# FaceStation 2 USER GUIDE

Version 1.25 English EN 102.00.FS2 V1.25



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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.

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.



#### **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.

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.



#### **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.

• 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 including fingerprint sensor. 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.

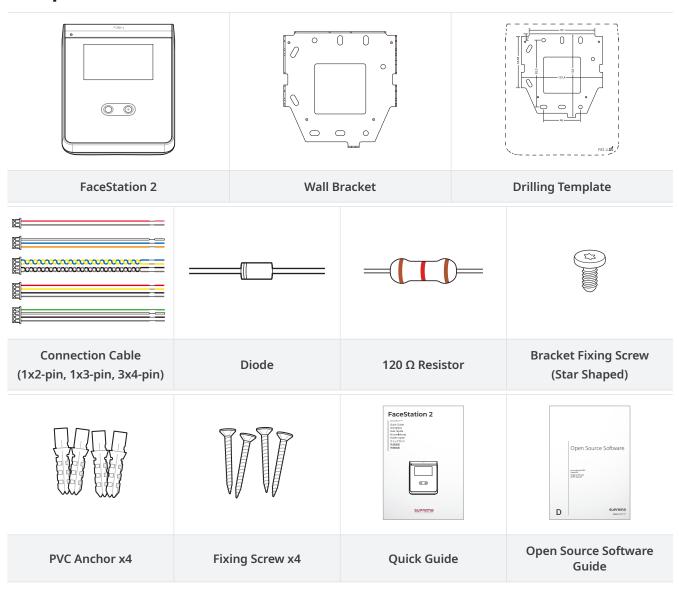
• The product may malfunction.

#### **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**

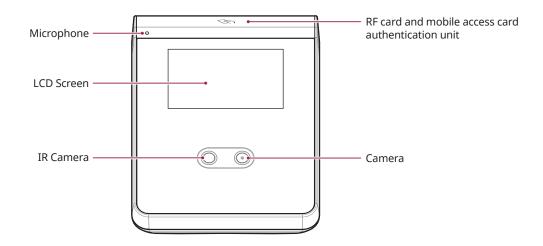
## **Components**

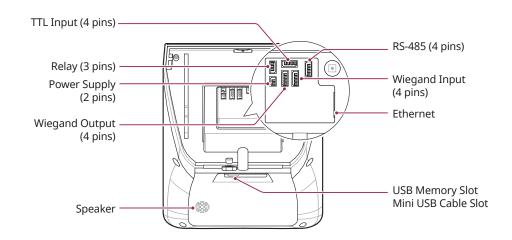




- Components may vary according to the installation environment.
- The tilting bracket and thermal camera for FaceStation 2 is sold separately.
- When assembling the product with the bracket, you can use the included bracket fixing screw (Star Shaped) instead of the product fixing screw for enhanced security.
- For more details regarding the product, visit the Suprema website (https://www.supremainc.com) and refer to the user guide.

# Name and function of each part





Name	Description	
Microphone	Delivers the voice of the user when the interphone is connected.	
LCD Screen	Provides UI for operation.	
IR Camera	Captures the infrared face image.	
Camera	Captures an actual face image.	
RF card and mobile access card authentication unit	Scans the card for entrance.	
Speaker	Delivers sound.	
USB Memory Slot	<ul> <li>Connect USB memory.</li> <li>Suprema Thermal Camera (TCM10-FS2) and USB memory cannot be used at the same time.</li> </ul>	
Mini USB Cable Slot	USB Cable Slot Will be supported in the future.	
TTL Input (4 pins)	Connect the TTL input cable.	
RS-485 (4 pins)	Connect the RS-485 cable.	
Relay (3 pins)	Connect the relay cable.	
Power Supply (2 pins)	Connect the power supply cable.	

Name	Description	
Ethernet	Connect the Ethernet cable.	
Wiegand Input (4 pins)	Connect the Wiegand input cable.	
Wiegand Output (4 pins)	Connect the Wiegand output cable.	

