**Installation Manual**

HITACHI

# HITACHI Air Conditioner Managing System
# Central Station EX
# Model: PSC-A128EX1

Notice: Please provide this manual to the next operator to be referenced and kept in a safe place.
(Installer) → (Wiring electrician) → (Test run operator) → (Customer)

Please carefully read this Installation Manual before installation.

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## Preface

- Do not install computer with this software in following places.
  - ○ Places where oil (including machine oil) mists or streams drift.
  - ○ Places where sulfide gas form as hot spring drifts.
  - ○ Places where high in salt contents surrounding as coast regions.
  - ○ Places where with atmosphere of acidity and alkalinity humid place.
- In case of using a medical equipment generating electro-magnetic waves, place the equipment as the surface that is emitting electro-magnetic waves does not directly face the system.
- To avoid any influence on radiation propagation in the air, install this software at least 3m away from the medical equipment and radios that may generate electro-magnetic waves.

## Safety Summary

- Please carefully read this section before installation of the software.
- Contents with " ⚠ DANGER " shows the certain cases where improper operation WILL result in severe personal injury or even death. For your safety, please follow this instruction.
- After installation is completed, conduct test running to ensure that no faulty condition is detected.
- Please also ensure to backup the data according to this manual upon completing installation.

### [ Symbols Used in This Manual ]

**⚠ DANGER** : Immediate hazards which WILL result in severe personal injury or death.

: Indicates enforcement matters against the general users.

: Indicates prohibited matters.

NOTE: This sign indicates other alert information than DANGER.

NOTICE: Useful information for operation and/or maintenance.

### Installation and Electrical Work

**⚠ DANGER**

| | |
|---|---|
| ● Contact your distributor or qualified engineer for Installation work. Improper installation can cause electric shock, fire, or unexpected accidents. | |
| ● To avoid any electric shock or accident, ask the distributor to have electrical work done by qualified electrician. | |

# 1. Safety Summary

## Important Notice

- HITACHI pursues a policy of continuing improvement in design and performance in its products. As such, HITACHI reserves the right to make changes at any time without prior notice.
- HITACHI cannot anticipate every possible circumstance that might involve a potential hazard.
- Central Station EX is designed for standard air conditioning applications only. Do not use Central Station EX for anything other than the purposes for which it was intended for.
- The installer and system specialist must 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 HITACHI.
- If you have questions, please contact your distributor or dealer.
- This manual provides descriptions, and basic and advanced information to maintain and service Central Station EX which applies 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.
- This product is NOT intended to use for emergency control or other life safety purposes.

## 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 Central Station EX 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 involving installation, performance, or maintenance arise. Liability does not cover defects originating from unauthorized modifications performed by a customer without the written consent of HITACHI. Performing any mechanical alterations on this product without the consent of the manufacturer will render your warranty null and void.

## Signal Words

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

## General Precautions

| | |
|---|---|
| **⚠ WARNING** | 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. *Refer back to these safety instructions as needed.* |

- This system, including Central Station EX should be installed by personnel certified by HITACHI. 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 explosion. In areas where Seismic ‘’Performance requirements are specified, the appropriate measures should be taken during installation to guard against possible damage or injury that might occur in an earthquake if the product is not installed correctly, injuries may occur due to a falling product.
- Use appropriate Personal Protective Equipment (PPE), such as gloves and protective goggles and, where appropriate, have a gas mask nearby. Also use electrical protection equipment and tools suited for electrical operation purposes. Keep a quenching cloth and a fire extinguisher nearby during brazing. Use care in handling, rigging, and setting of bulky equipment.
- When transporting, be careful when picking up, moving and mounting these units. Although the unit may be packed using plastic straps, do not use them for transporting the unit from one location to another. Do not stand on or put any material on the unit. Get a partner to help, and bend with your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut fingers, so wear protective gloves.
- 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 or jump-out any safety device or switch.
- HITACHI will not assume any liability for injuries or damage caused by not following steps outlined or described in this manual. Unauthorized modifications to HITACHI 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.

| | |
|---|---|
| ***NOTICE*** | Take the following precautions to reduce the risk of property damage. |

- Be careful that moisture, dust, or variant refrigerant compounds do not enter the refrigerant cycle during installation work. Foreign matter could damage internal components or cause blockages.
- If air filters are required on this unit, do not operate the unit without the air filter set in place. If the air filter is not installed, dust may accumulate and breakdown may result.
- Do not install this unit in any place where silicon gases can coalesce.

- When installing Central Station EX 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 Central Station EX to malfunction. The operation of Central Station EX may also adversely affect these same devices. Install Central Station EX at least approximately 3 meters away from such devices.
- When a wireless controller is used, locate it at a distance of at least approximately 1 meter between the indoor unit and electric lighting. If not, the receiver part of the unit may have difficulty receiving operation commands.
- Do not install the unit in any location where animals and plants can come into direct contact with the outlet air stream. Exposure could adversely affect the animals and plants.
- Do not install the unit in any place where oil can seep onto the units, such as table or seating areas in restaurants, and so forth. For these locations or social venues, use specialized units with oil-resistant features built into them. In addition, use a specialized ceiling fan designed for restaurant use. These specialized oil-resistant units can be ordered for such applications. However, in places where large quantities of oil can splash onto the unit, such as a factory, even the specialized units cannot be used. These products should not be installed in such locations.

## Installation Precautions

| ⚠ WARNING | Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death. |
|---|---|

- When installing Central Station EX into…
  - A wall: Make sure the wall is strong enough to hold the product's weight. It may be necessary to construct a strong wood or metal frame to provide added support.
  - A room: Properly insulate any refrigerant tubing run inside a room to prevent "sweating" that can cause dripping and water damage to wall and floors.
- Do not install Central Station EX in the following places. Doing so can result in an explosion, fire, deformation, corrosion, or product failure.
  - Explosive or flammable atmosphere
  - Where a fire, oil, steam or powder can directly enter Central Station EX, such as nearby or above a kitchen stove.
  - Where oil (including machinery oil) may be present.
  - Where corrosive gases such as chlorine, bromine, or sulfide can accumulate, such as near a hot tub or hot spring.
  - Where dense, salt-laden airflow is heavy, such as in coastal regions.
  - Where the air quality is of high acidity.
  - Where harmful gases can be generated from decomposition.
- Perform a test run 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.
- Clean up the site when finished, remembering to check that no metal scraps or bits of wiring have been left behind inside the unit being installed.

After installation work for the system has been completed, explain the "Safety Precautions", the proper use and maintenance of Central Station EX to the customer according to the information in all manuals that came with the system. All manuals and warranty information must be given to the user or left near the Indoor Unit.

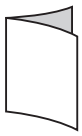
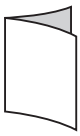
## Electrical Precautions

| ⚠ WARNING | Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death. |
|---|---|

- Highly dangerous electrical voltages are 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 servicing, open and tag all disconnect switches. Never assume that electrical power is disconnected. Check with meter and equipment.
- Only use electrical protection equipment and tools suited for this installation.
- Use specified cables between Central Station EX and the power supply/air conditioner/external equipment.
- Shielded communication cable is not always required but strongly recommended to prevent communication issues for applications such as: Heavy and Light Industrial Buildings, Telecom Centers, Data Centers, Airports, Radio Stations, Hospitals/Healthcare buildings, and Offices.
- Use an exclusive power supply for the air conditioner at the unit's rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker and so on), with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications.
- Clamp electrical wires securely with a cable 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.
- Turn OFF and disconnect Central Station EX from the power source when wiring. Do not open the back cover without turning OFF the main power supply.
- Do not clean with, or pour water into Central Station EX as it could cause electric shock and/or damage the product. Do not use strong detergent such as a solvent. Clean with a soft cloth.
- Check that the ground cable is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground cables.
- If there are frequent occurrences with blown fuses or flipped circuit breakers, shut down the system immediately and contact your service contractor.

## 2. Before Installation

☐ Ensure that the following parts are packed with Central Station EX (also referred to as Central Station EX/PSC-A128EX1).

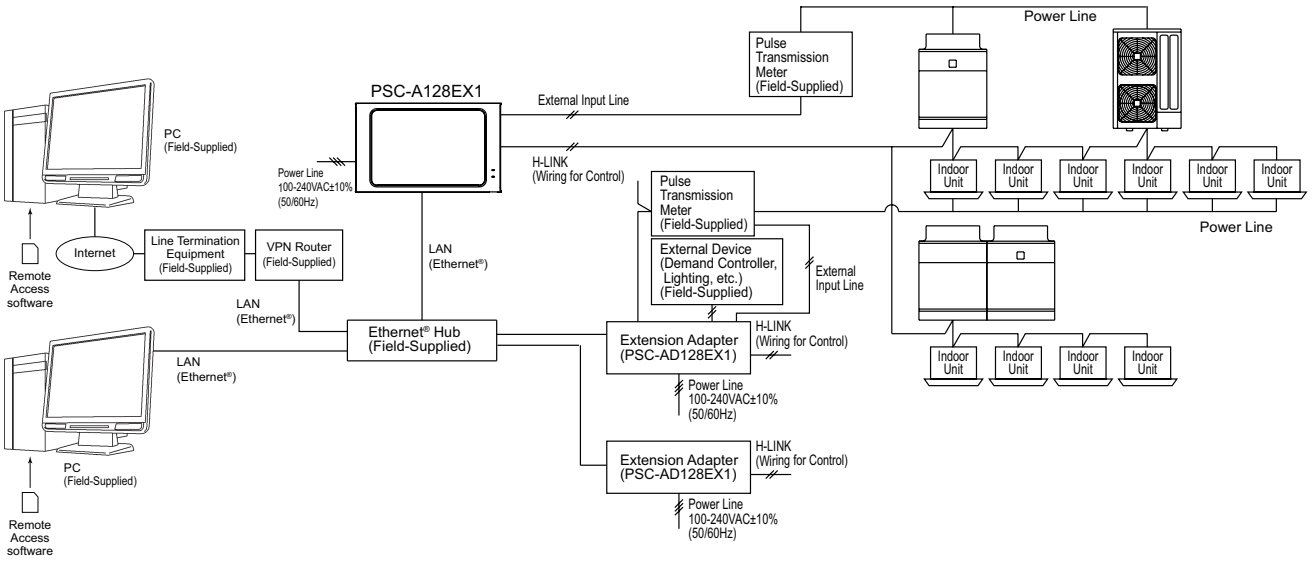
| Item | Central Station EX PSC-A128EX1 | Operation Manual | Installation and Maintenance Manual | Wood Screw | SD Card |
|---|---|---|---|---|---|
| Appearance |  |  |  |  |  |
| Q'ty. | 1 | 1 | 1 | 6 | 1 |

SD Card is used for Remote Access software. Refer to the operation manual for Remote Access for details.

## 3. Specification

### 3.1 System Configuration

This installation manual is exclusively for Central Station EX (PSC-A128EX1). Sample system configuration is as follow. Also refer to the installation manual and the operation manual for each of the air conditioners and devices connecting to the system.



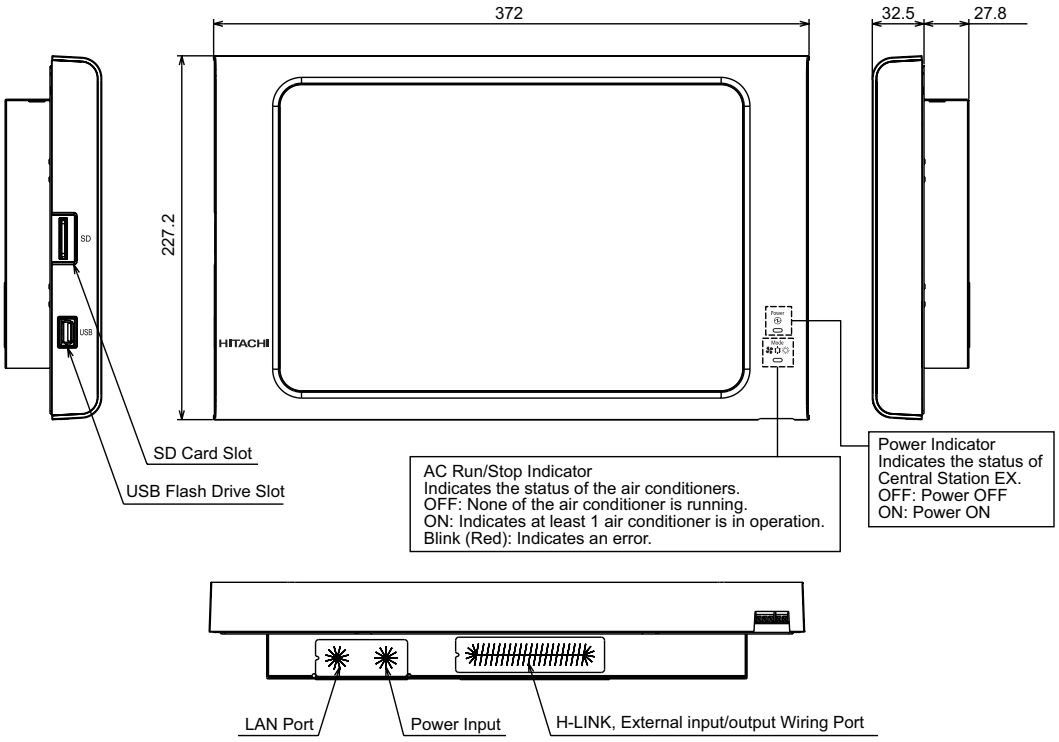

## NOTICE

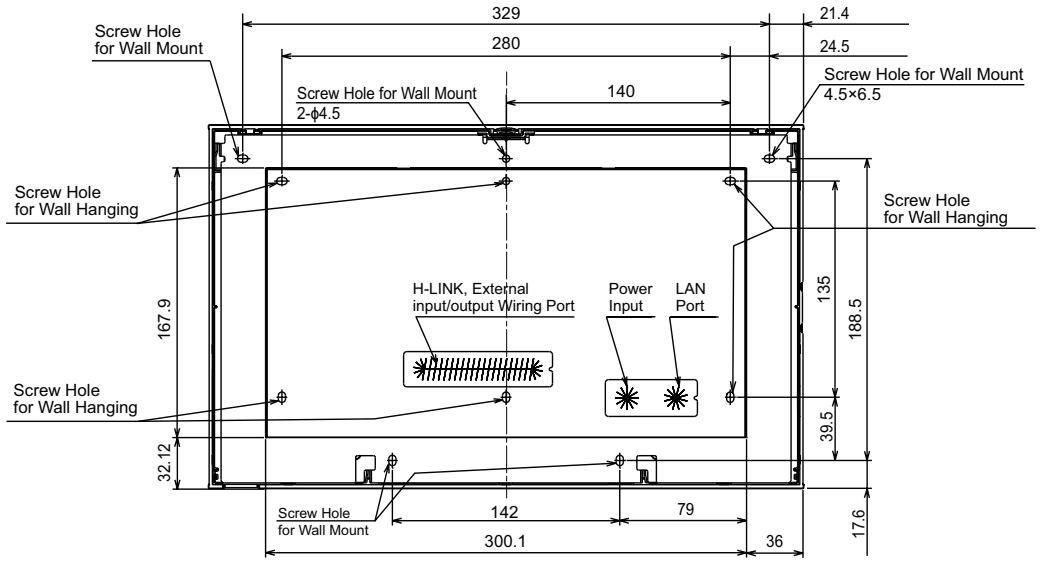
1. Up to 15 Extension adapters (PSC-AD128EX1) can be connected to a system.
2. Up to 64 outdoor units (H-LINK II compliant) and 160 indoor units (H-LINK II compliant) can be connected to Central Station EX (PSC-A128EX1)/Extension Adapter (PSC-AD128EX1). Refer to specification for connecting devices for detail.
3. Use straight cable for LAN (Ethernet cable), and ensure to connect Central Station EX and extension adapter with Ethernet hub.
4. Ethernet is a registered trademark of Fuji Xerox Co., Ltd.
5. Use Ethernet hub with Auto-Negotiation function.

## 3.2 Dimension and Parts Names

Dimension and parts names are as follows:

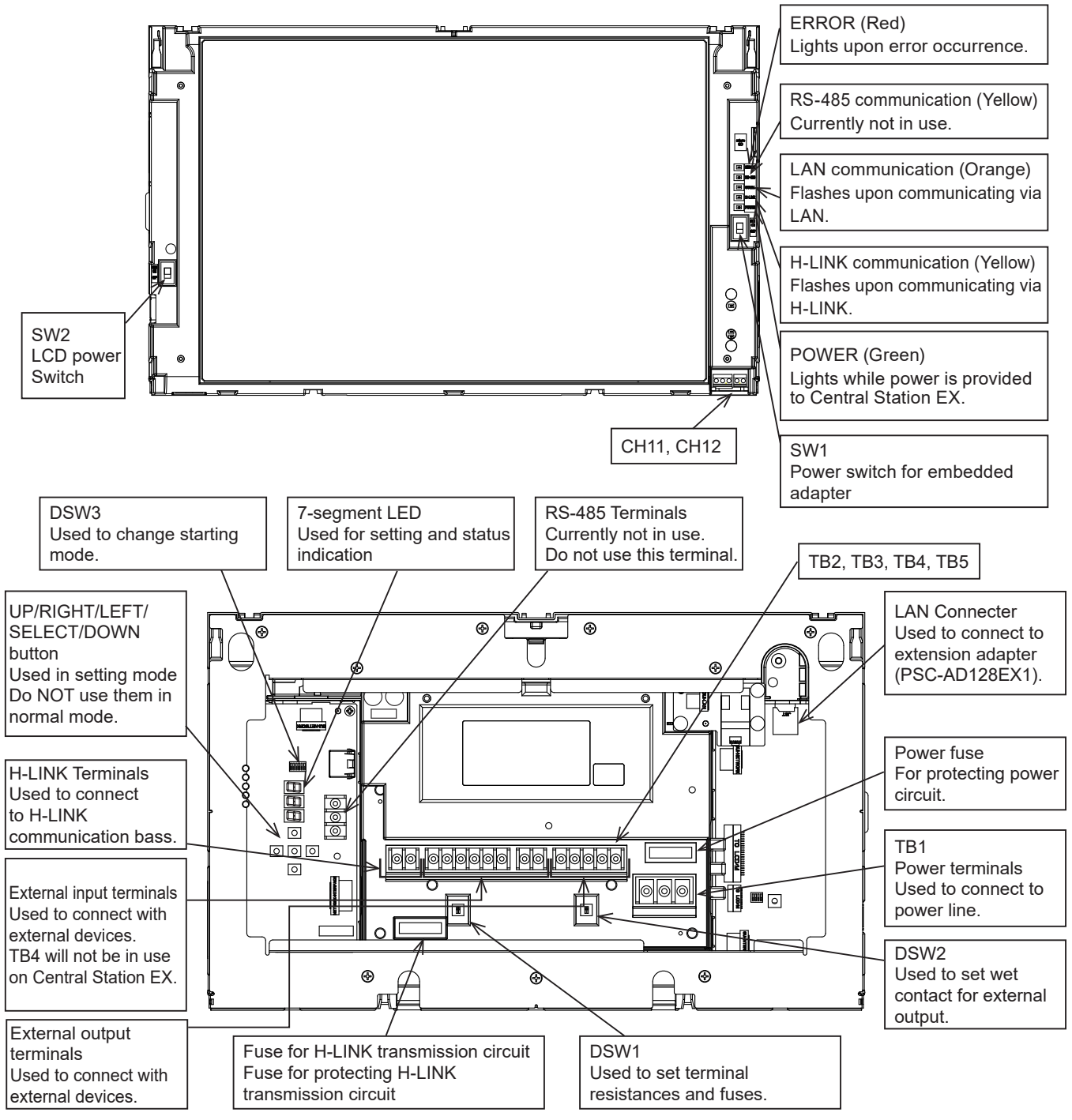
(Unit: mm)



## 3.3 Parts Names and Functions

The following diagram shows Central Station EX with front and back cover removed. Each name and function are listed.
Regarding how to connect each terminal, refer to “6.2 Wiring Work” (page 13). Regarding how to set each switch, refer to “6.3 Switch Setting Procedures” (page 15).




Status Indicator (LED)

| Mark | Specification |
|---|---|
| ERROR | Lights upon system error occurrence (red) |
| RS-485 | RS-485 flashes upon communication via RS-485. |
| LAN | Lights when communication link is established /<br>Flashes while communicating (orange) |
| H-LINK | Flashes when communicating via H-LINK (communication line)<br>(yellow) |
| POWER | Lights while internal power is ON (green). |

## 3.4 Specifications

The hardware specification for Central Station EX is shown in Table 3.1, and the communication specification is shown in Table 3.2 and 3.3.

Table 3.1 Specification for Central Station EX Hardware

| Item | Specification |
|---|---|
| Dimensions (W×H×D) | 372 × 227.2 × 32.5 + 27.8 (molded in wall) mm |
| Net Weight | 3.5kg |
| Installation Condition | For indoor use only. Applicable for a wall mount and wall built in. |
| Clock Accuracy | ± 70 seconds/month |
| Ambient Temperature | 0~40°C |
| Ambient Humidity | 20-85% RH (No condensation) |
| Display | 12.1 inch TFT color liquid crystal display |
| Power Supply | AC24V ± 10% (60Hz) AC 100~240V ± 10%(50/60 Hz) |
| Power Consumption | 50W (Max.) |

Table 3.2 Communication Specification for H-LINK

| Item | Specification |
|---|---|
| Communication Peer | Indoor units / Outdoor units (*1) |
| Communication Line | Nonpolar Two Wires |
| Communication Method | Half-Duplex Communication |
| Synchronous Method | Asynchronous |
| Communication Speed | 9,600 bps |
| Total Wiring Length | 1,000m or less |
| Maximum Controlled Unit Number on System (*2) | Outdoor Unit: Max. 64 Units Indoor Unit: Max. 160 Units Total Number: 200<br>Note that the number of indoor units is restricted to 128 and total is 145 or less if one or more units not supporting H-LINK II are to be connected. |
| For Combined Use | PSC-A32MN, PSC-A64GT, PSC-A16RS<br>*1. RC-less* indoor units can not be connected to the system where 2 or more central controllers are connected.<br>*2. For combined use of central controllers, system may need to restrict the use of the RC prohibit function.<br>*3. One H-LINK system can include up to 8 central controllers. |

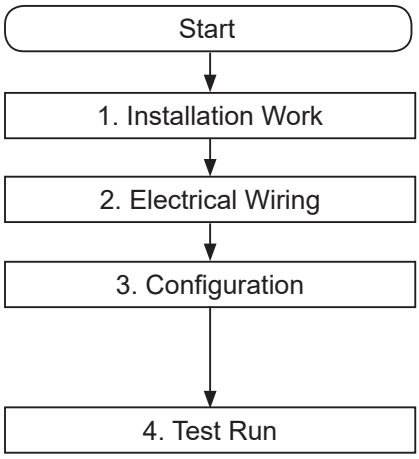
*RC-less: Units without Remote Controller

Table 3.3 Communication Specification for LAN (Ethernet)

| Item | Specification |
|---|---|
| Communication Unit | Extension Adapter (DSC-AD128EX1), Personal Computer (PC) for Remote Access software |
| Communication Line | LAN (Ethernet) |
| Communication Method | IEEE802.3 complied (10BASE-T/100BASE-TX) |
| Wire Length | 100m |

## 4. Installation Procedure

This manual describes how to install and to turn the power ON Central Station EX.
Follow instructions 1-4 to install Central Station EX.




Refer to “5. Installation Work” (pages 10-12) to perform installation work.

Refer to “6. Electrical Wiring” (pages 13-15) for wiring and switch settings.

Refer to “7. Switch Setting” (pages 16-17) to set IP address before turning power ON. Changing IP address is not necessary if Central Station EX are to be operated with factory resetting.*
* Regarding factory default setting, refer to “7. Switch Setting” (pages 16-17) .

Refer to “9. Setup Procedure Overview” (page 19) for turning power ON to perform test run.

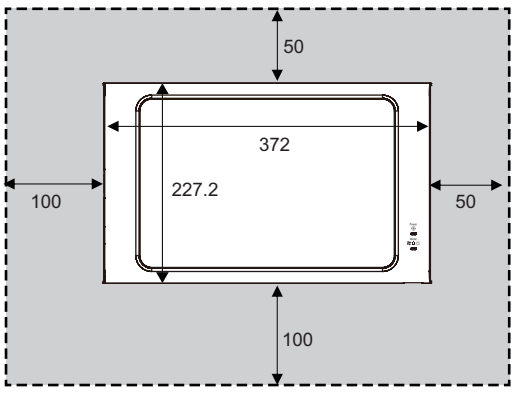
## 5. Installation Work

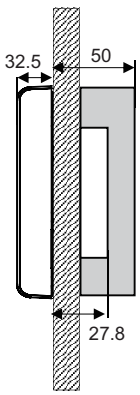
### 5.1 Place for Installation

Choose place that applies to the following:
☐ (1) Refer to “Installation Precautions” (page 4) of this installation manual.
☐ (2) Place where Central Station EX can be firmly fixed with wood screw on wall mount.

### 5.2 Installation Procedure

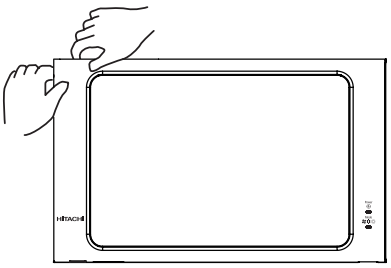
☐ (1) Maintain sufficient space for the installation of Central Station EX as shown below.



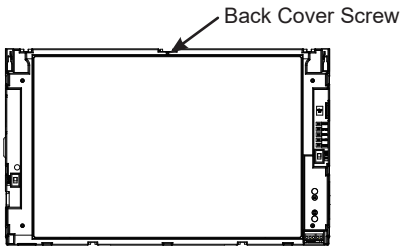




Unit: mm

☐ (2) Gently lift up the front cover from left upper corner and do as same on right upper corner to easily remove the front cover.

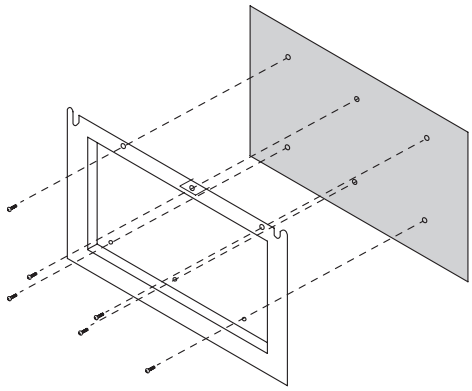


☐ (3) Remove screw and slide the back cover to remove it.

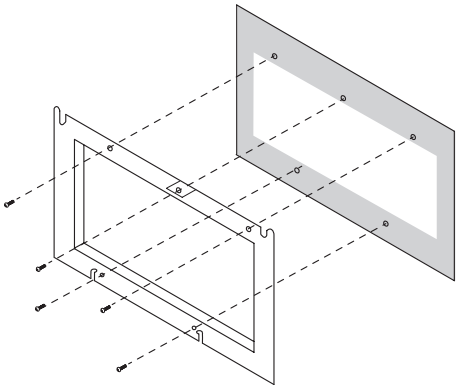



☐ (4) Firmly attach the back cover on the wall.

☐ (a) For Wall Mount
Attach the back cover to the wall with screws (6 screws, included in the package) through screw holes.

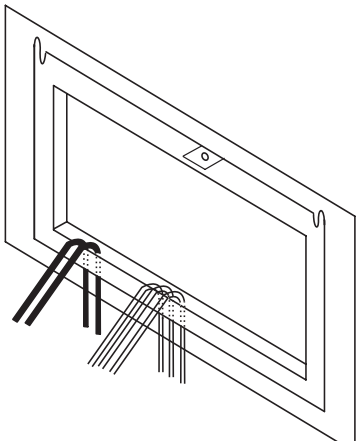


☐ (b) For Wall Built-in
Secure wall opening size of H:167.9mm W: 300.1mm D: 27.8mm.
Refer to chapter 3.2 for detail of dimension.
Firmly attach the back cover to the wall with screws (5 screws, included in the package) through screw holes.

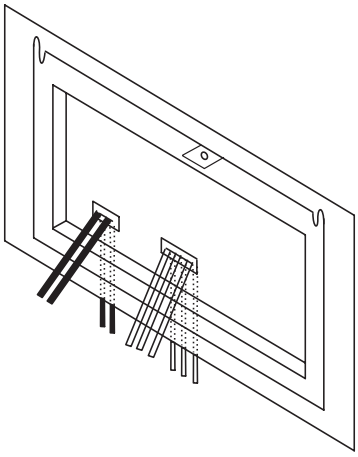


☐ (5) Put wires through the back cover.

☐ (a) For Wall Mount
Let the wires out of the bottom part of the back cover.

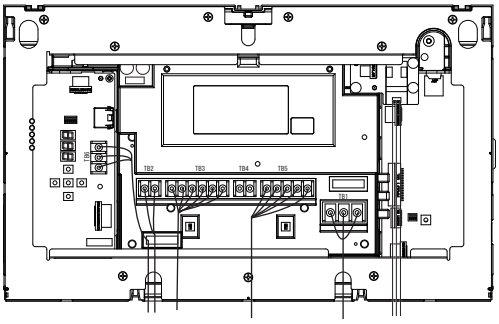


☐ (b) For Wall Built-in
Let the wires out of the wire outlet.

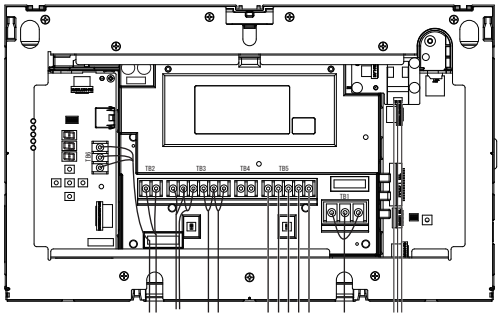


☐ (6) Connect wires to terminals and/or connectors on Central Station EX.
Refer to “6. Electrical Wiring” (page 13) for detail.

☐ (a) For on Wall Mount
Put wires through designated outlets to connect them to terminals and connectors.

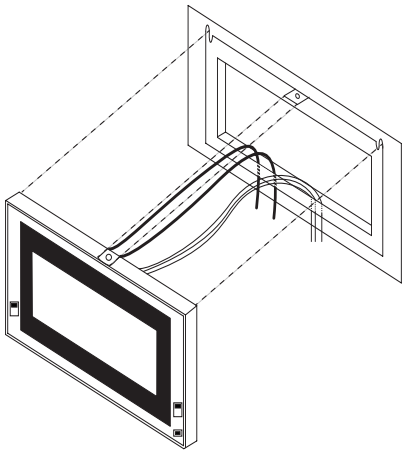


☐ (b) For Wall Built-in
Connect wires directly to terminals and connectors (without putting wires through outlets).

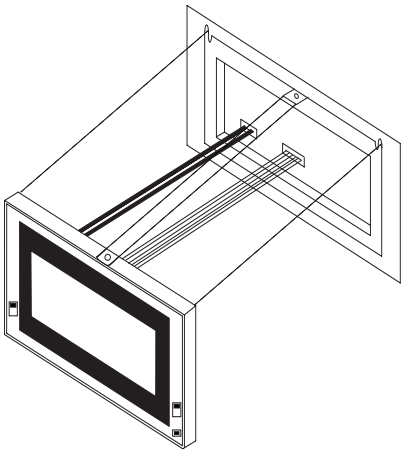


☐ (7) Take the slack to hook Central Station EX on the hooks on the upper part of the back cover.

☐ (a) For Wall Mount



☐ (b) For Wall Built-in



☐ (8) Tighten the screw (1 screw) on the upper part of the back cover.
Turn the power ON before fitting the front cover.

## 6. Electrical Wiring

### 6.1 Wiring Procedures

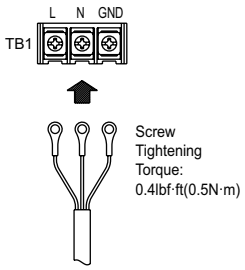
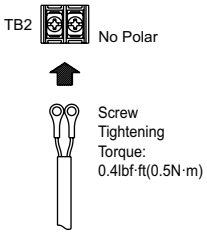
☐ 1. Read and understand safety summary in this manual well to perform wiring work. Wiring work for power line and line for communication with air conditioners (H-LINK) are required.
Wiring work for communication with extension adapter (LAN) is also required for use of extension adapter (PSC-AD128EX1).
Note that wiring work for communication with external devices also is required if any external devices are to be connected to the system. Ensure power to Central Station EX is turned OFF.

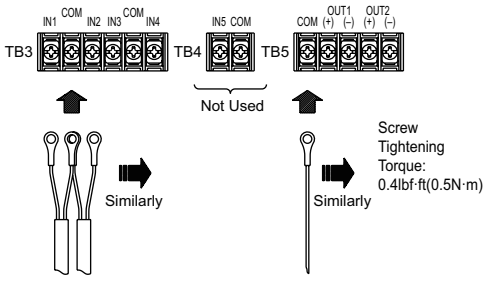
### 6.2 Wiring Work

☐ 1. Ensure that the power line and the power on connecting devices are all turned OFF before performing any wiring work.

☐ 2. Follow the instruction below to perform wiring work.

Table 6.1 Connecting Wires

| Type of Wiring | Power Supply Cable | H-LINK (Control Cable) |
|---|---|---|
| Specification | 100-240V±10% (50Hz-60Hz) | 5VDC |
| Wiring Length | — | 1,000m or less |
| Cable Specificaiton | 1.25mm² to 2mm² | AWG18 (0.75mm²) to AWG16 (1.25mm²) |
| Cable Model | CVV, CEV, CCV | JKFEV-S, JKEV-S, CVV |
| Terminal/Connector | M4 Screw Terminal<br>(with Terminal Cover) | M3 Screw Terminal |
| Connection Procedure |  <br>Use an insulated crimp terminal. Connect the cable to power source terminal.<br>Connect ring terminal to each terminal with screws provided.<br>* To prevent electric shock, do NOT remove the terminal cover. |  <br>Use an insulated crimp terminal.<br>Connect the cable to H-LINK terminal.<br>Connect ring terminal to each terminal with screws provided. |

| Type of Wiring | LAN Cable | External In/Output Cable |
|---|---|---|
| Specification | IEEE802.3 Compliant<br>1000BASE-T*/100BASE-TX<br>/10BASE-T<br>* Use 1000BASE-T for Remote Access software. | Input: DC24V 10mA<br>Output: Dry/Wet Contact Setting DC24V 40mA or less |
| Wiring Length | 100m or less | 70m or less |
| Cable Specificaiton | LAN Cable<br>Category 5 or more | 0.5mm² to<br>1.25mm² |
| Cable Model | — | CVV, CEV, CCV, JKEV-S |
| Terminal/Connector | RJ45 Connector | M3 Screw Terminal |
| Connection Procedure |  <br>Connect the cable to LAN terminal.<br>Insert cable until lock sound is heard. |  <br>Use an insulated crimp terminal. Connect the cable to external in/output terminal. Connect ring terminal to each terminal with screws provided.<br>NOTE:<br>When connecting external output at wet contact setting, the DIP switch setting is required. |

NOTICE:

- Secure space longer than 150mm between communication lines (H-LINK, LAN, External Input/output).

