Blentity Data Protector with FIDO2

User Manual

Version 1.0 | Release in 2023.12

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Preface

Thank you for purchasing Blentity (known as SAMURAI Key in Japan). This document provides detailed usage instructions for the product. Before using Blentity, please read this document (and check for the latest version at https://wisecure-tech.jp/samurai_key/support), the accompanying safety warnings, and the license agreement thoroughly to ensure proper and safe usage.

The contents of this document may change without prior notice. The most current version can always be found at https://wisecure-tech.jp/samurai_key/support. For updates or corrections, please consult this link. Should you identify any errors in this document, we encourage you to contact our support center.

Blentity and SAMURAI Key are trademarks of WiSECURE Technologies Corporation. Other company and product names mentioned here may be trademarks or registered trademarks of their respective owners.

Please note that the illustrations in this document may not exactly match the actual product. We continuously strive to improve our products, which may result in changes to their specifications without notice.

WiSECURE is not liable for damages resulting from improper use of Blentity, non-compliance with instructions in this guide, or repairs and modifications performed by unauthorized third parties.

This product adheres to the FIDO standard and functions as an authenticator for passwordless and multifactor authentication. Its compatibility with various services following the FIDO standard may differ and is subject to change.

Be aware that if you forget your PIN and Passphrase, access to stored data will be impossible. WiSECURE does not offer data recovery services, so we strongly recommend backing up important data regularly.

WiSECURE cannot assure uninterrupted or error-free operation of Blentity. Users bear the risk of non-compliance with product instructions or using the product with incompatible devices.

As Blentity does not connect to WiSECURE's device network, WiSECURE is unable to access or decrypt data encrypted or stored with this product, including authentication keys. Consequently, WiSECURE bears no responsibility for user actions with Blentity or for any loss or damage of data.

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Product Information

1-1. Product Specifications

Main Unit Specifications

Product Name	Blentity Data protector with FIDO2（SAMURAI Key）
Compliance	FIDO2 Level 2, VCCI, CE, FCC
Interface	USB3.0
USB Connector Shape	Type C
Read/Write Speed (Maximum)	Read: 140MB/s Write: 45MB/s
Transfer Speed	USB 3.2 Gen1 (5Gbps)
Capacity	128GB
Format Type	exFAT、FAT32
Encryption Algorithm	Hardware-based AES XTS 256
Case Material	Plastic
External Dimensions	76 x 20.5 x 10 mm
Weight	13.6g

Adapter Specifications

Interface	USB3.0
Input Shape	Type C
Output Shape	Type A
Transfer Speed	USB 3.2 Gen1 (5Gbps)
Case Material	Plastic
External Dimensions	37.5 x 20.5 x 10 mm
Weight	5.6g

Note:

- Part of the storage capacity of this product is allocated for system use; therefore, the advertised storage capacity does not reflect the total usable space available to the user.
- The stated maximum transfer speed is based on tests conducted in our company's controlled environment. Actual speeds may vary depending on your specific setup and operating conditions.
- Please note that both the specifications and the physical appearance of the product are subject to change without prior notification. Back to top

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1-2. Partitions and Blentity Manager

The product has a total storage capacity of 128GB, divided into three main parts: the system partition, secure partition, and plaintext partition.

System Partition
Default configuration, only read is supported.
Contents include:
- Blentity Manager: A full-featured management tool that requires installation. For initialization, refer to "Install Blentity Manager".
- Blentity Manager Lite: A lite version of the management tool that does not require installation and can be quickly accessed on non-personal computers.
- User Manual (PDF): Provides detailed product guidelines and instructions.

Secure Partition and Plaintext Partition
After initialization, users can configure the capacity of these two partitions and format them using the Blentity Manager. Refer to "Partition Setup" for setup.

Secure partition: Provides hardware-based data encryption (AES 256 XTS) for securing sensitive data, accessible only after successful PIN verification in Blentity Manager.
Plaintext Partition: Suitable for general data storage and quick access, accessible in easy mode based on operational mode.

! Warning
Configuring partitions will delete all data and cannot be restored. Ensure you back up important data before transferring or formatting.
The system partition does not support writing; do not attempt to change its contents.
The two management tools cannot be used simultaneously.

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1-3. Supported Environments

Partitions and Management Tool Execution Environment:

Recommended Computer Specifications

Computers with USB 3.0 interfaces
Minimum 8GB of RAM

Supported Operating Systems

Windows	Windows 10 (ver 21H2) and later
Mac OS	Ventura and later

! Caution

- Operations via USB 3.0 cards or USB hubs are not guaranteed.
- Please use the latest version of each host controller driver.
- Execution is not guaranteed on Macs with Power PC.
- Windows RT, Starter Edition, Embedded, and Mobile are not supported.
- Due to the nature of the product, we cannot guarantee operation in all environments and device combinations.

