

TOSHIBA

For commercial use

Group Remote Controller
(Compact group controller)

RBP-RC001-E

Installation & Owner's Manual

Multilingual installation manuals and owner's manual



[Česky] Stažení Instalační příručky a Uživatelské příručky
[Deutsch] Installationshandbuch und Bedienungsanleitung herunterladen
[Ελληνικά] Λήψη εγχειριδίου εγκατάστασης και εγχειριδίου κατόχου
[English] Installation manual and Owner's manual Download
[Hrvatski] Preuzimanje Instalacijskog priručnika i Vlasničkog priručnika
[한국어] 설치 설명서 및 사용자 설명서 다운로드
[Türkçe] Kurulum kılavuzu ve Kullanıcı kılavuzu İndirme
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<https://www.toshiba-carrier.co.jp/global/manual/rbp-rc001-e.htm>

- Thank you for purchasing this group remote controller.
- In order to use this product safely and correctly, please read this Installation & Owner's Manual carefully before use and make sure that you fully understand the contents.
In particular, please be sure to read the "Safety Precautions".
- After reading this manual, be sure to keep it in a place where the operator of the Unit can always view it.
- This product uses bitmap fonts manufactured and sold by Ricoh Industrial Solutions Inc.

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1 Safety Precautions

Installation Precautions

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

Usage Precautions

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

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






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

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




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



 **WARNING**

Installation Precautions


| | | | |
|---|---|---|---|
|  Compulsory | Ask an authorized dealer or qualified installation professional to install or reinstall this unit. Inappropriate installation may result in electric shock or fire. |  Compulsory | Always connect to ground. Improper grounding may result in an electric shock. Before connecting the power, carry out Class D grounding according to the "Engineering Standard for Electric Work" and the "Internal Wiring Regulations". |
|  Use specified products | Use the heat source products designated by us. Please use the heat source products designated by us. Using products other than specified may cause fire, electric shock, or water leakage. Also, please ask a professional for installation work. |  Compulsory | <ul style="list-style-type: none"> • Electrical work must be performed by a qualified electrician in accordance with this installation manual. The work must satisfy all local, national and international regulations. Inappropriate work may result in electric shock or fire. • Be sure to turn off all main power supply switches before starting any electrical work. Failure to do so may result in electric shock. |
|  Compulsory | Do not use a power source other than the specified model. Using a power source other than the specified model may cause fire or failure. Please use 220-240 VAC. | | |


Usage Precautions

| | |
|---|--|
|  Prohibited | Do not operate the switches with wet hands. Doing so may cause electric shock or failure. |
|  Prohibited | Do not modify the unit. A fire or an electric shock may occur. |
|  Prohibited | Do not wet the group remote controller. Be careful not to get the group remote controller wet. Doing so may cause fire, electric shock, or failure. |

| | |
|---|--|
|  Prohibited | Do not start or stop the heat source machine by turning on / off the power switch or circuit breaker. Doing so may cause fire, or electric shock. |
|  Compulsory | Turn off the power if anything is abnormal (burnt odour etc). Continued use may cause fire or electric shock. Please ask the dealer from whom you purchased the product. |



Relocation & Repair Precautions



| | |
|---|--|
|  Request relocation | Contact a specialist or the dealer from whom you purchased the unit to relocate and re-install the heat source machine. Faulty installation may cause fire, electric shock injury. |
|---|--|

| | |
|--|--|
|  Request | Please ask the dealer from whom you purchased the unit for repair. Faulty repair may cause fire or electric shock. |
|--|--|


 **CAUTION**


Installation Precautions

| | |
|--|---|
|  Prohibited | Do not install in the following locations. Doing so may cause a failure. <ul style="list-style-type: none"> • Locations where combustible gas may leak. • Locations with high humidity or water. • Dusty locations. • Locations in direct sunlight and locations subject to high temperatures. • Locations within 1 m from televisions or radios. • Locations where noise is generated. • Outdoors, under awnings, or other locations exposed to rain and dew. • Locations exposed to outside air containing corrosive gases or salinity. • Locations with frequent vibrations. |
|  Check the installation location | Depending on the installation location, it may be necessary to install an earth-leakage circuit breaker. If the earth leakage breaker is not installed, it may cause an electric shock. |

| | |
|--|---|
|  Compulsory | <ul style="list-style-type: none"> • In installation work, use wiring with the correct ampacity. Failure to do so may result in excessive heat or fire. • Use specified cables and connect them securely, and do not subject connecting terminals to external force. Doing so may result in broken cables, excessive heat or fire. • Always install a circuit breaker on the primary side of the power supply. • When attaching to a metal lath, wire lath or wooden structure with metal boards, attach it to the control panel, etc, without attaching it to the wall . |
|  Check the installation location | Do not use this device in locations where children may be present. |

Usage Precautions

| | |
|---|--|
|  Prohibited | Do not drop the product or apply strong shock. Doing so may cause a failure. |
|---|--|

| | |
|---|---|
|  Compulsory | When cleaning and checking, turn off the circuit breaker or the earth-leakage breaker. Failing to do so may cause injury. |
|---|---|

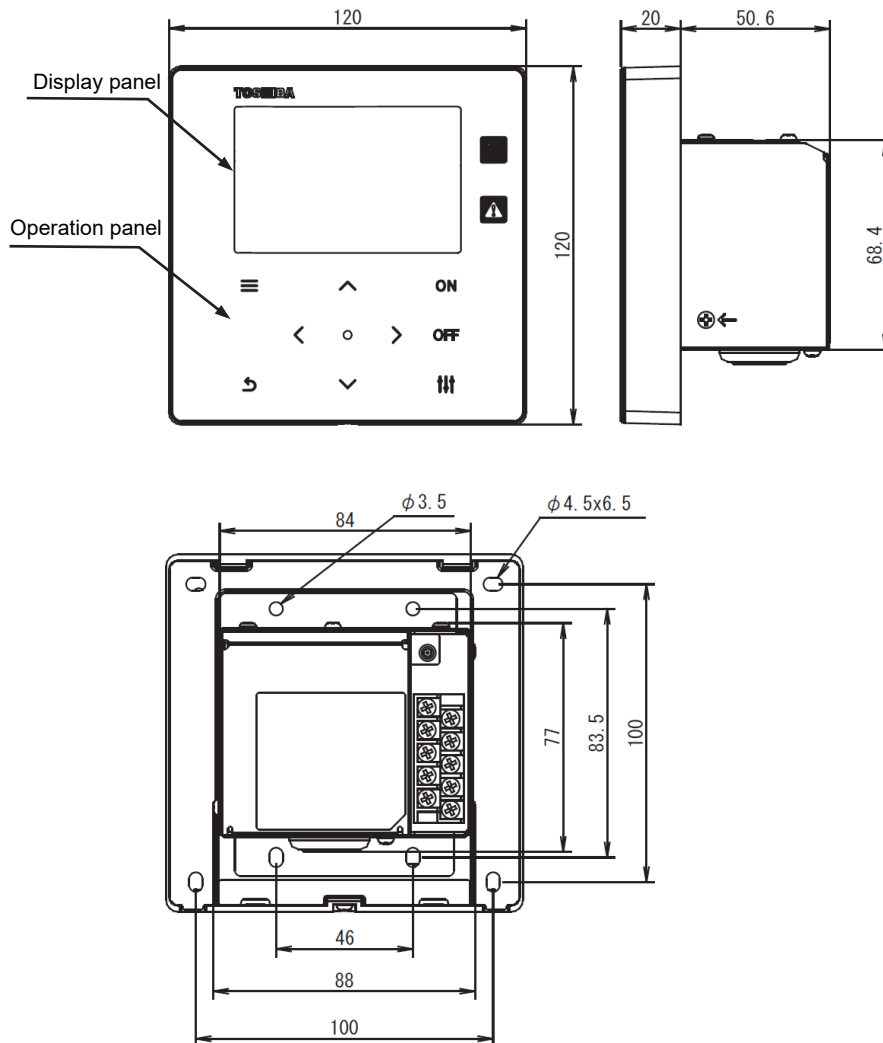
2 Specifications

2-1 Product specifications

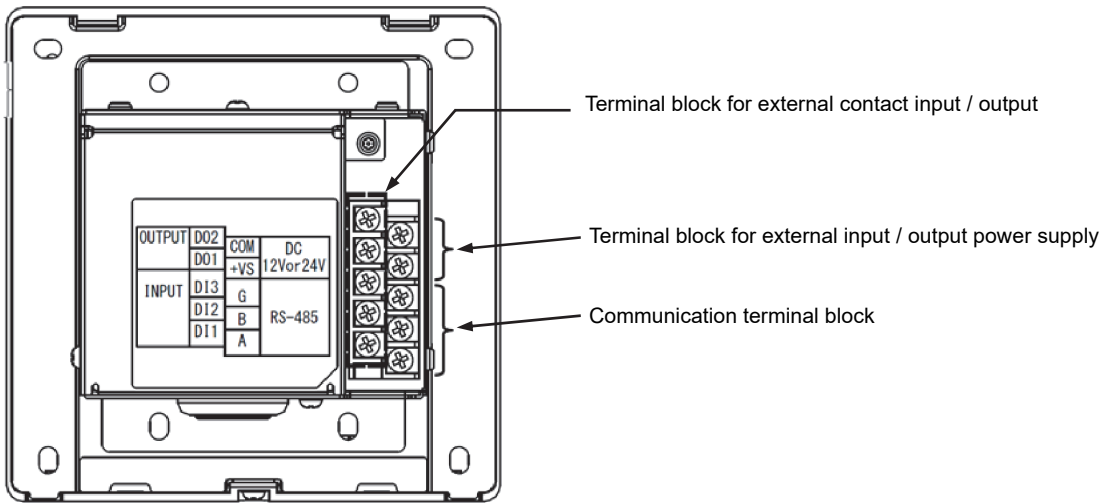
| | |
|--------------------------------------|---|
| Product name | Group Remote Controller |
| Model name | RBP-RC001-E |
| Power supply | 220 to 240 VAC 50/60 Hz |
| Power consumption | 6 W |
| Number of connected units | Up to 2 units (For USX series module controllers) |
| External contact inputs | 3 |
| External contact output | 2 |
| Operating temperature/humidity range | 0 °C to 40 °C, 10% to 90% RH (no condensation) |
| Installation location | Indoor Installation only |
| Dimensions | H 120 × W 120 × D 20 (+50.6) mm (Embedded dimensions shown in parenthesis) |
| Mass | 0.6 kg |

2-2 Outline Drawing

(Unit: mm)



2-3 Names of each part



| Name | Function |
|---|--|
| Terminal block for external contact input / output | Connect the signal wires for external contact input / output |
| Terminal block for external input / output power supply | Connect the power supply wires for external contact input / output |
| Communication terminal block | Connect the RS-485 communication wiring |

2-4 Included Items

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

| No. | Component name | Q'ty | Remark |
|-----|-----------------------------------|------|-------------|
| 1 | Group Remote Controller main unit | 1 | |
| 2 | Installation & Owner's Manual | 1 | This manual |
| 3 | Fixing screw | 4 | M4 × 20 |
| 4 | Fixing screw | 4 | M3.8 × 16 |

2-5 Wiring specifications

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

| No. | Wiring | Wire type / wire diameter / wire length |
|-----|-------------------------|---|
| 1 | For RS485 communication | Shielded twisted pair wire 0.75 mm ² , up to 100 m 1.25 mm ² , up to 500m |
| 2 | For power supply | 2mm ² , up to 50m |
| 3 | For digital I/O | Multi-core cable 0.5 mm ² , up to 100m |

2-6 Screw size of each terminal

| Terminal | Screw size |
|---|------------|
| Power terminal / Ground terminal | M4 |
| Terminal block for external contact input / output | M3 |
| Terminal block for external input / output power supply | |
| Communication terminal block | |

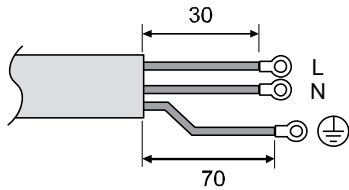
3 Installation

3-1 Power, Signal, Earth and Communication Line Connections

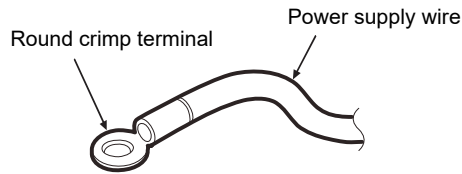
Connect the power, signal earth and communication lines to the specified terminal blocks.
 Attach round crimp terminals to all wiring and tighten the screws securely.
 After tightening, check that the wiring cannot come out.

About Stripping Length

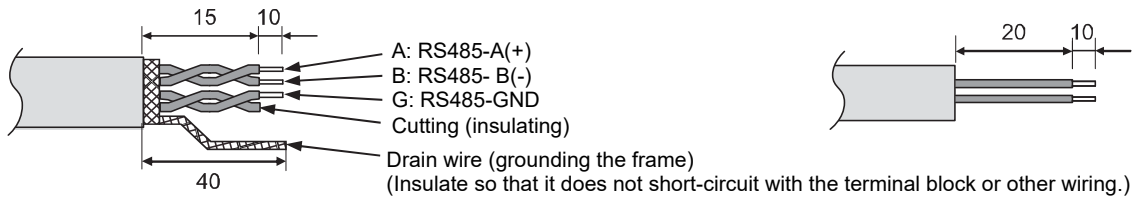
Power supply wire stripping length



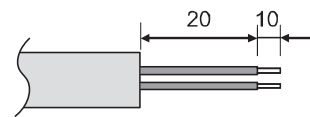
Attach a round crimp terminal to each wire of the power supply wire.