● Connecting External Devices

NOTES:

1. External input circuit is pulled up to DC24V in Central Station EX. On the wire between Central Station EX and external device, the maximum current from Central Station EX is 10mA.
   Pulse width and pulse interval need to be 90 ms or longer for use with pulse input.
2. When connecting to external output, apply relay with following specifications.
   - Rated voltage: 24VDC
   - Rated current: 40mA or less
3. To set voltage contact for external output, set DSW2 for external output setting to ON.
4. 4 COM terminals can be used for both input and output. (They conduct with each other internally)

<How to wire>

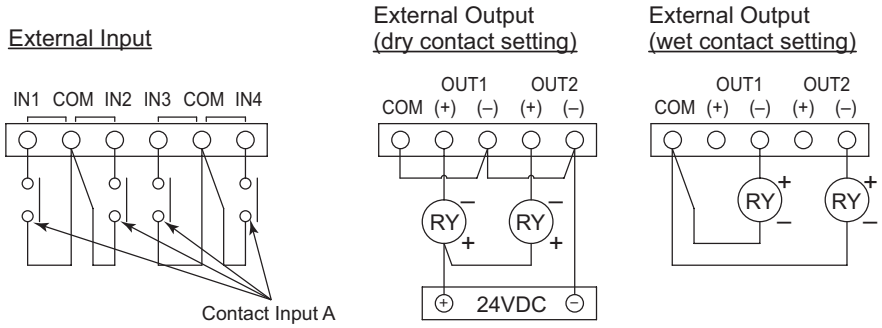



Fig. 6.1 How to Wire External Devices

## 6.3 Switch Setting Procedures

Change switch setting before turning power on.
Switch settings are as follows. Factory default setting may need to be changed depending on the use in the field. (voltage contact setting)

Table 6.2 Switch Setting

| Switch | | Usage (ON/OFF) | Factory Setting | Remarks |
|---|---|---|---|---|
| DSW1 (2-position DSW) | 1 | ON: H-LINK Terminal Resistance Active<br>OFF: H-LINK Terminal Resistance Inactive | OFF | Ensure that no other terminal resistance exists on the same H-LINK when acting the terminal resistance from Central Station EX. |
| | 2 | ON: Protection Fuse for H-LINK ... Inactive (Short-circuited)<br>OFF: Protection Fuse for H-LINK ... Active (Normal) | OFF | When the protection fuse for H-LINK is blown, set 2 pin on DSW1 to ON to make short-circuit between fuse terminals. |
| DSW2 (2-position DSW) | 1 | ON: External output 1 voltage contact (24V ON) setting<br>OFF: External output 1 No-voltage contact (24V OFF) setting | OFF | Set this switch as ON to set external output 1 to wet contact. |
| | 2 | ON: External output 2 voltage contact (24V ON) setting<br>OFF: External output 2 No-voltage contact (24V OFF) setting | OFF | Set this switch as ON to set external output 2 to wet contact. |
| DSW3 (6-position DSW) | 1 | [ON OFF]: Normal Mode ON<br>[OFF ON]: Setting Mode (3 and 4 OFF)<br>(1 and 2 from the left) | ON | — |
| | 2 | | OFF | — |
| | 3 | OFF (Locked) | OFF | Do NOT change it. |
| | 4 | OFF: H-LINK II Support Mode<br>ON: H-LINK II Non-support Mode | OFF | Do NOT change it. |
| | 5 | ON (Locked) | ON | Do NOT change it. |
| | 6 | OFF (Locked) | OFF | Do NOT change it. |

Table 6.3 Setting Startup option DSW3 setting

| No. | DSW3 Setting | Setting Position | Setting State | Usage |
|---|---|---|---|---|
| 1 |  | 1 and 5 pin ON | Normal Mode | 1 and 5 pins are ON as factory default setting.<br>Power on as they are.<br>Connection check starts after power is turned on.<br>ERROR LED goes OFF upon completion of connection check. |
| 2 |  | 2 and 5 pin ON | Setting Mode | Power on with the setting illustrated on the left to utilize programming mode. |

## 7. Switch Setting

Check/modify the detail setting by following instructions below. Factory-setting is as follows.
To connect to HUB, set the IP address that has no duplication on the same network for Central Station EX.

Table 7.1 Factory-Setting (Initial Setting)

| Name | Initial Setting |
|---|---|
| IP Address | 192.168.0.23 |
| Subnet Mask | 255.255.255.0 |
| Default Gateway | 192.168.0.1 |

< Checking IP Address >

☐ 1. Connect HUB and PC before connecting Central Station EX to HUB.
☐ 2. On PC, go to [Start]-[Control Panel]-[Network and Sharing Center]-[Local Area Connection]-[Properties]-[Internet protocol version 4 (TCP/IP4)*] to set the IP address of PC. Make sure that the last one digit is different from one of Central Station EX.
(Example: If IP address for Central Station EX is 192.168.0.23, then IP address for PC can be 192.168.0.30, and so on.)
☐ 3. Go to [Start]-[All Programs]-[Accessories]-[Command Prompt]*.
☐ 4. Enter “ping [IP address that is to be set for Central Station EX]” and press [Enter] key on keyboard.
(Example: “ping [192.168.0.24 (any address that has no duplication on the system)]
☐ 5. If the window shows “Request timed out”, then the IP address is not being used on the network and can be used for Central Station EX.
If the request does not time out, the address is already used and cannot be used for Central Station EX.
* These steps apply to Windows 7. These steps may or may not completely apply to other operating system (OS).

< Procedure >

☐ 1. Remove the back cover and set 2 and 5 pins on DSW3 as ON. (Programming mode)
☐ 2. Turn the power ON.
☐ 3. Wait until 7-segment LED shows “1”.
☐ 4. Press [UP] or [DOWN] button to check that 7-segment LED shows as follows. Set 7-segment LED as “4” to change IP address.

Table 7.2 Indications and Contents

| Items | 7-Segment LED Display | | Main Function |
|---|---|---|---|
| | Before Pushing [SELECT] | After Pushing [SELECT] | |
| Reserved | 1 | — | Do NOT change it. |
| Reserved | 2 | — | Do NOT change it. |
| Connection info. | 3 | 0 ~ 1 | 1 when it has connection information and 0 when it does not.<br>Set 0 to delete connection information |
| IP address | 4 | The first 3 digits of the address | Check and modify IP address for Central Station EX. |
| Subnet mask | 5 | The first 3 digits of the address | Check and modify subnet mask for Central Station EX. |
| Default gateway | 6 | The first 3 digits of the address | Check and modify default gateway for Central Station EX. |
| Reserved | 7 ~ b | — | Do NOT change it. |
| Version + P number | c | Version + the first 3 digits of P number | Version + P number (YYYYMMDDhhmmPPPP) is shown. |
| Reserved | d | — | Do NOT change it. |
| Address (H-LINK communication source) | E | 1 ~ 32 | Modify address for Central Station EX. |
| Factory resetting | F | 0 ~ 1 | To reset the setting to factory default, show 1, otherwise show 0. (Ensure that "0" is indicated when checking the setting.) |

☐ 5. Press [SELECT] button to show the first 3 digits of current setting. Example of IP address is as follows. (Example: 192.168.0.23)

(a) The contents in the square are shown on 7-segment LED.




NOTE: The value “0” for IP address, subnet mask and default gateway are indicated with “000”.

(b) Press [SELECT] button to move the display to the left most range.
The third digit from the left will flash. (Example: 192.168.0.23)




(c) Press [LEFT] [RIGHT] [UP] [DOWN] button to show network address and to change setting.
Press [RIGHT] button to right scroll the indication by 1 digit. (Example: 192.168.0.23)




Press [LEFT] button to left scroll the indication by 1 digit. (Example: 192.168.0.23)



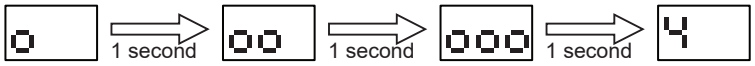

Press [UP] button to increment the right most number by 1.
(Example: 192.168.0.23 -> 193.168.0.23. Increments up to 9.)




Press [DOWN] button to decrease the right most number by 1.
(Example: 192.168.0.23 -> 193.168.0.23. decreases down to 0.)




(d) Press [SELECT] and indication is as follows and then indicates the number for the setting item.




☐ 6. To change other setting items, repeat step (4) to (5) as necessary.

NOTES:

1. Restart Central Station EX to activate the change. Shut the power off to confirm all LEDs go off, set DSW3 to normal mode (1 and 5 pins ON) and then turn the power ON again.
2. Upon resetting to factory default setting, Central Station EX automatically restarts.
When restarting due to resetting to factory default setting, 7-segment LED once indicates “1” and then returns to the normal indication.

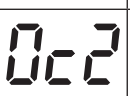
NOTICE:

- Regarding the detail of IP address, subnet mask and default gateway, contact network administrator. Subnet mask and default gateway need not be set if the network is exclusively for Central Station EX and its peripheral. Regarding network security, contact network administrator.

## 8. Indication (Normal and Abnormal)

LED indication for normal and abnormal condition are as follow.

Table 8.1 Indication and Condition for ERROR LED and 7-segment LED

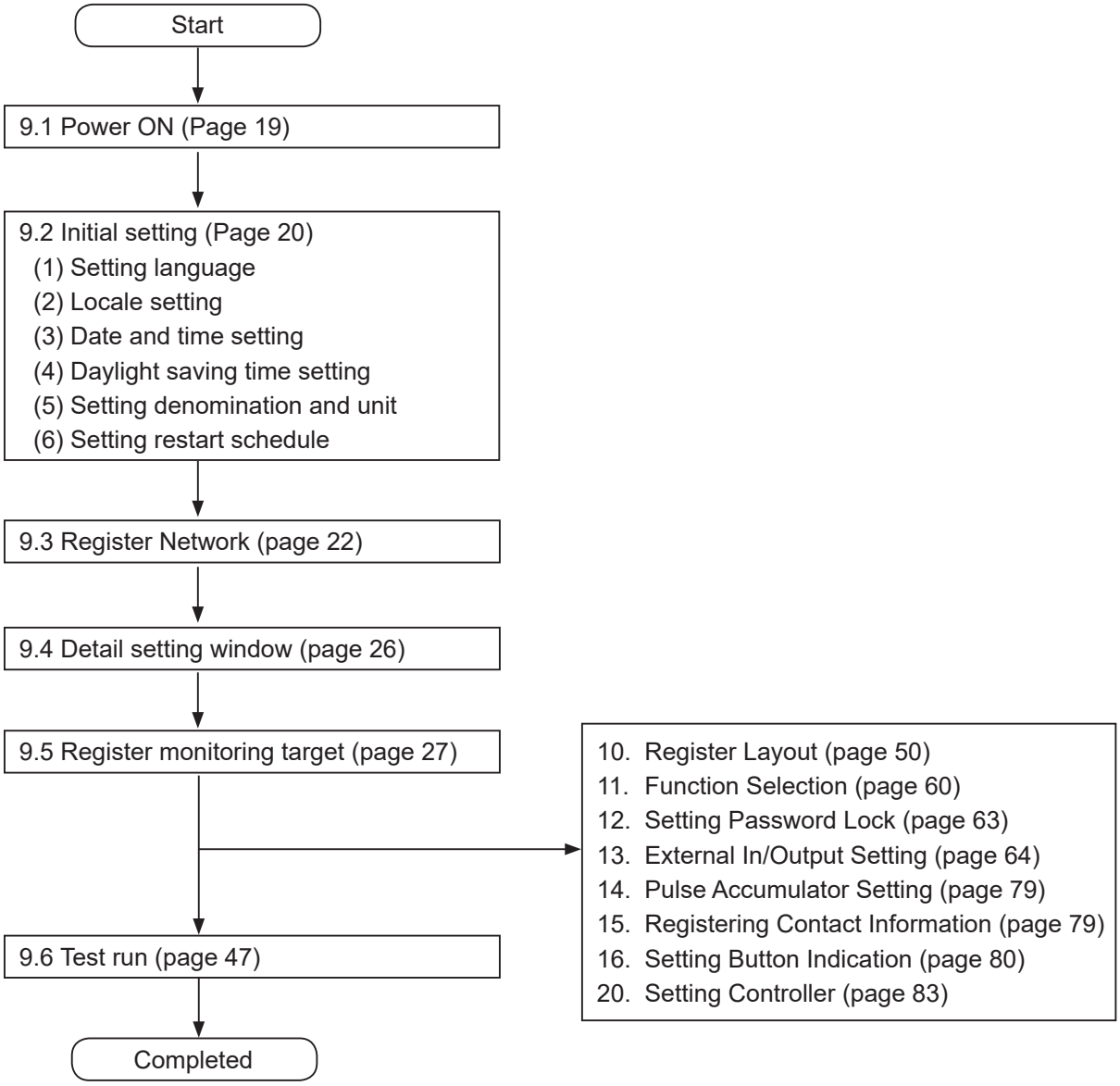
| State | Lights/indicates when | Goes OFF/clears when | ERROR LED state | 7-segment LED state | Indication priority |
|---|---|---|---|---|---|
| Software start up failure | Detected abnormality on the software | The software has no error/ abnormality. | ON |  | 1 |
| Memory check failure (FlashROM) | Detected abnormality on checking FlashROM | Checking FlashROM successfully completed. | ON |  | 2 |
| Checking memory (FlashROM) | Checking FlashROM | Checking FlashROM successfully completed. | OFF |  | 3 |
| Memory check failure (SDRAM) | Detected abnormality on checking SDRAM | Checking SDRAM successfully completed. | ON |  | 4 |
| Checking memory (SDRAM) | Checking SDRAM | Checking SDRAM successfully completed. | OFF |  | 5 |
| File system failure | Detected abnormality on checking file system | Checking file system successfully completed. | ON |  | 6 |
| Application start up | Immediately after turning power ON and application start up in normal mode | 1 second elapsed | on for 1 second |  | 7 |
| H-LINK initialization failure | After turning power ON in normal mode, application starts up and detected abnormality on initializing H-LINK communication port. | Initialization of H-LINK communication port successfully completed. | ON |  | 8 |
| Internal database failure | After turning power ON in normal mode, application starts up and detected abnormality on checking internal database. | Checking internal database successfully completed. | ON for 1 sec. and OFF for 1 sec. (Repeated) |  | 9 |
| Initializing system | After turning power ON in normal mode, application starts up and then processing system initialization. | System initialization successfully completed. | OFF |  | 10 |
| Preparing for air conditioners connection checking | After start up in normal mode, the Central Station EX is either checking connection with other central controllers or while auto address detection. | Starting connection checking | Flashes once in 5 sec. (Repeated) |  | 11 |
| Checking connection with air conditioners | After turning power ON in normal mode, application starts up and then checking connection with air conditioners. | Connection checking completed. | Flashes once in 5 sec. (Repeated) |  | 12 |
| Communication failure with air conditioners | After turning power ON in normal mode, completed connection checking with air conditioners and detected communication failure with 1 or more air conditioners. | Communication with all air conditioners detected is successfully established. | Flashes once in 3 sec. (Repeated) |  | 13 |
| Writing microSD (for service maintenance) | Data being written to microSD card | Writing data completed. | OFF |  | 14 |
| Normal state (*) | After turning power ON on normal mode, none of the above situations is observed. | One or more criteria above are met. | OFF |  | 15 |

NOTICE:
Upon occurrence of situation highlighted in gray, refer to “23. Maintenance and Service” (pages 92-93).

*: “0c0” indicating checking connection will turn to “000” as making transition to normal operation state.
If Central Station EX failed to detect all air conditioners detected on the initial connection check, after recovery from power failure, for example, 7-segment LED will indicate “000” for 3 minutes and then show “00E” to indicate communication failure with air conditioners.

## 9. Setup Procedure Overview

Set up Central Station EX by following the steps below.




### 9.1 Power ON

Complete test run on air conditioners first to confirm proper operation of system.

(1) Turn ON the power for all air conditioners on the system.

(2) Ensure the power switches SW1 and SW2 on Central Station EX are set as ON and then turn the power ON. Power indicator on Central Station EX is ON. After a minute, the start-up window is shown and connection check starts.

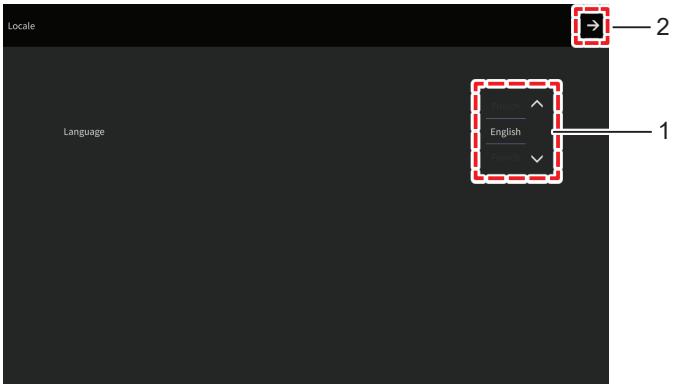
NOTE:

If 2 or more central controllers are on the same H-LINK, disconnect all the other central controllers than Central Station EX from H-LINK to turn ON the power for Central Station EX.

(3) Ensure that the connection checking with air conditioners is completed. This is completed in approximately 20 minutes after turning the power ON. Remove the front cover to ensure the ERROR LED on the upper right is completely OFF. (If the LED repeatedly flashes every 5 seconds, Central Station EX is still checking connection.) If ERROR LED does not go off, remove the rear cover and check indication on 7-segment LED to refer to the previous page. After ERROR LED completely goes off, put the front cover and perform initial setting as described in the next page.

## 9.2 Initial Setting

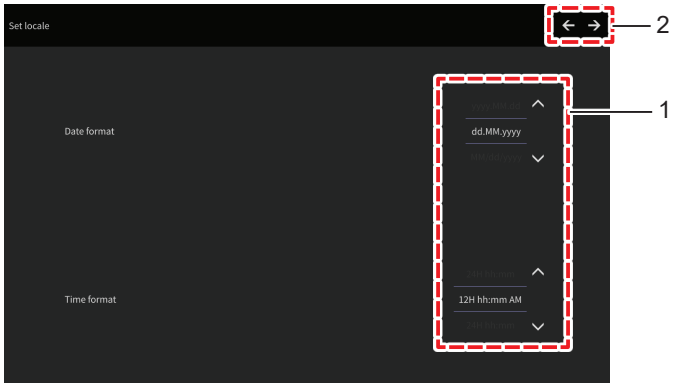
### (1) Setting language




In this section, select the language appropriate for the user and locale.

1. Tap [∧] or [∨] to set language to use
2. Tap [→] to show locale setting window.

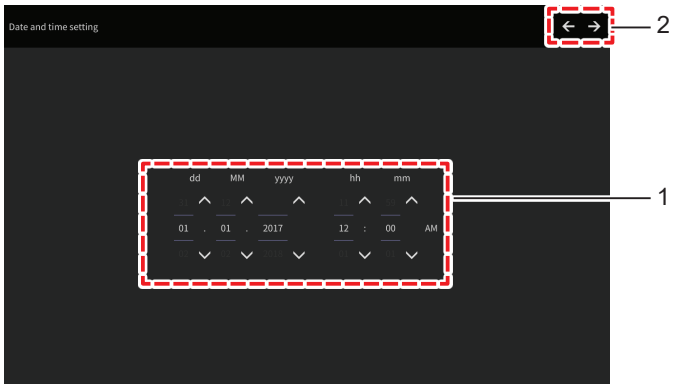
### (2) Locale setting




In this section, select the date and time format appropriate for the user and locale.

1. Tap [∧] or [∨] to set date and time format.
   Date format: Set the order for year/ month/day and delimitation in between.
   Time format: hh and mm indicate hour and minute respectively. Select 12 hour/24 hour notation.
2. Tap [→] to show date and time setting window.
   Tap [←] to return to language setting window.

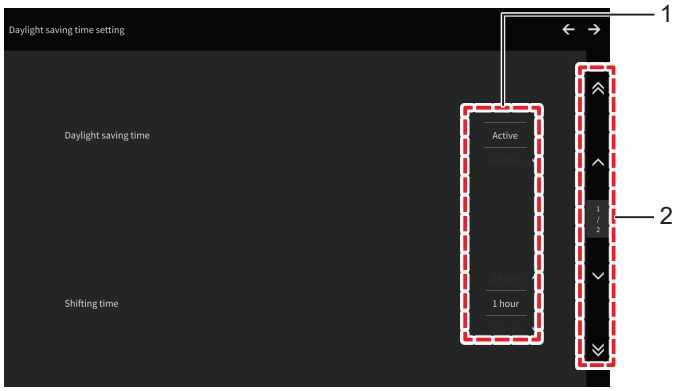
### (3) Date and time setting




In this section, set the date and time to use on Central Station EX.

1. Tap [∧] or [∨] to set date and time for Central Station EX.
2. Tap [→] to show daylight saving time setting window.
   Tap [←] to return to locale setting window.

### (4) Daylight saving time setting




In this section, set daylight saving time.

1. Tap [∧] or [∨] to choose active/inactive and set shifting time for daylight saving time.
2. Tap [∧] or [∨] to scroll a page down.

Continue to next page.

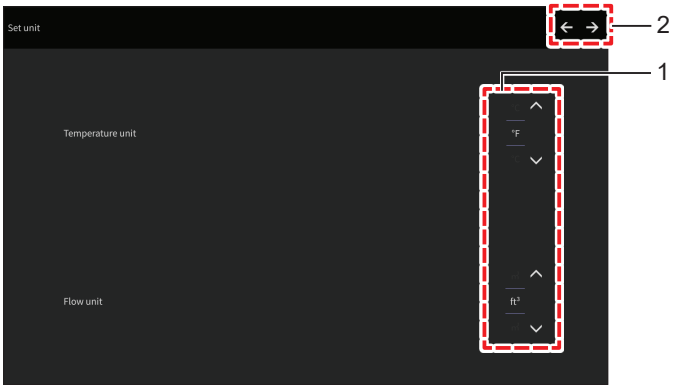
NOTICE:
This image may differ from the actual controller.

Continue from previous page.




3. Tap [∧] or [∨] to start/end date and time.
4. Tap [→] to show window for setting denomination and unit.
   Tap [←] to return to date and time setting window.

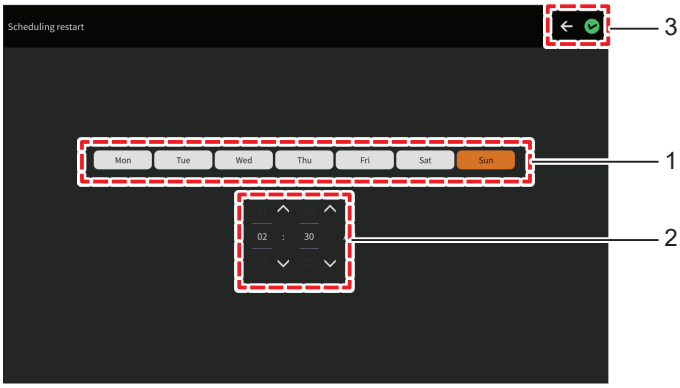
## (5) Setting denomination and unit




In this section, set unit for temperature, and fan speed.

1. Tap [∧] or [∨] to set unit for temperature and fan speed.
2. Tap [→] to show setting restart schedule window.
   Tap [←] to return to daylight saving time setting window.

## (6) Setting restart schedule




1. Select a day of the week to perform restart. Set as Central Station EX to restart at least once a week.
2. Set [∧] or [∨] to set time to restart.
3. Tap [] to confirm setting and to return to network registration window.
   Tap [←] to go to the previous page.

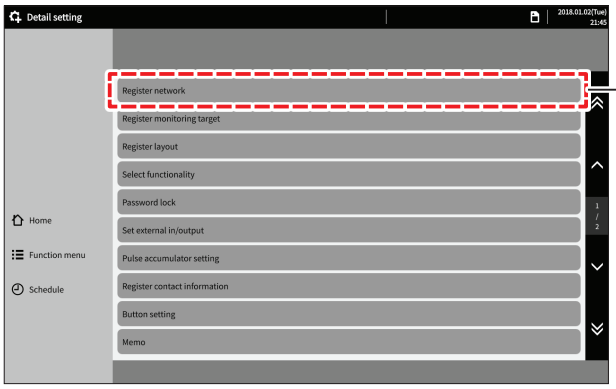
- Select time when monitoring and controlling are not needed. (e.g. at midnight)
- Do not set at 0:00 to 2:00 if energy calculation functionality is activated.

NOTE:
Restart notification pop up appears at the scheduled time. After showing pop up message for 60 seconds, Central Station EX starts the shutdown process.

## 9.3 Register Network

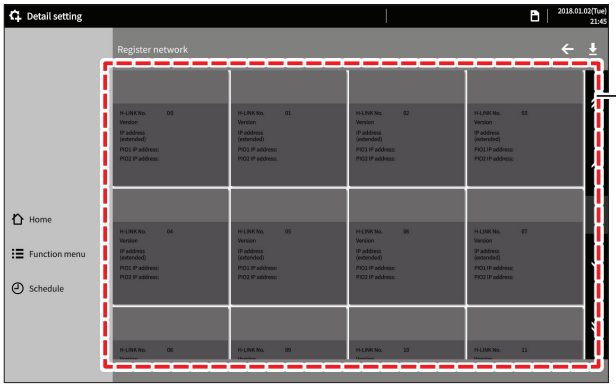
Register network for Central Station EX to communicate with extension adapters (PSC-AD128EX1).

(1) New registration

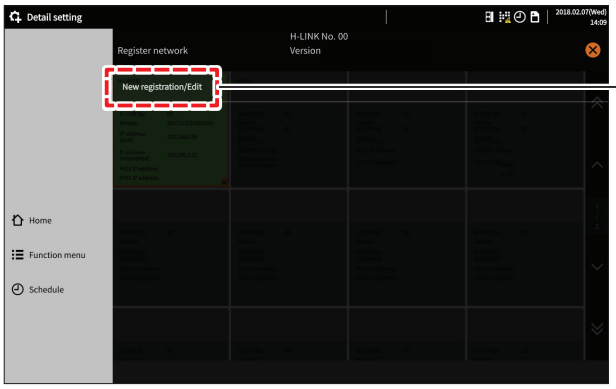



1. Tap [Register network] on detail setting window. The window for registering network is shown.

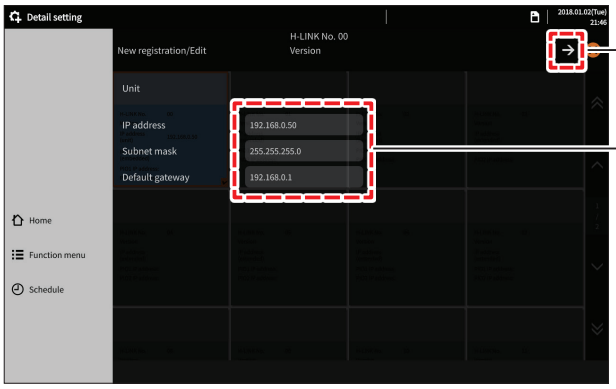
- Upon completion of initial setting, step 2 is shown.




2. Tap panel for desired H-LINK No.
   H-LINK No.00: Central Station EX and embedded adapter
   Other than H-LINK No.00: Extension adapter




3. Tap [New registration/Edit].
   If panel for H-LINK No.00 is selected, step 4 is shown.
   If panel for any other than H-LINK No.00 is selected, step 6 is shown.



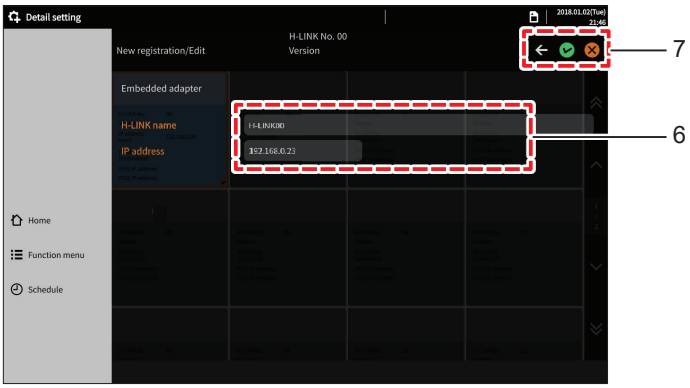

4. Set network information for Central Station EX.
   Tap input field for name to enter information on keyboard.
   The keyboard is shown. Regarding keyboard operation, refer to “5. Basic Window Operation” in the operation manual.

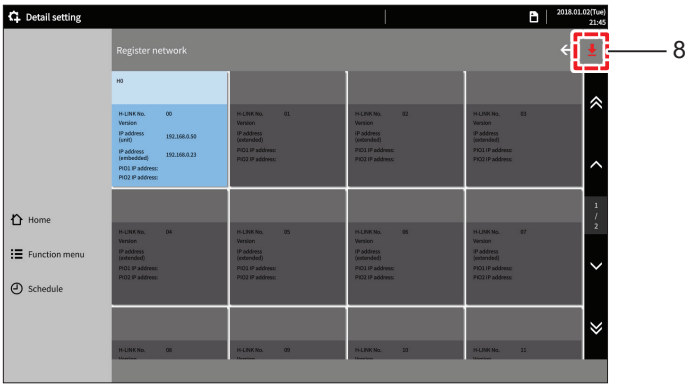
- If the network is exclusively for this system, no setting change is necessary.

5. Tap [→] to confirm setting and to go to embedded adapter setting window.

Continue to next page.

Continue from previous page.




6. Tap input field for each item to enter information on keyboard.
   Network information for embedded adapter and extension adapter is in the following table.

- Enter new IP address if it has been changed while processing “7. Switch Setting” (page 16).

7. Tap [✓] to confirm setting and to return to network registration window.
   Tap [✗] to discard the change and to return to network registration window.
   Tap [←] to go to the previous page.

8. Tap [⤓] to register the contents.

- Make sure to tap this icon when the contents have been changed.
  Otherwise the changes made will not be registered.
  Upon completion of registration, the panel color changes from light blue to green.

NOTE:
The background color of the panels indicates the network connection status of Central Station EX or extension adapter.

| Network connection | Registered (Connected) | Changing setting (Unregistered) | Invalid setting | Not registered / Postponed |
|---|---|---|---|---|
| Panel color | Green | Light blue | Red | Gray |

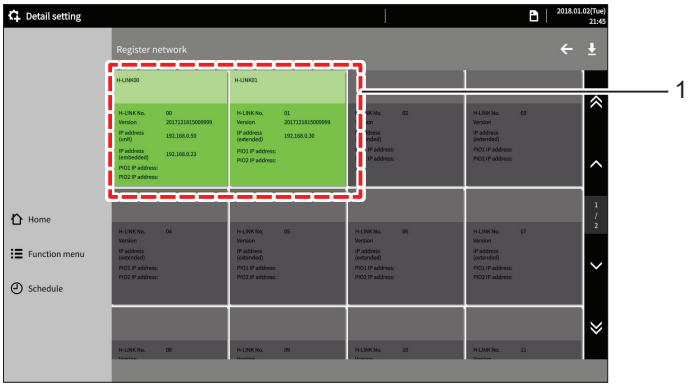
(*): Check the network environment and/or setting contents to register again if the panel is shown with background color red.

NOTICE:
The factory-setting for IP address of embedded adapter and extension adapter are both “192.168.0.23”.
Duplicated IP address on 1 network can cause failure on LAN communication. Make sure to follow “7. Switch Setting” (page 16) to modify IP addresses for extension adapters.
On “new registration”, set H-LINK name and IP address. Regarding the detail of IP address, subnet mask and default gateway on extension adapters, refer to the next page “(2) Modification”.

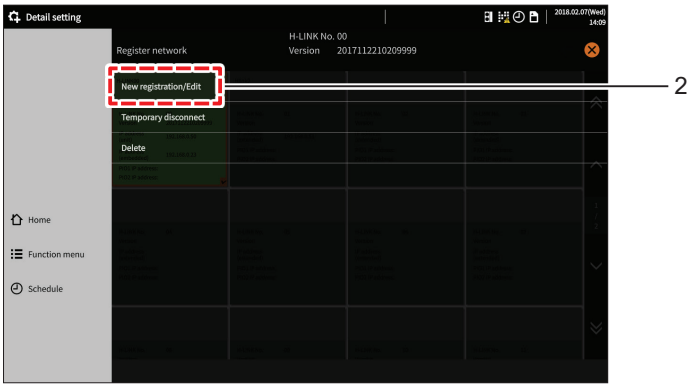
The default network information for Central Station EX (PSC-A128EX1) and Extension adapter (PSC-AD128EX1) are as follows:

| Device | Item | Value |
|---|---|---|
| Central Station EX | IP address | 192.168.0.50 |
| | Subnet mask | 255.255.255.0 |
| | Default gateway | 192.168.0.1 |
| Embedded adapter | H-LINK name | No setting |
| | IP address | 192.168.0.23 |
| | Subnet mask | 255.255.255.0 |
| | Default gateway | 192.168.0.1 |
| Extension adapter | H-LINK name | No setting |
| | IP address | 192.168.0.23 |
| | Subnet mask | 255.255.255.0 |
| | Default gateway | 192.168.0.1 |

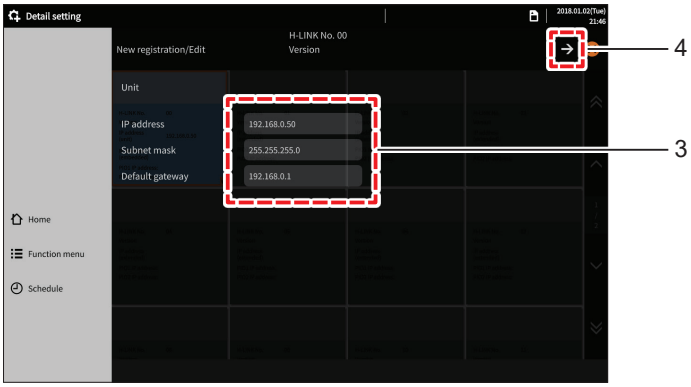
## (2) Modification




1. Tap panel for desired H-LINK No.
   H-LINK No.00: Central Station EX and embedded adapter
   Other than H-LINK No.00: Extension adapter
   Modification can be made only for registered (green) panel.




