SATA III Ultra-High Speed

1 to 1 SATA HDD/SSD

Sanitizer and Duplicator

User Guide

v A.03

Index

Product Disclaimer

The manufacturer is not accountable for any incidental or consequential damages, which includes, but is not constrained to property harm, loss of time or data from use of our product, or any other damages attributable to product malfunction or failure (including without limitation, those attributable to: (1) reliance of the materials provided, (2) costs of product replacement, (3) loss of use, data or profits, (4) delays or business interruptions, (5) and any principle of legal responsibility, arising out of or in reference to the use or overall performance or from delays in servicing or lack of ability to render service) of any our product. The manufacturer makes every effort to ensure proper operation of all products. However, the customer is responsible to affirm that out of our product meets the customer's quality requirement. The customer further acknowledges that fallacious operation of our product and/or software program, or hardware issues, can cause loss of data, defective formatting, or data loading. The manufacturer 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 subject to change without notice or obligation.

Warranty

The manufacturer provides a basic one-year parts and labor warranty for all of its products (excluding cables, adapters, and other consumable items). An optional extended warranty is also available for an added cost. Telephone and email support is available for the life of the product as defined by us.

All warranties will be restricted and defined by the market region from which customers purchased.

Piracy Statement

The manufacturer accepts no responsibility for copyright infringement or misuse of any our equipment. Copying all forms 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.
- Make sure the source device is correct and functioning.
- Equal capacity of source and target is recommended for guaranteed data consistency.
- Using the Copy+Compare function provides the most flawless duplication.
- Damage incurred due to non-compliance with our operating instructions will void the warranty.
- Store the equipment safely when not in use and keep out of the reach of children.
- Please turn off duplicator before replacing sockets.
- Never turn off the power while the firmware updates.
- Use only approved, stable power sources.
- The power supply has overload protection. When it is overloaded and shutdown, please unplug the power cord for 2 minutes for discharging.
- Use product only in a clean, dry, dust-free, and ventilated area. Liquids or foreign debris can severely damage your duplicator.
- It is typical for the machine to heat up during operation.
- While in use, do not move the duplicator or remove SSDs.
- Static electricity may cause duplication error. Please pay attention to the duplicator's environment while operating equipment. Purchasing electricity elimination equipment helps avoid shock.
- Devices will operate at high-temperatures during selected tasks.
- Wear protective gloves to prevent burns when handling devices.
- Ensure machine and operator are properly grounded to prevent ESD.
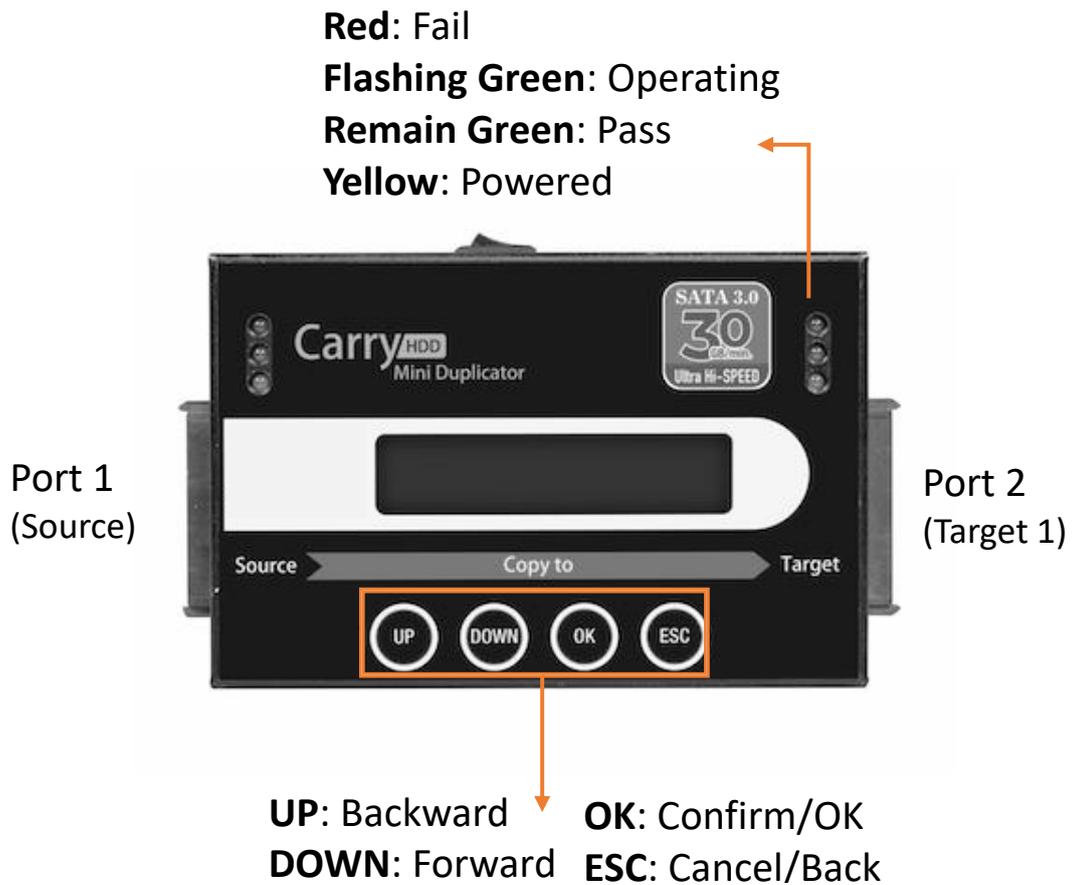
Notice Symbols

