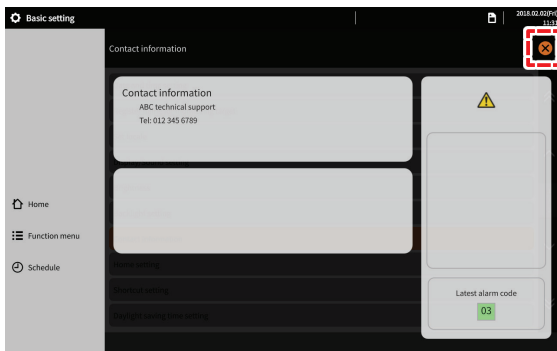
1. Tap **Backlight setting**.  
The window for setting backlight is shown.
2. Tap ^ or v to choose auto dimming time from range of “001~120” minutes.
3. Tap  to confirm setting and return to Basic setting window.  
Tap  to discard setting and to return to Basic setting window.


- Lifetime of the back light is approx. 80,000 hours.  
Note that longer auto dimming time may shorten the lifetime of the backlight.

## 10.8 Showing Service Contact Information

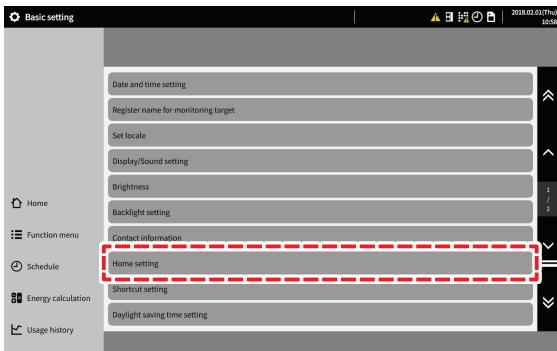


▼

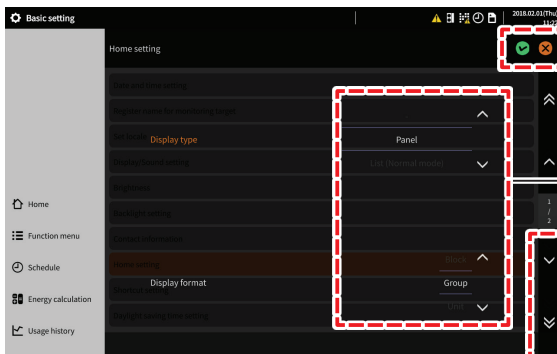




1. Tap **Contact information**.  
The window for contact information is shown.  
  
The service contact information is shown. Latest alarm information, if any, is also shown.
2. Tap  to return to Basic setting window.

## 10.9 Setting Home Button

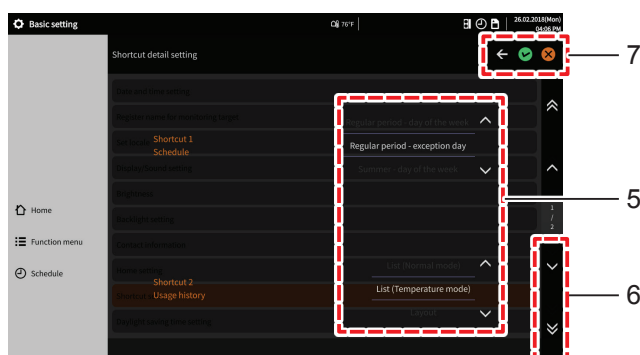
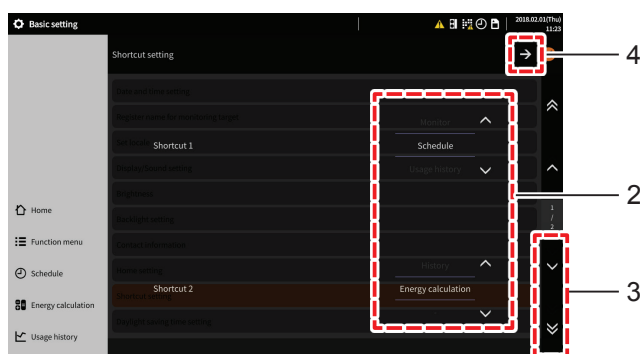
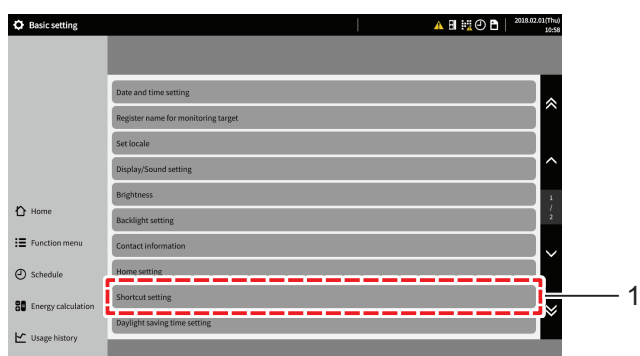


▼



1. Tap **Home setting**.  
Home setting window is shown.
2. Tap ^ or v for each item to set “Display type”, “Display format” and “Panel size”.  
Although this window is identical to the switching display on monitor window, display target is “All” in this case.
3. Tap v to scroll a page down.
4. Tap  to confirm setting and return to Basic setting window.  
Tap  to discard setting and to return to Basic setting window.

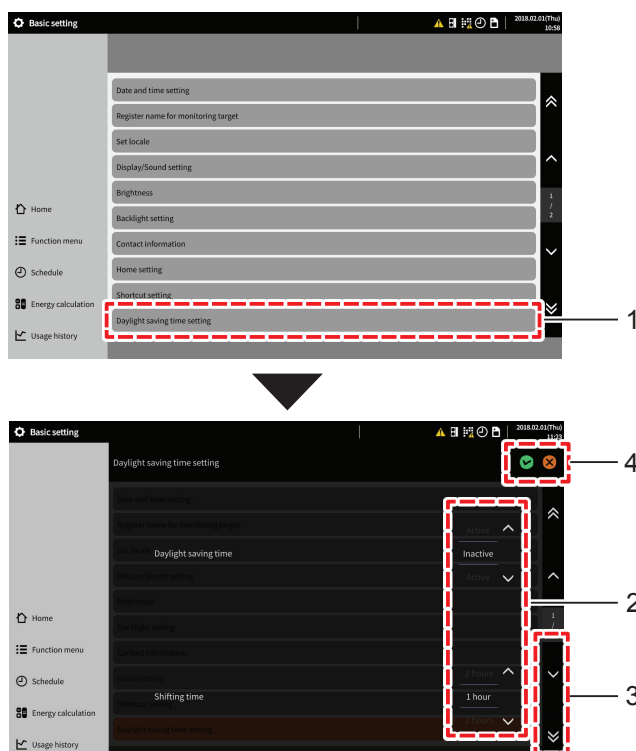
## 10.10 Setting Shortcut Button



1. Tap **Shortcut setting**.  
The shortcut setting window is shown.
2. Tap ^ or v for each item to set the shortcut button 1-3.  
The following items can be set for shortcuts; "Monitor", "Schedule", "Usage history", "History" and "Energy calculation".
  - Tap – to hide shortcuts.
  - **Energy calculation** is shown only when the function is activated.
3. Tap v to scroll a page down.
4. Tap → to confirm setting and to go to shortcut detail setting window.
5. Tap ^ or v for each item to set shortcut button 1-3.  
Upon setting items as shortcut, the contents shown for each shortcut are as follows:
  - Monitor: Same contents as when tapping **Switch format**.
  - Schedule: Same contents as when tapping **Switch the season**.
  - Usage history: Same contents as when tapping **Switch format**.
  - Energy calculation: Same contents as when tapping **Switch display**.
  - Select – to set shortcut to the last accessed page on the specified function.
6. Tap v to scroll a page down.
7. Tap to confirm setting and to return to Basic setting window. Tap to discard setting and to return to Basic setting window. Tap ← to return to shortcut setting window.

