suprema

Secure I/O 2

INSTALLATION GUIDE

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English

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Contents

Safety Instructions 3

Components.....4

Front Side 5

Installation Example 6

Dimensions 7

Connections 8

- Power 8
- RS-485.....8
- Relay 9
  - Fail Safe Lock 9
  - Fail Secure Lock 9
- Door button.....10
- Door sensor 10

Product Specifications.....11

FCC Compliance Information 12

Appendix 13

- Disclaimers 13
- Copyright Notice 13

Safety Instructions

Please read the following instructions carefully before using the product. This information is important for ensuring the safety of the user and for preventing damage to the user's property.

⚠Warning

Violation of the instructions may cause serious injury or death.

Installation Instructions

Do not install the product in direct sunlight or in a location that is damp or dusty.

- This can cause a fire or electric shock.

Do not install the product near any heat source such as electric heaters.

- This can cause a fire from overheat or electric shock.

Install the product in a dry place.

- Moisture can cause product damage or electric shock.

Install the product in a place where there is no electromagnetic interference.

- This can cause product damage or electric shock.

Have qualified service professionals install or repair the product.

- Otherwise, it can cause a fire, electric shock, or injury.
- If the product is damaged due to a user's unauthorized installation or dismantling of the product, a service fee will be charged for repair.

⚠Caution

Ignoring these instructions may result in minor injuries or damage to the product.

Installation Instructions

Protect the power cord from being walked on or pinched.

- This can cause product damage or injury.

Keep the product away from strong magnetic objects such as magnets, TVs, monitors (especially CRT monitors), or speakers.

- This can cause a failure.

Secure I/O 2, the electrical locking device and access controller must use independent power source.

Operating Instructions

Do not drop the product or subject it to shock or impact during use.

- This can cause a failure.

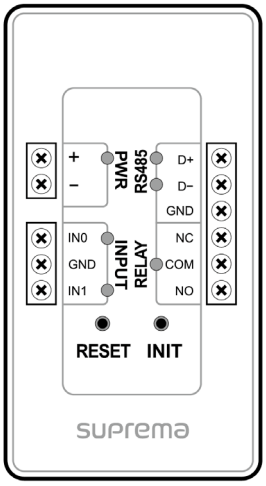
Do not press the buttons on the product with excessive force or with a sharp tool.

- This can cause a failure.

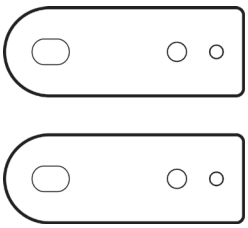
Clean the product with a soft, dry cloth. Do not use alcohol, benzene, or water.

- This can cause a product failure.

Components



Secure I/O 2



Bracket
(2 pcs)

Mounting screws for bracket
(2 pcs)

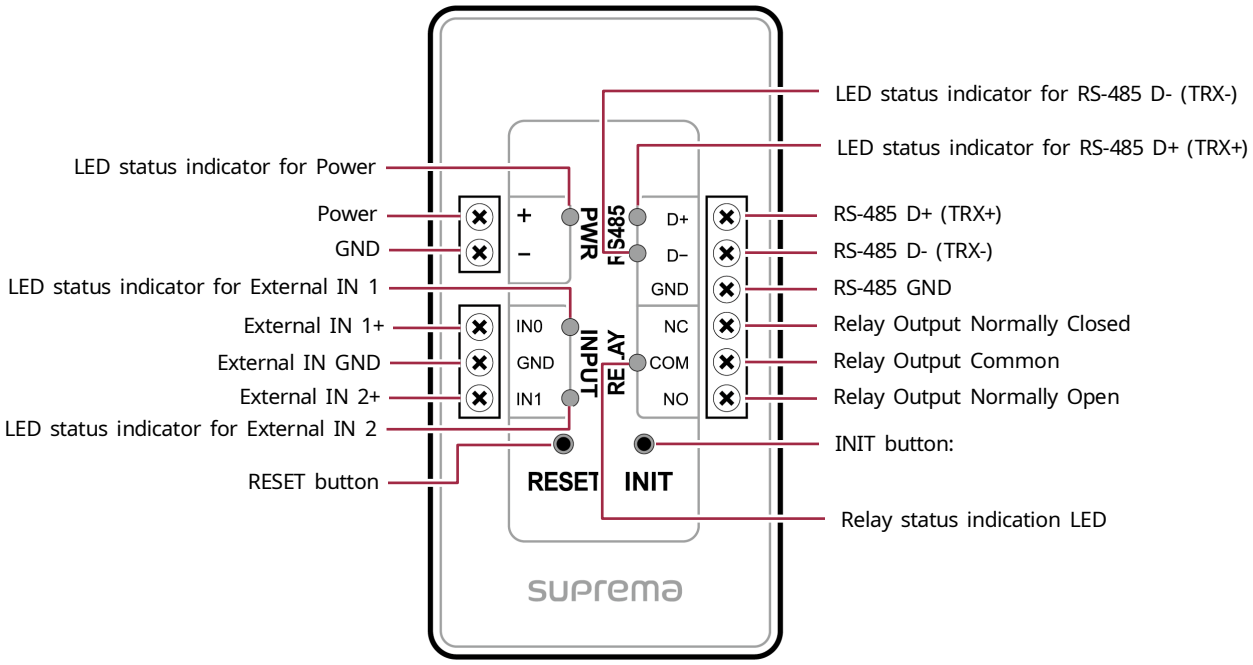
120Ω resistor
(1 pc)