2. Tap [New registration/Edit].
   If panel for H-LINK No.00 is selected, step 3 is shown.
   If panel for any other than H-LINK No.00 is selected, step 5 is shown.




3. Set network information for Central Station EX.
   Tap input field for each item to enter information on keyboard.

- If the network is exclusively for this system, no setting change is necessary.*

4. Tap [→] to confirm setting and to go to embedded adapter setting window.

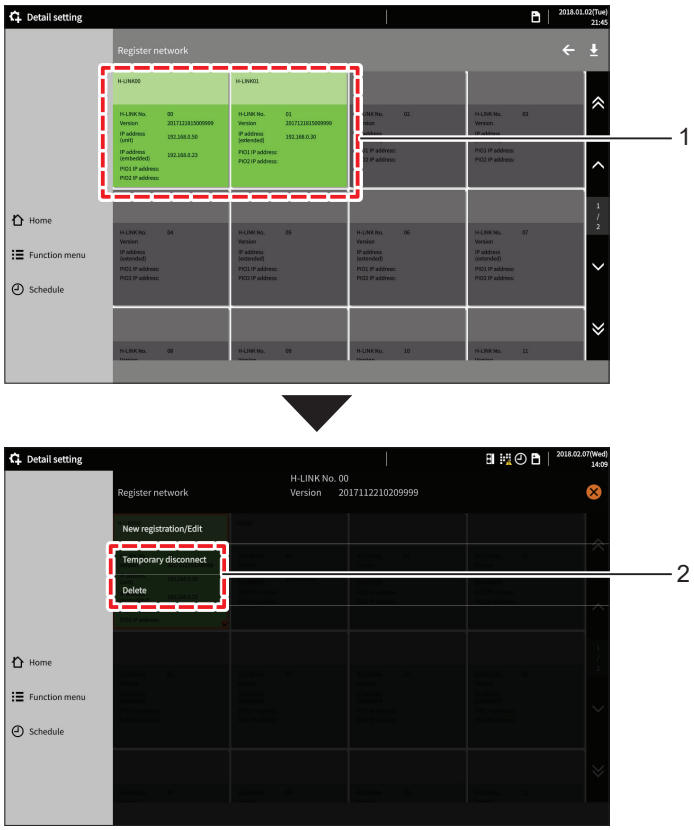



5. Tap input field for each item to enter information on keyboard.
   Network information for embedded adapter and extension adapter is in the table on the previous page.
6. Tap [✓] to confirm setting and to return to network window.
   Tap [✗] to discard the change and to return to network window.
   Tap [←] to go to the previous page.

- Upon completing the setting, refer to “(1) New registration” (page 22) and tap [⬇] to register the contents.

* Setting modification is needed for combined use with extension adapter.
  It may take several minutes for the changes to take effect.
  Do not set PIO01 IP address and PIO02 IP address.

## (3) Postpone/delete network information

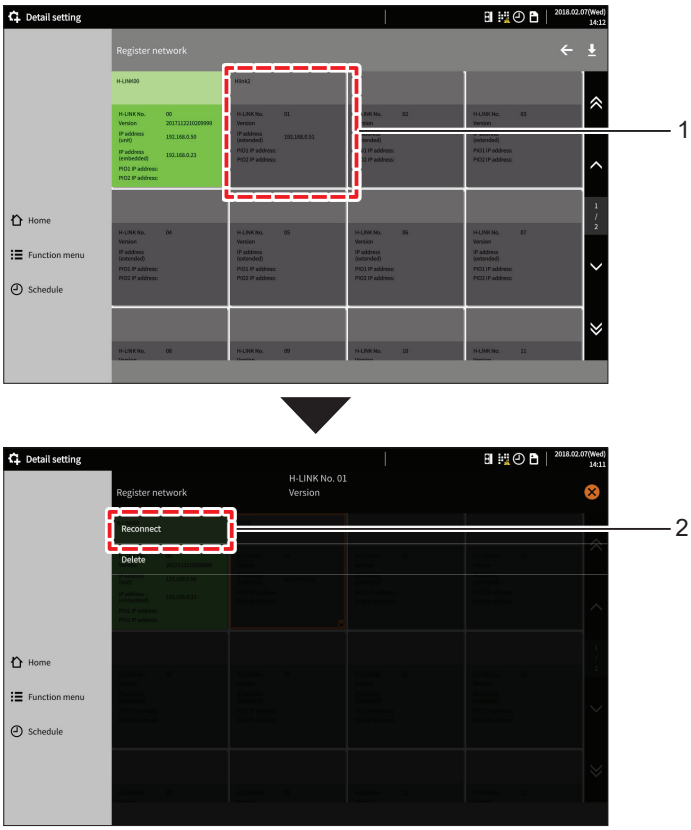



1. Tap panel for desired H-LINK No.

2. Tap the item to operate.
   Confirmation pop up for each item is shown.

- Tap [Temporary disconnect] to temporarily postpone the connection of specified H-LINK No.
- Tap [Delete] to completely discard (=delete) the registered information for the specified H-LINK No.
- Tap [Yes] on the confirmation pop up and refer to “(1) New registration” (page 22) and tap [⬇] to register the contents.

## (4) Reconnection




1. Tap panel for H-LINK No. that has been temporarily disconnected.

- Disabled H-LINK No. are shown in gray.

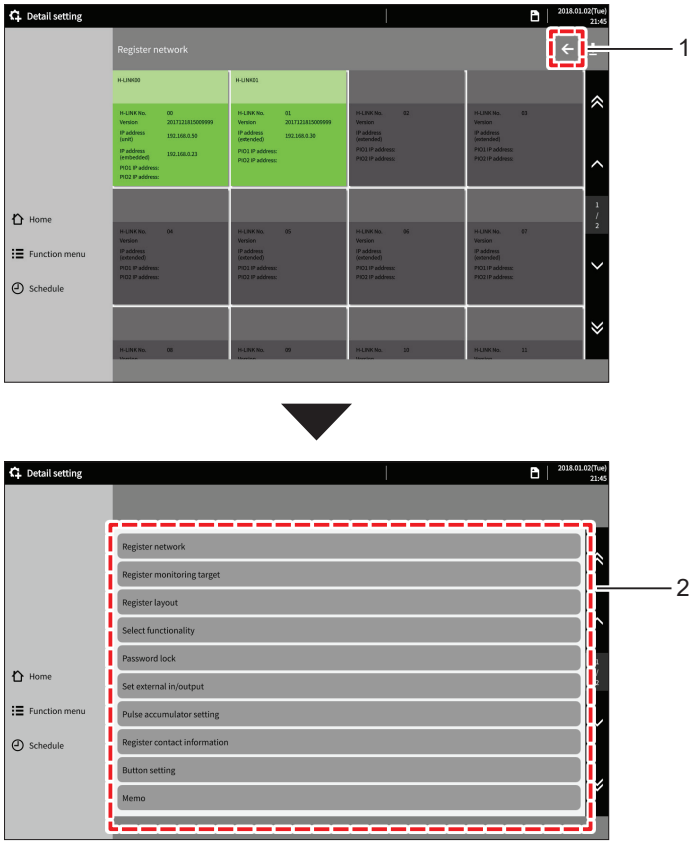
2. Tap [Reconnect].
   The connection for the specified H-LINK No. is re-established.

- Follow “(1) New registration” (page 22) and tap [⬇] to register the contents.

NOTE:
“Temporarily disconnected” H-LINKs maintain their information registered in Central Station EX but will not communicate with Central Station EX. Upon tapping [Reconnect], Central Station EX will attempt to establish connection with those H-LINKs again. Upon “Deleting", all the information is discarded and connection is canceled. The “Deleted" H-LINKs need to be registered from the “New Registration” window to establish the communication again.

## 9.4 Detail Setting Window

■ Open detail setting window by [←] icon.




1. Tap [←].
   Detail setting window is shown.

2. Tap desired item to show detail window.
   “Register network” and “Register monitoring target” are required for monitoring/controlling air conditioners.
   Set the rest as necessary.

■ Open detail setting window from function menu.




1. Tap [Function Menu].
   Function Menu window is shown.

2. Tap [Detail setting].
   Password input window is shown if the password is activated.
   The default password for detail setting window is “2468”.
   After entering password, detail setting window is shown.

## 9.5 Register Monitoring Target

This setting is to allocate each unit connected to Central Station EX/Extension adapter to Group/Block/Area. Registering monitoring target is required for Central Station EX to monitor/control air conditioners. Ensure that units are registered.

(1) Register units

■ Check connecting status for units




1. Tap [Register monitoring target] on detail setting window.
   Register monitoring target window is shown.

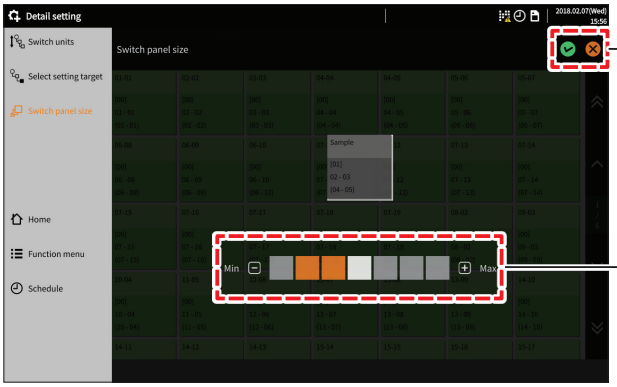
2. Tap item to switch display.
   - Tap [Switch registration target] and step 3 is shown.
   - Tap [Select setting target] and step 4 is shown.
   - Tap [Switch panel size] and step 5 is shown.

3. Tap unit to register.
   Tap unit and register monitoring target window for the specified unit is shown.

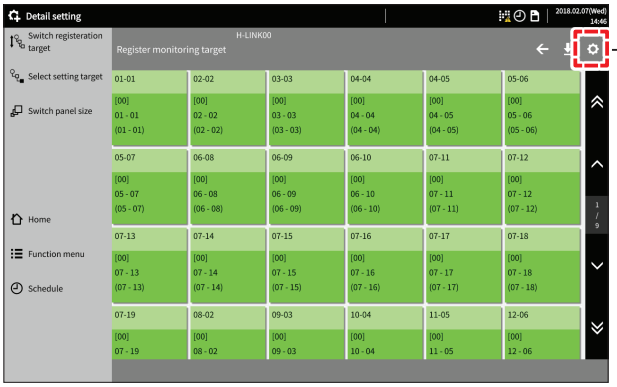
4. Tap the name of H-LINK that the unit is registered in.
   The register monitoring target window for specified Central Station EX or extension adapter is shown.

Continue to next page.

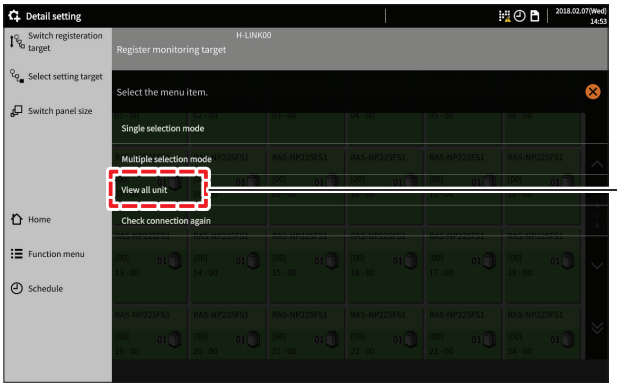
Continue from previous page.




5. Tap [+] or [–] to change panel size.
6. Tap [✓] to confirm setting and to return to register monitoring target window.
   Tap [✕] to discard the change and to return to register monitoring target window.

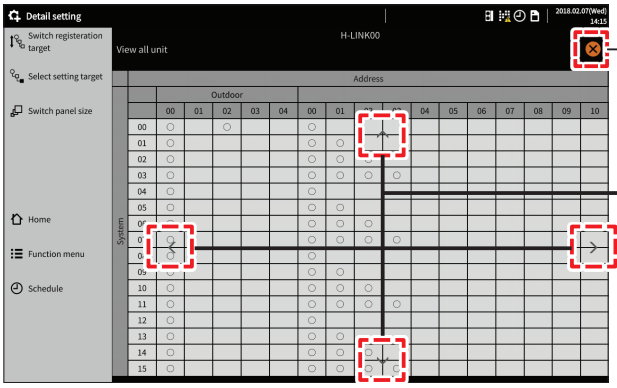



7. Tap [⚙] to show menu window.




8. Tap [View all unit].
- If indoor unit/outdoor unit is selected, step 9 is shown.
- For facility units, step 9 of "■ Setting external in/output for facility units" (page 34) is shown.

   Connecting states for specified units is shown.



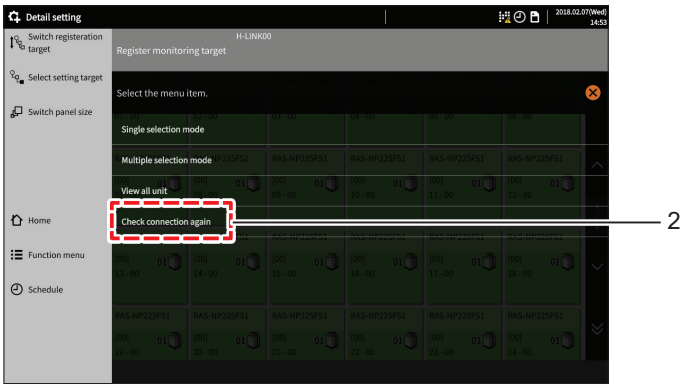

9. Tap the window. Arrows appear.
   Tap the arrows to scroll horizontally and vertically in the table. Tap to verify that the refrigerant cycle, address and number of units are correctly shown.
   If the units information is not correct, refer to "■ Checking connection again" (page 29).
10. Tap [✕] to return to Register monitoring target window.

- If the units and/or address information shown is incorrect, the settings and/or wiring may have been done incorrectly. Check the settings. Tap [Check connection again] to ensure all unit information is correct.

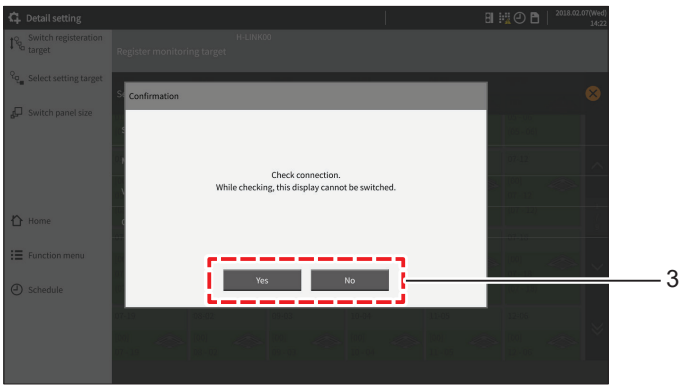
■ Checking connection again



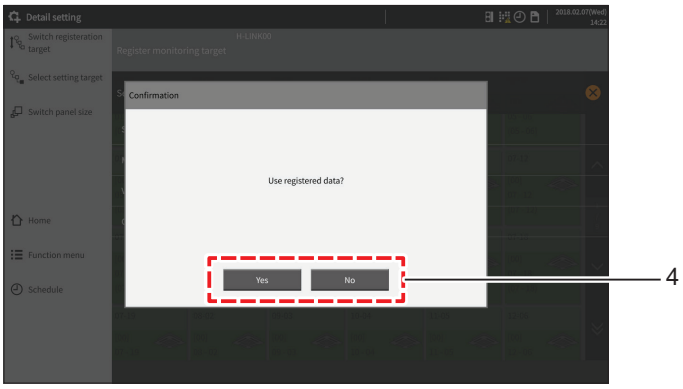

1. Tap [⚙] to show menu window.




2. Tap [Check connection again].
Confirmation pop up is shown.




3. Tap [Yes].
Confirmation pop up asking whether or not to use registered data.
Tap [No] to cancel connection check and to return to the previous window.




4. Tap [Yes] to maintain registered monitoring target information.
Tap [No] to delete registered monitoring target information and to initialize connection.
After completing connection check, register monitoring target window is shown.

- Connection check may take approximately 20 minutes.

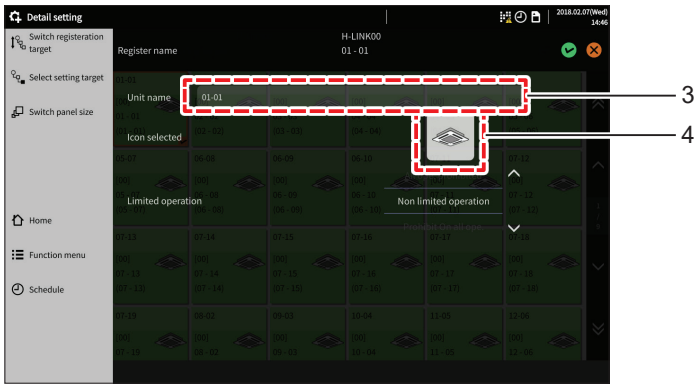
- If any change is made on function selection on units such as unit/RC system configuration and temperature range, tap [Check connection again] to ensure all unit information is correct.

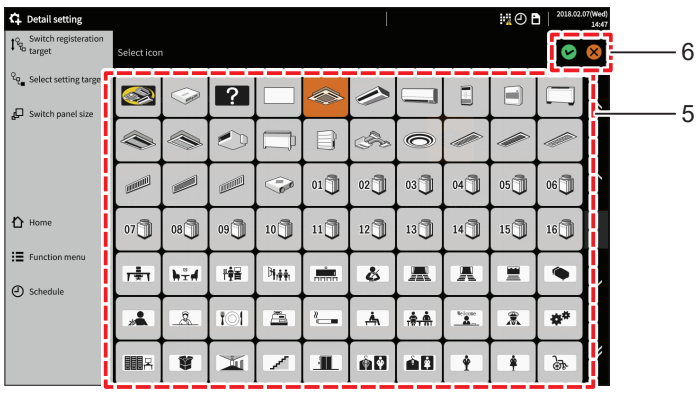
■ Registering unit names










Continue to next page.

Follow 2 ~ 6 in “■ Check connecting status for units (page 27)” to show units to register.

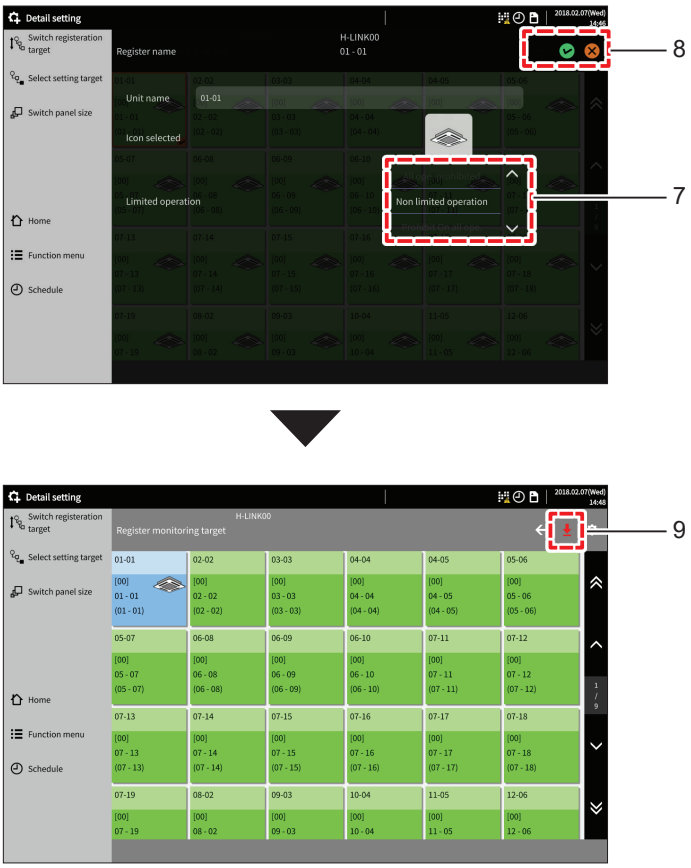
1. Tap unit to register.

2. Tap [Register name].
   The window for registering name is shown.

3. Shows current registered name.
   Tap input field to enter information on keyboard.
   Regarding keyboard operation, refer to “5. Basic Window Operation” in operation manual.
   Names must be 16 characters or less.
4. Shows current registered icon.
   Tap icon to show window for selecting icon.

5. Tapped icon is shown in orange.
6. Tap [✓] to confirm setting and to return to registering monitoring target window.
   Tap [✕] to discard the change and to return to register monitoring target window.

Continue from previous page.




7. Tap [∧] or [∨] to restrict operation for air conditioners and facility units.
   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].

8. Tap [✓] to confirm setting and to return to registering monitoring target window.
   Tap [✗] to discard the change and to return to register monitoring target window.

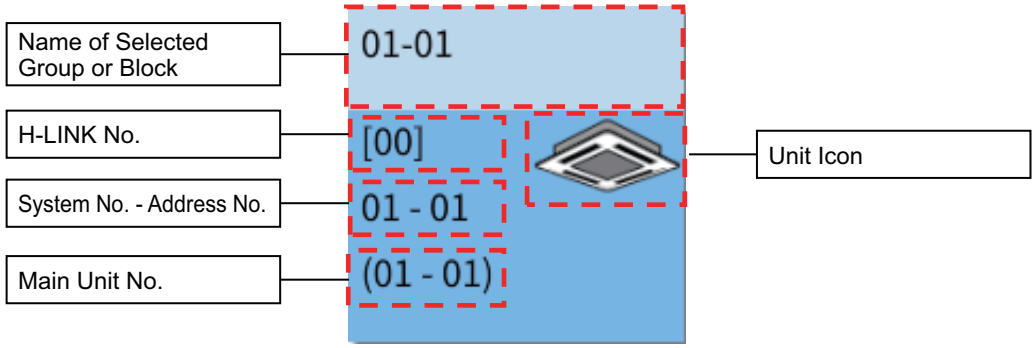
9. Tap [⬇] to register the contents.
   - Make sure to tap this icon when the contents have been changed. Otherwise the change made is not registered.
     Upon completion of registration, the panel color changes from light blue to green.
   - Registering facility units may take approximately 10 minutes.

NOTE:
The background color of the panels indicates the network connection status of extension adapter.

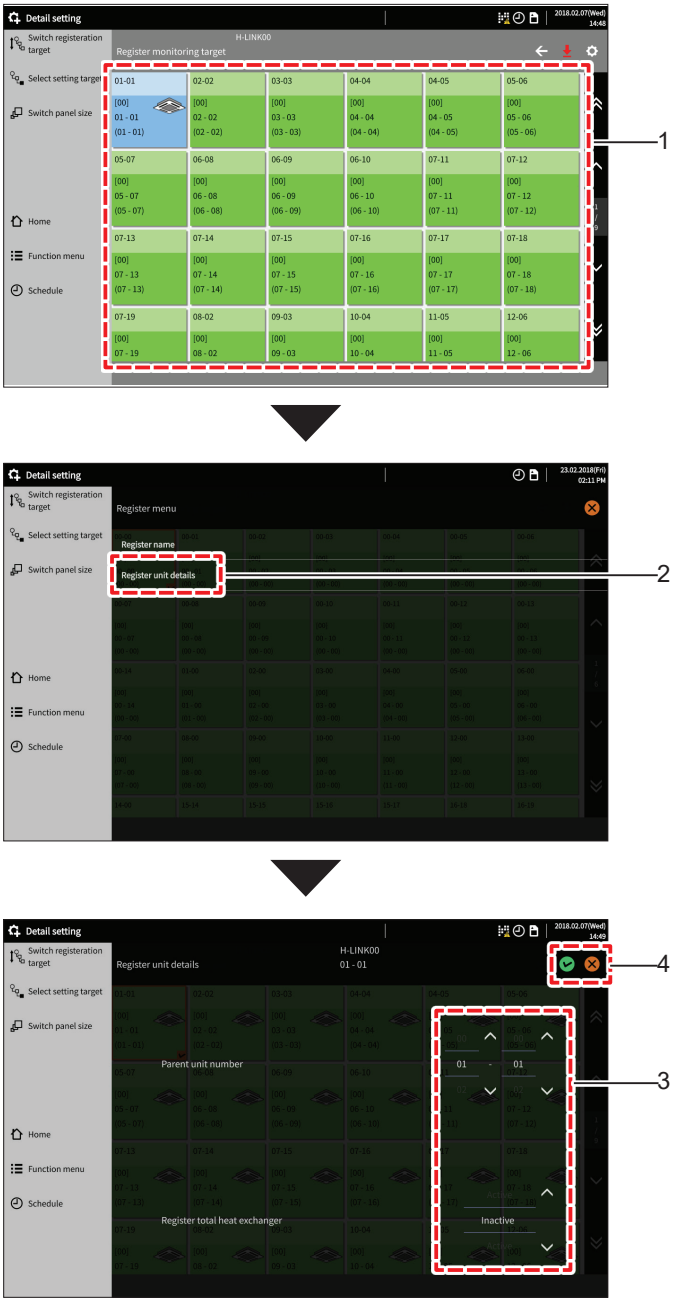
| Network connection | Registered (Connected) | Changing setting (Unregistered) | Invalid setting/Error | Not registered / Disabled |
|---|---|---|---|---|
| Panel color | Green | Light blue | Red | Gray |

(*): Check the network environment and/or setting contents to register again if the panel is shown with background color red.

- Contents on panel
  Operation status of air conditioners is shown in the panel (the largest) as in the following.
  3 panel sizes are provided to best select the appropriate size for status and air conditioners desired to be shown.



■ Detailed settings for in/outdoor units




Follow “■ Check connecting status for units” (page 27) to show units to register.

1. Tap unit to register.

2. Tap [Register unit details].
   The window to register unit details is shown.

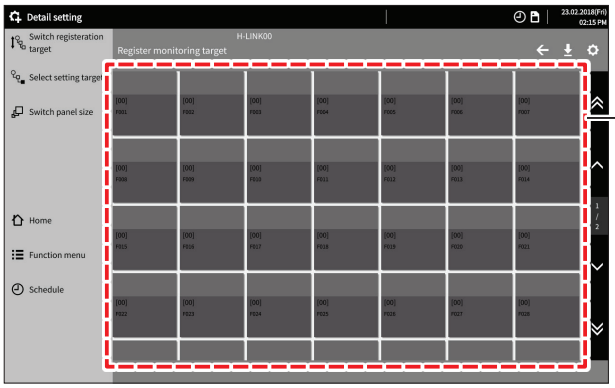
3. Tap [∧] or [∨] to change setting.
   - On detail setting for indoor units, set “parent number” and “register total heat exchanger”.
   - On detail setting for outdoor units, set “Capacity control and Lower noise” and “Outdoor temperature representative unit setting”.
4. Tap [✓] to confirm setting and to return to registering monitoring target window.
   Tap [✗] to discard the change and to return to register monitoring target window.
   - Upon completing the setting, tap [⤓] to resister contents as described in step 9 of “■ Registering unit names” (page 31).

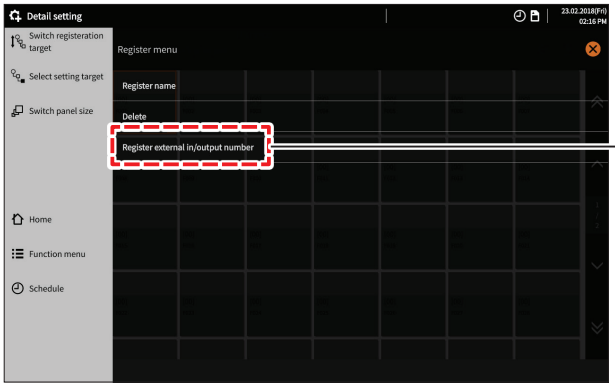
- Main Unit No.: Select main unit No. as a representative unit for the RC group from a range of 00-00 to 63-63 (refrigerant cycle - address).
  Main unit No. is required to be a combination of refrigerant cycle and address that have been detected by Central Station EX.
  Main unit No. need to be the same value on ones in the same RC group. Modify the parent number on this section if detected main unit No. for the unit and actual system configuration of RC group do not match.
- Register total heat exchanger: Set as [Inactive].
- Capacity control/Lower noise: The item selected as [Inactive] will not be displayed in monitor/schedule window.
  The configuration of [Active] and [Inactive] on this section is reflected on the item display for other windows.
- Outdoor temperature representative unit setting: Select [Active] and the temperature sensed on the given outdoor unit is shown on the upper part of the screen.

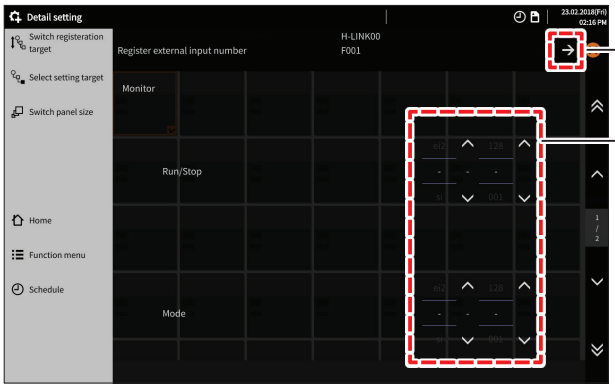
NOTICE:

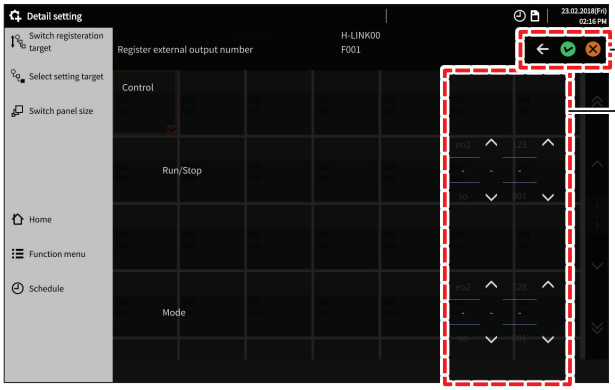
- Setting lower noise to units that do not support the function may cause malfunction on capacity control.
- The setting for capacity control/lower noise is applied in approximately 15 minutes.

■ Setting external in/output for facility units




Continue to next page.

Follow “■ Check connecting status for units” (page 27) to show facility units to register.

1. Tap facility unit to register.

- Sort the facility unit No. by ascending order and fill the panels without space to register facility units.

2. Tap [Register external in/output number].
   The window for registering external input/output number is shown.

- Tap [ Delete ] to delete registered facility unit information.

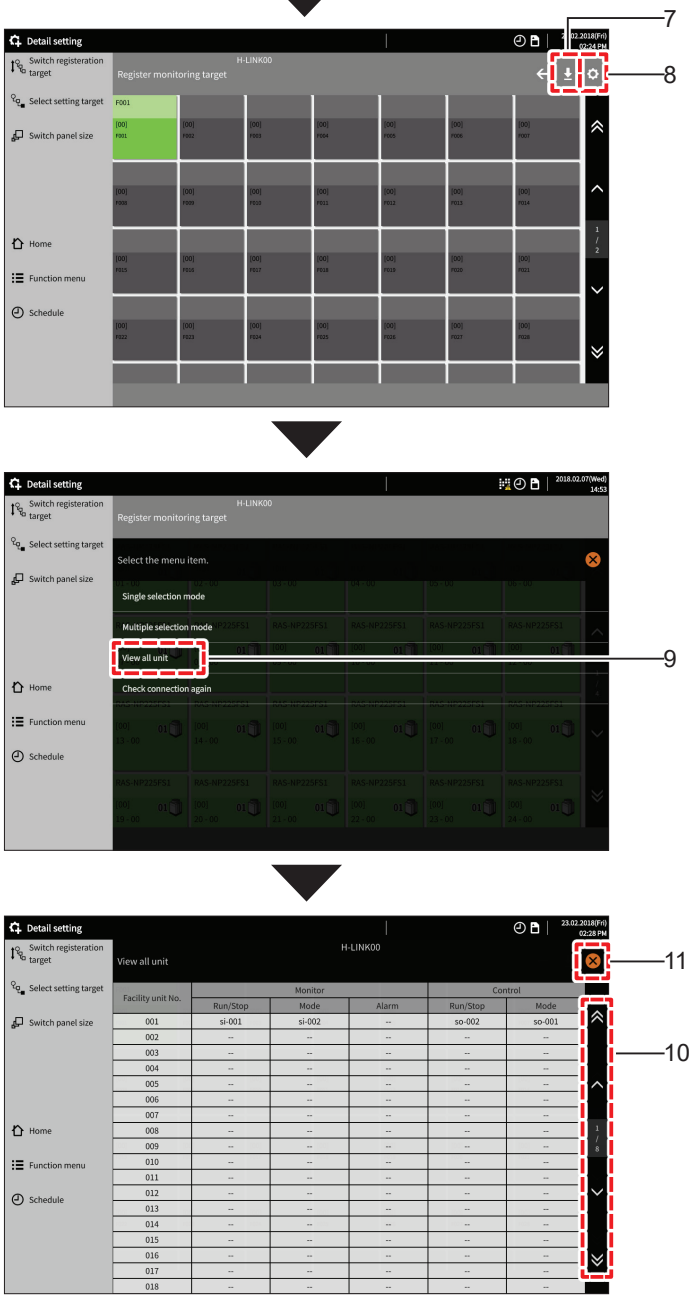
3. Tap [∧] or [∨] for each item to change setting.
   External input can be set on “Run/Stop”, “Mode”, and “Alarm” for monitoring.
4. Tap [→] to confirm setting and to go to external output setting window.

5. Tap [∧] or [∨] for each item to change setting.
   External output can be set on “Run / Stop”, and “Mode” for controlling.

6. Tap [✓] to confirm setting and to return to registering monitoring target window.
   Tap [✕] to discard the change and to return to register monitoring target window.
   Tap [←] to go to the previous page.

- For monitoring, applicable ranges are si001 - si004. Do not use ei1001 - ei1128 and ei2001 - ei2128.
- For controlling, applicable ranges are so001 - so002. Do not use eo1001 - eo1128 and eo2001 - eo2128.

Continue from previous page.




7. Upon completing the setting, tap [ ] to register the contents.

8. Tap [ ] to show menu window.

9. Tap [View all unit].
   All units are shown.

   Setting contents for specified facility unit is shown.

