BioLite N2

USER GUIDE

Version 1.18
English
EN 102.00.BLN2

suprema
SECURITY & BIOMETRICS

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Safety instructions

Please read this safety instructions before you use the product to prevent injury to yourself and others and to prevent property damage. The term 'product' in this manual refers to the product and any items provided with the product.

Instructional icons

Warning: This symbol indicates situations that could result in death or severe injury.

Caution: This symbol indicates situations that may result in moderate injury or property damage.

Note: This symbol indicates notes or additional information.

Warning

Installation

When using a high-capacity power supply, please pay special attention to avoid miswiring.

- Miswiring may result in serious fire, electric shock, or product damage.

Do not install or repair the product arbitrarily.

- This may result in electric shock, fire, or product damage.
- Damages caused by any modifications or failure to follow installation instructions can void your manufacturer's warranty.

Do not install the product in a place with direct sunlight, moisture, dust, soot, or a gas leak.

- This may result in electric shock or fire.

Install the product in a well-ventilated and cool place away from direct sunlight to prevent overheating when installing it outside.

Do not place the product inside the sealed enclosure when installing it outside.

- It increases the internal temperature of the enclosure and this may result in electric shock, fire, or malfunction.

Do not install the product in a location with heat from an electric heater.

- This may result in fire due to overheating.

Install the product in a dry location.

- Humidity and liquids may result in electric shock or product damage.

Do not install the product in a location where it will be affected by radio frequencies.

- This may result in fire or product damage.

Operation

Keep the product dry.

- Humidity and liquids may result in electric shock, fire, or product damage.

Do not use damaged power supply adapters, plugs, or loose electrical sockets.

- Unsecured connections may cause electric shock or fire.

Do not bend or damage the power cord.

- This may result in electric shock or fire.

Caution

Installation

Please read this manual before installing the product to ensure a safe and correct installation.

When wiring the power cable and other cables, make sure to connect them with the power turned off for all devices involved.

- The product may malfunction.

Before connecting power to the product, double-check the manual to ensure that the wiring is correct, then connect the power.

Do not install the product under direct sunlight or UV light.

- This may result in product damage, malfunction, discoloration, or deformation.

Do not install the power supply cable in a location where people pass by.

- This may result in injury or product damage.

Do not install the product near magnetic objects, such as a magnet, TV, monitor (especially CRT), or speaker.

- The product may malfunction.

Do not seal around the product with silicone, etc. when installing it on the wall.

- The product may malfunction.

Keep the minimum distance between products when installing multiple products.

- The product may be affected by radio frequencies emitted by other products and the product may malfunction.

Use the IEC/EN 62368-1 approved power adapter that supports higher power consumption than the product. It is highly recommended to use the power adapter sold by Suprema.

- If the right power supply is not used, the product may malfunction.
- Refer to the Power in the product specifications for maximum current consumption specifications.

Use a separate power supply for the Secure I/O 2, electric lock, and the product.

- If connecting and using the same power supply, the product may malfunction.

Caution

Operation

Do not drop the product or cause impacts to the product.

- The product may malfunction.

Do not disconnect the power supply while upgrading the firmware of the product.

- The product may malfunction.

Do not disclose the password to others and change it regularly.

- This may result in illegal intrusion.

Do not press buttons on the product by force or do not press them with a sharp tool.

- The product may malfunction.

Do not store your product in very hot or very cold places. It is recommended to use your product at temperatures from -20 °C to 50 °C (BLN2-PAB: -10 °C to 50 °C).

- The product may malfunction.

When cleaning the product, mind the following.

- Wipe the product with a clean and dry towel.
- If you need to sanitize the product, moisten the cloth or the wipe with a proper amount of rubbing alcohol and gently clean all exposed surfaces. Use rubbing alcohol (containing 70 % Isopropyl alcohol) and a clean, non-abrasive cloth like lens wipe.
- Do not apply liquid directly to the surface of the product.

Do not use the product for anything other than its intended use.

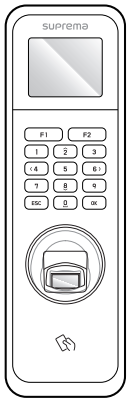
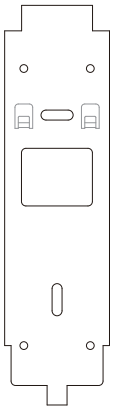
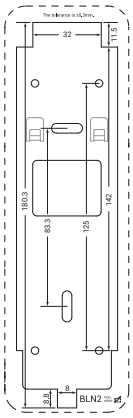
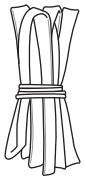
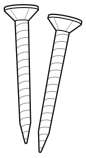
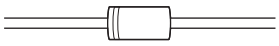
- The product may malfunction.

RTC Battery

Use of an unapproved or incorrect type of battery may result in a risk of explosion. Discard the battery according to the appropriate regional or international waste regulations.