Diode
(1 pc)

NOTE

- Components may vary according to the installation environment.

Front Side

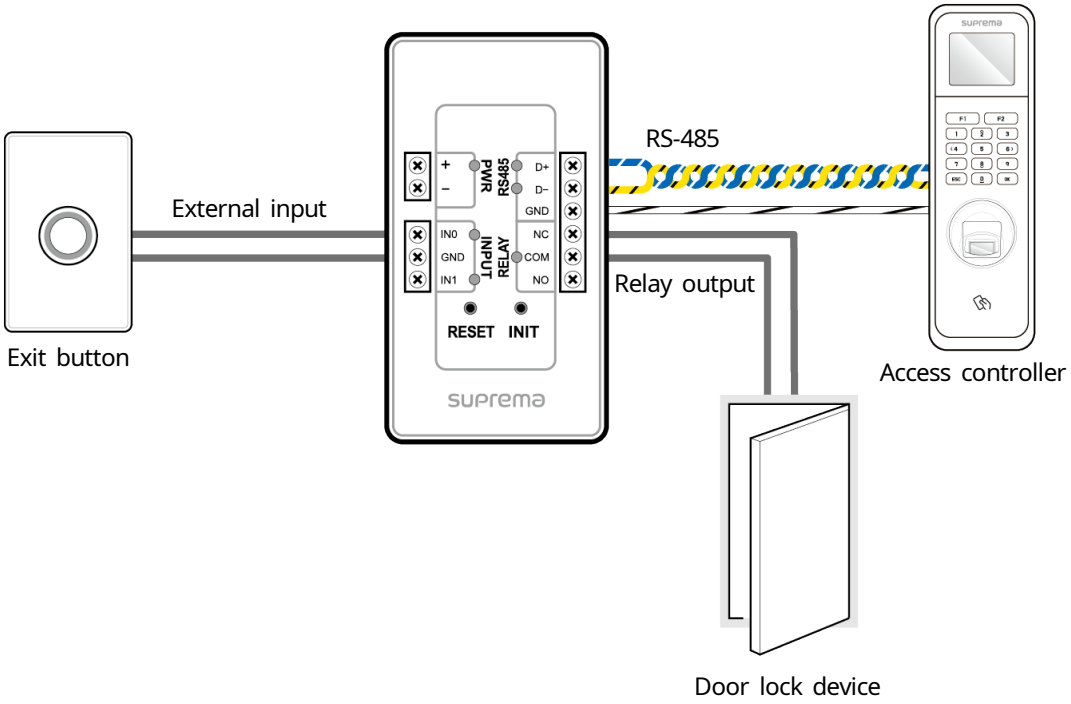


NOTE

- Press INIT button to reset Secure I/O 2 interworking with a device and then connect to another device.

