

General Controller

■ Overview

This product (Model WJ-1111W0000) is a general-purpose controller that controls facility equipment such as the building air conditioning equipment and plumbing equipment.

This product uses I/Os that have been built for the instrumentation along with control application programs to realize optimal control.

It can also handle cases where monitoring points, control applications, etc. are added during operation.

It is compatible with various open protocols such as BACnet/IP, BACnet MS/TP, Modbus™ RTU, Modbus ASCII.

■ Features

- Open communication protocol
This product is compatible with BACnet MS/TP which is an open protocol.
RS-485 communication allows connection of various devices that support BACnet MS/TP, Modbus RTU, or Modbus ASCII.
- Connecting various I/Os
This product allows to connect the Direct Mount I/O Module (Model RY51_ _) that supports various I/Os. According to the applications or usage, it is possible to select suitable I/O types, increase or decrease the number of installed points. By connecting the SAnet Interface Module, it is possible to connect Intelligent components.
- Flexible software configuration depending on applications
This product provides energy-saving control by controlling temperature, humidity, CO₂ concentration, cooling using outdoor air, etc., that suit the instrumentation of the building.
- Secondary device management
This product controls the secondary devices connected to the RS-485 port.
It is possible to start/stop the secondary devices, monitor the failure state, monitor the measured value, set up the secondary device from the central monitoring unit through this product. If the Azbil's VAV/FCU Controllers are connected to the product, it is possible to execute the following functions:
 - Interlocked functions such as group management,



- ON/OFF devices, settings, airflow control
 - Supply air temperature load-reset control attained by the linkage control between VAV and AHU
 - Fan RPM optimization control
- Online engineering work
If a need to change or add the monitoring points or control applications arises during operation, it is possible to change the controller files while the controller is running.
- Connection to the central monitoring unit
By connecting to the central monitoring unit, it is possible to centrally manage each facility from the central monitoring unit.
- Risk distribution
When the central monitoring unit is faulty, the General Controller independently executes the backup operations.
When a failure occurs, the risk can be distributed.
- Saving space
The product is compact and can be installed in a minimum space.
- Simple installation
The spring terminal blocks are used for the power terminals, so wiring can be done easily.
The RJ-45 connector is used for the BACnet MS/TP communication terminal block, which enables to save labor for wiring LAN cable.



Safety Precautions

Please read instructions carefully and use the product as specified in this manual. Be sure to keep this manual nearby for quick reference.

Restrictions on Use

This product was developed, designed, and manufactured for general air conditioning use.

Do not use the product in a situation where human life may be at risk or for nuclear applications in radiation-controlled areas. If you wish to use the product in a radiation-controlled area, please contact Azbil Corporation.

Particularly when the product is used in applications like the following where safety is especially required, implementation of fail-safe design, redundant design, regular maintenance, etc., should receive appropriate consideration so that the product can be used safely and reliably.

- Safety devices for protecting the human body
- Start/stop control devices for transportation machines
- Aeronautical/aerospace machines

For system design, application design, instructions for use, or product applications, please contact Azbil Corporation. Azbil Corporation bears no responsibility for any result, or lack of result, deriving from the customer's use of the product.

Caution for Instrumentation Design

Considering unexpected failures or contingencies, be sure to design and check safety of the system and equipment.

Recommended Design Life (Recommended Period of Use)

It is recommended that this product be used within its design life. The design life is the period during which you can use the product safely and reliably based on the design specifications. If the product is used beyond this period, its failure ratio may increase due to time-related deterioration of parts, etc. The design life during which the product can operate reliably with the lowest failure ratio and least deterioration over time is estimated scientifically based on acceleration tests, endurance tests, etc., taking into consideration the operating environment, conditions, and frequency of use as basic parameters.

The recommended design life of this product is 11 years.

The design life specified for this product assumes that maintenance, such as replacement of the limited-life parts, is carried out properly. Refer to the section on maintenance in this manual.

Caution for Transporting

Lithium batteries are used in this product.

When this product, which uses lithium batteries, is transported by air or sea, ship it in accordance with IATA-DGR/IMDG-Code regulations.

Please inform your shipping company that lithium batteries are included in the product, and follow the necessary procedures according to the company's instructions.

If the product is shipped by air or sea without the necessary labels, etc., specified by the ordinances, you may be in violation of aviation or maritime safety laws and be subject to punishment.

Warnings and Cautions



WARNING

Alerts users that improper handling may cause death or serious injury.




CAUTION


Alerts users that improper handling may cause minor injury or material loss.

Symbols



Notifies users that specific actions are prohibited to prevent possible danger. The symbol inside  graphically indicates the prohibited action. (For example, the sign on the left notifies that disassembly is prohibited.)



Instructs users to carry out a specific obligatory action to prevent possible danger. The symbol inside  graphically indicates the actual action to be carried out. (For example, the sign on the left indicates general instructions.)

WARNING



Install this product in a place, such as a control cabinet, where only the administrator has access to it. Otherwise there is a danger of electric shock.





Be sure to ground this product with a ground resistance of less than 100 Ω. Improper grounding may cause electric shock or malfunction.





















Before wiring or maintenance, be sure to turn off the power to this product. Failure to do so may result in electric shock or device failure.



Do not insert conductive objects through product ventilation holes. Doing so may cause electric shock.

|  WARNING | |
|---|---|
|  | Do not touch electrically charged parts. Doing so may cause electric shock. |

|  CAUTION | |
|---|--|
|  | Take anti-lightning surge measures based on regional and building characteristics. Lightning may cause fire or critical damage to this product if protective measures are not taken. |
|  | Keep the products in package for storage. Failure to do so may damage or stain the products. |
|  | Install, wire, and use this product according to the specifications stated in this manual. Failure to do so may cause fire or device failure. |
|  | Take anti-noise measures if this product is installed in a location near source of electric noise. Failure to do so may cause malfunction or device failure. |
|  | Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards. Failure to do so may cause fire or electric shock. |
|  | After installing this product, check that it is steady and does not move. Otherwise it may fall or fail. |
|  | All wiring must comply with applicable codes and ordinances. Otherwise there is a danger of fire. |
|  | Do not use an uninterruptible power supply (UPS) that outputs rectangular waves. Doing so may cause the device to fail. |
|  | For wiring, strip the insulation from cables as specified in this manual. If the length of exposed wire is longer than specified, it may cause electric shock or short circuit between adjacent terminals. If it is too short, it may not make proper contact. |
|  | Do not block the ventilation holes of this product. Doing so may cause device failure. |
|  | Do not allow wire clippings, metal shavings, and other refuse to enter into the product. Doing so may cause fire or product damage. |
|  | Do not disassemble this product. Doing so might cause device failure. |

|  CAUTION | |
|---|--|
|  | When replacing batteries, read the instructions described in this manual and correctly replace the product batteries. Failure to do so may cause overheating, burst, or leakage of the batteries. |
|  | Use the batteries specified by Azbil Corporation. Failure to do so may cause fire or burst. |
|  | Before cleaning the product, be sure to turn off the power to the product. Failure to do so may cause electric shock, device failure, or malfunction. |
|  | Dispose of used lithium batteries in accordance with local regulations. Do not throw them in the fire or dispose of them with ordinary garbage. Doing so may cause the batteries to burst or ignite. |