Communication wire stripping length



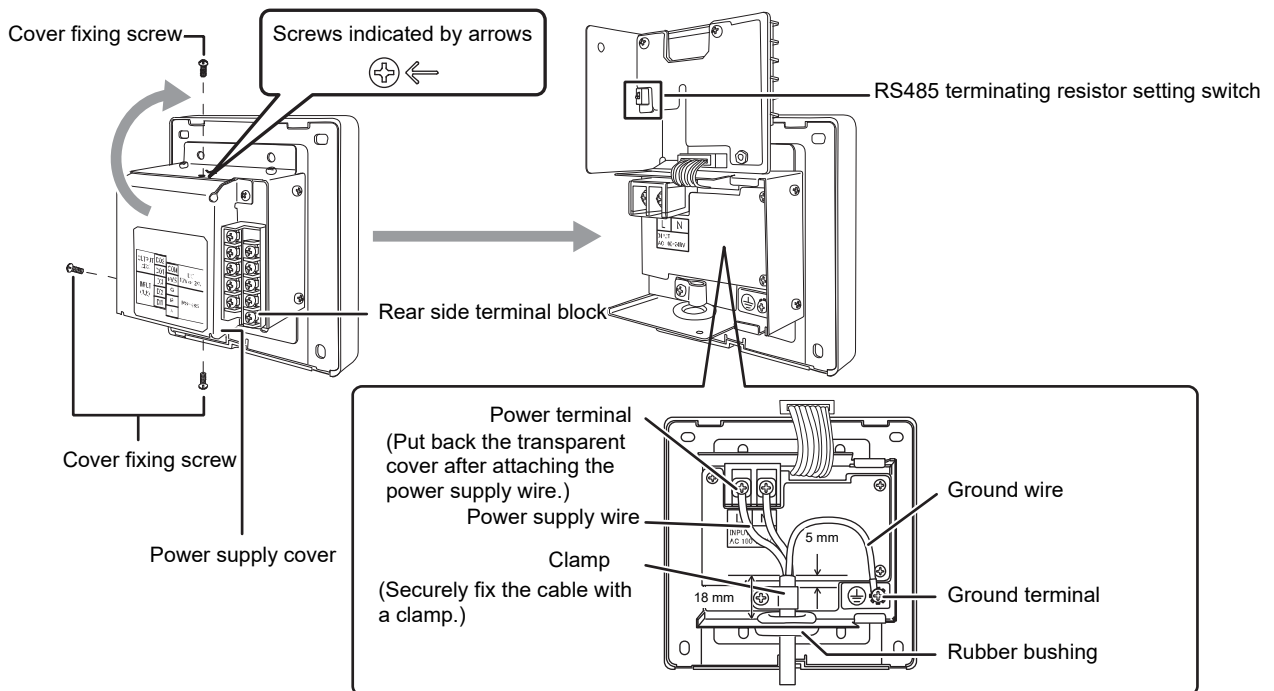
Signal wire stripping length



3-2 Power supply wire and ground wire connection

Connecting the power supply wire and the ground wire

- (1) Remove 3 cover fixing screws pointed to by arrows and open the cover.
- (2) Insert cross notches in the rubber bushing in order to pass the power supply cable.
- (3) Pass the power supply cable through the rubber bushing and the clamp, and connect the power supply wire and the ground wire to the specified terminal block.
- (4) Close the cover and secure with 3 cover fixing screws.



[REQUIREMENT]

- Do not connect the device directly to the primary side of the power supply.
- Be sure to install a circuit breaker or earth-leakage breaker on the primary side of the power supply.
- Fasten the screws to the terminal block with torque of $0.5 \text{ N} \cdot \text{m}$.

3-3 Connecting the communication wires

Communication wire connection procedure

RS-485 communication wire has polarity.

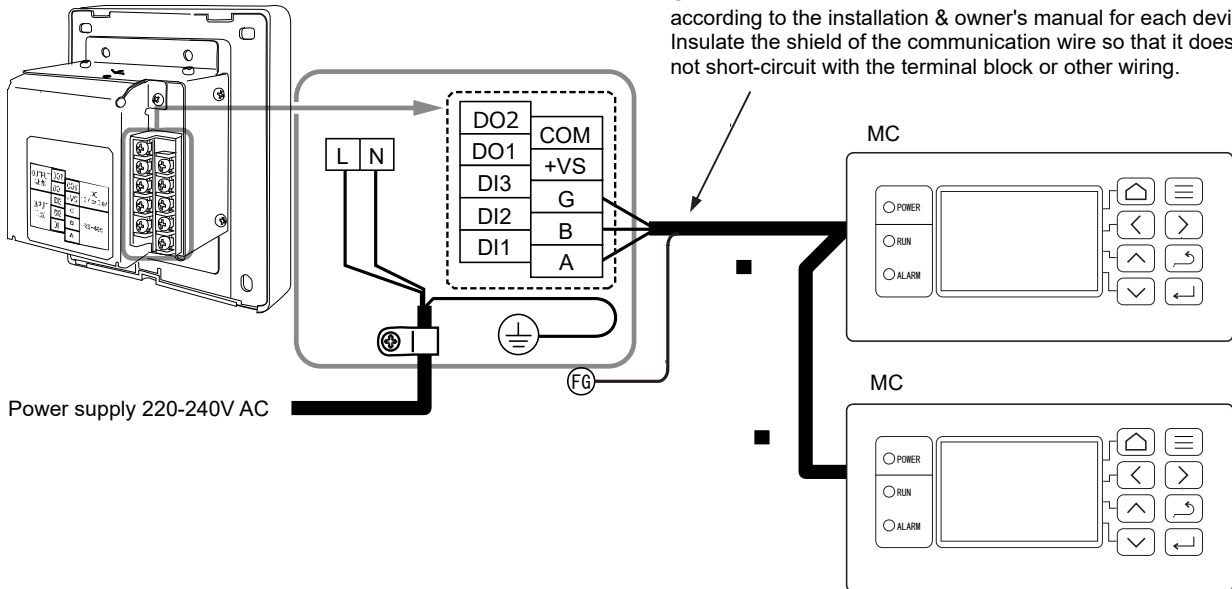
A: RS-485-A (+)

B: RS-485-B (-)

G: RS-485-GND

Ground the shield of the communication wire to the frame of the group remote controller, and do not ground it on the connected device side (MC side).

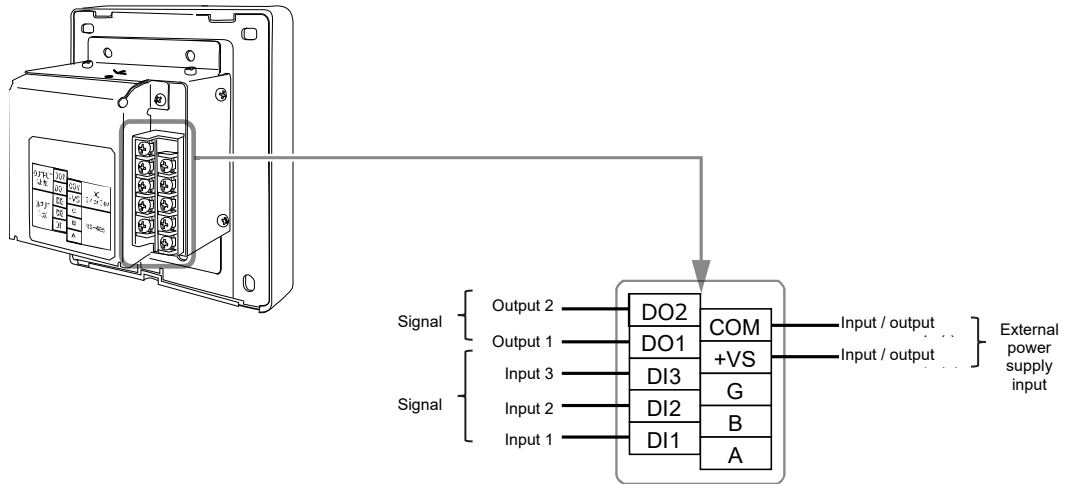
Connect the communication wire on the connected device side according to the installation & owner's manual for each device. Insulate the shield of the communication wire so that it does not short-circuit with the terminal block or other wiring.



[REQUIREMENT]

- Fasten the screws to the terminal block with torque of 0.5 N · m.

3-4 Connection to External Equipment



Example of connection to external equipments

| Name | I/O Item | This unit side | | | Equipment side | |
|----------------------|---------------|---|---------|--------------------------|-----------------|---|
| | | I/O conditions | Circuit | Terminal name | Circuit example | I/O conditions |
| Digital I/O terminal | Signal output | Contact A static signal output Contact permissible voltage/current DC 24 V/90 mA | | +VS DO1 DO2 | | |
| | Signal input | Contact A static or pulse signal input (It depends on the input function settings. For details, Refer to the I/O function list (P. 50).) A contact that supports microcurrent must be selected and used. | | DI1 DI2 DI3 COM | | Pulse width of pulse signal input: 500 ms or more |

- * Wire the cables so that the user does not touch the power supply directly.
- * On the equipment side, use a basically insulated power circuit and place it in a location that where the user cannot touch it.
- * Procure the external power supply for the digital I/O locally.
- * Functions can be assigned to digital inputs 1 to 3 and digital outputs 1 to 2. Refer to "I/O settings (P. 40)"
- * Group remote controller cannot be connected to equipment by our remote monitoring or open protocol (BACnet, Modbus).

[REQUIREMENT]

- Fasten the screws to the terminal block with torque of 0.5 N · m.

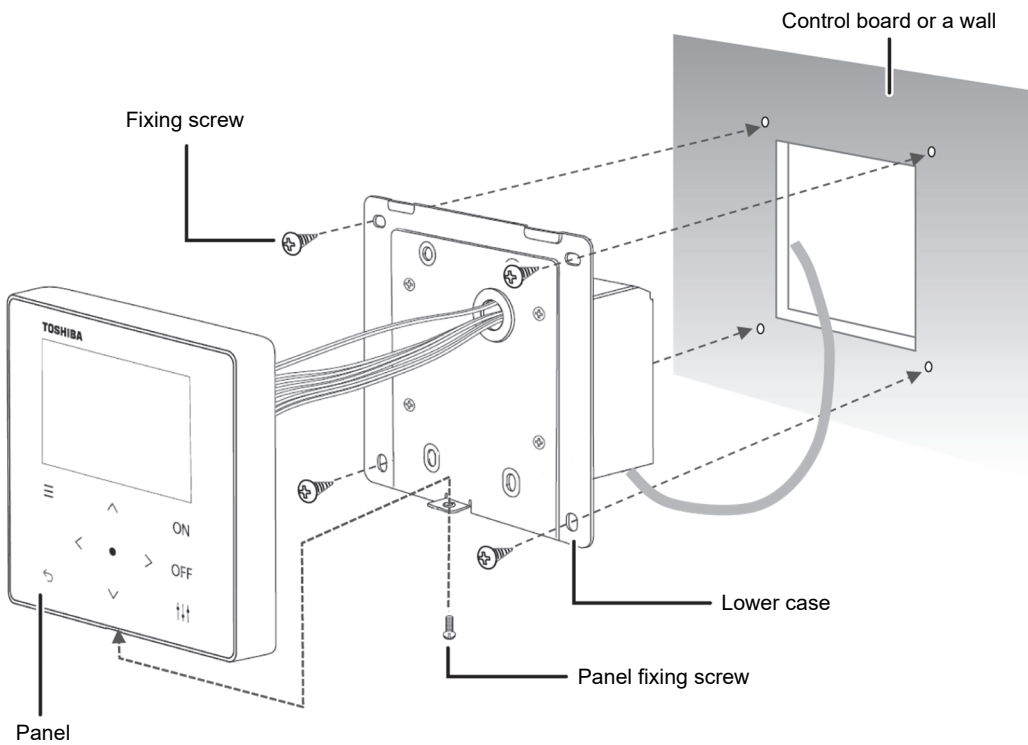
3-5 How to Install

⚠ CAUTION

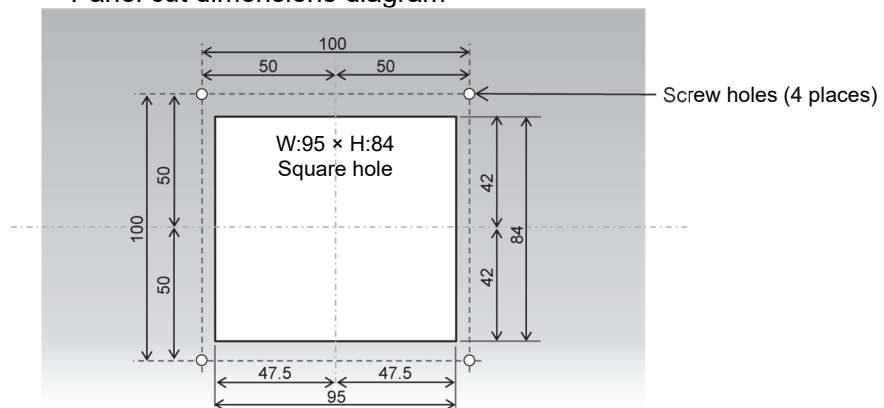
- Do not wire communication lines or input/output wiring next to power supply wiring, etc, or house them in the same metal pipe. Doing so may result in failure.
- Install the group remote controller away from the noise sources.

The thickness of the board or wall must be 1.6 mm to 10 mm.

- Prepare the holes for installation beforehand, following the the diagram below (Panel cut dimensions diagram).
- Remove 1 panel fixing screw and open the panel.
- Attach the lower case with the four included fixing screws.
- Close the panel and attach it with 1 panel fixing screw.



< Panel cut dimensions diagram >

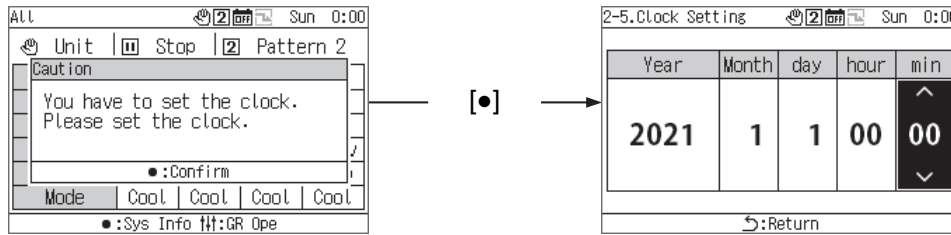


3-6 Clock Setting

CAUTION

- When the power is turned on for the first time or if the power has been shut down for three days or more, the clock may be initialized (to January 1, 2021). If the clock is initialized, the message below appears. Press the [●] (Confirm) button to switch to the Clock Setting screen. Be sure to set the clock with the clock setting method.
- If the clock is initialized, no schedules will be executed until the clock is set.
- If the clock is initialized, the schedule settings will also be initialized. (The event settings will not be initialized.) If you use a schedule, set the schedule again after setting the clock.

Start screen that appears when the clock is initialized



4 Group remote controller overview

4-1 Overview

The group remote controller (hereinafter referred to as GR) is a compact group controller that connects the following heat source equipment and instructs the distribution of the water system of the heat source equipment, operation mode, set temperature, and start / stop.