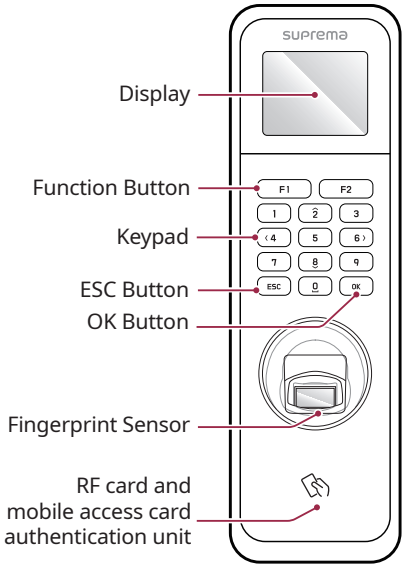
Introduction

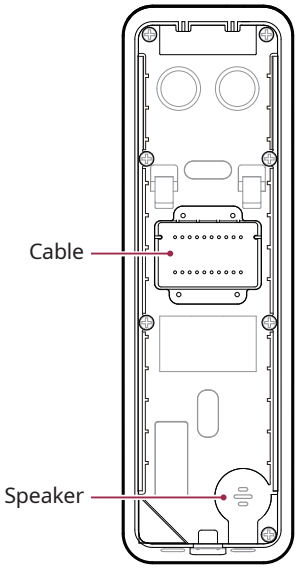
Components

			
BioLite N2	Wall Bracket	Drilling Template	Shrink Tube
			
PVC Anchor x2	Fixing Screw x2	Bracket Fixing Screw (Star Shaped)	120 Ω Resistor
			
Diode	Quick Guide	Open Source Software Guide	

- Components may vary according to the installation environment.
- When assembling the product with the bracket, you can use the included bracket fixing screw (Star Shaped) instead of the product fixing screw for enhanced security.
- For more details regarding the product installation, visit the Suprema Download Center (https://download.supremainc.com) and refer to the installation guide.

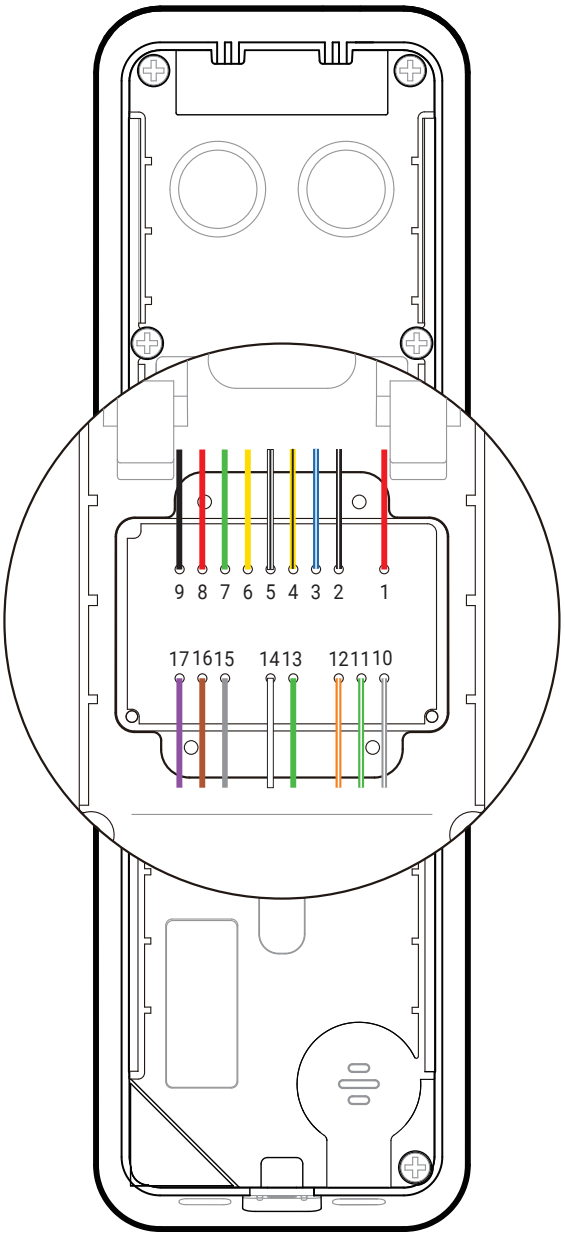
Name and function of each part





Name	Description
Display	Provides UI for operation.
Function Button	Used for T & A key or changing a letter.
Keypad	• 0 to 9: Enters numbers/characters. • 2, 4, 6, 8: Navigates to an item.
OK Button	Used for selecting and setting T&A Mode. If a job code is set, you can change the job code of the user by pressing this button long.
ESC Button	Used for opening the menu, moving to the previous screen or canceling input.
Fingerprint Sensor	Part to scan the fingerprint for entrance.
RF card and mobile access card authentication unit	Part to scan a RFID card or mobile access card for entrance.
Cable	• Power cable • RS-485 cable • Ethernet connector • Relay output cable • Wiegand input or output cable • Input cable
Speaker	Delivers sound.

Cables and connectors

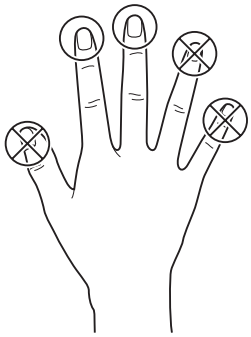


PIN	Name	Color
1	PWR +VDC	Red
2	PWR GND	Black (White stripe)
3	485 TRXP	Blue (White stripe)
4	485 TRXN	Yellow (Black stripe)
5	485 GND	White (Black stripe)
6	ENET RXN	Yellow
7	ENET RXP	Green
8	ENET TXN	Red
9	ENET TXP	Black
10	RLY NO	Gray (White stripe)
11	RLY COM	Green (White stripe)
12	RLY NC	Orange (White stripe)
13	WG D0	Green
14	WG D1	White
15	INPUT GND	Gray
16	INPUT1	Brown
17	INPUT0	Purple

How to enroll a fingerprint

In order to improve the fingerprint authentication rate, register the fingerprint correctly. BioLite N2 can recognize a fingerprint even if the angle and position of a user's fingerprint input change. If you register the fingerprint with attention to the following matters, the authentication rate can be improved.