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

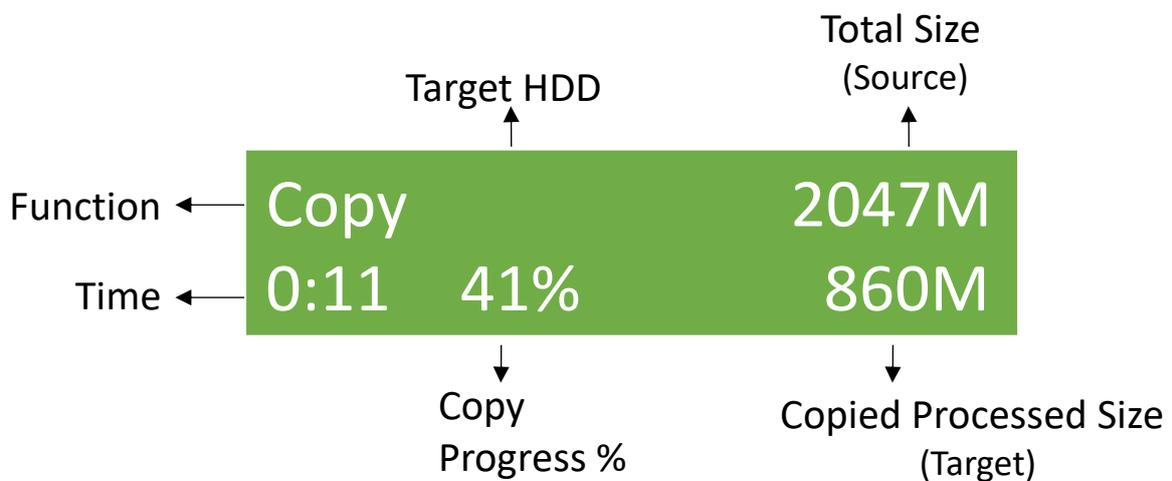| Note	Refers to related duplicator operations, special details, tips, or suggestions for operational effectiveness.

Caution	Refers to procedures that need to be adhered to or precautions.

Product Overview

- ## Hardware overview

Red: Fail
Flashing Green: Operating
Remain Green: Pass
Yellow: Powered

Port 1
(Source)

Port 2
(Target 1)

UP: Backward   **OK**: Confirm/OK
DOWN: Forward   **ESC**: Cancel/Back

- ## LCD configuration

Target HDD

Total Size
(Source)

Function

Copy   2047M

Time

0:11   41%   860M

Copy
Progress %

Copied Processed Size
(Target)