Heat source equipment that can be connected to GR (Note)

| | | |
|------------------|---------------------------------|------------------|
| USX, EDGE series | Heat Recovery CAONS Series 1, 2 | SFMC Series 4, 5 |
| CAONS700 | | |

[In the case of Universal Smart X (USX and EDGE Series), CAONS700, and Super Flex Modular Chiller (SFMC Series 4, 5)]

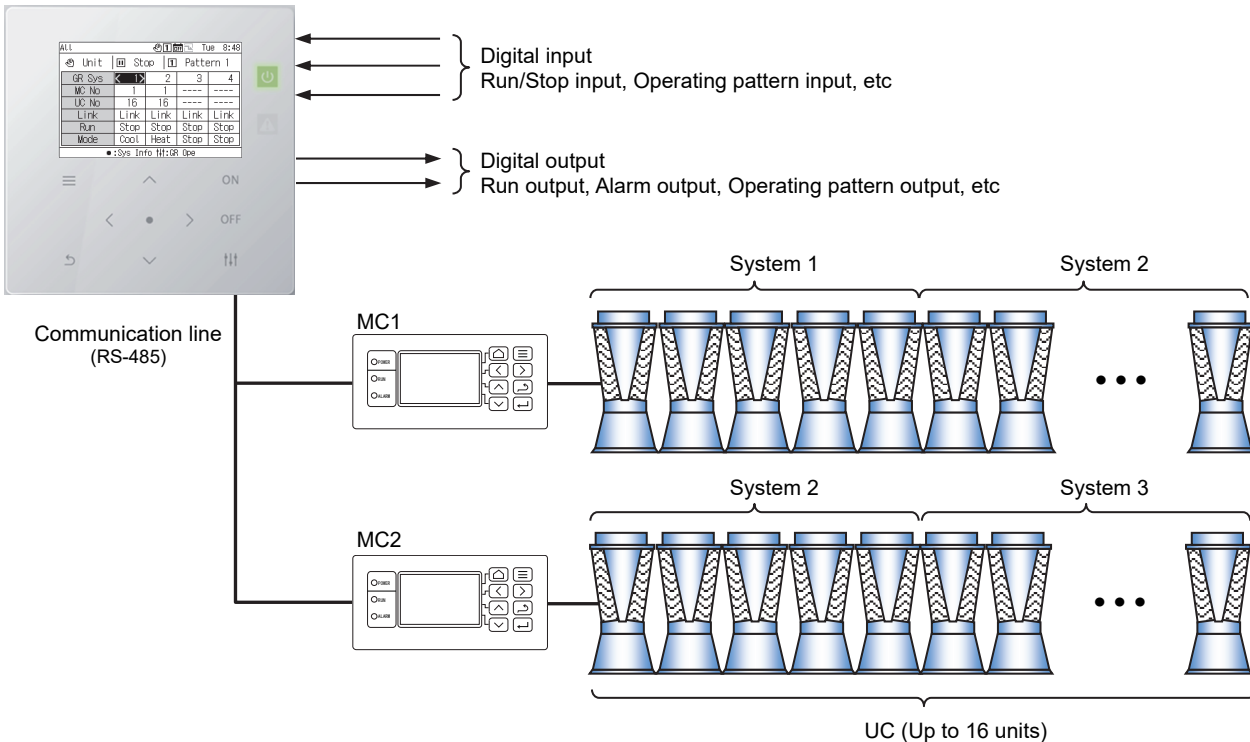
The GR can connect up to two module controllers (hereinafter referred to as MC). By connecting up to 16 unit controllers (hereinafter referred to as UC) to each MC, up to 32 UCs can be controlled.

And you can control up to 4 water systems. The UC can be distributed and controlled for each water system. (Up to 2 water systems can be controlled for each MC. A UC extending over MCs can be set as part of the same system and be controlled.) Each MC detects the required flow rate on the load side according to the GR operation instructions, and instructs each UC to start / stop the built-in inverter pump and the required flow rate or required operating frequency. (For SFMC, USX, EDGE series) It also controls rotation to equalize the operating time of each UC.

Upon receiving the operation instruction from the MC, the UC controls the number and frequency of compressors so that the outlet water temperature approaches the set temperature. The UC then performs rotation control to equalize the operating time of each compressor.

USX connection example and setting example

Group Remote Controller (GR)



Note : The connected models cannot be mixed in the same water system. Also, when connecting a model other than the USX and EDGE series, it is necessary to set the model of the DN code. Refer to the DN code list (P. 51) for model settings.

4-2 Function List

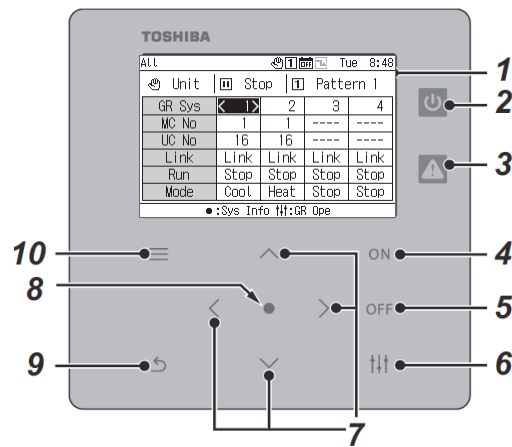
| No. | Function | Remark |
|-----|-------------------------------------|--|
| 1 | Operation status display | System status Run/stop, operation mode, whether failures occurred, operation capacity, outlet/inlet water temperatures, unit flow (Note 1), and simplified power (including pump power) |
| 2 | | Module controller status Run/stop, operation mode, fault code, operation capacity, outlet/inlet water temperatures, unit flow (Note 1), and simplified power (including pump power) |
| 3 | | Module status Run/stop, operation mode, fault code, operation capacity, outlet/inlet water temperatures, unit flow (Note 2), and simplified power (including pump power) |
| 4 | | Circuit status Refrigeration cycle information, compressor operation time, and the number of compressor startups |
| 5 | Operation status output (all) | Run/stop, failure, operation capacity, operation pattern |
| 6 | Run/stop | All or system-by-system |
| 7 | Pattern settings (switching) | Enables you to set GR operation patterns and switch between them. |
| 8 | Operation mode settings (switching) | Enables you to set operation modes for all systems and switch between them. |
| 9 | Set temperature change | Enables you to change the set temperatures for all systems. |
| 10 | Demand | Enables you to restrict the current or operation capacity, using an external demand signal. Enables you to set a demand current and capacity. |
| 11 | System settings | Enables you to distribute all connected modules into systems. (For each module controller system) |
| 12 | Schedule Settings | Enables you to set an operation schedule. (For 5 weeks) |
| 13 | Failure history display | Enables you to check failure history. |
| 14 | Power saving | Enables you to enable and disable the demand setting. To enable the power saving function, the DN code must be set. |

Note 1: In the case of CAONS700, the unit flow, supply water temperature, and return water temperature can be displayed if the signals of the flow meter and external heat source side supply water/return water temperature sensors are input to the MC.

Note 2: CAONS700 do not support this function.

5 Names and Functions of Parts

Operation panel





























| No. | Name | Description (Note 1) |
|-----|--------------------------|--|
| 1 | LCD | — |
| 2 | Operation lamp | ON during running and OFF during stoppage. You can change the output method by setting “Level of operating output”. (Note 2) |
| 3 | Failure lamp | Lights up when a failure occurs. You can change the output method by setting “Level of failure output”. (Note 2) |
| 4 | [ON] button | Press this button to run the GR. Enabled if GR is set to Unit or External (Run/Stop input not set). |
| 5 | [OFF] button | Press this button to stop the GR. If the GR is set to External and Run/Stop input is set, it is switched to unit stop. |
| 6 | [↑↓] (Control) button | Press this button to display the GR operation screen and the system operation screen. |
| 7 | [←, →, [V], [Λ]] buttons | Press these buttons to select an item. |
| 8 | [•] (Confirm) button | Press this button to switch the screen in the order of All→System→MC→UC→Circuit and to select an item and go to the next screen. |
| 9 | [↶] (Return) button | Press this button to return to the previous screen. |
| 10 | [≡] (Menu) button | Press this button to display the Menu screen. |

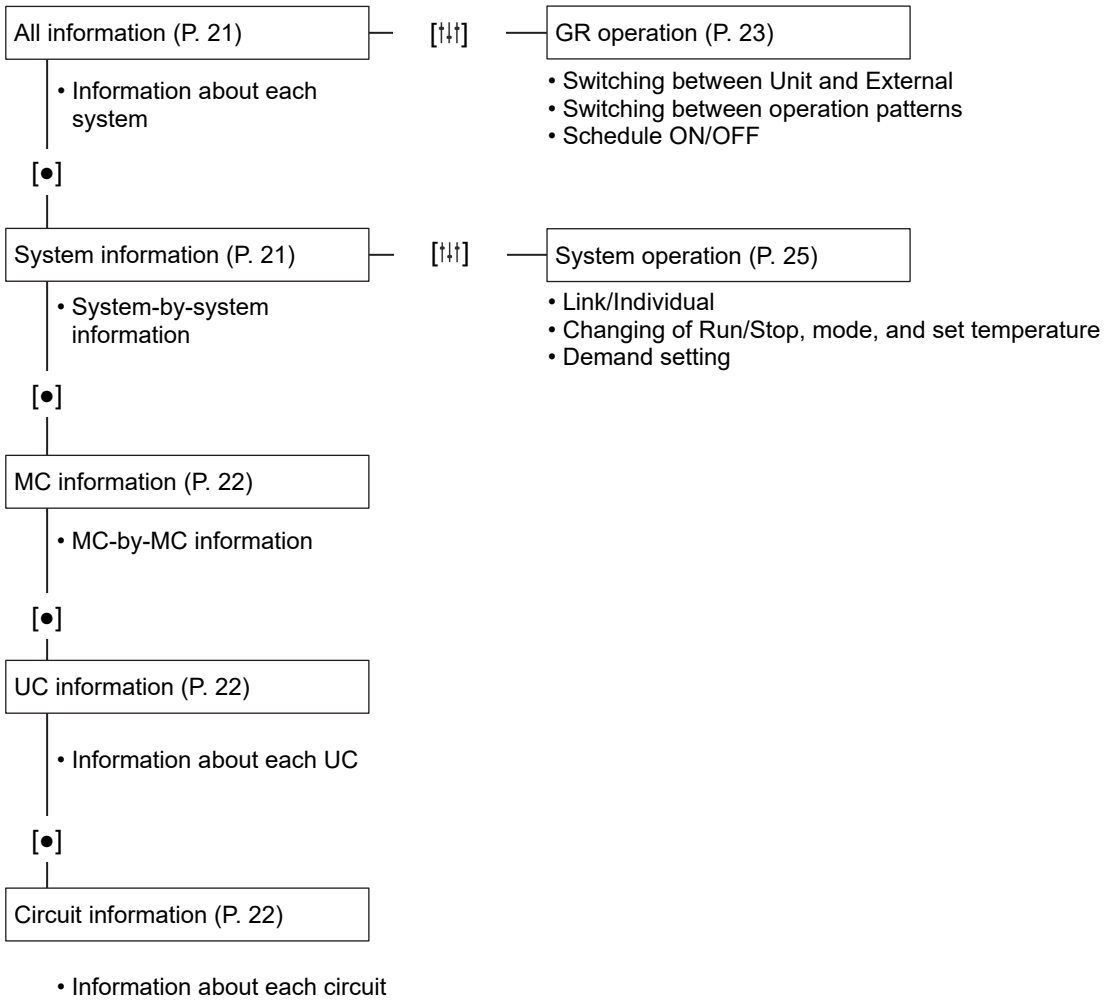
Note 1: If the backlight is OFF although the backlight setting is not “OFF”, press any button to turn ON the backlight. (For a button that is set to be long pressed, the backlight is turned ON after it is long pressed.) Button operations are enabled after the backlight is turned ON.

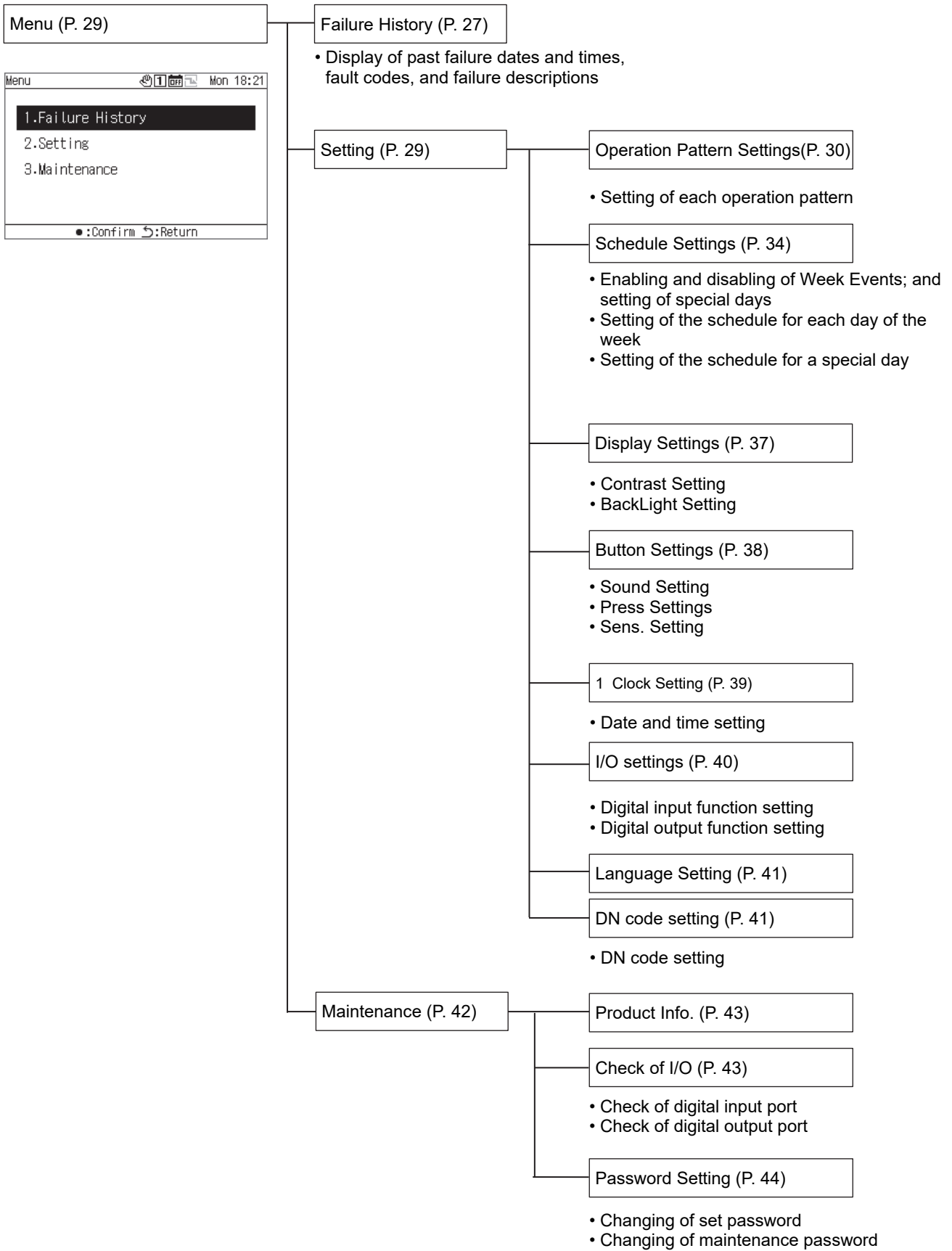
Note 2: For details, refer to “DN code setting (P. 41)”.