10. Tap [∧] or [∨] to check setting contents for facility units.
    Set the external input/output for facility units again if the setting is not correctly updated.

11. Tap [ ] to return to Register monitoring target window.

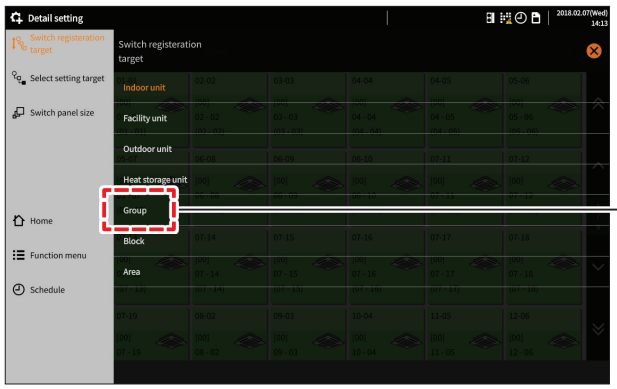
● Do not use refrigerant cycle 62-63 to use facility units.

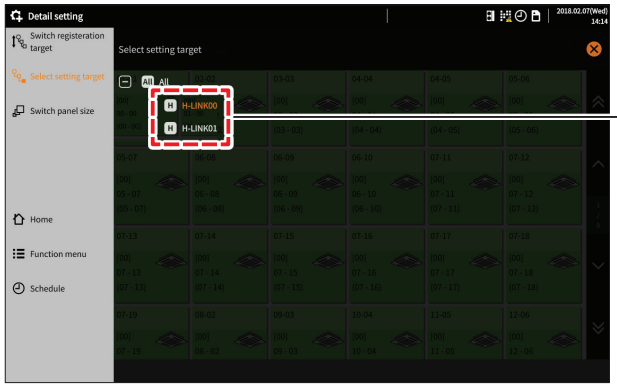
(2) Registering group

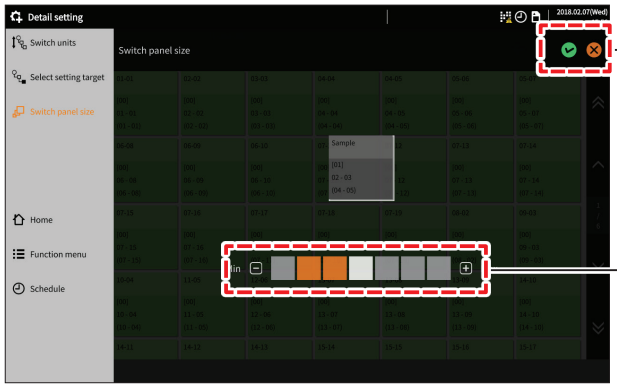
Group is a collection of target units for monitoring and controlling. Register 1 or more unit(s) in Central Station EX/Extension adapter to a group. One Central Station EX/Extension adapter can have 128 groups registered. Group registration is required for monitoring/controlling air conditioners and/or facility units.

■ Registering group name




Continue to next page.

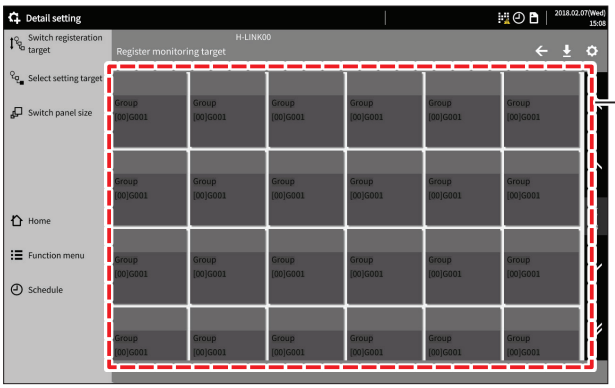
1. Tap item to switch display.
- Tap [Switch registration target] and step 2 is shown.
- Tap [Switch units to set] and step 3 is shown.
- Tap [Switch panel size] and step 4 is shown.

2. Tap [Group].
Register monitoring target window is shown.

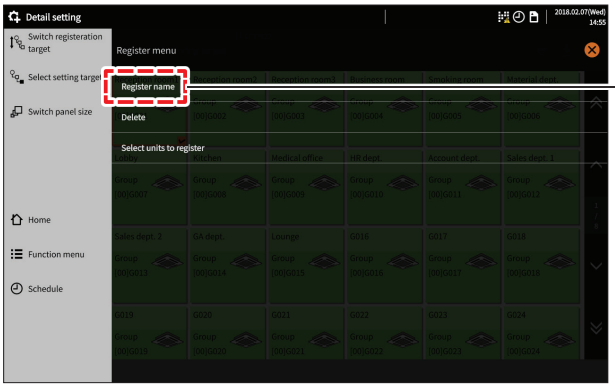
3. Tap the name of H-LINK that the group is registered in.
The register monitoring target window for specified Central Station EX or extension adapter is shown.

4. Tap [+] or [–] to change panel size.
5. Tap [✓] to confirm setting and to return to registering monitoring target window.
Tap [✕] to discard the change and to return to register monitoring target window.

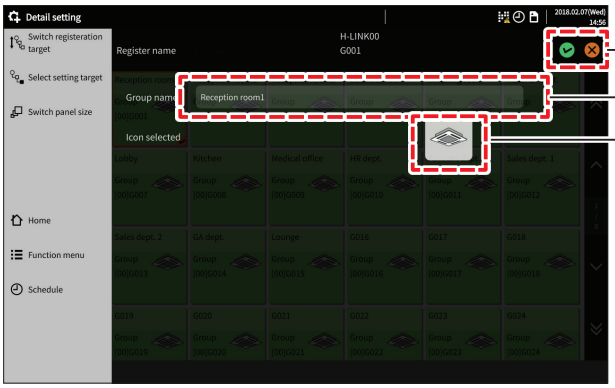
Continue from previous page.



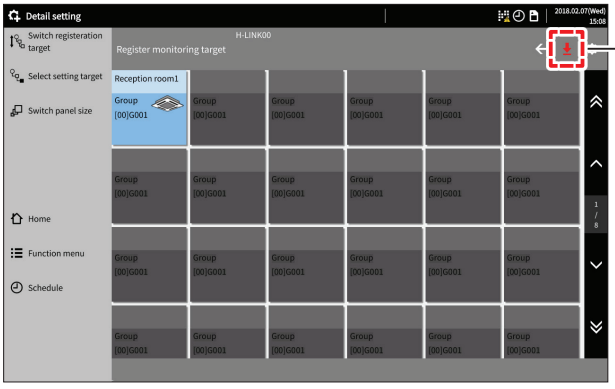

6. Tap group to register.




7. Tap [Register name].
   The window for registering name is shown.
   - Tap [Delete] to delete setting contents.

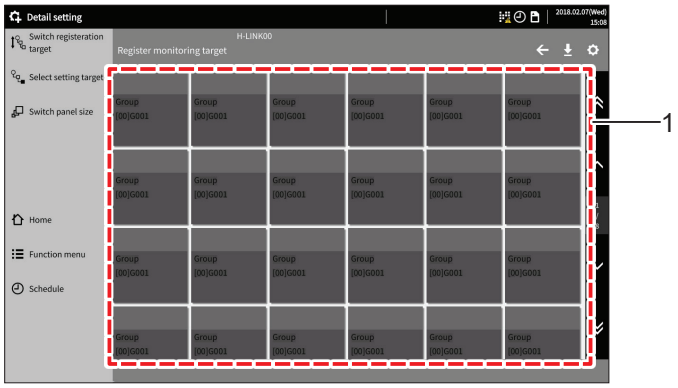



8. Shows current registered name.
   Tap input field for name to enter information on keyboard.
   The keyboard is shown.
   Regarding keyboard operation, refer to “5. Basic Window Operation” in operation manual.
   Names must be 16 characters or less.
9. Shows current registered icon.
   Tap icon to show window for selecting icon.
   Refer to step 5 of “■ Registering unit names” (page 30).
10. Tap [ ] to confirm setting and to return to registering monitoring target window.
    Tap [ ] to discard the change and to return to register monitoring target window.



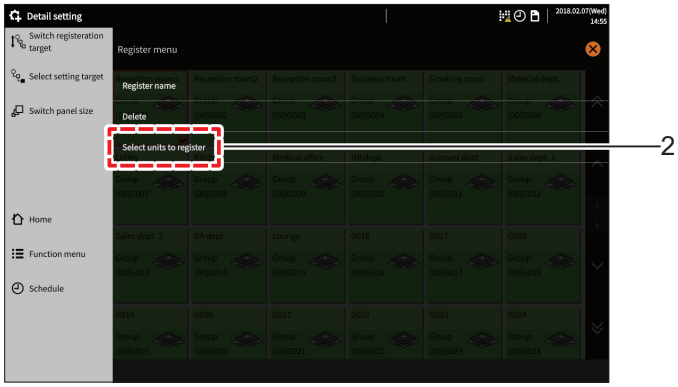

11. Tap [ ] to register the contents.
    - Make sure to tap this icon when the contents are changed.
      Otherwise the change made is not registered.
      Upon completion of registration, the panel color changes from light blue to green.

■ Allocating units to group




Follow step 2 to 5 of “■ Registering group name” (page 35) to show group to register.

1. Tap group to register.




2. Tap [Select units to register]. Select register target window is shown.

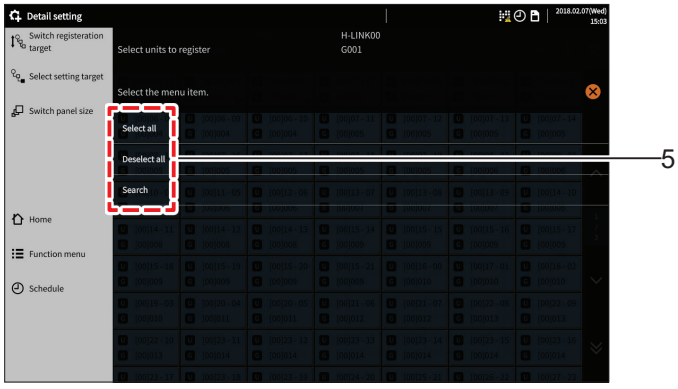
- Tap [Delete] to delete setting contents.




3. Tap panel for the unit to allocate to the specified group.

- Panels shown with background blue indicate that the unit is already allocated to other group. Blue panels can be selected but the registered data is deleted upon allocating to the new group.

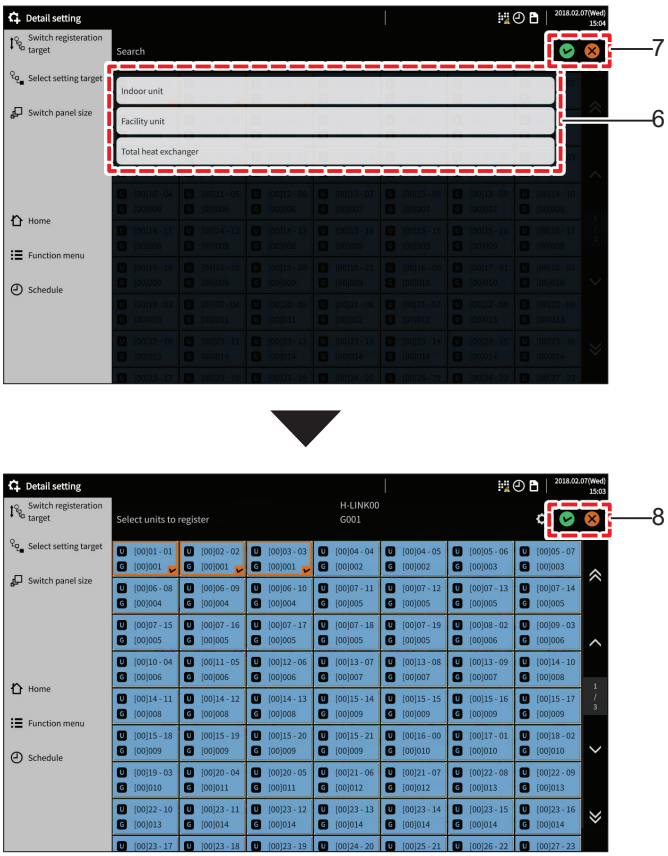
4. Tap [⚙]. Window for [Select all] and sorting is shown.




5. Tap [Select all] to select all units shown in the window.
   Tap [Deselect all] to deselect all selected units.
   Tap [Search] to show search window.

Continue to next page.

Continue from previous page.

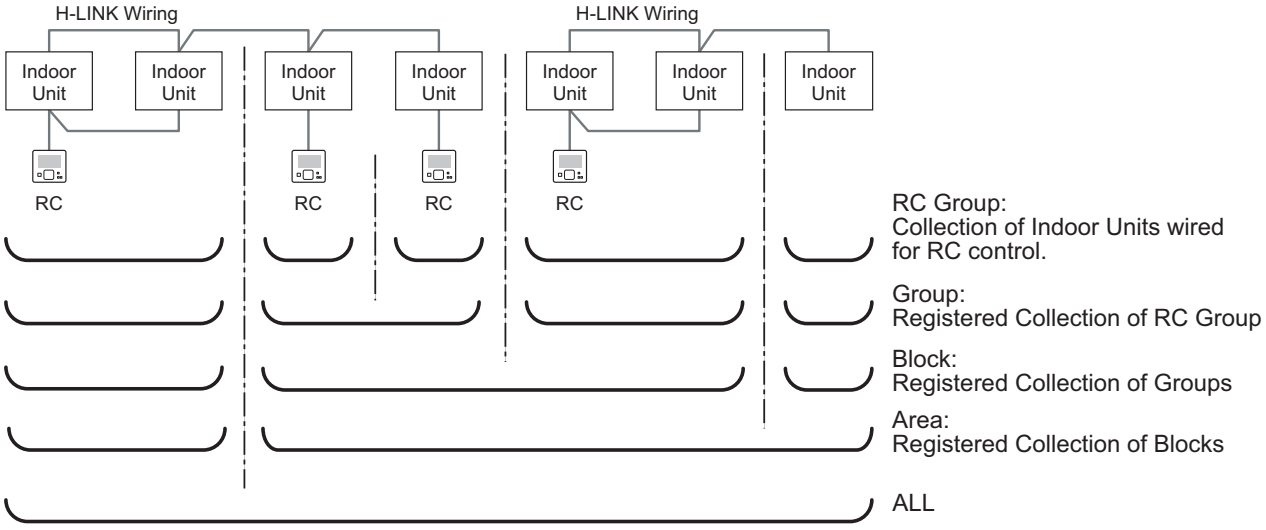



6. Tap unit type.
   The selected item is shown in orange.
   List(s) meeting at least one of the criteria is shown.
7. Tap [✓] to confirm setting and to return to registering monitoring target window.
   Tap [✗] to discard the change and to return to register monitoring target window.

- Tap selected list again and tap [✓] to cancel search.

8. Select unit to allocate to the group and tap [✓]. Setting is confirmed and the window returns to the register monitoring target window.
   Tap [✗] to discard the change and to return to register monitoring target window.

- Upon completing the setting, tap [💾] to resister contents as described in step 11 of "■ Registering group name" (page 36).




NOTICE:

- Delete schedule for the group first to change the group. Then change the this section.

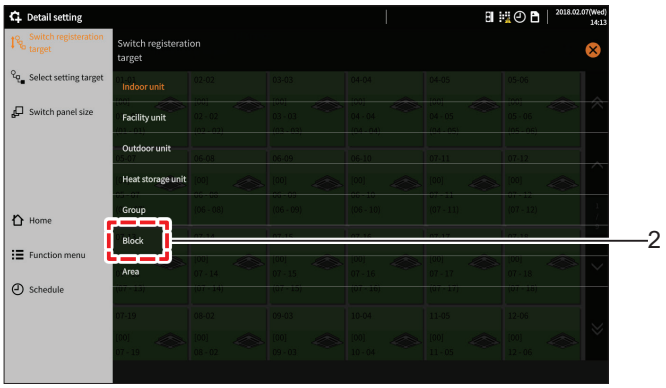
(3) Registering blocks

Block is a collection of target units for monitoring and controlling. Register 1 or more group(s) in a system to a block. One system can have 512 blocks registered. Block registration is required for monitoring/ controlling air conditioners and/or facility units.

■ Registering block name

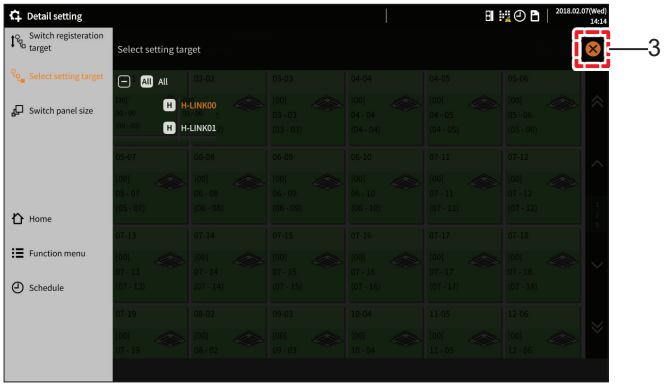



1. Tap item to switch display.
- Tap [Switch registration target] and step 2 is shown.
- Tap [Switch units to set] and step 3 is shown.
- Tap [Switch panel size] and step 4 is shown.

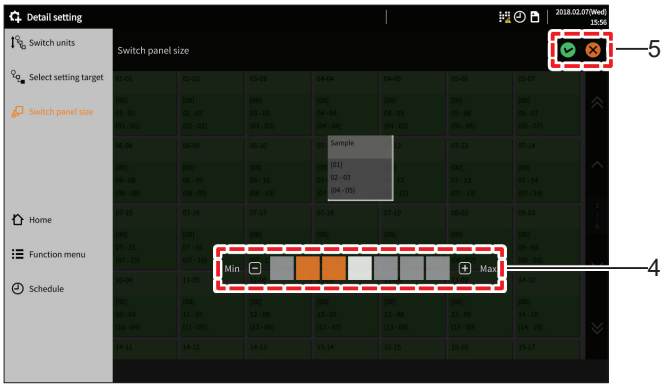



2. Tap block to register.
The registering monitoring target window for blocks is shown.

Upon registering up to Area, tree view for monitor window is created.
This window can be used for checking system configuration.



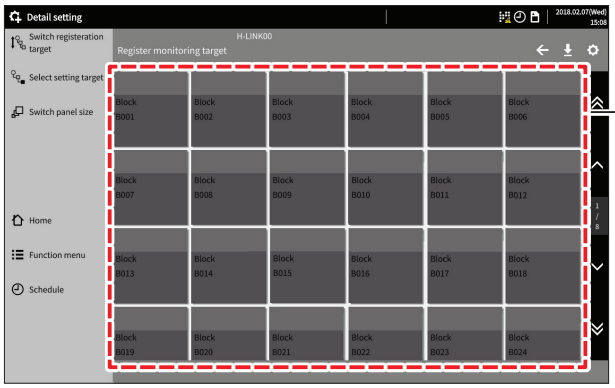

3. Tap [⊗] to return to Register monitoring target window.



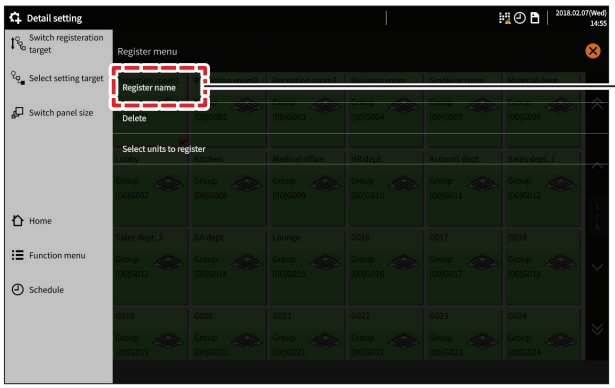

4. Tap [+] or [–] to change panel size.
5. Tap [✓] to confirm setting and to return to registering monitoring target window.
Tap [⊗] to discard the change and to return to register monitoring target window.

Continue to next page.

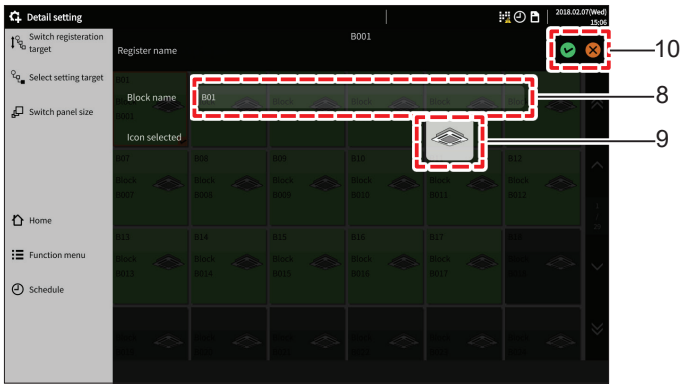
Continue from previous page.



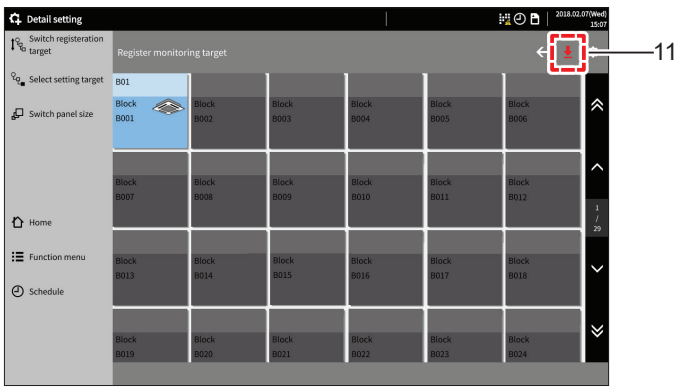

6. Tap block to register.




7. Tap [Register name].
   The window for registering name is shown.
   - Tap [Delete] to delete setting contents.

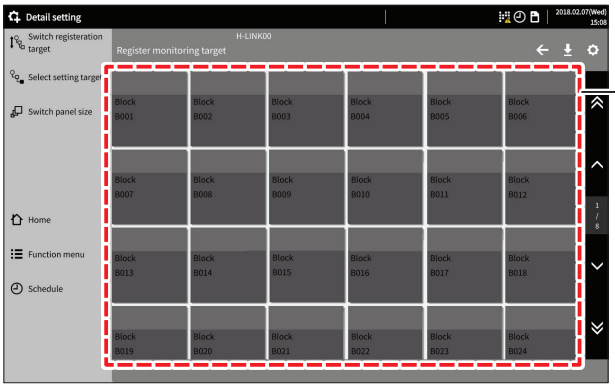



8. Shows current registered name.
   Tap input field for name to enter information on keyboard.
   The keyboard is shown.
   Regarding keyboard operation, refer to “5. Basic Window Operation” in operation manual.
   Names must be 16 characters or less.
9. Shows current registered icon.
   Tap icon to show window for selecting icon.
   Refer to step 5 of “■ Registering Unit Names” (page 30).
10. Tap [ ] to confirm setting and to return to registering monitoring target window.
    Tap [ ] to discard the change and to return to register monitoring target window.



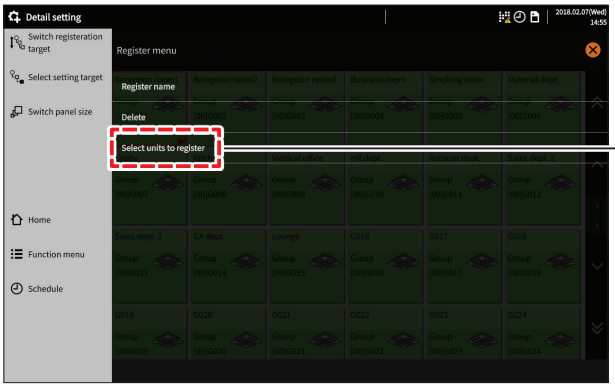

11. Tap [ ] to register the contents.
    - Make sure to tap this icon when the contents are changed.
      Otherwise the change made is not registered.
      Upon completion of registration, the panel color changes from light blue to green.

■ Select group to allocate to the block



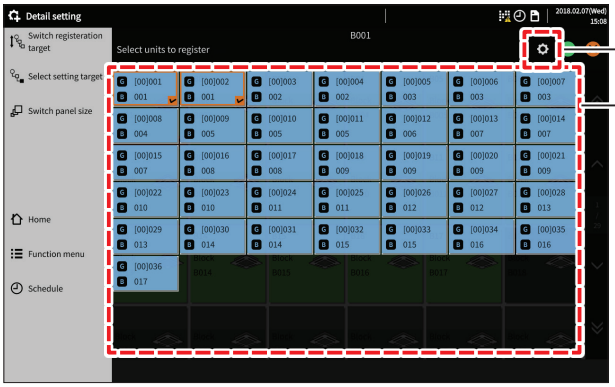

Follow step 2 to 5 of "■ Registering block name" (page 39) to show group to register.

1. Tap block to register.




2. Tap [Select units to register]. Select register target window is shown.

- Tap [Delete] to delete setting contents.




3. Tap panel for the group to allocate to the specified block.

- Panels shown with background blue indicate that the group is already allocated to other block. Blue panels can be selected but the registered data is deleted upon allocating to the new block.

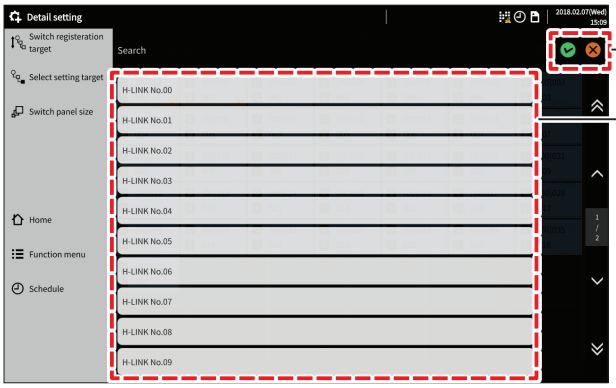
4. Tap [⚙]. Window for [Select all] and sorting is shown.




5. Tap [Select all] to select all groups shown in the window.
   Tap [Deselect all] to deselect all selected groups.
   Tap [Search] to show search window.

Continue to next page.

Continue from previous page.




6. Tap criteria used to filter the list.
   The selected item is shown in orange.
   List(s) meeting at least one of the criteria is shown.
7. Tap [✓] to show monitor window with item contents confirmed.
   Tap [✗] to discard the change and to return to register monitoring target window.

- Tap selected list again and tap [✓] to cancel search.




8. Select unit to allocate to the group and tap [✓]. Setting is confirmed and window returns to the monitoring target window.
   Tap [✗] to discard the change and window returns to the monitoring target window.

- Upon completing the setting, tap [💾] to register contents as described in step 11 of "■ Registering block name" (page 40).

NOTICE:

- To apply usage history to block, select block with 200 or less units registered. (If block contains more than 200 units registered, it may take hours to show the result).

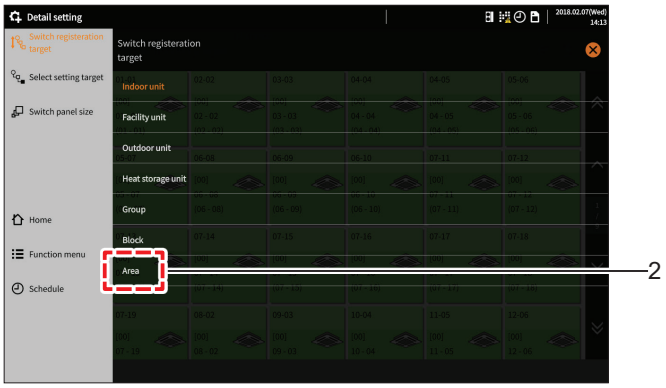
(4) Registering area

Area is a collection of target units for monitoring and controlling. Register 1 or more block(s) in a system to a Area. One system can have 512 areas registered. Area registration is required for monitoring/ controlling air conditioners and/or facility units.

■ Registering area name

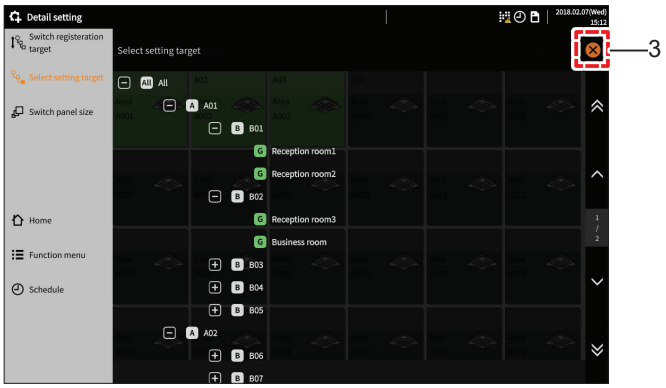



1. Tap item to switch display.
- Tap [Switch registration target] and step 2 is shown.
- Tap [Switch units to set] and step 3 is shown.
- Tap [Switch panel size] and step 4 is shown.




2. Tap area to register.
The registering monitoring target window for area is shown.

Upon registering up to Area, tree view for monitor window is created.
This window can be used for checking system configuration.



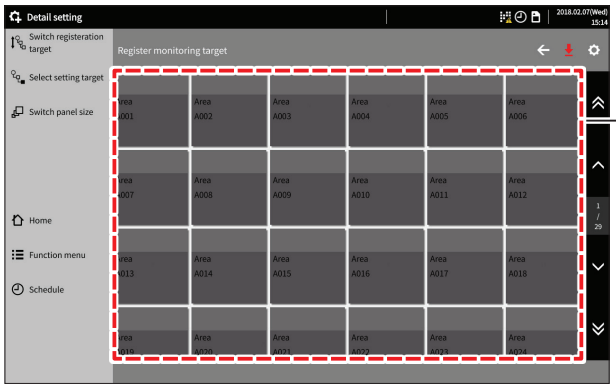

3. Tap [⊗] to return to Register monitoring target window.



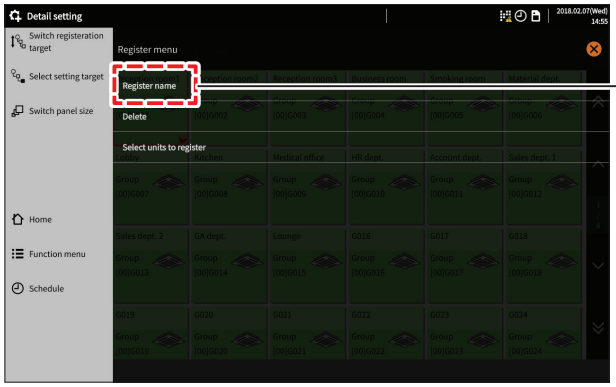

4. Tap [+] or [–] to change panel size.
5. Tap [✓] to confirm setting and to return to registering monitoring target window.
Tap [⊗] to discard the change and to return to register monitoring target window.

Continue to next page.

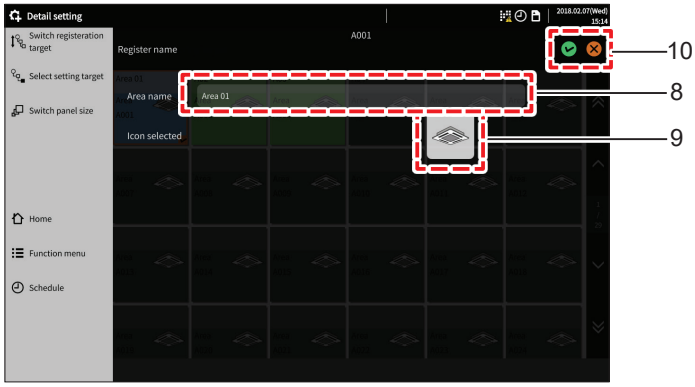
Continue from previous page.



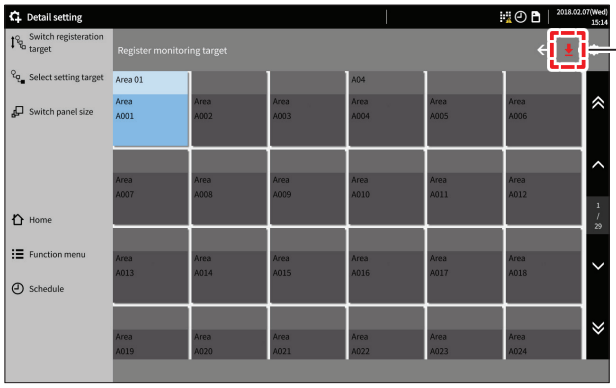

6. Tap area to register.




7. Tap [Register name].
   The window for registering name is shown.
   - Tap [Delete] to delete setting contents.

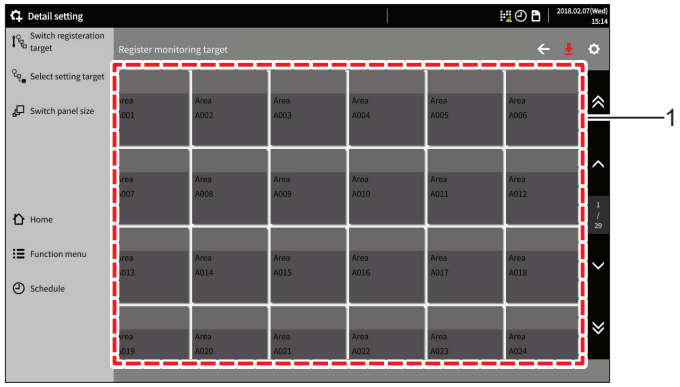



8. Shows current registered name.
   Tap input field for name to enter information on keyboard.
   The keyboard is shown.
   Regarding keyboard operation, refer to “5. Basic Window Operation” in operation manual.
   Names must be 16 characters or less.
9. Shows current registered icon.
   Tap icon to show window for selecting icon.
   Refer to step 5 of “■ Registering Unit Names” (page 30).
10. Tap [✓] to confirm setting and to return to registering monitoring target window.
    Tap [✗] to discard the change and to return to register monitoring target window.



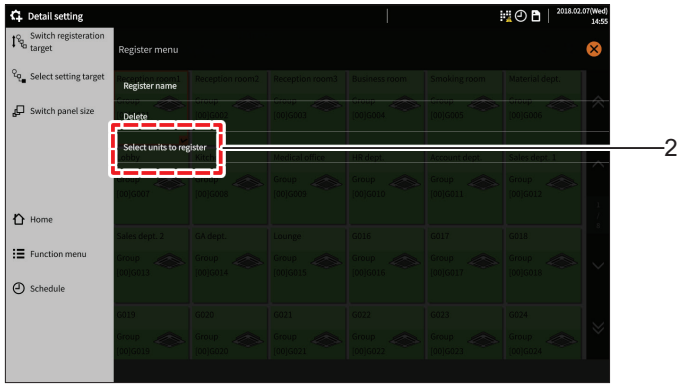

11. Tap [⬇] to register the contents.
    - Make sure to tap this icon when the contents are changed.
      Otherwise the change made is not registered.
      Upon completion of registration, the panel color changes from light blue to green.