#### **Cables and connectors**

## Power supply



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 enrollment and authentication method

#### Cautions for enrolling a face

- When enrolling a face, maintain a distance of 40 cm to 80 cm 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 enrollment 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 enroll 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 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

## User

## **Registering user information**

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

- 1 Press and authenticate with the Admin level credential.
- 2 Select User  $\rightarrow$   $\bigcirc$ . The face registration wizard will begin.



- **3** To proceed with the face registration wizard, press **Next**. To skip, press **Skip** and go to step 5.
- 4 If you have pressed **Next**, register the face according to the instructions on the screen. Face registration is carried out in 3 steps.
  - 1) Registering the front face



2) Moving the face up and down



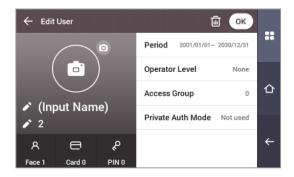
3) Moving the face to the left and right



When the face registration wizard is used, only the user's face is registered. Modify other information by pressing **Edit** after registering the face.



- When registering a face, maintain a distance of 40 cm to 80 cm 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.
- **5** If you have pressed **Skip**, select and set the desired item.



- Take a picture of a user with the built-in camera.
- Name: Enter the username.
- **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.
- **Face**: Register a face for user authentication. Press + and register a face according to the instructions on the screen. To register another face, press + again.
- **Card**: Register a card for user authentication. Press + and scan the card that will be assigned to the user. To register an additional card, press + again.
- **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.
- Validity period: Set a Start Date and End Date to use the user account. When you press the first date, you can set Start Date, and when you press the second date, you can set End Date.
- Operator Level: Select the level you wish to assign to a user.
- **Face Group**: Select a face group for the user. Face groups can be used only when **Group Matching** is enabled, and these groups can be registered only in BioStar 2.
- Access Group: Check an access group for the user. Access groups can only be registered in BioStar 2.
- Private Auth Mode: Change the authentication method according to the user.



Available menus vary according to the set user level.

- None: This is the general user level and menus cannot be accessed.
- Administrator: All menus can be accessed.
- Configuration: AUTHENTICATION, DISPLAY & SOUND, NETWORK, DEVICE, and EVENT LOG menus can be
  accessed.
- User Management: USER and EVENT LOG menu can be accessed.
- **6** When you press **OK**, settings will be saved.

## **Modifying User Information**

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

- 1 Press and authenticate with the Admin level credential.
- 2 Select User  $\rightarrow$  Q.
- 3 Select your search terms. You can search for a user by **User ID**, **Name**, **Face** and **Card**.
- 4 Select a user you wish to modify and modify the information by referring to Registering user information and press OK.
  - To delete a user, select in 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**

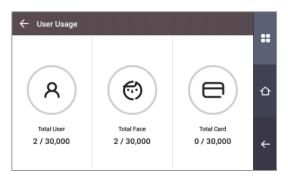
You can delete all registered users at once.

- 1 Press and authenticate with the Admin level credential.
- 2 Select User  $\rightarrow \overrightarrow{\mathbb{m}}$  and select Delete All or select a user you wish to delete.
- **3** When you press **OK**, all registered users will be deleted.

## **View User Usage**

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

- 1 Press 🚾 and authenticate with the Admin level credential.
- **2** Select User  $\rightarrow$  1. User usage information appears.



## **Authentication**

#### **Auth Mode**

#### **Modifying Auth Mode**

You can set the authentication method and schedule according to each credential.

- 1 Press and authenticate with the Admin level credential.
- **2** Select **AUTHENTICATION** → **Auth Mode**.
- 3 Press 😑 to add an authentication mode or press an authentication mode you wish to modify.
- 4 Pressing the icon will delete the selected credential, and pressing will display an addable credential on the screen.