FIDO Authentication Function Execution Environment

The authentication services provided by this product require the following FIDO2 supported browsers: Microsoft Edge, Mozilla Firefox, Google Chrome, Apple Safari. For the latest supported list, please visit the FIDO Alliance official website.

Recommended Execution Environment:

Windows	Chrome, Edge
Linux	Firefox
macOS	Safari

! Caution

- Before using the FIDO authentication function, please complete the initialization process.
- When using FIDO functions on a MAC, please close the management tool which requires higher execution privileges. This will ensure the function operates correctly.

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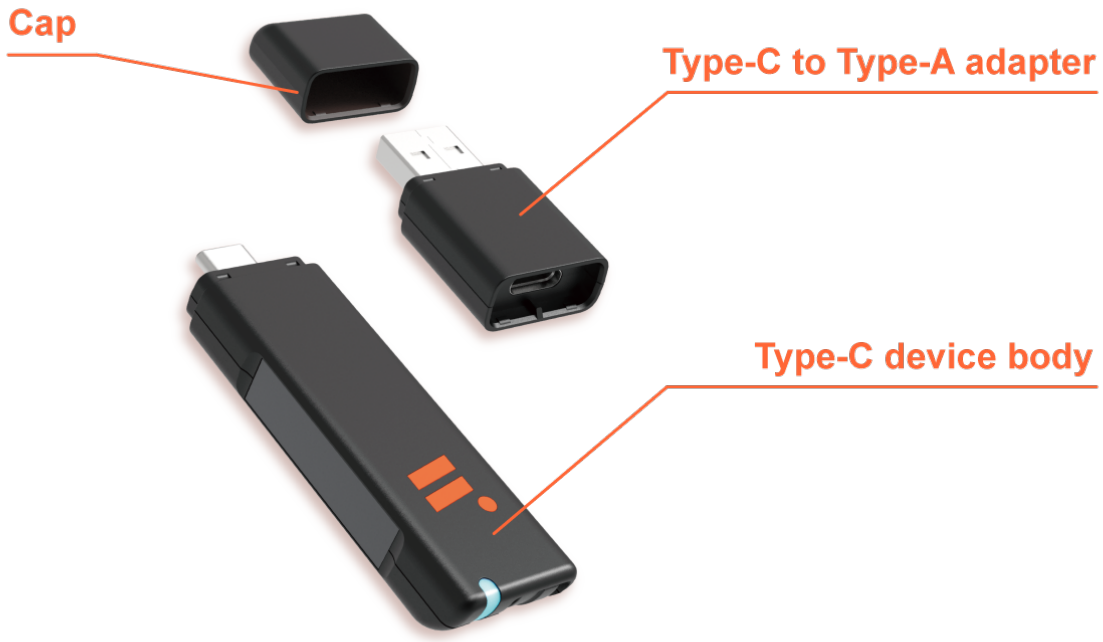
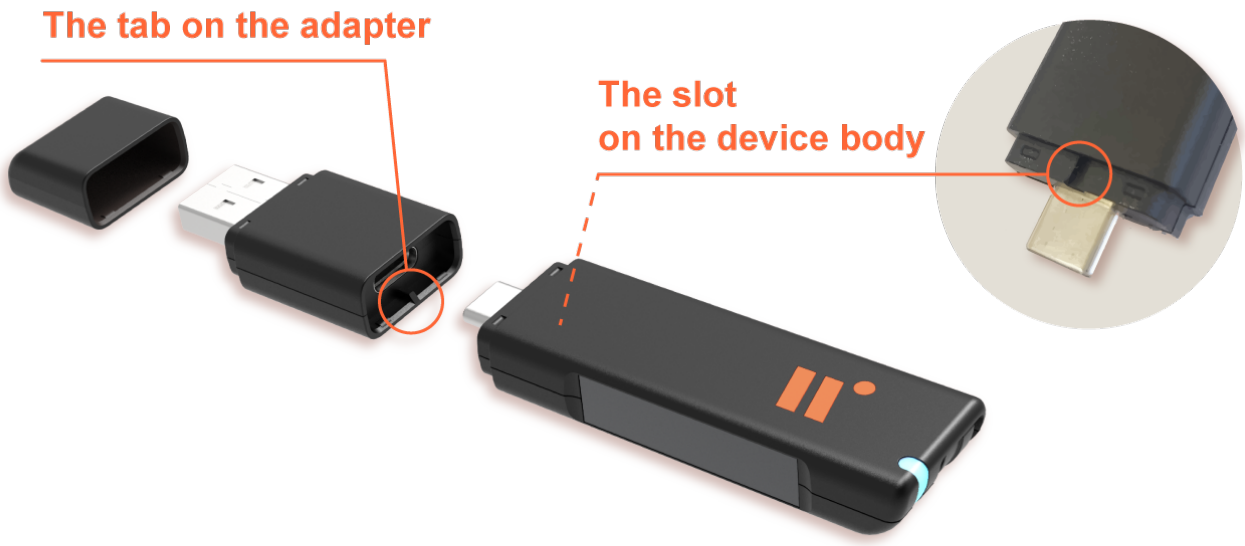
1-4. Names of Parts

Main Components



This product supports USB 3.0 data transfer speeds for efficient operation. To maintain these speeds, it is essential that the main body of the device and the adapter are connected in the correct orientation. Please carefully align the notch on the adapter with the groove on the device body to ensure a proper fit. An incorrect orientation will not allow a successful connection and may impede the device's performance.