■ Select block to allocate to the area



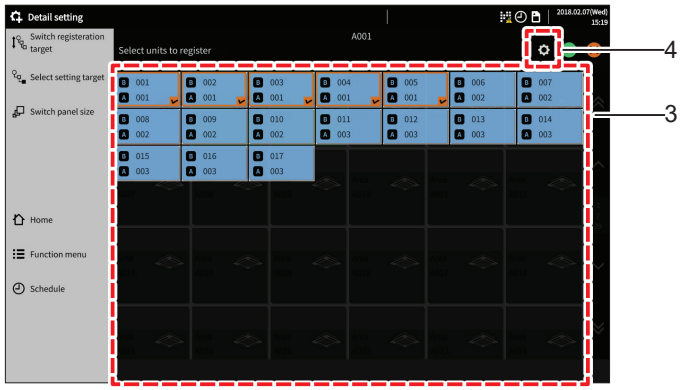

Follow step 2 to 5 of "■ Registering area name" (page 43) to show group to register.

1. Tap area to register.




2. Tap [Select units to register]. Select register target window is shown.

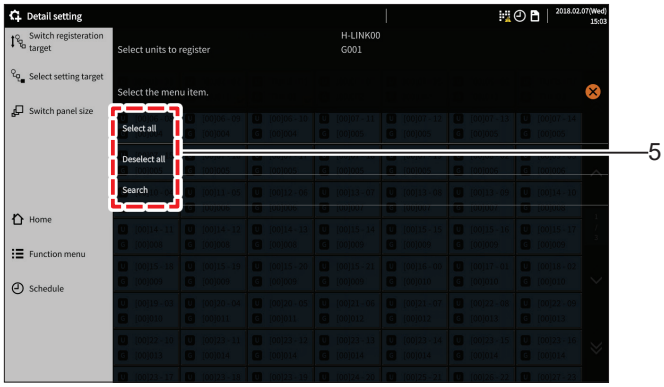
- Tap [Delete] to delete setting contents.




3. Tap panel for the block to allocate to the specified area.

- Panels shown with background blue indicate that the group is already allocated to other area. Blue panels can be selected but the registered data is deleted upon allocating to the new area.

4. Tap [⚙]. Window for [Select all] and sorting is shown.




5. Tap [Select all] to select all groups shown in the window.
   Tap [Deselect all] to deselect all selected blocks.
   Tap [Search] to show search window.

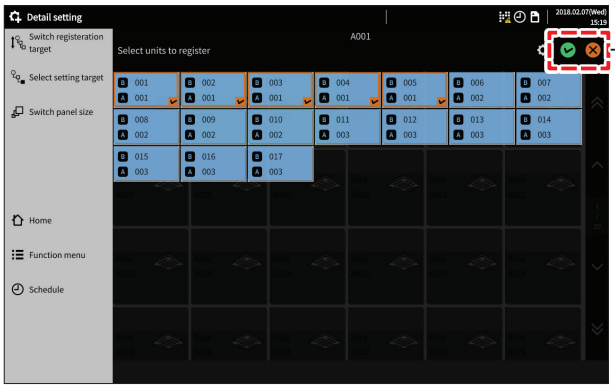
Continue to next page.

Continue from previous page.




6. Tap criteria used to filter the list.
   The selected item is shown in orange.
   List(s) meeting at least one of the criteria is shown.
7. Tap [✓] to show monitor window with item contents confirmed.
   Tap [✗] to discard the change and to return to register monitoring target window.

- Tap selected list again and tap [✓] to cancel search.




8. Tap panel for the block to allocate to specified area.
   Tap [✓] to confirm setting and to return to register monitoring target window.
   Tap [✗] to discard the change and to return to register monitoring target window.

- Upon completing the setting, tap [💾] to resister contents as described in step 11 of "■ Registering area name" (page 44).

NOTICE:

- To apply usage history to area, select area with 200 or less units registered. (If block contains more than 200 units registered, it may take hours to show the result).

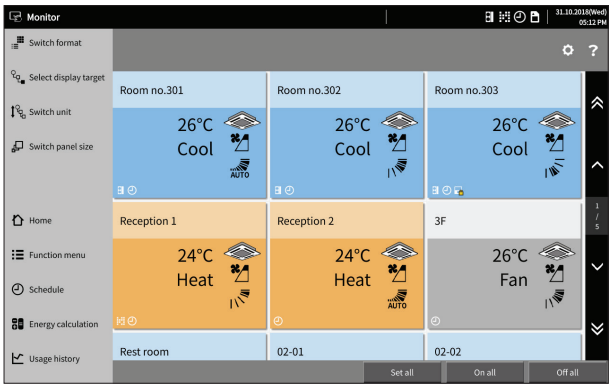
## 9.6 Test Run

### (1) Monitoring and Controlling

NOTICE:

- When setting change is made on the monitor window, the contents stay displayed (locked) for a certain period of time. This display lock expires when the units' states detected on Central Station EX match the actual operation states of the air conditioners. During this period, operations made on the remote controller are not affected on the monitor window.
- This lock can last for 7 minutes at the longest.

■ Monitoring and Controlling per unit

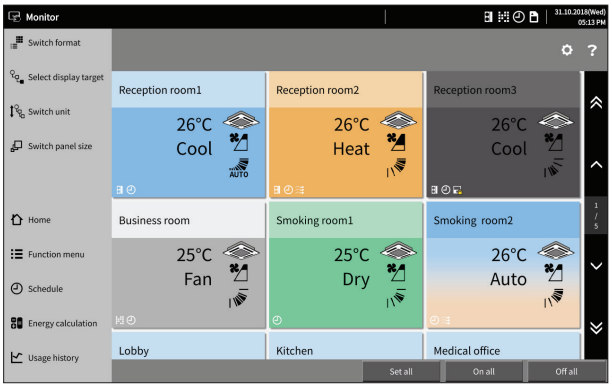



1. Set the following configuration in the monitoring window.
   - Display target: All
   - Displayed per: Unit:
   - Display format: Panel
   - Panel size: 1

   Refer to the operation manual for details of the setting procedure.
2. Control an air conditioner from remote control and check if the indication on Central Station EX and the operating air conditioner match.
3. Select an air conditioner on Central Station EX and check if the indication on Central Station EX and the operating air conditioner match.

- Conduct steps 2 and 3 on each air conditioner one by one to prevent any misreads and mistakes.

■ Monitoring and Controlling per group

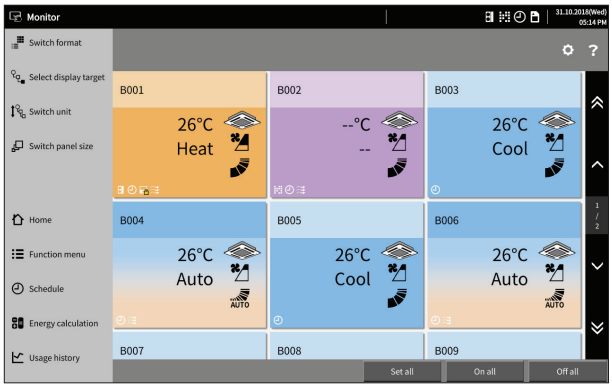



1. Set the following configuration in the monitoring window.
   - Display target: All
   - Displayed per: Group
   - Display format: Panel
   - Panel size: 1

   Refer to the operation manual for details of the setting procedure.
2. Control an air conditioner from remote control and check if the indication on Central Station EX and the operating air conditioner match.
3. Select an air conditioner on Central Station EX and check if the indication on Central Station EX and the operating air conditioner match.

- Conduct steps 2 and 3 on each group one by one to prevent any misreads and mistakes.

■ Monitoring and Controlling per block

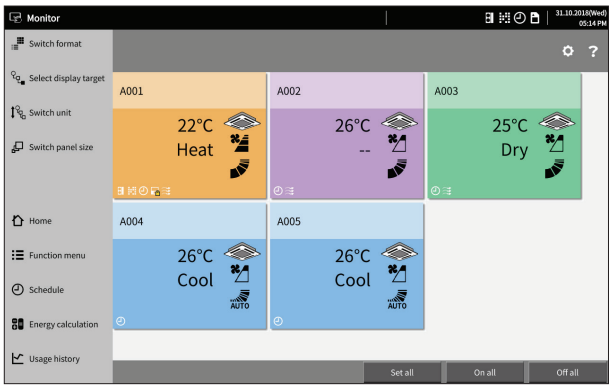



1. Set the following configuration in the monitoring window.
   - Display target: All
   - Displayed per: Block
   - Display format: Panel
   - Panel size: 1

   Refer to the operation manual for details of the setting procedure.
2. Control an air conditioner from remote control and check if the indication on Central Station EX and the operating air conditioner match.
3. Select an air conditioner on Central Station EX and check if the indication on Central Station EX and the operating air conditioner match.

- Conduct steps 2 and 3 on each block one by one to prevent any misreads and mistakes.

■ Monitoring and Controlling per area



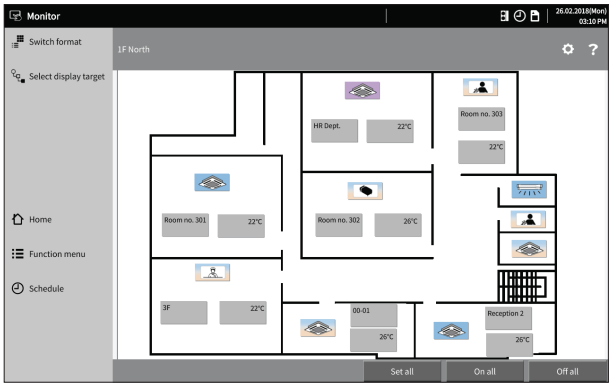

1. Set the following configuration in the monitoring window.
   - Display target: All
   - Displayed per: Area
   - Display format: Panel
   - Panel size: 1

   Refer to the operation manual for details of the setting procedure.
2. Control an air conditioner from remote control and check if the indication on Central Station EX and the operating air conditioner match.
3. Select an air conditioner on Central Station EX and check if the indication on Central Station EX and the operating air conditioner match.

- Conduct steps 2 and 3 on each area one by one to prevent any misreads and mistakes.

■ Monitoring and Controlling per layout

This step is required only when layout is registered. Refer to “10. Register Layout” (page 50) for detail.

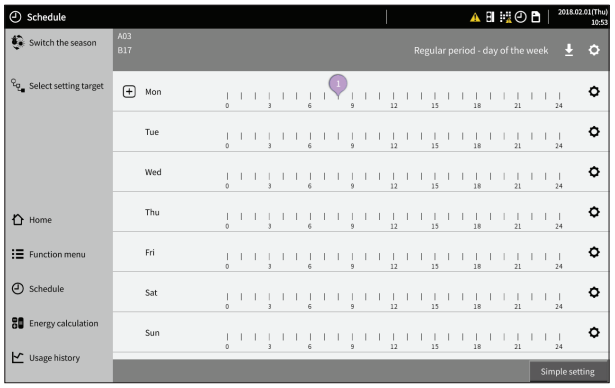



1. Set the following configuration in the monitoring window.
   - Display target: Each layout
   - Display format: Layout
2. Control an air conditioner from the remote control and check if the indication on Central Station EX and the operating air conditioner match.
3. Select an air conditioner on Central Station EX and check if the indication on Central Station EX and the operating air conditioner match.

- Conduct steps 2 and 3 on each layout one by one to prevent any misreads and mistakes.

■ Monitoring and Controlling per RC-less air conditioner

If there is an RC-less air conditioner is in the system, follow the instructions below to ensure that the control state of the RC-less air conditioner on Central Station EX and the actual operation state of the air conditioner match.




1. Set the following configuration in the schedule window.
   - Season: Regular season - day of the week
   - Setting target: Group in which RC-less air conditioner is registered.

   * Block, Area and All can also be set up.
2. Set the following operation pattern to start in 5 minutes.

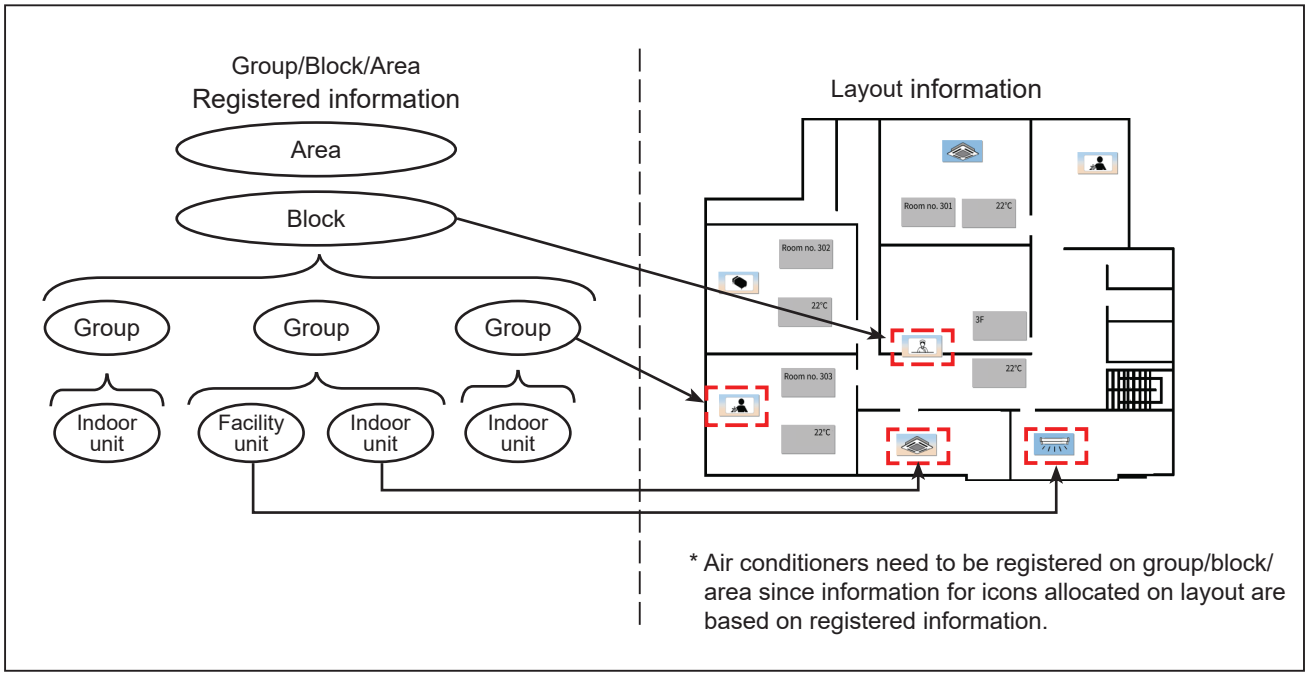
| Run/Stop | Operation mode | Temp. | Fan speed | Louver |
|---|---|---|---|---|
| Run | Fan | 28°C | Low | 1st step |

3. At the scheduled time (5 minutes after step 2), check if the operation pattern dispalyed in Central Station EX, the operation pattern from step 2, and the actual operation state of the air conditioner all match.
4. Delete the schedule for the time set in step 2.

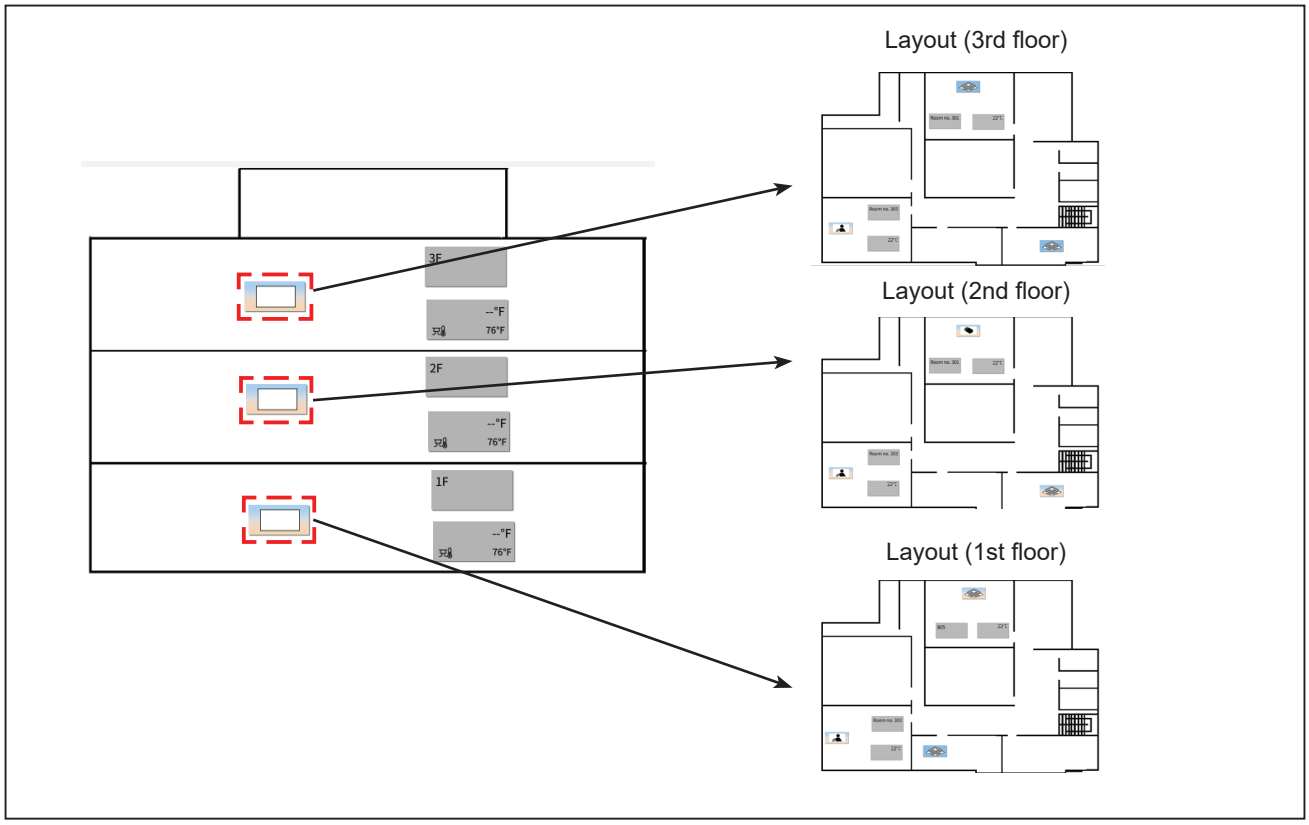
## 10. Register Layout

Layout is a collection of target units for monitoring and controlling.  1 layout can contain up to 256 icons, in total, for indoor units/groups/areas/facility units.
Layout registration is required for monitoring/controlling air conditioners and/or facility units via the layout window.
Images in the layout must be 30MB in total.
Concept

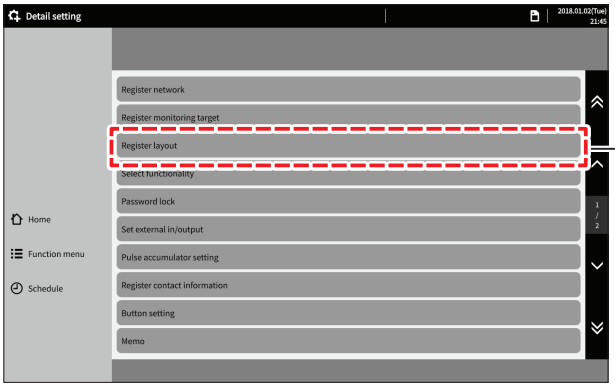
Layout window provides monitoring/controlling air conditioners and usage history view with area/block/group/indoor units/facility units are illustrated with a bird's eye view shortcut to each function.



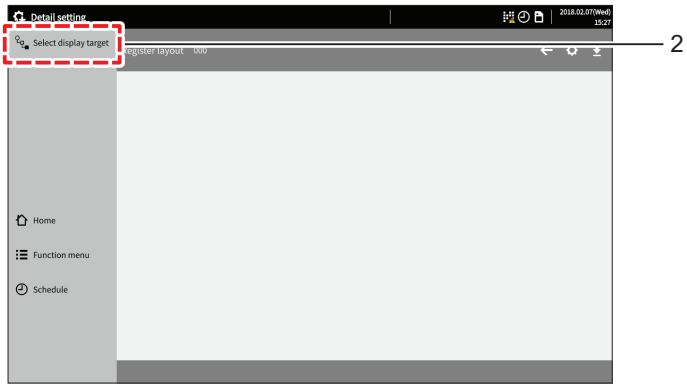

Multiple layouts (001-127) can be allocated on layout 000.



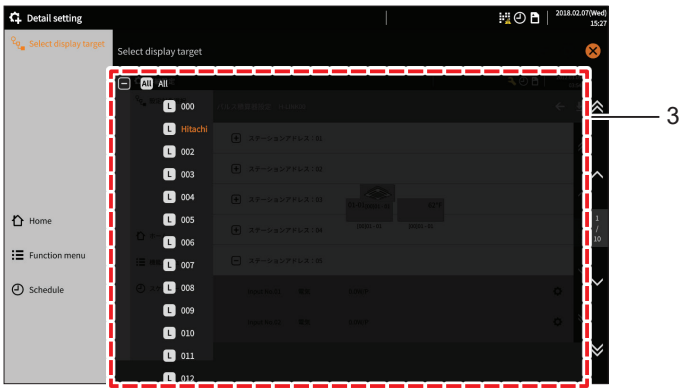
## 10.1 Registering Layout



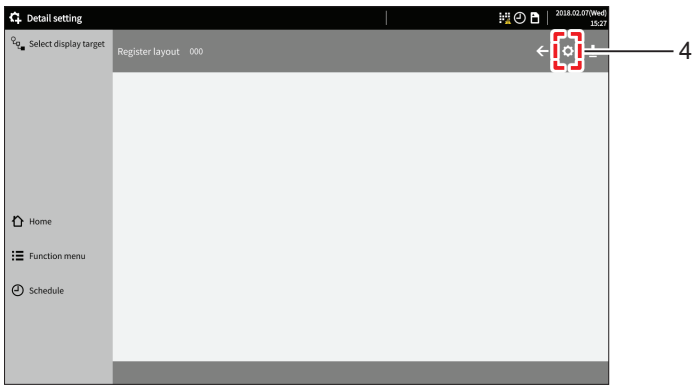

1. Tap [Register layout] on detail setting window.
   The window for registering layout is shown.




2. Tap [Select setting target] on registering layout window.
   Select display target window is shown.



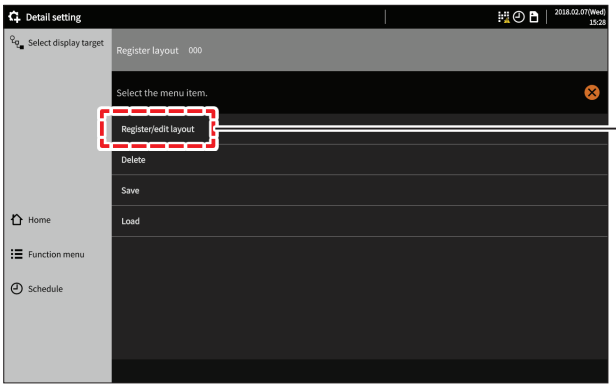

3. Tap layout to register/edit.
   Registration window for selected layout is shown.



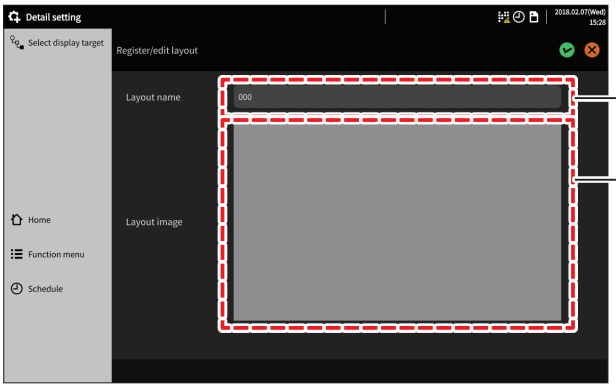

4. Tap [⚙].
   Setting menu is shown.

Continue to the next page.

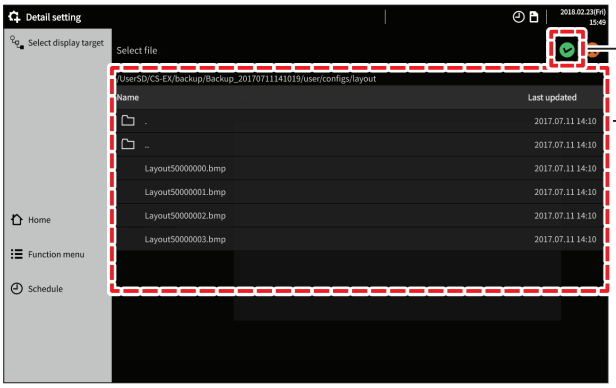
Continue from previous page.



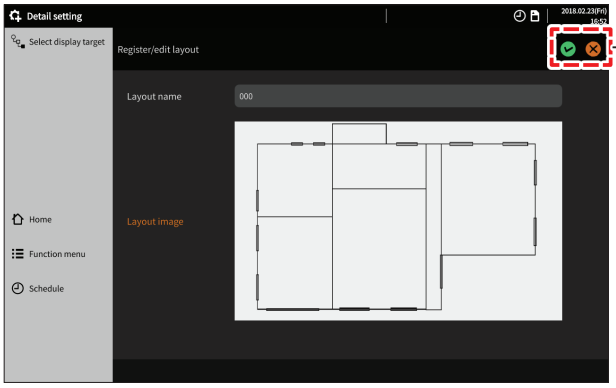

5. Tap [Register/edit layout].
Window for registering/editing layout is shown.




6. Tap input field for layout name to enter information on keyboard.
The maximum length for name of layout is 16 characters.
"(,) comma" and "(;) semicolon" cannot be used for layout name.
7. Tap field for layouts.

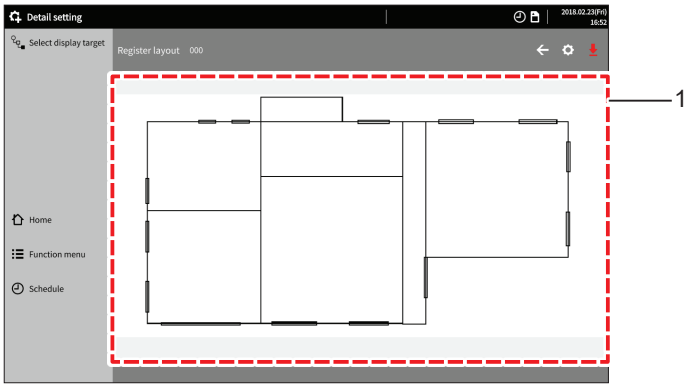



8. Select image to show.
Supported extensions: "jpg", "bmp" and "png".
The image size needs to be less than 610 pixel (H) x 1,050 pixel (W) and placed in "CX-EX" folder on SD card.
   - Since the images will stick out when exceeding the display range above, adjust the image data in advance.
9. Tap [✓] to confirm setting and to return to registering/editing layout window.

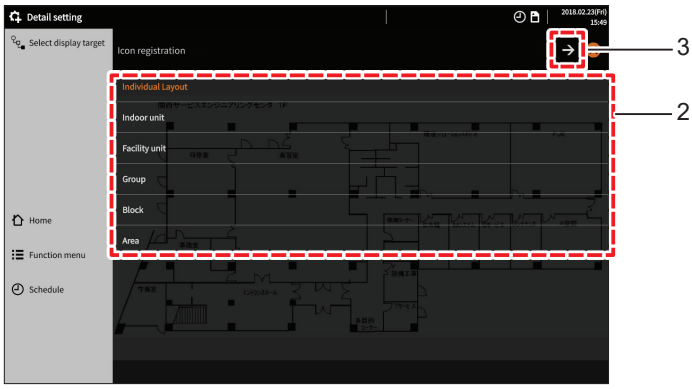



10. Tap [✓] to confirm setting and to return to registering layout window.
Tap [✗] to discard setting and to return to registering layout window.
11. Upon completing setting, refer to "10.7 Saving Registered Layout" (page 59) to save data.

## 10.2 Allocating Icons

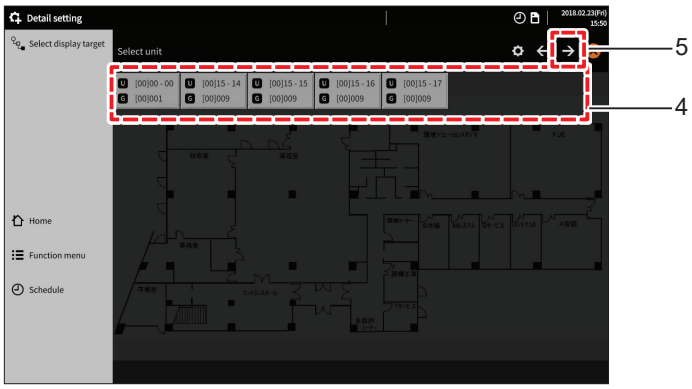



1. Tap a layout background that icons are to be allocated on.
   The window for registering icon is shown. Tap exactly where the icon shall be placed.

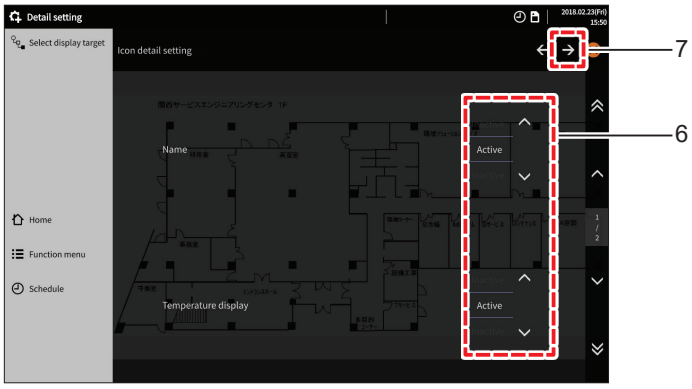



2. Select the icon type.
   - Layout (Shown only when layout 000 is selected)
   - Area
   - Block
   - Group
   - Indoor unit
   - Facility unit

3. Tap [→]. Panel selection window appears.



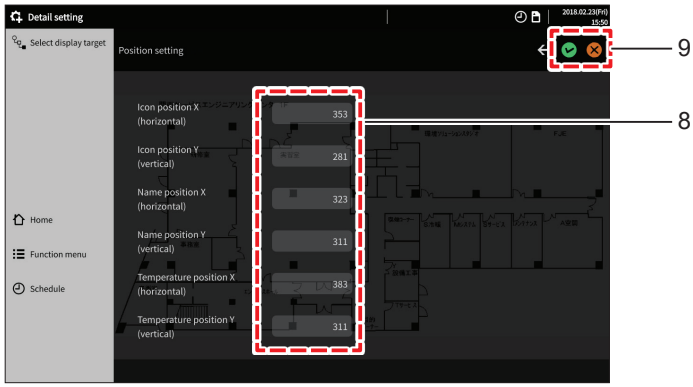

4. Select panel to allocate.
5. Tap [→] to show icon detail setting window.




6. Select whether or not to show name/ temperature and the size for the icons.
   Tap [∧] or [∨] to change setting items.
   Facility units do not display temperature.
   (It is not shown on the screen)
7. Tap [→] to show position setting window.

Continue to the next page.

Continue from previous page.

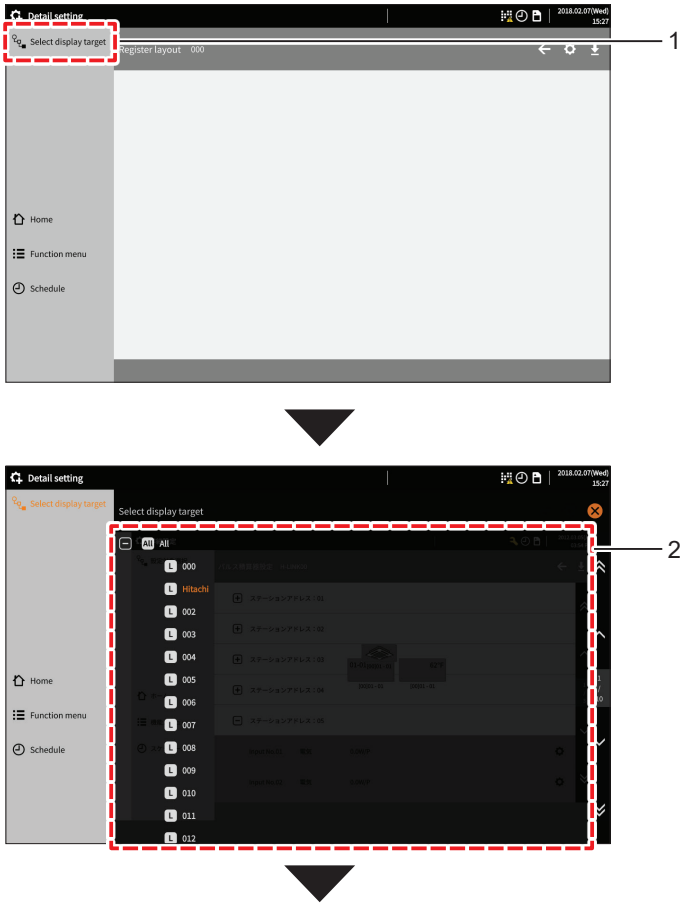



8. Enter coordinates for the icon.
   Input fields have coordinates for the position tapped on step 1 as a default.
   Top left of the layout display area will be the starting point.
9. Tap [✓] to confirm setting and to return to layout window.
   Tap [✕] to discard the change and to return to layout window.

NOTICE:

Ensure allocated icons are not overlapped with each other.

## 10.3 Deleting Layout

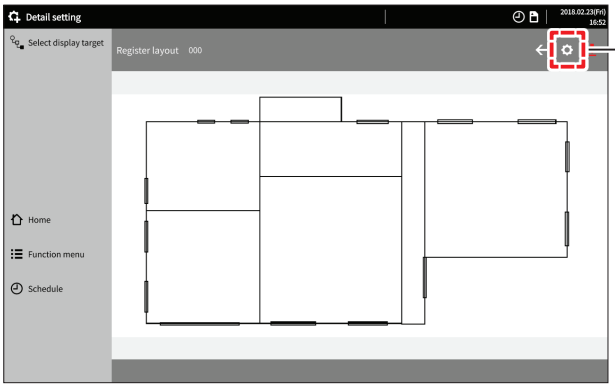



Continue to the next page.

