

FaceLite

USER GUIDE

Version 1.01
English

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Contents

Safety Instructions	4
Introduction	6
Components	6
Name and function of each part.....	7
Cables and connectors	9
Correct face registration and authentication method.....	10
Cautions for registering a face.....	10
Cautions for authenticating a face	10
Admin Menu.....	11
All Menus.....	11
User	12
Registering user information.....	12
Modifying user information.....	14
Delete All Users	14
View User Usage	14
Authentication	15
Auth Mode.....	15
Face Mode.....	15
Card Mode.....	15
T&A Mode	16
Face	16
Display & Sound.....	18
Device	19
Date & Time	19
Daylight Saving Time	19
Relay	19
Device Info.....	20
Memory Usage	20
USB Memory.....	20
Secure Tamper	20
Restart Device	21
Restore Default.....	21
User ID Type.....	21
Network.....	22
Network Settings.....	22
TCP/IP.....	22
Server.....	22
RS-485.....	23
Event Log	24
Search Log	24
Delete All Logs.....	24
View Log Usage	24

Troubleshooting 25
 Checklist before reporting a failure25

Product specifications..... 26
 Dimensions.....27

FCC compliance information 28

EU Declaration of Conformity (CE) 28

Appendices..... 29
 Disclaimers29
 Copyright notice.....29
 Open Source License29
 GNU General Public License29
 GNU Lesser General Public License.....35
 OpenSSL License.....37
 Original SSLeay License37

Safety Instructions

Observe the following instructions to use the product safely and prevent any risk of injury or property damage.

Warning

Noncompliance with instructions can lead to serious injury or death.

Installation

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

- Fire or electric shock may occur.

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

- Fire or electric shock may occur due to overheating.

Install the product in a dry location.

- Otherwise, product damage or electric shock may occur due to moisture.

Install the product in a location with no electromagnetic interference.

- Otherwise, product damage or electric shock may occur.

The user should not install or repair the product independently.

- Fire, electric shock, or personal injury may occur.
- If the product has been damaged due to independent installation or repair of the product by the user, free A/S service will not be provided.

Operation

Do not allow liquids such as water, beverages, or chemicals get into the product.

- Fire, electric shock, or product damage may occur.

Caution

Noncompliance of instructions could lead to minor injury or product damage.

Installation

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

- Product damage or physical injury may occur.

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

- Product failure may occur.

Use only a D.C 24 V and 2.5 A or higher power supply adaptor.

- If the proper power supply is not used, the product may not operate properly.

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

- If connecting and using the power supply to these devices together, the devices may malfunction.

Keep the minimum separation distances between the devices when install multiple devices.

- Otherwise, RF performance is affect to the other device, the devices may not operate normally.

Operation

Do not drop the product or apply an impact to the product.

- Product failure may occur.

Manage the password with care; do not to disclose it to others and change it periodically.

- Otherwise, illegal intrusion may occur.

Do not press the buttons on the product forcibly or using a sharp tool.

- Product failure may occur.

When cleaning the product, wipe the product with a soft and dry cloth. Do not apply water, benzene, or alcohol.

- These may cause product failure.

FaceLite uses a capacitive screen and buttons. If the environment is moist from wet weather, or the product surface is smeared with a large amount of water, wipe the product off with a dry towel before using it.

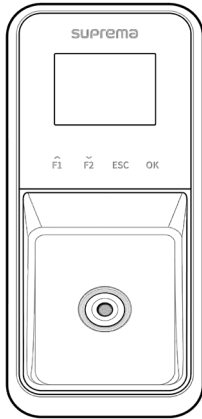
RTC battery

Replacing the battery with an incorrect type of battery may cause explosion.

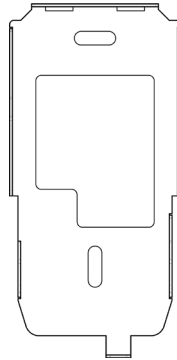
Discard the battery according to appropriate regional or international waste regulations.