**5** Set the desired auth mode and select a schedule.

Classification	Description		
Face	<ul> <li></li></ul>		
Card	<ul> <li> (a): Mode allowing authentication with a card only</li> <li> (b): Mode allowing authentication with a card and then with a face.</li> <li> (c): Mode allowing authentication with a card and PIN.</li> <li> (d): Mode allowing authentication with a card and then with a face or PIN.</li> <li> (e): Mode allowing authentication with a card and then with a face or PIN.</li> <li> (e): Mode allowing authentication with a card and then with both a face and PIN input.</li> </ul>		
ID	<ul> <li>A +  : Mode allowing authentication by entering ID and then authenticating the face.</li> <li>A +  : Mode allowing authentication by entering ID and then a PIN.</li> <li>A +  : Mode allowing authentication by entering ID and then authenticating the face or entering a PIN.</li> <li>A +  : Mode allowing authentication by entering ID and then using both face authentication and PIN input.</li> </ul>		

#### **6** Press **OK** to save the settings.



- 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.

#### **Delete Auth Mode**

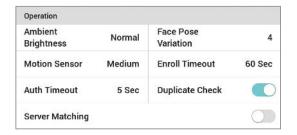
- 1 Press and authenticate with the Admin level credential.
- 2 Select AUTHENTICATION → Auth Mode.
- 3 Press in and select an item to delete.
- **4** When you press **OK**, the selected item will be deleted.

#### **Add Auth Mode**

- 1 Press and authenticate with the Admin level credential.
- **2** Select **AUTHENTICATION** → **Auth Mode**.
- 3 Press —.
- **4** Set the desired auth mode by pressing , then select a schedule.
- 5 When you press **OK**, the auth mode will be added.

## **Operation**

- 1 Press and authenticate with the Admin level credential.
- 2 Press AUTHENTICATION and then modify the items below Operation.



- Ambient Brightness: Detect the ambient brightness and adjust the intensity of IR LED. Change settings according to the installation environment.
- Motion Sensor: Set the sensitivity for detecting motion near the device.
- Auth Timeout: If the authentication is not completed during the set time, the authentication will fail.
- **Server Matching**: When this option is activated, it performs user authentication matching in BioStar 2, not in the device. It can be used when the device has too much user information or when the device is installed outside.
- 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
- Enroll Timeout: If a face is not registered during the set time, the face registration will be canceled.
- **Duplicate Check**: When registering a face, you can check duplicates.

## **Face Recognition**

Change settings regarding face authentication.

- 1 Press and authenticate with the Admin level credential.
- **2** Press **AUTHENTICATION** and then modify the items below **Face Recognition**.



- 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.
- **Backward Compatibility (Enrollment in v1.0.1)**: Turn on this option if the firmware of the device that enrolled the face template is v1.0.1 or older.
- 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 Enabled, the face registration procedure is set to 1 step. If you set the option to Disabled, it is set to 3 steps.



- 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.

### **T&A Mode**

You can set how to register T&A Mode.

- 1 Press and authenticate with the Admin level credential.
- 2 Press AUTHENTICATION then modify the items below T&A Mode.



- **3** Select and set the desired item.
  - T&A Mode: Set the method to use T&A mode.
  - **T&A Code**: Register a new T&A code.
  - T&A Required: Set to require a user to select a T&A event when authenticating.
  - Job Code: Select whether to use Job Code.

## **Network**

## **Network Settings**

You can change the network settings of the device.

#### **Ethernet**

- 1 Press **==** and authenticate with the Admin level credential.
- **2** Select **NETWORK** → **Ethernet**.



- DHCP: Set whether to use DHCP. If DHCP setting is disabled, the user can modify Device Port, IP Address, Gateway, Subnet Mask, and DNS.
- **Device Port**: Set the device port.
- 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 modify network information manually, disable DHCP setting. You can modify Device Port, IP Address, Gateway, Subnet Mask, and DNS.