System Configuration

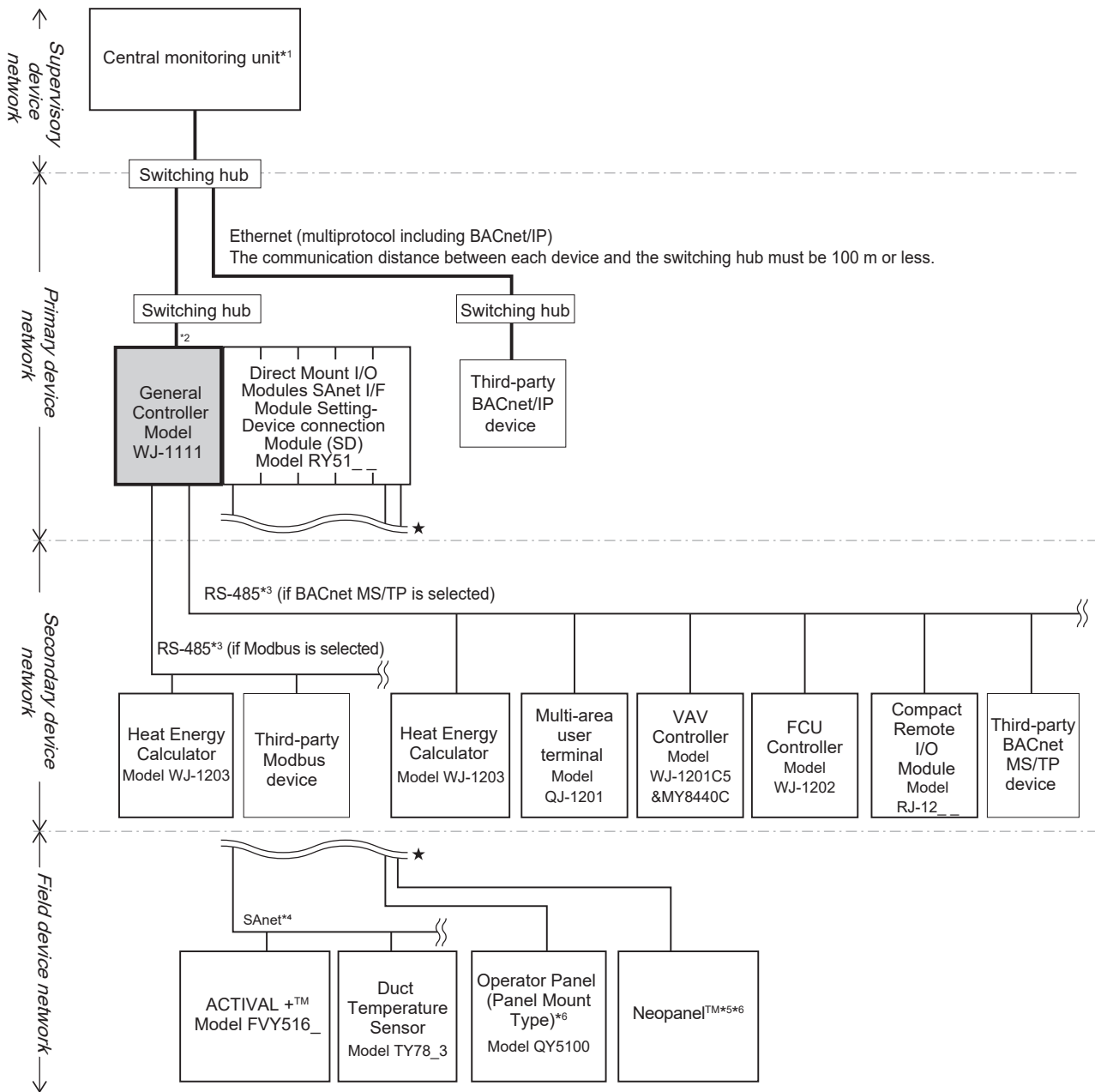




Figure 1. System configuration example

- *1 The General Controller, Advanced Controller for Chiller Units, and Advanced Controller for Pump Units can be connected to an Azbil Supervisory Controller (Model BH-101G0W0000) or a third-party central monitoring unit using BACnet/IP communications.
- *2 The General Controller, Advanced Controller for Chiller Units, and Advanced Controller for Pump Units use BACnet/IPv4 or BACnet/IPv6.
The IPv6 specification is based on BACnet-2012 (ANSI/ASHRAE 135-2012) with ANNEX U (BACnet/IPv6) of BACnet-2016 (ANSI/ASHRAE 135-2016).
- *3 The General Controller and Advanced Controller have two RS-485 communication channels.
For each channel, communication protocol can be selected from BACnet MS/TP, Modbus™ RTU, or Modbus™ ASCII.
 - The number of devices that can be connected for BACnet MS/TP
 - If only the Azbil devices are connected:**
50 devices/channel (VAV/FCU controllers, Compact Remote I/O Modules, etc.)
The maximum number of the secondary devices that can be connected to one General Controller is 70 , or 50 which is the sum of Azbil VAV and FCU Controllers. The Advanced Controller has no restrictions.
 - If only the third-party devices are connected:**
31 devices/channel (when transmission speed is 76.8 kbps, 30 objects/device)
 - The number of devices that can be connected for Modbus™
31 devices/channel (when transmission speed is 76.8 kbps, 30 objects/device)

If the transmission speed and the number of objects are different among the third-party devices, or if the Azbil devices and third-party devices coexist on the same channel, the number of connected devices will vary. For details, please contact one of Azbil salespersons.
- *4 By connecting the SAnet Interface Module, it is possible to connect the Intelligent Component Series devices.
 For restrictions on the SAnet communication line, refer to AB-6713, *Intelligent Component Series for SAnet Communication: Installation Manual*.
- *5 Neopanel2 (model QJ-1301) or Neopanel (model QY7205) can be connected.
- *6 By connecting the Setting-Device connection Module (SD), the Operator Panel (Panel Mount Type), Neopanel2, Neopanel, or Neoplate can be connected. By connecting the Operator Panel (integral type), Neopanel2, Neopanel, or Neoplate can be connected.
 AB-7530, *Operator Panel (Panel Mount Type), Operator Panel (Integral Type), Specifications/Instructions*.

● **Standalone**

Without connecting to the central monitoring unit, the controller is operated by connecting to the operator panel.

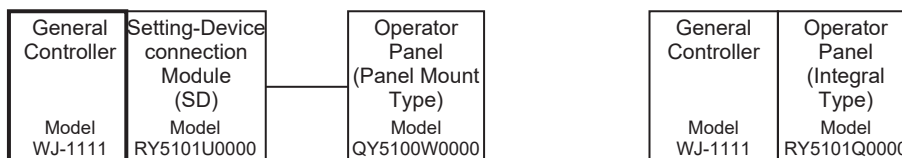


Figure 2. Example system configuration

■ Model Numbers

| Model number | Description |
|----------------|-----------------------------------|
| WJ-1111W0000 | General Controller |
| WJ-1111W0000-U | General Controller (UL certified) |

● Optional parts (depending on the mounting type)

| Model number | Description |
|--------------|---------------------------------|
| 83165861-001 | Screw tab |
| 83104567-001 | DIN rail clamp |
| 83162637-005 | RS-485 terminator (x 1) 120 Ω |
| 83162637-006 | RS-485 terminators (x 10) 120 Ω |

● Optional parts (For CE marking)

| Model number | Description | Remarks |
|--------------|--|--|
| 84518152-001 | <ul style="list-style-type: none"> • EMC filter • Accessory (180 mm cable with modular plug) | When it is necessary to comply with CE marking |