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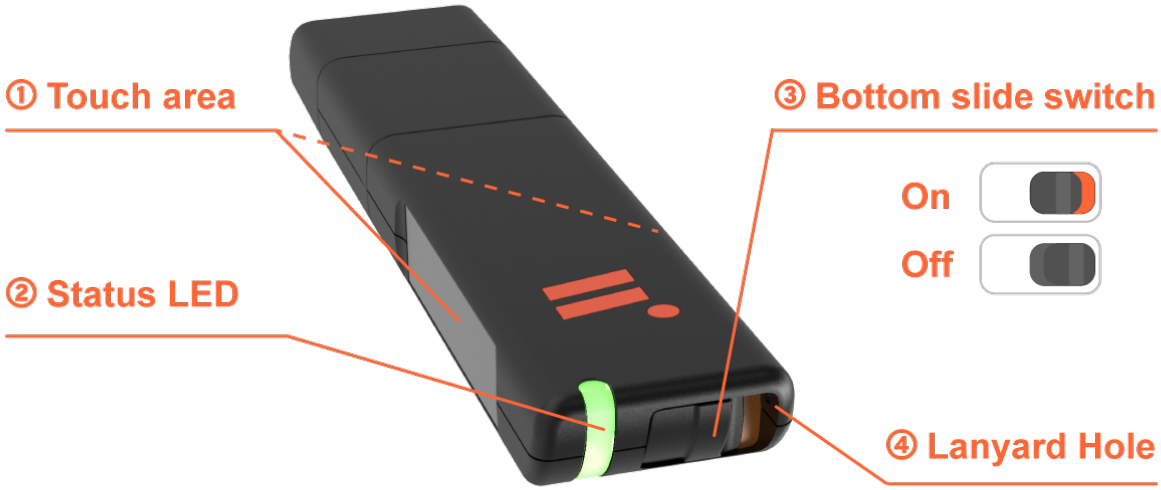

① Touch area

The metal areas on both sides of the body are equipped with touch sensors. When logging in, gently touch these metal areas with your finger as instructed to ensure that the authentication is being performed by a real person, not remotely or by a robot. This mechanism is not fingerprint recognition and does not record any biometric data.

② Status LED

Various device statuses, such as locking and unlocking the secure partition, are indicated through LED signals. Refer to the status LED list for more details.

③ Bottom slide switch

When the switch is on (orange color visible), the disk operation mode (Operation mode) is activated. In this state, based on the relevant settings, you can directly operate the device to access partitions. When the switch is off, the device enters the FIDO-only mode . For more details, refer to the sections on FIDO-only mode and Operation Mode.

④ Lanyard Hole

To prevent loss of the device, it can be carried using a lanyard.

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1-5. Status LED List

The following is ordered from highest to lowest priority according to the status indicators.

LED Status	Product Status
Solid White	Device is powered on
Solid Red	Not initialized, PIN locked, or device error
Red Blinking	Partition opening or waiting for touch
Solid Green	Secure partition is unlocked
Green Blinking	File access within the secure partition is in progress (file encryption/decryption operations)
Blue Blinking	Normal standby state (other partitions except for the secure partition are open)
Purple Blinking	Normal standby state (when no partitions are open)

Handling Solid Red Light Status

- If the device has not been initialized, please refer to section 2.4 for initialization procedures.
- If the PIN is locked, open the Blentity Manager and follow the guide at the top of the homepage to enter your Passphraseand reset the PIN code.
- If the red light remains solid after excluding these two factors, it indicates a device malfunction. Please refer to other troubleshooting methods or contact the support center for assistance.

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2. How to Use

2-1. Precautions

Please read the following precautions carefully and perform the actual operations before using this product.

About Passwordless and Multi-factor Authentication: This product is based on the FIDO standard and can be used as an authenticator for passwordless and multi-factor authentication. The usage of FIDO may differ according to each service's compatibility and can change. Please be aware of this.

About Loss of PIN and Passphrase: If you forget your PIN and Passphrase, you will not be able to access the stored data. Our company does not provide data recovery services, so it is highly recommended that you back up important data.