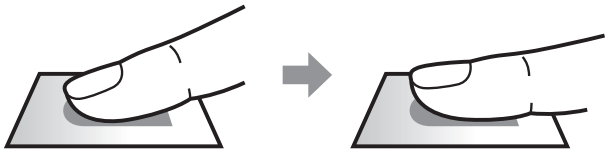
Selecting a finger for fingerprint input



- In preparation for the case that the fingerprint of a specific finger cannot be used, for example if the user is lifting a load with one hand or a finger gets hurt, up to 10 fingerprints for each user can be registered.
- In the case of a user whose fingerprint cannot be recognized well, the authentication rate can be improved by enrolling the same finger twice repeatedly.
- If a finger has a cut or the fingerprint is blurry, select another finger for the fingerprint.
- It is recommended to use the index finger or the middle finger when scanning the fingerprint. The authentication rate can be reduced if it is difficult to place another finger at the center of fingerprint sensor accurately.

Fingerprint enroll method

1 When a message saying "Scan Finger" is displayed on the screen for enrolling the fingerprint, place the finger with the fingerprint you wish to enroll on the fingerprint sensor and press the finger gently for better authentication.

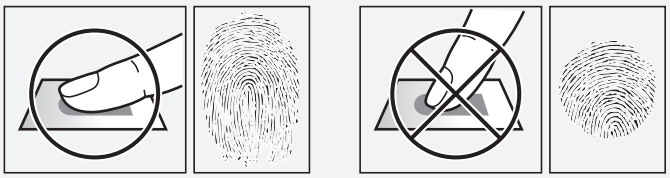


2 When the re-input screen is displayed after a beep sound, scan the fingerprint of the enrolled finger again. (scan the fingerprint of a finger to be enrolled twice)

Cautions for enrolling a fingerprint

When a fingerprint is recognized, it is compared with the initially registered fingerprint, so the initial fingerprint enroll is the most important. Pay attention to the following matters when enrolling the fingerprint.

- Place the finger deep enough to contact with the sensor completely.
- Place the center of the fingerprint in the center of the sensor.
- If a finger has a cut or the fingerprint is blurry, select another finger for the fingerprint.
- Scan the fingerprint correctly without moving according to the instruction on the screen.
- If you make the finger upright so that the contact area with the sensor is decreased or the angle of finger is warped, fingerprint authentication may not be performed.



When the fingerprint recognition fails

BioLite N2 can recognize a fingerprint regardless of a change in season or finger condition. However, the authentication rate may vary according to the external environment or fingerprint input method. If the fingerprint authentication cannot be done smoothly, it is recommended to take the following measures.

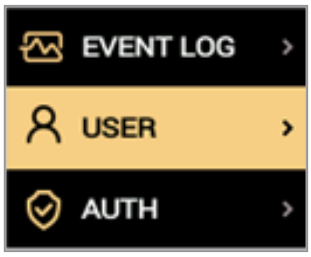
- If the finger is smeared with water or sweat, dry off the finger and then scan the finger.
- If the finger is too dry, blow your breath on the fingertips and then scan the finger.
- If the finger has a cut, register the fingerprint of another finger.
- The initially enrolled fingerprint often may have not been scanned correctly, so enroll the fingerprint again according to 'Cautions for enrolling a fingerprint'.

Admin Menu

All Menus

1 Press **ESC** and authenticate with the Admin level credential.

2 Select the desired menu.



If the administrator has not been designated, the menu screen will be displayed when you press **ESC**.

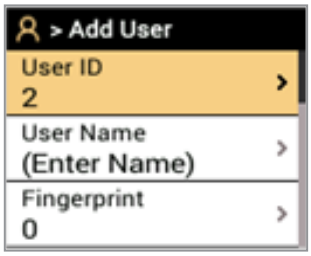
User

Registering User Information

The user information including credentials can be registered.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **USER** → **Add User**, then press **6**.



3 Select the desired item, then press and set **4** or **6**. When you press **OK**, the user information will be registered.

- **User ID**: Enter a number between 1 and 429467294 to register as the user ID. If **User ID Type** set to **Alphanumeric**, a combination of alphanumeric characters and symbols (_, -) can be used for the ID. Up to 32 characters can be input.
- **User Name**: Enter the user name using the number keypad and the function button.
- **Fingerprint**: Enroll a fingerprint for user authentication. Scan the fingerprint of a finger you wish to enroll, and then scan the fingerprint of the same finger again. You can delete the fingerprint by selecting a fingerprint to delete and pressing **4**. You can also scan the fingerprint again by pressing **6**. To add a fingerprint, select **+ Add Finger**, then press **6**.
- **Card**: Register a card for user authentication. Scan the card that will be assigned to the user.
- **PIN**: Enter the PIN you wish to use. Enter the PIN you wish to use, and then enter the same PIN again for confirmation. Enter a number between 4 and 16 digits to prevent leaking.
- **Operator Level**: Select the level you wish to assign to a user.