Introduction

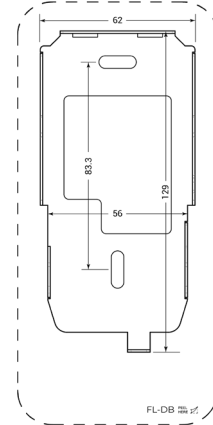
Components



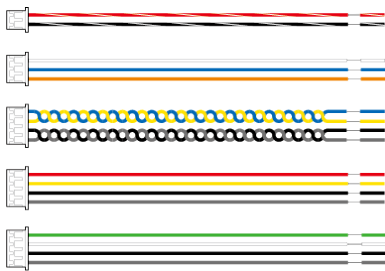
FaceLite



Wall Bracket



Drilling Template



Connection Cable
(1x2-pin, 1x3-pin, 3x4-pin)



PVC Anchor x2



Fixing Screw x2



Ferrite Core



Bracket Fixing Screw
(Star Shaped)

120 Ω resistor

Diode



Open Source Software
Guide

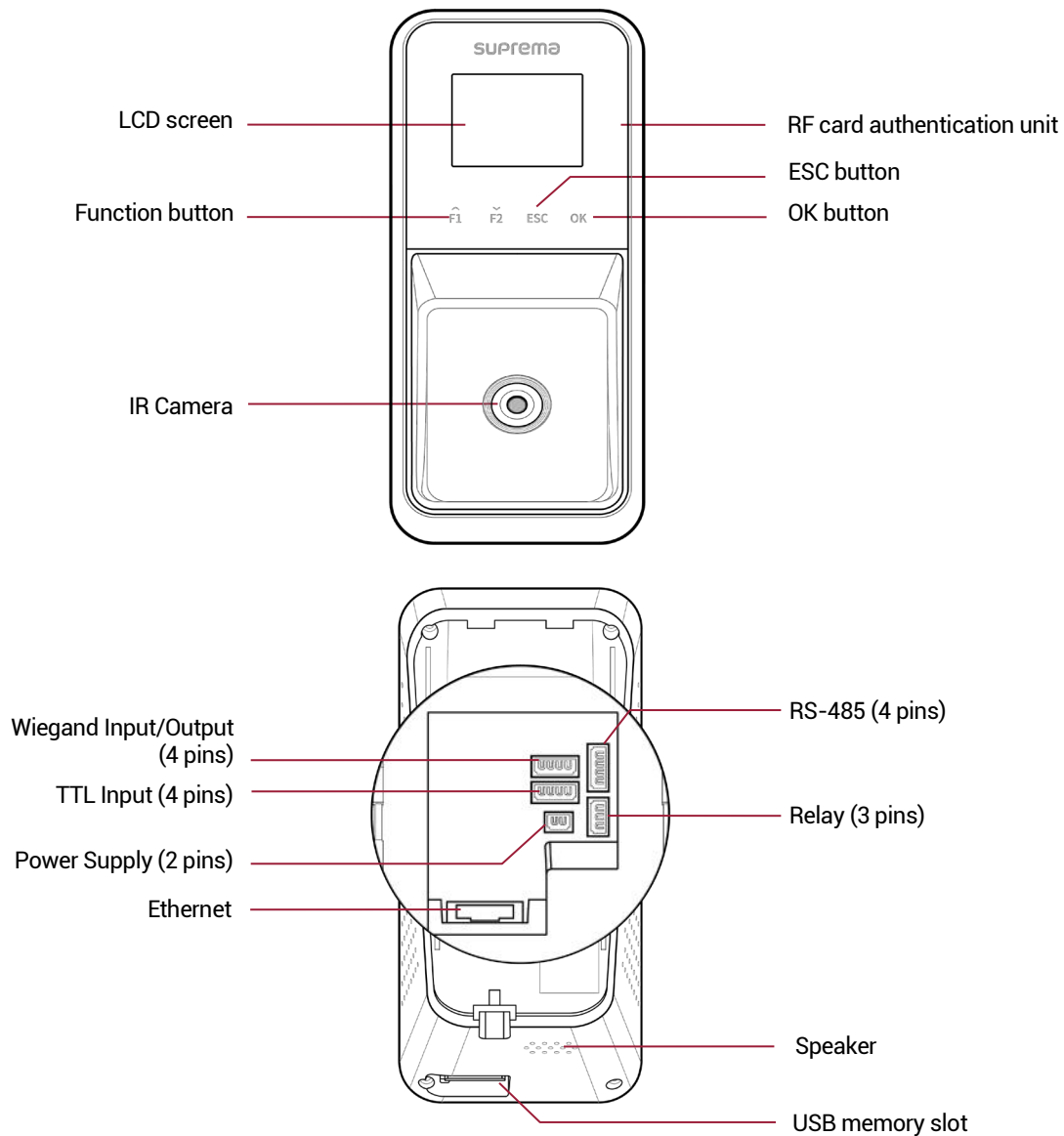


Quick Guide

NOTE

- 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 additional content regarding product installation, visit the Suprema website (www.suprema.co.kr) and view the installation guide.