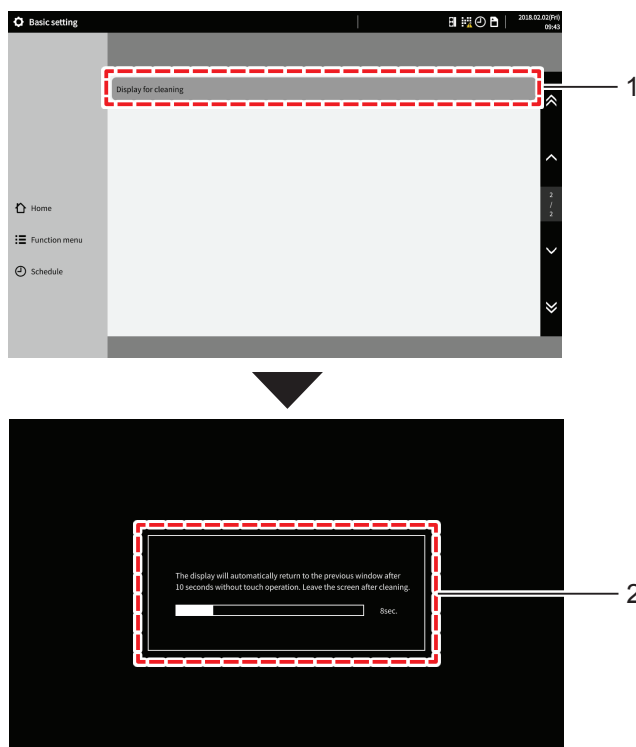


## 10.11 Setting Daylight Saving Time



1. Tap **Daylight saving time setting**.  
The window for daylight saving time setting is shown.
2. Tap ^ or v to set daylight saving time. Set "Active" to use daylight savings time. Select shifting time from "1 hour" or "2 hours".
3. Tap v to scroll a page down.  
Set start/end date and time for daylight savings time.
4. Tap to confirm setting and return to Basic setting window.  
Tap to discard setting and to return to Basic setting window.

## 10.12 Cleaning Screen



1. Tap **Display for cleaning**.  
Display for cleaning is shown.
2. The window is locked for cleaning when touch operation is detected on the screen. Without touch operation, the display automatically returns to the previous window after 10 seconds.
  - Wipe off the dirt using a soft, dry and clean cloth. If it is very dirty, soak a soft cloth in water with a very small amount of neutral detergent, completely squeeze the cloth, gently wipe the dirt, and wipe off the moisture with a dry, soft cloth.
  - Do NOT use benzene, paint thinner, or surfactant for cleaning.

## 11. Usage

Usage history window provides graphic views for total run time of the air conditioners and so on.

- The setting for Display type, Aggregation target, and Display format are identical to those of on monitor window.
- Specify date from the range of current date to maximum of 2 years before current date, and the time on the hourly basis. Test run must be completed by the time specified for graphic view.  
Note that the graphic view is created on monthly basis.

(Example:

If Current time= 01/07/2017 01:25PM, then Valid range =01/07/2015 2:00PM-01/07/2017 00:59PM)

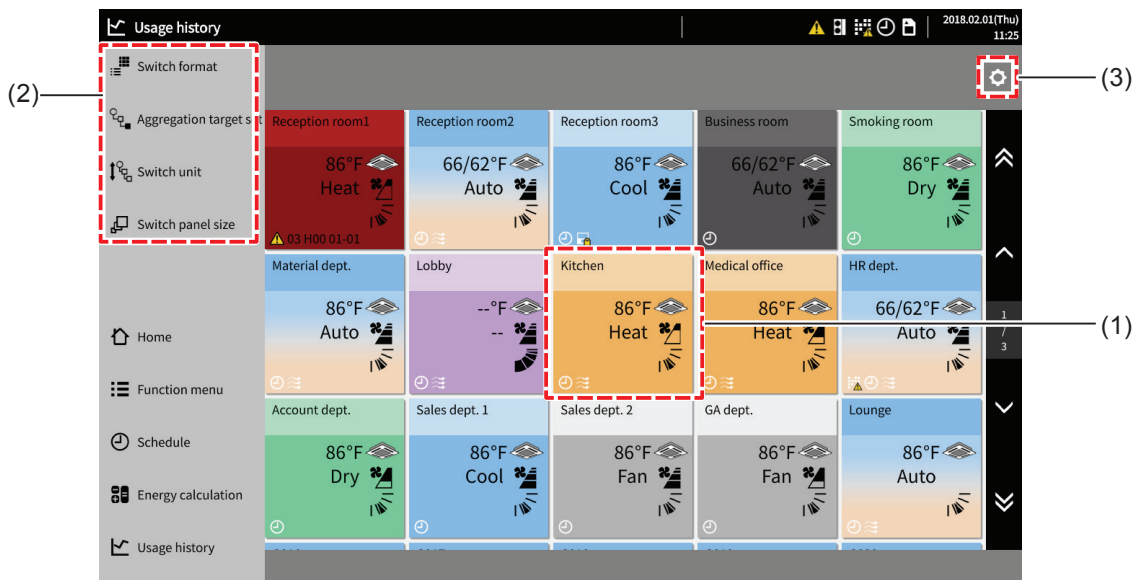
- This function provides graphic view for the following items: Accumulated run time, thermo-on time, average setting temperature, average air intake temperature, average RC sensor temperature, and average outdoor temperature.
- The result values shown in the graphic view can also be output.

### NOTICE:


- Average outdoor temperature and RC sensor temperature may differ from the actual temperature depending on the place of installation.
- For average RC sensor temperature, the temperature on RC thermistor is indicated only when “01” (RC thermo) or “02” (the average value of RC thermo and air intake thermistor) is set on “C8” (RC thermo) in function selection.
- Indicated RC sensor temperature may differ from actual temperature while in saving mode.
- Air intake temperature is shown only when the unit is ON.
- Upon occurrence of the 60, 61, 64 or 65 alarm, which indicate communication failure between air conditioners and the system, the graphic view may not show the actual data.
- Contents in the Usage History may not be correctly displayed if 200 or more units are registered in the block or area.

### 11.1 Usage History Window Operation

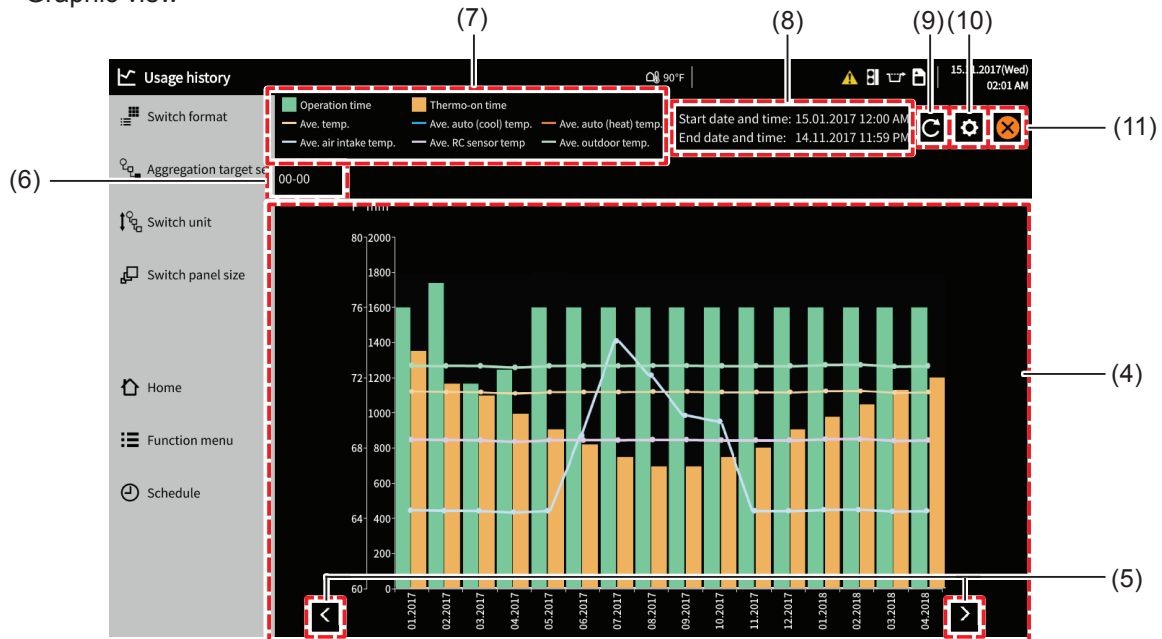
Selecting target



The same contents are shown as monitor window. Note that single selection mode only is available.