● Replacement parts

| Model number | Description |
|--------------|--|
| 83170639-001 | Lithium battery (x 1), replacement cycle: 5 years |
| 83170639-005 | Lithium batteries (x 5), replacement cycle: 5 years |
| 83170639-010 | Lithium batteries (x 10), replacement cycle: 5 years |

■ Specifications

| Item | | Specification | | |
|-----------------------|------------------------------------|--|--|--------------------|
| Power supply | Input voltage | 100–240 V AC (264 V AC max.) | | |
| | Input frequency | 50/60 Hz ± 3 Hz | | |
| | Power consumption | 45 VA max. | | |
| | Inrush current | 20 A max. (100 V AC) 40 A max. (240 V AC) | | |
| | Leakage current | 0.2 mA max. (100 V AC) 0.5 mA max. (240 V AC) | | |
| | Insulation resistance | Between power terminals together and ground terminal 100 MΩ or higher (500 V DC) | | |
| CPU | | 32-bit | | |
| Memory device | | SDRAM 256 MB, Flash ROM 32 MB, SRAM 2 MB | | |
| RAM, RTC backup | | Powered by lithium batteries (not chargeable) | | |
| Communication | RS-485 | Number of channels | 2 | |
| | | Communication method | BACnet® MS/TP, Modbus RTU, Modbus ASCII | |
| | | Communication speed | BACnet® MS/TP: 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps Modbus RTU, Modbus ASCII: 4.8 kbps, 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps | |
| | | Communication distance | 1,000 m max. | |
| | | Number of connectible units | For BACnet MS/TP Only the Azbil devices are connected: 50 max./channel Only the third-party devices are connected: 31 max./channel For Modbus RTU, Modbus ASCII 31 max./channel There are restrictions depending on the software. | |
| | Ethernet | Port function | Auto-negotiation, Auto-recognition of MDI/MDI-X | |
| | | Communication method | BACnet/IP (IPv4 or IPv6) | |
| | | Communication speed | 100 Mbps | |
| | Major material | | Case, cover | Modified PPE resin |
| | | DIN holder | POM resin | |
| Weight | | 0.45 kg | | |
| Environment | Operating conditions | Ambient temperature | 0–50 °C | |
| | | Ambient humidity | 10–90 % RH (without condensation) | |
| | | Altitude | 2,000 m max. | |
| | | Vibration | 3.2 m/s ² max. (at 10–150 Hz) | |
| | Transportation/ storage conditions | Ambient temperature | -20–60 °C | |
| | | Ambient humidity | 5–95 % RH (without condensation) | |
| | | Vibration (storage) | 3.2 m/s ² max. (at 10–150 Hz) | |
| | | Vibration (transportation) | 9.8 m/s ² max. (at 10–150 Hz) | |
| Others | | <ul style="list-style-type: none"> • No corrosive gas should be detected. • The product should not be exposed to direct sunlight. • Do not let the product get wet. | | |
| Installation location | | In the control panel | | |
| Installation method | | Installed on a DIN rail or with screws | | |

■ Specifications for Wiring

● Basic unit

| Item | Wire Type | Rating | Maximum length | Connection | Remarks |
|--------------|--|--|----------------|-------------------------|---|
| Power supply | 600 V PVC-insulated (IEC-60227-3), control-use vinyl insulated vinyl sheathed, or equivalent | 1.25-2.0 mm ² stranded wire | — | Spring terminal block | — |
| Ground | | | | Spring terminal block | Grounded the product with resistance less than 100Ω |
| Ethernet | — | EIA/TIA-568 category 5e or higher | 100m | RJ45 moduler connectors | — |
| RS-485 | — | EIA/TIA-568 category 5e or higher | 1000m | RJ45 moduler connectors | — |

* There should be only one connection for the wire terminal (round hole) of the power and ground terminals.

● I/O module

For the wiring specifications of the Direct Mount I/O Module, Setting-Device Connection Modules, and the SAnet Interface Module, refer to AI-7453, *Direct Mount I/O Module, Setting-Device Connection Modules, SAnet Interface Model RY51__ Specifications/Instructions*.

■ Dimensions

Height: 140 mm, Width: 60 mm, Depth: 90 mm + 12 mm (convex portion)

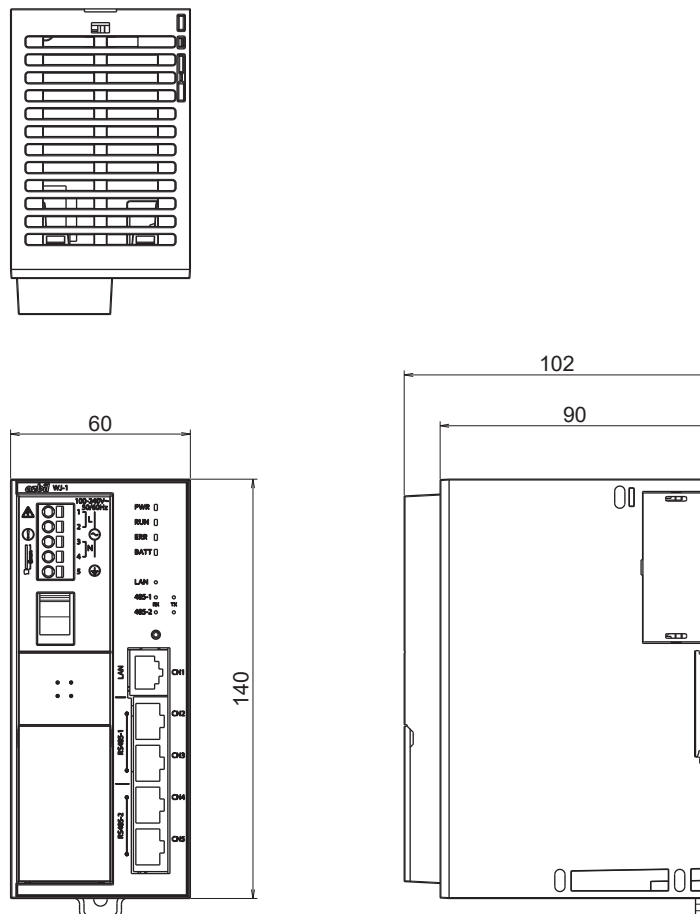


Figure 3. Dimensions (mm)