Name and function of each part



Name	Description
LCD screen	Provides UI for operation.
Function buttons	Used for T & A key or entering characters. When entering characters, a short push of the function button moves left and right, and a long push moves up and down.
IR Camera	Capture the infrared face image.
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.
RF card authentication unit	Part to scan the card for entrance.
Wiegand input/output (4 pins)	Connect the Wiegand input/output cable.

TTL input (4 pins)	Connect the TTL input cable.
Power supply (2 pins)	Connect the power supply cable.
Ethernet	Connect the Ethernet cable.
USB memory slot	Connect USB memory.
Speaker	Delivers sound.
Relay (3 pins)	Connect the relay cable.
RS-485 (4 pins)	Connect the RS-485 cable.

Cables and connectors

Power



Pin	Name	Color
1	PWR +VDC	Red (White stripe)
2	PWR GND	Black (White stripe)

Relay



Pin	Name	Color
1	RLY NO	White
2	RLY COM	Blue
3	RLY NC	Orange

RS-485



Pin	Name	Color
1	485 TRXP	Blue
2	485 TRXN	Yellow
3	485 GND	Black
4	SH GND	Gray

TTL input



Pin	Name	Color
1	TTL IN0	Red
2	TTL IN1	Yellow
3	TTL GND	Black
4	SH GND	Gray

Wiegand input and output



Pin	Name	Color
1	WG D0	Green
2	WG D1	White
3	WG GND	Black
4	SH GND	Gray

Correct face registration and authentication method

Cautions for registering a face

- When registering a face, maintain a distance of 40cm to 80cm between the device and the face.
- Be careful not to change the facial expression. (smiling face, drawn face, wink, etc.)
- If you do not follow the instructions on the screen, the face registration may take longer or may fail.
- Be careful not to cover the eyes or eyebrows.
- Do not wear hats, masks, sunglasses or eyeglasses.
- Be careful not to display two faces on the screen. Register one person at a time.
- It is recommended for a user wearing glasses to register both faces with and without glasses.

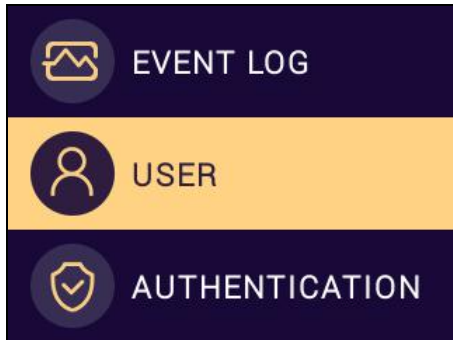
Cautions for authenticating a face

- Ensure that the face appears inside the guideline displayed on the screen of the device.
- If glasses have been changed, authentication may fail. If the face without glasses has been registered, authenticate the face without glasses. If only the face with glasses has been registered, authenticate the face with the previously worn glasses again.
- If a part of the face is covered with a hat, a mask, an eye patch, or sunglasses authentication may fail. Do not cover the face; allow the device to recognize both the eyebrows and the face.

Admin Menu

All Menus

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select the desired menu.

**NOTE**

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

User

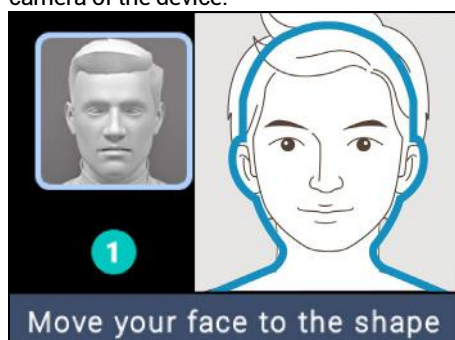
Registering user information

The user information, including the face, can be registered.

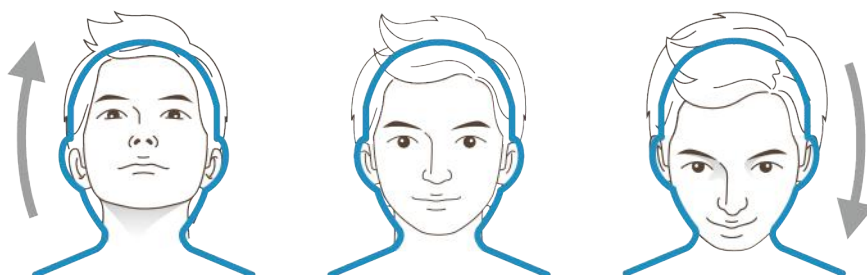
- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **User > Add User** and press **OK**. The face registration wizard will begin.