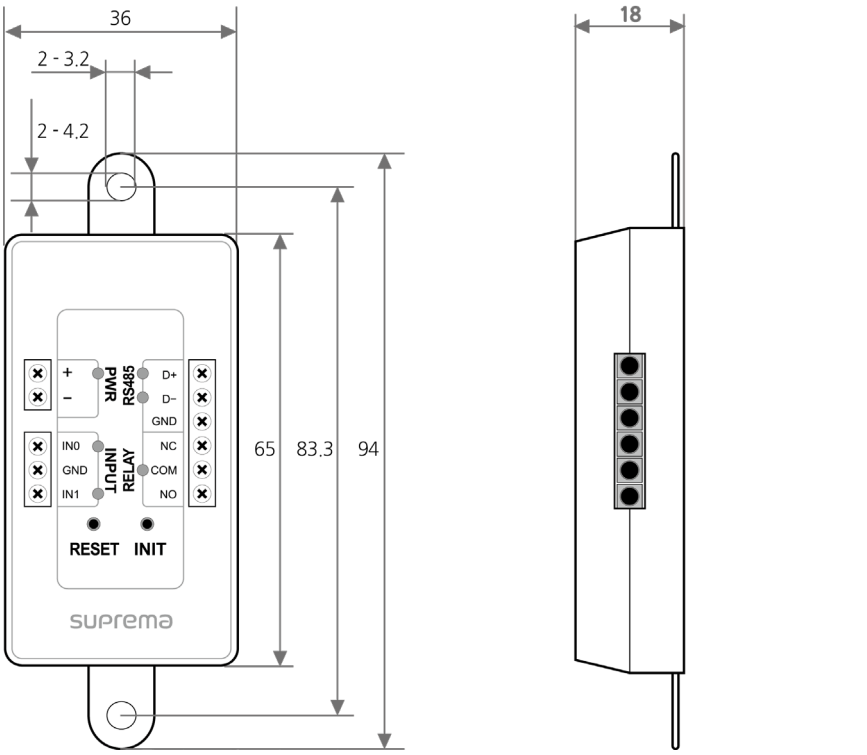
Installation Example

Secure I/O 2 is connected with RS-485 and can be installed anywhere due to its small size. It can be installed with a junction box or onto a wall control box already installed. It can be installed at the rear side of an Exit button.



Dimensions

(Unit: mm)



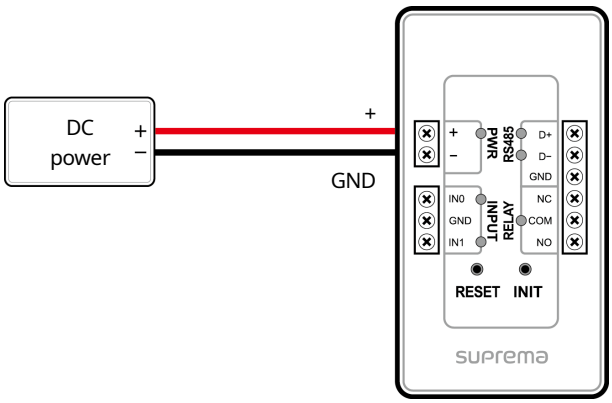
Connections

NOTE

- Cable should be AWG22~AWG16.
- To connect the cable to Secure I/O 2, strip off approximately 5~6 mm of the end of the cable and connect them.

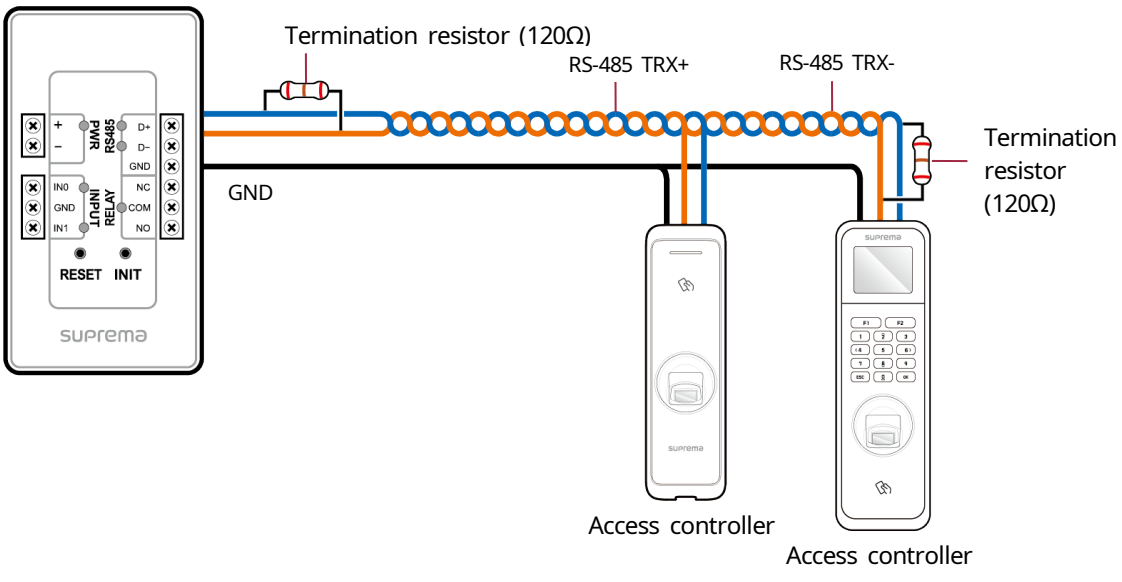
Power

- Do not share the power with the access controller.
- If the power is shared by other devices, it should provide 9–18V and a minimum of 500 mA.
- When using a power adapter, it should have IEC/EN 60950-1 certification.