- (1) Tap a panel/list to show “Graphical view”.  
The graphic view for selected target is shown.
- (2) The same items are shown as monitor window. Refer to page 11 “7.1 Monitor window operation” for details.
- (3) Tap  for filter and sort (for list display only) setting.  
Refer to page 20 “7.2 (6) Filtering and sorting display target” for details.

## Graphic view



- (4) Shows graphic view for selected target. The unit for graphical view is shown in “minute” for time and “°C” or “°F” for temperature. The available range for temperature is from 10°F to 125°F (-10°C to 50°C).
- (5) Tap < or > to horizontally scroll the graphic view. These icons are shown only when 17 months or longer are specified for time range.
- (6) The name of selected target.
- (7) Legends for bar/line graphic views.
- (8) The specified aggregating period for graphical view. Regarding how to change aggregating period, refer to page 54 “11.2 (3) Setting aggregating period”.
- (9) Tap to show graphical view based on selected target, aggregating period, and format. This may take more than 1 hour depending on the contents selected.
- (10) Following menu is available on tapping .
  - Acquiring new data: Collect data that has not been acquired. This may take minutes when the data amount is large. Refer to page 53 “11.2 (2) Acquiring new data”.

### NOTICE:

Use this function after long power shut off due to power failure or/and upon occurrence of Communication failure for long period (S23).

- Setting aggregating period: Specify start/end date and time for graphical view. Refer to page 54 “11.2 (3) Setting aggregating period”.
- Graphic image setting: Set graphical image you want to see. Refer to page 55 “11.2 (4) Setting graphical view” for details.
- Save: Refer to page 63 “Saving and loading data” for details.

- (11) Tap to exit graphical view window and return to selecting target window.

### NOTICE:

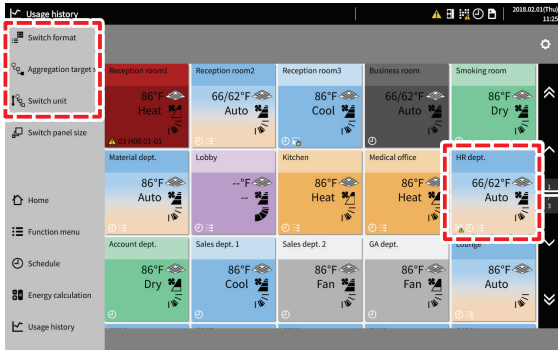
- Part of information may not be correctly shown for some unit types. Contact your distributor for details.

### Facility units

- Average setting temperature, average air intake temperature, average outdoor temperature, and average indoor temperature are not available.
- The value of indoor unit only is shown for targets containing both indoor and outdoor units.
- Accumulated run time view is available if Run/Stop are configured through external in/output.
- The thermo-ON time is always “0”.

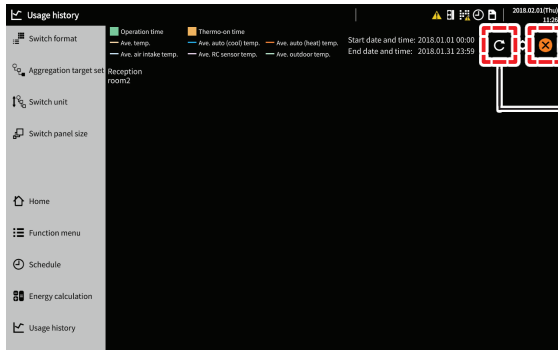
## 11.2 Graphic view

### (1) Show graphical view for selected target



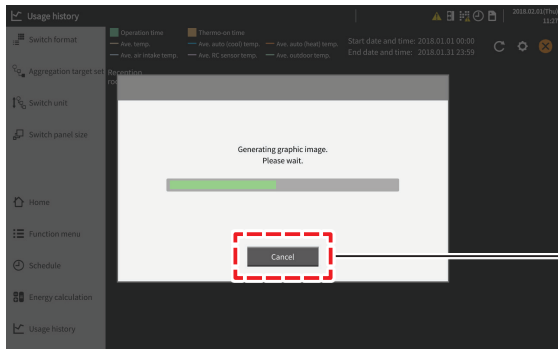
1 —

2 —

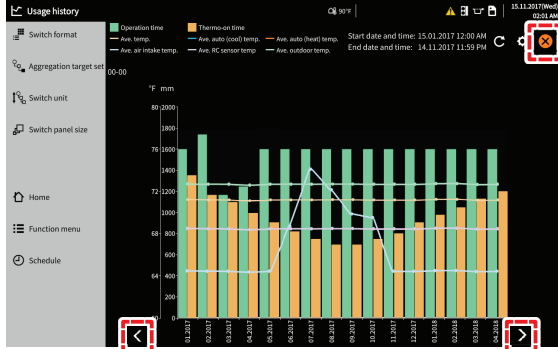


3 —

4 —






5 —

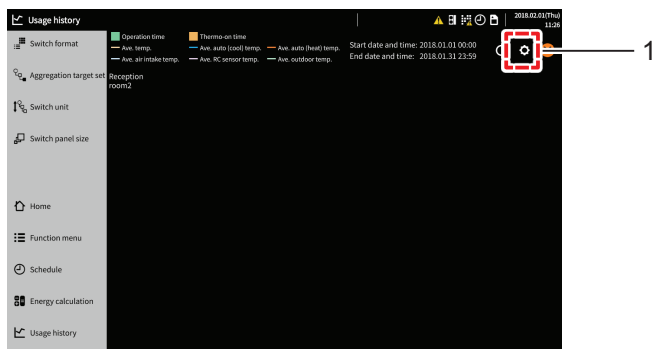



6 —

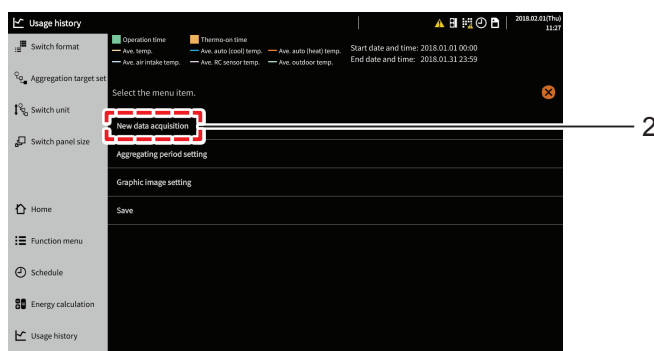
7 —

1. Tap **Switch format, Aggregation target set, Switch unit** to show desired target.
2. Tap the target for the graphic view. Graphic image is shown.
3. Tap  to show setting menu. This page provides aggregation period setting and graphical view setting, etc. Refer to the following pages.
4. Tap  to show graphical view.
  - This may take more than 1 hour depending on the contents selected for targets, aggregation period and graphical view type.
 Popup indicating graphical view creation appears.
5. Tap **Cancel** to cancel graphical view creation.
6. Tap < or > to horizontally scroll the graphic view. These icons are shown only when 17 months or more are specified for the time range.
7. Tap  to exit graphical view window and return to selecting target window.

