

UBio-X Slim (For Viridi) User Guide

Version Eng-1.0



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<Revision History>

Version	Date	Description	Firmware Version
0.1	2019-08-23	Initial Release	



<Glossary>

- Admin, Administrator
 - A user who can enter into the terminal menu mode, he/she can register/modify/delete terminal users and change the operating environment by changing settings.
 - If there is no administrator for a terminal, anyone can change the settings. In this regard, **it is recommended to register at least one administrator.**
 - Caution is required with registration and operation because an administrator has the right to change critical environmental settings of the terminal.

- 1 to 1 Verification
 - Authenticate the user's fingerprint after inserting his user ID or swiping his registered Card.
 - It is called 1 to 1 Verification because only the fingerprint registered in the user's ID or card is used for comparison.

- 1 to N, Identification
 - The terminal performs matches against multiple fingerprints (templates) based solely on fingerprint information.
 - Without the user's ID or card, the user's fingerprint is compared to fingerprints previously registered.

- Authentication Level
 - Depending on the fingerprint match rate, it is displayed from 1 to 9. Authentication is successful only if the match rate is higher than the set level.
 - The higher the Authentication level, the higher the security. However, it requires a relatively high match rate, so Authentication is vulnerable to failure.
 - 1:1 Level: Authentication level used for 1:1 verification
 - 1:N Level: Authentication level used for 1:N identification

- LFD (Live Finger Detection)
 - This function allows the input of only real fingerprints and blocks the input of imitation fingerprints produced using rubber, paper, film, and silicone.

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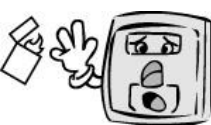

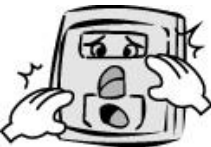
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1. Before Use






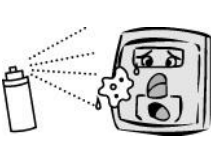

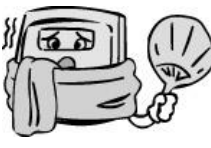
1.1. Safety Precautions

● Warning

<p>Handling with wet hands or allowing liquid to flow into it is prohibited. -> It may cause an electric shock or damage.</p>		<p>Do not place a fire source near the terminal. -> It may cause a fire.</p>	
<p>Do not disassemble, repair, or modify the terminal at discretion. -> It may cause an electric shock, fire or damage.</p>		<p>Keep out of reach of children. -> It may cause an accident or damage.</p>	

- - If the above warning is ignored, it may result in death or serious injury.

● Cautions

<p>Keep away from direct sunlight -> It may cause deformation or color change.</p>		<p>Avoid high humidity or dust -> The terminal may be damaged.</p>	
<p>Avoid using water, benzene, thinner, or alcohol for cleaning -> It may cause an electric shock or fire.</p>		<p>Do not place a magnet close to the terminal. -> The terminal may break down or malfunction.</p>	
<p>Do not contaminate the fingerprint input area. -> Fingerprints may not be well recognized.</p>		<p>Avoid using insecticide or flammable spray near the terminal. -> It may result in deformation or color change.</p>	
<p>Avoid impacts or using sharp objects on the terminal. -> The terminal may be damaged and broken.</p>		<p>Avoid severe temperature changes -> The terminal may be broken.</p>	

- If the above cautions are ignored, it may result in property loss or human injury.

※ **Under no circumstances will UNION COMMUNITY be responsible for accidents or damages caused by inappropriate use of the product without referring to the user manual.**

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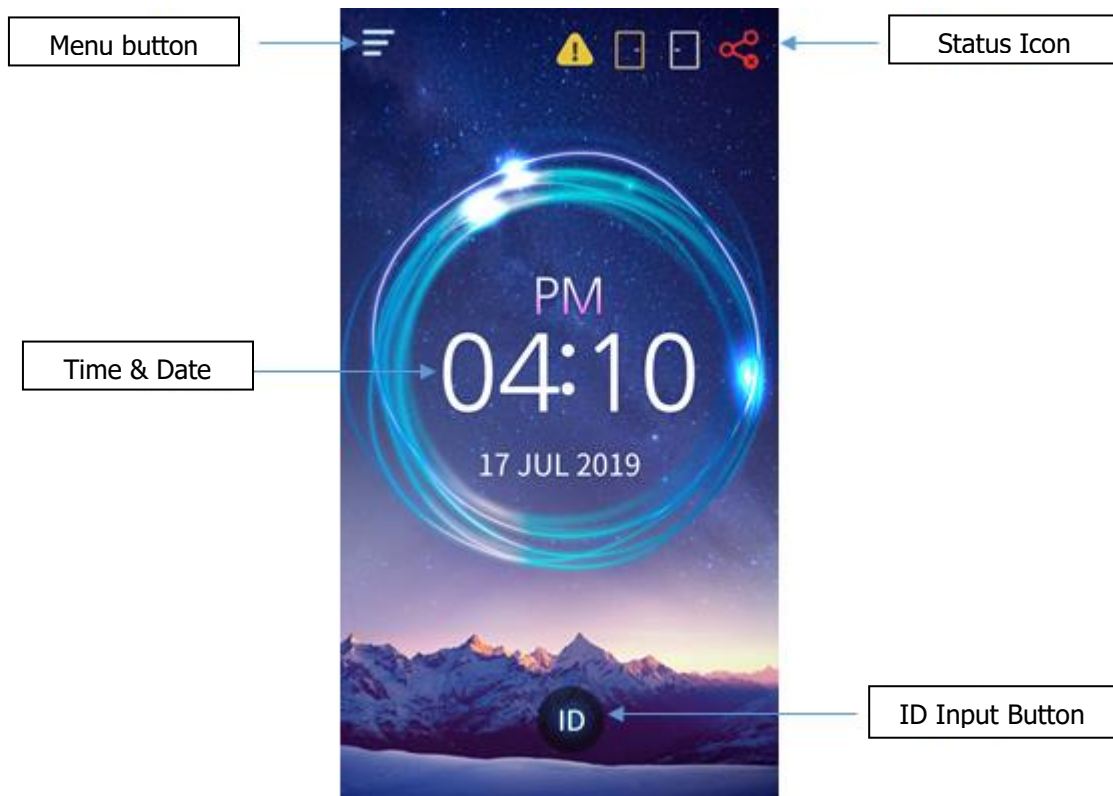
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1.2. Specific names of the terminal






1.3. LCD screen



1.3.1 Status Icons

Network Status		: Standalone Mode (Non-networking Mode)
		: Connected to the server (On line)
		: Disconnected to the server (Off line)
Fire Alarm	None	: Normal Status
		: Fire Alarm is activated. (by the Fire switch or by Server program)
Tamper	None	: Normal Status
		: Abnormal Status (Tamper switch is activated.)
Door Status Network Status		: Door is closed.
		: Door is opened.

	: Door is opened abnormally.
	: Door is not used.
	: Door is forcedly open.

1.4. Voice and Beep sounds in operation

Operation type	Voice sound
Success to authorize	You are authorized
Fail to authorize	Please try again
Waiting for FP input	Please place your finger.
Waiting for card input	Please place your card.
When entering ID	Please insert your ID.
When entering the password	Please enter your ID.