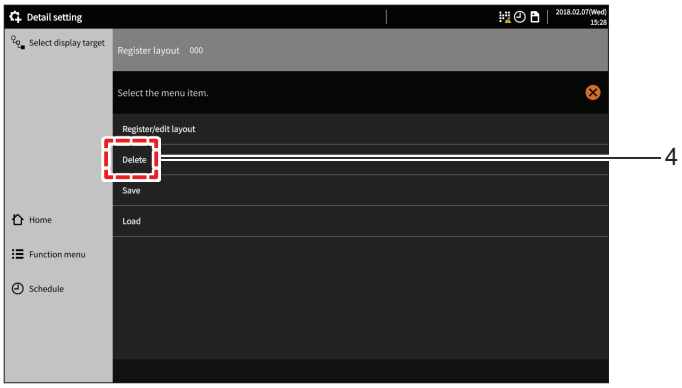
1. Tap [Select Display target] on registering layout window.
   Select Display Target is shown.

2. Tap layout to delete.
   The window for registering layout is shown.

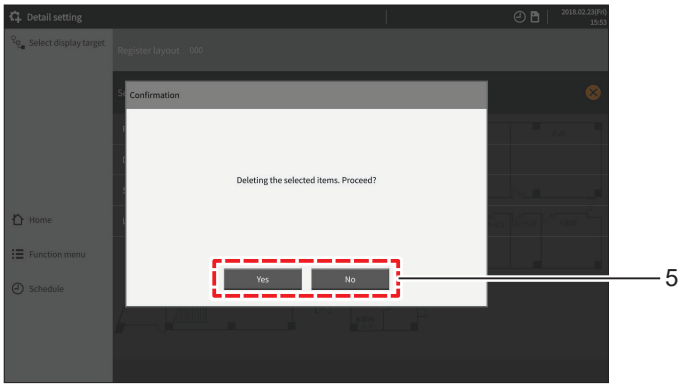
Continue from previous page.




3. Tap [⚙].
   Setting menu is shown.

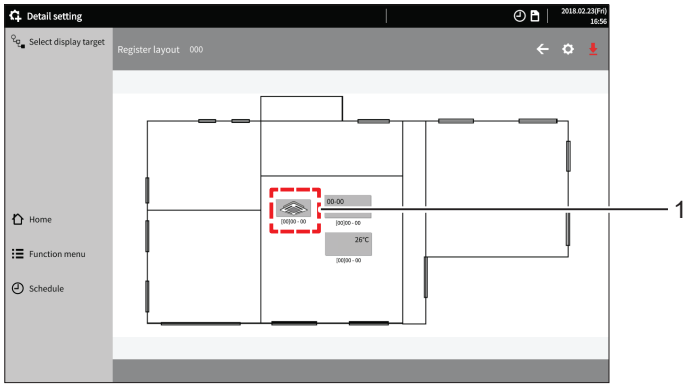



4. Tap [Delete].

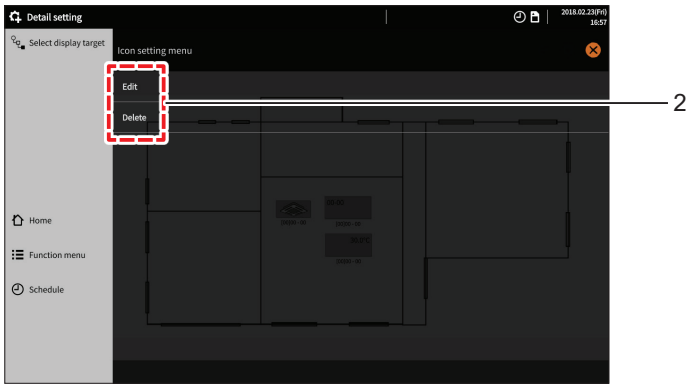



5. Confirmation pop up is shown. Tap [Yes] to delete layout that is currently shown, close the pop up message, and return to registering layout window.
   Tap [No] to leave the layout undeleted and return to setting menu.
6. Refer to “10.7 Saving Registered Layout” (page 59) to save data.

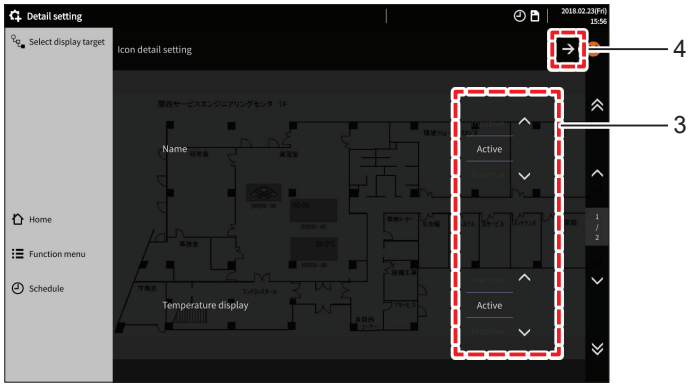
## 10.4 Editing/Deleting Registered Icons



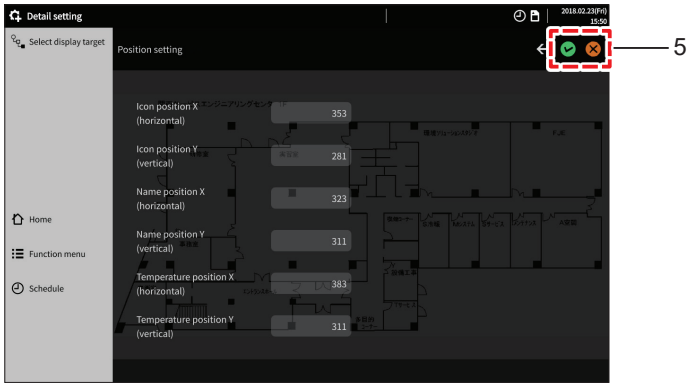

1. Tap unit icon to edit/delete on layout window.
   Icon setting menu is shown.




2. Tap [Delete] and then [Yes] on confirmation pop up window to delete icon and return to registering layout window.
   Tap [Edit] and refer to 3 and later.




3. Edit icon information on icon detail setting window.
4. Tap [ → ] or [ ← ] to switch icon detail setting window and position setting window and edit icon information.
   Regarding the detail of each window, refer to step 6 to 8 in “10.2 Allocating Icons” (pages 53-54).

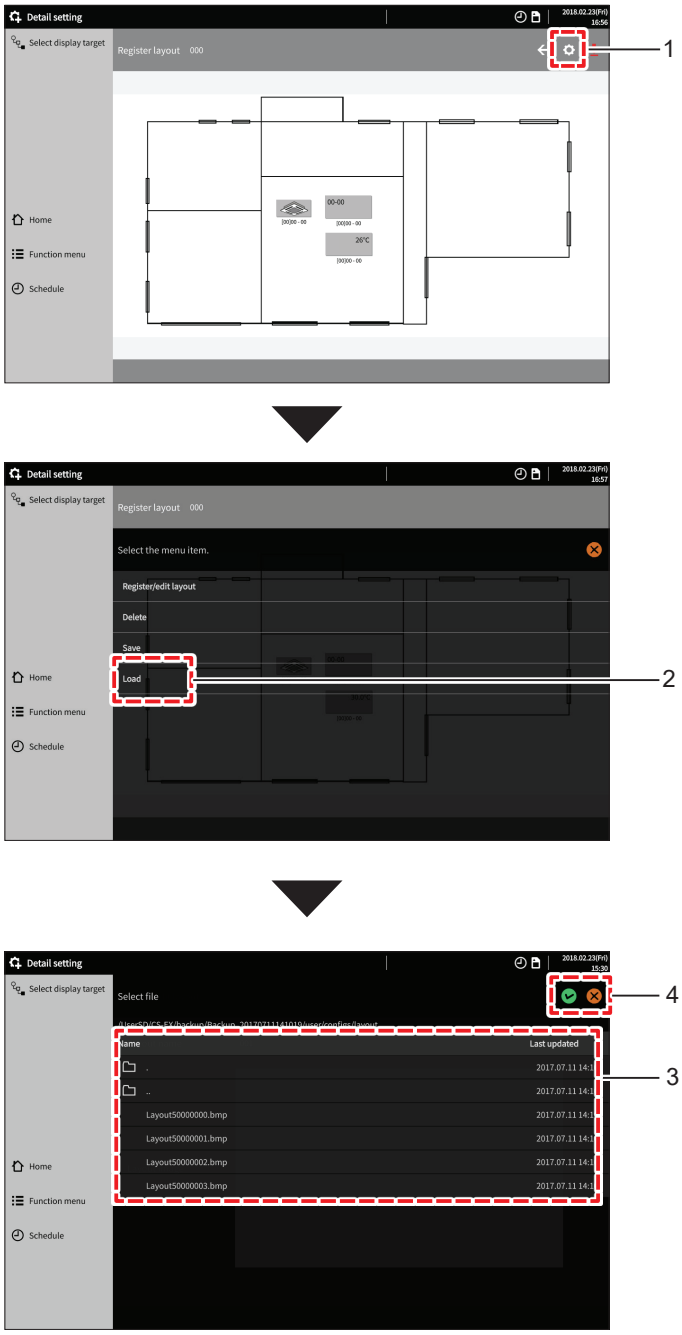



5. Tap [ ] to confirm setting and to return to registering layout window.
   Tap [ ] to discard the change and to return to registering layout window.
6. Refer to “10.7 Saving Registered Layout” (page 59) to save data.

NOTE:

Tap and drag the icon both vertically and horizontally.

## 10.5 Loading Layout Data

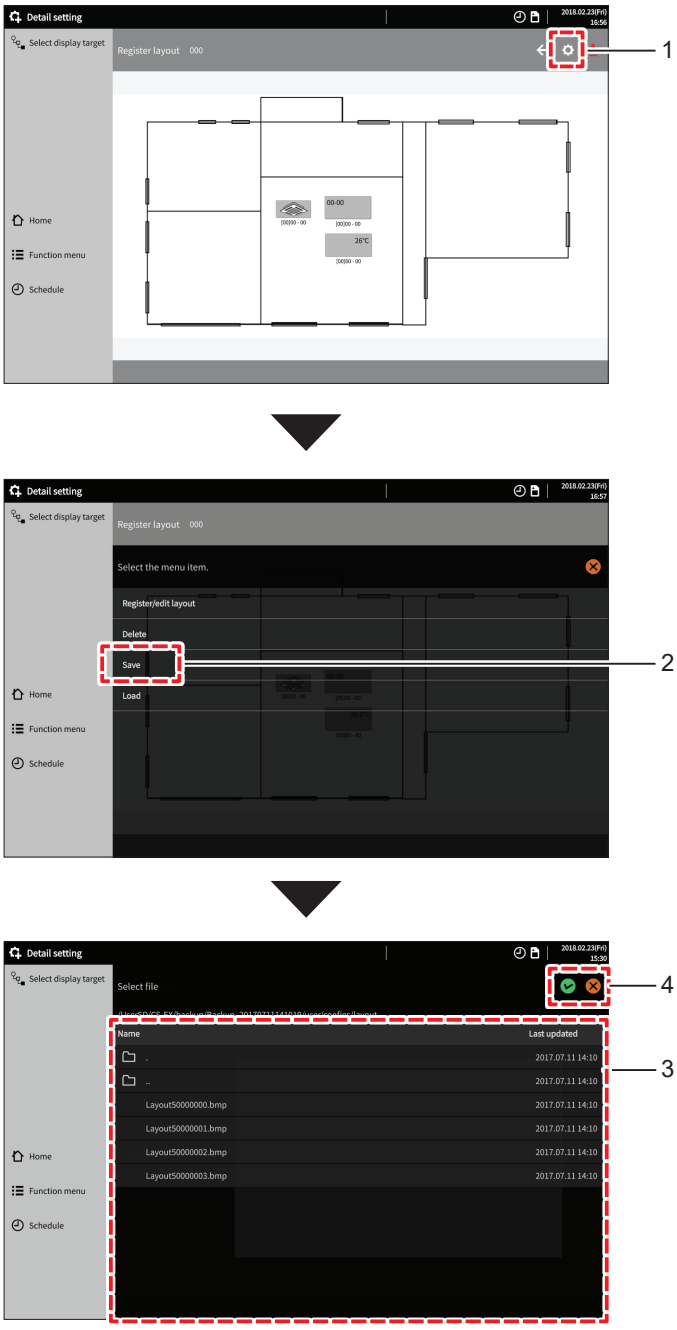



1. Tap [⚙] on registering layout window.
   Setting menu is shown.

2. Tap [Load].
   The window for selecting file is shown.

3. Select file to load.
4. Tap [✓] to confirm setting and to return to registering layout window.
   Tap [✕] to cancel loading and to return to registering layout window.

## 10.6 Saving Layout Data

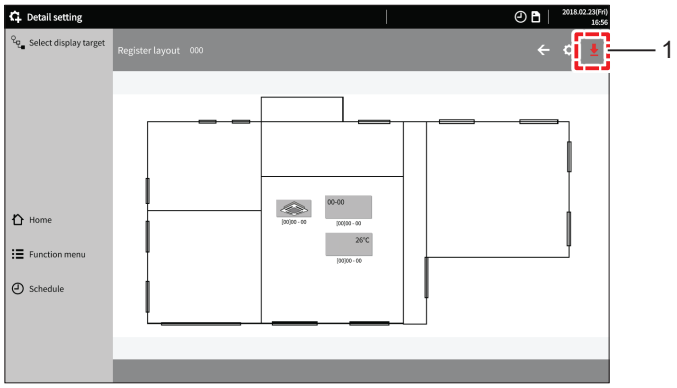



1. Tap [⚙] on registering layout window.
   Setting menu is shown.

2. Tap [Save].
   The window for selecting folder is shown.

3. Select folder to save.
4. Tap [✓] to save the layout data and to return to registering layout window.
   Tap [✗] to cancel data saving and to return to registering layout window.

## 10.7 Saving Registered Layout

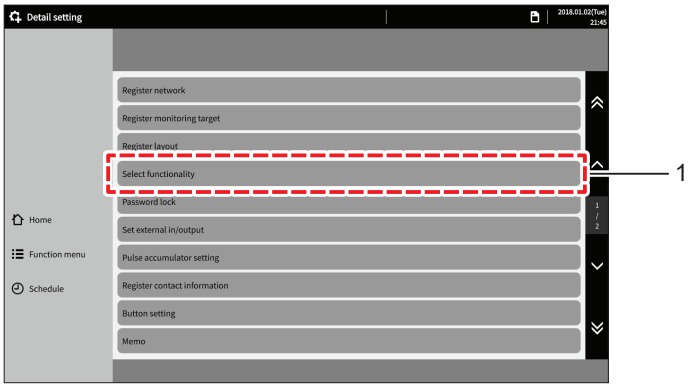


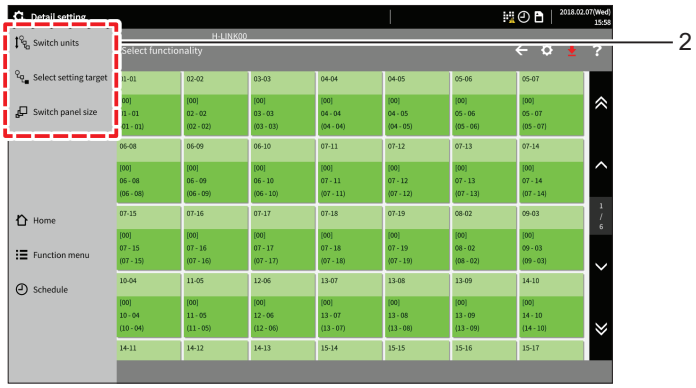

1. [⬇] flashes after editing layout information.
2. Tap [⬇] while [⬇] is flashing to save the contents.
   Otherwise the change made is not registered.

# 11. Function Selection

Central Station EX provides, as options, advanced settings such as “Mode fixed” and “Auto cool/heat” in addition to basic functions such as “Run/Stop” and “Mode”. Use the optional functions from “Function selection”. Select functions for indoor/outdoor units. These functions cannot be set while the unit is in operation.
Ensure the unit is not running to set functions.
NOTE: Contact your distributor before changing settings for outdoor units

## 11.1 Editing Function Selection







1. Tap [Select functionality] on detail setting window.
   Function selection window is shown.

2. Tap item to switch display.
   - Tap [Switch units] and step 3 is shown.
   - Tap [Select setting target] and step 4 is shown.
   - Tap [Switch panel size] to change panel size.

3. Tap the type of unit to set.
   Function selection window for the specified unit is shown.

Continue to the next page.

Continue from previous page.



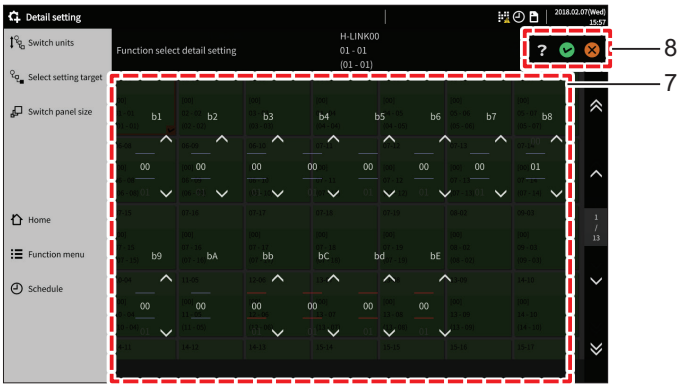

4. Tap setting target.
Function selection window for the specified target is shown.




5. Tap panel of the target to set.



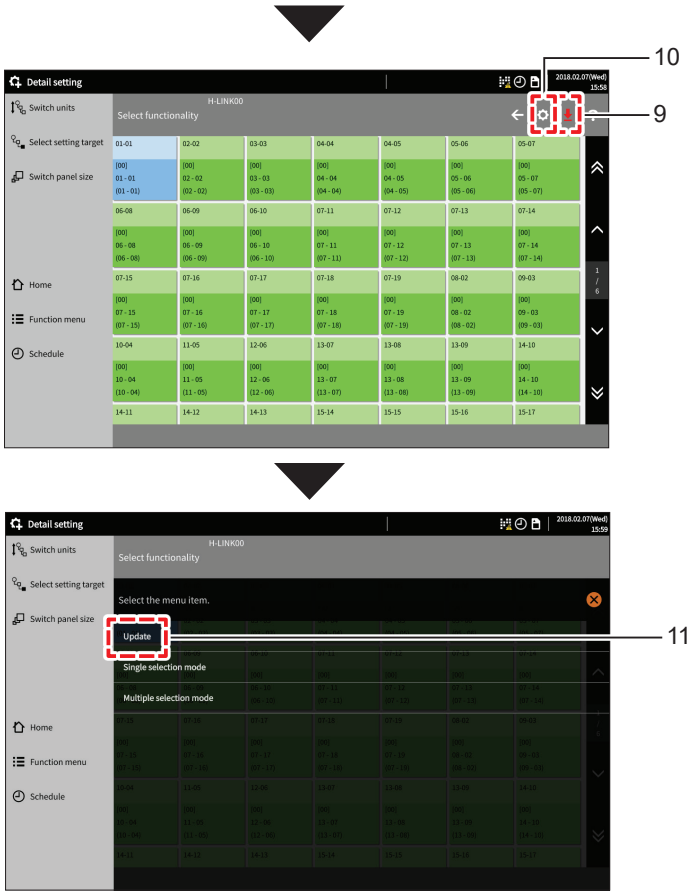

6. Tap [Edit].
- Tap [Initialize] to initialize function selection for unit(s).




7. Edit each item in function selection.
8. Tap [?] to show brief description for some of the functions.
Tap [✓] to confirm setting and to return to function selection window.
Tap [✗] to discard setting and to return to function selection window.
- Functions applicable only for indoor units that support dual setpoints have green bars indicated above and below the value.

Continue to the next page.

Continue from previous page.




9. Tap [ ] to confirm and reflect the setting contents.
   [ ] blinks to indicate the setting contents have not been saved.
10. After the setting contents are confirmed, wait approximately 2 minutes and tap [ ].
11. Tap [Update]. Go back to step 5 to check if the setting contents for function selection are reflected.

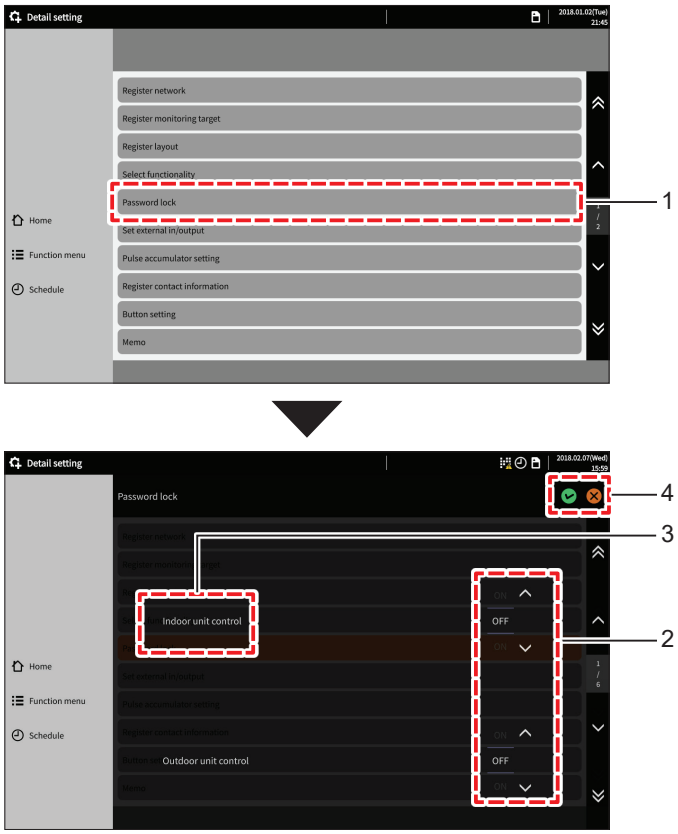
NOTICE:

- Supported functions are unit-type specific. Some units may not reflect all setting content. Refer to the installation and maintenance manual and the operation manual for each unit and RC for details.
  If any change is made on function selection on units such as unit temperature range, tap [Register unit] to verify the connection. Use registered data to verify the connection.
- If the indoor circuit board, wired controller, or receiver kit controller are changed, reconfigure as necessary.
- If 2 or more central controllers are connected to the system, use Central Station EX, NOT another type of central controller, to set function selection.
  Upon setting b8 (Auto cool/heat) on Central Station EX, however, set as the same as Central Station EX on all central controllers where available.
- When using RC operation prohibit function as following condition, do not turn the operation lock on from the monitor window. Also, do not change the setting of F8~Fb (Operation lock).
  (a) Indoor unit: Units that support H-LINK II except for on wall type that has RC other than (b)/(c) connected.
  (b) Advanced wired remote controller: PC-ARF1
  (c) Simplified wired remote controller: PC-ARH1
  (d) Receiver kit: PC-ALHP1, PC-ALHC1, PC-ALHD1, PC-ALHS1, PC-ALHP1, PC-ALH3, PC-ALHZ1
- When using RC operation prohibit function, set d1 and d3 (Power Supply ON/OFF) as 00.
- A remote controller must be used to set the function selections for a unit.
- Only b1~FF, i1~i2 and o1~o3 are available for units that do not support dual-setpoints.
- To set b4 (filter sign time) on the Central Station EX, be sure to reset and verify that the filter indicator for the air conditioner and for the RC turns OFF.

# 12. Setting Password Lock

Central Station EX can have password set for each respective control item in addition to password for restricting users who have access to detail setting window. This section provides window for setting password for showing windows and control items.

## 12.1 Setting Password




1. Tap [Password lock] on detail setting window.
   Password lock window is shown.

2. Set ON for each item to set password. Set OFF for each item to lift password lock.
3. For items with active password, tap input field to enter password to set. Password can be up to 8 numbers. Passwords can be set respectively for each item.
4. Tap [✓] to confirm setting and to return to detail setting window.
   Tap [✗] to discard the change and to return to detail setting window.

Password can be set for following items.

| Password Item | Description |
|---|---|
| Password for indoor unit control | Use this password to restrict users who have access to indoor unit control. |
| Password for outdoor unit control | Use this password to restrict users who have access to outdoor unit control. |
| Password for switching limitation on operation | Use this password to restrict users that can modify setting for “Switching operation limitation” in “Register name for monitoring target” window. |
| Operation invalid time password | Use this password to restrict users who have access to all operations after specified expiration time. |
| Password for schedule window | Use this password to restrict users who have authority to show schedule window. |
| Password for basic setting window | Use this password to restrict users who have authority to show basic setting window. |
| Password for detail setting window | Use this password to restrict users who have authority to show detail setting window. The default password is “2468”. |
| Password for usage history window | Use this password to restrict users who have authority to show usage history window. |
| Password for history window | Use this password to restrict users who have authority to show history window. |
| Password for showing energy calculation window | Use this password to restrict users who have authority to show energy calculation window. |
| Password for setting energy calculation | Use this password to restrict users who have authority to set energy calculation. The default password is "2468". |

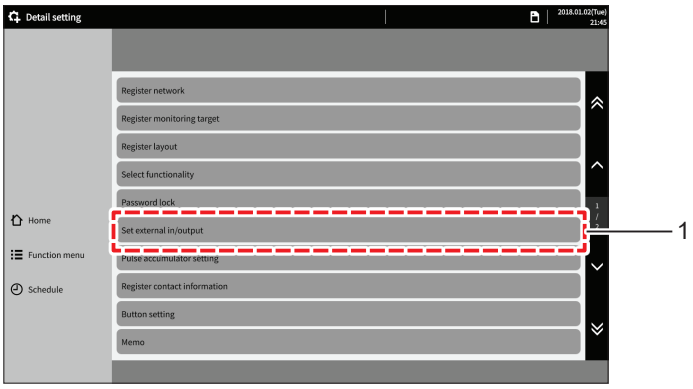
NOTE:

- If any of the password are to be set active, it is recommended to set password for detail setting window because all passwords can be changed/edited on detail setting window.
- Passwords set in this section are also applied to Remote Access software except for Operation invalid time password.

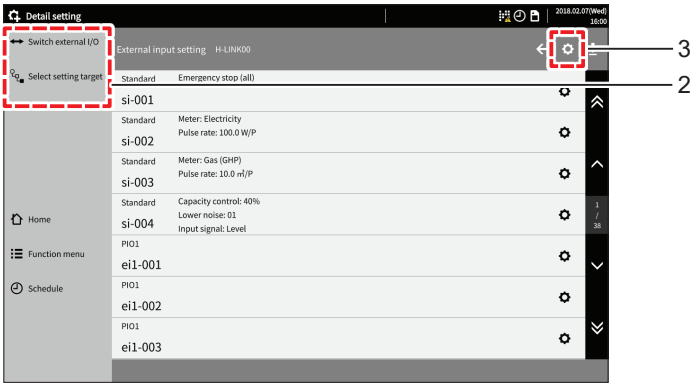
# 13. External In/Output Setting

This section provides setting external input signal for specified control and external output signal that Central Station EX transmits for notification/alarms.

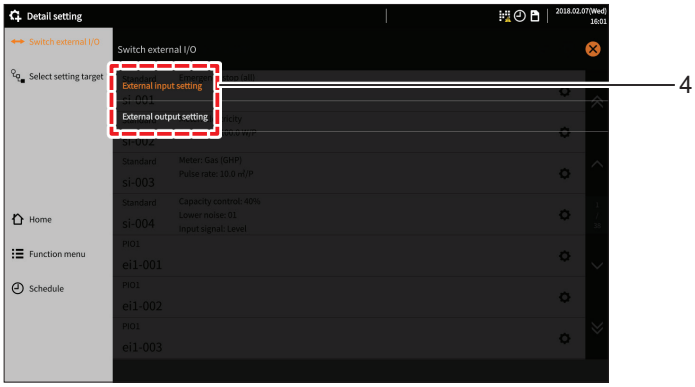
## 13.1 Checking External In/Output Setting




1. Tap [Set external in/output] on detail setting window.
   External in/output setting window is shown.




2. Tap item to switch display.
   - Tap [Switch external I/O] and step 3 is shown.
   - Tap [Select setting target] and step 4 is shown.
3. Tap [⚙] and [Input check] or [Output check]. [ⓘ] is indicated on contact points where currently sending/ receiving signal on.




4. Tap item to show external in/output setting window showing item with selected values.

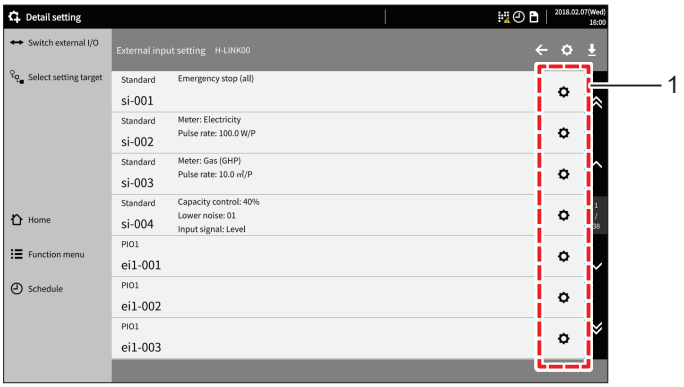



5. Tap item to show external in/output setting window showing item with selected values.

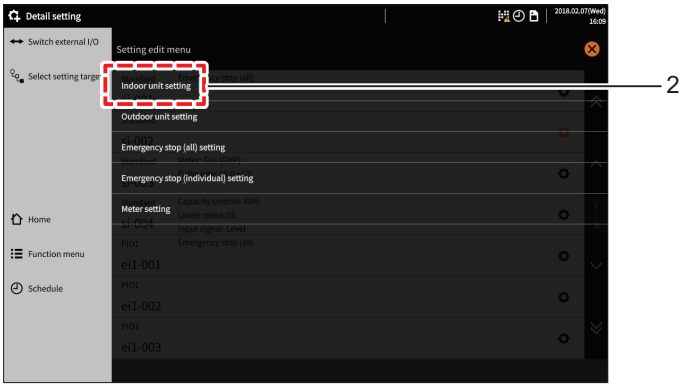
## 13.2 External Input Setting

Do not use ei1001 - ei1128 and ei2001 - ei2018.

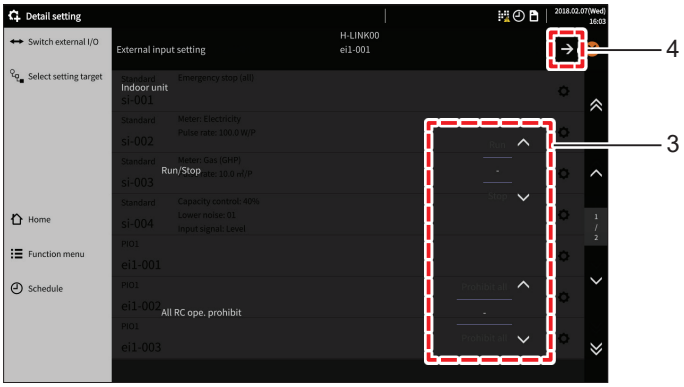
### (1) Setting indoor unit




1. Tap [⚙] for desired external input on external input setting window.




2. Tap [Indoor unit setting].



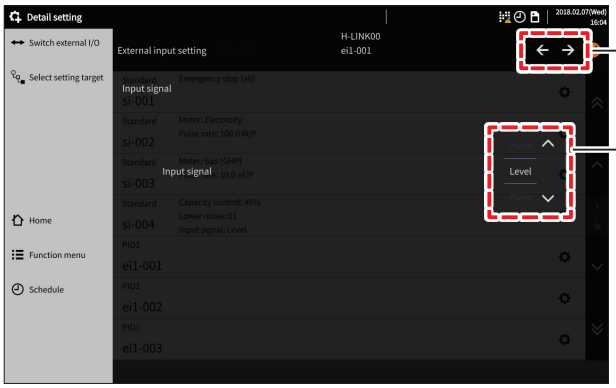

3. Configure “Run/Stop”, “All RC ope. prohibit” and “Temperature/Mode”.
4. Tap [→].
   Selecting one from Temperature/ Mode, either of the window is shown.
   - Temperature shift: step 5 is shown.
   - Mode shift: step 9 is shown.
   - -- ( No setting ): step 7 is shown.




5. Set temperature shift for each item.
   When Heat mode: -1°C ~ -9°C
   When Cool and Dry mode: +1°C ~ +9°C
   - Do not set in 0.5°C increments.
6. Tap [→].
   Tap [←] to go to the previous page.

Continue to the next page.

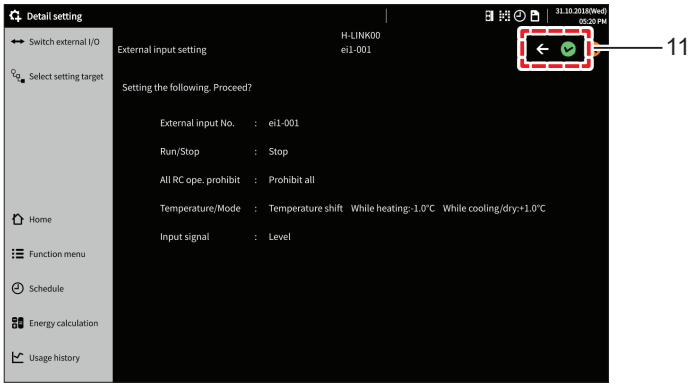
Continue from previous page.




7. Select the input signal type.
8. Tap [→].
   Tap [←] to go to the previous page.




9. Tap the target unit.
10. Tap [→].
    Tap [←] to go to the previous page.
    Tap [⚙]. Window for [Select all] and sorting is shown.