About the Backup Feature: This product plans to offer a backup feature in the future. For updates, please regularly check the product support website https://wisecure-tech.jp/products/samurai-key/support/. The update will require the use of the management tool (Blentity Manager). For details, refer to "2-8-5. Update"

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2-2. FIDO-only mode and Operation Mode

This product can switch between the following two modes via the Bottom slide switch:

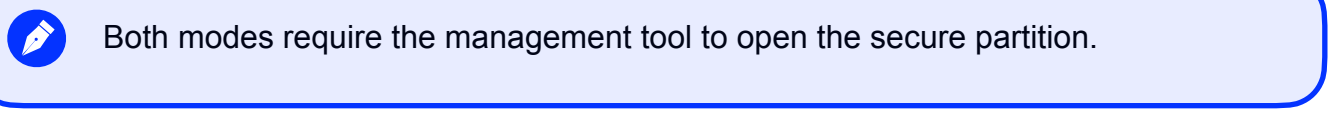
Operation Mode

The mode as the bottom slide switch is on (showing orange color)
In this mode, you can open System Partition and Plaintext Partition after operating the device according to the settings of Operation Mode.

FIDO-only mode

The mode as the bottom slide switch is off.
In this mode, any operation on the device (inserting into a computer, long-pressing the Touch area, etc.) will not open the partitions. This prevents partitions from popping up during authentication, which could interfere with the login process.

After switching modes, please unplug and replug the device for the new mode to take effect.



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2-3. Install "Blentity Manager"

For first-time use, please follow the steps below to install the management tool Blentity Manager in the system partition to proceed with the initialization process.

The steps for first-time use are as follows:
1. Confirm that the Bottom slide switch on the product is turned on (orange visible).
2. Insert into computer, press and hold the Metal areas on both sides of the device for about 3 seconds to bring up the system partition.
3. Install the management tool (Blentity Manager) from the partition. Upon opening, it will automatically guide you through the initialization process automatically.

Installation file paths in the system partition named BLENTITY:

For Windows user:
Windows > Manager Installer.exe

For Mac user:
Mac > Manager Installer.pkg

! Caution
The product must be initialized before FIDO authentication can be registered.

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2-4. Initialization

Before initializing, please install the management tool Blentity Manager. After opening the management tool, follow the guide to create a PIN and a Passphrase.

2-4-1. PIN

PIN is a protective mechanism for this product. Even if the device is lost or stolen, it cannot be used illegally without PIN.

Setting PIN

You can set a PIN of 8 to 63 characters, including upper and lower case letters, numbers, and symbols.

Using PIN

You will need to enter your PIN to perform FIDO authentication, unlock the secure partition, and use certain features of the management tool.

Changing PIN

You can change it at any time through "Settings > Change PIN" in the Blentity Manager(full version) Blentity Manager.

Locking and Unlocking PIN

If the PIN is entered incorrectly 8 times, or if an attempt is made to change the PIN using a non-official management tool for this product, the PIN will automatically lock. In this case, the status LED will show a solid red light. Please open the full version of the management tool, use the Passphraseto unlock and reset the PIN.

! Caution

Changing PIN with a non-product management tool will prevent you from opening the secure partition. In this case, please reset PIN through the Blentity Manager (full version).

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2-4-2. Passphrase

The Passphrase is a mechanism widely adopted in encrypted asset wallets, based on the industry standard "BIP39." During the initialization of this product, 12 random English words are generated as the Passphrase, used for the secure recovery of the master key of the device.

When would you use the Passphrase?

To unlock and reset PIN

If PIN entry exceeds the limit or is locked, you can enter this Passphrase to unlock and reset PIN.

To restore encrypted backup files (this feature will be available in the future)

If the device is lost, you can use this Passphrase on a new device to recover your master key (the key that can derive encryption keys), making it easy to restore your encrypted backup files on another device.

! Warning

- Please remember or securely store your Passphrase (a writable paper card is included in the product packaging).
- If the wrong Passphrase is entered 8 consecutive times, **the device will be forcibly restored to factory settings, and all data will be deleted.**
- If you forget your Passphrase, it is recommended to back up your data first, then restore the device to factory settings and establish a new Passphrase.

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2-4-3. Initialization Steps

Before initializing, please install the management tool “Blentity Manager”.
During initialization, the management tool will automatically guide you through setting up PIN and Passphrase. Below is the reference process.

1. As mentioned on the following page, please start by creating a PIN.

2. After creating PIN, click on the next step, where you will choose to obtain a new Passphrase or use a previously backed-up Passphrase.

3. After choosing to obtain a new Passphrase, a 12-word Passphrase will be automatically generated. Remember, copy, or write this down and keep it in a safe place. On the next page, you will need to enter the Passphrase in the correct order to confirm; you can also copy and paste it directly from this page.

4. On this confirmation page, after pasting or entering the Passphrase, click on the next step to begin the generation of the keys. Once the keys are generated, the initialization process is complete.