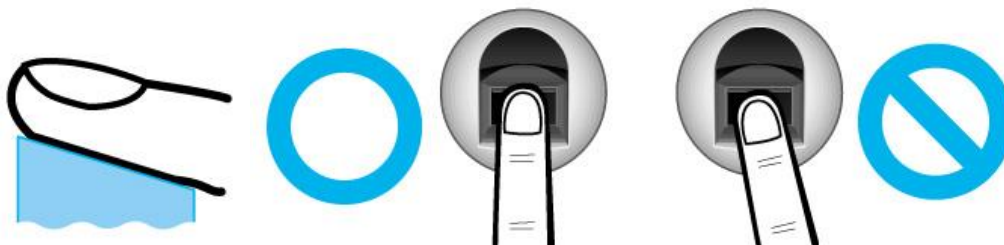
1.4.1 Beep or Sound effect in operation

Pi-pick error tone +	Notice for fail	When the authorization was failed (at Voice off)
Peek + Ding-dong	Notice for Success	When the authorization was successful (at Voice off)

1.5. Proper fingerprint registration and input methods

- Correct fingerprint registration methods

Place your index finger on the window just as you do with a finger stamp.
Do not use the tip of the finger.
Make sure the center of your finger touches the window.



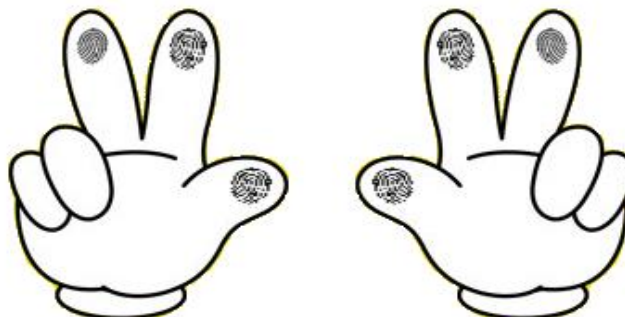
- Use your index finger if possible, it is the easiest for orientation and guarantees a stable input method.
- Check if your fingerprint is unclear or damaged.
It is tricky to recognize fingerprints on dry, wet, unclear, or injured fingers. Use another finger in this case.



- Be aware of certain fingerprint conditions

Depending on the user's fingerprint condition, some fingerprints may not be used or may cause an inconvenience.

- If the fingerprint is damaged or very unclear, then it cannot be recognized. Please use the RF Card instead in this case.
- **When a finger is dry, breathe on the finger for smooth operation.**
- For kids, it may be tricky or impossible to use the terminal because their fingerprints are too small or very unclear. It is recommended to register their fingerprints every six months.
- For the elderly, it may not be possible to register their fingerprints if there are too many fine lines on the fingerprints.
- It is recommended that you register more than 2 fingerprints.
- In order to increase the fingerprint authentication rate, it is recommended to use six of the ten fingers as illustrated above. (Both thumbs, forefingers, middle fingers).



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2. Product introduction

2.1. Product characteristics

- Multi-Modal product with which the user can use fingerprint, Card or Password authorization functions together.
- Built-in Camera Flash can detect the real human face or a picture.
- Camera Flash can be activated automatically by the Daylighting sensor.
- RF Card (125 kHz)
- Smart Card (13.56MHz)
- This is Access Control System can be cooperated with Server Database by TCP/IP or Wi-Fi (optional).
- Various registration and authorization methods

Fingerprint	Fingerprint registration Fingerprint authorization
Card	Card registration Card authorization
Password	Password registration Password authorization
'OR' Combination Authentication	To be authorized successfully, one method among the registered should be authorized.
'AND' Combination Authentication	To be authorized successfully, all registered Auth methods should be authorized.

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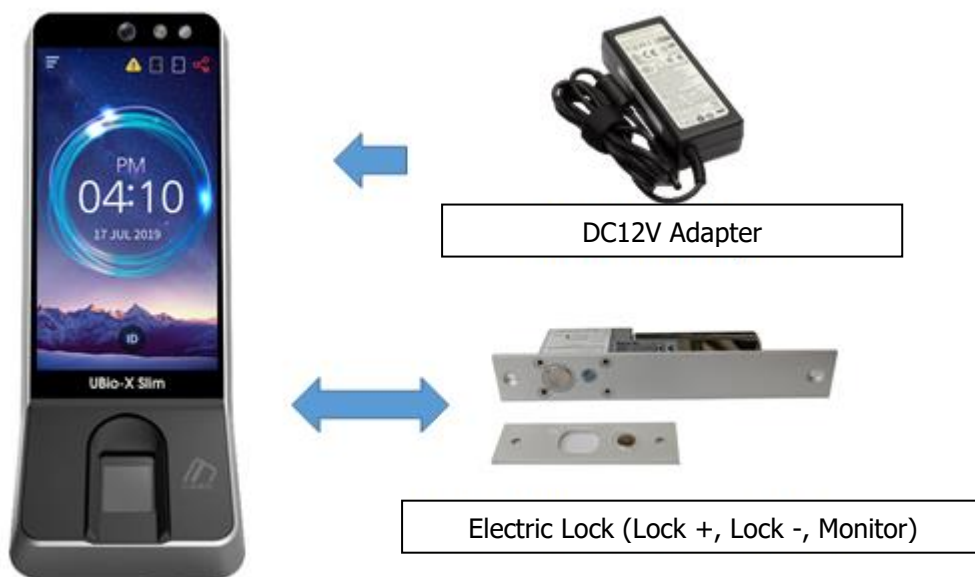
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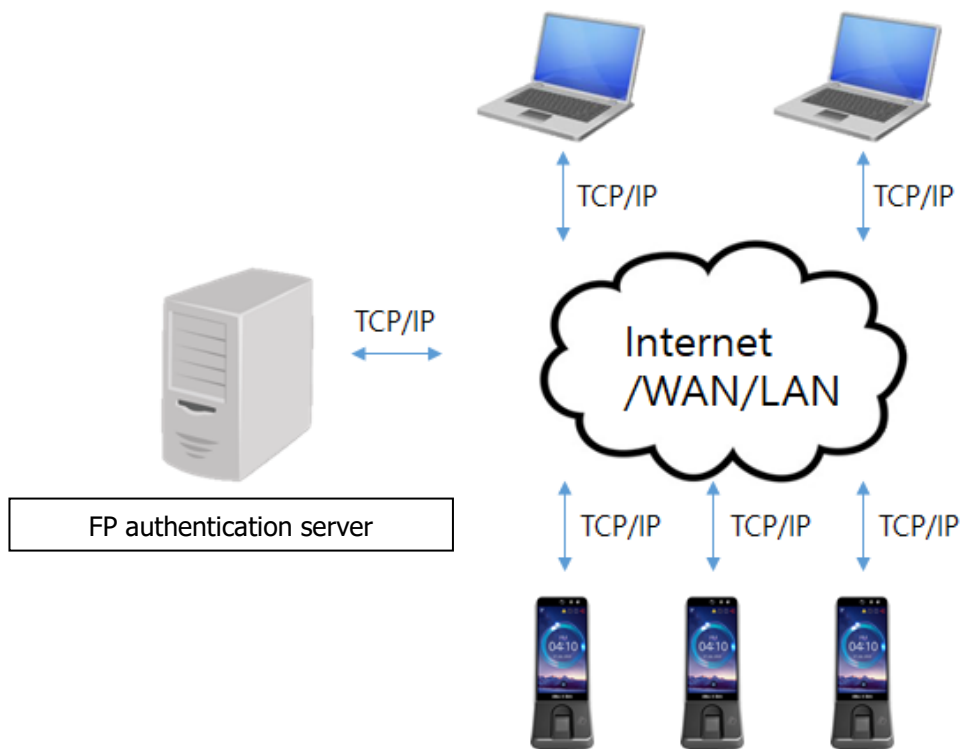


2.2. Product components

2.2.1. Standalone use (Access)



2.2.2. Connection with Server (Access, TNA)



2.3. Product specification

Types	Specification	Remarks
CPU	1.4GHz Quad Core CPU	
LCD	4.95 inches Touch LCD(480*854)	
Memory	eMMC 8G Bytes Flash	
	2GByte RAM	
External USB support	Backup data / Upgrade firmware	
Camera	Still Capture Image Color (1600x1200)	
Camera Flash Sensor	Daylighting sensor, Flash	
Capacity	500,000 Users / 500,000 Cards (Server: 200,000) 10,000,000 Logs / 50,000 Image logs	100,000 Users / In case of more than 100,000 users, the booting time takes more than 3 mins.