6 Icon List

| Item | Icon | Status | Description |
|------------------------------------|---|----------------------|--|
| Unit/External |  | Unit | Indicates that the GR is set to Unit. |
| |  | External | Indicates that the GR is set to External. |
| Run/Stop |  | Stop | Indicates the stopped state. |
| |  | Run | Indicates the running state. |
| Operation pattern |  | Pattern 1 | Indicates that the pattern is operation pattern 1. |
| |  | Pattern 2 | Indicates that the pattern is operation pattern 2. |
| |  | Pattern 3 | Indicates that the pattern is operation pattern 3. |
| |  | Pattern 4 | Indicates that the pattern is operation pattern 4. |
| Operation mode |  | Stop mode | Indicates that the operation mode is Stop. |
| |  | Cool | Indicates that the operation mode is Cool. |
| |  | Heat | Indicates that the operation mode is Heat. |
| |  | Cool storage | Indicates that the operation mode is C.Storage. |
| |  | Heat storage | Indicates that the operation mode is H.Storage. |
| Schedule |  | Disable | Indicates that the execution of the schedule is disabled. |
| |  | Enable | Indicates that the execution of the schedule is enabled. |
| Demand Power saving |  | OFF | Indicates that demand/power saving is OFF. |
| |  | ON | Indicates that demand/power saving is ON. |
| System superiority Individual/Link |  | Individual | Indicates that the system is disconnected from GR operation and is individual. |
| |  | Link | Indicates that the system is linked to GR operation. |
| Schedule Settings |  | Disable | Indicates that events are disabled. |
| |  | Each day of the week | Indicates that an event for a day of the week is set. |
| |  | Special1 | Indicates that an event for special day 1 is set. |
| |  | Special2 | Indicates that an event for special day 2 is set. |
| |  | Special3 | Indicates that an event for special day 3 is set. |
| Others |  | Failure, attention | Displayed in the event of a failure or if attention is required. |
| |  | Restart | Indicates that the setting item is for a DN code that requires a restart. |

7 Screen Structure





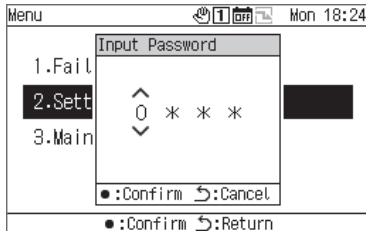
8 Basic Operations

Inputting a password

Select "Setting" or "Maintenance" from the Menu screen to display the Input Password screen.

If no password is set, press [●] (Confirm) without changing the digits.

If you input an incorrect password, an error message appears and the functions are restricted.



1 On the Input Password screen, use [←] and [→] to select an input digit and press [Λ] and [V] to change the number.

2 After inputting a password, press [●] (Confirm).

In the GR, the password for "Setting" differs from that for "Maintenance".
To change the passwords, refer to "Password Setting (P. 44)".

9 Displaying the Operation Status

The operation state appears on the “all information screen”, “system information screen”, “MC information screen”, “UC information screen”, and “circuit information screen”.

For details of the items displayed on each operation status display screen, refer to “14-1List of display items on information screens (P. 45)”.

9-1 All Information

The screenshot shows the 'All Information' screen with the following data:

| | | | | |
|--------|------|------|------|------|
| GR Sys | 1 | 2 | 3 | 4 |
| MC No. | 1 | 1 | ---- | ---- |
| UC No. | 16 | 16 | | |
| Link | Link | Link | Link | Link |
| Run | Stop | Stop | Stop | Stop |
| Mode | Cool | Heat | Stop | Stop |

Callouts from the image:

- Displays [ON]/[OFF] of the GR
- Displays the operation pattern number.
- Displays the GR operation pattern.

- You can switch the displayed item to another, using [^] and [v].
- Use [<] and [>] to move the GR system cursor.
- Use [•] (Confirm) to move to the system information screen for the system where the cursor is positioned.
- Use [↑↑↑] (Control) to move to the GR operation screen (P. 24).
- Use [ON]/[OFF] to run/stop the entire GR.
- Use [≡] (Menu) to move to the Menu screen.

9-2 System Information

The screenshot shows the 'System Information' screen with the following data:

| | |
|------------|------|
| Fault code | |
| MC No. | 1 |
| UC No. | 16 |
| PST | 7.0 |
| LWT | 17.5 |
| EWT | 17.5 |

Callouts from the image:

- Displays the current operating state of the system.
- Displays the operation mode of the system.
- Displays the operation pattern of the system.
- Displays the current system number.

- You can switch the displayed item to another, using [^] and [v].
- Use [<] and [>] to switch the displayed system.
- Use [•] (Confirm) to move to the MC information screen.
- Use [↑↑↑] (Control) to move to the system operation screen (P. 26).
- Use [ON]/[OFF] to run/stop the entire system.
- Use [≡] (Menu) to move to the Menu screen.

9-3 MC Information

The screenshot shows the MC Information screen with the following fields and callouts:

- System Status:** Displays the current operating state of the system.
- MC-Sys.:** Displays the operation mode of the system.
- UC No.:** Displays the operation pattern of the system.
- System Number:** Displays the current system number.

| | | | | |
|------------|------|--|--|--|
| MC-Sys. | 1A | | | |
| Fault code | | | | |
| UC No. | 16 | | | |
| Remote | Rmt | | | |
| Run | Stop | | | |
| Mode | Cool | | | |

You can switch the displayed item to another, using [^] and [v].
 Use [<] and [>] to move the MC-Sys cursor.
 Use [•] (Confirm) to move to the UC information screen.
 Use [ON]/[OFF] to run/stop the entire system.
 Use [≡] (Menu) to move to the Menu screen.

9-4 UC Information

The screenshot shows the UC Information screen with the following fields and callouts:

- UC:** Displays the current operating state.
- UC Mode:** Displays the operation mode.
- UC No.:** Displays the operation pattern.
- MC Number:** Displays the current MC number.

| | | | | |
|------------|------|------|------|------|
| UC | 1 | 2 | 3 | 4 |
| Fault code | | | | |
| Remote | Rmt | Rmt | Rmt | Rmt |
| Run | Stop | Stop | Stop | Stop |
| Mode | Cool | Cool | Cool | Cool |
| Opn Cap | 0 | 0 | 0 | 0 |

You can switch the displayed item to another, using [^] and [v].
 Use [<] and [>] to move the UC cursor.
 Use [•] (Confirm) to move to the circuit information screen.
 Use [ON]/[OFF] to run/stop the entire unit.
 Use [≡] (Menu) to move to the Menu screen.

9-5 Circuit Information

The screenshot shows the Circuit Information screen with the following fields and callouts:

- Circuit:** Displays the current operating state.
- Circuit Mode:** Displays the operation mode.
- Circuit No.:** Displays the operation pattern.
- UC Number:** Displays the current UC number.

| | | | | |
|---------|------|------|------|------|
| Circuit | A | B | C | D |
| Comp. | OFF | OFF | OFF | OFF |
| H Press | 2.04 | 2.05 | 2.06 | 2.07 |
| L Press | 1.94 | 1.93 | 1.92 | 1.91 |

You can switch the displayed UC to another, using [<] and [>].
 Use [ON]/[OFF] to run/stop the entire circuit.
 Use [≡] (Menu) to move to the Menu screen.

10 Operating Methods

10-1 Switching the group remote controller between Run/Stop and switching between operation patterns

To switch the GR between Run/Stop and switch between operation patterns, use a unit operation or an external signal. Which of a unit operation or an external signal to use for switching differs depending on the Unit/External and input/output function settings of the GR, as in the table below.

For information about switching between Unit and External, refer to “Changing the group remote controller operation settings (P. 24)”.

| Operation item | GR state | | Operating method |
|---------------------------------------|---------------|---------------------------------|--|
| | Unit/External | Input/output settings | |
| Switching the current operating state | Unit | – | Unit operation (ON button and OFF button operation) |
| | External | Run/Stop input not set | |
| | External | Run/Stop input set | External signal |
| Switching the operation pattern | Unit | – | Unit operation (Operation from the GR operation screen) |
| | External | Operation pattern input not set | |
| | External | Operation pattern input set | External signal |

(1) Switching the current operating state

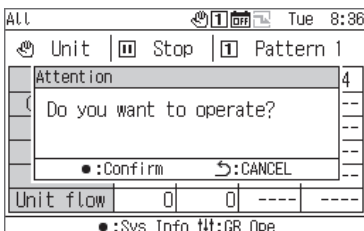
Depending on the current operating state of the GR, any systems that are set to “Link” will run/stop in link with the GR.

In the case of Unit or External (when no Run/Stop input is set)

With the unit operation on the GR (ON button and OFF button operation), switch the current operating state of the GR.

For information about switching between Unit and External, refer to “Changing the group remote controller operation settings (P. 24)”.

* While the failure history screen or various setting/maintenance screen is displayed, you cannot operate the ON button or the OFF button.



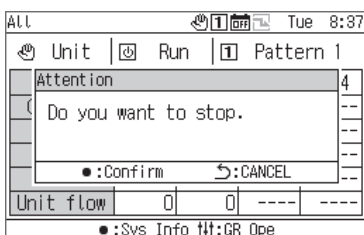
To run the GR

1 Press [ON].

The message screen appears.

2 Press [•] (Confirm).

Any “Link” systems enter the operation state and the operation lamp is turned ON.



To stop the GR

1 Press [OFF].

The message screen appears.

2 Press [•] (Confirm).

Any “Link” systems enter the stop state and the operation lamp is turned OFF.

In the case of external operation (when Run/Stop input is set)

Switch the current operating state of the GR with an external Run/Stop input signal. The unit operation (ON button operation) is disabled.

During running with an external signal, performing a unit stop operation (OFF button operation) causes a message to be displayed, so that you can switch to unit stop.

For information about switching between Unit and External, refer to “Changing the group remote controller operation settings (P. 24)”.

(2) Switching the operation pattern

In the case of Unit or External (operation pattern input not set)

Switch between operation patterns with an operation on the “GR operation screen”.

For information about switching between Unit and External, refer to “Changing the group remote controller operation settings (P. 24)”.

In the case of External (operation pattern input is set)

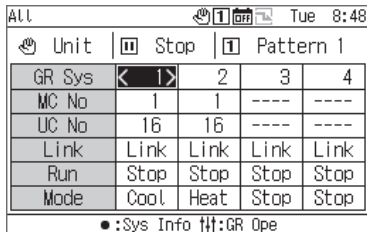
Switch between operation patterns with an external operation pattern input signal.

The operation pattern switching operation on the “GR operation screen” is disabled.

For information about switching between Unit and External, refer to “Changing the group remote controller operation settings (P. 24)”.

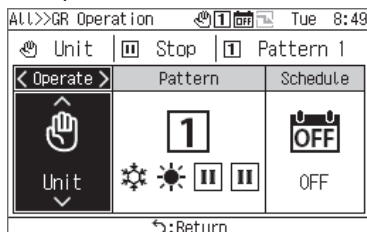
(3) Changing the group remote controller operation settings

All information screen



1 On the all information screen, press [↑↑↑] to display the GR operation screen.

GR operation screen



2 Use [<] and [>] to select the item to change.
For information about how to set each item, refer to the table below.

3 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

List of the setting items on the remote controller operation screen

| Item | Description |
|----------|--|
| Operate | Use [^] and [V] to switch between Unit and External. |
| Pattern | Use [^] and [V] to switch between operation patterns 1 to 4. In the case of Unit or External (operation pattern input not set), the operation is enabled. * You can change the contents of operation patterns with “Operation Pattern Settings (P. 30)”. |
| Schedule | Use [^] and [V] to switch between ON and OFF. * Does not operate if the clock is not set. Does not operate on days when no events are set or the schedule is disabled. |

10-2 System operation

When set to Link, a system runs/stops in link with the current operating state of the GR.

When set to Individual, a system is operated on the system operation screen.

For information about switching between Link and Individual, refer to P. 26.

(1) Switching the current operating state

In the case of Link

The system also runs/stops in link with the current operating state of the GR and the operation mode of the operation pattern.

In the case of Individual

In the case of Individual, the system runs/stops with operation on the system operation screen.

All information screen

| | | | | | | | | | |
|----------------------|-------|-----------|------|------|----------|--|--|--|--|
| ALL | | | | | Tue 8:48 | | | | |
| Unit | Stop | Pattern 1 | | | | | | | |
| GR Sys | < 1 > | 2 | 3 | 4 | | | | | |
| MC No | 1 | 1 | ---- | ---- | | | | | |
| UC No | 16 | 16 | ---- | ---- | | | | | |
| Link | Link | Link | Link | Link | | | | | |
| Run | Stop | Stop | Stop | Stop | | | | | |
| Mode | Cool | Heat | Stop | Stop | | | | | |
| ●:Sys Info ††:GR Ope | | | | | | | | | |

1 On the all information screen, press [●] to display the system information screen.

System information screen

| | | | |
|-------------------------------|------------|----------|------|
| ALL>>Sys. | | Tue 8:51 | |
| < Sys 1 > | Indiv | Stop | Cool |
| | Fault code | | |
| | MC No. | 1 | |
| | UC No. | 16 | |
| | PST | 7.0 | |
| | LWT | 17.5 | |
| EWT | 17.5 | | |
| ●:MC Info ↵:Return ††:Sys Ope | | | |

2 On the system information screen, press [††] (Control) to display the system operation screen.

System operation screen

| | | | |
|----------------------------------|---------|----------|------|
| ALL>>Sys.>>Sys.Ope. | | Tue 8:52 | |
| Sys 1 | Indiv | Stop | Cool |
| Operate | < Run > | Mode | |
| | | | |
| Indiv | Run | Cool | |
| ↵:Return | | | |
| ALL>>Sys.>>Sys.Ope. | | Tue 8:53 | |
| Sys 1 | Indiv | Stop | Cool |
| Attention | | | |
| Do you want to change operation? | | | |
| ●:Confirm ↵:CANCEL | | | |
| ↵:Return | | | |

3 Press [<] and [>] to position the cursor on Run and use [^] and [v] to select “Run”.

To stop the system, select “Stop”.

4 Press [↵] (Return).

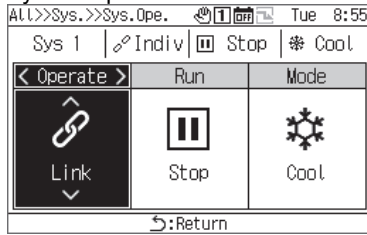
The message screen appears.

5 Press [●] (Confirm).

The displayed system enters the operation state and the operation lamp is turned ON.