■ Parts Identification

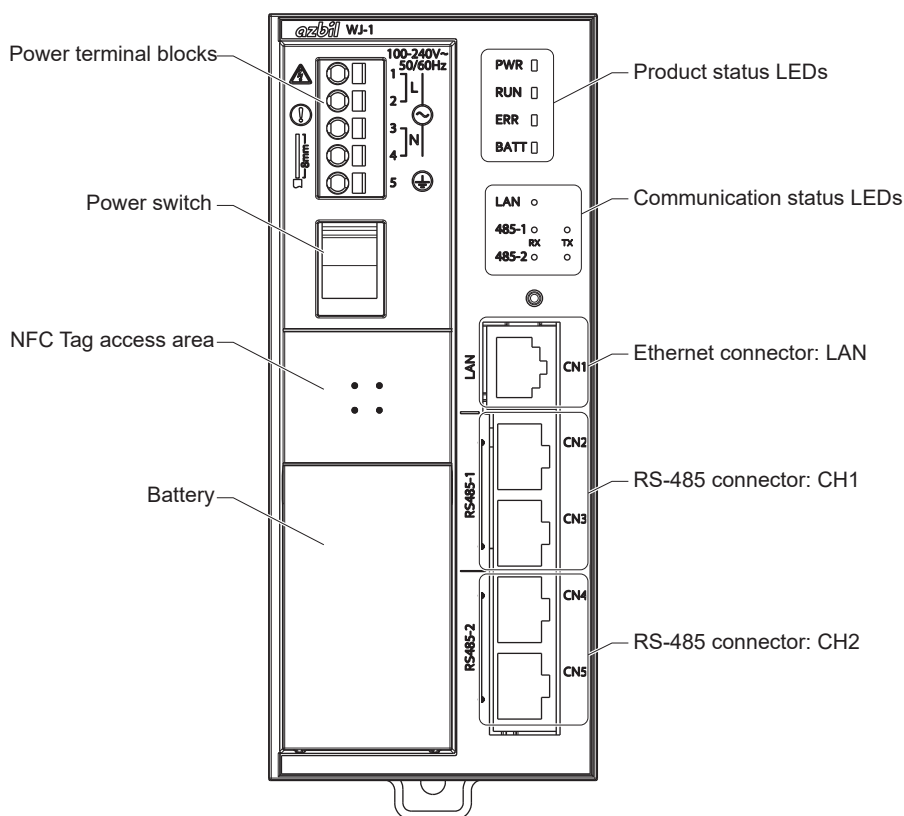


Figure 4. Parts indication

■ Installation

| ⚠ WARNING | |
|-----------|---|
| ! | Install this product in a place, such as a control cabinet, where only the administrator has access to it. Otherwise there is a danger of electric shock. |
| ⚠ CAUTION | |
| ! | Install, wire, and use this product according to the specifications stated in this manual. Failure to do so may cause fire or device failure. |
| ! | Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards. Failure to do so may cause fire or electric shock. |
| ! | After installing this product, check that it is steady and does not move. Otherwise it may fall or fail. |

● Device conveyance

When conveying or lifting up the General Controller, Direct Mount I/O Module, Setting-Device Connection Modules, and SAnet I/F Module while they are connected, be sure to hold both sides of the devices with both hands. If excessive force is applied to the joint portion, the devices may be damaged or fail.

● Installation location

The panel should be installed in a place that satisfies the following:

- An indoor place where is not exposed to direct sunlight
- A place where water is not splashed on the product

Note: The product is not waterproof.

This product should be installed in a panel.

The following space should be secured around the product.

The hatched area is for maintenance.

- The horizontal dimension varies depending on the number of connected Direct Mount I/O Modules, Setting-Device Connection Modules, and SAnet Interface Modules.

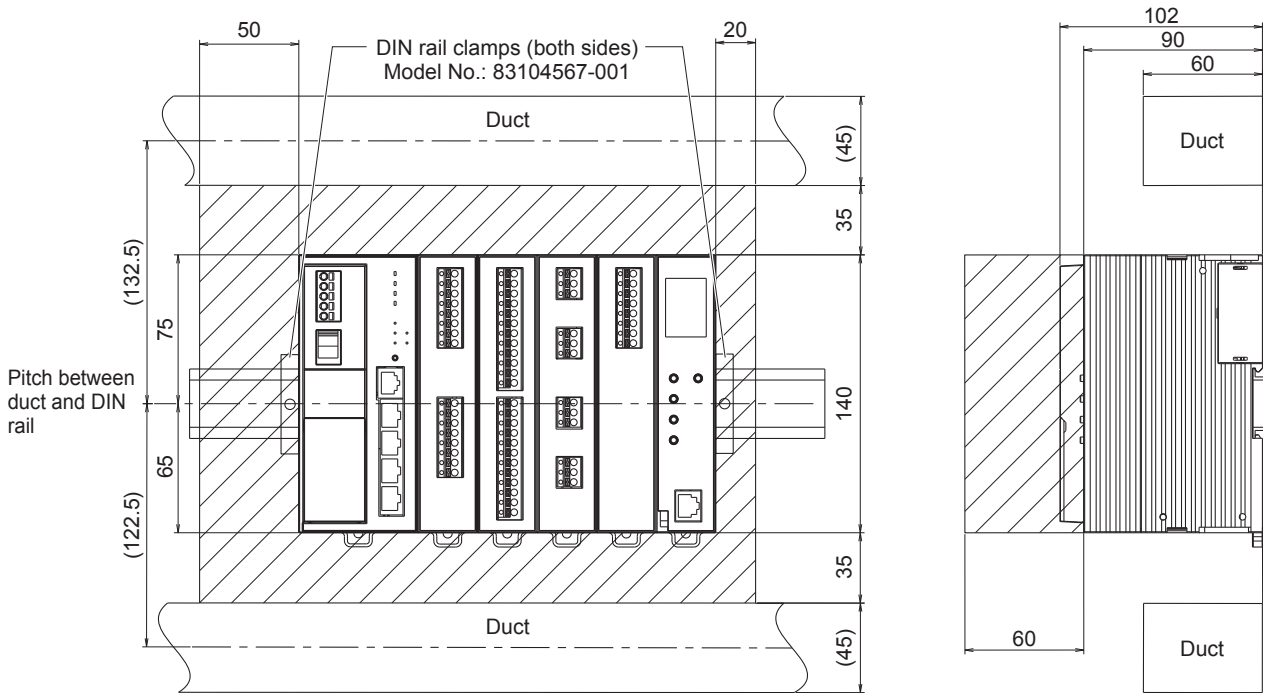


Figure 5. Installation on DIN rail (mm)

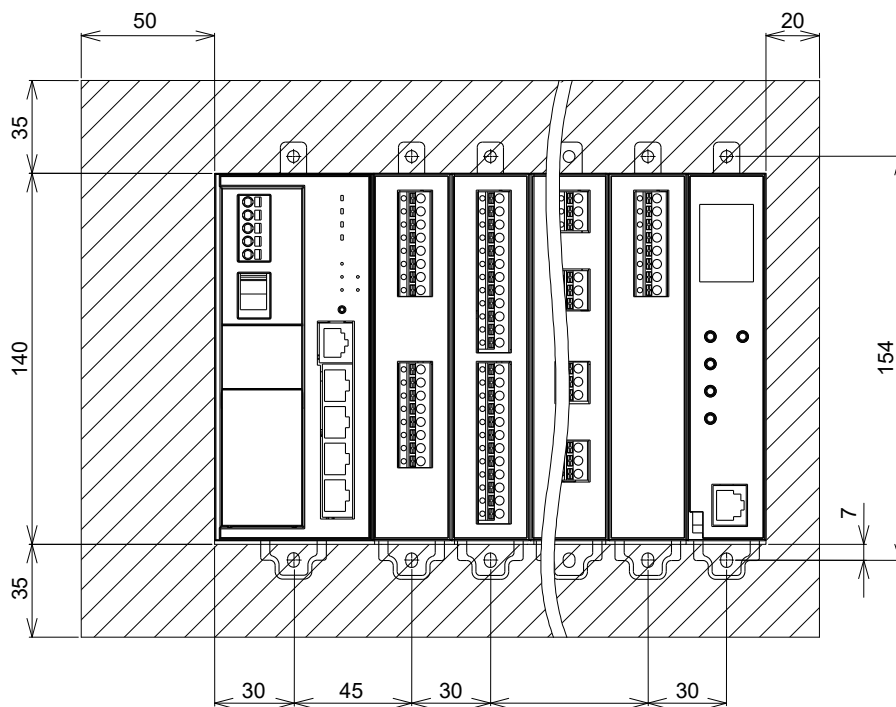


Figure 6. Installation with screws (mm)

● Installation position

- This product should be installed upright in the panel.
Installation of this product on a slant or laid on its side is prohibited. Doing so reduces heat radiation performance, which may cause the internal temperature to rise abnormally.