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UBio-X Slim User Guide (Virdi)

Temperature / Humidity	-20 ~60°C / Lower than 90% RH	
AC / DC Adapter	INPUT : Universal AC100 ~ 250V	
	OUTPUT : DC 12V ~ 24V 3.5A	
	UL, CSA, CE Approved	
Lock Control	EM, Strike, Motor Lock, Auto Door	
I/O	4 In (1 Exit, 3 Monitors) 2 Out (Lock 1, Lock 2)	
Communication Port	TCP/IP (10/100Mbps)	Communication with Auth Server
	RS-232	Ticket Printer
	RS-485	Communication with Controller
	Wiegand Input / Output	Communication with Card reader or Controller
Card Reader	125KHz RF / 13.56MHz Smart HID 125K Prox card (Optional) HID iClass card (Optional)	Option
Dimension (mm)	80 X 195.6 X 23.5(Normal) / 54.67(Max)	Including Bracket

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3. Environment Setting

3.1. Checks before setting the environment


3.1.1. Entering the menu by Administrator

- The terminal users are classified as general users and administrators.

General User	User authorized to simply open the door.
Administrator	User who can control the door and all features of terminal through the admin menu



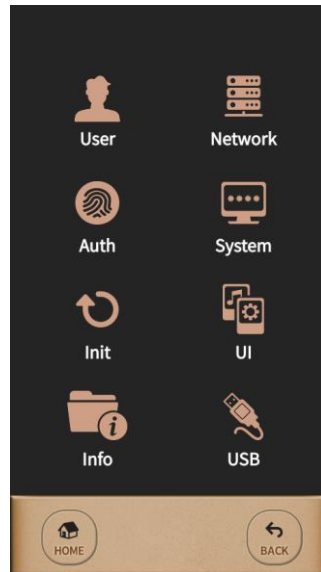
- To enter the menu, touch the **[MENU]** button on the top left side.
- Enter the administrator ID and follow the authentication process. The Administrator menu will be displayed. Since no users have yet been registered, any user can enter the administrator menu. At least, one administrator should be registered for security purposes.

 1. In a network mode, if no administrator is designated and only general user is registered, all users can enter the admin menu.

2. If 1:N authentication is used, an administrator with the registered fingerprint can enter the admin menu using fingerprint authentication without entering the ID.

3.2. Menu composition

There are 7 sub-menus in the administrator menu and the following describes main menus.



Main menu	Sub menu	Contents	Default value
User	Register		
	Modify		
	Delete		
	List		
	Delete All		
Network	Normal	Type	Ethernet
		Terminal ID	1
		Server Address	192.168.0.2
		Port Number	9870
		Ping Period	10
	TCP/IP	DHCP	Not Use
		IP Address	192.168.0.3
		Subnet Mask	255.255.255.0
		Default Gateway	192.168.0.1
		Primary DNS	
Auth	Normal	Verify Level	4
		Identify Level	5
		Enable FP 1:N	USE

Auth		Auth Sequence	Terminal Only
Auth	TnA	TnA Mode	TNA
		F1	00:00
		F2	00:00
		F3	00:00
		F4	00:00
		Access	00:00
	Meal	Breakfast	00:00
		Lunch	00:00
		Dinner	00:00
		Supper	00:00
		Snack	00:00
		Allow duplicate	Not Use
	Log		
	FN Key	Function key Mode	Not Use
	System	Sensor	Capture Timeout
		LFD Accuracy	Not Use
		Camera Usage	Not Use
		Camera Flash	1
Card		Card Type	Not Use
		Wiegand Type	Not Use
		Send Data	Card Number
		Site Code	
Door		Door Selection	Door1
		Function	Door
		Result Signal	Success
		Lock Open Time	5 Sec
		Door Warn Time	20 Sec
		Door Control	Normal Close
RS485		RS485 Type	Not Use
		RS485 ID	0
Option		Number of Template	2
		ID Length	4
		Log Save	Yes
		Display User Name	Yes
		Duration Result	1 Sec
		Tamper Alarm	Mute

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Init	Delete User		
	Delete Log		
	Init Option		
	Restart		
	Factory Init		
UI	Sound	Sound Type	Effect only
		Volume	1
	Display	Language	English
		LCD Brightness	3
		Main Display	Digital Clock
		Waiting Time	3 Min
		Screen Saver	
		Date	System date
		Time	System time
Info	Version	Mac Address	
		App	
		Resource	
		Kernel	
		RootFs	
		Card Module	
		Compile Date	
		Touch	
	Option Info	Terminal ID	
		TnA Mode	
		Card Type	
		Network Type	
		IP Address	
		Version (App, Kernel, Filesystem)	
	User	Admin	
		User	
		FP	
		FP 1 to N	
		Card	
	Log	Sent Log	
		Not Sent Log	
		Photo Log	

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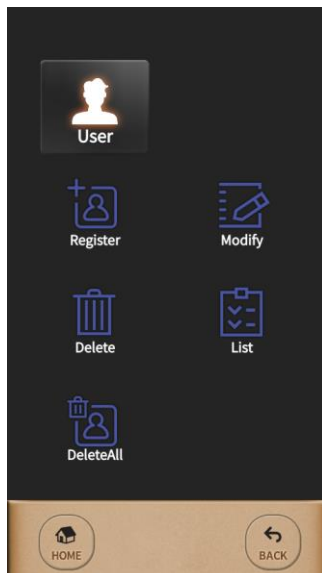
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USB	User Download		
	User Upload		
	Log Download		
	F/W Update		

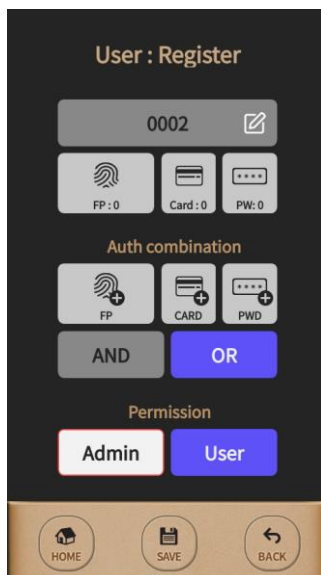
3.3. User

When you select the **[User]** at the main menu, the following window appears. The administrator can register, delete, modify, and search for the user by using the **[User]** menu.



3.3.1. Register

- The maximum number of users to enroll to the terminal are 200,000 templates for FP users but Card users or PW user can be enrolled up to 500,000 users. For example, when 10,000 users have 200,000 FP templates totally stored on the terminal, 490,000 users can register with the Card or PW additionally.



- To register a new user in the terminal, select **[Menu]** → **[User]** → **[Register]** in order.
- Insert the User ID you want to register after pressing the button "Input ID".

- When selecting the button **[Admin]** from **[Permission]**, this user's authority will be changed. Basically, there are two buttons to select the user's authority between administrator and normal user.