(2) Changing the system operation settings

System operation screen



1 On the system information screen, press [$\uparrow\downarrow$] to display the system operation screen.

2 Use [<] and [>] to select the item to change.
For information about how to set each item, refer to the table below.

3 To confirm the changes, press [\rightarrow] (Return) and on the message screen, press [\bullet] (Confirm).

List of the setting items on the system operation screen

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---------------|--------------------------|---------------|--------------------------|--|---------------|---------------|---------------|---------------|------------------|-----|-------------|------|--------------|------------------|-----|-------------|------|--------------|----------|---|---|------|--------------|------------------------------|---|---|------|--------------|------------------------------|------|-------------|------|--------------|
| Operate | Use [\wedge] and [\vee] to switch between Link and Individual. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Run | Use [\wedge] and [\vee] to switch the current operating state. *If Operate is "Link", you cannot operate the system. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mode | Use [\wedge] and [\vee] to switch between Stop, Cool, and Heat. *If Operate is "Link", you cannot operate the system. *Changing the mode does not change the mode for the operation pattern. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cool PST Heat PST | <p>Set the set temperatures for Cool/Heat. Select either "C.PST" or "H.PST" and press [\bullet] (Confirm) to display the set temperature input screen. Use [<] and [>] to select an input digit, use [\wedge] and [\vee] to change the value, and press [\bullet] (Confirm).</p> <p>The valid setting ranges are as in the table below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Model</th> <th colspan="2">Cool PST [$^{\circ}$C]</th> <th colspan="2">Heat PST [$^{\circ}$C]</th> </tr> <tr> <th>Initial value</th> <th>Setting range</th> <th>Initial value</th> <th>Setting range</th> </tr> </thead> <tbody> <tr> <td>USX, EDGE Series</td> <td>7.0</td> <td>4.0 to 30.0</td> <td>45.0</td> <td>25.0 to 55.0</td> </tr> <tr> <td>SFMC Series 4, 5</td> <td>7.0</td> <td>5.0 to 25.0</td> <td>45.0</td> <td>35.0 to 55.0</td> </tr> <tr> <td>CAONS700</td> <td>–</td> <td>–</td> <td>65.0</td> <td>50.0 to 90.0</td> </tr> <tr> <td>Heat Recovery CAONS Series 1</td> <td>–</td> <td>–</td> <td>65.0</td> <td>50.0 to 85.0</td> </tr> <tr> <td>Heat Recovery CAONS Series 2</td> <td>30.0</td> <td>9.0 to 35.0</td> <td>65.0</td> <td>50.0 to 85.0</td> </tr> </tbody> </table> <p>*If you change the set temperature, the set temperature of the currently selected operation pattern is changed.</p> | Model | Cool PST [$^{\circ}$ C] | | Heat PST [$^{\circ}$ C] | | Initial value | Setting range | Initial value | Setting range | USX, EDGE Series | 7.0 | 4.0 to 30.0 | 45.0 | 25.0 to 55.0 | SFMC Series 4, 5 | 7.0 | 5.0 to 25.0 | 45.0 | 35.0 to 55.0 | CAONS700 | – | – | 65.0 | 50.0 to 90.0 | Heat Recovery CAONS Series 1 | – | – | 65.0 | 50.0 to 85.0 | Heat Recovery CAONS Series 2 | 30.0 | 9.0 to 35.0 | 65.0 | 50.0 to 85.0 |
| Model | Cool PST [$^{\circ}$ C] | | Heat PST [$^{\circ}$ C] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Initial value | Setting range | Initial value | Setting range | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| USX, EDGE Series | 7.0 | 4.0 to 30.0 | 45.0 | 25.0 to 55.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SFMC Series 4, 5 | 7.0 | 5.0 to 25.0 | 45.0 | 35.0 to 55.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAONS700 | – | – | 65.0 | 50.0 to 90.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Recovery CAONS Series 1 | – | – | 65.0 | 50.0 to 85.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Recovery CAONS Series 2 | 30.0 | 9.0 to 35.0 | 65.0 | 50.0 to 85.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Demand | <p>Set the demand current (for SFMC Series 4, 5, demand capacity). Select "Demand" and press [\bullet] (Confirm) to display the value input screen. Use [<] and [>] to select an input digit, use [\wedge] and [\vee] to change the value, and press [\bullet] (Confirm).</p> <p>The range of values that can be input is "0" to "30000". *The initial value is "0". Note that if you enable demand/power saving with an incorrect setting, the unit will be stopped. *If you change the demand current and capacity, the demand current and capacity of the currently selected operation pattern is changed.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

11 Displaying Failure History

You can display Failure History of the GR and MCs, up to 16 records for each (48 records in total).

In Failure History, the dates and times failures occurred, the numbers of the MCs, UCs, and circuits in which the failures occurred, fault codes, and failure details are displayed.

The display method differs depending on whether the MC Failure History data contains year information or not.

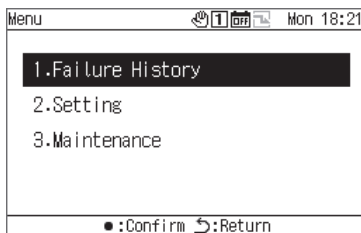
Year information contained: When a failure occurs, the latest fault code appears at the top.

Year information not contained: Failures in the GR, MC1, and MC2 are displayed in this order.

* If at least one device in which the data does not contain year information, the display method for the case in which year information is not contained is used.

11-1 Displaying Failure History

Menu screen



1 Press [≡] to display the Menu screen.

Failure History screen

| No. | Date | Time | MC | UC | Cir. | Code |
|-----|------------|-------|----|----|------|------|
| 1 | 2022-05-26 | 18:13 | 1 | -- | -- | 12 |
| 2 | 2022-05-26 | 18:12 | 1 | -- | -- | 12 |
| 3 | 2022-05-26 | 18:11 | -- | -- | -- | 1C |
| 4 | 2022-05-26 | 18:06 | -- | -- | -- | 1C |
| 5 | 2022-05-19 | 13:35 | 1 | 1 | A | 60 |
| 6 | 2022-05-19 | 13:33 | 1 | 1 | B | 60 |
| 7 | 2022-05-19 | 13:31 | 1 | 1 | C | 60 |
| 8 | 2022-05-19 | 13:29 | 1 | 1 | D | 60 |

•:Clear ↵:Return

2 On the Menu screen, select “Failure History” and press [•] (Confirm).

- Use [Λ] and [V] to switch between pages.
- Use [<] and [>] to display failure details.

Select [<] or [>].

| No. | Code | Fault Contents |
|-----|------|------------------|
| 1 | 12 | Int. comm error |
| 2 | 12 | Int. comm error |
| 3 | 1C | GR comm error |
| 4 | 1C | GR comm error |
| 5 | 60 | High press alarm |
| 6 | 60 | High press alarm |
| 7 | 60 | High press alarm |
| 8 | 60 | High press alarm |

•:Clear ↵:Return

11-2 Clearing Failure History

Failure History screen

| No. | Date | Time | MC | UC | Cir. | Code |
|-----|------------|-------|----|----|------|------|
| 1 | 2022-05-26 | 18:13 | 1 | -- | -- | 12 |
| 2 | 2022-05-26 | 18:12 | 1 | -- | -- | 12 |
| 3 | 2022-05-26 | 18:11 | -- | -- | -- | 1C |
| 4 | 2022-05-26 | 18:06 | -- | -- | -- | 1C |
| 5 | 2022-05-19 | 13:35 | 1 | 1 | A | 60 |
| 6 | 2022-05-19 | 13:33 | 1 | 1 | B | 60 |
| 7 | 2022-05-19 | 13:31 | 1 | 1 | C | 60 |
| 8 | 2022-05-19 | 13:29 | 1 | 1 | D | 60 |

●:Clear ↵:Return



Clearing Failure History

| No. | Date | Time | MC | UC | Cir. | Code |
|-----|------------|-------|----|----|------|------|
| 1 | 2022-05-26 | 18:13 | 1 | -- | -- | 12 |
| 2 | 2022-05-26 | 18:12 | 1 | -- | -- | 12 |
| 3 | 2022-05-19 | 13:35 | 1 | 1 | A | 60 |
| 4 | 2022-05-19 | 13:33 | 1 | 1 | B | 60 |
| 5 | 2022-05-19 | 13:31 | 1 | 1 | C | 60 |
| 6 | 2022-05-19 | 13:29 | 1 | 1 | D | 60 |
| 7 | | | | | | |
| 8 | | | | | | |

●:Clear ↵:Return

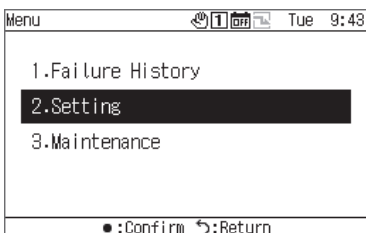
Press [●] (Clear) and on the message screen, press [●] (Confirm).

Failure History of the failures detected by the GR is cleared.

- * You cannot clear the Failure History of MCs from the GR. If you want to clear the Failure History of MCs, you need to clear the Failure History on each MC.

12 Setting Items

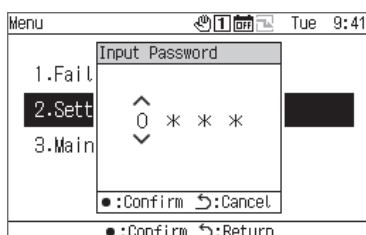
■ Displaying the “Setting” screen



1 Press **[≡]** to display the Menu screen.

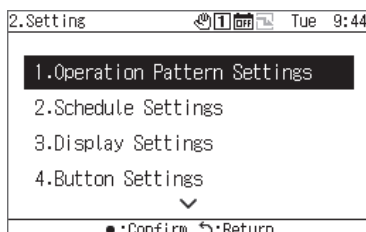
2 On the Menu screen, select “Setting” and press **[●]** (Confirm).

The Input Password screen appears.



3 Input a 4-digit password and press **[●]** (Confirm).

Use [**<**] and [**>**] to select an input digit and use [**^**] and [**v**] to select a number.



4 Use [**^**] and [**v**] to select an item and press **[●]** (Confirm).

Functions may be restricted due to the input password.

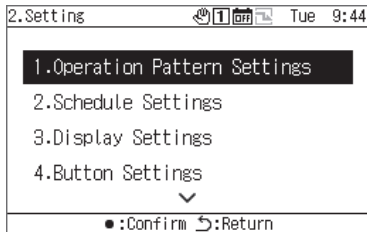
List of setting items

| Setting items | Description | Set password level | | Reference page |
|----------------------------|---|--------------------|------|----------------|
| | | Administrator | User | |
| Operation Pattern Settings | Set an operation pattern. | ● | ○ | P.30 |
| Schedule Settings | Enables you to set an operation schedule. | ● | ○ | P.34 |
| Display Settings | Set the contrast and the backlight ON time. | ● | ● | P.37 |
| Button Settings | Set button operations. | ● | ○ | P.38 |
| Date&time setting | Set a date and time. | ● | ○ | P.39 |
| I/O settings | Set the digital I/O functions. | ● | ○ | P.40 |
| Language Setting | Set the display language. | ● | - | P.41 |
| DN code setting | Set a DN code. | ● | - | P.41 |

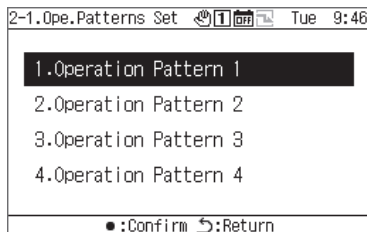
●: Function not restricted, ○: Function restricted, -: Not displayed

12-1 Operation Pattern Settings

An MC (MC system) and UC system assignment for each GR system, operation mode, set temperature, demand setting, sensor setting, and pattern link output can be collected into a single operation pattern. You can set up to 4 operation patterns. During operation, select one of set operation patterns and issue commands to MCs in accordance with the settings of the operation pattern selected for each system.



- 1 On the setting screen, select “Operation Pattern Settings” and press [●] (Confirm).



- 2 Use [Λ] and [V] to select the pattern to change and press [●] (Confirm).

| Operation Settings | | | | |
|--------------------|------|------|------|------|
| GR Sys | 1 | 2 | 3 | 4 |
| MC Gr.Ctrl | OFF | OFF | OFF | OFF |
| Mode | Cool | Heat | Stop | Stop |
| Cool PST | 7.0 | 7.0 | 7.0 | 7.0 |
| Heat PST | 45.0 | 45.0 | 45.0 | 45.0 |
| Demand | 0 | 0 | 0 | 0 |

- 3 Use [<] and [>] to select the setting to change and press [●] (Confirm).

For information about what to set for each item and about how to change each item, refer to the table on the next page.

- 4 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

Operation Settings

Set the operation conditions for each GR system.

Operation settings screen

| Operation Settings | | | | |
|--------------------|------|------|------|------|
| GR Sys | 1 | 2 | 3 | 4 |
| MC Gr.Ctrl | OFF | OFF | OFF | OFF |
| Mode | Cool | Heat | Stop | Stop |
| Cool PST | 7.0 | 7.0 | 7.0 | 7.0 |
| Heat PST | 45.0 | 45.0 | 45.0 | 45.0 |
| Demand | 0 | 0 | 0 | 0 |

●:Change ↵:Return

Set temperature input screen

| Cool PST | | | | |
|----------|---------------|----------|------|---|
| GR Sys | 1 | 2 | 3 | 4 |
| MC Gr.Ct | 7.0 | | | |
| Mode | | | Stop | |
| Cool PST | Maximum: 30.0 | .0 | 7.0 | |
| Heat PST | Minimum: 4.0 | .0 | 45.0 | |
| Demand | ●:Confirm | ↵:Cancel | 0 | 0 |

●:Change ↵:Return

Demand value input screen

| Demand | | | | |
|----------|----------------|----------|------|---|
| GR Sys | 1 | 2 | 3 | 4 |
| MC Gr.Ct | 0 | | | |
| Mode | | | Stop | |
| Cool PST | Maximum: 30000 | .0 | 7.0 | |
| Heat PST | Minimum: 0 | .0 | 45.0 | |
| Demand | ●:Confirm | ↵:Cancel | 0 | 0 |