Function Table

Function	Description
1. Copy	To copy source HDD to multiple target HDDs. Refer to function [6.1 Copy Area] for 4 different copy modes selection.
2. Compare	To compare data bit for bit between source and target HDDs.
3. Copy +Compare	It makes copy first and then compare target HDD with source HDD to ensure data correctness.
4. Erase	**4.1 Quick Erase** To erase HDD's index table only, it takes short time to execute this function. **4.2 Full Erase** To erase the whole HDD content. **4.3 DoD Erase** To erase HDDs three times complying with USA Department of Defense (DoD) standard. **4.4 DoD EraseComp** To erase HDDs three times complying with USA Department of Defense (DoD) standard and bit by bit to check if data is completely erased. **4.5 7-Pass Erase** Erases device(s) 7 times complying with DoD 5220.22-M(ECE) Standards. **4.6 Secure Erase** The international authorized high standard Secure Erase function. It is able to erase the area which is not loadable. **4.7 Enhanced Secure Erase** Erases devices that support this feature.
5. Utility	**5.1 Show Device Info.** Displays basic information such as device model, name, capacity, etc. **5.2 Update System** **5.2.1 Update BIOS** — To update the system firmware via the HDD. **5.2.2 Create Update HDD** — To format the HDD with a 2GB FAT partition in order to quickly save the new firmware in the HDD.

	5.3 System Info. This function will show information of the duplicator system, including controller model, number and software version.	
	5.4 Read Speed To show the speed of reading.	
	5.5 Write Speed To show the speed of writing.	
	5.6 Unlock HDD Unlocks the HDD that has not completed Secure Erase so that the HDD can continue to be used.	
	5.7 Calc. CRC64 Calculates the CRC64 value of the source device.	
6. Setup	**6.1 Copy Area**	**6.1.1 System and Files** To copy source HDD's data area only.
		6.1.2 ALL Partitions To copy source HDD's all partitions.
		6.1.3 Whole HDD To copy the whole source HDD.
		6.1.4 Percentage(%) To copy percentage range of source HDD.
		6.1.5 Deep Analysis Scanning the entire source HDD first, only copy the blocks with data.
	6.2 Shrink last NTFS on Copy	**Enable**
		Disable
	6.3 Copy GPT Backup Area Enable this function to copy the end GPT format.	
	6.4 HPA Copy Mode	**Do Not Copy HPA** — **Keep Target HPA** Does not copy HPA data but keeps target device's original HPA setting.
		Do Not Copy HPA — **Clear Target HPA** Does not copy HPA data and clears target device's HPA setting.
		Set Target HPA Copies HPA setting from source device to target.
		Copy and Setting

		Copies HPA setting and data from source device to target.
	6.5 Skip Bad Sectors Skips bad sectors during Copy/Compare/Erase.	
	6.6 Erase Master Allows user to erase the source port or not.	
	6.7 Unknown Format	**Copy Unknown** Copy unknown area when the device cannot identify the format.
		Skip Unknown Skip copy unknown area when the device cannot identify the format.
	6.8 Erase Pattern	**One Byte** Writes a random character per byte.
		Big Random Data Writes a set of random characters into a set area.
	6.9 Clear HPA at Erase	**Clear HPA Setting** Clears HPA setting during erase.
		Keep HPA Setting Keeps original HPA setting during erase.
	6.10 Language Selects preferred language	
	6.11 Delete Disk Signature After Copy	**No**
		Yes Do not copy the disk signature onto target devices.
	6.12 Restore Default Back to original manufacturer setting.	

Functions

1. Copy

Step 1: Prepare source and target devices.

Note	Recommendation: Target device(s)' capacity must be equal to or larger than the source device capacity.

Step 2: Connect source and target devices.
Step 3: Proceed to copy.
Scroll to select "1. Copy", then press "OK" to start the duplication process.

Note	● Press "ESC" for 5 seconds to stop all the copy jobs.

Caution	It is recommended to reboot the machine after manually stopping the copy.

Step 4: Copy Completed!

2. Compare

Proceed to verify device(s).

Scroll to select "2. Compare", then press "OK" to start the verification process.

3. Copy+Compare

Sequentially automates from Function 1, Copy to Function 2, Compare.

Scroll to select "3. Copy+Compare", then press "OK" to start the automated duplication and verification process.