- 3 To proceed with the face registration wizard, press **OK**. To skip, press **ESC** and go to step 6.
- 4 If you have pressed **OK**, adjust the distance so that the face appears on the guideline of the screen and stare directly at the camera of the device.



- 5 Follow the on-screen instructions to move your head up and down slowly.



NOTE

- When registering a face, maintain a distance of 40cm to 80cm between the device and the face.
- Be careful not to change the facial expression. (smiling face, drawn face, wink, etc.)
- If you do not follow the instructions on the screen, the face registration may take longer or may fail.
- Be careful not to cover the eyes or eyebrows.
- Do not wear hats, masks, sunglasses or eyeglasses.
- Be careful not to display two faces on the screen. Register one person at a time.

- It is recommended for a user wearing glasses to register both faces with and without glasses.
- To register high-quality face templates, disable **Quick Enroll**. When you set **Quick Enroll** to **Disabled**, the face registration procedure is set to 3 steps.

6 Select and set the desired item.

Add User	
User ID	>
2	
User Name	>
(Enter Name)	
Face	>
1	

- **User ID:** Enter a number between 1 and 429467295 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.
- **Face:** Register a face for user authentication. Press **OK** and register a face according to the instructions on the screen.
- **Card:** Register a card for user authentication. Press **OK** and scan the card that will be assigned to the user. To register an additional card, press + **Add Card**.
- **PIN:** Enter the PIN you wish to use. Enter the PIN you wish to use, and then reenter the same PIN 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.
- **Start Date:** Set a start date to use the user account.
- **Expiry Date:** Set an expiry date to use the user account.
- **Private Auth Mode:** Change the authentication method according to the user.

NOTE

Available menus vary according to the set operator level.

- **None:** This is the general user level; menus cannot be accessed.
- **Full Administrator:** All menus can be accessed.
- **Configuration:** **AUTHENTICATION, DISPLAY & SOUND, DEVICE, NETWORK** and **EVENT LOG** menus can be accessed.
- **User Management:** **USER** and **EVENT LOG** menu can be accessed.

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

Modifying user information

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

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **User > Search User** and press **OK**.
- 3 Select your search terms. You can search for a user by **All, User ID, User Name, Face** and **Card**.
- 4 Select a user you wish to modify and press **Edit**.
- 5 Modify the information by referring to **Registering user information** and press **Save**.
 - To delete a user, select **Delete** and then press **OK**.

NOTE

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

View User Usage

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

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **User > User Usage** and press **OK**.

User Usage	
User	2
	30,000
Face	2
	30,000
Card	0
	30,000




- 3 To return to the previous screen, press **ESC**.

Authentication

Auth Mode












Face Mode

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

- 1** Press **ESC** and authenticate with the Admin level credential.
- 2** Select **AUTHENTICATION > Auth Mode > Face Mode** and press **OK**.
- 3** Set the desired authentication mode and select a schedule.
 - : Mode allowing authentication with a face only.
 -  + : Mode to authenticate with a face and PIN.
- 4** To save settings, press **Apply**.

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 **AUTHENTICATION > Auth Mode > Card Mode** and press **OK**.
- 3** Set the desired authentication mode and select a schedule.
 - : Mode allowing authentication with a card only
 -  + : Mode allowing authentication with a card and then with a face.
 -  + : Mode allowing authentication with a card and PIN.
 -  +  / : Mode allowing authentication with a card and then with a face or PIN.
 -  +  + : Mode allowing authentication with a card and then with both a face and PIN input.
- 4** To save settings, press **Apply**.

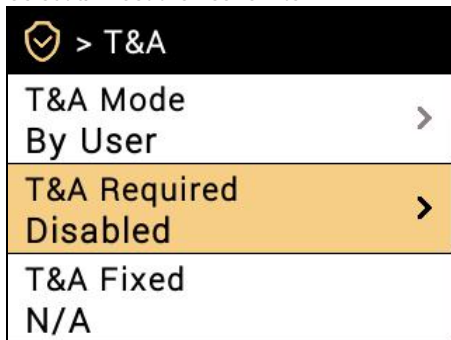
NOTE

- A schedule can be set in BioStar 2. If there is no set schedule, only **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 **AUTHENTICATION > T&A** and press **OK**.
- 3 Select and set the desired item.