After initialization, you can perform the following operations:

Start Using FIDO Authentication Features
After the initial setup, you can start using the FIDO authentication feature of this product to achieve more secure and simple account protection in services that support FIDO. Please refer to "2-4. Passwordless Authentication."

Partition Settings and Activation
Once the initial setup is complete, you can choose to immediately proceed with setting up the partitions. After configuring the capacity and format of the encrypted and plaintext partitions, you can begin using the data storage function.

! Caution
If the disk partition has not been configured, it remains unformatted. Therefore, even if you click the "Open Encrypted Partition" button and enter the correct PIN, the encrypted partition will not be visible. Please go to "Partition Management > Partition Setup" to set it up.

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2-5. Passwordless Authentication

The authentication services provided by this product require the following FIDO2 supported browsers: Microsoft Edge, Mozilla Firefox, Google Chrome, Apple Safari. For the latest supported list, please visit the FIDO Alliance official website.

Recommended Execution Environment:

Windows	Chrome, Edge
Linux	Firefox
macOS	Safari

! Caution
- Before using the FIDO authentication function, please complete the initialization process.
- When using FIDO functions on a MAC, please close the management tool which requires higher execution privileges. This will ensure the function operates correctly.

After registering and binding the security key, you can sign in more securely using the designated PIN and physical security key.

Example: Registering and Logging in with your Blentity to Microsoft

Registration Steps

1. Access "My Microsoft Account" and open the "Security" section.
2. Proceed to "More security options" and select "Add a new way to sign in or verify."
3. Choose "Use a security key" and select "USB device," then click "Next."
4. Insert your Blentity device into the computer's USB port.
5. Enter PIN
6. Touch the device's touch area (metal parts on both sides) to complete the registration and binding of the security key.

Login Steps

1. Select Login Option: Go to the Microsoft homepage, click "Sign in."
2. Choose "Sign-in options" and select "Sign in with a security key."
3. Insert your device into the computer's USB port.
4. Enter PIN
5. By touching the metal part of the device, the login with the security key is completed, and access to the account is successful.

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2-6. Partition Setup

Before using the data storage function of this product, capacity allocation and formatting must be done through the full version of the management tool in "Partition Management > Partition Setup". Both the encrypted partition and the plaintext partition can be configured.

Caution:
This operation requires administrator rights on the computer.

Warning:
This operation will erase all data within the partition, and it is irreversible. Be sure to back up your data beforehand.

Instructions:

1. Go to "Partition Management > Partition Setup".
2. Allocate capacity for the encrypted partition and the general plaintext partition.
3. Set the partition name. This setting is limited to uppercase letters; you can change the partition name at any time in your computer's file manager (such as Windows' "File Explorer" or Mac's "Finder").
4. Choose the file system format. This product supports ExFat and Fat32.
5. If a warning appears about the disk being unreadable, choose [Ignore].
6. Follow the system prompts to enter the administrator password for the computer.
7. Once the Partition Setup is complete, remove the device and then reinsert it.

How to Use the Partition:

Please refer to "2-6. Open Secure Partition" and "2-8-2. Set Operation Mode".