Caution	User is responsible for verification of targets' quality. Testing a few completed targets in a mass production environment for quality control is recommended.

4. Erase

There are 7 submenu modes.

Caution	Please back up all important data before using this function.

Step 1: Connect device(s) for sanitizing.

Note	Source Port is disabled for erasing. Go to 6.8.2 to enable source port erasing.

Step 2: Enter function "4. Erase"

Scroll to select "4. Erase", then press "OK" to view the 7 erase modes.

Step 3: Select an Erase Function.

Here are a couple tips to see port details during erase:

● Press "▲" or "▼" to view real-time status of each port.
● Press "OK" to view the details of each port.

Step 4: Erase Completed

Here are a few tips to perform or stop an Erase job.

● Press "Asynchronous Erase Button" to start a new Erase job.
● Press "Asynchronous Erase Button" for 5 seconds to stop a single port.
● Press "ESC" for 5 seconds to stop all the erase jobs.

Caution	User is responsible for verification of targets' quality. Testing a few completed targets in a mass production environment for quality control is recommended.

4.1 Quick Erase

This function will erase the index table from the connected device(s).

Scroll to select "4.1. Quick Erase", then press "OK" to start the erasing process.

4.2 Full Erase

This function will erase all data per NIST 800-88 Standards on the connected device(s).

Scroll to select "4.2 Full Erase", then press "OK" to start the erasing process.

4.3 DoD Erase

This function will erase all data per DoD 5220.22-M Standards on the connected device(s).

Scroll to select "4.3 DoD Erase", then press "OK" to start the erasing process.

4.4 DoD Erase Comp

This function will erase all data per DoD 5220.22-M Standards, then compare

erasure of the connected device(s).

Scroll to select "4.4 DoD EraseComp", then press "OK" to start the erasing and verifying process.

4.5 7-Pass Erase

This function will erase device(s) 7 times complying with DoD 5220.22-M(ECE) Standards.

Scroll to select "4.5 7-Pass Erase", then press "OK" to start the erasing process.

4.6 Secure Erase

This function erases the non-loadable areas complying with NIST 800-88 Standards.

Scroll to select "4.6 Secure Erase ", then press "OK" to start the erasing process.

Caution	If Secure Erase process is interrupted, the device will be locked. Please execute again and wait until it finishes.

4.7 Enhanced Secure Erase

This function erases devices that supports this feature.

Scroll to select "4.7 Enhanced Secure Erase", then press "OK" to start the erasing process.

5. Utility

This menu contains submenus related to device information, system information and updates.

Scroll to "5. Utility", then press "OK" to view the submenus.

5.1 Show Device Info

This function will display basic information such as device model, name, capacity, etc…

Scroll to select "5.1 Show Device Info", then press "OK" to view the connected device(s). Then scroll through to view connected device(s) by port number order.

5.2 Update System

This function is to execute firmware updating of system.

You can follow the following steps to update the system firmware.

Step 1: Create an Update HDD

Place a SDD/HDD to the duplicator. Select function "5.2.2 Create Update HDD".

Step 2: Format BIOS HDD

Click "OK" to format the BIOS hard disk. One FAT, 2GB partition will be formatted in HDD. That would reduce searching time and speed up firmware update.

Caution	The data saved in this HDD will be erased.

Step 3: Download Firmware

Connect the BIOS HDD to PC. Download the latest firmware from PC and save it to HDD. Unzip BIOS and save it to the root directory.

Step 4: Enter "Update BIOS"

Place the BIOS HDD into source port. Enter function "5.2.1 Update BIOS". Update will take about a minute to complete.

Caution	Please do not disrupt during BIOS update, otherwise it would cause irretrievable error on duplicator. We are not held responsible for any damages.

5.3 System Info.

This function will display basic information such as controller, model number, software version, etc.
Scroll to select "5.3 System Info", then press "OK" to view all information.

5.4 Read Speed

This function is to measure the reading speed of the HDD by reading the whole HDD.

5.5 Write Speed

This function is to measure the writing speed of the HDD by writing the whole HDD.

Note	This function will delete the content in HDD, so please make sure you have backup data before executing this function.

