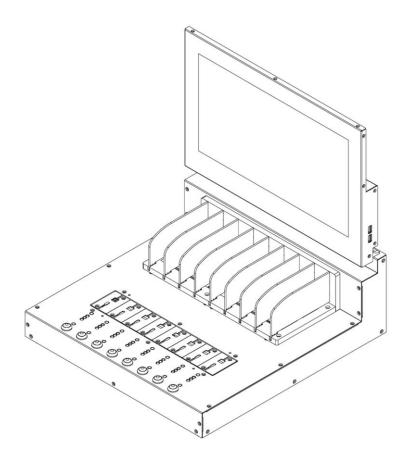


GT Series

SATA/SAS
Hard Drive and SSD
Data Eraser

User Manual v A.04



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Product Disclaimer

U-Reach is not accountable for any incidental or consequential damages, including, but not limited to property harm, loss of time or data from use of any U-Reach products or any other damages attributable to product malfunction or failure of including without limitation, those attributed to reliance of the materials provided, costs of product replacement, loss of use, data or profits, delays or business interruptions, any principle of legal responsibility arising from or in reference to the use, overall performance, delays in servicing, or lack of ability to render service of any U-Reach product. U-Reach makes every effort to ensure proper function of all products. However, the customer is responsible to verify that the output of U-Reach product meets the customer's quality requirement. The customer further acknowledges that improper use of U-Reach products, software program, and/or hardware issues can cause loss of data, defective formatting, or unreliable data loading. U-Reach will make efforts to resolve or repair any issues recognized by customer either within the warranty period or on a time and materials basis.

Specifications and features are subject to change without notice or obligation.

Warranty

U-Reach provides a basic one-year parts and labor warranty for all its products, excluding cables, adapters, and other consumable items. An extended warranty may be purchased. Telephone and email support is available for the life of the product as defined by U-Reach.

All warranties are specific to market region and will be defined per market region in which the product was purchased.

Piracy Statement

U-Reach accepts no responsibility for copyright infringement or misuse of any U-Reach equipment. Copying any form of data (audio, video, or software) without the permission of the copyright holder is illegal. It is the sole responsibility of the user to ensure that the legal copyrights of the copyright owners are respected.

Before You Start

Important Notice

- Carefully read the entire manual before operating. Damage incurred due to noncompliance with our operating instructions will void the warranty.
- Never turn off the power while the firmware is updating.
- While in use, do not move the machine or remove devices.
- Use only approved, stable power sources.
- Devices will operate at high temperature during high-speed tasks. Please wear protective gloves to prevent burns when handling devices.
- Devices working in high temperature may cause it to slow down or even shut down.
 Please make sure the devices are not overheated.
- Ensure machine and operator are properly grounded to prevent ESD.
- Static electricity may cause error. Please pay attention to the machine's environment and operator's equipment. Purchasing static electricity elimination equipment to avoid static electricity shock while in high static electricity areas.
- Store the equipment safely when not in use and keep out of the reach of children.
- Use product only in a clean, dry, dust free, and ventilated area. Liquids or foreign debris can severely damage the machine.
- Do not place vases, flowerpots, cups, cosmetics, medicines, small metal parts, or containers filled with water or any other liquid on/near this product. If liquid overflows or such objects or substances fall into the machine, it may cause damage to the product, which may seriously result in fire or electric shock.
- Do not place heavy objects on the product because the product may overturn and cause injury.

Product Care and Maintenance

Use a soft, dry, lint-free cloth and wipe the screen gently. If you see scratches on the screen, it may be a mark. Gently wipe it off with a soft, dry cloth. If you are unable to remove the stain, use a soft, lint-free cloth with water or lens cleaner, and do not allow the screen to come into direct contact with the liquid.

Notice Symbols

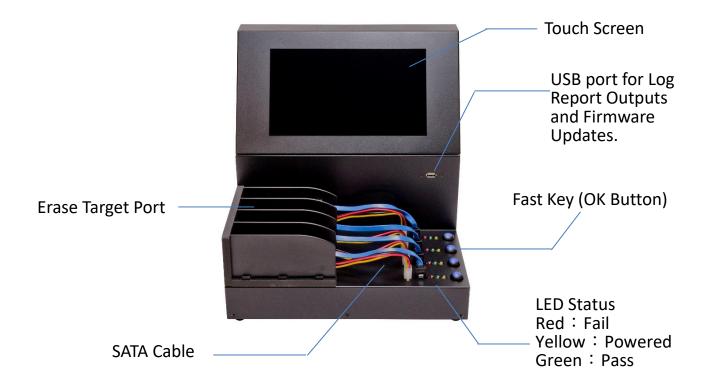
Special items, procedures, or notes to be observed prior to use.