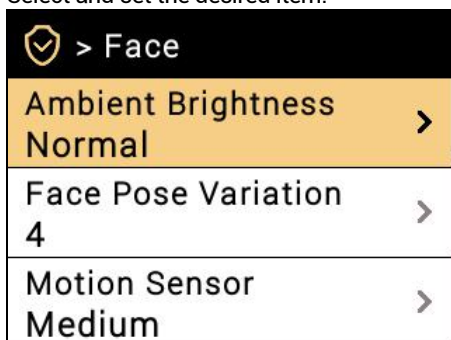
- **T&A Event:** View the set T&A event.
- **T&A Mode:** Set the method to use T&A mode.
- **T&A Required:** Set to require a user to select a T&A event when authenticating.
- **T&A Fixed:** Set to use only a T&A event selected by the administrator. This option can be used when **Fixed** is set for **T&A Mode**.
- **Job Code:** Select whether or not to use Job Code.

- 4 To save settings, press **Apply**.

Face

You can change settings regarding the face authentication.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **AUTHENTICATION > Face** and press **OK**.
- 3 Select and set the desired item.



- **Ambient Brightness:** Detect the ambient brightness and adjust the intensity of IR LED. Change settings according to the installation environment.
- **Face Pose Variation:** Set the sensitivity for the position, angle, and distance of a face when registering the face. Set high if you wish to obtain a detailed face template
- **Motion Sensor:** Set the sensitivity for detecting motion near the device. If **Motion Sensor** is set to **OFF**, press and hold the **ESC** button to authenticate the face.
- **Enroll Timeout:** If a face is not registered during the set time, the face registration will be canceled.
- **Auth Timeout:** If the authentication is not completed during the set time, the authentication will fail.
- **Security Level:** Set the security level for 1:N authentication.
- **Group Matching:** Check whether or not to use Group Matching. If Group Matching is used, you can increase the authentication speed by designing various user's faces in a group.
- **Enhanced fake face enrollment block:** You can detect user enrollment using fake faces such as photos. The strength can be set from **Level 1** to **Level 3**. The higher the level, the stronger the level of detection.

- **Quick Enroll:** Set whether or not to use a Quick Enroll. When you set this option to Disabled, the face registration procedure is set to 3 steps.
- **IR Auth Guide:** Set the guideline to be displayed on the screen when authenticating a face. If you set **IR Auth Guide** to **Not Used**, the guideline will not be displayed on the screen. If you set **Use**, the guideline will be displayed after a certain time. When set to **Always**, guide line is always displayed on the screen during authentication.
- **Duplicate Check:** When registering a face, you can check duplicates.

NOTE

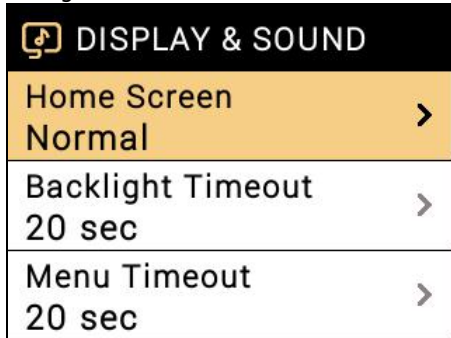
- **Group Matching** can be set in BioStar 2. For detailed contents, refer to the BioStar 2 Administrator Manual.
- If you set **Enhanced fake face enrollment block** to high level, the enrollment of real face may be rejected. If you fail to enroll, try again or lower your detection strength.
- To register high-quality face templates, disable **Quick Enroll**.

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

Display & Sound

You can change the display and sound settings of the device.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DISPLAY & SOUND** and press **OK**.
- 3 Change the desired item.



- **Home Screen:** Select items to be displayed in the background of the home screen.
- **Backlight Timeout:** Set the time (in seconds) to automatically turn off the lighting of the LCD screen.
- **Menu Timeout:** Set the time (in seconds) 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 (in seconds) 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.
- **Server Private Msg.:** Set whether or not to use a Private Message, which will be displayed on the screen when the user authenticates. You can set the **Server Private Msg.** on the server. If you have not set it on the server, the device does not display a message when authentication is successful even if **Server Private Msg.** is enabled on the device.
- **Volume:** Set the volume.

- 4 To save settings, press **Apply**.

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** and press **OK**.
- 3 Change the desired item.



- **Date:** Check the current date. To modify it directly, disable **Time Sync**.
- **Time:** Check the current time. To modify it directly, 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 **Apply**.

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** and press **OK**.
- 3 Select the desired item and change the setting.
- 4 To save settings, press **Apply**.

Relay

You can set the open time and the input port of the exit button in the device.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DEVICE > Relay** and press **OK**.
 - **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.
- 3 To save settings, press **Apply**.

Device Info

You can view the model name, firmware version of Device ID, and MAC address.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DEVICE > Device Info** and press **OK**. You can view the information including **Model Name, Device ID, HW, FW, Kernel, and MAC**.
- 3 To return to the previous screen, press **ESC**.