5.6 Unlock HDD

Unlocks the HDD that has not completed Secure Erase so that the HDD can continue to be used.

5.7 Unlock HDD

This function will count the CRC64 value for the source port. The CRC64 value is an easy way to double check the source data is correct.

Caution	User is responsible for verification of targets' quality. Testing a few completed targets in a mass production environment for quality control is recommended.

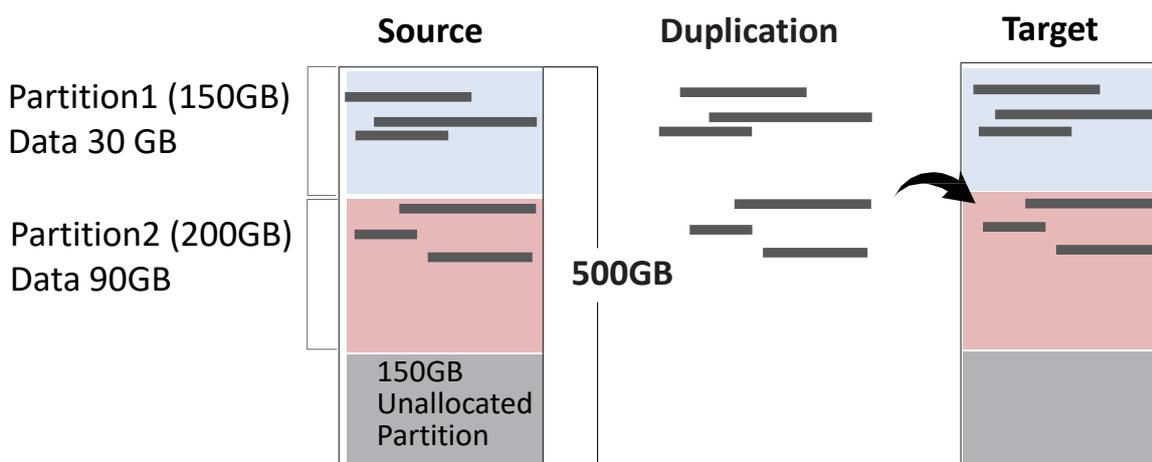# 6. Setup

6.1 Copy Area

There are 4 submenu modes.
Scroll to select "6.1 Copy Area", then press "OK." Then scroll through to select one of the four copy methods.

6.1.1 System and Files

Copies data and skips empty space. Only supports standardized formats.
Scroll to select "System and Files", then press "OK" to save the copy method.
Allows user to copy source device's System and Files, instead of the entire device. The system will analyze the source device and identify the data area to copy. If the source device's data is within the target device's capacity, the copy will be processed. FAT16/32/64, NTFS, EXT2/EXT3/EXT4, and HFS/HFS+/HFSX are supported in this copy mode.
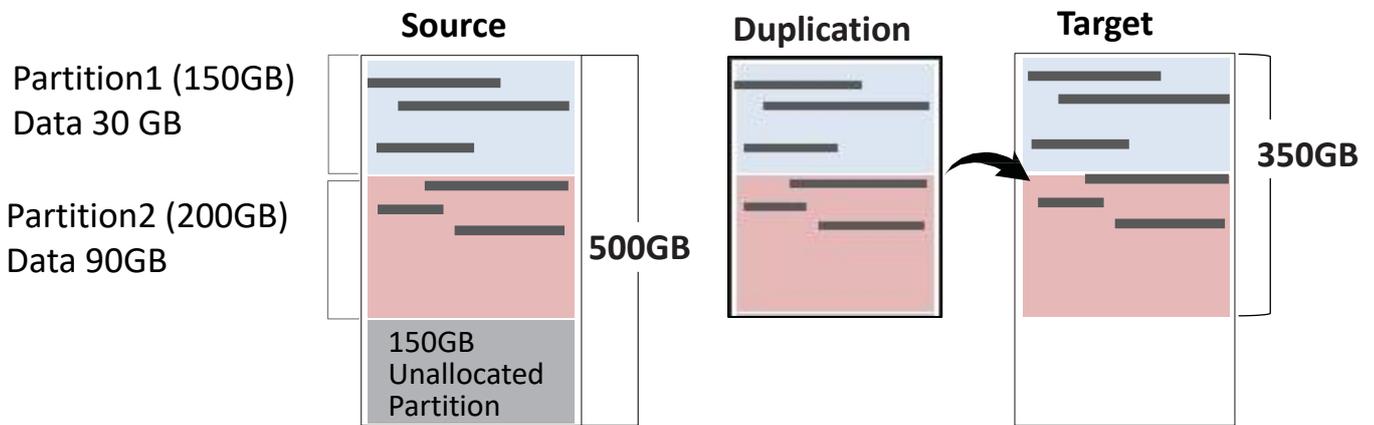
Source   Duplication   Target