Available menus vary according to the set user level.

- **Normal User**: This is the general user level and menus cannot be accessed.
- **Administrator**: All menus can be accessed.
- **Configuration**: **AUTH**, **DISPLAY**, **DEVICE**, **NETWORK**, and **EVENT LOG** menus can be accessed.
- **User Mgmt.**: **USER** and **EVENT LOG** menu can be accessed.

- **Start Date**: Set a start date to use the user account.
- **Expiry Date**: Set an expiry date to use the user account.
- **1:1 Security Level**: Set the security level for 1:1 authentication.
- **Duress**: Select this option to add the fingerprint as a duress fingerprint. When threatened by someone to open the door, the user can authenticate using this fingerprint to send an alarm signal to BioStar 2.
- **Private Auth Mode**: Change the authentication method according to the user.

4 To save settings, press **OK**.

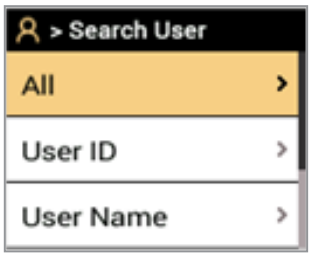
Modifying User Information

User Management or Administrator can modify the registered user information. A card or fingerprint can be added, and PIN and level can be modified.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **USER** → **Search User**, then press **6**.

3 Select your search terms. You can search for a user by **All**, **User ID**, **User Name**, **Fingerprint**, and **Card**.



4 Select the user you wish to modify and press **6**. Modify the information by referring to Registering User Information.

- To delete a user, press **4**, and then press **OK**.

Access Group can be registered in BioStar 2. For detailed contents regarding registering an access group, refer to the BioStar 2 Administrator Manual.

Delete All Users

You can delete all registered users at once.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **USER** → **Delete All Users**, then press **6**.

3 When you press **OK**, all registered users will be deleted.

View User Usage

You can see the number of registered users, fingerprints and cards at a glance.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **USER** → **User Usage**, then press **6**.

Authentication

Auth Mode

Fingerprint Mode

You can set the schedule to be used for each authentication method using a fingerprint.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **Auth Mode** → **Fingerprint Mode**, then press **6**.

3 Select the desired item and set the schedule by pressing **4** or **6**.

- : Mode to use a fingerprint only.
- + : Mode to authenticate with a fingerprint and then enter a PIN.

4 To save settings, press **OK**.

- A schedule can be set in BioStar 2. If there is no set schedule, only **Never** and **Always** can be selected.
- For detailed contents regarding setting a schedule, refer to BioStar 2 Administrator's manual.

Card Mode

You can set the schedule to be used for each authentication method using a card.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **Auth Mode** → **Card Mode**, then press **6**.

3 Select the desired item and set the schedule by pressing **4** or **6**.

- : Mode to use a card only.
- + : Mode to authenticate with a card and then authenticate with a fingerprint.
- + : Mode to authenticate with a card and then enter a PIN.
- + / : Mode to authenticate with a card and then authenticate with a fingerprint or enter a PIN.
- + + : Mode to authenticate with a card and then use both fingerprint authentication and PIN input.

4 To save settings, press **OK**.

- A schedule can be set in BioStar 2. If there is no set schedule, only **Never** and **Always** can be selected.
- For detailed contents regarding setting a schedule, refer to BioStar 2 Administrator's manual.

ID Mode

You can set the schedule to be used for each authentication method using ID.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **Auth Mode** → **ID Mode**, then press **6**.

3 Select the desired item and set the schedule by pressing **4** or **6**.

- + : Mode to enter ID and then authenticate with a fingerprint.
- + : Mode to enter ID and then enter a PIN.
- + / : Mode to enter ID and then authenticate with a fingerprint or enter a PIN.
- + + : Mode to enter ID and then use both fingerprint authentication and PIN input.

4 To save settings, press **OK**.

- A schedule can be set in BioStar 2. If there is no set schedule, only **Never** and **Always** can be selected.
- For detailed contents regarding setting a schedule, refer to BioStar 2 Administrator's manual.

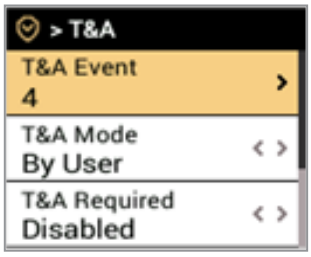
T&A Mode

You can set how to register T&A Mode.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **T&A**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **T&A Event**: View the set T&A event.
- **T&A Mode**: Set the method to use T&A mode.
- **T&A Required**: Set to require a user to select a T&A event when authenticating. If **Enabled** is set, you can set to require a user to select a T&A event when authenticating.
- **T&A Fixed**: Set to use only a T&A event selected by the administrator. This option can be used when **Fixed** is set for **T&A Mode**.
- **Job Code**: Select whether to use **Job Code**.

4 To save settings, press **OK**.

- When **Enabled** is set for **Job Code**, you can change the user job code. You can select the desired job code by pressing **OK** long and authenticating.