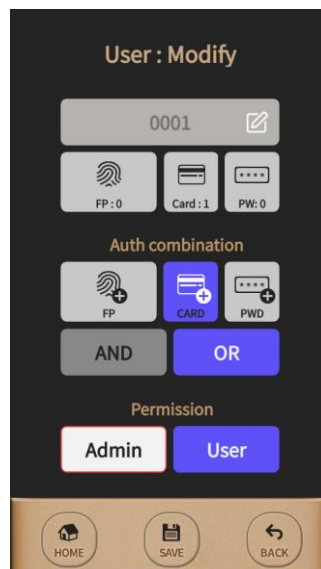
An administrator and a general user have the different authority as below.

- User: Only control the access door.
- Admin: Door control + Enter the admin menu.

To finish registration of user from the terminal, at least more than one Auth method should be registered among 'FP', 'Card', and 'PW'. And then the user will be registered when pressing the button **[SAVE]** after selecting 'Auth combination'.

3.3.2. Modify

- When modifying the registered user from the terminal, 'Group', 'Permission', 'FP', 'Card', 'PW', 'Auth combination' can be modified freely except 'User ID' because it is a unique identifying number so that it couldn't be modified after registration. And also it is possible on Standalone mode which the network type is 'Not Use'. So you have to modify the registered user from the Server software on Network mode.



- To modify the registered user from the terminal, select **[Menu]** → **[User]** → **[Modify]** in order. And then the user information will be shown as left picture after inserting the User ID to modify.
- Select and modify the information among the group, authority, and authentication method to select **[SAVE]** button.
- If you use 'OR' combination, it is possible for 2 combinations among FP, Card and Password.

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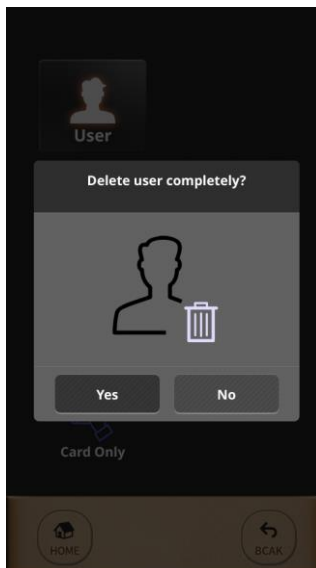
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3.3.3. Delete

Enter the user ID to delete and select **[Yes]** button. Select **[Close]** button to delete and go back. If inserting the invalid user ID or unregistered user ID, the error message is displayed. On the other hand, if inserting the valid ID or registered ID, the message is displayed as below.



3.3.4. List

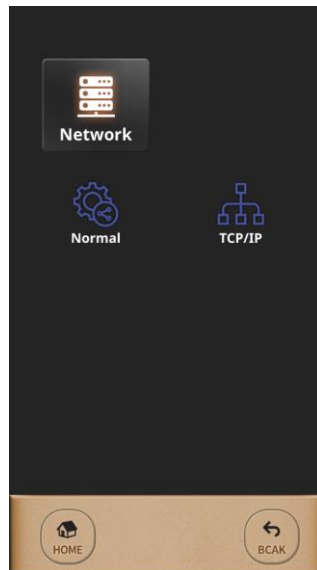
To search the registered user list from the terminal, select **[Menu]** → **[User]** → **[List]** in order.

3.3.5. Delete All

You can delete all users registered in the terminal.

3.4. Network

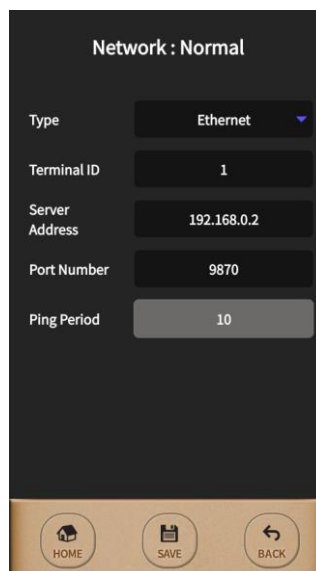
Select **[Menu]** → **[Network]** in order from the terminal and the picture will be shown below.



The network setting is divided into 'Normal' and 'TCP/IP'.

3.4.1. Normal

UBio-X Slim can be used in two modes; network mode and standalone mode. Network mode is divided by 'Wireline' and 'Wireless'.



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- Type

It is selectable among 'Not Use', 'Ethernet', and 'WIFI'.

If selecting 'Not Use', the terminal is worked as a Standalone mode which is operated independently without connecting network. In this case, authentication is proceeded on the internal database of the terminal only.

But if selecting 'Ethernet' or 'WIFI', the terminal is worked as a Network mode which is cooperated with the Access Manager Professional program.

Meanwhile, the mode 'WIFI' is not currently supported but it will be added on next.

- Terminal ID

Terminal ID is a unique ID and can be entered from 1 to 99999999. It cannot be duplicable in same server.

- Server Address

Enter the server ID that UNIS is installed in.

- Port Number

Enter the port information to communicate between server and terminal.

- Ping Period

It is the feature to checking the communication status and the default value is 10 seconds.

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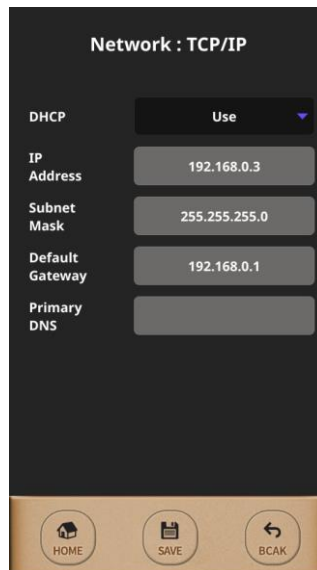
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3.4.2. TCP/IP

If you changed the setting into 'Network mode', you should complete TCP/IP setting to connect with the server properly.



- DHCP

It is decided when selecting 'Use' between 'Use' and 'Not Use'. When using 'DHCP', the terminal IP address cannot be changed. Because it obtains automatically.

When not using 'DHCP', 'IP Address', 'Subnet Mask' and 'Default Gateway' for terminal should be given manually. To obtain them, contact the network administrator on the customer site.

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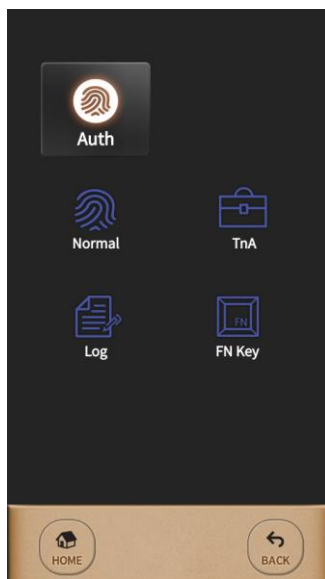
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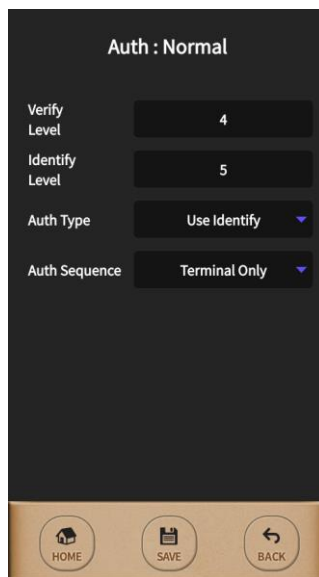
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3.5. Auth

Select **[Menu]** → **[Auth]** in order from the terminal, the below picture will be shown. This menu is to set the auth-related option, TNA mode and whether to use the card.



3.5.1. Normal



- Verify Level / Identify Level
 - You can set the security level depending on the Auth Type. For Verify Level (1:1), you can enter the value from 1 to 9 but the default value is 4. For Identify Level (1:N), you can enter from 5 to 9 but the default value is 5. If the security Level is too higher, FRR (False Rejection Rate) is more increasing but if it is too lower, FAR (False Acceptance Rate) is more increasing. So, please use the default value if not special case. These are applied to all users except the user has the individual setting on registration.