Memory Usage

View the status of memory usage.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DEVICE > Memory Usage** and press **OK**. You can view the memory usage status of the device.
- 3 To return to the previous screen, press **ESC**.

USB Memory

Connect USB Memory and import user information to the device or export log and user information from the device. Upgrade the firmware.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DEVICE > USB Memory** and press **OK**.
- 3 Select the desired item and change the setting.
 - **Import:** Import user information from the connected USB memory.
 - **Export:** Select information you wish to export to the connected USB memory.
 - **FW Upgrade:** Upgrade the firmware if the firmware files are saved in the connected USB memory.
- 4 To save settings, press **Apply**.

NOTE

The type of supported USB memory is as follows. If you use a different type of USB memory, the function may not operate normally.

- Samsung Electronics: SUM-LSB 8GB, SUM-PSB 8GB, SUM-PSB 16GB, SUM-BSG 32GB
- LG Electronics: XTICK J3 WINDY 8GB, SMART USB MU1 White 8GB, MU 1 USB 32GB, MU28GBC 32GB, XTICK MOBY J1 16GB
- SanDisk: Cruzer 16GB, Cruzer Blade CZ50 4GB, Cruzer Blade CZ50 32GB, CZ48 Ultra USB 3.0 64GB, CZ80 USB3.0 64GB, CZ52 64GB, Cruzer Glide Z60 128GB, Cruzer Force CZ71 32GB
- Sony: Micro Vault Click 8GB, MicroVault CLICK 16GB, USM-SA1 32GB
- Transcend: JetFlash 760 8GB, JetFlash 760 32GB, JetFlash 500 8GB
- Memorette: MINI500 8GB
- A-DATA: S102 PRO 8GB
- Trigem Pastel 8GB

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.
- 3 To save settings, press **Apply**.

Restart Device

The user can restart the device.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **DEVICE > Restart Device** and press **OK**.
- 3 To restart the device, press **OK**. To return to the previous screen, 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** and press **OK**.
 - **Reset All settings**: You can reset all settings stored on the device. Press **OK** to reset all device settings.
 - **Quick Reset**: You can reset all settings except network settings. Press **OK** to reset all settings except network settings.
 - **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.

NOTE

- 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** and press **OK**.
- 3 Change to the desired item and press **OK**.
- 4 To save settings, press **Apply**.

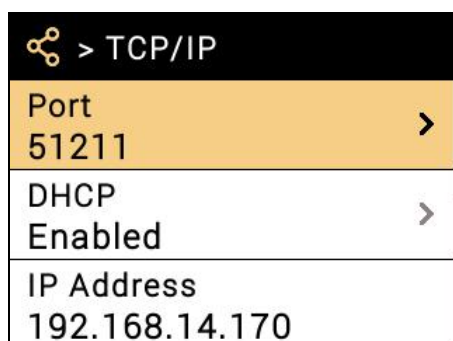
Network

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** and press **OK**.

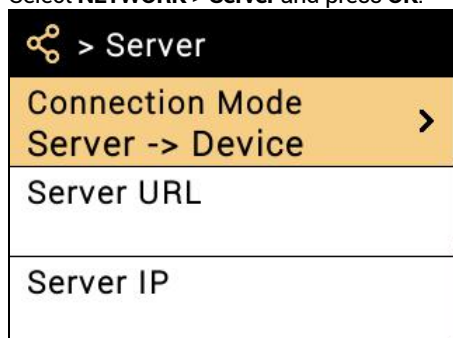


- **Port:** Set the device port.
- **DHCP:** Set whether or not to use DHCP. If DHCP setting is disabled, the user can modify **Port**, **IP Address**, **Gateway**, **Subnet Mask**, and **DNS**.
- **IP Address:** View the IP address of the device. To modify, disable DHCP setting.
- **Gateway:** View 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.

- 3 To save settings, press **Apply**.

Server

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **NETWORK > Server** and press **OK**.

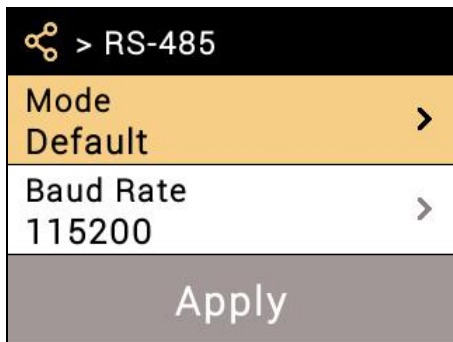


- **Connection Mode:** When you select **Device -> Server**, you can send a connection signal from the device to a server with the input information directly. When you select **Server -> Device**, **Server IP**, **Server URL** and **Server Port** cannot be entered.
- **Server URL:** Enter server URL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

- 3 To save settings, press **Apply**.