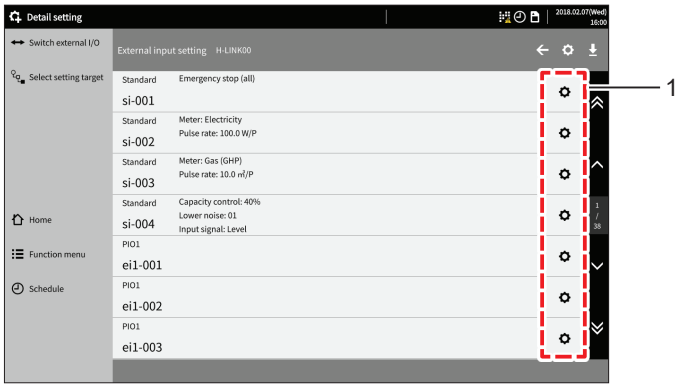



11. Check the setting contents and tap [✓] to return to external input setting window.
    Tap [←] to go to the previous page.
12. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

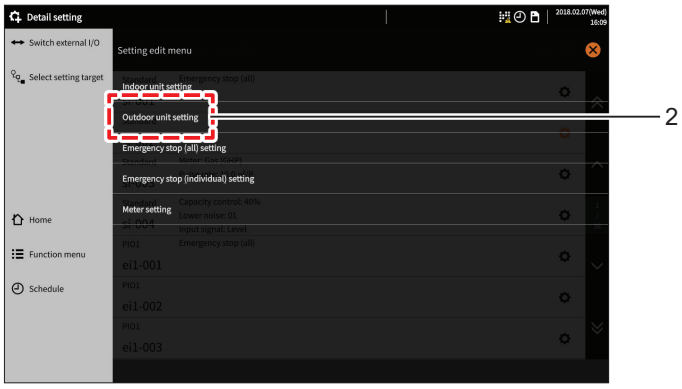
NOTICE:

- RC operation prohibit is not indicated if “Hide” is set on “RC operation prohibit control” on [Basic setting]-[Display/Sound setting].

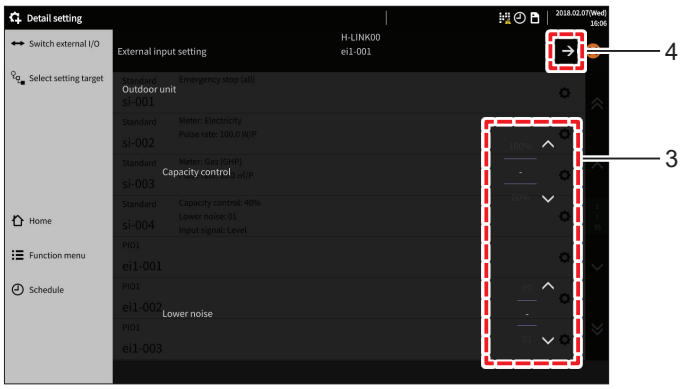
## (2) Setting outdoor units



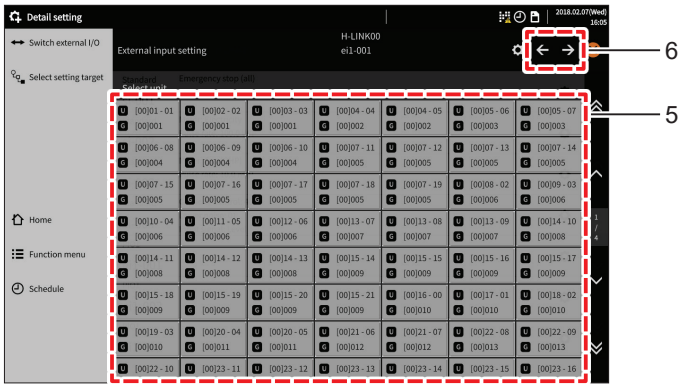

1. Tap [⚙] for desired external input on external input setting window.




2. Tap [Outdoor unit setting].



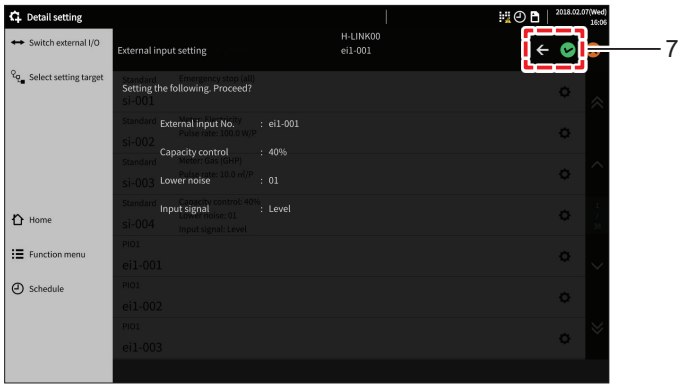

3. Set “Capacity control” and “Lower noise”.
   Capacity Control: 00%. 40% ~ 100% (5% increment)
   Lower noise: 00 ~ 09
4. Tap [→].




5. Tap the target unit.
6. Tap [→].
   Tap [←] to go to the previous page.

Continue to the next page.

Continue from previous page.

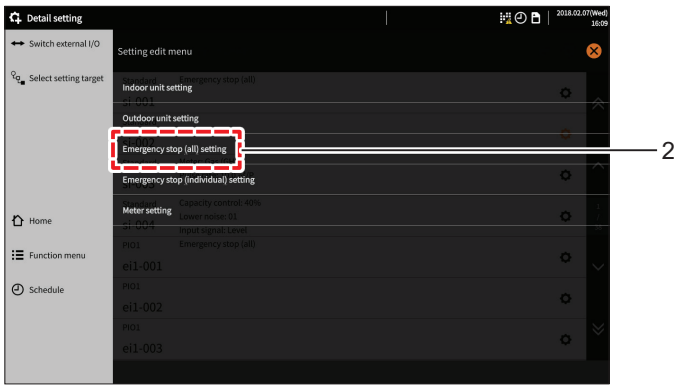



7. Check the setting contents and tap [✓] to return to external input setting window.
   Tap [←] to go to the previous page.
8. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

(3) Setting Emergency stop (all) units




1. Tap [⚙] for desired external input on external input setting window.




2. Tap [Emergency stop (all) setting] to return to external input setting window.
3. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

NOTICE:

- [Emergency stop] is not indicated if “Hide” is set on “RC operation prohibit control” on [Basic setting]-[Display/Sound setting].

(4) Setting Emergency stop (individual)

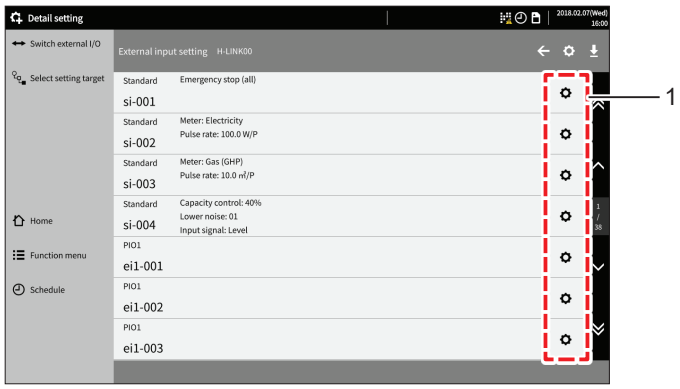



1. Tap [⚙] for desired external input on external input setting window.
2. Tap [Emergency stop (individual) setting].
3. Tap unit to set.
4. Tap [✓] to confirm setting and to return to external input setting window.
   Tap [✕] to discard the change and to return to external input setting window.
5. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

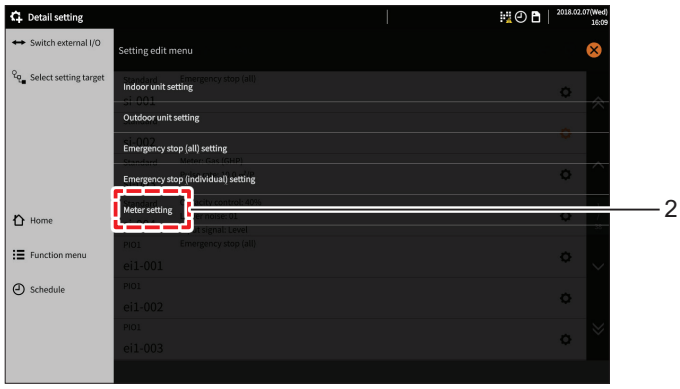
NOTICE:

- [Emergency stop] is not indicated if “Hide” is set on “RC operation prohibit control” on [Basic setting]-[Display/Sound setting].

## (5) Setting up power meters



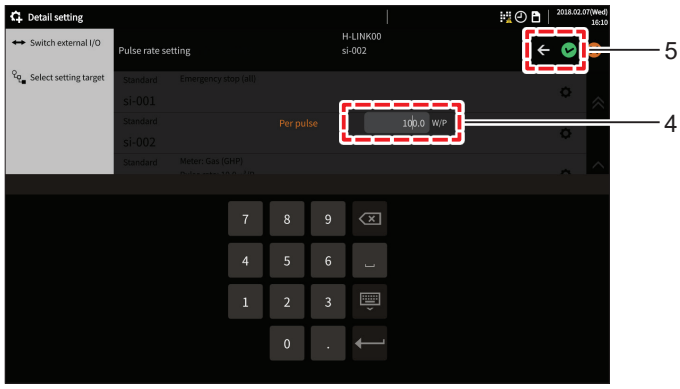

1. Tap [⚙] for desired external input on external input setting window [⚙].




2. Tap [Meter setting].




3. Select energy to apply pulse rate setting from following items.




4. Enter pulse rate.
5. Tap [✓] to return to external in/output setting window.
   Tap [←] to go to the previous page.
6. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

NOTICE:

- Input value for pulse rate needs to match the pulse interval on the meter.
- Setting values after decimal point for electricity pulse rate may cause difference of up to 0.5kWh from the actual value.
- When the pulse rate is edited, the new value is applied from the next calculation.
- Applicable energy type, units and range for pulse rate are as follows:

| Type | Unit | Range (While energy calculation is inactive) | Range (While energy calculation is active) |
|---|---|---|---|
| Electricity | W/P | 0.0 - 99999.9 | 1.0 - 99999.9 |
| Gas (GHP) | $m^3$/P | | 0.1 - 1000.0 |
| Gas (Photo thermal) | $m^3$/P | | 0.1 - 1000.0 |
| Water | $m^3$/P | | 0.1 - 100.0 |

- Note that if the pulse is counted via external input, pulse cannot be accumulated during power off and connection checking. This may affect usage and energy calculation.

NOTICE:

If 2 or more different external input signals for the same target are to be received within 5 minutes, unit may not operate as expected.

- Priorities for each external input are as follow.
  Register operation with higher priority, emergency stop, for example, on standard external input 1.
  Priority 1- Standard external input 1
  Priority 2- Standard external input 2
  Priority 3- Standard external input 3
  Priority 4- Standard external input 4
- Set all external input as OFF if any of the following condition/points applies:
  1. Editing setting contents for external input
  2. Checking connection
  Upon receiving external input signal while the either of the above, control process may not be completed correctly.
- For external input function, Central Station EX transmits commands to air conditioners via communication line and therefore it may take up to 5 minutes for the commands to be reflected on all air conditioners depending on the system scale and communication environment. For this reason, external input function cannot be used for criteria and operation with high priority that need to be completed within limited time (e.g. emergency stop for fire occurrence where all air conditioners must be stopped immediately, maybe within 1 minute).
- Send command from Central Station EX in following cases:
  1. The external input state changed while the power on Central Station EX/Extension adapter/air conditioners was turned OFF.
  2. The power on Central Station EX/Extension adapter/air conditioner was turned OFF and then turned back ON while external input signal was being received.
  3. The external input state changed while communication failure occurred (while in 60/61/64/65 alarm) on Central Station EX/Extension adapter/air conditioners.
  4. Communication failure occurred (60/61/64/65 alarm) and then recovered while external input signal was being received.

## ■ Emergency Stop

NOTICE:

- Emergency stop sets air conditioners connected to the specified adapter as follows and then stops all units.
  Operation state: Stop
  Operation Mode: Fan
  Temperature: 28°C
  Fan speed: Low
  Louver: 1st step
  RC operation prohibit: Prohibit all
  Configuration for RC prohibit remains if RC operation prohibit is set prior to the receipt of emergency stop (all/individual) signal.
- Partial prohibition II support unit: RC setting will remain.
- Partial prohibition II non-support unit: RC Setting will be cleared.

  * Partial Prohibition II support unit consists of the following models.

    1. Indoor unit: H-Link support unit except for wall mounted type. (When controllers other than (2) and (3) are connected.)
    2. Advanced wired remote controller: PC-ARF1
    3. Simplified wired remote controller: PC-ARH1
    4. Receiver kit: PC-ALHP1, PC-ALHC1, PC-ALHD1, PC-ALHS1, PC-ALH3, PC-ALHZ1
- Do not control air conditioners (including schedule and external input functionality) for 15 minutes after emergency stop (all) signal has been cleared. Commands may not be completed correctly
- Upon receiving emergency stop (all) signal, indoor units once operate in Fan mode and then all stop.
- When using emergency stop (all) to units with function selection configured, check if the configuration is still as desired after emergency stop signal is cleared.
  Emergency stop (all) is a function effective only for H-Link support unit.
- To use emergency stop function, set from Central Station EX to use Emergency stop (all/individual). Applying external input signal directly to indoor units, indoor units may operate according to schedule function of Central Station EX even while emergency stop is commanded.
- Ensure that Central Station EX receives external input signal for emergency stop (all) for 1 minute or longer.
- Central Station EX system controls emergency stop via communication wirings. The control process is not completed successfully if the communication line is disconnected. Manually turn OFF the power on air conditioner in such cases.
- Emergency stop (Individual) sets specified air conditioners connected to as “Stop” and “RC operation prohibited” and then stops units. This control may take up to 7 minutes depending on the system scale.
- The operation status and RC prohibit status returns to the setting of before emergency stop (individual) signal input when the signal is cleared.
- Do not set emergency stop when using with other central controllers.
  Emergency stop (individual) can be set for systems that can use the RC operation prohibit when using other central controllers in combination.

## ■ Mode Shift / Temperature Shift

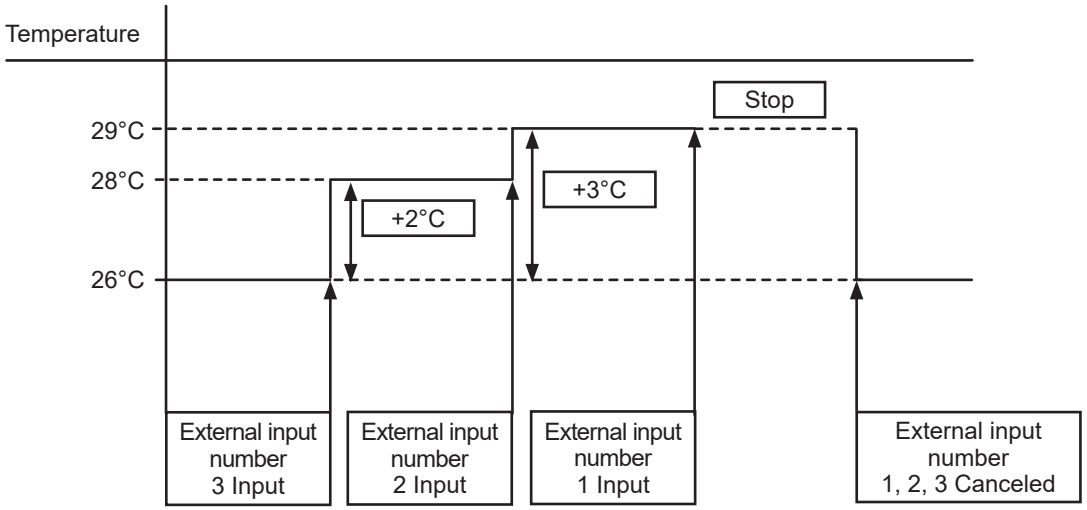
NOTE:

- Mode shift and Temp. shift intends to save energy by control described below.
  [Mode shift]: This function switches to [Stop] when the mode is Heat otherwise switches to [FAN].
  [Temperature shift]: This function lowers the temperature by X°C in Heat mode and raises temperature by Y°C in Cool and Dry mode.
  * Neither of [Mode shift] or [Temperature shift] intends to guarantee the saving on power consumption.

NOTICE:

- Mode shift and Temperature shift cannot simultaneously be set together.
- If temp. shift is set on multiple external inputs, AND multiple external signals are to be received, then the signals are prioritized to change temperature. Upon signal clearance, the temperatures return to the value before the signal receipt.
  Setting sample
  External input 3 -- Demand controller priority Signal input [ Low ]
  Target unit: All indoor unit
  Setting: ±2°C All RC ope. prohibit
  External input 2 -- Demand controller priority Signal input [ Med ]
  Target unit: All indoor unit
  Setting: ±3°C All RC ope. prohibit
  External input 1 -- Demand controller priority Signal input [ High ]
  Target unit: All indoor unit
  Setting: Stop All RC ope. prohibit

Operation sample While in Cool mode




- The unit does not stop if both [Mode shift] and [Run] are allocated to the same external input while in heat mode, Run has precedence.

## ■ Level signal input / Pulse signal input

NOTE:

Signal Input

If level signal input is selected, setting contents are recovered to the prior states once the signal input setting is lifted.

If pulse signal input is selected, setting contents are NOT recovered to the prior states once the signal input setting is lifted.

Level signal input only can be set for Mode shift, Emergency stop (All/individual), Capacity control and Lower noise.

NOTICE:

- Pulse width and pulse interval need to be 90 ms or longer for use with pulse signal on external input.
  - ■ Level signal and pulse signal cannot be simultaneously set on Central Station EX and/or 1 Extension adapter. (No coexistence allowed).
  - ■ 1 external input cannot have 2 or more different contents configured.
- Items can be modified even while receiving signals unless the item is prohibited to change.
- The setting does not return to the previous setting even after the signal is cleared unless level input is selected for this setting.
- While “level signal” is selected, if multiple signals are simultaneously received, the signal is prioritized (external input 1~260) to carry out the specified control.
- If “All RC ope. prohibit” and “Level signal input” are in combined use, the Run command for the indoor unit from Central Station EX is void while receiving external input signal. (Stop command is valid.)

NOTICE:

Outdoor Unit Setting

- ■ To control capacity with [Schedule] - [Operation Pattern], refer to “■ Detailed setting for in/outdoor units” (page 32) to select desired outdoor unit to activate [Capacity control].
- ■ [Outdoor unit capacity control] is a function to save power consumption at approximately the specified percentage of maximum power consumption.
- ■ The setting is applied approximately 15 minutes after the external input.
- ■ Since units always need stand-by power*, power consumption is NOT “0” even if 0% is specified for capacity control.
  * For units to stand-by to operate immediately, they need low amount of electricity.
- ■ This control does not intend to guarantee the operation for the specified power consumption.
- ■ This control does not take place while the unit is in defrost mode.
- ■ To lower noise with [Schedule] - [Operation pattern], refer to “■ Detailed setting for in/outdoor units” (page 32) to select desired outdoor unit to activate [Capacity control] and [Lower noise].
  Do not set lower noise to units that do not support the function may cause malfunction on capacity control.
  Activate [Capacity control] as well to use [Lower noise] function. Setting [Lower noise] alone does not operate correctly.

- Active/Inactive setting and applicable range for the setting may vary on outdoor units.
  Contact your dealer or distributor for a detail of applicable outdoor units.
  - ■ Set capacity control/lower noise for outdoor units from only 1 central controller.
  - ■ When capacity control/lower noise is set for external input, scheduled operation for capacity control/ lower noise is not active while receiving signal.

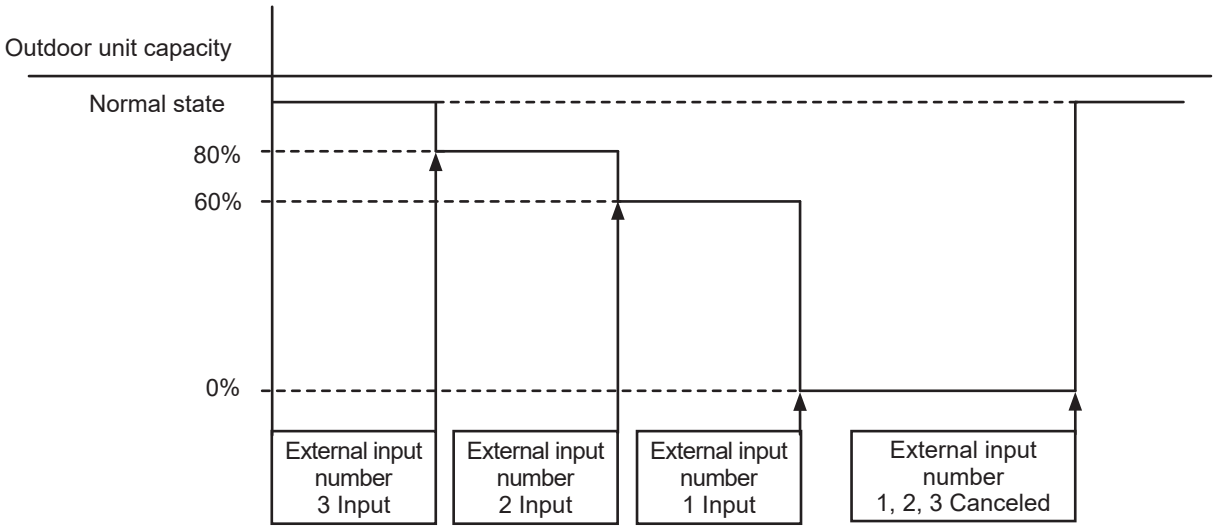
## ■ Demand Controller

- Combination example of demand controller
  Using capacity control for outdoor units
  Characteristics:  As for applicable indoor unit, contact your distributer.

NOTICE:

- Refer to "■ Detailed Settings for In/Outdoor units" (page 32) to select desired outdoor unit to activate [Capacity control].
  Active/Inactive setting and applicable range for the setting may vary on outdoor units.  Regarding applicable units, contact your distributer.
  Setting sample
  External input 3 -- Demand controller priority Signal input [ Low ]
  Target unit: All outdoor unit
  Setting: 80%
  External input 2 -- Demand controller priority Signal input [ Med ]
  Target unit: All outdoor unit
  Setting: 60%
  External input 1 -- Demand controller priority Signal input [ High ]
  Target unit: All outdoor unit
  Setting:  0%

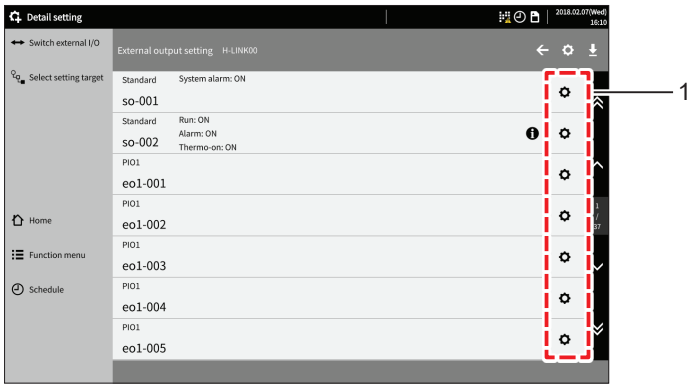
Operation sample



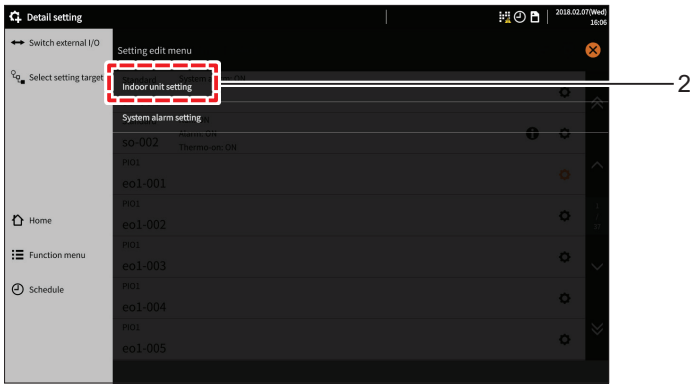
## 13.3 External Output Setting

Do not use eo1001 - eo1128 and eo2001 - eo2018.

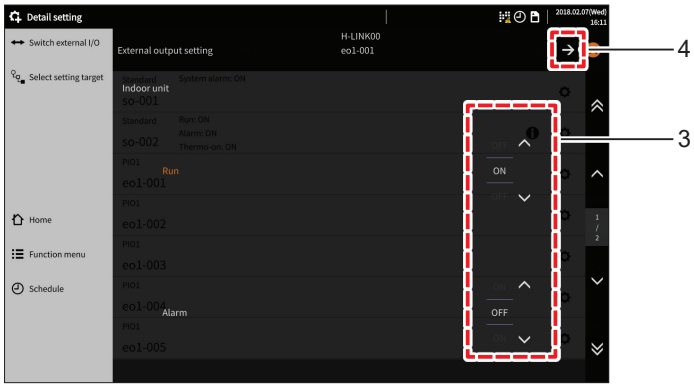
### (1) Setting indoor unit




1. Tap [⚙] for desired external output on external output setting window.




2. Tap [Indoor unit setting].



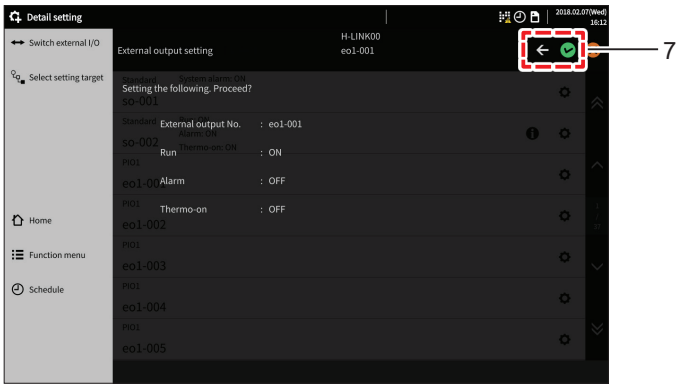

3. Set [Run], [Alarm], and [Thermo on].
4. Tap [→].




5. Tap unit to set.
6. Tap [→].

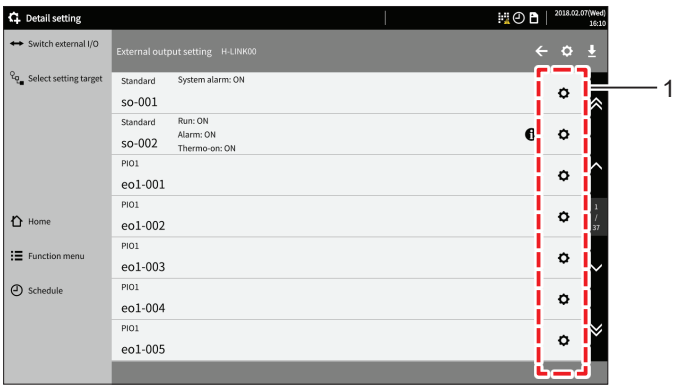
Continue to the next page.

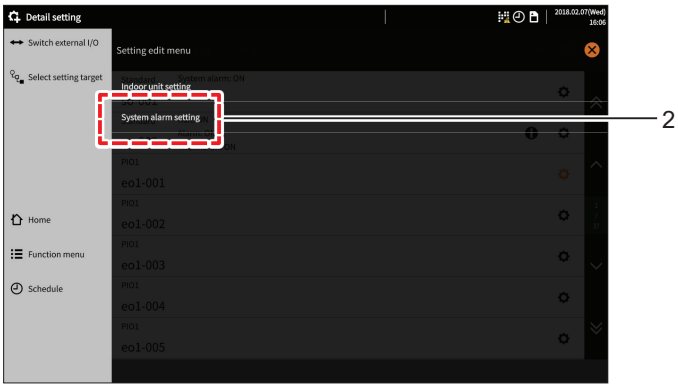
Continue from previous page.




7. Check the contents and tap [✓]. External output setting window is shown.
   Tap [←] to go to the previous page.
8. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

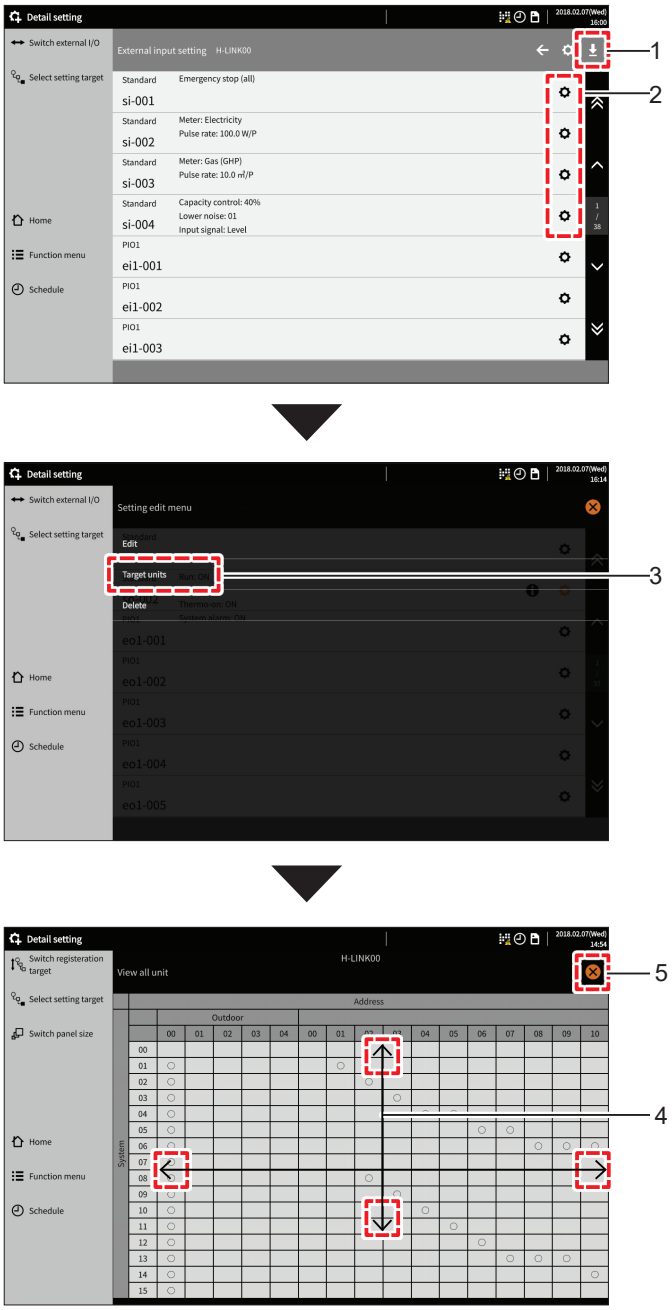
## (2) Setting system alarm




1. Tap [⚙] for desired external output on external output setting window.
2. Tap [System alarm setting]. External output setting window is shown.
3. Upon completing setting, refer to “13.4 Saving and Checking Setting Contents” (page 78) to follow the steps.

## 13.4 Saving and Checking Setting Contents




1. [⬇] flashes when contents are changed.
   Tap [⬇] while [⬇] is flashing to save the contents.
   Otherwise the change made is not registered.
2. Tap [⚙] for the registered external in/ output.

3. Tap [Target units]. This is not indicated if either of [Emergency stop (all) setting] or [Meter setting] is configured.
   - ■ Tap [Edit] to change the contents.
   - ■ Tap [Delete] to delete contents.

Target units configured for specified external input/output are shown.

4. Touch window and button to scroll (both horizontally and vertically) the table appears.
   Tap the button to check if the units are correctly configured (shown in green)
5. Tap [✕] to return to external in/output setting window.

NOTICE:

- If output trigger is set as Alarm, signal is transmitted upon detection of alarm on the unit or alarm on the outdoor unit that is connecting to the cycle.
- 1 signal cannot have 2 or more different contents configured.

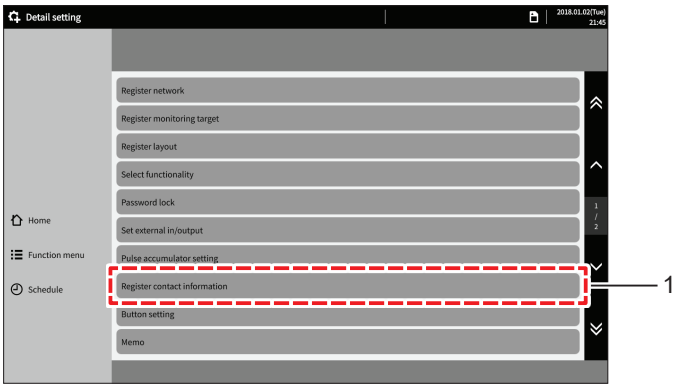
## 14. Pulse Accumulator Setting

This function is not available. Please do not use this function.

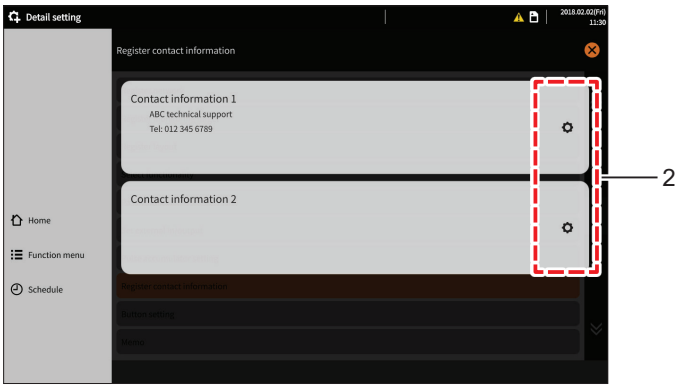
## 15. Registering Contact Information

Set contact information for abnormality occurrence. Central Station EX shows contact information upon alarm occurrence.