- Note: Refers to related operations, special details, tips, or suggestions for operational
 effectiveness.
- Caution: Refers to procedures that need to be adhered to or precautions.

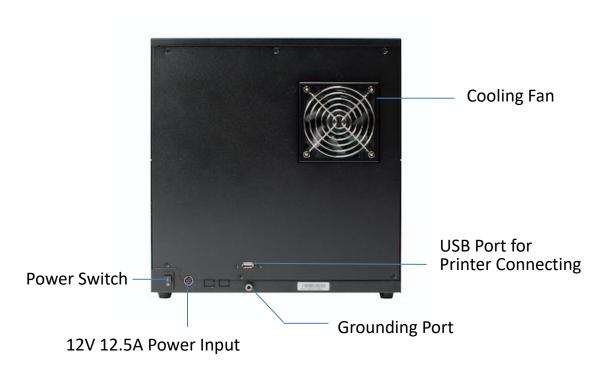
Product Introduction

1. GT864

■ Front View :



■ Back View :



■ Standard Package



Machine with SAS cable x 4



12V DC Power Adaptor x 1



Power Cord x 1



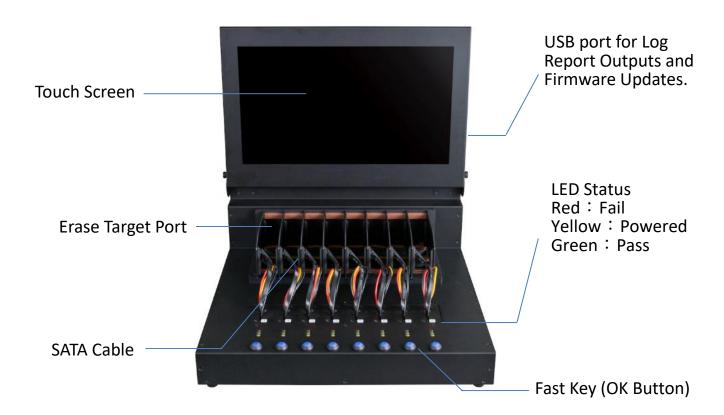
Grounding Cable x 1



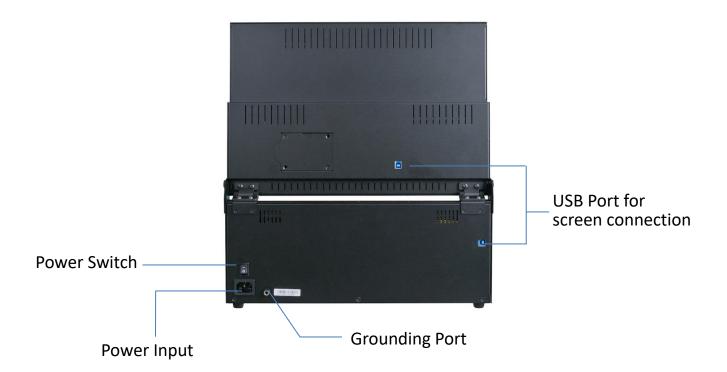
User Manual x 1

2. GT868/GT8616

■ Front View :



■ Back View :

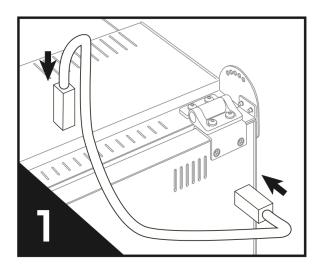


■ Standard Package

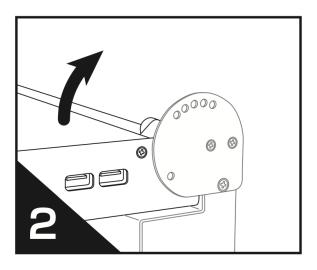


How to Connect Screen Cable?

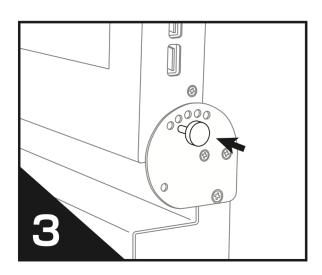
- 1. Before powering on, please connect the cables at the back of the screen and the system.
- **2.** After confirming the screen angle, securely tighten the screws on both sides to avoid collisions with the system/device during operation.



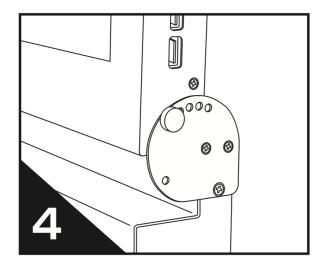
Install the screen connection cable.



Adjust the screen angle.



Tighten the securing screws of the screen.