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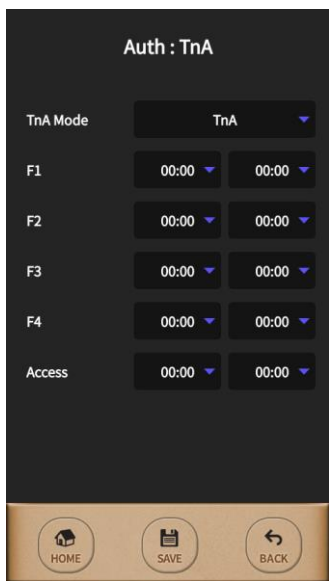


- Enable FP 1:N
 UBio-X Slim supports two authentication types; 1:1 and 1:N.
 For 1:1, the authentication is performed after ID input but for 1:N, it searches all users to perform the authentication without ID input.
 1:1 is used to increase the authentication speed faster than 1: N, and 1: N is used to easily use the authentication process.
- Auth Sequence
 The authentication sequence works by connecting the terminal to UNIS program, which is a PC software. The authentication method is divided into four types as below.

Server->Terminal	Authentication starts by Server and if it is not searched, authentication will be started by Terminal automatically.
Server Only	Authentication should be done by Server only.
Terminal->Server	Authentication starts by Terminal and if it is not searched, authentication will be started by Server automatically.
Terminal Only	Authentication should be done by Terminal only.

3.5.2. TnA

3.5.2.1 TnA



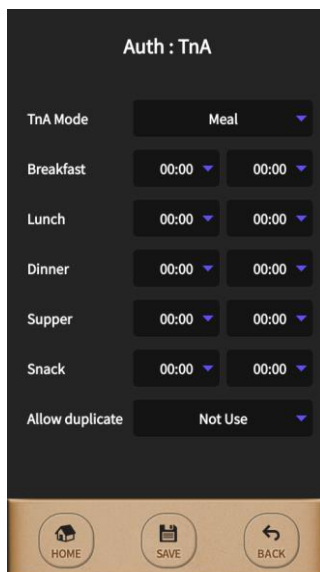
In T & A mode, the user should press a function key to open the door.
 The access log is sent to the server management program with the function keys.
 Depending on the function keys, you can find the user's attendance status such as 'Attend', 'Leave', 'Out' and 'In, which can manage the attendance management more efficiently. In TnA Mode (3.5.4), the default value is 'Not Use'.



When you select 'Normal' in **[Function key Mode]**, it is set as follows.
F1/ F2 / F3 / F4



3.5.2.2 Meal

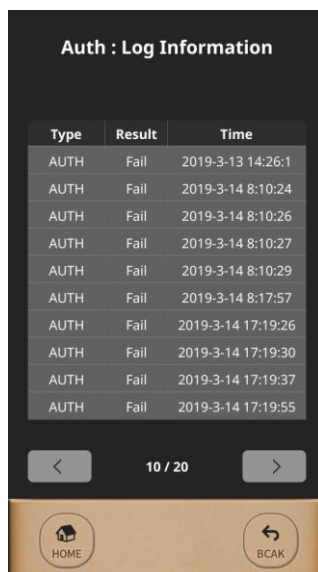


If you use 'Meal', you can set the time zone per each meal type.
If you don't need to set, it sets '00:00-00:00'.

- Allow duplicate: The multiple authentications are possible regardless of whether or not authenticate. To apply the setting value, select **[SAVE]** button.

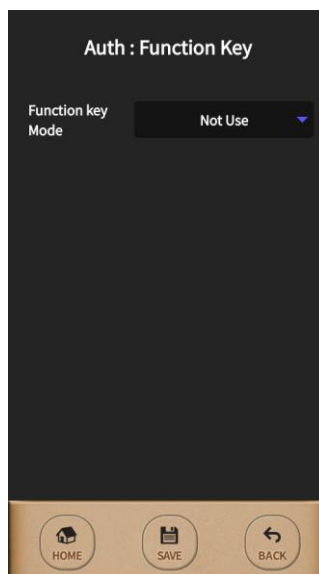
3.5.3. Log

This is the feature to check the authentication logs for the terminal's user.



3.5.4. FN Key

The function key mode is to support the TnA mode extension when using TnA mode.

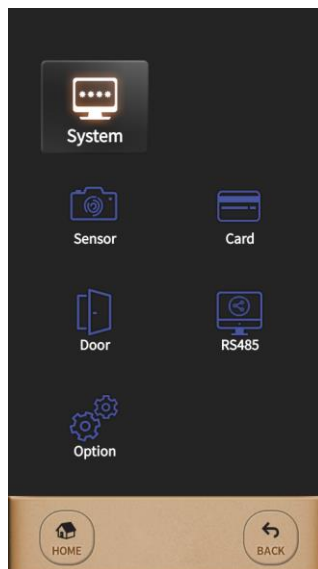


The default value is 'Not Use' and when you select 'Normal', the buttons for F1/ F2 / F3 / F4 are displayed in main screen.

3.6. System

This menu is to set Sensor, Card, Door, and Option for Door.

Select **[Menu]** → **[System]** in order from the terminal, the below picture will be shown.



3.6.1. Sensor

This menu is to set Capture Timeout, LFD Accuracy, Camera Usage, Camera Flash, and the option value of the fingerprint sensor related to authentication.

If you change the option to the default sensor settings of the terminal, it applies to all users who do not have individual sensor settings when registering users. 'Camera Usage' can leave a photo log.

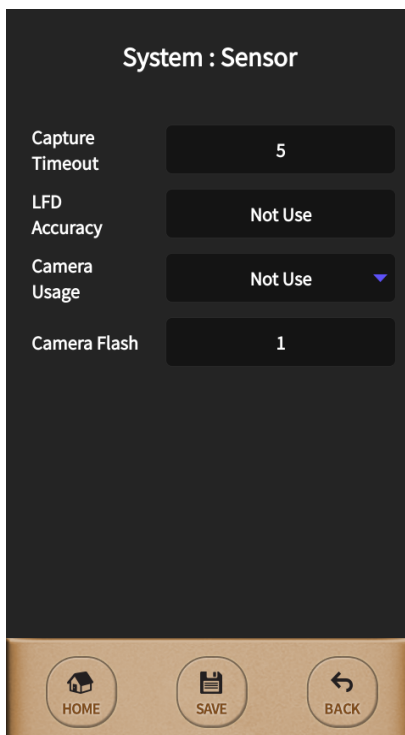
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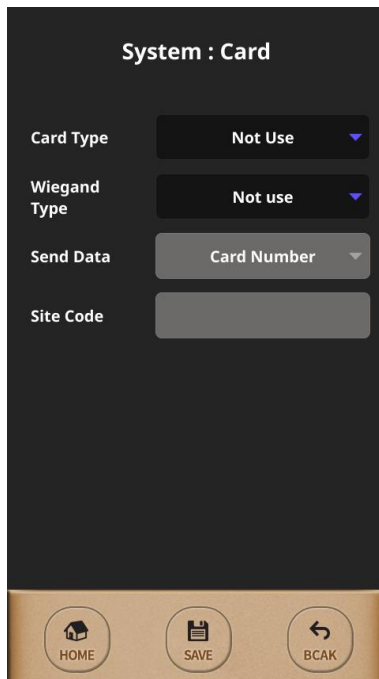




- Capture TimeOut
This is the standby time for capturing fingerprint and it is adjustable from 3 to 9 seconds. (Default: 5 seconds)
- LFD (Live Finger Detection) Accuracy
This menu is used to set the level to inspect the fake finger and to use it. This is graded from 0 to 3. 'Not use' (0), 'Low' (1), 'Middle' (2), 'High' (3)
- Camera Usage
This menu is set the condition to use the camera. For example, when selecting "Success", the camera will be operated in case the authentication succeeds and when selecting "Fail", the camera will be operated in case that the authentication fails.
And when selecting "All", the camera will be operated regardless of authentication success or failure.
When selecting 'Not Use', the fingerprint image or other suitable image will be displayed.
- Camera Flash
You can select from 0 to 3. If the surroundings are dark by daylighting sensor, it turns on. The higher the number, the higher the LED brightness.