Ethernet cannot be used at the same time as Wireless.

#### Wireless

- 1 Press and authenticate with the Admin level credential.
- **2** Select **NETWORK** → **Wireless**.
- 3 The list of available networks for connection will be displayed.



- 4 Select the network to which you wish to connect and enter the password. When you press **OK**, the connection to the wireless network will be made.
- To set the network information of the wireless LAN manually, press (i) of the network name you wish to use and disable DHCP setting. You can modify **IP Address**, **Gateway**, **Subnet Mask** and **DNS**.



- Wireless cannot be used at the same time as Ethernet.
- To connect to Wireless, a wireless router is required. For content regarding the installation and configuration of a wireless router, refer to the user manual of the wireless router.

#### Server

- 1 Press and authenticate with the Admin level credential.
- 2 Select **NETWORK** → **Server**.



- 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 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 URL: Enter server URL instead of Server IP. 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.

## **Serial Setting**

#### RS-485

- 1 Press and authenticate with the Admin level credential.
- **2** Select **NETWORK** and then modify the items below **Serial Setting**.

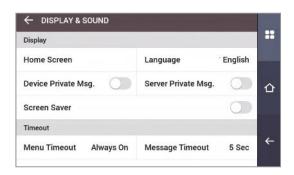


- RS-485: Select the RS-485 mode.
- Baud Rate: Select the desired baud rate.

# **Display & Sound**

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

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



• Home Screen: Select items to be displayed in the background of the home screen. When **Custom** is selected for **Style**, the user can modify the Home Screen directly. Edit the Home Screen by pressing and holding the desired object, then dragging and dropping it to a desired location.





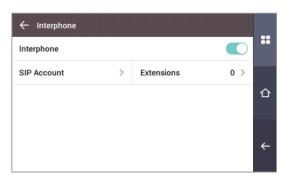
- Language: Set the language you wish to use.
- **Device Private Msg.**: Set whether or not to use a Private Message, which will be displayed on the screen when the user authenticates. You can set the **Device Private Msg.** on the device.
- Server Private Msg.: Set whether to use a Private Message, which will be displayed on the screen when the user authenticates. You can set the Server Private Msg. by using the BioStar 2 API. 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.
- **Screen Saver**: Set this option to use the screen saver feature. It reduces unnecessary energy consumption by lowering the brightness of the LCD screen when the device is not in use.
- **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.
- Backlight Timeout: Set the time (in seconds) to automatically turn off the lighting of the LCD screen.
- **Voice Instruction**: Set to use the voice instruction instead of alarm sounds.
- Volume: Set the volume.

## **Device**

## **Interphone**

Set the account and extensions of SIP interphone.

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Interphone**.
- **3** When Enable is set for Interphone, you can set the SIP account and the extensions. Ensure to set each item correctly.



## Relay

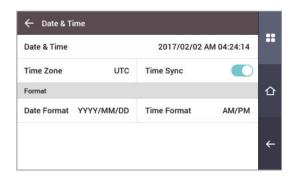
You can set the open time and the input port of the exit button in the device.

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE**  $\rightarrow$  **Relay**.
  - **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).

#### **Date & Time**

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

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Date** & **Time**.
- **3** Change the desired item.



- Date & Time: Check the current date and 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/YYYYY and DD/MM/YYYYY.
- Time Format: Set the time format. You can select either 24-Hour or AM/PM.

## **Daylight Saving Time**

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

- 1 Press and authenticate with the Admin level credential.
- 2 Select DEVICE → Daylight Saving Time.
- **3** Select the desired item and change the setting.

#### **Device Info**

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

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Device Info**.
- 3 You can view the information including Model Name, Device ID, Serial No., HW, FW, Kernel, MAC and WiFi MAC.

## **Memory Info**

View the status of memory usage.

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Memory Info**.

## **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 and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **USB Memory**.
- **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.



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

## **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 and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Secure Tamper**, then change the settings.