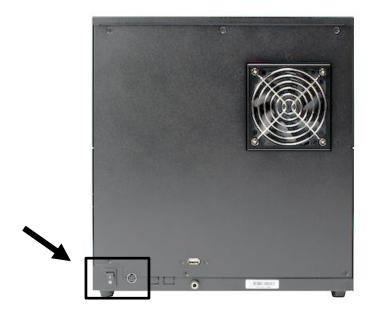


Finish.

How to Turn On / Turn Off the System?

1.Turn On

Well connect the power cord and press the power switch from the back.



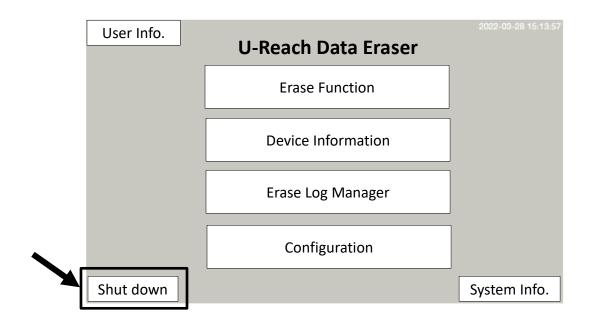
After the completion of the booting process, the display will show as below.



Note: It may take about 30-40 seconds to startup.

2. Turn Off

Press "Shut down" at the bottom left corner of main screen. The system will store the settings and erase records, then turn off. While the screen shows "The shutdown process has been completed. Please turn off the power," please turn off the power switch on the rear of the machine.



Start shutdown procedure ...
Save all parameters ...

Close all internal programs...

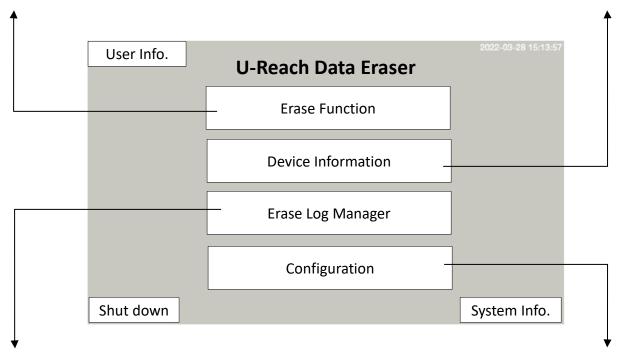
The shutdown procedure has been completed. Please turn off the power.

Note: Please follow the shutdown procedure carefully. If turn off the physical power button directly, there may be a risk of losing erase settings or records.

3. Function List

Erase device(s) by selected mode and check if the device(s) has been erased.

Displays the status of device(s), e.g., serial number, model name, capacity, SMART Info, and content.



The erasure records can be viewed and output as Erase Certificate through USB pen drive or printer.

Includes all the settings of erase functions and machine.

Main Options	Function List
Main Screen	User Info.System Info.Shut down
Erase Function	 Standard Erase Function (Maximum Q'ty: 8) Command Erase Function (Maximum Q'ty: 8) Verify Erased Device
Device Information	 SMART Info. Device Content Unlock Device (Only appears when the device is locked.)

	• Erase Log List (Select an erasure record on the screen to check detail.)	 See More (Check SMART Info. of the device.) Print (Print out selected erasure certificate.) Save File (Output erasure certificate to an USB drive.) EXIT
 Select Range (Show the erasure list by Clear ALL logs Set Report Type 		certificates to an USB drive.) re list by selected time.) of report. The complete report includes the device.)
	● Erase Setup	 Setup Standard Erase Function (Maximum Q'ty: 8) Setup Command Erase Function (Maximum Q'ty: 8) Erase Parameters
Configuration	AdvancedUtility	 Export Language Pack Install Language Pack Reset Printer Driver Setup Password Edit User Info. Active new function menu
	Adjust Time / DaSystem UpdateLanguage	ate

^{*}Specifications subject to change without notice.

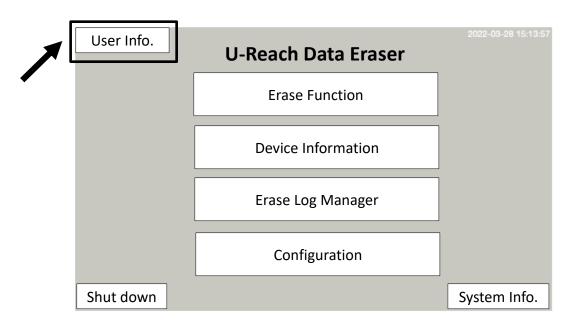
^{*}The function names of different languages may vary from region to region, and the company reserves the right to name product functions without prior notice.