RS-485

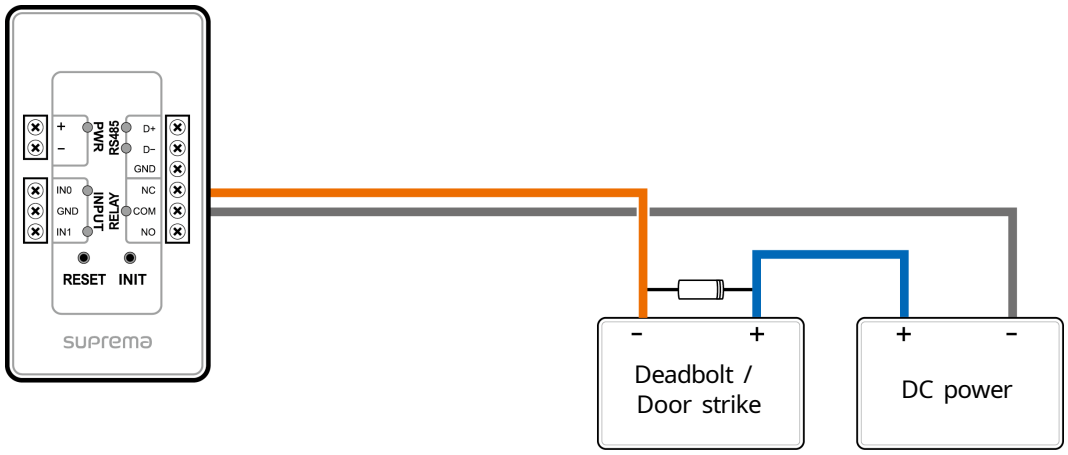
- RS-485 should be twisted pair, and maximum length is 1.2 km.
- Connect a termination resistor (120Ω) to both ends of a RS-485 daisy chain connection. It should be installed at both ends of the daisy chain. If it is installed in the middle of the chain, the performance in communicating will deteriorate because it reduces the signal level.



Relay

Fail Safe Lock

- To use fail safe lock, connect NC terminal as shown below. Normally, there is a current flowing through the relay and the door is opened when the relay is activated by blocking current flow. The door will also be opened when there is a blackout or power failure caused by external conditions.

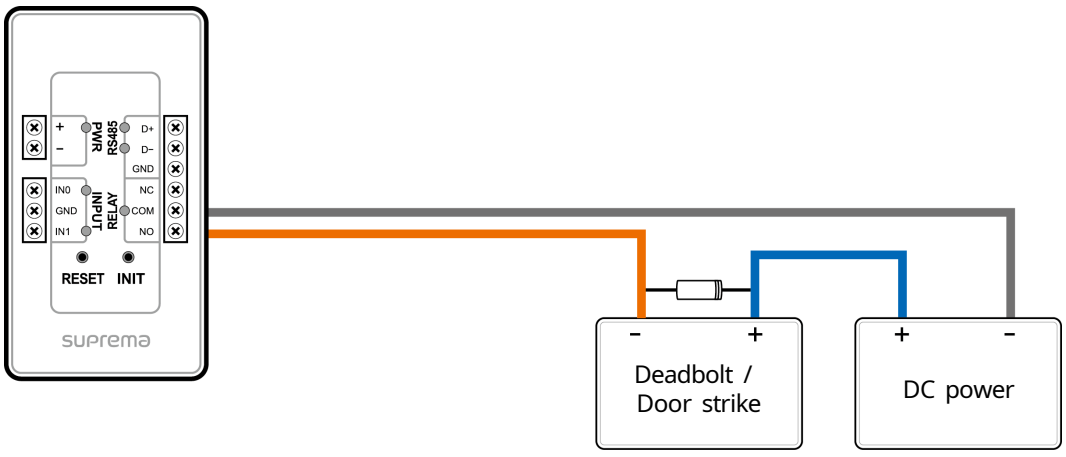


NOTE

- When deadbolt or door strike is installed, the diode included with the product should be connected at both ends of the power input as shown in the figure. Place the diode carefully in the correct direction. The cathode (stripe mark) should be connected to the (+) of the power.