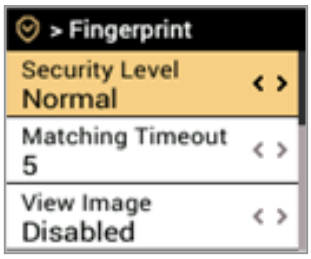
Fingerprint

You can change settings regarding the fingerprint authentication.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **Fingerprint**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **Security Level**: Set the security level for 1:N authentication.
- **Matching Timeout**: Set the fingerprint matching timeout. If the authentication is not completed during a set time, the authentication will fail.
- **View Image**: Set to view the original image when scanning the fingerprint.
- **Sensor Sensitivity**: Set the sensitivity of the fingerprint authentication sensor. To obtain more precise fingerprint information by increasing the sensor sensitivity, set the sensor sensitivity higher.
- **Live Finger Detection**: Set the level of the fake fingerprint detection. The higher the fake fingerprint detection level, the higher the rejection rate of fingerprint.
- **1:N Fast Mode**: Set the fingerprint authentication speed. If you select **Auto**, the authentication speed will be set according to all fingerprint templates enrolled on the device.
- **Template Format**: Set the fingerprint template format. SUPREMA is set as the default, and if you change the template format, all fingerprints saved previously cannot be used. Use caution when changing the Template Format.
- **Sensor Mode**: When **Auto On** is set, the fingerprint sensor recognizes a user's fingerprint and turns on. When **Always On** is set, the sensor is always on.
- **Advanced Enrollment**: Inspect the quality of a scanned fingerprint in order to save high quality fingerprint information When Use is set and the quality of the fingerprint is low, it notifies such information to the user and helps the user scan the fingerprint correctly.
- **Duplicate Check**: When registering fingerprints, you can check duplicates.

4 To save settings, press **OK**.

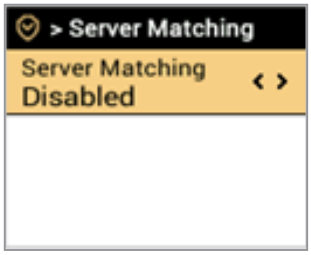
- Change the template format after deleting the fingerprint information of all users. If the fingerprint information of a user has been enrolled, the template format cannot be changed.

Server Matching

When you set Server Matching, the user authentication is not carried out in the device, but rather in BioStar. Server Matching can be useful when there is a large amount of user information in the device or you do not wish to publicly expose the device where user credential information is saved.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH** → **Server Matching**, then press **6**.



3 Change the settings by pressing **4** or **6**.

4 To save settings, press **OK**.

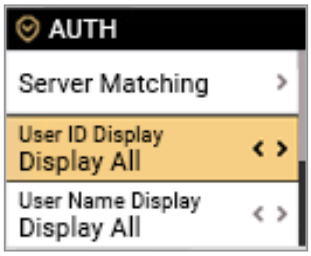
Auth Result Display Option

You can set the auth result display option.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **AUTH**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **User ID Display**: You can select how the user ID is displayed on the authentication result screen of the device.
  - **Display All**: Displays the entire user ID.
  - **First Letter Only**: Displays only the first letter of the user ID.
  - **Hide All**: Do not display the user ID.
- **User Name Display**: You can select how the user name is displayed on the authentication result screen of the device.
  - **Display All**: Displays the entire user name.
  - **First Letter Only**: Displays only the first letter of the user name.
  - **Hide All**: Do not display the user name.

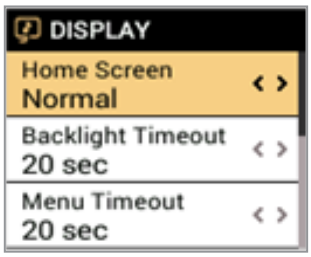
Display

You can change the display settings of the device.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DISPLAY**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **Home Screen**: Select items to be displayed in the background of the home screen.
- **Backlight Timeout**: Set the time (second) to turn off the lighting of screen.
- **Menu Timeout**: Set the time (sec) for the menu screen to disappear automatically. If there is no button input during a set time, the screen will return to the home screen.
- **Message Timeout**: Set the time (sec) for a setting complete message or information message to disappear automatically.
- **Language**: Set the language you wish to use.
- **Voice Instruction**: Set to use the voice instruction instead of alarm sounds.
- **Volume**: Set the volume.

4 To save settings, press **OK**.

Device

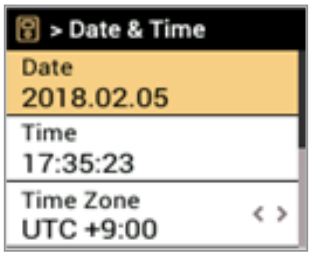
Date & Time

You can set date and time. Set the date and time accurately in order to collect accurate log data.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Date & Time**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **Date**: Check the current date. To modify it manually, disable **Time Sync**.
- **Time**: Check the current time. To modify it manually, disable **Time Sync**.
- **Time Zone**: Set the time reference of the current location.
- **Time Sync**: Synchronize the server and the time. If you wish to synchronize the server and the time, enable **Time Sync**.
- **Date Format**: Set the date format. You can select among **YYYY/MM/DD**, **MM/DD/YYYY** and **DD/MM/YYYY**.
- **Time Format**: Set the time format. You can select either **24-Hour** or **AM/PM**.

4 To save settings, press **OK**.

Daylight Saving Time

You can use the device by applying daylight saving time. Set the start and end time correctly.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **DST**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.

4 To save settings, press **OK**.

Relay

You can set the open time and the input port of the exit button in the device. This option is useful when the device is used as a standalone.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Relay**.