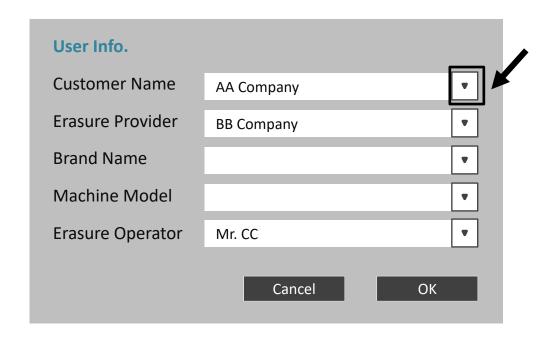
Administrator Settings

Before starting, it is necessary to complete user information for Erase Certification.

1. Select a username.

Press "User Info." at the upper left corner of main screen and then select the name at drop-down menu, including Client's Company, Service Company, Operational Staff, etc.





Take above setting as an example, the Erase Certification will show as below:

SSD/HDD Erase Certification

Doc. No.: <u>00000026</u>

EUID: 2F40-009E-73CC-8D07 (12096-00158-29644-36103)

Customer Name: _AA Company__

Disk Information

Туре	SATA
Model	Samsung SSD 850 PRO 256GB
Version	EXM04B6Q
Serial No.	S37ENX0JB08981J
Capacity	238.47GB(LBA:500118192)
НРА	Doesn't exist.
DCO	Doesn't exist.
Sector Size	512

Erase Information

Erase Method: NIST Purge(SATA)+VER

Skip Bad Sectors (Times)(Error/Max Allow): 0 / 99999999

Skip Bad Sectors (Range): 32 (16KB) Start Time: 2024-03-07 09:55:02

Elapsed Time: 00:00:52

The First Bad Sector (LBA): None Skipped Bad Sector Capacity: None

Result: Success

Pass #1 - NIST SP-800-88 Purge (SATA)
Pass #2 - Verify 10% OK (start LBA:A467800h)

Additional Information

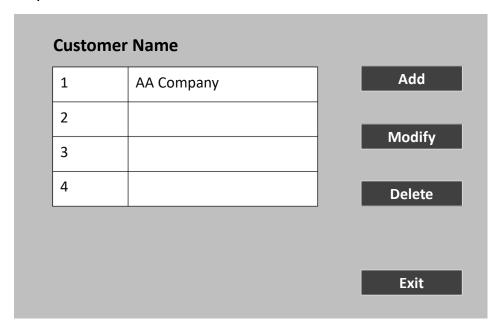
- 1. I hereby state that the data erasure process has been carried out in accordance with the given instructions.
- 2. Erasure process complies with NIST SP-800-88 data sanitization standard
- 3. For more information regarding this report, please contact us at info@ureachinc.com

Erasure Provider: BB Company

Erasure Operator: Mr. CC

2. Edit the username.

If need to add new names into the list, please set it at function "Configuration -> Advanced Utility -> Edit User Info."



How to Erase Device(s)?

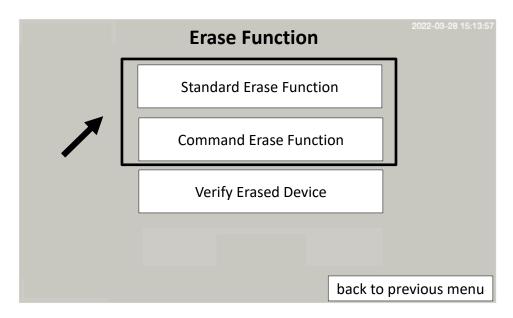
This section explains how to perform erase functions.

Step 1: Insert the device(s).

Connect cables with devices.

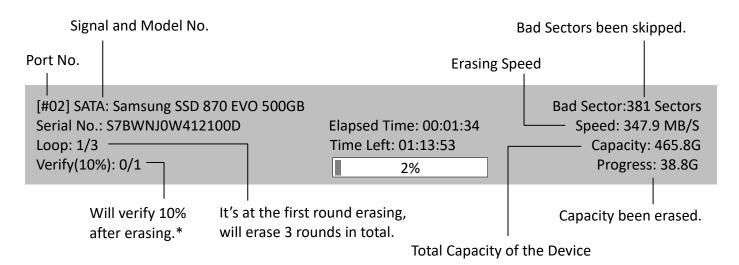
Step 2: Execute the specified erase function.

Find the erase function at "Erase Function -> Standard Erase Function" or "Erase Function -> Erase Command" and perform it. During erasing, the device information and progress will show on the monitor.



Note: The files and data in the drives cannot be recovered after being erased. Please make sure you have backed up all required files before operation.