Partition1 (150GB)
Data 30 GB

Partition2 (200GB)
Data 90GB

500GB

150GB
Unallocated
Partition

Only 120G data area will be copied.

6.1.2 All Partitions

Copies all partitions and data, unallocated partitions not included.
Scroll to select "All Partitions", then press "OK" to save the copy method.
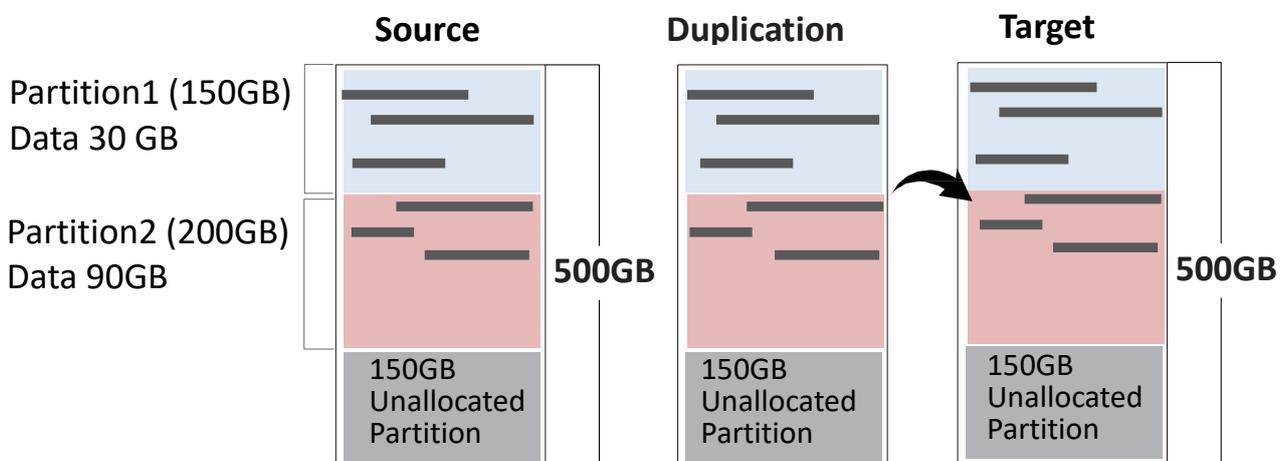The target device's capacity must be equal to or larger than the source device's capacity.

Source **Duplication** **Target**

Partition1 (150GB)
Data 30 GB

Partition2 (200GB)
Data 90GB

500GB

350GB

150GB
Unallocated
Partition

350GB of all Partitions along with its contents will be copied.