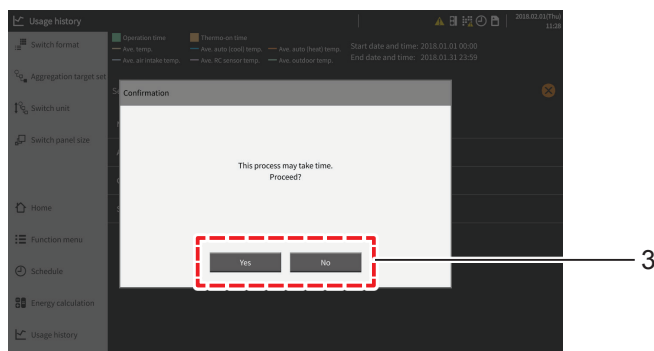
## (2) Acquiring new data



1. Tap  to show setting menu.



2. Tap **New data acquisition**.  
Confirmation popup appears.

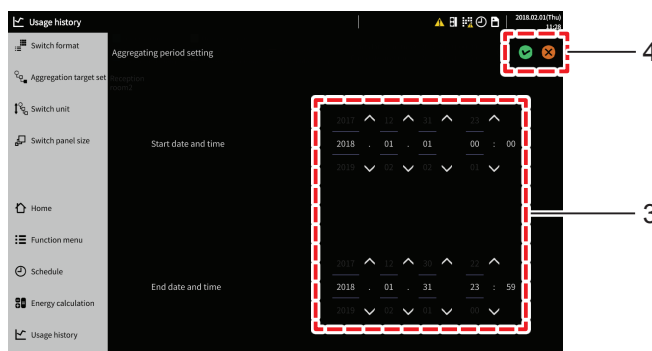
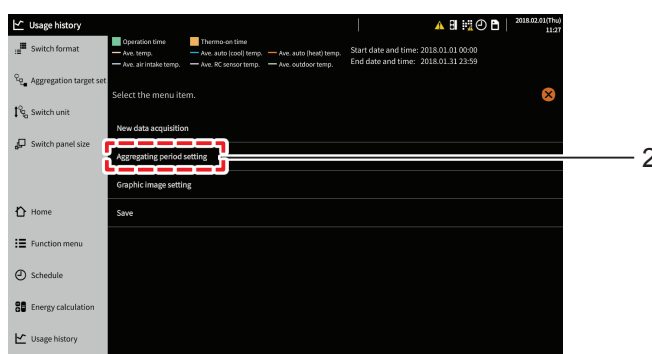
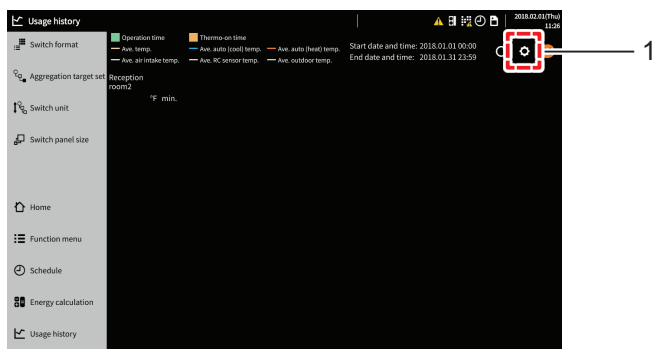



3. Tap **Yes** to start data acquisition.  
Tap **No** to discard setting and to return to setting window.

- This may take minutes when the data amount is large.



- Use this function after long power shut off due to power failure or/and upon occurrence of Communication failure for long period (S23).

### (3) Setting aggregating period





1. Tap  to show setting menu.

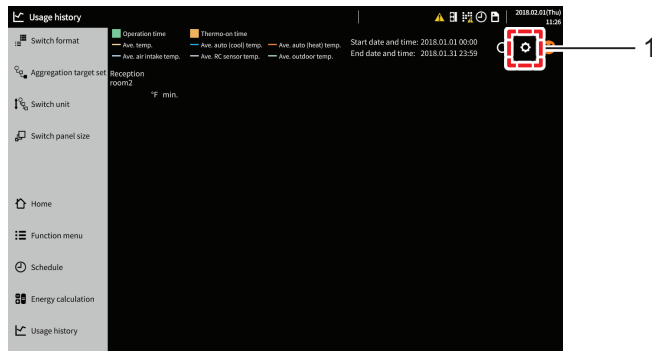
2. Tap **Aggregating period setting** to show aggregating period setting window.


3. Tap each  or  to set aggregation start/end date and time.

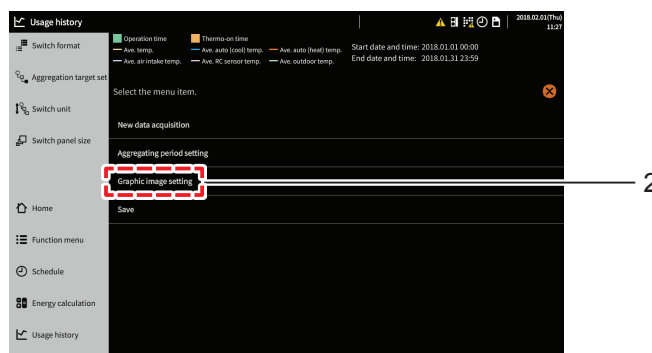
- Specify date from the range of current date to maximum of 2 years before current date, and the time on the hourly basis.

4. Tap  to confirm setting and to return to graphical view window. Tap  to discard setting and to return to graphical view window.

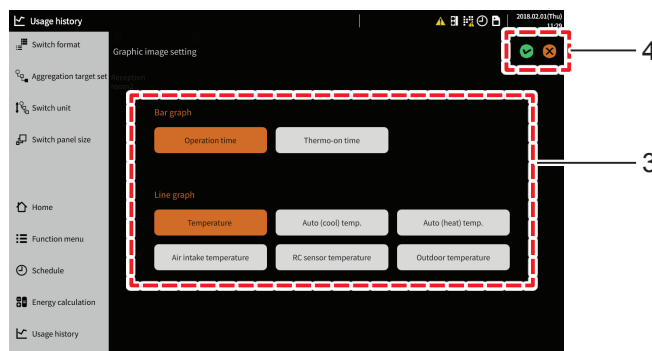
#### (4) Setting graphical view





1. Tap  to show setting menu.




2. Tap **Graphic image setting** to show graphical image setting window.



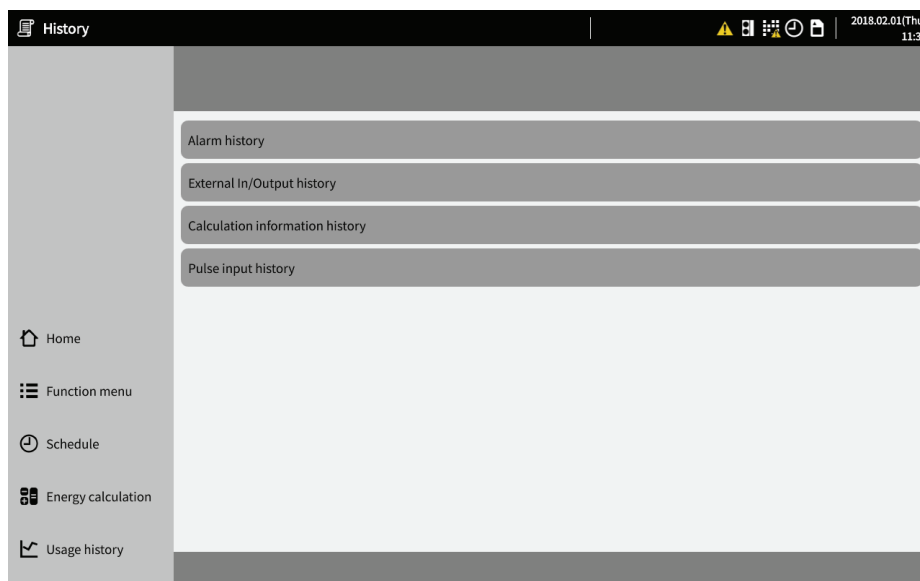
3. Tap desired graphical view.  
The selected item is shown in orange.

4. Tap  to confirm setting and to return to graphical view window. Tap  to discard setting and to return to graphical view window.