Example for executing DoD 5220.22-M:

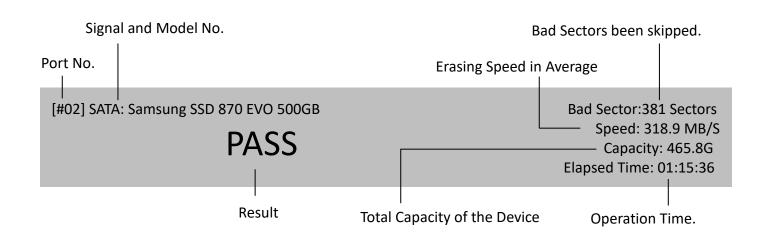


^{*}Setup at "Configuration -> Erase Settings -> Setup Parameter -> Verify Percentage" before erasing. The machine will double-check if the hard drive has been completely erased.

Note: For more information, you can get into the next page by touching the port on the screen. It shows some of erase settings and the detail information of device, including SMART Info.

Step 3: Erasing is complete.

The device information and result will show on the monitor. (Pass: shown by green; Fail: shown by red.)



Set Erase Function

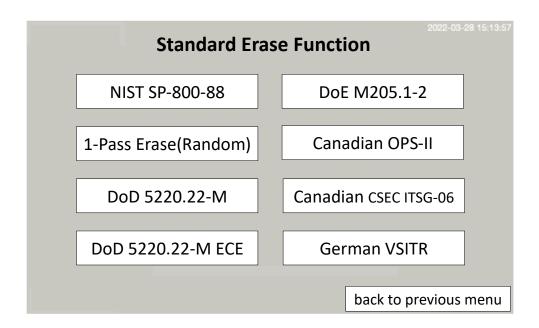
1. Standard Erase Function

Users can select their preferred erase function to show on the main menu. Go to "Configuration -> Erase Setup -> Setup Standard Erase Function". Pick out preferred erase functions (maximum 8 functions) by clicking the erase function list.

	Setup Sta	andard Erase Function (Maximum Q'ty:8)
1	?	#01 NIST SP-800-88
2	?	#02 1-Pass Erase(Random)
3	?	#03 DoD 5220.22-M
4	?	#04 DoD 5220.22-M ECE
5	3	#05 DoE M205.1-2
	3	#06 China BMB21-2019
6	3	#07 Canadian OPS-II
7	3	#08 Canadian CSEC ITSG-06
8	?	#09 German VSITR
		:

Press "?" can show the description of the erase function.

Functions will show by the sequence of selection.

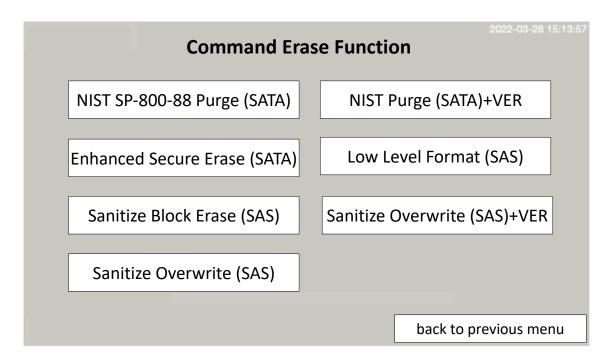


2. Command Erase Function

Users can select their preferred erase function to show on the main menu. Go to "Configuration -> Erase Setup -> Setup Command Erase Function". Pick out preferred erase functions (maximum 8 functions) by clicking the erase function list.

	Set	tup Comn	nand Erase Function (Maximum Q'ty:8)	
1		?	#01 NIST SP-800-88 Purge (SATA)	
2		?	#02 Enhanced Secure Erase (SATA)	
3		?	#03 Sanitize Block Erase (SAS)	
4		?	#04 Sanitize Overwrite (SAS)	
5		?	#05 NIST Purge(SATA)+VER	
		?	#06 Enhanced Secure Erase(SATA)+VER	
		?	#07 Sanitize Block Erase(SAS)+VER	
7		?	#08 Sanitize Overwrite(SAS)+VER	
6		?	#09 Low Level Format (SAS)	
			:	
		Pre	ess "?" can show the description of the erase function	

Functions will show by the sequence of selection.



Note: Only supported device is capable to run Command Erase Function.

Caution: Interrupt Command Erase could cause the device(s) been locked. Please refer to "How to Check Device Information" section to unlock device(s).

Set Erase Parameter

Go to "Configuration -> Erase Setup -> Erase Parameters" to check the settings before erase.