Fail Secure Lock

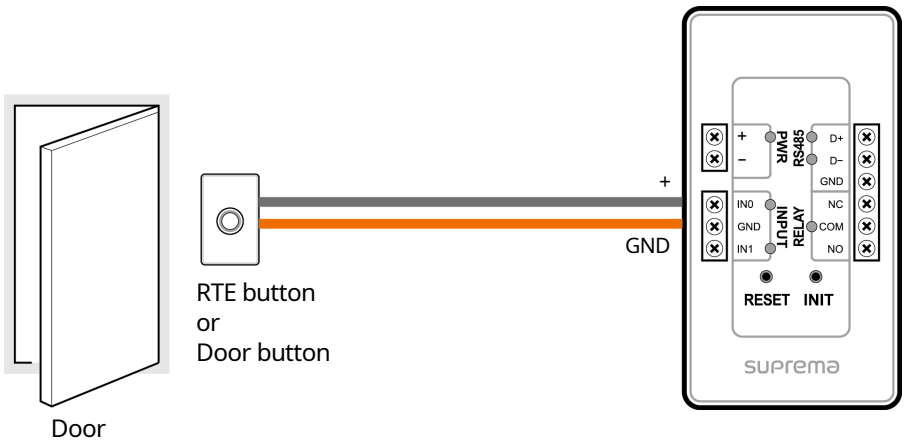
- To use fail secure lock, connect NO terminal as shown below. Normally, there is no current flowing through the relay and the door is opened when the relay is activated by a current flows. The door is locked when there is a blackout or power failure caused by external conditions.



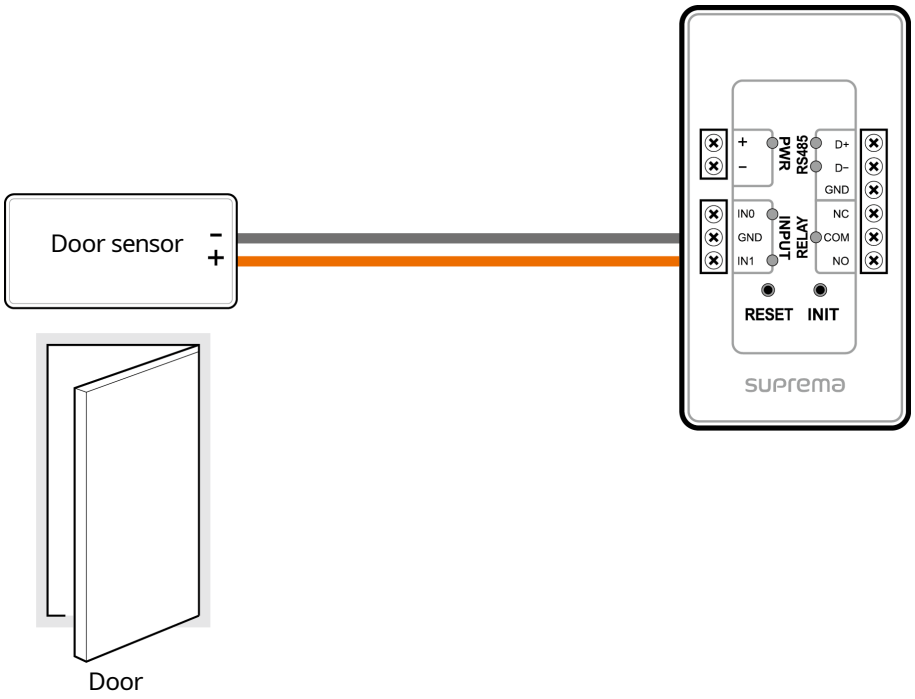
NOTE

- When deadbolt or door strike is installed, the diode included with the product should be connected at both ends of the power input as shown in the figure. Place the diode carefully in the correct direction. The cathode (stripe mark) should be connected to the (+) of the power.

Door button



Door sensor



Product Specifications

Item	Specification
CPU	Cortex M 32 MHz
Memory	128 KB Flash + 20 KB RAM
LED	6 LEDs (PWR, RS-485 TX/RX, IN1, IN2, Relay)
Input/Output terminal	Input 2 channels, Relay 1 channel, RS-485 1 channel
Dimensions (Width x Height x Depth)	36mm x 65mm x 18mm
Power	• Recommended: 9 VDC (130 mA), 12 VDC (100 mA), 18 VDC (70 mA) • Maximum: 18 VDC (200 mA) • Current: Maximum 200 mA
Relay	• Voltage: Max. 24 VDC • Current: 0.5A, Max. 1A

FCC Compliance Information

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

Appendix

Disclaimers

- This document provides the information pertaining to Suprema's products.
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