- To cancel the graphical view, tap the selected item again and tap .

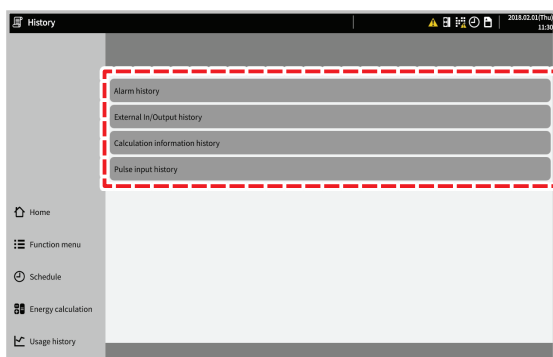
## 12. History

### 12.1 History Window Operation



- **Alarm history**  
Shows alarms occurred on this system. Refer to page 57 “12.2 Showing alarm history” for details.
- **External input and output history**  
Shows history of detected external in/output signals. Refer to page 59 “12.3 Showing external input and output history” for details.
- **Calculation information history:**  
Shows information generated upon calculating rates. This item is available only when the energy calculation function is activated. Refer to operation manual for Energy calculation software for details.
- **Pulse input history**  
Shows detected pulse number and usage. Refer to page 60 “12.4 Showing pulse input history” for details.

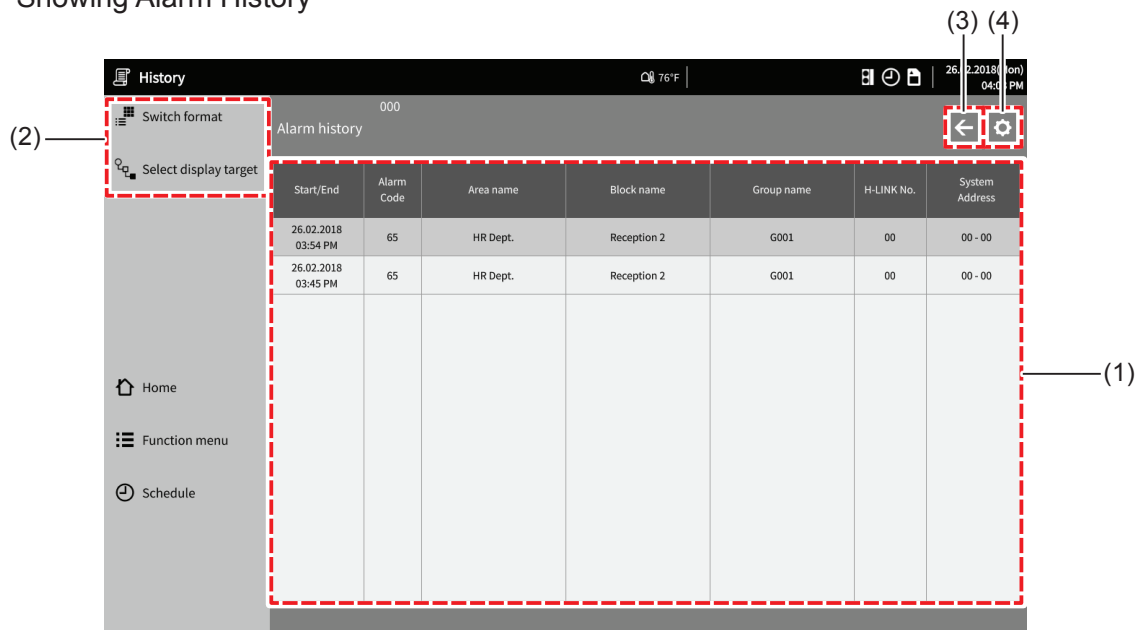
#### (1) Showing each history window



1. Tap **Alarm history**, **External In/Output history**, **Pulse input history** or **Calculation information history**.  
The history for the selected item is shown.
  - Calculation information history is available only when energy calculation function is activated.
  - Refer to page 57 “12.2 Showing alarm history” for details.
  - Refer to page 59 “12.3 Showing external input and output history” for details.
  - Refer to page 60 “12.4 Showing pulse input history” for details.
  - Refer to operation manual for details of calculation information history.



## 12.2 Showing Alarm History

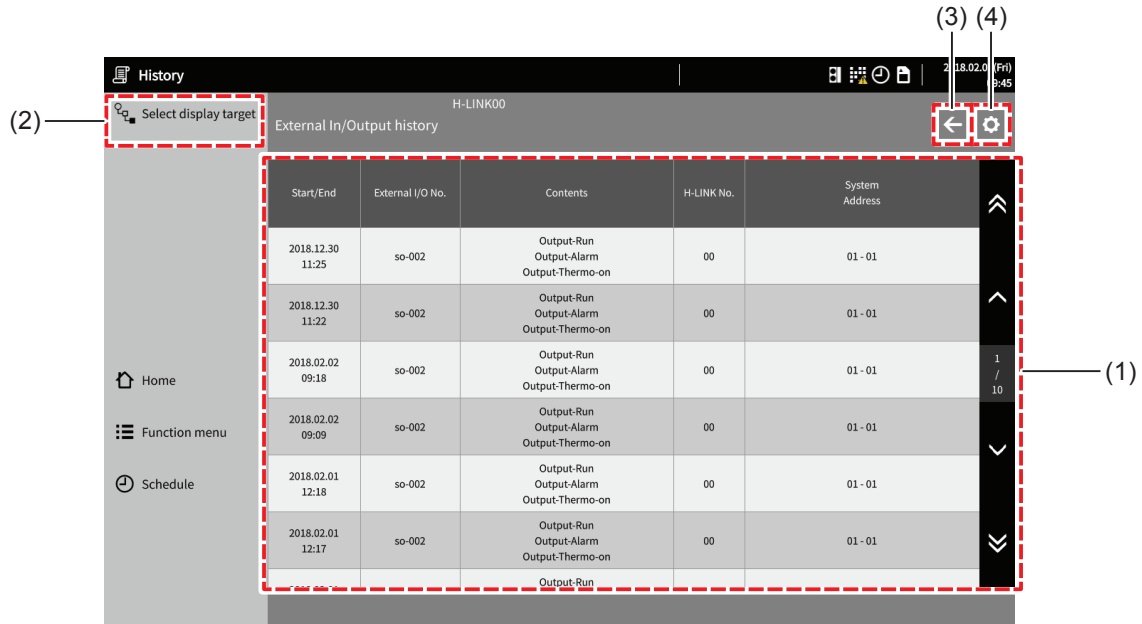



- (1) This area shows “Start date and time/End date and time”, “Alarm code”, “Area name”, “Block name”, “Group name”, “H-LINK No.” and “System address”. The alarm occurrence is indicated in color white and the termination of the alarm is shown in gray.  
Regarding “Alarm code”, refer to the alarm code table on the next page. Up to 10,000 alarms can be recorded on VRF Central Touchscreen Controller. Upon occurrence of new alarm when 10,000 alarms are already recorded, the oldest record is replaced with new alarm record.
- (2) Tap each item to switch the displayed contents.
  - Switch format: Opens window to select format for alarm history view from “Panel/List” or “Layout”. Tree view is accordingly switched to appropriate format.
  - Select display target: Opens a window to select display target from tree view. The alarm on selected target is shown. Refer to page 16 “7.2 Monitor (2) Selecting display target” for details.
- (3) Tap ← to return to the history window.
- (4) Following menu is available on tapping ⚙.
  - Update: Used to update the lists for alarm history.
  - Search: Used to filter the list that is currently shown. Refer to page 61 “12.5 Setting (1) Filtering lists” for details.
  - Save: Used to save the contents of alarm history. Refer to page 63 “13.Saving and loading data” for details.
  - Delete history: Used to delete all alarm history.
  - Contact information: Used to show service contact information. Refer to page 47 “10.8 Showing Service Contact Information” for details.