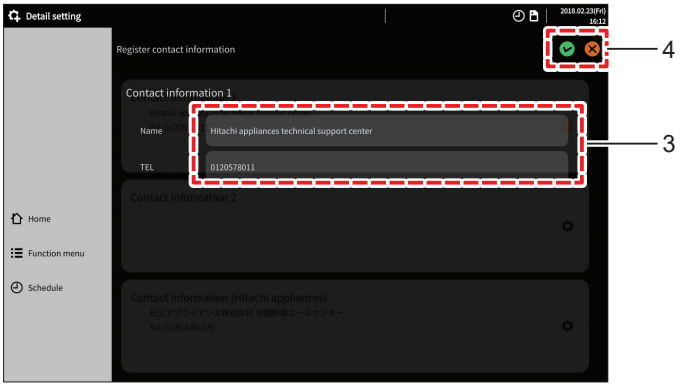
### 15.1 Registering Contact Information




1. Tap [Register contact information] on detail setting window.
The window for registering contact information is shown.




2. Tap [⚙] for contact information to edit.

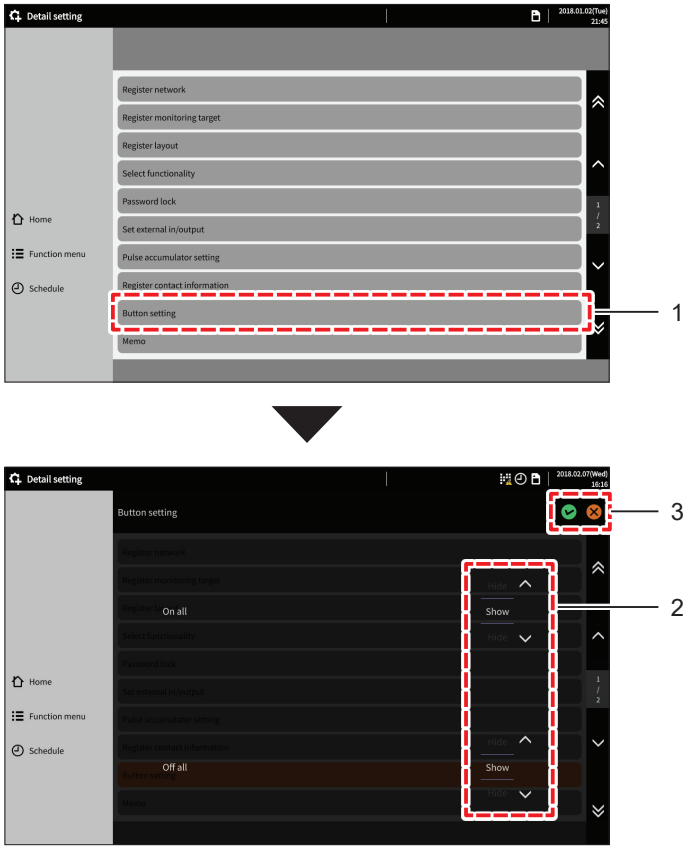



3. Tap input field for either contact name or TEL to enter information on keyboard.
The maximum lengths for contact name and TEL are 64 characters.
4. Tap [✓] to confirm setting and to return to registering contact information window.
Tap [✕] to discard the change and to return to registering contact information window.

# 16. Setting Button Indication

Select whether or not to show buttons in contents button area on monitoring window.

## 16.1 Setting Button Indication



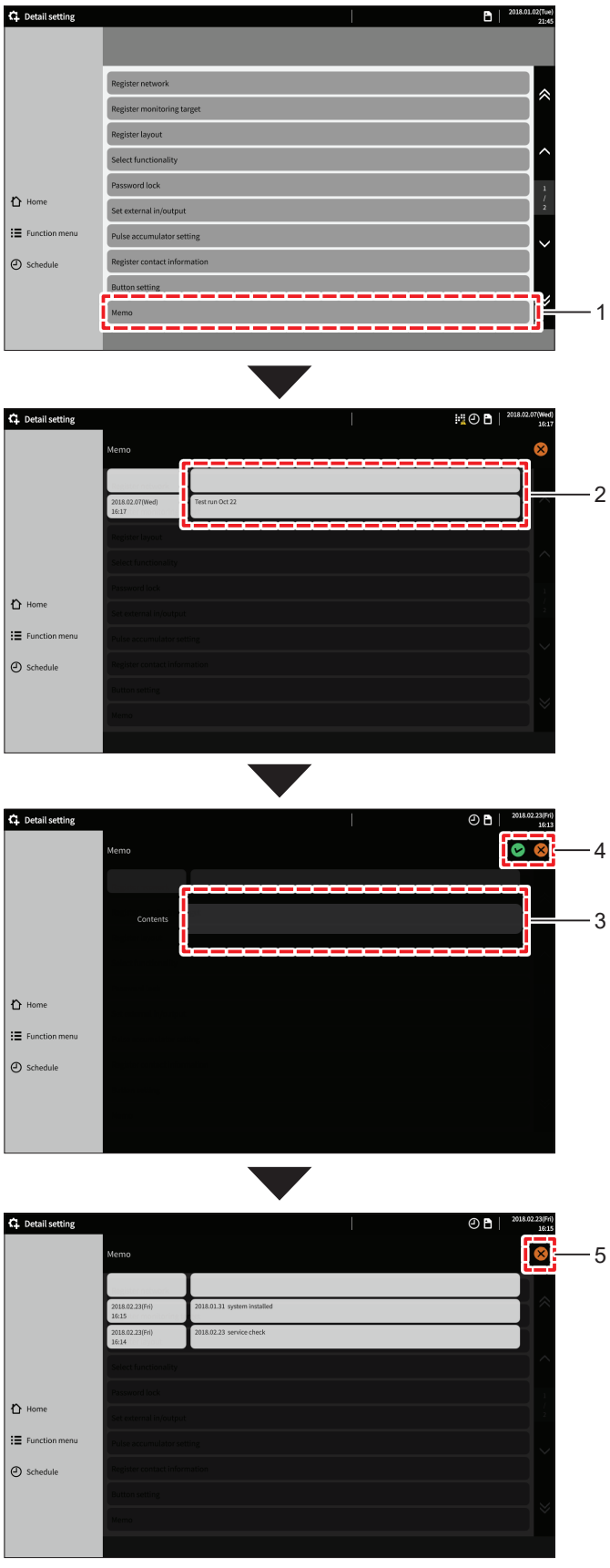

1. Tap [Button setting] on detail setting window.
   Button setting window is shown.

2. Set whether or not to show button(s) for [On all], [Off all], and [Set all].
3. Tap [✓] to confirm setting and to return to detail setting window.
   Tap [✗] to discard the change and to return to detail setting window.

# 17. Memo

Memo window provides function to save and browse information of test run/maintenance for future reference.

## 17.1 Registering / Editing Memo




1. Tap [Memo] on detail setting window.
   Memo window is shown.

2. Tap memo list to show input field.
   - Tap the empty memo list on the top to newly create memo.
   - Tap the existing memo to edit contents.

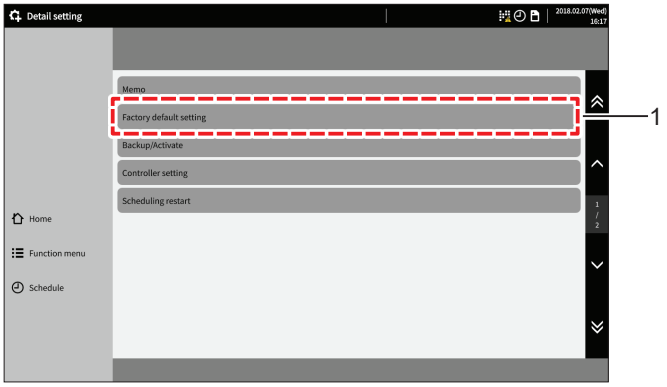
3. Tap input field for name to enter information on keyboard.
   The keyboard is shown. Regarding keyboard operation, refer to “5. Basic Window Operation” in operation manual. Memos must be 100 characters or less.
   - Erase all the contents of memo to completely delete the memo list.

4. Tap [✓] to confirm setting and to return to memo window.
   Tap [✕] to discard the change and to return to memo window.

5. Tap [✕] to return to detail setting window.

## 18. Factory Default Resetting

This function is used to reset Central Station EX to factory default setting.
This function is intended for the use of service personel. (This is a future function and currently not available.)

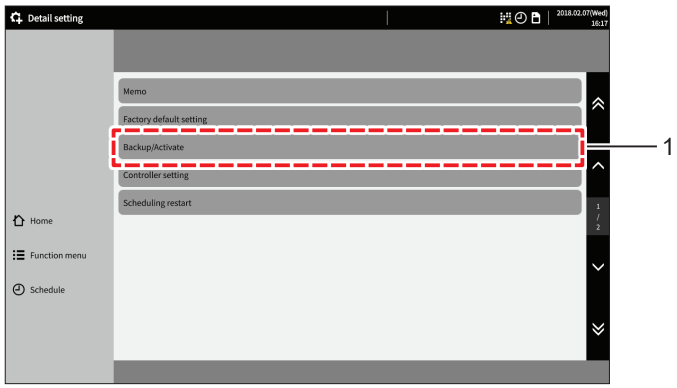


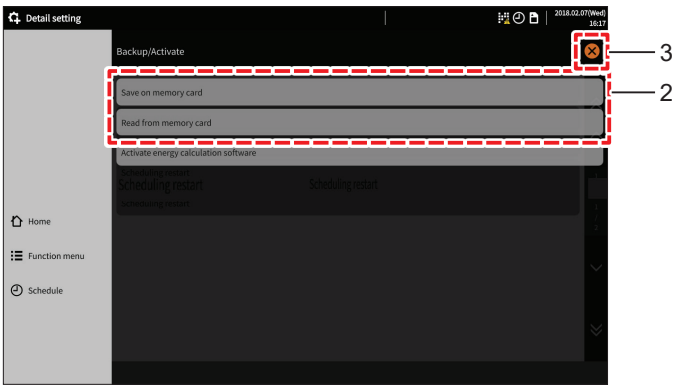

1. Tap [Factory default setting] on detail setting window.
   Reset Central Station EX to the factory default setting.

## 19. Backup/Activate

On Central Station EX, each setting data can be saved/loaded with external media such as USB flash memory and/or SD cards.

### 19.1 Saving and Loading Data



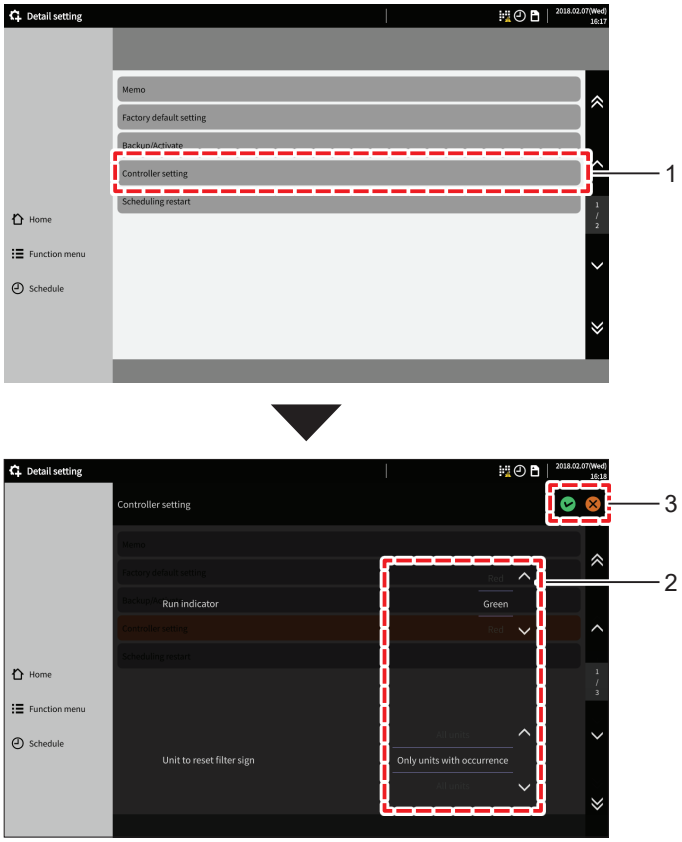




1. Tap [Backup/Activate] on detail setting window.
   Backup/Activate window is shown.
   Ensure that the external media are correctly inserted.
2. Tap [Save on memory card] to save data.Tap [Read from memory card] to load data.
   The window for selecting folder is shown.
   Refer to “14. Saving and Loading Data” in operation manual.
3. Tap [⊗] to return to detail setting window.

# 20. Setting Controller

Operation mode for controllers and operation indicator settings can be edited in this section.

## 20.1 Setting Controller




1. Tap [Controller setting] on detail setting window.
   Controller setting window is shown.

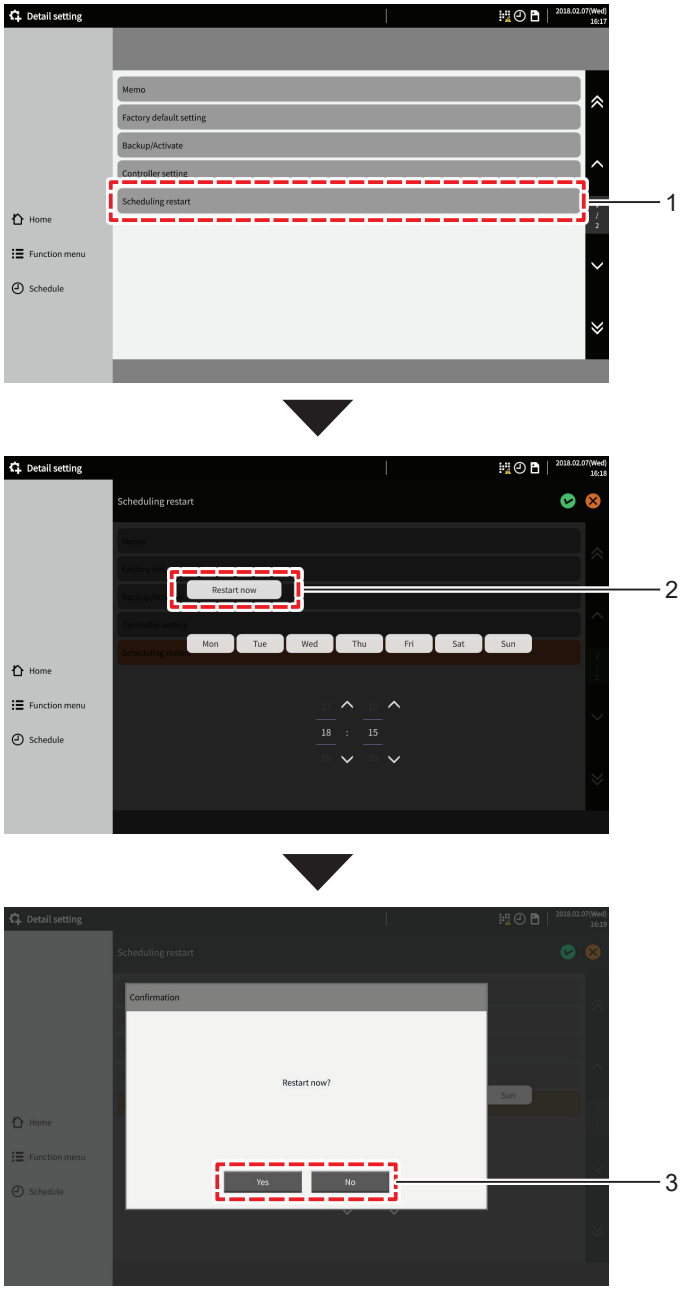
2. Set each item. Refer to the following table for a detail of setting items.
3. Tap [ ] to confirm setting and to return to detail setting window.
   Tap [ ] to discard the change and to return to detail setting window.

| Items | Choices | Description |
|---|---|---|
| Run indicator | Green / Red | Select the color for run indicator. |
| Filter sign reset target | All units / Units with active filter sign only | Select all units or units with active filter sign only to command filter sign reset to. |
| Operation range during monitor control | Detailed / Simplified | Select control item variety range upon selecting multiple units/ groups/blocks/areas or monitoring window. |
| Periodic logging | Active / Inactive | Whether or not to acvivate periodic logging for schedule management information, Run/stop state, temperature, indoor temperature, outdoor temperature in SD card. |
| Communication logging Active / Inactive | Active / Inactive | Select Active to save H-LINK transmission information on SD card. |
| Schedule setting from Remote Access | Active / Inactive | Select Active to set schedule from Remote Access software. |

# 21. Setting Restart Schedule

Configuration/editing restart schedule or restarting Central Station EX now are available on this section.

## 21.1 Restart Now




1. Tap [Scheduling restart] on detail setting window.
   Scheduling restart setting window is shown.

2. Tap [Restart now].
   Confirmation pop up is shown.
   - Refer to step 6 of “9.2 Initial Setting” (page 21) to set schedule for restart.

3. Tap [Yes] to immediately restart Central Station EX.
   Tap [No] to return to scheduling restart setting window without restarting Central Station EX.

## 22. Changing Settings

### 22.1 Adding, Editing, or Deleting Units

Use the following procedures to change setting when units are added, edited, or deleted.

Procedure Overview

(1) Closing calculation tentatively
(2) Deactivating Energy Calculation Software
(3) Configuration data backup
(4) Verifying connection, and Adding, Editing, or Deleting units
(5) Restarting Central Station EX and Extension Adapter
(6) Adding, Editing, or Deleting groups
(7) Adding, Editing, or Deleting blocks
(8) Adding, Editing, or Deleting areas
(9) Restarting Central Station EX
(10) Verifying settings of monitoring and controlling
(11) Schedule setting
(12) Setting Energy Calculation Software
(13) Activating Energy Calculation Software

NOTES:

- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05).
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours. If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated. The result for the specific 1 hour will be combined with the result of the following hour. Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

(1) Closing calculation tentatively
Refer to “(1) Closing calculation tentatively” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software.

(2) Deactivating Energy Calculation Software
Refer to steps (3)-1 to (3)-3 in “7.7 Preparation for Actual Use” in the Installation Manual for Energy Calculation Software to deactivate Energy Calculation Software.

(3) Configuration data backup
Refer to “19. Backup/Activate” (page 82) to save data in USB flash memory or SD card.

(4) Verifying connection, and Adding, Editing, or Deleting units
1. Verify connection that is added, edited, or deleted.
   Refer to “■ Checking Connection again” in “9.5 Register Monitoring Target” (page 29).
2. Verify that the refrigerant cycle, address, and unit number are correct.
   Refer to “■ Check connecting status for units “ in “9.5 Register Monitoring Target” (page 27).

(5) Restarting Central Station EX and Extension Adapter
1. Turn off the power switch (SW1) on embedded adapter for Central Station EX and power switch on Extension Adapter to confirm the power LED goes off.
2. Turn on the power again.

(6) Adding, Editing, or Deleting groups
Refer to “(2) Registering group“ in “9.5 Register Monitoring Target” (pages 35-38) to verify the group that the unit is added, edited, or deleted.

(7) Adding, Editing, or Deleting blocks
Refer to “(3) Registering blocks“ in “9.5 Register Monitoring Target” (pages 39-42) to verify the block that the group is added, edited, or deleted.

(8) Adding, Editing, or Deleting areas
Refer to “(4) Registering area“ in “9.5 Register Monitoring Target” (pages 43-46) to verify the area that the block is added, edited, or deleted.

(9) Restarting Central Station EX
Refer to “21.1 Restart Now” (page 84) to restart Central Station EX.

(10) Verifying settings of monitoring and controlling
Refer to “(1) Monitoring and Controlling” in “9.6 Test Run” (pages 47-49) to verify correct operation.

(11) Schedule setting
Refer to “9. Schedule” in the Operation Manual for Central Station EX to set schedule for units that are added.

NOTE

- If a unit is added to existing group, the unit may appear to have schedule registered, but the schedule is not registered for the given unit. Ensure to set the schedule for the unit also.

(12) Setting Energy Calculation Software
If Energy Calculation Software is in use, refer to “(12) Setting Energy Calculation Software” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software to set and verify the unit that has been added or edited.

(13) Activating Energy Calculation Software
If Energy Calculation Software is in use, refer to “6.9 Verifying Registration and Activating Calculation” in the Installation Manual for Energy Calculation Software to resume energy calculation.

## 22.2 Adding, Editing, or Deleting RC Groups

Use the following procedures to change setting when remote controller group is added, edited, or deleted.

Procedure Overview (Refer to procedure steps in “22.1 Adding, Editing, or Deleting Units” (pages 85-86).
(1) Closing calculation tentatively
(2) Deactivating Energy Calculation Software
(3) Configuration data backup
(4) Verifying connection, and Adding, Editing, or Deleting units
(5) Restarting Central Station EX and Extension Adapter
(6) Adding, Editing, or Deleting groups
(7) Adding, Editing, or Deleting blocks
(8) Adding, Editing, or Deleting areas
(9) Restarting Central Station EX
(10) Verifying settings of monitoring and controlling
(11) Schedule setting
(12) Setting Energy Calculation Software
(13) Activating Energy Calculation Software

NOTES:
- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05).
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours.
  If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated.
  The result for the specific 1 hour will be combined with the result of the following hour.
  Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

## 22.3 Adding, Editing, or Deleting Groups, Blocks, or Areas

Use the following procedures to change setting when groups, blocks, and areas are added, edited, or deleted.

Procedure Overview (Refer to procedure steps in “22.1 Adding, Editing, or Deleting Units” (pages 85-86).
(1) Closing calculation tentatively
(2) Deactivating Energy Calculation Software
(3) Configuration data backup
(4) Adding, Editing, or Deleting groups
(5) Adding, Editing, or Deleting blocks
(6) Adding, Editing, or Deleting areas
(7) Restarting Central Station EX
(8) Verifying settings of monitoring and controlling
(9) Schedule setting
(10) Setting Energy Calculation Software
(11) Activating Energy Calculation Software

NOTES:
- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05).
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours.
  If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated.
  The result for the specific 1 hour will be combined with the result of the following hour.
  Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

## 22.4 Editing Layout

Use the following procedures to edit layout.

Procedure Overview

(1) Closing calculation tentatively
(2) Deactivating Energy Calculation Software
(3) Configuration data backup
(4) Editing layout data
(5) Verifying settings of monitoring and controlling
(6) Activating Energy Calculation Software

NOTES:

- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05).
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours.
  If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated.
  The result for the specific 1 hour will be combined with the result of the following hour.
  Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

(1) Closing calculation tentatively
Refer to “(1) Closing calculation tentatively” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software.

(2) Deactivating Energy Calculation Software
Refer to steps (3)-1 to (3)-3 in “7.7 Preparation for Actual Use” in the Installation Manual for Energy Calculation Software to deactivate Energy Calculation Software.

(3) Configuration data backup
Refer to “19. Backup/Activate” (page 82) to save data in USB flash memory or SD card.

(4) Editing layout data
Refer to “10. Register Layout” (pages 50-59) to edit layout data.

(5) Verifying settings of monitoring and controlling
Refer to “(1) Monitoring and Controlling” in “9.6 Test Run” (pages 47-49) to verify correct operation.

(6) Activating Energy Calculation Software
If Energy Calculation Software is in use, refer to “6.9 Verifying Registration and Activating Calculation” in the Installation Manual for Energy Calculation Software to resume energy calculation.

## 22.5 Adding Extension Adapter

Use the following procedures to add Extension Adapter to the system.

Procedure Overview

(1) Installing Extension Adapter
(2) Closing calculation tentatively
(3) Deactivating Energy Calculation Software
(4) Configuration data backup
(5) Connecting Extension Adapter
(6) Verifying connection information
(7) Registering units
(8) Registering group
(9) Adding, Editing, or Deleting blocks
(10) Adding, Editing, or Deleting areas
(11) Restarting Extension Adapter
(12) Verifying settings of monitoring and controlling
(13) Schedule setting
(14) Setting Energy Calculation Software
(15) Activating Energy Calculation Software

NOTES:

- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05)
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours.
  If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated.
  The result for the specific 1 hour will be combined with the result of the following hour.
  Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

(1) Installing Extension Adapter
Refer to the Installation Manual for Extension Adapter to install Extension Adapter.

(2) Closing calculation tentatively
Refer to “(1) Closing calculation tentatively” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software.

(3) Deactivating Energy Calculation Software
Refer to steps (3)-1 to (3)-3 in “7.7 Preparation for Actual Use” in the Installation Manual for Energy Calculation Software to deactivate Energy Calculation Software.

(4) Configuration data backup
Refer to “19. Backup/Activate” (page 82) to save data in USB flash memory or SD card.

(5) Connecting Extension Adapter
Refer to “(1) New registration” in “9.3 Register Network” (pages 22-23) to connect Extension Adapter to Central Station EX.

(6) Verifying connection information
Refer to “■ Check connecting status for units” in “9.5 Register Monitoring Target” (pages 27-28) to verify connection information of Extension Adapter.

(7) Registering units
Refer to “(1) Registering units” in “9.5 Register Monitoring Target” (pages 27-34) to register units to the newly added H-LINK No.

(8) Registering group
Refer to "(2) Registering group" in "9.5 Register Monitoring Target" (pages 35-38) to register group to the newly added H-LINK No.

(9) Adding, Editing, or Deleting blocks
Refer to “(3) Registering blocks“ in “9.5 Register Monitoring Target” (pages 39-42) to verify the block that the group is added, edited, or deleted.

(10) Adding, Editing, or Deleting areas
Refer to “(4) Registering area“ in “9.5 Register Monitoring Target” (pages 43-46) to verify the area that the block is added, edited, or deleted.

(11) Restarting Central Station EX
Refer to “21.1 Restart Now” (page 84) to restart Central Station EX.

(12) Verifying settings of monitoring and controlling
Refer to “(1) Monitoring and Controlling” in “9.6 Test Run” (pages 47-49) to verify correct operation.

(13) Schedule setting
Refer to “9. Schedule” in the Operation Manual for Central Station EX to set schedule for units that are added.

NOTE

- If a unit is added to existing group, the unit may appear to have schedule registered, but the schedule is not registered for the given unit. Ensure to set the schedule for the unit also.

(14) Setting Energy Calculation Software
If Energy Calculation Software is in use, refer to “(12) Setting Energy Calculation Software” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software to set and verify the unit that has been added or edited.

(15) Activating Energy Calculation Software
If Energy Calculation Software is in use, refer to “6.9 Verifying Registration and Activating Calculation” in the Installation Manual for Energy Calculation Software to resume energy calculation.

## 22.6 Deleting Extension Adapter

Use the following procedures to delete Extension Adapter on the system.

Procedure Overview

(1) Closing calculation tentatively
(2) Deactivating Energy Calculation Software
(3) Configuration data backup
(4) Deleting Extension Adapter
(5) Restarting Central Station EX
(6) Verifying settings of monitoring and controlling
(7) Setting Energy Calculation Software
(8) Activating Energy Calculation Software

NOTES:

- If energy calculation is activated, avoid performing these procedures from 5 minutes before until 5 minutes after each hour (that is, from XX:55 to XX:05).
- Avoid performing these works also from 00:00 to 02:00 if calculation interval is set as 24 hours.
  If calculation interval is set as 1 hour, result for the hour while following those steps will not be calculated.
  The result for the specific 1 hour will be combined with the result of the following hour.
  Ensure USB flash memory or SD card is correctly inserted for saving data and data backup.
- If Remote Access software is in use, close the software before changing settings.

(1) Closing calculation tentatively
Refer to “(1) Closing calculation tentatively” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software.

(2) Deactivating Energy Calculation Software
Refer to steps (3)-1 to (3)-3 in “7.7 Preparation for Actual Use” in the Installation Manual for Energy Calculation Software to deactivate Energy Calculation Software.

(3) Configuration data backup
Refer to “19. Backup/Activate” (page 82) to save data in USB flash memory or SD card.

(4) Deleting Extension Adapter
Refer to “(3) Postpone/delete network information” in “9.3 Register Network” (page 25) to unregister the Extension Adapter to delete.

(5) Restarting Central Station EX
Refer to “21.1 Restart Now” (page 84) to restart Central Station EX.

(6) Verifying settings of monitoring and controlling
Refer to “(1) Monitoring and Controlling” in “9.6 Test Run” (pages 47-49) to verify correct operation.

(7) Setting Energy Calculation Software
If Energy Calculation Software is in use, refer to “(12) Setting Energy Calculation Software” in “8.1 Adding, Editing, or Deleting Units” in the Installation Manual for Energy Calculation Software to set and verify the unit that has been added or edited.

(8) Activating Energy Calculation Software
If Energy Calculation Software is in use, refer to “6.9 Verifying Registration and Activating Calculation” in the Installation Manual for Energy Calculation Software to resume energy calculation.

## 23. Maintenance and Service

The following table identifies possible troubleshooting solutions for abnormal conditions. Ensure the power line is cut off before performing any checking described in the table.

<table>
<tr><th>Item</th><th>Phenomenon</th><th>Check</th><th>Action</th></tr>
<tr><td rowspan="7">1</td><td rowspan="7">Central Station EX does not seem to be working even after power supply.</td><td>Is power line correctly connected to Central Station EX?</td><td>Ensure the power line is correctly connected to Central Station EX.<br>Ensure the power line is cut off to wire.</td></tr>
<tr><td>Is the power on power supplier turned ON?</td><td>Turn the power on power supplier ON.</td></tr>
<tr><td>Is the power on Central Station EX turned ON?</td><td>Turn the power on Central Station EX ON. Central Station EX has 2 power switches; SW1 and SW2. Turn both power switches ON.</td></tr>
<tr><td>Is power voltage within the applicable range?</td><td>Measure the power voltage. If the value is out of the range of AC100~240V±10%, check the writing and wiring method.</td></tr>
<tr><td>Isn’t power fuse blown? Both 2 fuses are required to be unblown.</td><td>If Central Station EX has a blown fuse, replace with new one(s).</td></tr>
<tr><td>Does the POWER LED light up?</td><td>If none of the above applies to the circumstances and POWER LED still does not light up, Central Station EX may have internal defect.<br>Contact your dealer or distributor.</td></tr>
<tr><td>Doesn’t either ERROR LED, 7-segment LED indicate as following?<br><table><tr><th>ERROR LED State</th><th>7-segment LED Indication</th></tr><tr><td>ON</td><td>0E0/0E1/0E2/0E6/0hE</td></tr><tr><td>ON for 1 second and OFF for 1 second (repeated)</td><td>0tE</td></tr></table></td><td>Central Station EX may have internal defect.<br>Contact your dealer or distributor.</td></tr>
<tr><td rowspan="10">2</td><td rowspan="10">Central Station EX does not complete connection check after power ON.</td><td>Is H-LINK wiring connected to Central Station EX?</td><td>Correctly connect H-LINK to Central Station EX.</td></tr>
<tr><td>Is the setting for terminal resistance on the H-LINK wiring adequate?</td><td>Use single terminal resistance on H-LINK wiring.</td></tr>
<tr><td>Is all address for air conditioners configured correctly?</td><td>Set the address for air conditioners according to manuals for units.</td></tr>
<tr><td>Isn’t H-LINK wiring disconnected?</td><td>Check the wiring connection.</td></tr>
<tr><td>Are all the power on air conditioners turned ON?</td><td>Turn ON the power on all air conditioners.</td></tr>
<tr><td>Does H-LINK wiring meet specification requirement?</td><td>Use 0.75 - 1.25mm$^2$ cable with length of 1,000m or shorter.</td></tr>
<tr><td>Doesn’t either ERROR LED, 7-segment LED indicate as following?<br><table><tr><th>ERROR LED State</th><th>7-segment LED Indication</th></tr><tr><td>Flashes once in 5 seconds (repeated)</td><td>0cA ↔ 0c0 (repeated)</td></tr></table></td><td>If 7-segment LED repeatedly indicates “0cA” ↔ “0c0”, then H-LINK may not be wired correctly.<br>Check the wiring connection for H-LINK and confirm the connection check again.</td></tr>
<tr><td>Doesn’t either ERROR LED, 7-segment LED indicate as following?<br><table><tr><th>ERROR LED State</th><th>7-segment LED Indication</th></tr><tr><td>Flashes once in 5 seconds (repeated)</td><td>0cA</td></tr></table></td><td>If “0cA” stays lit for 5 minutes or longer, it may indicate that connection check between indoor units and outdoor units have not been completed. Check the wiring connection for H-LINK and confirm the connection check again.</td></tr>
<tr><td>Does the H-LINK LED stay ON/OFF?</td><td>- Check if the H-LINK wiring is correctly connected.<br>- If the H-LINK circuit protection fuse is blown, after clearing the fault, set Pin 2 ON DSW1 “H-LINK”.<br>- If the condition does not meet the conditions described above, there can be a defect in Central Station EX. Contact your distributor or dealer.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Phenomenon</th><th>Check</th><th>Action</th></tr>
<tr><td rowspan="6">3</td><td rowspan="6">Central Station EX does not establish connection with extension adapter.</td><td>Is LAN line correctly connected to Central Station EX?</td><td>Correctly connect LAN wiring to Central Station EX.<br>Also check the fitting for connectors.</td></tr>
<tr><td>Is the power on HUB turned ON? (When using,)</td><td>Turn the power on HUB ON.</td></tr>
<tr><td>Does LAN wiring meet specification requirement?</td><td>Use LAN cable of category 5 or higher with length of 100m or shorter.</td></tr>
<tr><td>Is LAN cable free from disconnection, shortcut and other problems? (When using,) also check HUB conditions.</td><td>Replace with new ones.</td></tr>
<tr><td>Isn’t H-LINK wiring placed along with power line?</td><td>Provide free space of 150mm or longer for each wiring.</td></tr>
<tr><td>Does the H-LINK LAN LED stay OFF?</td><td>If none of the above applies to the circumstances and phenomenon described on the left remains, Central Station EX may have internal defect.<br>Contact your dealer or distributor.</td></tr>
<tr><td rowspan="10">4</td><td rowspan="10">Air conditioning cannot be controlled by Central Station EX.</td><td>Doesn’t either ERROR LED, 7-segment LED indicate as following?<table><tr><th>ERROR LED State</th><th>7-segment LED Indication</th></tr><tr><td>One flashing per 3 seconds</td><td>00E</td></tr></table></td><td>Communication is not properly established. Check the wiring connection for air conditioning units and H-LINK.</td></tr>
<tr><td>Are all the power on air conditioners turned ON?</td><td>Turn ON the power on all air conditioners.</td></tr>
<tr><td>Is the terminal resistance on H-LINK wiring correctly set?</td><td>Set only 1 terminal resistance on one H-LINK wiring.</td></tr>
<tr><td>Is all address for air conditioners configured correctly?</td><td>Set the address for air conditioners according to manuals for units.</td></tr>
<tr><td>Isn’t H-LINK wiring disconnected?</td><td>Check the wiring connection for H-LINK.</td></tr>
<tr><td>Isn’t H-LINK wiring placed along with power line?</td><td>Provide free space of 150mm or longer for each wiring.</td></tr>
<tr><td>Does H-LINK wiring meet specification requirement described in page 9?</td><td>Use the following cable:<br>- Recommended Size: 0.75~1.25mm$^2$<br>- Total Length: Max. 1,000m</td></tr>
<tr><td>Isn’t H-LINK LED turned off?</td><td>Check the wiring connection for H-LINK.</td></tr>
<tr><td>Doesn’t H-LINK LED stay lit?</td><td>Central Station EX may have internal defect. Contact your dealer or distributor.</td></tr>
</table>

## 24. Memory Cards

Central Station EX provides slots for microSD/microSDHC memory cards that apply to SD standard.

<Regarding trademarks>
microSD and microSDHC logos are trademark of SD-3C, LLC.



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