#### **Restart Device**

The user can restart the device.

- 1 Press and authenticate with the Admin level credential.
- **2** Select **DEVICE** → **Restart Device**.
- **3** To restart the device, press **OK**. To cancel, press **Cancel**.

#### **Restore Default**

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

- 1 Press and authenticate with the Admin level credential.
- 2 Select **DEVICE** → **Restore Default**.
  - All settings: You can reset all settings stored on the device. Press OK to reset all device settings.
  - **Keep Network Settings**: 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.



- 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 and authenticate with the Admin level credential.
- 2 Select **DEVICE** → **User ID Type**.

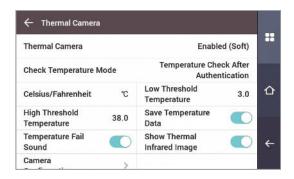


**3** Change to the desired item and press **OK**.

#### **Thermal Camera**

Thermal camera with FaceStation 2 measures temperature of users passing the access point and limit the access of users with higher temperature than preset threshold.

- 1 Press **==** and authenticate with the Admin level credential.
- 2 Select **DEVICE** → **Thermal Camera**.
- 3 Change the desired item.



- Thermal Camera: Set the thermal camera options. If you select Enabled (Hard), it refuses authentication of users with elevated temperature than the preset threshold and saves event logs. If you select Enabled (Soft), users with elevated temperature than the preset threshold can authenticate but event logs still be saved.
- Check Temperature Mode: Set the Check Temperature Mode depending on the usage when Mask Detection or Thermal Camera is activated.
  - Temperature Check After Authentication: Measure the temperature after a successful authentication.
  - **Temperature Check Before Authentication**: Authenticate only when the user is within the range of the preset temperature threshold. When this mode is activated, it does not attempt to authenticate user's identity if their temperature has been detected to be above the threshold.
  - **Check Temperature Only**: Detect temperature without authentication. This mode allows users within the range of the preset threshold to access without checking their identity or access rights.
- Celsius/Fahrenheit: Change the unit of temperature.
- Low Threshold Temperature: Set the minimum threshold temperature to limit the access. Users with detected temperature below the threshold will be denied access. It can be set between 1°C to 45°C and cannot be higher than the value of the maximum threshold temperature.
- **High Threshold Temperature**: Set the maximum threshold temperature to limit the access. Users with detected temperature over the threshold will be denied access. It can be set between 1°C to 45°C and cannot be lower than the value of the minimum threshold temperature.
- Save Temperature Data: Save temperature data. When this mode is activated, it saves both authentication and temperature logs. When this mode is deactivated, it only saves authentication logs.
- **Temperature Fail Sound:** Set the alerts to trigger when the temperature is higher than the preset threshold.
- Show Thermal Infrared Image: Display infrared imaging on the screen of the devices.
- Camera Configuration: Configure the thermal camera settings for accurate measurement.
  - Distance(cm): Set up the distance between the user and device.
  - **Emission Rate**: Set up the emissivity to precisely measure the temperature of the user.
  - ROI X(%), ROI Y(%), ROI Width(%), ROI Height(%): If there are lights in the device field of view they may be detected instead of the desired subject. Set the temperature measurement area by adjusting the size and position of ROI (Region of Interest).
  - **Skin Temperature Compensation**: You can set the thermal camera to adjust its temperature value automatically measuring the ambient conditions.
  - Skin Temperature Correction: You can set the thermal camera to compensate for variations in caused by the ambient environment that consistently affect temperature measurement. For example, if the environment is causing temperature to be measured at 0.1°C higher, set the temperature correction to -0.1.



• It is recommended to maintain the default values of the camera configuration settings for the best performance. The default values of each option are as follows:

- Distance(cm): 100 - Emission Rate: 0.98 - ROI X(%): 47 - ROI Y(%): 45 - ROI Width(%): 15 - ROI Height(%):10

• The supported thermal camera is TCM10-FS2.