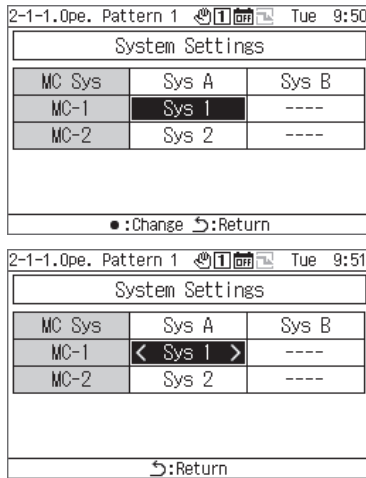
●:Change ↵:Return

List of "Operation Settings" setting items

| Item | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---------------|---------------|---------------|---------------|--|---------------|---------------|---------------|---------------|------------------|-----|-------------|------|--------------|------------------|-----|-------------|------|--------------|----------|---|---|------|--------------|------------------------------|---|---|------|--------------|------------------------------|------|-------------|------|--------------|
| MC Gr.Ctrl | <p>Set MC group control to ON/OFF. MC Gr.Ctrl OFF: Operate all MCs in the same system. MC Gr.Ctrl ON: Control the number of MCs to operate in the same system according to load. Operation procedure: Use [Λ], [V], [<], and [>] to select the system to change and press [●] (Confirm) to switch between ON and OFF.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mode | <p>Switch the mode between Stop, Cool, and Heat. Operation procedure: Use [Λ], [V], [<], and [>] to select the system to change and press [●] (Confirm) to switch between Stop, Cool, and Heat.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cool PST Heat PST | <p>Set the set temperatures for Cool/Heat. Operation procedure: 1 Use [Λ], [V], [<], and [>] to select the system to change and press [●] (Confirm) to display the set temperature input screen. 2 Use [<] and [>] to select an input digit, use [Λ] and [V] to change the value, and press [●] (Confirm).</p> <p>The valid setting ranges are as in the table below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Model</th> <th colspan="2">Cool PST [°C]</th> <th colspan="2">Heat PST [°C]</th> </tr> <tr> <th>Initial value</th> <th>Setting range</th> <th>Initial value</th> <th>Setting range</th> </tr> </thead> <tbody> <tr> <td>USX, EDGE Series</td> <td>7.0</td> <td>4.0 to 30.0</td> <td>45.0</td> <td>25.0 to 55.0</td> </tr> <tr> <td>SFMC Series 4, 5</td> <td>7.0</td> <td>5.0 to 25.0</td> <td>45.0</td> <td>35.0 to 55.0</td> </tr> <tr> <td>CAONS700</td> <td>—</td> <td>—</td> <td>65.0</td> <td>50.0 to 90.0</td> </tr> <tr> <td>Heat Recovery CAONS Series 1</td> <td>—</td> <td>—</td> <td>65.0</td> <td>50.0 to 85.0</td> </tr> <tr> <td>Heat Recovery CAONS Series 2</td> <td>30.0</td> <td>9.0 to 35.0</td> <td>65.0</td> <td>50.0 to 85.0</td> </tr> </tbody> </table> | Model | Cool PST [°C] | | Heat PST [°C] | | Initial value | Setting range | Initial value | Setting range | USX, EDGE Series | 7.0 | 4.0 to 30.0 | 45.0 | 25.0 to 55.0 | SFMC Series 4, 5 | 7.0 | 5.0 to 25.0 | 45.0 | 35.0 to 55.0 | CAONS700 | — | — | 65.0 | 50.0 to 90.0 | Heat Recovery CAONS Series 1 | — | — | 65.0 | 50.0 to 85.0 | Heat Recovery CAONS Series 2 | 30.0 | 9.0 to 35.0 | 65.0 | 50.0 to 85.0 |
| Model | Cool PST [°C] | | Heat PST [°C] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Initial value | Setting range | Initial value | Setting range | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| USX, EDGE Series | 7.0 | 4.0 to 30.0 | 45.0 | 25.0 to 55.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SFMC Series 4, 5 | 7.0 | 5.0 to 25.0 | 45.0 | 35.0 to 55.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAONS700 | — | — | 65.0 | 50.0 to 90.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Recovery CAONS Series 1 | — | — | 65.0 | 50.0 to 85.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heat Recovery CAONS Series 2 | 30.0 | 9.0 to 35.0 | 65.0 | 50.0 to 85.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Demand | <p>Set the demand current (for SFMC Series 4, 5, demand capacity). Operation procedure: 1 Use [Λ], [V], [<], and [>] to select the system to change and press [●] (Confirm) to display the value input screen. 2 Use [<] and [>] to select an input digit, use [Λ] and [V] to change the value, and press [●] (Confirm).</p> <p>The range of values that can be input is "0" to "30000". *The initial value is "0". Note that if you enable demand/power saving with an incorrect setting, the unit will be stopped.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

System Settings

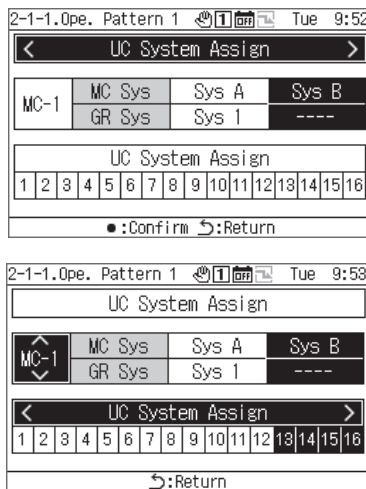
Assign the GR system for the A/B systems of an MC.



- 1** Use [**<**] and [**>**] to select “System Settings” and press [**•**] (Confirm).
- 2** Use [**▲**] and [**▼**] to select the item to change and press [**•**] (Confirm).
< and > are displayed, enclosing the selected item.
- 3** Use [**<**] and [**>**] to select a system and press [**↵**] (Return).
- 4** To confirm the changes, press [**↵**] (Return) and on the message screen, press [**•**] (Confirm).

UC System Assign

Assign UCs for each MC according to the system.



- 1** Use [**<**] and [**>**] to select “UC System Assign” and press [**•**] (Confirm).
- 2** Use [**▲**] and [**▼**] to select the desired MC, use [**<**] and [**>**] to set the UC to assign, and press [**↵**] (Return).
- 3** To confirm the changes, press [**↵**] (Return) and on the message screen, press [**•**] (Confirm).

Sensor setting

You can set the system for a control sensor.

2-1-1.Ope. Pattern 1 Tue 9:55

| Sensor Setting | | |
|----------------|-------|-------|
| MC Sys | Sys A | Sys B |
| MC-1 | ---- | ---- |
| MC-2 | ---- | ---- |

•:Confirm ↵:Return

1 Use [**<**] and [**>**] to select “Sensor setting” and press [**•**] (Confirm).

2-1-1.Ope. Pattern 1 Tue 9:57

| Sensor Setting | | |
|----------------|-----------|-------|
| MC Sys | Sys A | Sys B |
| MC-1 | < Sys 1 > | ---- |
| MC-2 | ---- | ---- |

↵:Return

2 Use [**^**], [**v**], [**<**], and [**>**] to select the item to change and press [**•**] (Confirm).

< and > are displayed, enclosing the selected item.

3 Use [**<**] and [**>**] to select a system and press [**↵**] (Return).

4 To confirm the changes, press [**↵**] (Return) and on the message screen, press [**•**] (Confirm).

Interlock Output Set

Set the output method for the output functions “pattern interlock output1 and pattern interlock output2”.

2-1-1.Ope. Pattern 1 Tue 9:57

| Interlock Output Set | | |
|----------------------|-------------|-------------|
| | Interlock 1 | Interlock 2 |
| OutPut | OFF | OFF |

•:Confirm ↵:Return

1 Use [**<**] and [**>**] to select “Interlock Output Set” and press [**•**] (Confirm).

2-1-1.Ope. Pattern 1 Tue 9:59

| Interlock Output Set | | |
|----------------------|-------------|-------------|
| | Interlock 1 | Interlock 2 |
| OutPut | OFF | OFF |

•:Change ↵:Return

2 Use [**<**] and [**>**] to select the item to change and press [**•**] (Confirm).

It is switched between ON and OFF.

3 To confirm the changes, press [**↵**] (Return) and on the message screen, press [**•**] (Confirm).

12-2 Schedule Settings

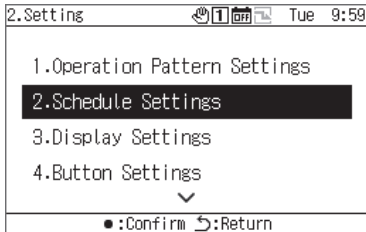
Before making Schedule Settings, be sure to set the clock.

No schedules will operate in any of the following cases:

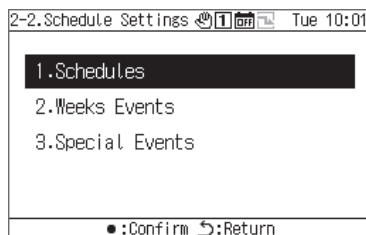
- The clock is not set.

- Schedules are disabled with the Schedule Settings.

- On the GR operation screen, schedules are set to OFF.



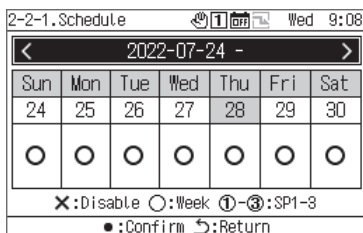
1 On the setting screen, select “Schedule Settings” and press [•] (Confirm).



2 Use [Λ] and [V] to select an item and press [•] (Confirm).

Schedule

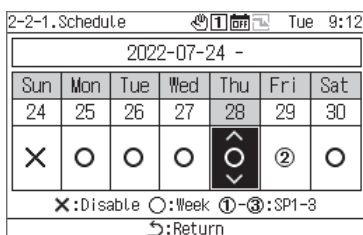
For each date, you can enable or disable Week Events and you can select the operations on Special Events.



1 Use [Λ] and [V] to select “Schedule” and press [•] (Confirm).

2 Use [<] and [>] to select the desired week and press [•] (Confirm).

You can make the settings for 5 weeks.



3 Use [<] and [>] to select the desired date, use [Λ] and [V] to select from X: Disable O: Week 1-3: SP1-3, and press [↵] (Return).

The initial setting is “O (Week Events)” for all dates.

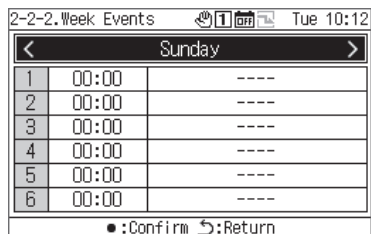
4 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

Week Events

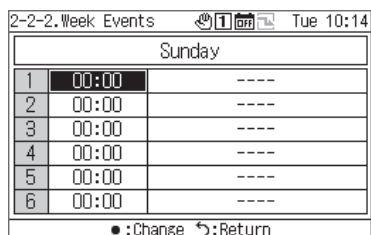
From the GR, you can automatically perform events (Run/Stop) at each event time. You can set up to 6 events a day. If Run/Stop inputs (static signal) are set externally, the external signals are prioritized.

[CAUTION]

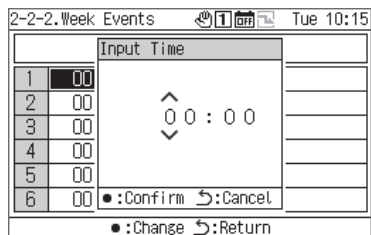
Run/Stop according to a schedule can be operated only once at the set time.



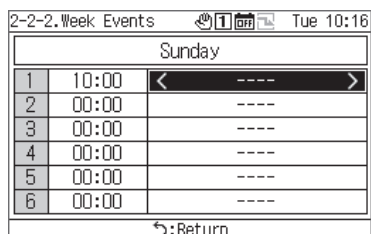
- 1** Use [Λ] and [V] to select “Week Events” and press [●] (Confirm).
- 2** Use [<] and [>] to select the desired day of the week and press [●] (Confirm).
- 3** Use [Λ] and [V] to select a schedule time and press [●] (Confirm).
The Input Time screen appears.



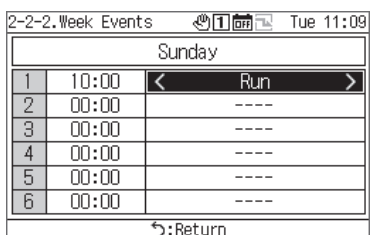
- 4** Use [<] and [>] to select an input digit, use [Λ] and [V] to change the time, and press [●] (Confirm).



- 5** Use [<] and [>] to position the cursor on an event setting item and press [●] (Confirm).
Event switching is now enabled.



- 6** Use [<] and [>] to select between “Run” or “Stop” and press [↵] (Return).

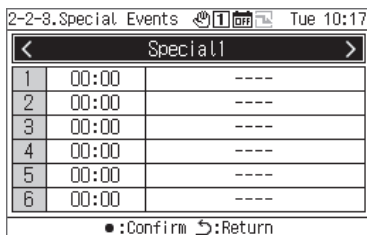


- 7** To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

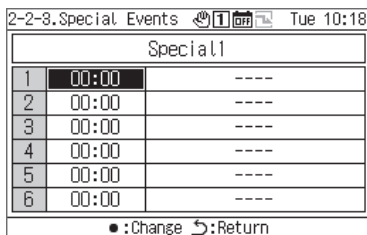
Special Events

[CAUTION]

If you want to operate a schedule with Special Events, set Special1 to Special3 on "Schedule (P. 34)".



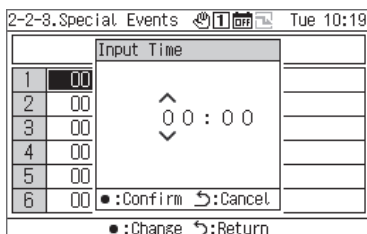
1 Use [Λ] and [V] to select "Special Events" and press [●] (Confirm).



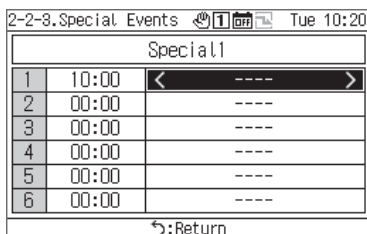
2 Use [<] and [>] to select the desired special day and press [●] (Confirm).

3 Use [Λ] and [V] to select a schedule time and press [●] (Confirm).

The Input Time screen appears.

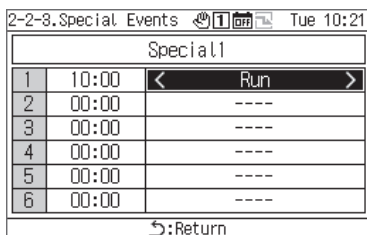


4 Use [<] and [>] to select an input digit, use [Λ] and [V] to change the time, and press [●] (Confirm).



5 Use [<] and [>] to position the cursor on an event setting item and press [●] (Confirm).

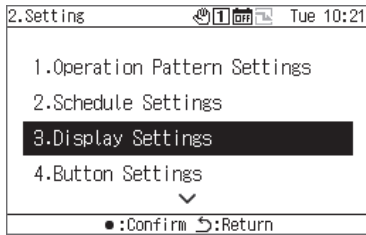
Event switching is now enabled.



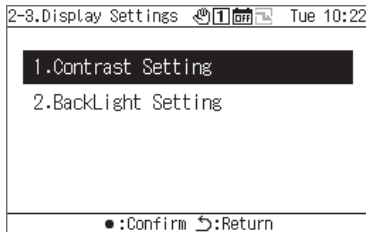
6 Use [<] and [>] to select between "Run" or "Stop" and press [↵] (Return).