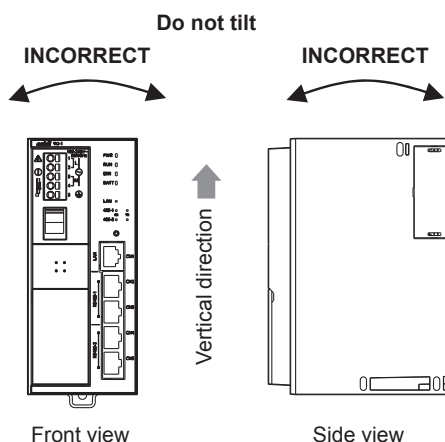


Figure 7. Installation position

- Do not block the ventilation holes by putting an object on top of the product, etc.

● Installation method

<Installation on DIN Rail>

Figure 8 shows the mounting dimensions for installation on DIN rail.

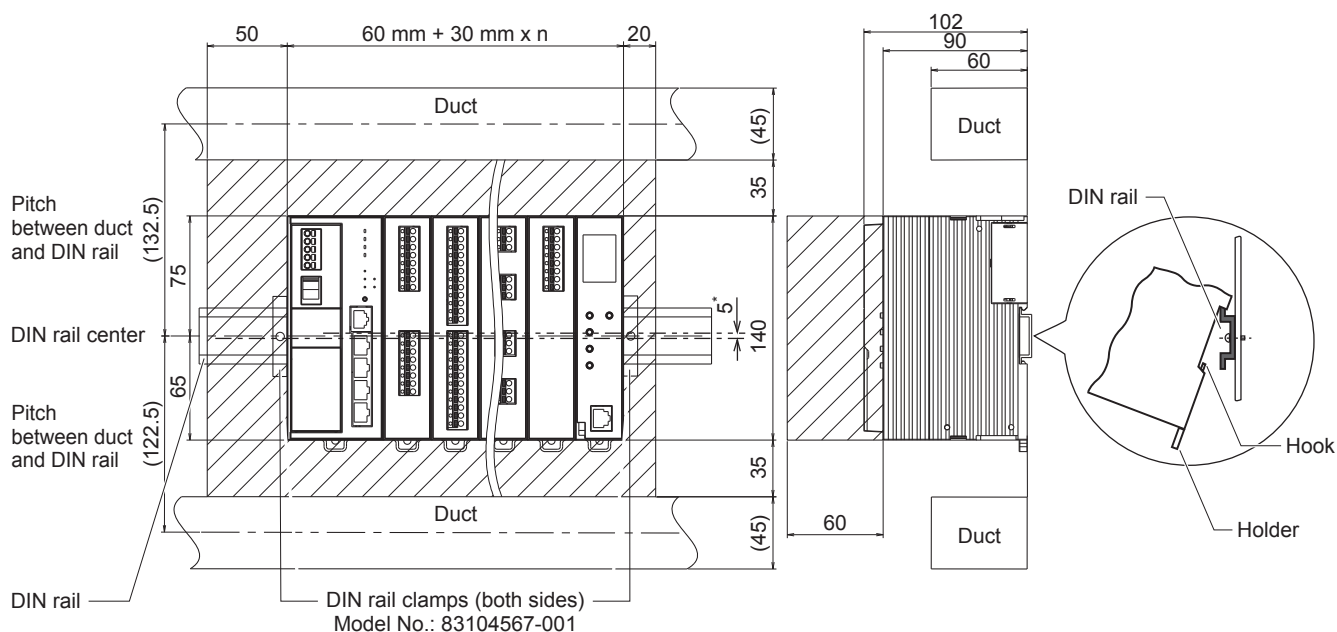
The horizontal dimension varies depending on the number of connected Direct Mount I/O Modules, Setting-Device Connection Modules, and SAnet Interface Modules.

Horizontal dimensions = 60 mm^{*1} + 30 mm^{*2} x n (number of units)

*1 Width of General Controller main unit

*2 Width of Direct Mount I/O Module, Setting-Device Connection Modules, or SAnet Interface

The hatched area is for maintenance.



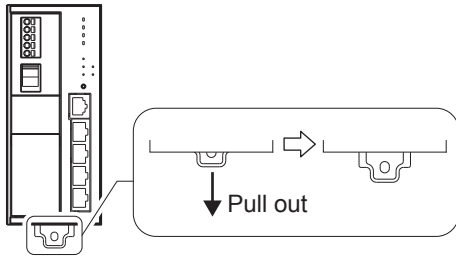
* The position of the DIN rail is offset 5 mm downward from the center of Model WJ-1111.

Figure 8. Installation on DIN rail

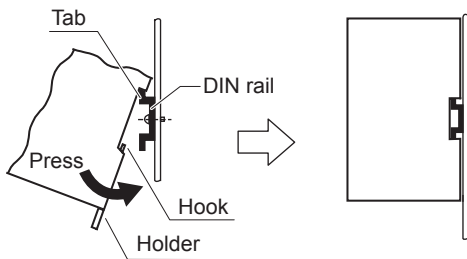
Note: For details on modules that can be connected, refer to AI-7453, *Direct Mount I/O Module, Setting-Device Connection Modules, and SAnet Interface Model RY51** Specifications/Instructions*.

Mount and fix the product firmly on the DIN rail so as not to fall from it.

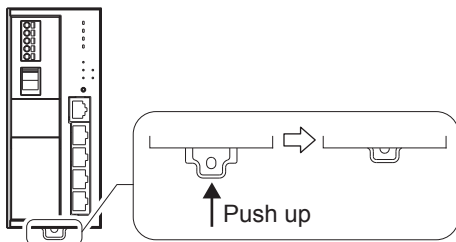
- (1) Pull out the DIN holder at the bottom of the product.



- (2) Hook the product on the DIN rail using the tab located at the rear of product, and then push the product toward the wall.



- (3) Push up the DIN rail holder at the bottom of the product.



- (4) Check that the DIN holder on the bottom of the device is secured on the DIN rail. Check that the device is steady.
- (5) Fix the both sides of product with the DIN rail clamps (Model No. 83104567-001, x 2 pcs) on the DIN rail.

<Direct Installation with Screws>

Figure 9 shows the mounting dimensions for direct installation with screws.

The horizontal dimension varies depending on the number of connected Direct Mount I/O Modules, Setting-Device Connection Modules, and SAnet Interface Modules.

Horizontal dimensions = $60 \text{ mm}^{\ast 1} + 30 \text{ mm}^{\ast 2} \times n$ (number of units)

*1 Width of General Controller main unit

*2 Width of the Direct I/O Module, Setting-Device Connection Modules, or SAnet Interface Module

The hatched area is for maintenance.