3.6.2. Card

This menu is used to set the card authentication for terminal's user.



- Card Type

It is selectable among 'Not Use', 'EM', 'MIFARE', 'HID Proxy 26 Bit', 'HID Proxy 35 Bit', 'HID Proxy 37 Bit', 'iClass 26 bit', 'iClass 35 bit', and 'iClass 37bit'.

- Wiegand Type

You can select whether to use Wiegand Out and the bit type. Generally, if the card module is Mifare, it selects 34 bit and if the card module is EM 26 bit, it selects 26 bit.

- Send Data

You can select Wiegand Out information between 'Card Number' or 'SiteCode + User ID' option. When selecting 'SiteCode + User ID', 4 digits of User ID will be out after authentication success via Wiegand Out but when selecting 'Card Number', the card serial number (CSN) will be out.

- Site Code

This option is used only on selecting 'SiteCode + User ID' and it can be out differently per each Wiegand bit between 26bit and 34bit as below.

- Site Code for Wiegand 26bit: 0 ~ 255
- Site Code for Wigand 34bit: 0 ~ 32767

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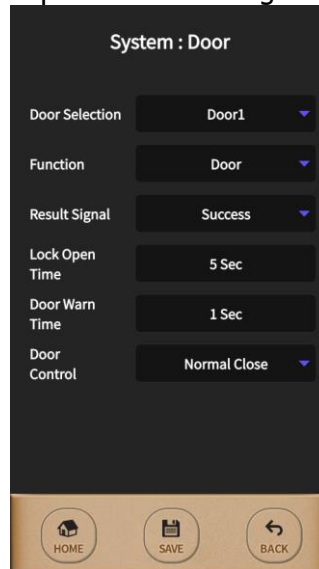
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3.6.3. Door

There are two functions on this menu. One is able to control two doors and the other is able to support the fire alarm or lighting lamp after connecting to each external device.



- Door Selection
You can select 'Door1' or 'Door2'.
- Function
You can set the option among 'Not Use', 'Door', 'Fire Alarm', 'Light Alarm', and 'Motor Lock'.

❖ When Door1 is set to 'Motor Lock', Door2 is also automatically set to 'Motor Lock'. In the opposite case, when Door2 is set to 'Motor Lock', Door1 is also automatically set to 'Motor Lock'.
When 'Motor Lock' is set, the 'Result Signal', 'Lock Open Time', and 'Door Warn Time' of Door2 are ignored.
- Result Signal
The lock can be set to operate depending on the authentication result setting. When you select 'Success', the door opens in case of authentication success and when you select 'Fail', the door opens in case of authentication fail.
- Lock Open time
You can set the lock open time.
- Door Warn Time
You can set the time to send the warning if the door opens too long.
- Door Control
You can set the door control between NC (Normal Close) and NO (Normal Open).

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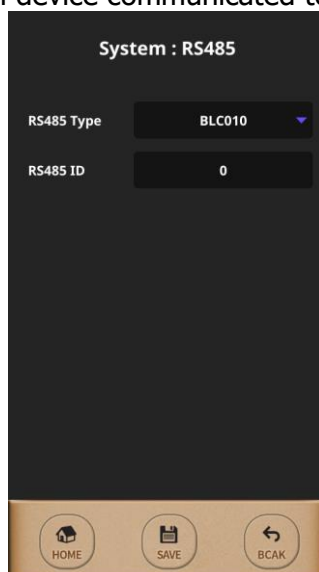
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3.6.4 RS485

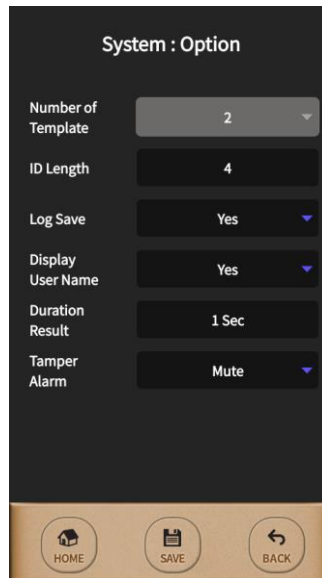
This menu is used to set the external device communicated to "UBio-X Slim" via RS485.



- RS485 Type
You can set the option as 'Not Use' and 'BLC010'.
- RS485 ID
You can set RS485 ID from 0 to 7.

3.6.5 Option

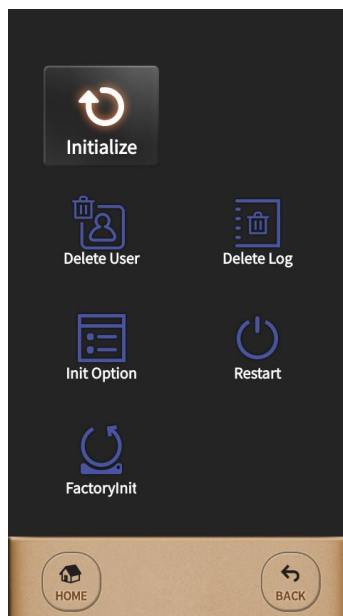
In this menu, you can set the number of FP template and ID length when registering the user's FP.



- Number of Template
The default value is 2.
- ID Length
The default value is 4 and the input range is from 4 to 8.
- Log Save
It decides to save the log for authentication result.
- Display User Name
It decides to display the user name in case of authentication success.
- Duration Result
It decides the displaying time for the authentication result.
- Tamper Alarm
It decides to set mute or tamper alarm in case of tamper open. (Mute / Use)

3.7. Initialize

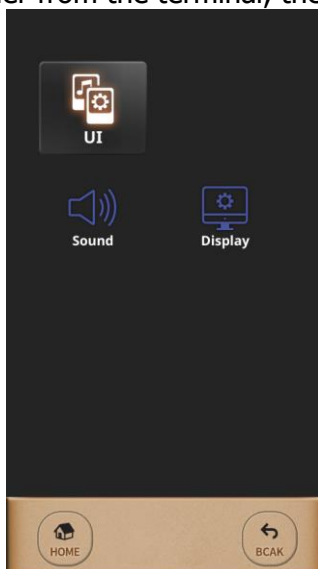
Select **[Menu]** → **[Initialize]** in order from the terminal and the below picture will be shown.



This menu is used to set back to the factory format for all terminal's user data, stored log data and configured options. So please be cautious for these initialization since it is not recoverable.

3.8. UI

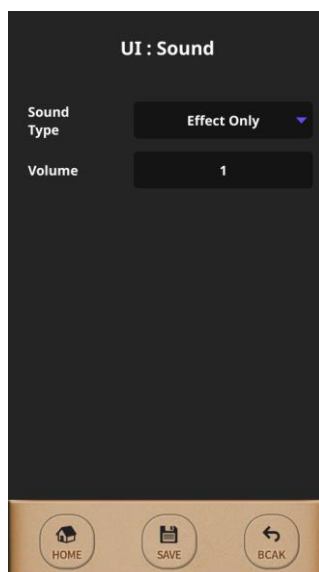
Select **[Menu]** → **[UI]** in order from the terminal, the below picture will be shown.