# **Event Log**

## **Search Log**

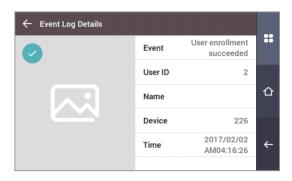
You can set a condition and search a log.

- 1 Press and authenticate with the Admin level credential.
- 2 Select EVENT LOG.
- 3 Press and change the condition. When you press **OK**, a log that matches the condition will be displayed on the screen



## **Detail View Log**

- 1 Press and authenticate with the Admin level credential.
- 2 Select EVENT LOG.
- **3** Select a log to view detailed contents.



## **Delete All Logs**

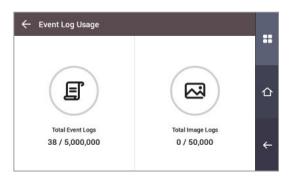
You can delete all saved logs.

- 1 Press and authenticate with the Admin level credential.
- 2 Select EVENT LOG.
- **3** To delete all logs, select **i** and then press **OK**. To cancel, press **Cancel**.

# **View Log Usage**

You can check the status of log usage.

- 1 Press and authenticate with the Admin level credential.
- 2 Select EVENT LOG.
- 1 Press ①.



# **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.	<ul> <li>If the terminal and the bracket are far away from each other, the device may not operate due to the temper switch.</li> <li>Check the adapter or the power cable.</li> </ul>
	I lost my PIN.	<ul> <li>For a normal user PIN, request it from the administrator and enter it again.</li> <li>If you have lost the Admin PIN, contact the installation company.</li> </ul>
PIN	I entered my PIN and pressed the <b>OK</b> button, but I still cannot open the door.	<ul> <li>Check if you have entered the registered PIN correctly.</li> <li>Check if you have changed the PIN recently.</li> <li>If you cannot remember the PIN, request it from the administrator and enter it again.</li> </ul>
Face	The face has been registered but face authentication cannot be done smoothly, and errors occur frequently.	<ul> <li>Check Cautions for authenticating a face and register the face again.</li> <li>If there are a large number of registered faces, change Matching Timeout and try again.</li> </ul>
	Face authentication has suddenly stopped working.	Check Cautions for authenticating a face and try again.
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.	<ul> <li>FaceStation 2 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 &amp; Time.</li> </ul>
Admin Access	I lost my Admin PIN, so I cannot access the Admin mode.	<ul> <li>The administrator grants an access permission in FaceStation 2, so only the administrator can access the Admin menu.</li> <li>If you have lost the Admin PIN, contact the installation company.</li> </ul>