7 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

12-3 Display Settings

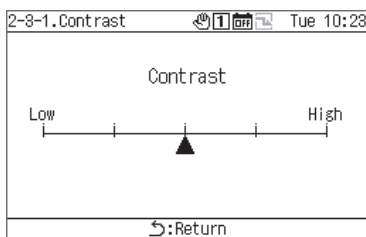


1 On the setting screen, select “Display Settings” and press [●] (Confirm).



2 Use [▲] and [▼] to select an item and press [●] (Confirm).

Contrast

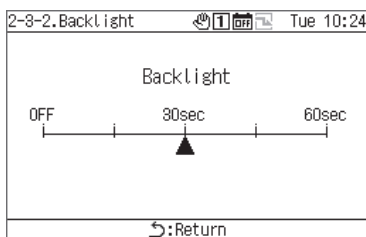


1 Select “Contrast” and press [●] (Confirm).

2 Use [←] and [→] to move the ▲.

3 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

Backlight

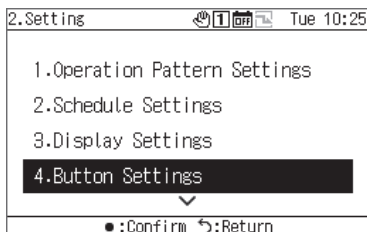


1 Select “Backlight” and press [●] (Confirm).

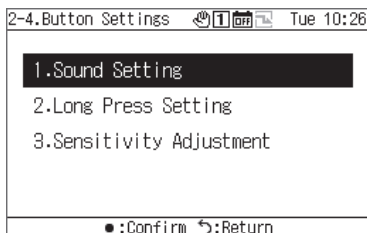
2 Use [←] and [→] to move the ▲.

3 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

12-4 Button Settings

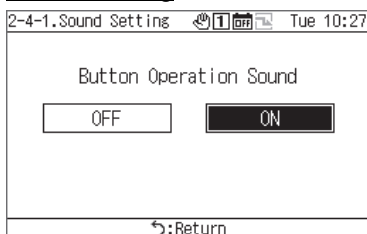


- 1 On the setting screen, select “Button Settings” and press [•] (Confirm).



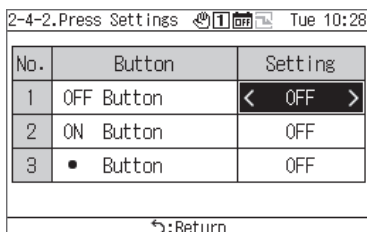
- 2 Use [▲] and [▼] to select an item and press [•] (Confirm).

Sound Setting



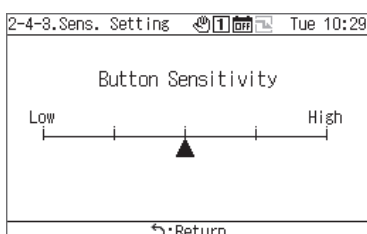
- 1 Select “Sound Setting” and press [•] (Confirm).
- 2 Use [←] and [→] to select “ON” or “OFF”.
- 3 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

Press Settings



- 1 Select “Press Settings” and press [•] (Confirm).
- 2 Use [▲] and [▼] to select the desired button and use [←] and [→] to select “OFF” or a long-press time.
 - You can select a long-press time between 1 and 5 seconds.
- 3 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

Sens. Setting

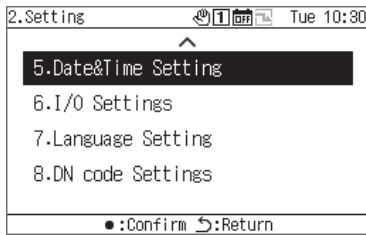


- 1 Select “Sens. Setting” and press [•] (Confirm).
- 2 Use [←] and [→] to move the ▲.
- 3 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

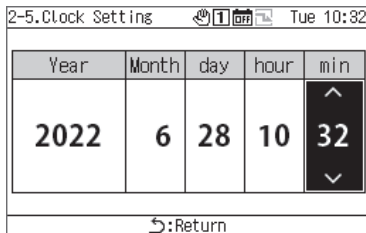
12-5 Date&time setting

Date&time setting enables you to change the year, month, day, hours, and minutes.

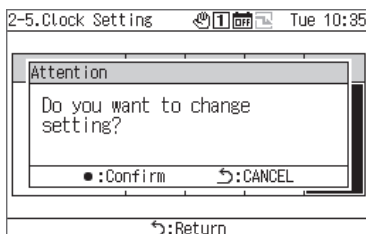
Be sure to set the time so that it can be recorded in failure history and saved operation data.



- 1** On the setting screen, select “Date&time setting” and press [•] (Confirm).



- 2** Use [<] and [>] to move the cursor and use [Λ] and [V] to change the year, month, day, hours, and minutes.



- 3** To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

12-6 I/O settings

You can assign functions for external inputs such as operation patterns and demand signals, as well as functions for external signal outputs such as operation signals and failure signals.

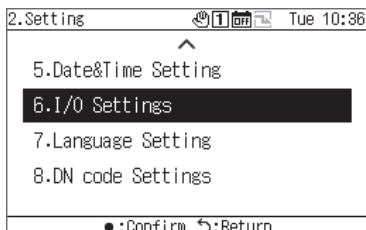
Make sure that no digital noise is applied to the external I/O wiring.

For information about the I/O functions, refer to "I/O function list (P. 50)".

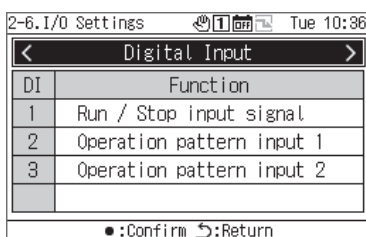
[CAUTION]

If the GR operation is set to "external" or the GR is "running", the setting cannot be changed. Stop the device beforehand.

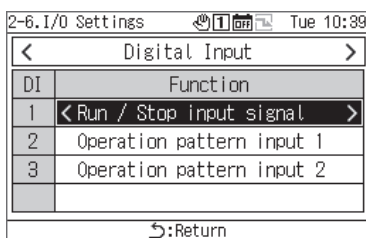
Digital Input settings



1 On the setting screen, select "I/O settings" and press [•] (Confirm).



2 Use [<] and [>] to select "Digital Input" and press [•] (Confirm).

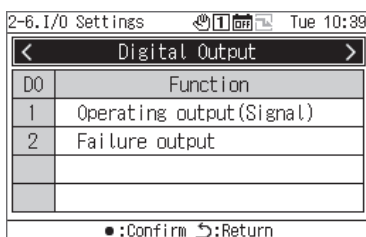


3 Use [^] and [v] to select the input terminal to set and use [<] and [>] to change the input signal.

4 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

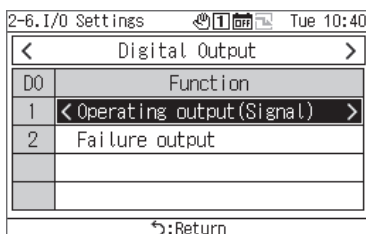
When you change the setting, GR will automatically restart.

Digital Output settings



1 On the setting screen, select "I/O settings" and press [•] (Confirm).

2 Use [<] and [>] to select "Digital Output" and press [•] (Confirm).

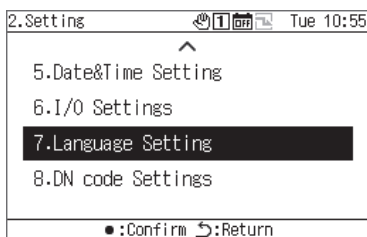


3 Use [^] and [v] to select the output terminal to set and use [<] and [>] to change the output signal.

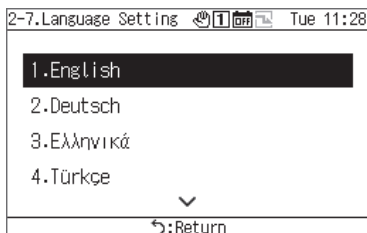
4 To confirm the changes, press [↵] (Return) and on the message screen, press [•] (Confirm).

When you change the setting, GR will automatically restart.

12-7 Language Setting



1 On the setting screen, select “Language Setting” and press [●] (Confirm).



2 Use [Λ] and [V] to select a language.

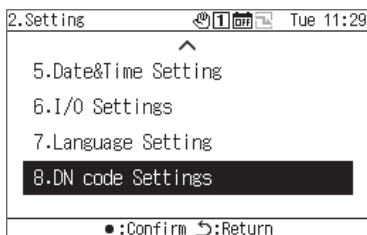
3 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

12-8 DN code setting

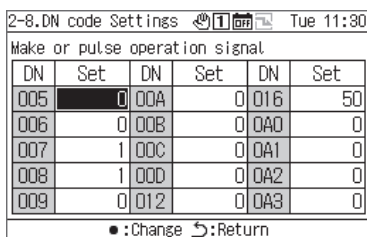
Refer to P. 51 for a DN code list.

[CAUTION]

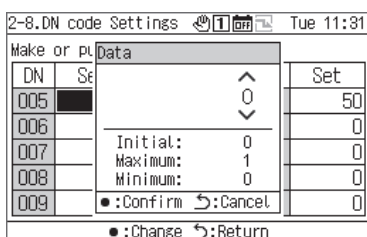
During running, you cannot change a DN code that requires a restart.



1 On the setting screen, select “DN code setting” and press [●] (Confirm).



2 Use [Λ], [V], [←], and [→] to select the DN code to set and press [●] (Confirm).



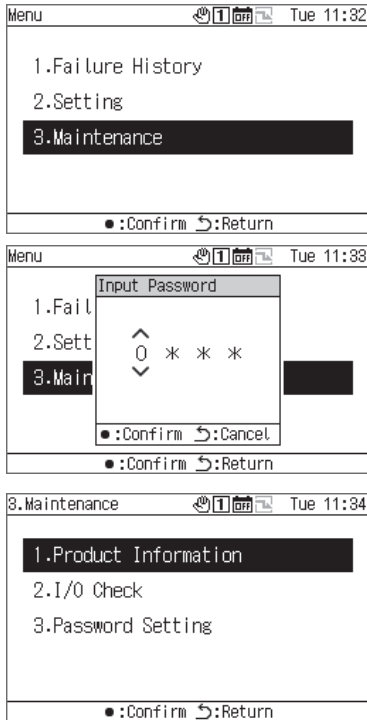
3 Use [Λ] and [V] to change the value and press [●] (Confirm).

4 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

If you changed an item for which ↻ appears in the Set column, GR will restart automatically when the setting change is confirmed.

13 Maintenance Items

■ Displaying the “Maintenance” screen



- 1 Press [≡] to display the Menu screen.**
- 2 On the Menu screen, select “Maintenance” and press [●] (Confirm).**
The Input Password screen appears.
- 3 Input a 4-digit maintenance password and press [●] (Confirm).**
Use [←] and [→] to select an input digit and use [Λ] and [V] to select a number.
- 4 Use [Λ] and [V] to select an item and press [●] (Confirm).**
Functions may be restricted due to the input password.

Maintenance item list

| Setting items | Description | Maintenance password level | | Reference page |
|------------------|--|----------------------------|------|----------------|
| | | Administrator | User | |
| Product Info. | Displays product information including the Serial No. and the Software No. | ● | ● | P.43 |
| Check of I/O | Enables you to check the external inputs and external signal outputs that have been set with I/O settings. | ● | - | P.43 |
| Password Setting | Enables you to change the setting password and the maintenance password. | ● | - | P.44 |

●: Function not restricted, ○: Function restricted, -: Not displayed

13-1 Product Info.

8-1.Product Info. Tue 11:34

| | |
|--------------|----------------------|
| Model | : RBP-RC001-E/TR |
| Serial No. | : 0000W00000 |
| Software No. | : 32RCAP606000000-EN |
| OS No. | : S31_000_000 |

↵:Return

On the Maintenance screen, select “Product Info.” and press [●] (Confirm).

The Model, Serial No., Software No., and OS No. are displayed.

13-2 Check of I/O

Check of Digital Input

You can check the function that is set for each terminal and its state.

Digital Input check screen

8-2.Check of I/O Tue 11:36

| Digital Input | | |
|---------------|-------|---------------------------|
| DI | State | Function |
| 1 | OFF | Run / Stop input signal |
| 2 | OFF | Operation pattern input 1 |
| 3 | OFF | Operation pattern input 2 |

↵:Return

On the Maintenance screen, select “Check of I/O” and press [●] (Confirm).

Check of Digital Output

[CAUTION]

In the case of External or during running, you cannot operate digital outputs.

Before checking digital outputs, stop the devices.

Digital Output check screen

8-2.Check of I/O Tue 11:37

| Digital Output | | |
|----------------|-------|--------------------------|
| DO | State | Function |
| 1 | OFF | Operating output(Signal) |
| 2 | OFF | Failure output |

●:Confirm ↵:Return

1 On the Maintenance screen, select “Check of I/O” and press [●] (Confirm).

2 Use [←] and [→] to select “Digital Output” and press [●] (Confirm).

8-2.Check of I/O Tue 11:38

| Digital Output | | |
|----------------|-------|--------------------------|
| DO | State | Function |
| 1 | OFF | Operating output(Signal) |
| 2 | OFF | Failure output |

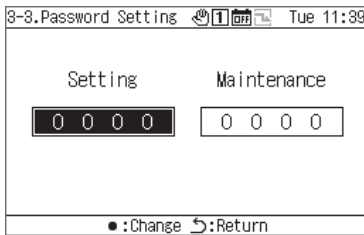
●:Change ↵:Return

3 Use [Λ] and [V] to select the terminal to check and use [●] (Confirm) to switch the state between ON and OFF. Check the state of the output destination.

13-3 Password Setting

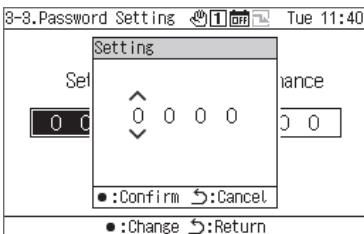
You can change the setting password and the maintenance password.

You can change the setting password and the maintenance password with the same procedure.



1 On the Maintenance screen, select “Password Setting” and press [●] (Confirm).

2 Use [←] and [→] to select between “Setting” and “Maintenance” and press [●] (Confirm).



3 Input a new password and press [●] (Confirm).

Use [←] and [→] to select an input digit and use [^] and [v] to select a number.

4 To confirm the changes, press [↵] (Return) and on the message screen, press [●] (Confirm).

14 List of Display/Setting Items

14-1 List of display items on information screens

A list of items to display on each information screen is provided below. Apart from the items in the note below, some items are not displayed or displayed as “---” depending on the device.

Note 1: In the case of CAONS700, the unit flow, supply water temperature, and return water temperature can be displayed if the signals of the flow meter and external heat source side supply water/return water temperature sensors are input to the MC.

Note 2: In the case of CAONS700, the items can be displayed if the optional pump kit is installed.

Note 3: For SFMC, the simplified power is not displayed.
Simplified power values (accuracy) are not guaranteed.