RS-485

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **NETWORK > RS-485** and press **OK**.



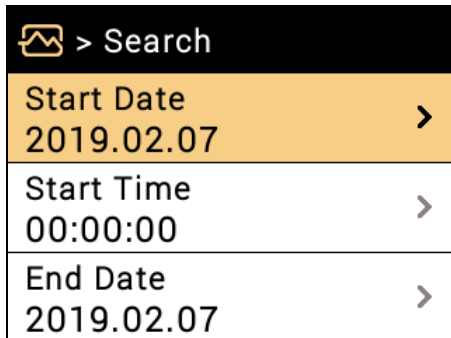
- **Mode:** Select the RS-485 mode.
 - **Baud Rate:** Select the desired baud rate.
- 3 To save settings, press **Apply**.

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** and press **OK**.
- 3 Press **Search** and change the condition. When you press **OK**, a log that matches the condition will be displayed on the screen.



- 4 Press **Apply**. A log that matches the condition will be displayed on the screen.

Delete All Logs

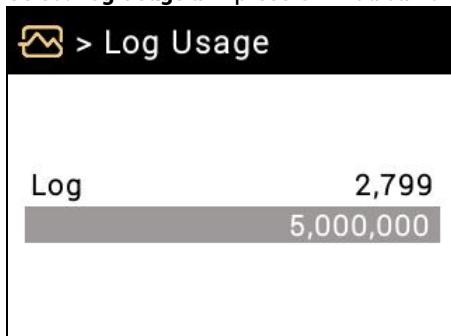
You can delete all saved logs.

- 1 Press **ESC** and authenticate with the Admin level credential.
- 2 Select **EVENT LOG** and press **OK**.
- 3 To delete all logs, select **Delete All Logs** and then press **OK**. To return to the previous screen, 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** and press **OK**.
- 3 Select **Log Usage** and press **OK**. You can check the status of log usage.



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

Troubleshooting

Checklist before reporting a failure

Classification	Problem	Solution
Power	The power is being supplied but the device does not operate.	<ul style="list-style-type: none"> • If the distance between the terminal and the bracket is too great, the device may not operate due to the temper switch. • Check the adaptor or the power cable.
PIN	I forgot my PIN.	<ul style="list-style-type: none"> • For a normal user PIN, request it from the administrator and reenter the PIN. • 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.	<ul style="list-style-type: none"> • Check if you entered the registered PIN correctly. • Check if you have changed your PIN recently. • If you cannot remember the PIN, request it from the administrator and reenter the PIN.
Face	The face has been registered but face authentication cannot be done smoothly, and errors occur frequently.	<ul style="list-style-type: none"> • Check 'Cautions for registering a face' and register the face again. • If there are a large number of registered faces, change Matching Timeout and try again.
	Face authentication has suddenly stopped working.	<ul style="list-style-type: none"> • Check 'Cautions for authenticating a face' and try again.
Door Lock	The door does not lock when I close the door.	<ul style="list-style-type: none"> • The electric lock may be malfunctioning. Have an inspection performed by the installation company.
Time	The time has suddenly become incorrect.	<ul style="list-style-type: none"> • FaceLite is equipped with a built-in battery; however, if power is not supplied for a long period of time, the built-in battery may die, causing the time to become incorrect. For information on correcting the time, referring to Date & Time.
Admin Access	I lost my Admin PIN, so I cannot access the Admin mode.	<ul style="list-style-type: none"> • The administrator grants access permission in FaceLite, so only the administrator can access the Admin menu. • If you need to access the Admin menu, you can have a PIN issued through a special procedure. Ask the installation company for the procedure to issue the password.