Verify Percentage (%)	Sets the percentage of verify from 10 to 100%.
Skip Bad Sectors (Times)	Skip bad sectors during Erase. Bad sectors can be set as unlimited or at a value from 0 to 99,999,999.
Skip Bad Sectors (Range)	Set the skip unit when an error occurs, you can set Kbyte/Mbyte/Sectors with value from 0 to 99999999. The default setting is 32 Sectors.
Erase Pattern	Sets random character written per byte or random character written in a set of big area.
Clear HPA at ERASE	Sets to clear HPA setting during erase.
Timeout (sec)	Sets the amount of time the data eraser should wait for the HDD device(s) to respond. Timeout time can be set a value from 1 to 99999999 seconds. The default setting is 30 seconds.
Retry (Times)	Sets how many times the data eraser should try if there is no response from the device(s). Timeout retry can be set a value from 0 to 99999999 times. The default setting is 0 time.
Minimum Erase Speed (MB/s)	Allows user to disable or set minimum threshold speed and the tolerance time when device does not reach the minimum speed during erase. The default setting is 0.
LED Light Mode	Sets the color of the LED light that is displayed if there are bad blocks detected after erasure. The default color is red and green, but it can be further configured to change to green.
Restore Defaults	Restores all settings back to manufacturer defaults.

Set Machine Time

The user can set the time display on the system, and it will show in the upper right corner of the screen. Go to "Configuration -> Adjust Time/Date" to set the time of machine.

Caution: All the erase jobs will be record according to machine time.

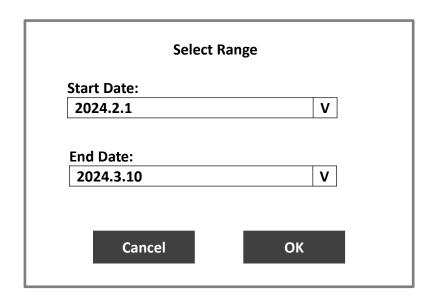
How to Generate an Erase Certificate?

The erasure record can be reviewed at function "Erase Log Manager" or output as an Erase Certificate.

Eras	se Log Manager			
No.	Test Time	Elapsed	Erase Method	Model Name
001	2024-02-02 15:46:54	00:00:06	NIST SP-800-88 Purge	Samsung SSD 870EVO 500GB
002	2024-02-05 15:07:54	Abort	NIST SP-800-88	Samsung SSD 870EVO 500GB
003	2024-02-19 17:38:44	00:00:03	NIST SP-800-88 Purge	ADATA SP900
004	2024-03-07 09:54:14	00:00:06	NIST SP-800-88 Purge	ADATA SP900
	Print	Т	Save File	Select Range
	Clear All Logs		Set Report Type	back to previous menu

Select Range:

Select the time range of erasure operation, the erasure records will list on the screen.



Set Report Type:

There are two kinds of Erase Certificate.

1. Complete Type

Includes SMART Info. and System Information.

SSD/HDD Erase Certification

Doc. No.: <u>00000025</u>

EUID: FD1E-931C-10F9-C088 (64798-37660-04345-49288)

Customer Name: __

Disk Information

Туре
Model
Version
Serial No.
Capacity
HPA
DCO
Sector Size

Erase Information

Erase Method: Skip Bad Sector Skip Bad Sector Start Time: 20 Elapsed Time: The First Bad Skipped Bad Se Result: Success

Additional Inform

 I hereby st with the giver
 Erasure pro

Pass #1 - NIST SP

3. For more in

Erasure Provider:

Erasure Operator:

Print at: 2024-03-0

Smart Information

ID	Description	Normalized	Worst	Threshol d	Raw Value
05	Reallocated Sector Count	100	100	10	0
09	Power-On Hours Count	99	99	0	1615
0C	Drive Power Cycle Count	95	95	0	4324
B1	Wear Leveling Count(ID:177)	94	94	0	335
В3	Used Reserved Block Count (total)	100	100	10	0
B5	Program Fail Count (total)	100	100	10	0
B6	Erase Fail Count (total)	100	100	10	0
B7	Runtime Bad Block (total)	100	99	10	0
BB	Uncorrectable Error Count	100	100	0	0
BE	Airflow Temperature degree C	79	48	0	21
С3	Program Failure Block Count	200	200	0	0
C7	Total Count of Write Sectors	99	99	0	812
EB	Good Block Count, System Block Count, Good Block Rate	99	99	0	1655
F1	Total LBA Writes	99	99	0	161897569390

The system performs sanitization.

Core Software: U-Reach Data Eraser

Machine Model: GT8616

Machine ID: 07168.33909.12568.21608

Machine Version: 2.01.19
Build Date: 2023-12-21
Core Module: HD4844SAS 2.54.2
Core Version: 4659-2023110801

Print at: 2024-03-07 09:57:46

2. Brief Type

Ignores SMART Info and System Information.