# **Product specifications**

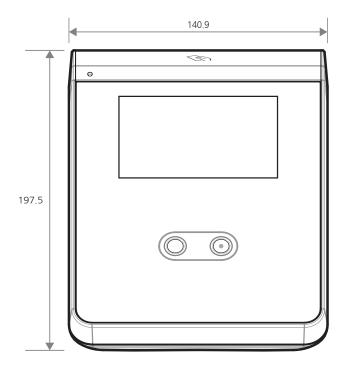
Category	Feature	Specification	
	Biometric	Face	
	RF Option	<ul> <li>FS2-D: 125kHz EM &amp; 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3<sup>1)</sup>, FeliCa</li> <li>FS2-AWB: 125kHz EM, HID Prox &amp; 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3<sup>1)</sup>, FeliCa, iCLASS SE/SR/Seos</li> </ul>	
Credential	RF Read Range <sup>2)</sup>	EM/HID Prox/MIFARE/DESFire/FeliCa/iCLASS: 30 mm	
	Mobile	<ul><li>FS2-D: NFC</li><li>FS2-AWB: NFC, BLE</li></ul>	
	Live Face Detection	Supported	
	CPU	1.4 GHz Quad Core	
	Memory	8 GB Flash + 1 GB RAM	
	Crypto Chip	Supported	
	LCD Type	4" color TFT touch	
	LCD Resolution	800 x 480 pixels	
	Sound	24 bit/Voice DSP (echo cancel)	
	Operating Temperature	-20 °C ~ 50 °C	
	Storage Temperature	-40 °C ~ 70 °C	
General	Operating Humidity	0 % ~ 80 %, non-condensing	
General	Storage Humidity	0 % ~ 90 %, non-condensing	
	Camera	CMOS	
	Camera Resolution	720 x 480	
	Camera Angle	<ul> <li>Visual Lens: Diagonal 92.7°</li> <li>IR Lens: Diagonal 58°</li> </ul>	
	Dimension (W x H x D)	140.9 x 197.5 x 86.2 (mm)	
	Weight	<ul><li>Device: 555 g</li><li>Bracket (Including washer and bolt): 74 g</li></ul>	
	Certificates	CE, UKCA, KC, FCC, IC, RCM, BIS, SIG, RoHS, REACH, WEEE	
	Max. User	30,000 <sup>3)</sup>	
Capacity	Max. Credential (1:N)	<ul> <li>Fingerprint: 10,000<sup>4</sup></li> <li>Face: 4,000</li> </ul>	
	Max. Credential (1:1)	<ul> <li>Fingerprint: 100,000<sup>4)</sup></li> <li>Face: 30,000</li> <li>Card: 30,000</li> <li>PIN: 30,000</li> </ul>	
	Max. Text Log	5,000,000	
	Max. Image Log	50,000	

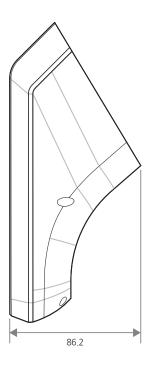
Category	Feature	Specification
Interface	Wi-Fi	<ul><li>FS2-D: Not supported</li><li>FS2-AWB: Supported (Built-in, IEEE802.11 b/g)</li></ul>
	Ethernet	Supported (10/100/1000 Mbps, auto MDI/MDI-X)
	RS-485	1 ch Master or Slave (Selectable)
	RS-485 Communication Protocol	OSDP V2 compliant
	Wiegand	1 ch Input, 1 ch Output
	TTL Input	2 ch Inputs
	Relay	1 Relay
	Intercom	Supported
	USB	USB 2.0 (Host)
	Tamper	Supported
Electrical	Power	<ul><li>Voltage: 24 Vdc</li><li>Current: Max. 1.2 A</li></ul>
	Switch Input VIH	<ul><li>Min.: 3 V</li><li>Max.: 5 V</li></ul>
	Switch Input VIL	Max.: 1 V
	Switch Pull-up Resistance	4.7 k $\Omega$ (The input pots are pulled up with 4.7 k $\Omega$ .)
	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 $k\Omega$
	Relay	2 A @ 30 VDC Resistive load 1 A @ 30 VDC Inductive load

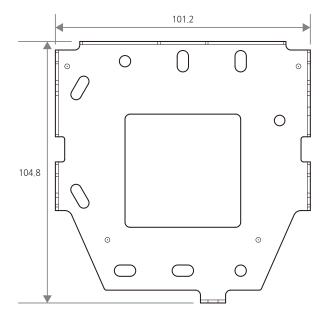
- 1) DESFire EV2/EV3 cards are supported by having backward compatibility of DESFire EV1 cards. CSN and smart card functions are compatible with FaceStation 2.
- 2) RF read range will vary depending on installation environment.
- 3) The number of users registered without having any credential data.
- 4) If a device with a fingerprint sensor is connected as a slave, the slave device can be used for fingerprint authentication.

# **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: -0.1 dBm
 Bluetooth Frequency: 2402~2480 MHz

NFC Frequency: 13.56 MHz

RFID Frequency: 13.56 MHz + 125 kHz

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

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Version 3, 29 June 2007

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