- **Relay**: You can set whether relay is enabled or not. To set the open time and the input port of the exit button, set to **Enabled**.
- **Open Time**: Set the duration for the door to remain open when standard user authentication has been carried out.
- **Exit Button**: Select the input port where the exit button is connected.
- **Switch**: Select the relay type (N/O or N/C).

3 To save settings, press **OK**.

Device Info

You can view the model name, device ID, serial number, device and firmware version, kernel, and MAC address.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Device Info**, then press **6**.

3 You can view the information including **Model Name**, **Device ID**, **Serial No.**, **HW**, **FW**, **Kernel** and **MAC**.

4 To return to the previous screen, press **ESC**.

Memory Usage

You can view the status of memory usage.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Memory Usage**, then press **6**.

3 View the memory usage status of the device.

4 To return to the previous screen, press **ESC**.

Secure Tamper

When the tamper is turned on, you can set to delete the entire user, the entire log, and the security key.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Secure Tamper**, then change the settings by pressing **4** or **6**.

3 To save settings, press **OK**.

Restart Device

The user can restart the device.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Restart Device**, then press **6**.

3 To restart the device, press **OK**. To cancel, press **ESC**.

Restore Default

Device settings, network settings, and operator levels will be reset.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **Restore Default**, then press **6**.

- **Reset All Settings**: You can reset all settings stored on the device. Press **OK** to reset all device settings. To cancel, press **ESC**.
- **Quick Reset**: You can reset all settings except network settings. Press **OK** to reset all settings except network settings. To cancel, press **ESC**.
- **Factory Default**: You can delete all the information saved in the device and the root certificate and restore default settings.
- **Delete the Root Certificate**: You can delete the root certificate saved in the device.

3 If you proceed to restore the defaults, the device will restart.

- When you reset, the operator level will be reset as well. After resetting, make sure to set the operator level again.
- Language setting will not change after resetting.
- **Factory Default** menu can be used when the root certificate is saved in the device.
- **Delete the Root Certificate** menu can be used only when the root certificate is saved in the device and Administrator has been designated.

User ID Type

You can set the type of user ID to be registered on the device to a combination of alphabetic characters, numbers, and symbols (_, -).

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **DEVICE** → **User ID Type**, then change the settings by pressing **4** or **6**.

3 To save settings, press **OK**.

Network

Network Settings

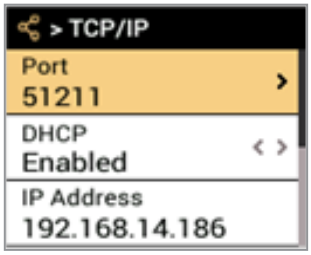
You can change the network settings of the device.

TCP/IP

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **NETWORK** → **TCP/IP**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



- **Port**: Set the device port.
- **DHCP**: Set whether to use DHCP. If DHCP setting is disabled, the user can modify **IP Address**, **Gateway** and **Subnet Mask**.
- **IP Address**: View the IP address of the device. To modify, disable **DHCP** setting.
- **Gateway**: View the gateway of the device. To modify, disable **DHCP** setting.
- **Subnet Mask**: View the subnet mask of the device. To modify, disable **DHCP** setting.
- **DNS**: Set the DNS server address.

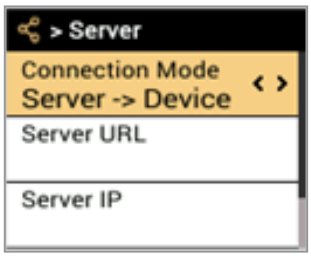
4 To save settings, press **OK**.

Server

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **NETWORK** → **Server**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



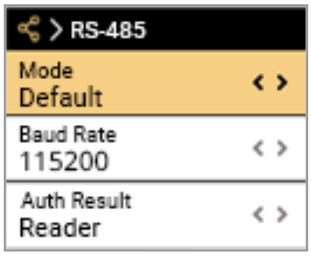
- **Connection Mode**: When you select **Device -> Server**, you can send a connection signal from the device to a server with the input information directly. When you select **Server -> Device**, **Server IP** and **Server Port** cannot be entered.
- **Server URL**: Enter server URL instead of **Server IP**. Input is accepted only when **Device -> Server** is set for **Connection Mode**.
- **Server IP**: Enter the IP of the PC where BioStar 2 is installed. Input is accepted only when **Device -> Server** is set for **Connection Mode**.
- **Server Port**: Enter the port of the PC on which BioStar 2 is installed. Input is accepted only when **Device -> Server** is set for **Connection Mode**.

4 To save settings, press **OK**.

RS-485

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **NETWORK** → **RS-485**, then press **6**.



- **Mode** : Select the **RS-485** mode.
- **Baud Rate**: Select the desired baud rate.
- **Auth Result**: When using **Intelligent Slave**, the authentication results of 3rd party controllers or devices can be selected to be displayed on the screen. This option can be used when **RS-485** is set to **Default** or **Slave**.

3 To save settings, press **OK**.

Event Log

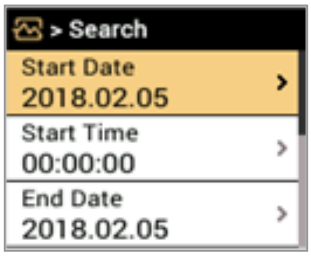
Search Log

You can set a condition and search a log.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **EVENT LOG** → **Search**, then press **6**.