You can set the terminal main display, language, time and sound as you want.

3.8.1. Sound

This menu is used to set the sound type about both voice & effect and control its volume.



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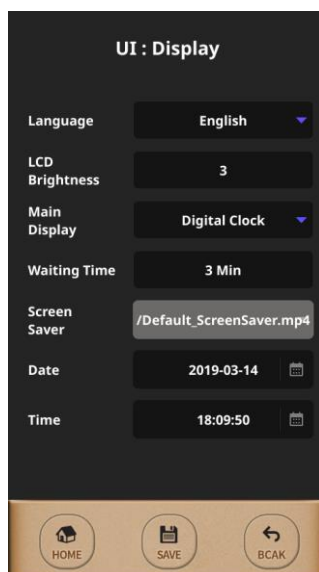
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3.8.2. Display



- Language
Select [**Language**] button to use the language as you want.
- LCD Brightness
LCD brightness can be set from 1 to 5 but the default value is 3.
- Main Display
You can select 'Digital Clock' or 'Custom Image'.
You can change the user image in UNIS program.
 - The user image supports JPG, PNG, and BMP.
The size is 480 * 854 and the file name should be less than 11 characters.
(You can use the file with numbers and English.)
- Waiting Time
If there is no any input in the setting time, the screen saver is operated.
- Screen Saver
It operates with the screen saver that you set.
You can change the screen saver in UNIS program.
 - The screen saver supports mp4 extension. The size is 480 * 854, the file size is less than 9MB and the file name should be less than 11 characters.
(The file name supports the numbers and English.
If the screen saver is applied, you cannot change it in the terminal. (It should be changed via UNIS program.)
- Date and Time
You can set the date and time of the terminal and it should be used in Standalone mode.

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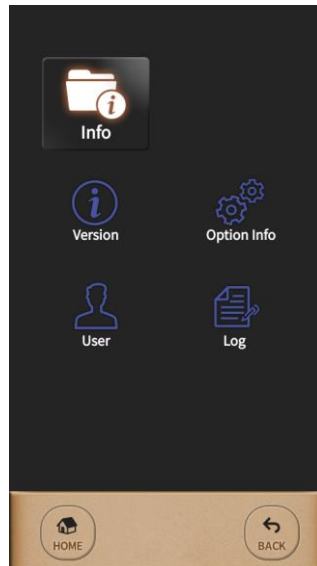
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3.9. Information

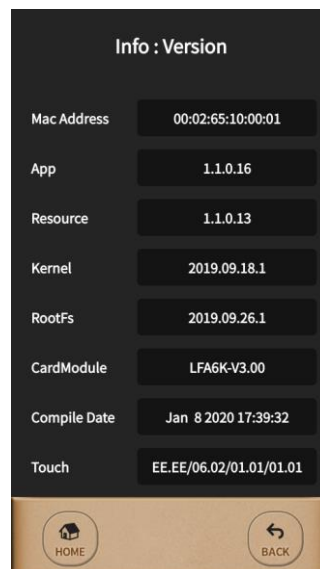
Select **[Menu]** → **[Information]** in order from the terminal, the below picture will be shown.



You can see the terminal information when you select 'Version', 'Option Info', 'User' and 'Log'. In this menu, you can check the information but you cannot change it.

3.9.1. Version

You can see the version information.



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- Mac Address
It shows Mac address.
- App
It shows the App information.
- Resource
It shows the resource version.
- Kernel
It shows the Kernel version.
- RootFs
It shows the file system version.
- CardModule
It shows the card module version.
- Compile Date
It shows the compile date of the app.
- Touch
It shows the touch FW module.

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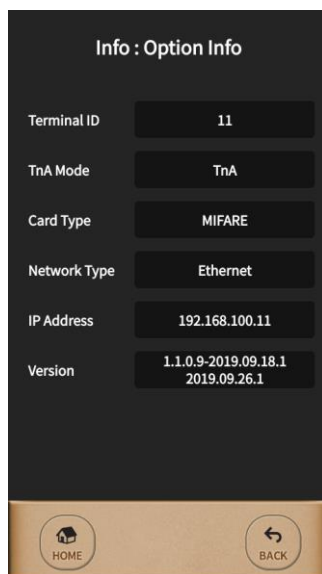
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3.9.2. Option Info

You can see the option information.



- Terminal ID
It shows the terminal ID.
- TnA Mode
It shows the TnA Mode.
- Card Type
It shows the card type.
- Network Type
It shows the network type.
- IP Address
It shows the IP address.
- Version
It shows the App version / Kernel version and File system version.

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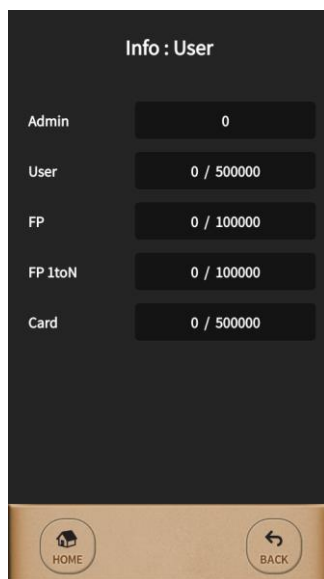
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3.9.3. Info User

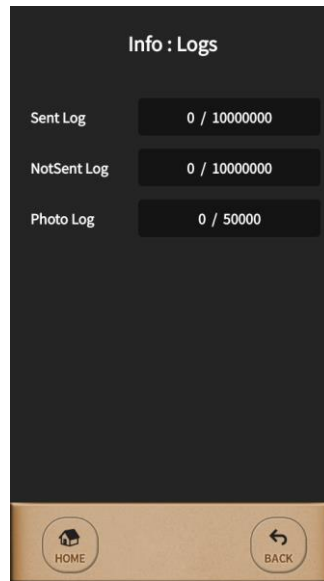
You can see the user information.



- Admin
It shows the number of admin.
- User
It shows the number of user.
- FP
It shows the number of FP.
- FP 1 to N
It shows the number of 1:N FP.
- CARD
It shows the number of card.

3.9.4. Info Logs

It shows the log information.



- Sent Log
It shows the number of sent log.
- NoSent Log
It shows the number of unsent log.
- Photo Log
It shows the number of photo log.

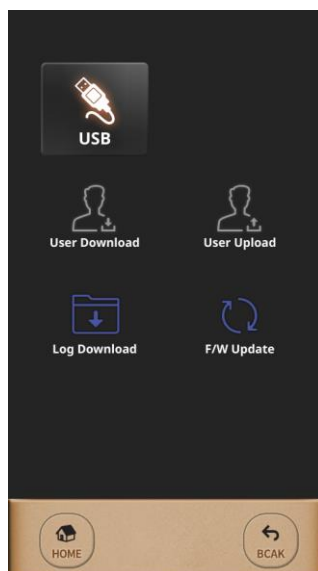
3.10. USB

This menu can be used to upload or download the user's information and log information after connecting the terminal with USB memory.

- ❖ Please use the file system format as FAT32. NTFS file system can be failed when downloading the user or log file. The uploading can be also failed.
- ❖ The time can be different after user download and log download because of the system difference.

Ex) The current time 15:00 User download
When checking in Windows, it shows 06:00.
When checking in Linux, it shows 15:00.

Select **[Menu]** → **[USB]** in order from the terminal and the below picture will be shown.