SSD/HDD Erase Certification

Doc. No.: 00000025

EUID: FD1E-931C-10F9-C088 (64798-37660-04345-49288)

Customer Name: AA Company

Disk Information

Туре	SATA
Model	Samsung SSD 850 PRO 256GB
Version	EXM04B6Q
Serial No.	S37ENX0JB08981J
Capacity	238.47GB(LBA:500118192)
НРА	Doesn't exist.
DCO	Doesn't exist.
Sector Size	512

Erase Information

Erase Method: NIST SP-800-88 Purge (SATA)

Skip Bad Sectors (Times)(Error/Max Allow): 0 / 99999999

Skip Bad Sectors (Range): 32 (16KB) Start Time: 2024-03-07 09:54:14

Elapsed Time: 00:00:06

The First Bad Sector (LBA): None Skipped Bad Sector Capacity: None

Result: Success

Pass #1 - NIST SP-800-88 Purge (SATA)

Additional Information

- 1. I hereby state that the data erasure process has been carried out in accordance with the given instructions.
- 2. Erasure process complies with NIST SP-800-88 data sanitization standard.
- 3. For more information regarding this report, please contact your erasure supplier.

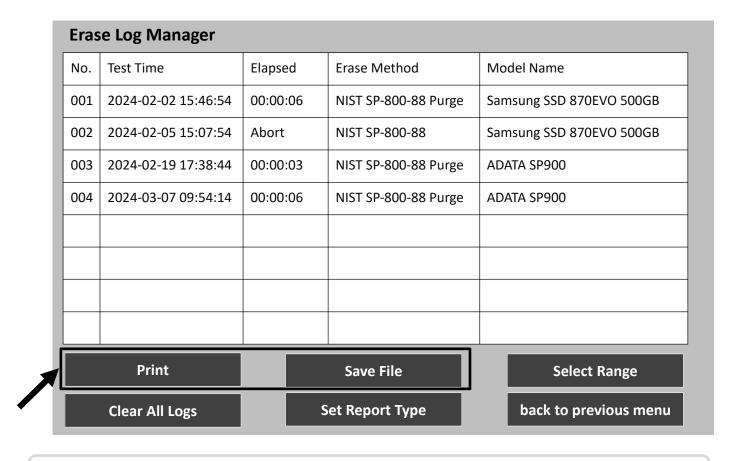
Erasure Provider: BB Company

Erasure Operator: Mr. CC

Print at: 2024-03-07 14:14:17

• Generate a batch of erasure certificates:

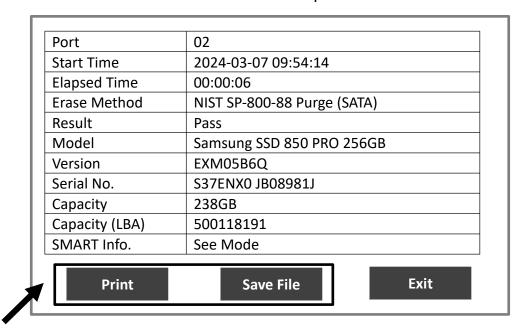
Press "Print" to output the certificate via printer or press "Save File" to store the certificates on an USB pen drive.



Note: The format of the USB flash drive must be FAT16 or FAT32.

Generate a single erasure certificate:

Select one record from the list. Then, press "Print" to output the certificate via printer or press "Save File" to store the certificates on an USB pen drive.



How to Connect a Printer?

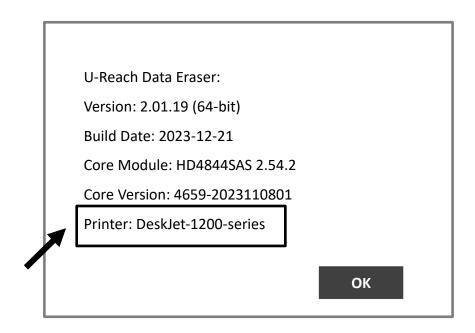
Step1: Link the Printer.

Connect the printer through an USB cable. The USB port is on the right side of the Data Eraser.

Step2: Check Printer's Information.

Wait for a few seconds for connection. Once the linkage is done, the printer's model no. will show at "System Info."

Example:



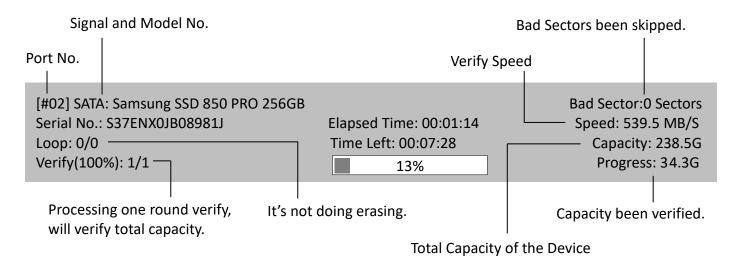
Caution: If the printer's model no. is not correct, please execute "Configuration -> Advanced Setup -> Reset Printer Driver" to reset the connection.

How to do Verify?

To confirm the sanitization has applied to device(s), users can try below actions.