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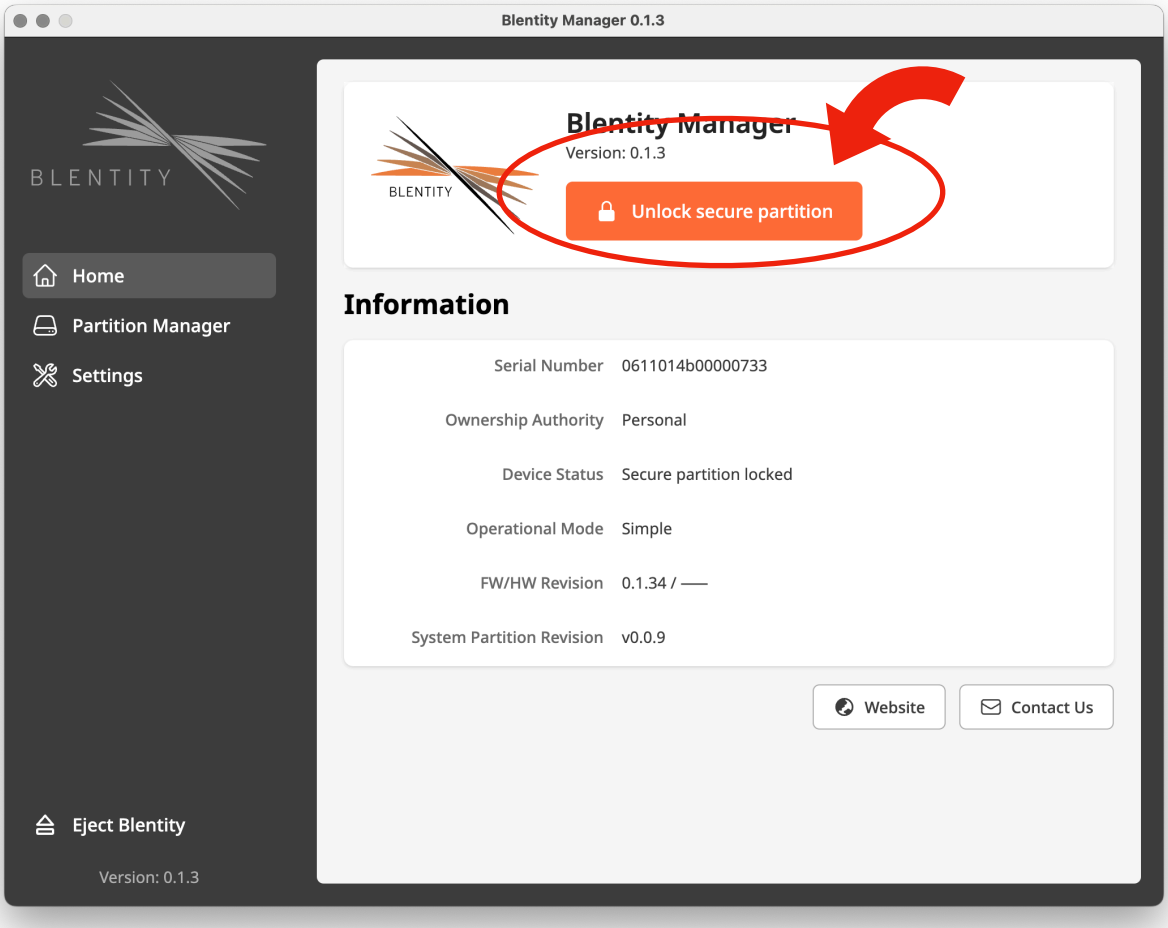
2-7. Opening the Secure partition

Blentity provides the following two methods to access the secure partition:

Using the full version of Blentity Manager

Click "Unlock secure partition" button on the homepage of Blentity Manager (full version). After entering PIN, the secure partition will be opened.



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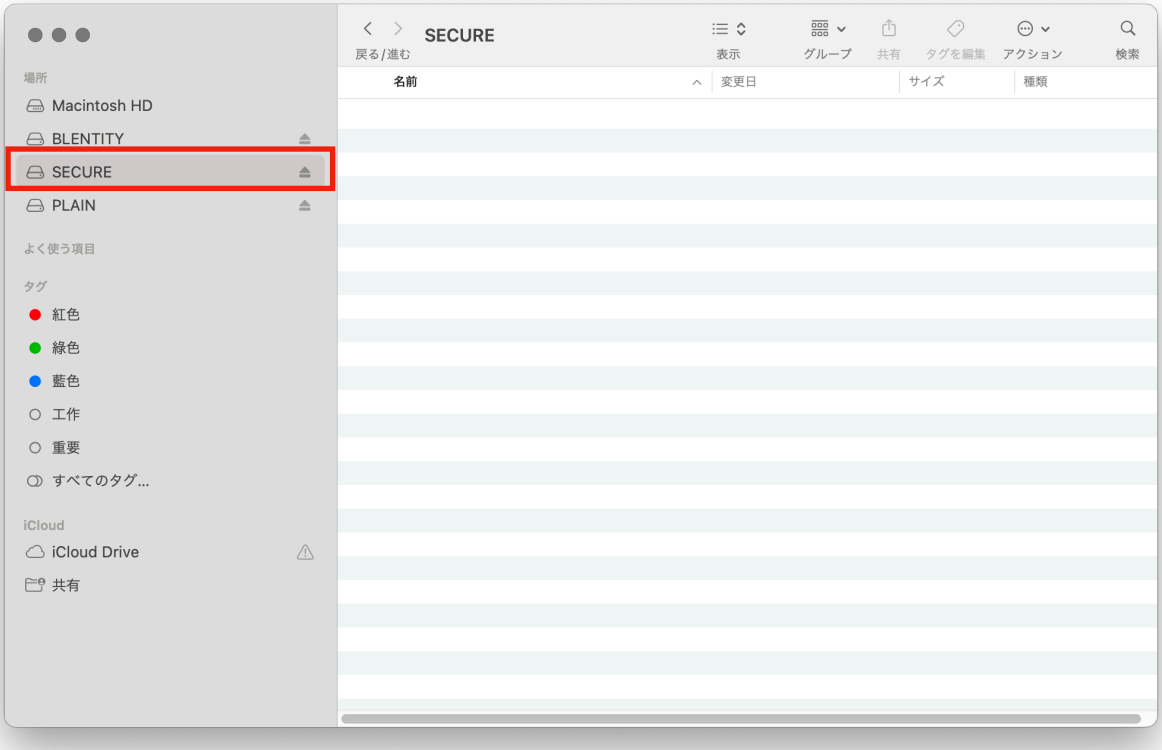