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3.10.1. User Download

If the USB memory does not exist or there is a file named Slim_UserDB.ndb when you select **[User Download]**, an error window is displayed. Otherwise, a pop-up window will appear asking whether to proceed to download the user. If you select **[Yes]**, all user information of the device is saved in the user folder on the USB memory under the file name Slim_UserDB.ndb (user / Slim_UserDB.ndb). After completing the download, unmount the USB memory. If you download or upload the user again, please remove the USB memory and insert it again. This file can be read from UNIS and stored on the server.

3.10.2. User Upload

When you select **[User Upload]**, if the USB memory does not exist or there is no file named Slim_UserDB.ndb, an error window appears. If not, a pop-up window will appear asking whether to proceed to download the user. If you select **[Yes]**, the user data is uploaded to the device in a file called Slim_UserDB.ndb (user / Slim_UserDB.ndb) in the user folder on the USB memory. If the user ID is duplicated, the user information is not recorded in the terminal. The File name should be set as Slim_UserDB.ndb for normal upload. After completing the upload, unmount the USB memory. If you want to download or upload the user again, please remove the USB memory and insert it again.

3.10.3. Log Download

If you download the log information of the device to a USB memory, you can download all logs or only the unsent logs. When all logs are downloaded, all logs in the terminal are saved to USB memory in either network mode or standalone mode. You can select Event Log, Picture Log, and All Log and download them. Log information is saved as LOG.dat in the log folder in the USB memory. The log information saved in USB can be imported and saved in server. After completing the log download, unmount USB memory. If you want to download the log again, take USB out and insert it again.

3.10.4. F/W Update

When you select the FW to update in the list, the update procedure starts as below. After completing this process, the terminal reboots.

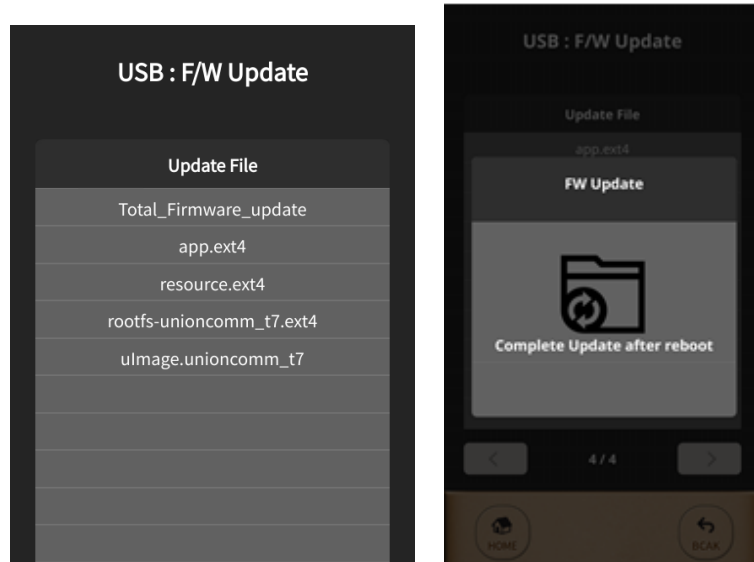
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If you want to download app.ext4, resource.ext4, rootfs-unioncomm_t7.ext4, and uImage.unioncomm_t7 file at a time, you can select 'Total_Firmware_update' which is the first line in the list.

For 'Total_Firmware_update', all app.ext4, resource.ext4, rootfs-nioncomm_t7.ext4, and uImage.unioncomm_t7 should exist.

If any of the four files is missing, Total_Firmware_update will not appear.

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4. How to use terminal

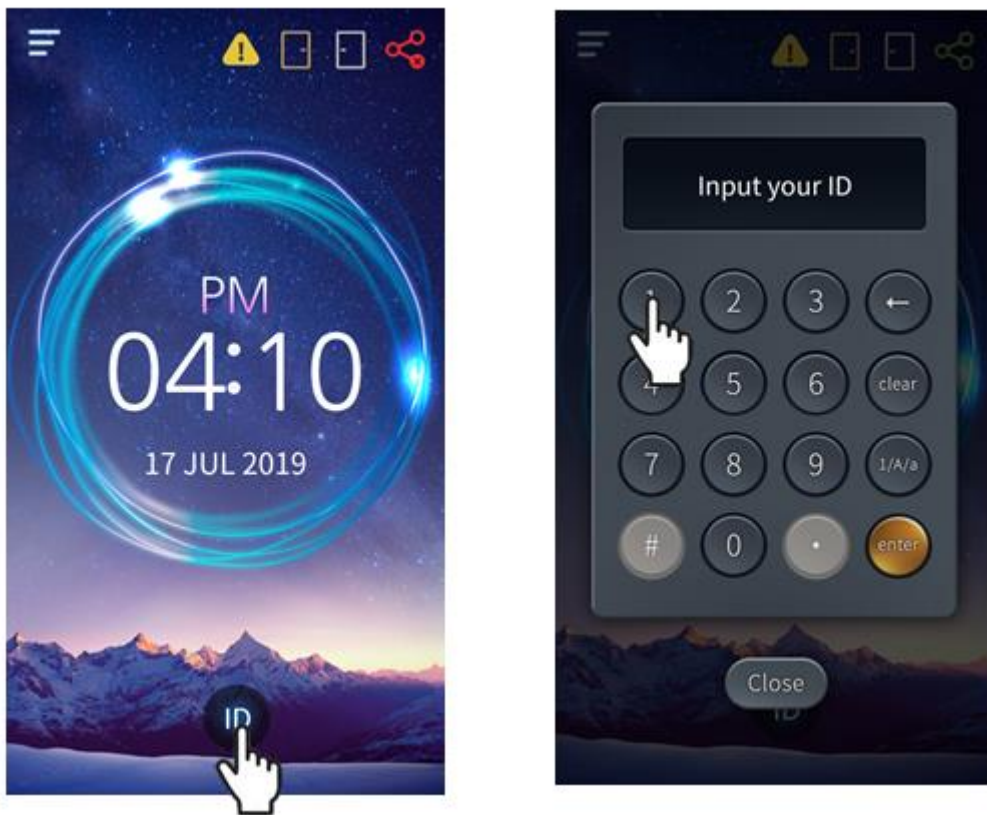
4.1. How to open the door

There are 2 methods to open the door with the registered user in terminal depending on 1:N Identification.

- 1:1 Verification

This 1:1 Verification can access the door much faster regardless of the number of users on the terminal since it compares only between the inserted fingerprint to the stored fingerprint of the pressed User ID.

As shown in the figure below, press the button **[ID]** to input the registered User ID first and then input the fingerprint or password after pressing the button **[Enter]**.



- 1:N Identification

This method is that the registered fingerprint is placed on the fingerprint sensor in the main screen without inserting User ID. But it can take somewhat long time to authenticate because it compares the inserted fingerprint to all fingerprint data in spite of much more convenient than 1:1 Verification.

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1) Fingerprint Authentication

Place the registered fingerprint on the sensor and authenticate with it without entering ID.



2) Card Authentication

Swipe the card on the card sensing area without entering the ID.



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If the User ID should be entered before placing the fingerprint, please check if the terminal option '1:N Identification' is not selected.

TIP '1:N Identification' for password user is same to '1:1 Verification'.

4.2. How to authenticate in TnA mode

In TnA mode, a user must select the function key before authentication. And the log is transferred to server with the information that the function key is selected. If the function key is not selected, it cannot record a user's 'Attend', 'Leave', 'Out', and 'In' properly. So, a user should press the function key before authentication.

In TnA mode, F1, F2, F3 and F4 are displayed in bottom of the main screen.



TIP Tip: If you want to use 1:N identification in TnA mode, try to authenticate directly after pressing the function key without entering the user ID.

FCC Supplier's Declaration of Conformity

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
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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