6.1.3 Whole HDD

Copies all source data bit by bit.
Scroll to select "Whole Device", then press "OK" to save the copy method.
Copies the whole source device, irrespective of content, format, partition or empty space. This mode does not analyze the data.
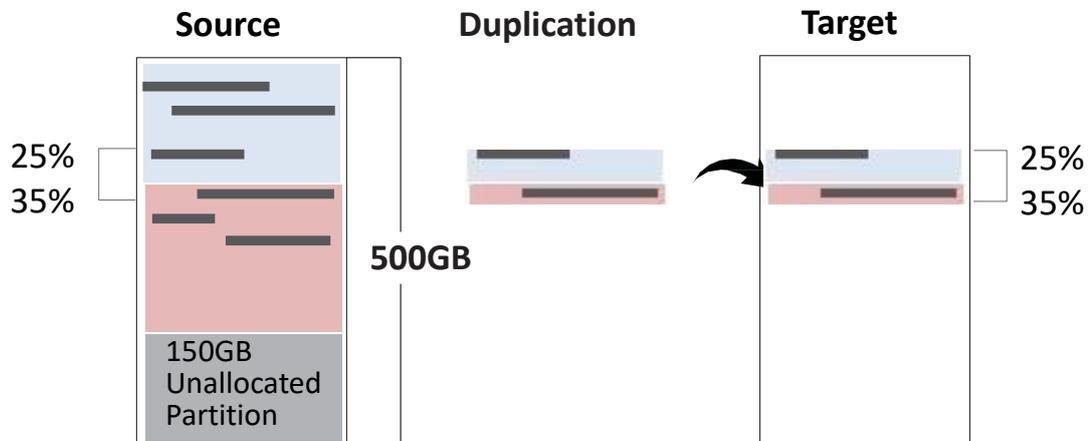
Source **Duplication** **Target**

Partition1 (150GB)
Data 30 GB

Partition2 (200GB)
Data 90GB

500GB

500GB

150GB
Unallocated
Partition

150GB
Unallocated
Partition

150GB
Unallocated
Partition

All 500GB of data will be copied.

6.1.4 Percentage (%)

Select percentage of source capacity to copy.

Scroll to select "Percentage", set the upper and lower %, then press "OK" to save the copy method.

Only copies the selected area.

6.2 Shrink last NTFS on Copy

This function can reduce the size of the last partition of an NTFS formatted hard disk. If the capacity of the source disk is larger than the target, but the actual data content does not exceed the capacity of the target, when the copy function is executed, enable this function to reduce the content of the last partition (must be NTFS) of the target in standard NTFS format.

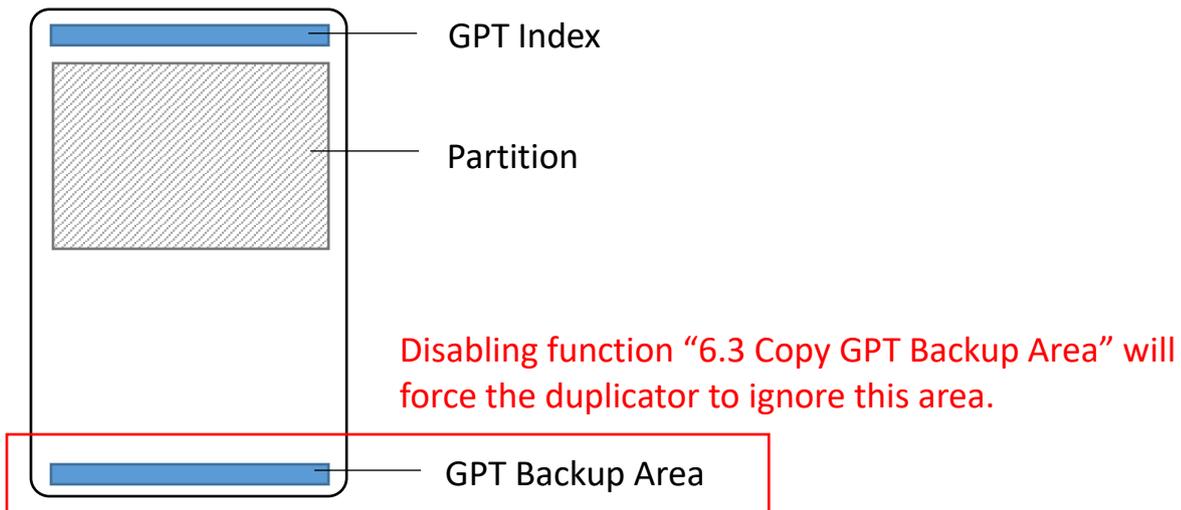| Note	This function must meet the following conditions: 1. The format of the master hard disk must be standard MBR or GPT, and the last partition is in NTFS format. 2. The actual data location in the master disk does not exceed the target capacity.

6.3 Copy GPT Backup Area

Disabling this function makes the duplicator ignore the GPT backup area, and thus allows the duplicator to copy from a big capacity device to a small capacity device(s).