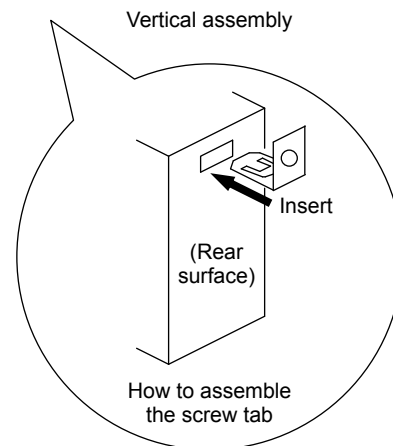
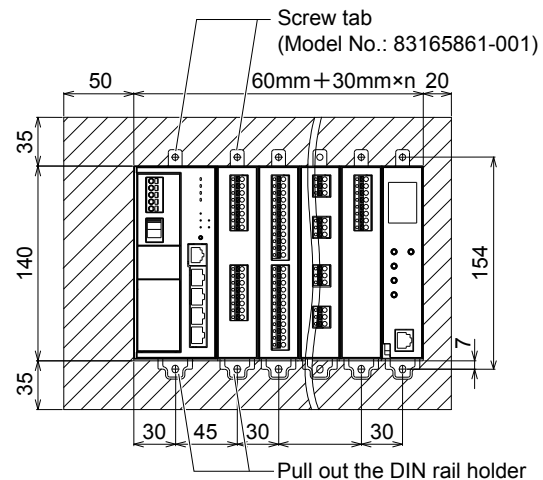


Figure 9. Direct installation with screws (mm)

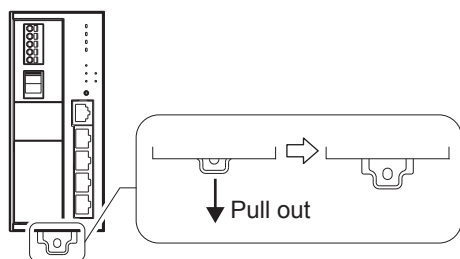
Note: For details on modules that can be connected, refer to AB-7453, *Direct Mount I/O Module, Setting-Device Connection Modules, and SAnet Interface Model Specifications/Instructions*

When installing with screws, the screw tab (Model No. 83165861-001) is required.

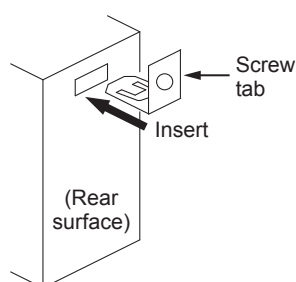
Mount and fix the product on the mounting surface with the M4 L = 8 screws.

- (1) Make a screw hole on the mounting surface to mount the product with the screw.

- (2) Pull out the DIN holder at the bottom of the product.



- (3) Insert the screw tab (Model No. 83165861-001) all the way into the hole at the rear of the product.



- (4) Mount the product using the hole in the screw tab and the hole in the DIN holder with the M4 screws (see Fig. 8).
 (5) Check that the product is firmly mounted on the mounting surface.

■ Wiring

| ⚠ WARNING | |
|-----------|---|
| | Be sure to ground this product with a ground resistance of less than 100 Ω. Improper grounding may cause electric shock or malfunction. |
| | Before wiring, be sure to turn off the power to this product. Failure to do so may result in electric shock or device failure. |

| ⚠ CAUTION | |
|-----------|--|
| | Take anti-noise measures if this product is installed in a location near source of electric noise. Failure to do so may cause malfunction or device failure. |
| | Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards. Failure to do so may cause fire or electric shock. |
| | All wiring must comply with applicable codes and ordinances. Otherwise there is a danger of fire. |

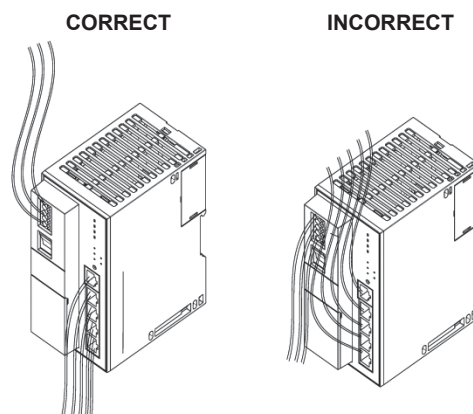
| ⚠ CAUTION | |
|-----------|---|
| | Do not use an uninterruptible power supply (UPS) that outputs rectangular waves. Doing so may cause the device to fail. |
| | For wiring, strip the insulation from cables as specified in this manual. If the length of exposed wire is longer than specified, it may cause electric shock or short circuit between adjacent terminals. If it is too short, it may not make proper contact. |

| | |
|------------|---|
| IMPORTANT: | <ul style="list-style-type: none"> • Incorrect wiring can cause the device to failure. Check the connection destination before turning the power on. • Do not test the withstand voltage of this product. The applied voltage may cause the device to fail. • If more than the rated voltage is accidentally applied to this product, replace the product with a new one. Otherwise the device may fail due to the voltage that was applied. |
|------------|---|

● Notes on Wiring

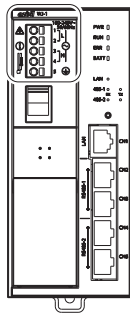
- Do not use unused/spare terminals on this product as relay terminals. Doing so may cause device failure.
- Provide a power circuit breaker for the power source to this product.
- Confirm that the wiring of this product and connected devices has been completed correctly.
- Power wires must be routed separately from communication wires and signal wires. Electrical noise from the power wires can affect signal wires, causing communication errors.
- Do not allow the wires to cover the front of this product.

Draw out the wiring in the vertical direction of the product, because the front of the product is an area for LED displays or for adjusting the product.

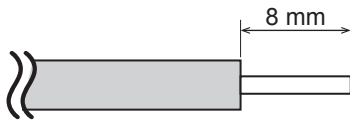


● **Wiring power supply terminal block**

Spring type terminal block

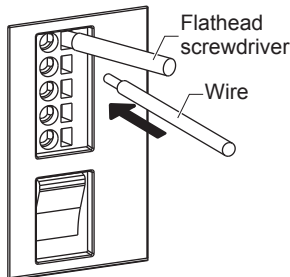


- (1) Strip 8 mm of insulation from the cable wire.



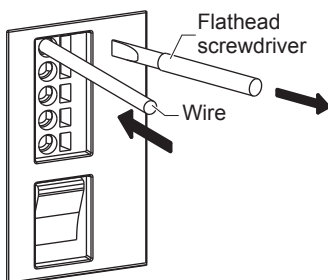
Check that there are no straying wires from the stripped wire.

- (2) Insert the flathead screwdriver into the driver insertion slot (square hole), and insert the wire into the wire terminal (round hole) with the flathead screwdriver inserted.



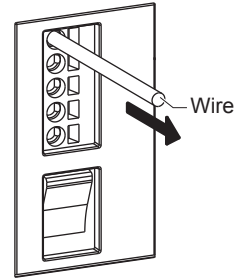
Note: There should be only one connection for the wire terminal (round hole).

- (3) Pull out the flathead screwdriver while holding the wire.



- (4) Lightly pull the wire to check that it does not come out.

Note: If you pull out the wire diagonally, it may be disconnected.



- (5) Check that there are no straying wires at the hole in which the wire was inserted.

* Recommended screwdriver: SZF 0-0,4 x 2,5 Model 1204504 made by PHOENIX CONTACT

● **Daisy-chain wiring of power supply**

This product can be daisy-chained to a power supply by providing two insertion slots for each on the power terminals.