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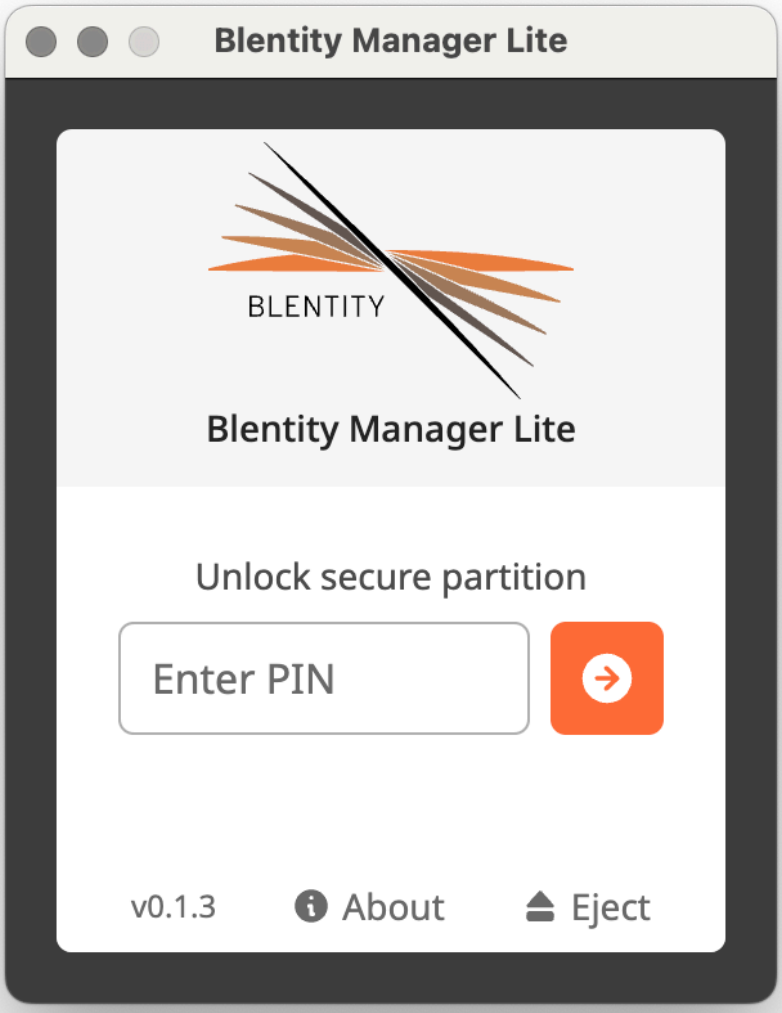
Using Blentity Manager Lite

In operation mode, open the system partition, click on the Lite version of the management tool, and directly enter PIN to open the secure partition.
After using the secure partition, you can click "Close and Eject the Device." The secure partition will be locked, the device will be safely ejected, and the program will end.



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2-8. Other Features of the Blentity Manger

2-8-1. Chang PIN

Change PIN under "Settings > Change PIN".

> ! Caution
> If you change PIN using a third-party tool other than this product's management tool, your PIN would be locked. You must reset PIN by the passphrase through Blentity Manager (full version).

2-8-2. Operation Mode Setup

When the Bottom slide switch is on (showing orange color), the product enters "Operation Mode," where you can operate and access the system partition and the plaintext partition. Set this under "Settings > Operation Mode Settings".

Blentity offers the following three operation modes:

Default Mode
No partitions will open when the device is connected. Hold the Touch area on the sides of the device for about 3 seconds to open "System Partition and Plaintext Partition." Hold for another 3 seconds to close all partitions.

System-only Mode
The "System Partition" opens automatically when the device is connected.

Easy Mode
The "System Partition and Plaintext Partition" opens automatically when the device is connected.

	System Partition（RO）	Plaintext Partition（RW）	Secure Partition（RW）
Default Mode	Close by default Opens when held for 3 seconds*	Close by default Opens when held for 3 seconds	Closes by default; opens upon app authentication
System-only Mode	Open by default*	Close	
Easy Mode	Open by default*	Open by default*	

Table1. Operation mode for partitions

*=the bottom slide switch must be on
RW：Read / Write
RO：Read Only

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2-8-3. Language Setup

The product offers interfaces in Chinese, English, and Japanese. Adjust this in "Settings > Language Setup".

2-8-4. Factory Reset

This function will reset the product to its factory uninitialized state. Perform this operation under "Settings > Factory Reset".

> ! Warning
> This operation will **clear PIN, Passphrase, all credentials, authentication information, and data, and cannot be reversed.** Please be sure to back up your data beforehand.