Alarm Code Table

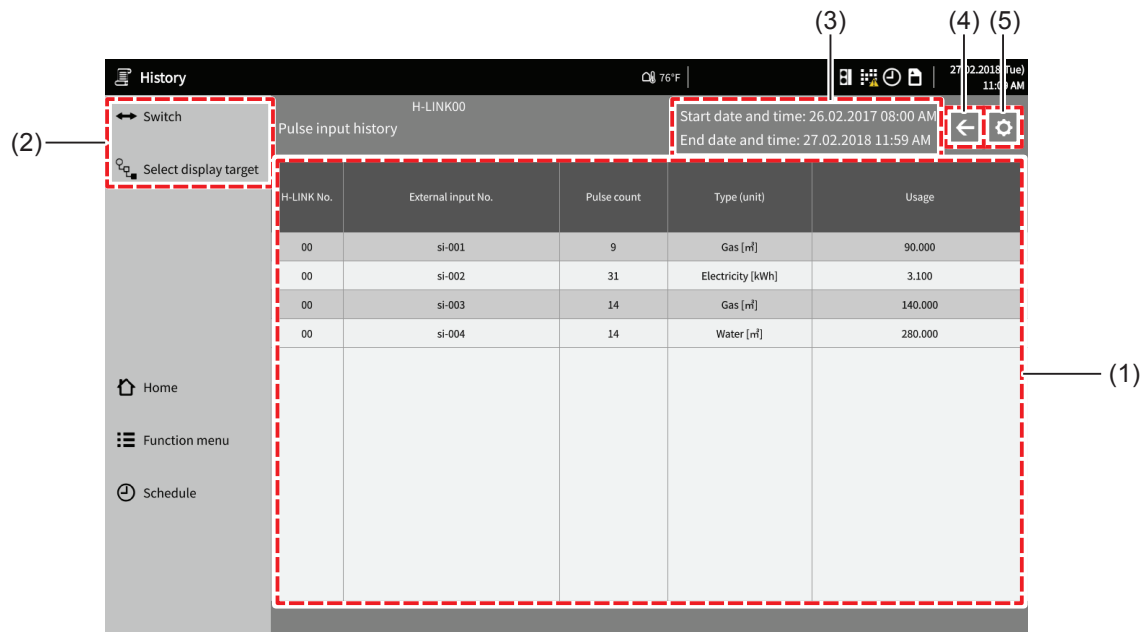
Alarm Code	Contents	Solution
00~FE (Except for FF, 60, 61, 63, 64, 65)	Alarm on air conditioner(s)	Refer to installation manual and operation manual for each unit.
60	Communication failure between central station and outdoor unit (When 1 or more indoor unit(s) is ON.)	Communication error has occurred on H-LINK between VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and indoor unit. Check the H-LINK wiring.
61	Communication failure between indoor unit and central station (When the indoor unit is ON)	Communication error has occurred on H-LINK between VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and indoor unit. Check the H-LINK wiring.
63	Inconsistent combination of central stations	H-LINK specification on VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and other central controller(s) don't match. Check the H-LINK specification on each controllers.
64	Communication failure between central station and outdoor unit when none of the indoor units are ON.	Communication error has occurred on H-LINK between VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and indoor unit. Check the H-LINK wiring.
65	Communication failure between indoor unit and central station (When the indoor unit is OFF)	Communication error has occurred on H-LINK between VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter and indoor unit. Check the H-LINK wiring.
FF	Alarm for facility units	Error or failure on facility units. Check the unit.
S10	Communication failure with PIO1	Check the power on PIO1 and relay hub and LAN wiring between PIO1 and VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter.
S11	Communication failure with PIO2	Check the power on PIO2 and relay hub and LAN wiring between PIO2 and VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter.
S20	Shortage on internal memory storage	Indicates internal memory shortage. Contact your distributor.
S21	Write failure	This may occur due to defect on memory and/or memory shortage. Remove the media and then insert again or use new media. Contact your distributor if this error frequently occurs.
S22	Load failure	This may occur due to defect on memory. Remove the media and then insert again. Contact your distributor if this error frequently occurs.
S23	Adapter communication failure	Check the power on extension adapter and relay hub and LAN wiring between VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter.
S24	Daylight saving time update failure	Set daylight saving time again. Contact your distributor if this error frequently occurs.
S41	Calculation file access error	This may occur due to defect on memory and/or memory shortage. Contact your distributor if this error frequently occurs.
S42	Invalid download data	Check the power on extension adapter and relay hub and LAN wiring between VRF Central Touchscreen Controller and VRF Central Touchscreen Controller Adapter. This may occur due to defect on memory and/or memory shortage. Contact your distributor if this error frequently occurs.
S43	Setting data read/write failure	This may occur due to defect on memory. Contact your distributor, if this error frequently occurs.

## 12.3 Showing External Input and Output History



- (1) This area shows “Start date and time/End date and time”, “External in/output number”, “Contents”, “H-LINK No.” and “System address”. The start of external in/output signal transmission is indicated in color white and the termination of the transmission is shown in gray.  
“Contents” shows the control item configured for each external in/output number.  
“System-address” shows system/addresses configured for each external in/output number.  
If all related system/address numbers cannot fit in the designated area, output data to see all.  
Up to 1,000 external in/output history records can be stored on VRF Central Touchscreen Controller.  
Upon occurrence of new alarm when 10,000 alarms are already recorded, the oldest record is replaced with new alarm record.
- (2) Select display target: Opens a window to select display target from tree view for each VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter.  
The external in/output history on selected target is shown.  
Refer to page 16 “7.2 Monitor (2) Selecting display target” for details.
- (3) Tap ← to return to history window.
- (4) Following menu is available on tapping 
  - Update: Used to update the lists for external in/output history.
  - Search: Used to filter the list that is currently shown. Lists can be filtered by “Start date and time”, “End date and time”, “External input” and “External output”.  
Refer to page 61 “12.5 (1) Filtering lists” for detail.
  - Save: Used to save the contents of external in/output history.  
Refer to page 63 “13. Saving and loading data” for details.
  - Delete history: Used to delete all external in/output history.

## 12.4 Showing Pulse Input History



- (1) This area shows “H-LINK No.”, “External input number”, “Pulse count”, “Type”, “Unit”, and “Usage”. Shows pulse count and usage for specified period. The lists on even numbered column are shown in white and odd numbered column are shown in gray.
- (2) Tap each item to switch the displayed contents.
  - Switch: Opens window to switch window for either “External input” or “Pulse accumulator”. Function for “Pulse accumulator” is currently NOT supported. Do not select this option.
  - Select display target: Opens a window to select display target from tree view for each VRF Central Touchscreen Controller/VRF Central Touchscreen Controller Adapter. The pulse input history on selected target is shown. Refer to page 16 “7.2 Monitor (2) Selecting display target” for details.
- (3) Indicates the time range. Pulse input history within this time range is shown. Refer to page 62 “12.5 (2) Setting period” for detail on how to change time range. Pulse input history for 6 months from the current date can be shown.
- (4) Tap ← to return to history window.
- (5) Following menu is available on tapping ⚙.
  - Update: Used to update the lists for pulse input history.
  - New data acquisition: Collect data that has not been acquired. This may take minutes when the data amount is large.