Note	The partition size of the source HDD should be smaller than target capacity. Otherwise, it is recommended to leave the GPT backup area intact.

GPT Index

Partition

Disabling function "6.3 Copy GPT Backup Area" will force the duplicator to ignore this area.

GPT Backup Area

Caution	GPT backup areas will be rebuilt automatically the next time Windows reboots. For Linux, tools such as gdisk can rebuild these backups.

6.4 Copy HPA Area

This menu contains submenus related to HPA Copy Modes
Scroll to select "Copy HPA Area", then press "OK" to view the submenus. The default setting is: "Copy and Setting".

❶ Do Not Copy HPA

This menu contains submenu settings from which users can select.

Scroll to select "Copy HPA Area >> Do Not Copy HPA", then press "OK" view submenu settings.

● Keep Target HPA

Does not copy HPA data, but keeps target device 's original HPA setting.

Scroll to select "Keep Target HPA", then press "OK" to save this setting.

● Clear Target HPA

Does not copy HPA data and clears target device's HPA setting.

Scroll to select "Clear Target HPA", then press "OK" to save this setting.

❷ Setting Target HPA

Copies HPA setting from source device to target.

Scroll to select "HPA Copy Modes >> Setting Target HPA", then press "OK" to save this setting.

❸ Copy and Setting

Copies HPA setting and data from source device to target.

Scroll to select "HPA Copy Modes >> Copy and Setting", then press "OK" to save this setting.

Caution	HPA function "Copy and Setting" may change the original parameter of target devices. To reset it, user must set "Clear HPA at Erase >> Clear HPA Setting" and then execute "4. Erase."

6.5 Skip Bad Sectors
This function sets the number of errors you would like to skip during copy / compare / erase process. The default is 0. You can choose 0-65535 or unlimited.

6.6 Erase Master
This function allows user to enable or disable the source port for sanitization.
Scroll to select " Erase Master", then press "OK." Then scroll through to select one of two settings.

❶ Disabled

Devices connected to source port cannot be erased.
Scroll to select "Erase Master >> Disabled", then press "OK" to save this setting.

❷ Enabled

Devices connected to source port can be erased.
Scroll to select "Erase Master >> Enabled", then press "OK" to save this setting.

6.7 Unknown Format
This function only works with "Copy Area >> System and Files."
Scroll to select "Unknown Format", then press "OK".
Unknown format includes all forms of modified and proprietary data and partitions.

❶ Copy Unknown

Copy unknown format(s).
Scroll to select "Unknown Format >> Copy Unknown", then press "OK" to save this setting.

❷ Skip Unknown

Skip unknown format(s).
Scroll to select "Unknown Format >> Skip Unknown", then press "OK" to save this setting.

6.8 Erase Pattern
Scroll to select "Erase Pattern", then press "OK". Then scroll through to select one of two settings.

❶ One Byte

Random character written per byte.
Scroll to select "Erase Pattern >> One Byte", then press "OK" to save this setting.

❷ Big Random Data

Random character written in a set of area.
Scroll to select "Erase Pattern >> Big Random Data", then press "OK" to save this setting.

6.9 Clear HPA at Erase
Sets to clear HPA setting during erase.
Scroll to select "Clear HPA at Erase", then press "OK" to save this setting.

❶ Clear HPA Setting

Clears HPA setting and data during erase.
Scroll to select "Clear HPA at Erase >> Clear HPA Setting", then press "OK" to save this setting.

❷ Keep HPA Setting

Keeps original HPA setting and data during erase.
Scroll to select " Clear HPA at Erase >> Keep HPA Setting", then press "OK" to save this setting.

6.10 Language
Select preferred language. You can select English, Japanese, Spanish.

6.11 Delete Disk Signature After Copy
Set at "Yes" means do not copy the disk signature part.

This function is for Windows only. Windows will only recognize one device if you connect two or more with the same disk signature.

Caution	"Compare" function will always Fail if "Delete Disk Signature After Copy" is set at "Yes."

6.12 Restore Default

Restores all settings back to manufacturer defaults.

Scroll to select "Restore Defaults", then press "OK" to restore settings back to manufacturer defaults.

The above information is for marketing reference only.

The actual specification may subject to change without notice.