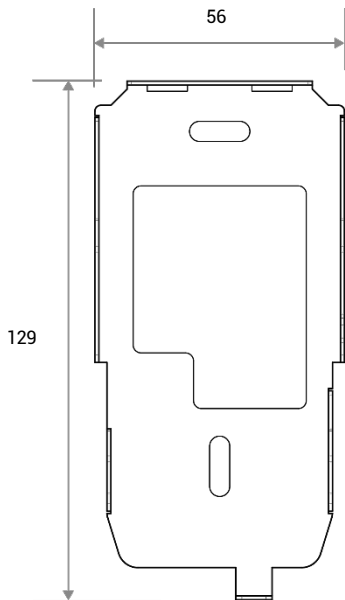
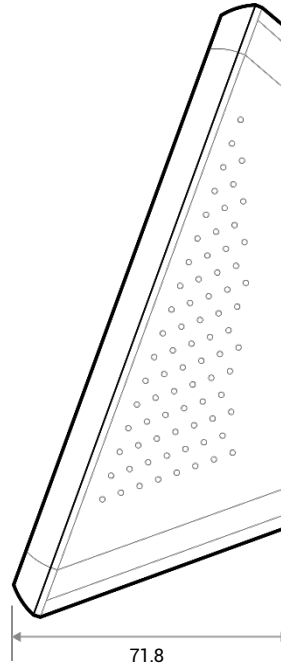
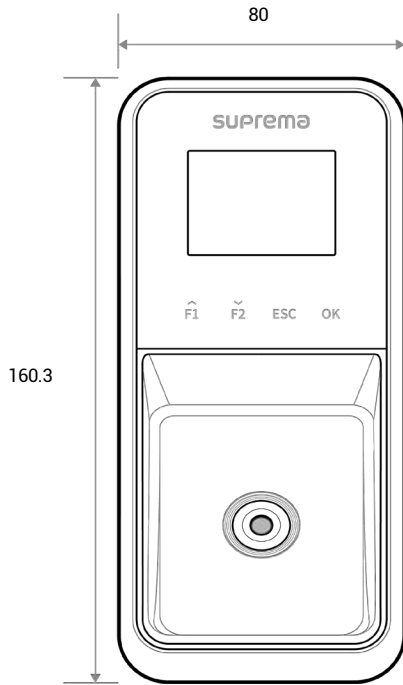
Product specifications

Category	Feature	Specification
Credential	Biometric	Face
	RF Option	FL-DB: 125kHz EM & 13.56Mhz MIFARE, MIFARE Plus, DESFire/EV1, FeliCa, NFC & 2.4GHz BLE
	RF read range*	MIFARE/DESFire: 50 mm, EM/Felica: 30 mm, BLE: 50 mm
	LFD	Supported
General	CPU	1.2GHz Quad Core
	Memory	8GB Flash + 1GB RAM
	LCD type	2" color TFT LCD
	LCD resolution	320 x 240
	IR LED	8ea (940nm)
	Sound	24 bit Voice DSP
	Operating temperature	-20 °C - 50 °C
	Storage temperature	-40 °C - 70 °C
	Operating humidity	0% - 80%, non-condensing
	Storage humidity	0% - 90%, non-condensing
	Camera type	CMOS
	Camera resolution	720 x 480
	Camera angle	IR Lens: Diagonal 58°
	Dimension (W x H x D)	80 mm x 160.3 mm x 71.8 mm
Capacity	Weight	Device: 296 g Bracket: 41 g (Including washer and bolt)
	Certificates	CE, FCC, KC, RoHS, REACH, WEEE, BT SIG
	Max. User (1:1)	30,000
	Max. User (1:N)	3,000
	Max. Template (1:1)	900,000
	Max. Template (1:N)	90,000
Interface	Max. Text Log	5,000,000
	Max. Image Log	50,000
	Wi-Fi	Not Supported
	Ethernet	Supported (10/100 Mbps, auto MDI/MDI-X)
	RS-485	1ch Host or Slave (Selectable)
	Wiegand	1ch Input or Output (Selectable)
	TTL input	2ch Inputs
	Relay	1 Relay
Electrical	USB	USB 2.0 (Host)
	Tamper	Supported
	Power	Voltage: 24 VDC Current: Max. 2.5 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	Voltage: Max. 30 VDC Current: 1 A, Max. 2 A	

* 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.

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 to 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 may void the user's authority to operate the equipment under FCC rules.

This appliance and its antenna must not be located or operated in conjunction with any other antenna or transmitter. A minimum separation distance of 20cm must be maintained between the antenna and individuals for this appliance to satisfy the RF exposure requirements.

EU Declaration of Conformity (CE)

This product is CE marked according to the provisions of the R&TTE Directive (1999/5/EC).

Suprema Inc. hereby declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. This device is a class 1 radio device according to the directive.

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

Suprema Inc.

Website: <https://www.supremainc.com>

Address: Parkview Tower F16, 248, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea (Jeongja-dong 6)

Tel: 031-783-4510 / Fax: 031-783-4517

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Version 3, 29 June 2007

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17F Parkview Tower, 248, Jeongjail-ro, Bundang- gu, Seongnam-si, Gyeonggi-do, 13554, Rep. of KOREA
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