There are the following restrictions when doing daisy-chain wiring:

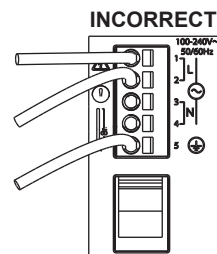
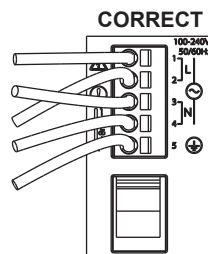
- The load current flowing into the product must be 10 A or lower.
- Provide a circuit breaker of 10 A or lower for the power source.
- Do not insert multiple wires into one insertion slot. Only one may be inserted.
- There is one insertion slot only for the ground terminal.
- When using N units of daisy-chained, there may be N times of the current flowing to the input terminals than that of when using a single unit. Select the wire material considering it.

<When not doing daisy-chain wiring>

Wire the power supply to terminal 1 and 3.
Ground terminal 5.

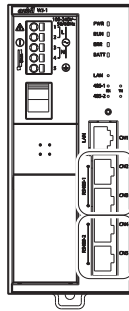
| Terminal Nos. | Description | Indications |
|---------------|----------------------------|-------------|
| 1 | AC power supply wiring | L |
| 2 | — | |
| 3 | AC power supply wiring | N |
| 4 | — | |
| 5 | Protective ground terminal | ⊕ |

Wiring example



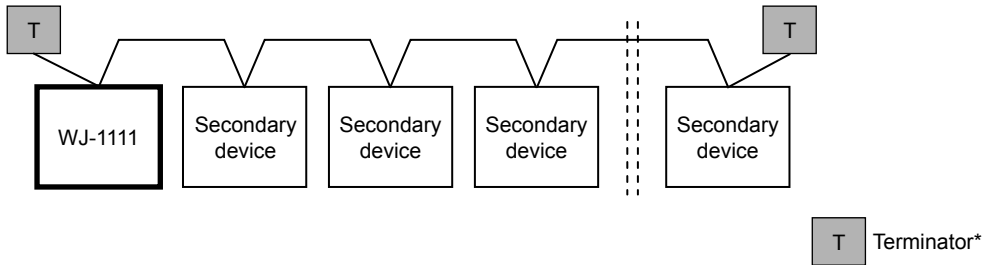
● **Wiring the RS-485 terminals**

RJ-45 modular connectors are used for connection.
 Connect CH1 to CN2 and CN3.
 Connect CH2 to CN4 and CN5.

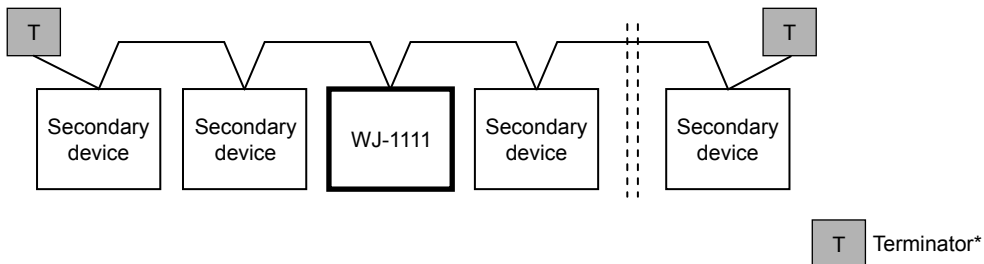


Connect a terminator to the end device connected to RS-485.

- If this product is installed at the end of the network



- If this product is not installed at the end of the network



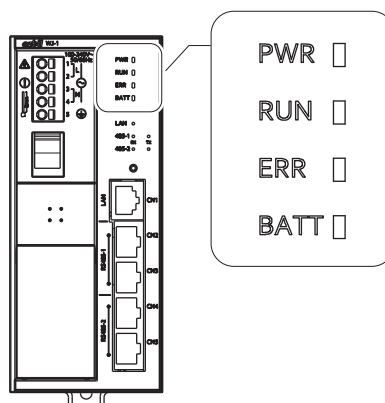
* Use the terminator listed below.
 Model 83162637-005, RS-485 terminator (x 1)
 Model 83162637-006, RS-485 terminators (x 10)

Notes:

1. Do not branch the wiring for RS-485 communication.
2. Branch wiring with Model DY7203A0000 is prohibited.

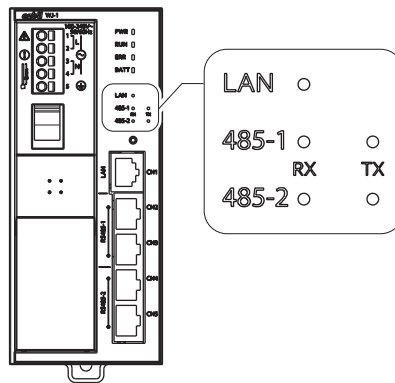
■ Indicators

● Product status LEDs



| Item | Indicator | Color | State | Description |
|---------------------|-----------|-------|--|---------------------------------|
| Power supply status | POWER | Green | Not lit | Power OFF |
| | | | Lit | Power ON |
| Operation mode | RUN | Green | Not lit | Operating in IDLE mode |
| | | | Flashing (at approx. 1.4 s intervals) | Operating in DEBUG mode |
| | | | Lit | Operating in RUN mode |
| Abnormal status | ERROR | Red | Not lit | Normal |
| | | | Flashing (at approx. 1.4 s intervals) | Minor failure or external error |
| | | | Lit | Major failure |
| Battery status | BATT | Red | Not lit | Normal battery voltage |
| | | | Lit | Battery voltage low |

● Communication status LEDs



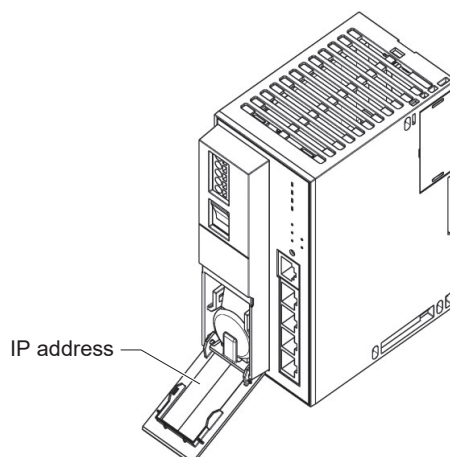
| Item | Indicator | Color | State | Description |
|--|-----------|-------|----------|---|
| Host Ethernet (BACnet IP) Communication status | LAN | Green | Not lit | A link is not established. |
| | | | Lit | A link is established. |
| | | | Flashing | Data is being transmitted and received. |
| RS-485 CH1 Communication status | 485-1 RX | Green | Not lit | Data is not being received. |
| | | | Flashing | Data is being received. |
| | 485-1 TX | Green | Not lit | Data is not being transmitted. |
| | | | Flashing | Data is being transmitted. |
| RS-485 CH2 Communication status | 485-2 RX | Green | Not lit | Data is not being received. |
| | | | Flashing | Data is being received. |
| | 485-2 TX | Green | Not lit | Data is not being transmitted. |
| | | | Flashing | Data is being transmitted. |

● Ethernet address


The Ethernet address of this product at the time of shipment is displayed on the back of the battery door.

For instructions on opening the battery door, refer to ● “How to replace the battery.”

If you change the Ethernet addresses, please write down the new address in the margin of the label



■ Handling

| ⚠ CAUTION | |
|---|---|
|  | Do not block the ventilation holes of this product. Doing so may cause device failure. |

| | |
|------------------|--|
| IMPORTANT | <ul style="list-style-type: none"> Do not test the withstand voltage of this product. The applied voltage may cause the device to fail. If more than the rated voltage is accidentally applied to this product, replace the product with a new one. Otherwise the device may fail due to the voltage that was applied. |
|------------------|--|

● Notes before power-on

- Check again that the wiring is done correctly.
- Peel off the protective sheets before powering the device on.