3 Select the desired item and then change the settings by pressing **4** or **6**.



4 When you press **OK**, a log that matches the set condition will be displayed on the screen.

5 To return to the previous screen, press **ESC**.

Delete All Logs

You can delete all saved logs.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **EVENT LOG** → **Delete All Logs**, then press **6**.

3 To delete all logs, press **OK**. To cancel, press **ESC**.

View Log Usage

You can check the status of log usage.

1 Press **ESC** and authenticate with the Admin level credential.

2 Select **EVENT LOG** → **Log Usage**, then press **6**.

3 Check the log usage of the device.

4 To return to the previous screen, press **ESC**.

Troubleshooting

This troubleshooting provides information to solve unexpected issues that you may encounter when using the device.

Category	Problem	Solution
Power	The power is being supplied but the device does not operate.	• If the terminal and the bracket are far away from each other, the device may not operate due to the temper switch. • Check the adapter or the power cable.
PIN	I lost my PIN.	• For a normal user PIN, request it from the administrator and enter it again. • If you have lost the Admin PIN, contact the installation company.
	I entered my PIN and pressed the **OK** button, but I still cannot open the door.	• Check if you have entered the registered PIN correctly. • Check if you have changed the PIN recently. • If you cannot remember the PIN, request it from the administrator and enter it again.
Fingerprint	The fingerprint has been enrolled but fingerprint authentication cannot be done smoothly and errors occur frequently.	• Check How to enroll a fingerprint and enroll the fingerprint again. • If your fingerprint has a cut, the device may recognize your fingerprint as someone else's fingerprint. • If there are a large number of enrolled fingerprints, change **Matching Timeout** and try again. • The authentication rate may vary for each fingerprint due to different characteristics. Enroll the fingerprint of another finger.
	Suddenly fingerprint authentication cannot be done.	• Check if the finger or the fingerprint sensor is smeared with sweat, water or dust, and wipe the finger or the fingerprint sensor clean. • Wipe your finger and the fingerprint sensor with a dry towel and then try again. • If the fingerprint of your finger is too dry, blow on the fingerprint and then try again.
	The fingerprint sensor does not turn on.	• When **Sensor Mode** is set to **Auto On**, the sensor will only turn on when you place finger on the fingerprint sensor. If you want to keep the fingerprint sensor on, go to **AUTH** → **Fingerprint** → **Sensor Mode** and then select **Always On**.
Door Lock	The door cannot be locked when I close the door.	• The electric lock may be malfunctioning. Have an inspection through the installation company.
Time	Suddenly the time has become incorrect.	• BioLite N2 is equipped with a built-in battery but if power is not supplied for a long time, the built-in battery may die, causing the time to become incorrect. You can correct the time by referring to Date & Time.
Admin Access	I lost my Admin PIN, so I cannot access the Admin mode.	• The administrator grants an access permission in BioLite N2, so only the administrator can access the Admin menu. • If you have lost the Admin PIN, contact the installation company.

Product specifications

Category	Feature	Specification
Credential	Biometric	Fingerprint
	RF Option	• **BLN2-ODB**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3[1)], FeliCa • **BLN2-OAB**, **BLN2-PAB**: 125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3[1)], FeliCa, iCLASS SE/SR/Seos • **BLN2-OD**: 125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3[1)], FeliCa • **BLN2-OA**: 125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3[1)], FeliCa, iCLASS SE/SR/Seos
	RF Read Range[2)]	MIFARE/DESFire/HID iCLASS: 50 mm, EM/HID Prox/FeliCa: 30 mm
	Mobile	• **BLN2-ODB**, **BLN2-OAB**, **BLN2-PAB**: NFC, BLE • **BLN2-OD**, **BLN2-OA**: NFC
General	CPU	1.2 GHz
	Memory	4 GB Flash + 64 Mb RAM
	Crypto Chip	Supported
	Display	1.77” color TFT LCD
	Display Resolution	160 x 128 pixels
	Sound	16-bit
	Operating Temperature	• **BLN2-ODB**, **BLN2-OAB**, **BLN2-OD**, **BLN2-OA**: -20 °C to 50 °C • **BLN2-PAB**: -10 °C to 50 °C
	Storage Temperature	• **BLN2-ODB**, **BLN2-OAB**, **BLN2-OD**, **BLN2-OA**: -40 °C to 70 °C • **BLN2-PAB**: -20 °C to 60 °C
	Operating Humidity	0 % ~ 80 %, non-condensing
	Storage Humidity	0 % ~ 90 %, non-condensing
	Dimension (W x H x D)	58 x 190 x 44 (Bottom) / 34.6 (Top) (mm)
	Weight	• Device: 255 g • Bracket (Including washer and bolt): 57 g
	IP Rating	IP67
	Certificates	CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE
Fingerprint	Image Dimension	272 x 320 pixels
	Image Bit Depth	8 bits, 256 gray scale
	Resolution	500 dpi
	Template	SUPREMA / ISO19794-2 / ANSI-378
	Extractor / Matcher	MINEX certified and compliant
	Live Fingerprint Detection	Supported (SW-based)