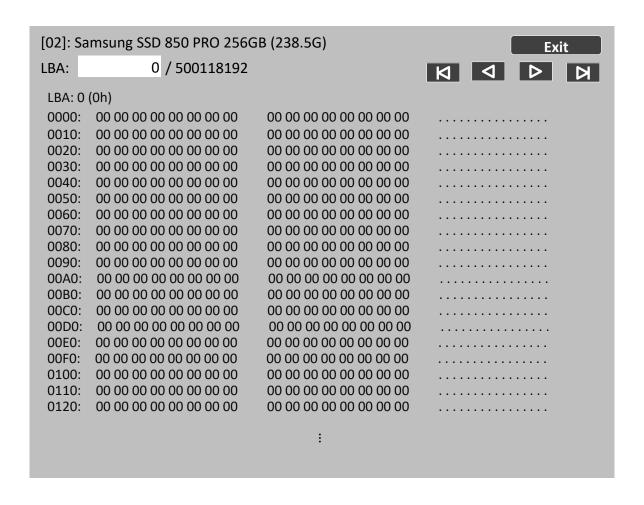
1. Verify the device(s).

Go to "Erase Function -> Verify Erased Device". The machine will check if each device has fully run sanitization.



2. Check out the device content.

Go to "Device Information-> Device Content". It will show the content of selected device.

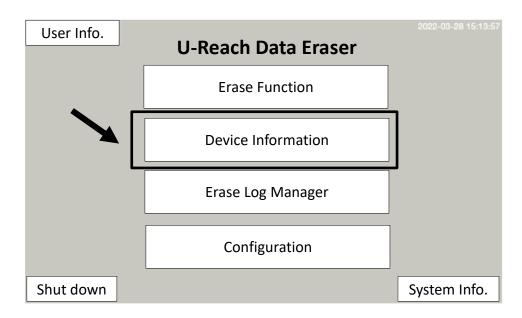


How to Check Device Information?

Step 1: Insert the device(s).

Connect cables with devices.

Step 2: Execute "Device Information."



Note: You also can use "Fast Key" on each port to start over the detection once the device is insert to a port.

Examples:

SATA Device

[#02] SATA SSD

Model: Samsung SSD 870 PRO 256GB Version: EXM04B6Q

Serial No.: S7BWNJ0W412100D

SMART Info.

Device Content

SAS Device

[#06] SAS HDD

Model: HGST HUH721212AL5200

Version: A3D0

Serial No.: 8DG3RH2D

Capacity: 11176.0G

Max. LBA: 575000000h

bytes/sector: 512

Capacity: 238.5G

bytes/sector: 512

Max. LBA: 1DCF32B0h

Device Content

Note: SAS Device doesn't have SMART Info. so there is no such button.

Locked SATA Device

Only shows when the device is locked.

[#02] SATA SSD (Locked)

Model: Samsung SSD 870 PRO 256GB

Version: EXM04B6Q

Serial No.: S7BWNJ0W412100D

Capacity: 238.5G

Max. LBA: 1DCF32B0h

bytes/sector: 512

SMART Info.

Device Content

Unlock Device

Only shows when the device is locked.

Note: If the command erase function is interrupted, the SATA device will be locked. Execute the same command erase again or press "Unlock Device" button can release it. The system can only unlock the device which is caused by uncompleted command erase function.

■ Locked SAS Device

Shows the command erase progress.

[#06] SAS HDD (Sanitizing 2.98%)

Model: WD WD2001FYYG-01SL3

Version: VR08 Serial No.: WMC160D15L61 Capacity: Unknown

Max. LBA: bytes/sector:

Note: If the command erase function is interrupted, the SAS device will be locked and will need to keep power on until completes the command erase process.

Firmware Update

Step 1: Prepare a USB drive for update.

Connect a USB drive to PC. Download the latest firmware provided from our technical support, unzip the BIOS file, and save it to the root directory in the USB drive.

Note: The format of the USB flash drive must be FAT16 or FAT32.

Step 2: Proceed to update firmware.

Connect USB drive to the USB port on the right side of the Data Eraser. Execute "Configuration -> System Update" to start the firmware update process.

Caution: The firmware update process may take longer than 5 minutes. Please do not disrupt power or process during BIOS update. If interrupted, the system will become useless. We will not be held responsible for any damages.

Other Settings

1. Setup Password

This function conducts authority settings of below functionalities: Erase Log Manager, Configuration, Advanced Setup and Setup Password. Go to "Configuration -> Advanced Setup" find "Setup Password."

Function Name	Active	Password
Erase Log Manager	No	
Configuration	No	
Advanced Setup	No	
Setup Password	No	

Caution: The password should be stored safely by user. Once the password is lost, the machine must send back to manufacturer. And we will not be held responsible for related cost or record lost.

2. Export/Install Language Pack

This function allows to export and import the strings of each function of the data eraser. Go to "Configuration -> Advanced Setup" find "Export Language Pack" or "Install Language Pack."