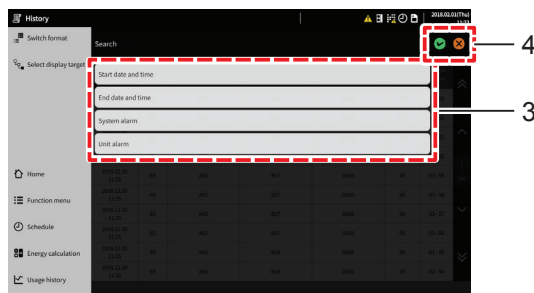
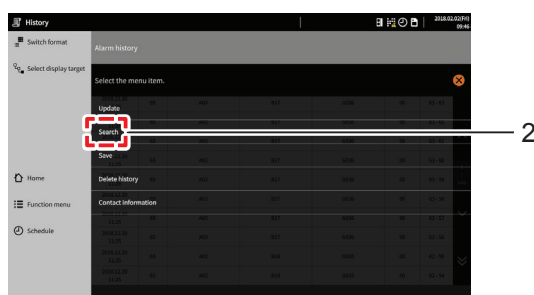
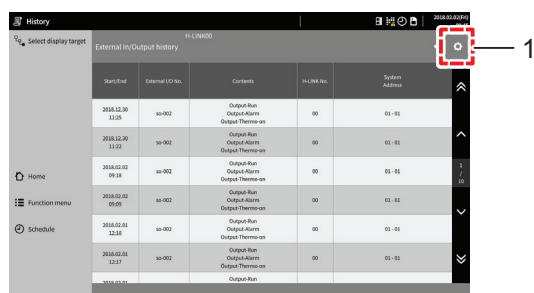
### NOTE:


Use this function after long power shut off due to power failure or/and upon occurrence of Communication failure for long period (S23).

- Period setting: Specify start/end date and time for the time range. Pulse input history within this range is shown. Refer to page 62 “12.5 (2) Setting period” for details.
- Search: Used to filter the list that is currently shown. Lists can be filtered by “Electricity”, “Gas”, and “Water”. Refer to page 61 “12.5 (1) Filtering lists” for details.
- Save: Used to save the contents of pulse input history. Refer to page 63 “13. Saving and loading data” for details.

## 12.5 Setting



### (1) Filtering lists




1. Tap .  
Setting menu is shown.

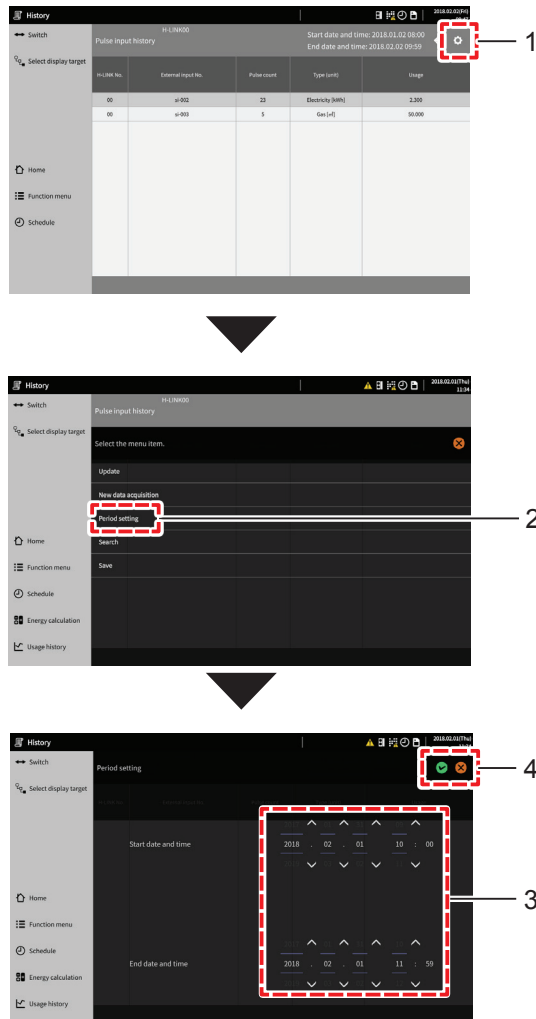
2. Tap **Search**.  
Search window is shown.

3. Tap criteria used to filter the list.  
The selected item is shown in orange.

4. Tap  to confirm the change and to show window for each history. Tap  to discard the change and to return to history window.

- To cancel "Search", tap the selected item again and then tap .

## (2) Setting period



1. Tap .  
Setting menu is shown.

2. Tap **Period setting**.  
The window for specifying time range is shown.

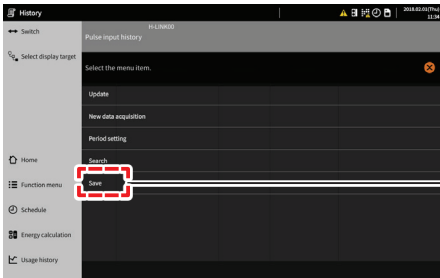
3. Tap each or to set aggregation start/end date and time.

- Specify date from the range of current date to maximum of 6 months before current date, and specify the time on the hourly basis.

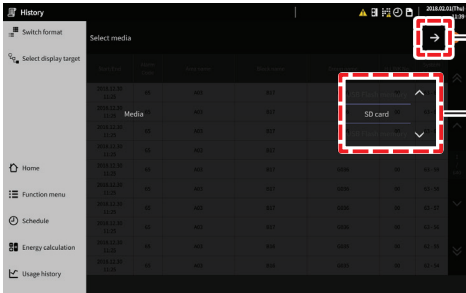
4. Tap to confirm setting and to return to pulse input history window.  
Tap to discard the change and to return to pulse input history window.

## 13. Saving and Loading Data

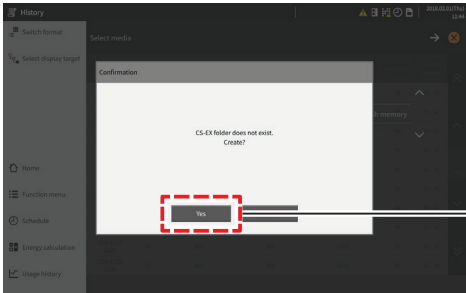
### 13.1 Saving Data



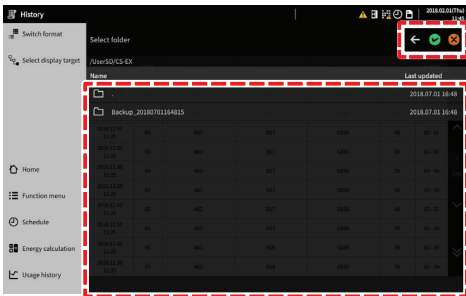
1






2



4

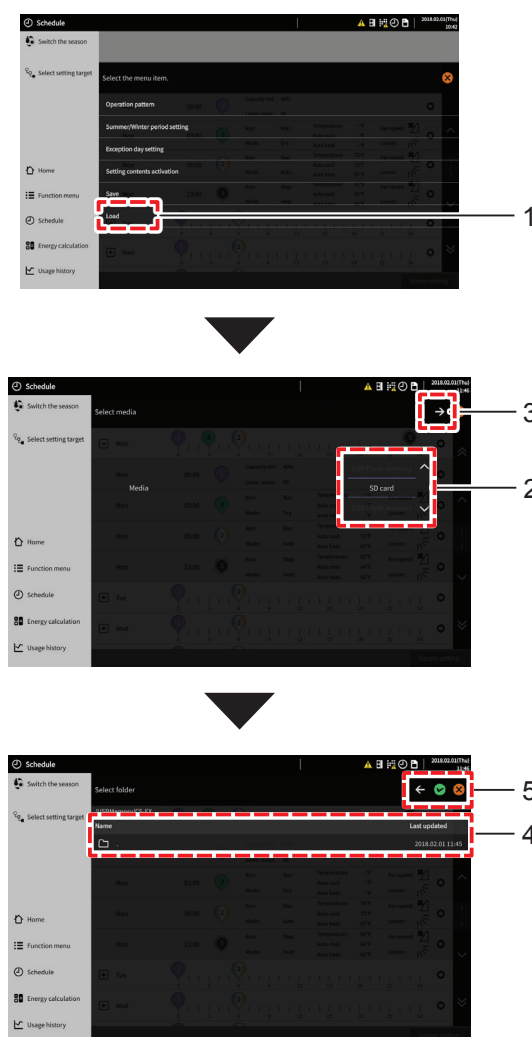


5

1. Tap **Save** in the setting menu.  
Select media window is shown.
  
2. Tap ^ or v to select “SD card” or “USB flash memory”.
  - This window is shown only when both the “SD card” and “USB flash memory” are inserted.
3. Tap →.  
The window for selecting folder appears and then step 5 is shown. If “CS-EX” folder does not exist in the external media, pop up message indicating folder creation appears.
  