All information screen

| Item | Description | Model | | | | |
|-----------|--|------------------|------------------|----------|------------------------------|------------------------------|
| | | USX, EDGE Series | SFMC Series 4, 5 | CAONS700 | Heat Recovery CAONS Series 1 | Heat Recovery CAONS Series 2 |
| GR Sys | Displays the GR system No. | ● | ● | ● | ● | ● |
| MC No | Displays the number of MCs in the GR system. | ● | ● | ● | ● | ● |
| UC No | Displays the number of UCs in the GR system. | ● | ● | ● | ● | ● |
| Link | Displays the operation pattern in the GR system. | ● | ● | ● | ● | ● |
| Run | Displays the Run/Stop state of the GR system. | ● | ● | ● | ● | ● |
| Mode | Displays the operation mode of the GR system. | ● | ● | ● | ● | ● |
| Ope Cap | Displays the operation capacity of the GR system. | ● | ● | ● | ● | ● |
| PST | Displays the set temperature of the GR system. | ● | ● | ● | ● | ● |
| LWT | Displays the leaving water temperature of the GR system. | ● | ● | ● | ● | ● |
| EWT | Displays the entering water temperature of the GR system. | ● | ● | ● | ● | ● |
| Unit Flow | Displays the converted flow on the heat source equipment side of the GR system. (Note 1) | ● | ● | ● | ● | ● |
| Load Flow | Displays the (converted) flow on the load side of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| LSWT | Displays the supply water temperature of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| LRWT | Displays the return water temperature of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| Power | Displays the simplified power of the GR system. (Note 3) | ● | --- | ● | ● | ● |

●: Displayed, ○: Displayed as “---” depending on the conditions, ---: Displayed as “---”, and ×: Not displayed

System information screen

| Item | Description | Model | | | | |
|------------|---|------------------|------------------|----------|------------------------------|------------------------------|
| | | USX, EDGE Series | SFMC Series 4, 5 | CAONS700 | Heat Recovery CAONS Series 1 | Heat Recovery CAONS Series 2 |
| Fault code | Displays the 6-digit fault code of the failure that has occurred in the GR system. 123456 56-Fault code 4---Failed circuit No. 0: UC system failure A to D: Circuit failure 23----Failed UC No. 00: MC failure 01 to 16: UC failure 1-----Failed MC No. 0: GC failure 1 or 2: MC failure | ● | ● | ● | ● | ● |
| MC No. | Displays the number of MCs in the GR system. | ● | ● | ● | ● | ● |
| UC No. | Displays the number of UCs in the GR system. | ● | ● | ● | ● | ● |
| PST | Displays the set temperature of the GR system. | ● | ● | ● | ● | ● |
| LWT | Displays the outlet water temperature of the GR system. | ● | ● | ● | ● | ● |
| EWT | Displays the inlet water temperature of the GR system. | ● | ● | ● | ● | ● |
| Unit flow | Displays the converted flow on the heat source equipment side of the GR system. (Note 1) | ● | ● | ● | ● | ● |
| Load flow | Displays the (converted) flow on the load side of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| LSWT | Displays the supply water temperature of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| LRWT | Displays the return water temperature of the GR system. (Note 1) | ○ | ○ | ○ | ○ | ○ |
| Power | Displays the simplified power of the GR system. (Note 3) | ● | × | ● | ● | ● |

●: Displayed, ○: Displayed as "----" depending on the conditions, ---: Displayed as "----", and ×: Not displayed

MC information screen

| Item | Description | Model | | | | |
|------------|--|------------------|------------------|----------|------------------------------|------------------------------|
| | | USX, EDGE Series | SFMC Series 4, 5 | CAONS700 | Heat Recovery CAONS Series 1 | Heat Recovery CAONS Series 2 |
| Fault code | Displays the 5-digit fault code of the failure that has occurred in the MC system. 12345 45- Fault code 3--- Failed circuit No. 0: UC system failure A to D: Circuit failure 12---- Failed UC No. 00: MC failure 01 to 16: UC failure | • | • | • | • | • |
| UC No. | Displays the number of UCs in the MC system. | • | • | • | • | • |
| Remote | Displays the operation pattern in the MC system. | • | • | • | • | • |
| Run | Displays the Run/Stop state of the MC system. | • | • | • | • | • |
| Mode | Displays the operation mode of the MC system. | • | • | • | • | • |
| Ope Cap | Displays the operation capacity of the MC system. | • | • | • | • | • |
| PST | Displays the set temperature of the MC system. | • | • | • | • | • |
| LWT | Displays the outlet water temperature of the MC system. | • | • | • | • | • |
| EWT | Displays the inlet water temperature of the MC system. | • | • | • | • | • |
| Unit flow | Displays the converted flow on the heat source equipment side of the MC system. (Note 1) | • | • | • | • | • |
| Power | Displays the simplified power of the MC system. (Note 3) | • | × | • | • | • |
| Heater | Displays the heater output state of the MC system. | × | × | • | • | • |

●: Displayed, ○: Displayed as “---” depending on the conditions, ---: Displayed as “---”, and ×: Not displayed

UC information screen

| Item | Description | Model | | | | |
|------------|--|------------------|------------------|----------|------------------------------|------------------------------|
| | | USX, EDGE Series | SFMC Series 4, 5 | CAONS700 | Heat Recovery CAONS Series 1 | Heat Recovery CAONS Series 2 |
| Fault code | Displays the 3-digit fault code of the failure that has occurred in the UC. 123 23 - Fault code 1 --- Failed circuit No. 0: UC system failure A to D: Circuit failure | ● | ● | ● | ● | ● |
| Remote | Displays the operation pattern of the UC. | ● | ● | ● | ● | ● |
| Run | Displays the Run/Stop state of the UC. | ● | ● | ● | ● | ● |
| Mode | Displays the operation mode of the UC. | ● | ● | ● | ● | ● |
| Ope Cap | Displays the operation capacity of the UC. | ● | ● | ● | ● | ● |
| PST | Displays the set temperature of the UC. | ● | ● | ● | ● | ● |
| LWT | Displays the outlet water temperature of the UC. | ● | ● | ● | ● | ● |
| EWT | Displays the inlet water temperature of the UC. | ● | ● | ● | ● | ● |
| OAT | Displays the outside air temperature of the UC. | ● | ● | ● | × | × |
| Unit flow | Displays the unit flow of the UC. (Note 1) | ● | ● | ● | ● | ● |
| Power | Displays the simplified power of the UC. (Note 3) | ● | × | ● | ● | ● |
| 3way | Displays the degree of opening of the pump kit three-way valve of the UC. (Note 2) | × | × | ● | × | × |
| P-K EWT | Displays the inlet water temperature of the pump kit of the UC. (Note 2) | × | × | ● | × | × |
| ULWT | For CAONS700, the pump kit outlet water temperature of the UC is displayed. (Note 2) For Heat Recovery CAONS Series 1, 2, the outlet temperature of the heat source water is displayed. | × | × | ● | ● | ● |
| UEWT | For CAONS700, the pump kit inlet water temperature of the UC is displayed. (Note 2) For Heat Recovery CAONS Series 1, 2, the inlet temperature of the heat source water is displayed. | × | × | ● | ● | ● |
| H prss | Displays the high pressure. | × | ● | × | × | × |
| L prss | Displays the low pressure. | × | ● | × | × | × |

●: Displayed, ○: Displayed as “---” depending on the conditions, ---: Displayed as “---”, and ×: Not displayed

Circuit information screen

| Item | Description | Supported model | | | | |
|--------|--|------------------|------------------|----------|------------------------------|------------------------------|
| | | USX, EDGE Series | SFMC Series 4, 5 | CAONS700 | Heat Recovery CAONS Series 1 | Heat Recovery CAONS Series 2 |
| Comp. | Displays the ON/OFF state of the compressor. | ● | × | ● | ● | ● |
| H prss | Displays the high pressure. | ● | × | ● | ● | ● |
| L prss | Displays the low pressure. | ● | × | ● | ● | ● |

●: Displayed, ○: Displayed as “---” depending on the conditions, ---: Displayed as “---”, and ×: Not displayed

14-2 I/O function list

Digital Input functions

| Function name | Setting classification | Details | Initially set terminal No. |
|-------------------------------|------------------------|---|----------------------------|
| — | — | No function | Not set |
| Run/Stop input signal | All | Used to perform Run/Stop operations with external static signals. (Note 1) | DI1 |
| Stop input (pulse) | | Used to perform a Stop operation with an external pulse signal. | Not set |
| Operation pattern input 1 | | Enabled when the remote controller is set to External. Switch the remote controller operation pattern with a combination of input signals of the operation pattern input. | DI2 |
| Operation pattern input 2 | | | DI3 |
| Input of demand mode (Note 2) | | Used to enable demand from outside. | Not set |

Note 1: Run/Stop (static signal) can be changed to Run/Stop (pulses). For details, refer to “DN code setting (P. 41)” and “DN code list (P. 51)”. If Stop input (pulse) is set, Run/Stop input functions as the Run input (pulse).

Note 2: The initial value for the demand setting value is “0”. Note that if you enable demand with an incorrect setting, the unit will be stopped.

Digital Output functions

| Function name | Setting classification | Details | Initially set terminal No. |
|----------------------------|------------------------|--|----------------------------|
| — | — | No function | Not set |
| Operating output (Signal) | All | GR outputs during operation. (Also output when the compressor is stopped with capacity control.) You can change the output method by setting “Level of operating output”.* | DO1 |
| Failure output | | Output when GR detects a failure. You can change the output method by setting “Level of failure output”.* | DO2 |
| Operation pattern output 1 | | Outputs the operation pattern state with a combination of operation pattern outputs. | Not set |
| Operation pattern output 2 | | | Not set |
| Pattern interlock output1 | | Outputs the state of the pattern interlock output setting of the selected operation pattern. | Not set |
| Pattern interlock output2 | Not set | | |

* For details, refer to “DN code setting (P. 41)” and “DN code list (P. 51)”.

14-3 DN code list

| DN code | Item | Description | Initial value | Restart |
|---------|-------------------------------------|---|---------------|---------------|
| 005 | Static or pulse operation signal | Switches operation input to pulse signal input. 0: Static signal 1: Pulse signal | 0 | Not necessary |
| 006 | Reset failure outage | Enable fault reset when GR is externally stopped. If it is disabled, a failure is retained during external stop. 0: Disabled 1: Enabled | 0 | Not necessary |
| 007 | Level of operating output | Switches the operations of the operation lamp and the operating output. 0: Output during GR operation. 1: Output during GR operation and system operation (system individual operation). 2: Output during GR operation, system operation (system individual operation), and MC operation (including unit/external operation). | 1 | Not necessary |
| 008 | Level of failure output | Switches the operations of the failure lamp and the failure output. 0: Output in the event of a GR failure. 1: Output in the event of a GR failure and a system failure. 2: Output in the event of a GR failure, system failure, and MC failure (including unit/external operation). | 1 | Not necessary |
| 009 | Demand control display | Displays demand control on the GR operation screen. 0: Non-display 1: Display | 0 | Not necessary |
| 00A | Power failure recovery | Enables the auto recovery function when power is restored. Regardless of the power failure time, restores the operating state of the remote controller and the system individual Run/Stop states to the states before the power failure when power is restored. 0: Disabled 1: Enabled [CAUTION] If the GR uses Run/Stop input (static signal) externally, the GR follows the Run/Stop input signals. | 0 | Not necessary |
| 00B | Pwr failure recovery time (s) | Sets the time for power failure recovery. If the power failure is within the set time, the remote controller Run/Stop and system individual Run/Stop states are restored to the state before the power failure when power is restored. To enable the code, set a time of 3 seconds or more. 0 seconds to 2 seconds: Disabled 3 seconds to 9 minutes and 59 seconds: Enabled | 0 | Not necessary |
| 00C | Pwr Failure recovery time (m) | [CAUTION] • If power failure recovery (DN code: 00A) is enabled, power failure recovery is given priority. • Detection of a power failure time may have an error of up to 2 seconds. Consider the error when setting the power failure recovery time. • If the GR uses Run/Stop input (static signal) externally, the GR follows the Run/Stop input signals. | 0 | Not necessary |
| 00D | Pwr failure recovery when MC remote | Enables power failure recovery when a remote MC is operating. If it is enabled, and it can be checked within 10 seconds after power is restored that a remote MC is operating, operation is restored regardless of the state before the power failure, avoiding the stop of the MC. 0: Disabled 1: Enabled [CAUTION] If the GR uses Run/Stop input (static signal) externally, the GR follows the Run/Stop input signals. | 0 | Not necessary |
| 012 | Invalid GR demand with ext MC ctrl | Makes GR demand with external MC control invalid. If it is valid, the MC makes demand with the demand signal of the GR even if the MC is set to Unit or External. 0: Enabled 1: Disabled | 0 | Not necessary |

| DN code | Item | Description | Initial value | Restart |
|---------|-----------------------------------|--|---------------|---------------|
| 016 | MC in/out temp Min flow rate calc | Sets the lower limit flow for the inlet/outlet average temperature calculation for the system based on the quantity of heat. In the constant flow region, the average temperature may be shifted due to a flow error. If the flow of the MC is below the setting, the simple average value of the inlet/outlet temperature is used. | 50 | Not necessary |
| 0A0 | Model setting for system 1 | <p>Switches the operation pattern setting range and the screen display items according to the model setting.</p> <p>0: USX, EDGE Series 1: SFMC Series 4, 5 2: CAONS700 3: Heat Recovery CAONS Series 1 5: Heat Recovery CAONS Series 2</p> <p>* If you change the model setting, the operation pattern mode and the set temperature are changed to setting values that are valid for the model. If you changed the model setting, be sure to check the operation pattern setting.</p> | 0 | Not necessary |
| 0A1 | Model setting for system 2 | | 0 | Not necessary |
| 0A2 | Model setting for system 3 | | 0 | Not necessary |
| 0A3 | Model setting for system 4 | | 0 | Not necessary |

15 When You Suspect a Failure

If a failure occurs in the product, do not attempt to repair it yourself. Contact your dealer or local Toshiba Carrier representative. Let us know the model, fault code, and contact No. (For the contact No., refer to the label attached to the product itself.) The symptoms listed in the table below are not failures. Check the table beforehand.

| Symptom | Cause |
|---|---|
| You pressed a button, but get no response. | <ul style="list-style-type: none"> •If you press any button while the backlight is OFF, the backlight is turned ON. Press again the button you want to operate. •This is a button whose operation is disabled. (The buzzer does not sound.) •If you set the button to be long pressed, long press the button. |
| Even during operation, the operation lamp is not turned ON or the operating output is not turned ON. | The operations of the operation lamp and the operating output vary depending on the setting of the DN code "Level of operating output". Check the setting of "Level of operating output". |
| Even during stop, the operation lamp is not turned OFF or the operating output is not turned OFF. | |
| Even though a failure has occurred, the failure lamp is not turned ON or the failure output is not turned ON. | <ul style="list-style-type: none"> •The operations of the failure lamp and the failure output vary depending on the setting of the DN code "Level of failure output". Check the setting of "Level of failure output". •The I/O functions that output failures include "Failure output" and "Failure inverse output", which outputs a states by inverting it. Check the I/O function settings. |
| Even though no failure has occurred, the failure lamp is turned ON or the failure output is not turned OFF. | |
| The I/O function does not operate. | I/O signals require an external power supply. Check if the external power supply is not off. |
| Device information is not displayed. | <ul style="list-style-type: none"> • Check if the power supply to the connected device is not off. • Check if the address setting of the connected device is correct. |

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Date: 202303