Note: Check that all protective sheets have been peeled off thoroughly.

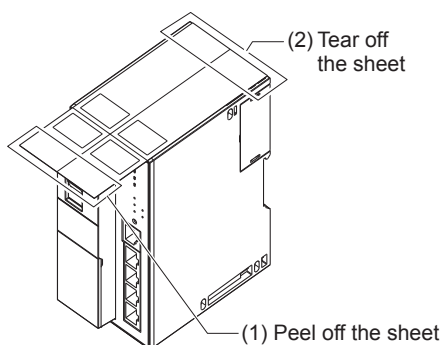



Figure 10. Protective sheet


| ⚠ WARNING | |
|---|--|
|  | Do not touch electrically charged parts. Doing so may cause electric shock. |



■ Protection after Installation

After this product is installed, if installation of other equipment is ongoing nearby (etc.), take dust-proofing measures for the product to prevent metal shavings, dust, and other particles from entering the product.

Note: Take dust-proofing measures for the product regardless of whether the protective plastic sheets are still attached to the product.

■ Maintenance

| ⚠ WARNING | |
|---|--|
|  | Do not touch electrically charged parts. Doing so may cause electric shock. |

| ⚠ CAUTION | |
|---|--|
|  | Do not disassemble this product. Doing so may cause device failure. |
|  | Before cleaning the product, be sure to turn off the power to the product. Failure to do so may cause electric shock, device failure, or malfunction. |

Azbil personnel who have been trained on the product will carry out periodic maintenance and parts replacement.

Please contact us.

Note: Refer to the "Model Numbers" section for details on replacement parts.

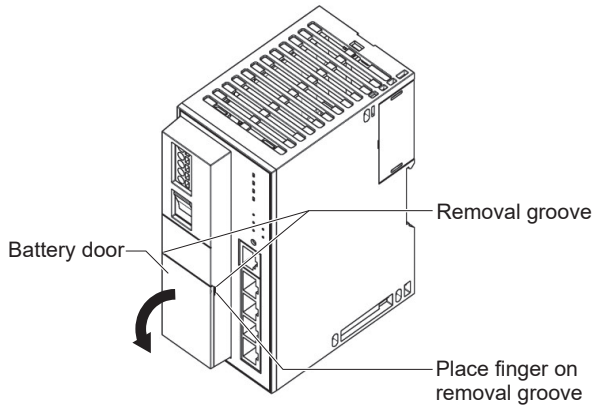
● Notes for replacing the battery

- Replace the battery without powering off this product.
- The remaining volume of the battery cannot be checked with the battery connector voltage check. Replace the battery every 5 years.
- If the product is unused or almost unused (never been energized) for more than 1 year, replace the battery before using the product.
- The battery door can easily be removed from the main unit.

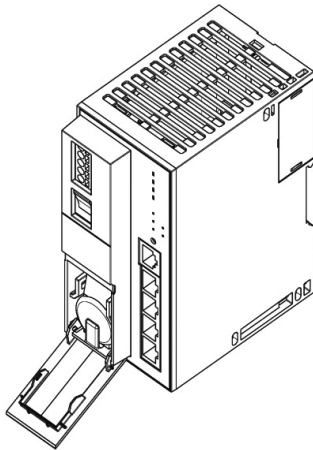
When removing the battery door, be careful not to lose it.

● **How to replace the battery**

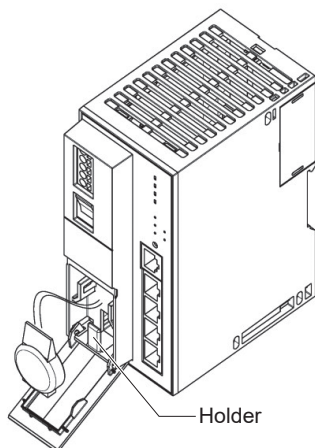
- (1) Place a finger on the battery door removal groove and open the battery door toward the front of the product.



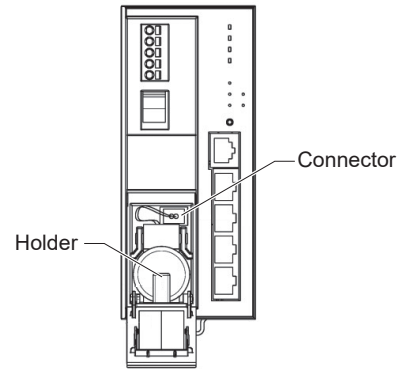
- (2) Hold the connector and pull it gently toward the front of the product to remove it from the device.



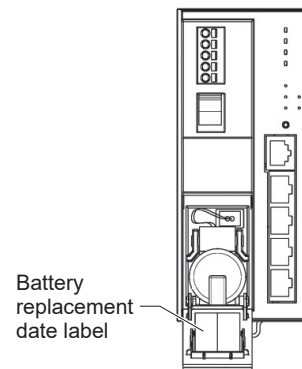
- (3) Remove the battery from the holder.



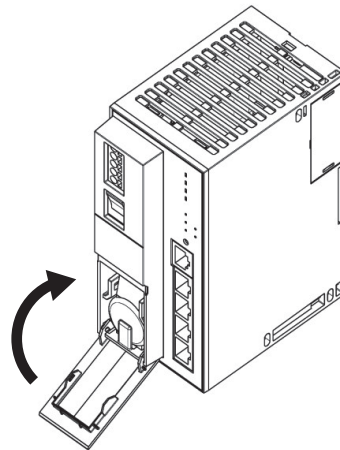
- (4) Place a new battery into the holder, hold the connector and mount it in the device.



- (5) Enter the next battery replacement date on the battery replacement date label.



- (6) Press the battery door until it clicks closed.



■ Disposal **CAUTION**

Dispose of used lithium batteries in accordance with local regulations. Do not throw them in the fire or dispose of them with ordinary garbage.

Doing so may cause the batteries to burst or ignite.

Dispose of the product as industrial waste in accordance with your local regulations.
Do not reuse all or part of this product.

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■ For CE-Marked Products

Install this product in a panel cabinet. Additionally, always keep the panel cabinet accessible only to people with sufficient knowledge concerning electrical equipment.

This product complies with the following harmonised standards of the Radio Equipment Directive (RED), the Electromagnetic Compatibility Directive (EMCD) and the Low Voltage Directive (LVD).

RED: EN 300 330

EMCD: EN 61326-1 Class A, Table 2 (for use in an industrial electromagnetic environment)
EN 301 489-1 / EN 301 489-3

LVD: EN 61010-1 Overvoltage category II
Pollution degree 2

If compliance with CE marking is required, provide an EMC filter on the LAN cable that connects to the host network.

■ For UL-Marked Products

Install this product in a panel cabinet.

- PAZX ENERGY MANAGEMENT EQUIPMENT
- E492866
- UL 60730-1
- Pollution degree 2
- Overvoltage category II
- Rated impulse voltage 4000V
- IP20
- TYPE 1 ACTION



The model number of the UL-certified product is WJ-1111W0000-U.

■ For BTL-Listed Products



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Firmware version 1.1.4 and later of this product comply with BTL certification requirements.

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Specifications are subject to change without notice.

AB-7456
Rev. 10.0, Jun. 2024
(J: AI-7456 Rev. 7.0)