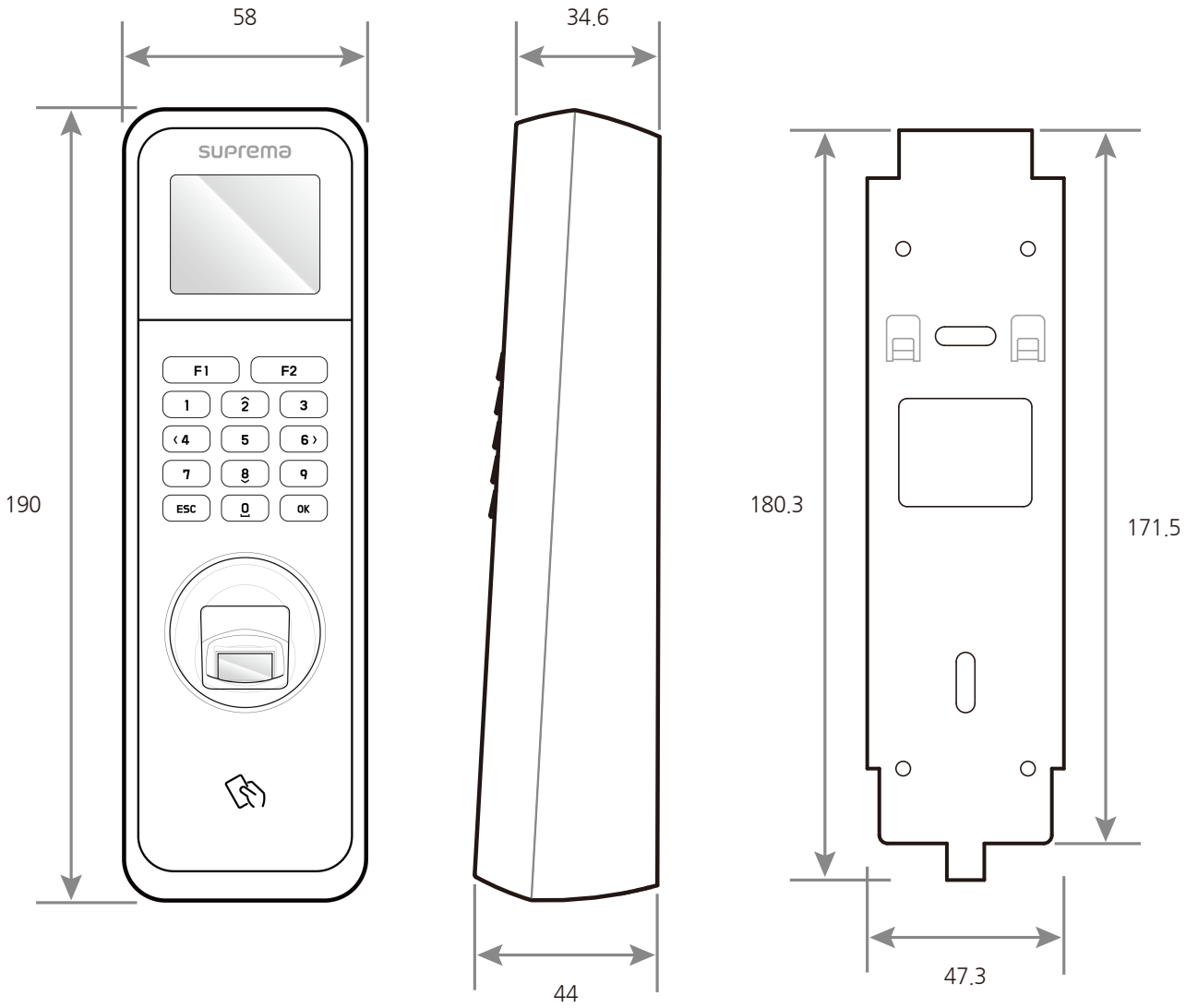
Category	Feature	Specification
Capacity	Max. User	10,000
	Max. Credential (1:N)	Fingerprint: 10,000
	Max. Credential (1:1)	• Fingerprint: 10,000 • Card: 10,000 • PIN: 10,000
	Max. Text Log	1,000,000
Interface	Ethernet	Supported (10/100 Mbps, auto MDI/MDI-X)
	Network Protocol	TCP, UDP
	RS-485	1ch Master / Slave (Selectable)
	RS-485 Communication Protocol	OSDP V2 compliant
	Wiegand	1 ch Input / Output (Selectable)
	Input	2 ch Inputs
	Relay	1 Relay
	Tamper	Supported
Electrical	Power	• Voltage: 12 Vdc • Current: Max. 0.4 A
	Switch Input VIH	• Min.: 3 V • Max.: 5 V
	Switch Input VIL	Max.: 1 V
	Switch Pull-up Resistance	4.7 kΩ (The input pots are pulled up with 4.7 kΩ.)
	Wiegand Output VOH	More than 4.8 V
	Wiegand Output VOL	Less than 0.2 V
	Wiegand Output Pull-up Resistance	Internally pulled up with 1 kΩ
	Relay	2 A @ 30 VDC Resistive load 1 A @ 30 VDC Inductive load

1) DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with BioLite N2.

2) RF read range will vary depending on installation environment.

Dimensions

(Unit: mm)



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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

EU Declaration of Conformity (CE)

This product is CE marked according to the provisions of the Radio Equipment Directive (RED) 2014/53/EU. Hereby, Suprema Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive (RED) 2014/53/EU.

- Bluetooth Transmit Power: -7.9 dBm
- Bluetooth Frequency: 2402~2480 MHz
- NFC Frequency: 129.2 kHz
- RFID Frequency: 13.56 MHz

For more information, contact us at the following contact information.

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Version 3, 29 June 2007

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