4. Tap **Yes** to newly create “CS-EX” folder.  
“CS-EX” folder is required for saving data.
  
5. Select list for the folder to save.  
Tap  to browse selected folder.
  
6. Tap  to save data in the selected folder and to exit from folder selection window.  
Tap  to exit from folder selection window without saving data.  
Tap ← to return to select media window.

- Data is saved in CSV format.

## 13.2 Loading Data



1. Tap **Load** in the setting menu.  
Select media window is shown.

2. Tap ^ or v to select "SD card" or "USB flash memory".
  - This window is shown only when both the "SD card" and "USB flash memory" are inserted.

3. Tap →.  
The folder selection window appears. "CS-EX" folder is required to exist in the external media to load data. Warning pop up appears.

4. Select list for the folder to load.  
Tap to browse selected folder.

5. Tap to load the data in the selected folder and to exit from folder selection window.  
Tap to cancel the operation and to exit from folder selection window.  
Tap ← to return to select media window.

- Only the data in the subordinate folder created in CS-EX folder on "Saving data" in the previous page can be loaded.



## 14. Using External Media

External media is not included in the VRF Central Touchscreen Controller package. Purchase a SD memory card or USB flash memory.

- Applicable external media

SD memory card, SDHC memory card, SDXC memory card, and USB flash memory that are conformed to SD standard.

(These media are referred to as external media in this document). Not all external media are applicable for VRF Central Touchscreen Controller.

- Memory cards

SanDisk Ultra® SD™/SDHC™/SDXC™ card

SanDisk® SD™/SDHC™/SDXC™ card (Standard type)



- USB flash memory

SanDisk® Cruzer Fit USB flash memory

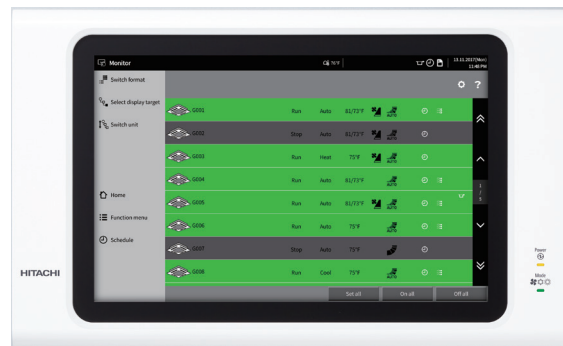
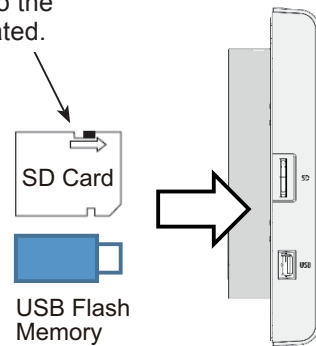
- Inserting external media

- Upon inserting, unlock the write-protect switch of the memory card.

- Insert SD card and/or USB flash memory into each slot on the left side of VRF Central Touchscreen Controller.

Protection lock:

Slide the click to the direction illustrated.



- Removing external media

- Gently push the memory card until clicking sound is heard.

- Pull the USB flash memory to remove from VRF Central Touchscreen Controller.

- Precautions for using external media

It is recommended to format the SD card/USB flash memory with SD formatter (\*1) or PC when using external media for the first time. (\*2)

Note that all the data in the external media is deleted after formatting.

\*1: SD formatter is available on SD association home page.

(<https://www.sdcard.org/index.html>)

\*2: Data write may fail or take minutes if the external media was not correctly formatted.

- Formatting may not completely delete data in the memory card. It is recommended to completely delete data with data erasure software upon disposal/recycling.

- Do not shut the power off or remove the external media while VRF Central Touchscreen Controller is accessing external media to read/write data.

Otherwise data in the external media and/or external media itself may be damaged or corrupted and/or may cause malfunction.

- Do not expose external media to static electricity and electrical noise that external media are vulnerable to.

- It is recommended to regularly back up data in a separate location.

We assume no responsibility for any loss or damage of the data.

### **CAUTION**

- To prevent electrical shock, fire, and device failure, do not insert anything other than external media to the media slot.

Regarding trademarks

SD, SDHC, and SDXC logos are trademark of SD-3C, LLC.

SanDisk® and SanDisk Ultra® are registered trademark or trademark of SanDisk Corporation.

## 15. Troubleshooting

Check the following table before contacting a distributor for maintenance.

Phenomenon	Cause
The display does not turn on or is not operable.	<ul style="list-style-type: none"><li>• Check if the power line is correctly connected and plugged.</li><li>• Check if the power switch is On.</li><li>• The CPU may be temporary busy due to internal process. Remove and then connect the plug or turn off and then turn on the power.</li></ul>
Display goes off.	<ul style="list-style-type: none"><li>• The display automatically goes off after specified period of time. Touch the screen and the display turns on.</li></ul>
Schedule function does not work	<ul style="list-style-type: none"><li>• Check that the day is not configured as exception day. Refer to page 35 "9.3 (3) Setting exception days/holidays" to cancel exception day setting.</li><li>• Check that "Inactive for a day" is not set on the day. Refer to page 24 "7.3 (3) Filter sign reset/Deactivating schedule for a day" to set the schedule as active.</li></ul>
Unit operates as scheduled although schedule is deactivated for a day.	<ul style="list-style-type: none"><li>• Check that the schedule setting for facility units is deactivated. Note that "schedule inactive for a day" for facility units is reset to "schedule active" when recovered from power failure. Check the facility units schedule setting and configure again as necessary.</li></ul>
Year, month, day, hour, minute information is drastically ahead/behind the actual current date and time.	<ul style="list-style-type: none"><li>• Date and time information is cleared when the power was not provided for a certain period of time. Refer to page 41 "10.2 Setting date and time" to set the date and time information again.</li></ul>
Unable to change setting	<ul style="list-style-type: none"><li>• Upon turning air conditioner on, since startup process takes precedence on units, setting change may not take place. Wait until air conditioner units stand by.</li></ul>
Unable to turn On/Off all or operate at all on specific air conditioner(s).	<ul style="list-style-type: none"><li>• Check that operations on air conditioners are not restricted. Refer to page 43 "10.3 (2) Registering names, icons and restrictions on operation" and lift the restriction.</li></ul>
States on RC and VRF Central Touchscreen Controller are inconsistent after air conditioners recover from power failure.	<ul style="list-style-type: none"><li>• Power supply may have been unstable during the recovery process. Control units from VRF Central Touchscreen Controller to synchronize states on RC and VRF Central Touchscreen Controller.</li></ul>
"—" is shown for temperature.	<ul style="list-style-type: none"><li>• Indoor temperature is not correctly acquired. Wait for about 1 hour and check again.</li></ul>

## 16. Cleaning

- Wipe off the dirt using a soft, dry and clean cloth. If it is very dirty, soak a soft cloth in water with a very small amount of neutral detergent, completely squeeze the cloth, gently wipe the dirt, and wipe off the moisture with a dry, soft cloth.
- Do not use benzene, paint thinner, or surfactant for cleaning.

## 17. Reference

Model	CCXL01
Dimensions (W×H×D)	14-41/64 × 8-15/16 × 1-9/32 + 1-3/32 (molded in wall) inch (372 × 227.2 × 32.5 + 27.8 (molded in wall) mm)
Net Weight	7.7lbs. (3.5kg)
Installation Condition	For indoor use only. Applicable for units mounted on the wall and built into the wall.
Clock Accuracy	± 70 seconds/month
Ambient Temperature	32~104°F (0~40°C)
Ambient Humidity	20-85% RH (No condensation)
Display	12.1 inch TFT color liquid crystal display
Power Supply	AC24V ± 10%, 60Hz
Power Consumption	50W (Max.) (55VA (Max.))



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