2-8-5. Update

The product can be updated through the management tool to ensure the best quality and experience.

Preparation Before Update

- Make sure the device has been successfully initialized.
- Make sure the network connection is normal.
- Be sure to back up your data beforehand.

> ! Warning
> This operation **may clear all data within the partition and cannot be reversed.** Make sure to back up your data beforehand.

Update Steps

1. Insert the device into a computer that meets the specifications.
2. Open the Blentity Manager(full version) and wait about ten minutes for the update file to be retrieved. Removing the device during this process will interrupt the retrieval.
3. Once retrieved, the Manager will display an update button at the bottom of the homepage or under "Settings > Update". Click to complete the update.

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3. Troubleshooting

If you encounter any of the following problems, please refer to the corresponding solutions.

Device Not Recognized by Computer

Connect the device directly to the computer's USB port, not through a USB hub.
After connecting, check if the status LED lights up.
Ensure the USB 3.0 port is securely connected and undamaged.
If the USB 3.0 interface card driver is outdated, please update it to the latest version.

Files Corrupted After Resuming from Sleep, Standby, or Hibernate Mode

Before entering sleep, standby, or hibernate mode in Windows or Mac, save your files and unplug the device to avoid corruption of files being accessed.

Forgotten PIN or Unable to Verify Successfully

- First, check for typing errors.
- If PIN is forgotten or entered incorrectly more times than the limit, it will be locked. In this case, use the Passphrase generated during initialization to reset PIN.
- If you have changed the FIDO PIN using a non-Blentity Manager tool, the PIN will be locked. If this occurs, open Blentity Manager and follow the instructions to reset PIN.

Encrypted Partition Not Found in Slot

Please ensure that initialization and formatting of the encrypted partition are complete. After initialization, if formatting is not done, the encrypted partition will not be visible in the slot even after the correct unlock operation. Kindly go to 'Partition Management > Partition Setup' to allocate and format the space.

Screen Stops When Unlocking PIN with Passphrase

The key derivation process after entering the Passphrase takes about 10 seconds, which may vary depending on your computer. Please wait patiently. If the wait exceeds one minute, please contact the support center.

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4. FAQ

Q: Is mobile device support, Windows Server, or Linux OS available?
A: These operating systems are not within our support range. If you use this product with these systems, you do so at your own risk. For supported operating systems and browsers, please refer to "1-3. Supported Environments."

Q: Is software installation required?
A: Installation of the full-featured management tool is necessary for initialization. After initialization, the secure partition can be accessed through the Lite tool. The product can be used on computers where the tool is not installed.

Q: What should I do if I forget my PIN?
A: If you forget the PIN, you can unlock it using the 12-word Passphrase generated during initialization. If the Passphrase is also lost, data loss will result, so it's very important to back up data regularly and store the Passphrase securely.

Q: What happens if I enter the wrong PIN repeatedly?
A: If the wrong PIN is entered 8 consecutive times, it will automatically lock, and you will need to use the Passphrase to unlock it. After successful unlocking, you can use it normally again.

Q: Can I change the PIN?
A: Yes, you can change the PIN in [settings > change PIN] without affecting the data already stored.

Q: Will the device automatically lock if not operated for a certain time?
A: This product does not have an auto-lock feature. When leaving, please unplug the device or unmount the secure partition.

Q: If used with Azure AD, will Windows automatically lock when the device is removed from the PC?
A: It will not automatically lock. You only need to use the device during login and can safely remove it afterward.

Q: Why is the number set different from the number displayed?
A: The disk space set may be "larger" than the space displayed on the security partition. This is because 1GB equals 1024MB, and if your set value is not divisible by 1024, this remainder will not be accounted for during the setting but will eventually be allocated to the secure partition. Therefore, the secure partition will be larger than the set value after configuration.

For more FAQs, please refer to the product support page:
https://wisecure-tech.jp/products/samurai-key/support/

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5. Technical Support

Warranty

This product comes with a 1-year warranty service starting from the date of purchase. Warranty service cannot be provided for damages and malfunctions caused by abnormal use. If the product is damaged upon arrival, please contact us immediately for a replacement (excluding damaged packaging).
To safeguard your rights, please visit https://wisecure-tech.jp/warranty

Technical Support

Please submit questions through the "Contact Us" within the management tool; the email will automatically include the product serial number and version information. If it is beyond the warranty period, a quote will be provided based on the repair needs. Additionally, your authentication information and data may be at risk of deletion during repair and inspection, so please back up in advance.

Support Center

WiSECURE Technologies Corporation
Product Support Page: https://wisecure-tech.jp/products/samurai-key/support/
Customer Service Email: info@wisecure-tech.jp (Please contact us through the "Contact Us" feature within the Blentity Manager tool to ensure we can quickly access your device information.)
Office Hours: 10:00—17:00, Monday to Friday (excluding holidays)

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