



# **PE-H Series**

# **NVMe/SATA M.2 SSD**

# **Duplicator and Sanitizer**

**User Manual**

**v A.06**



# Index Table

Product Disclaimer.....	3
Warranty.....	3
Piracy Statement .....	3
Before You Start.....	4
Notice Symbols .....	4
Functions Table.....	5
Product Overview .....	10
Functions .....	12
1.Copy .....	12
2. Compare.....	13
3. Copy+Compare.....	13
4. Erase.....	14
5. Utility.....	15
6. Setup .....	17
7. Log Manager .....	27
8. Image Manager( <b><i>Available when internal SSD is installed</i></b> ) .....	29
Image Management .....	30

## **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 product, 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 for verifying 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 are available for the life of the product as defined by U-Reach.

All warranties are specific to a market region and will be defined per the 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.
- 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 U-Reach 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.

# Functions Table

Functions	Descriptions	
1. Copy	<b>1.1 Source Port</b> Copies data from the device connected to the Source Port (Port #1).	
	<b>1.2 Internal Storage (Available when internal SSD is installed)</b> Copies saved data images from the duplicator's internal storage device.	
2. Compare	<b>2.1 Source Port</b> Verifies data, bit-by-bit, from the device connected to the Source Port (Port #1).	
	<b>2.2 Internal Storage (Available when internal SSD is installed)</b> Verifies saved data images, bit-by-bit, from the duplicator's internal storage device.	
3. Copy + Compare	<b>3.1 Source Port</b> Copies and verifies data, bit-by-bit, from the device connected to the Source Port or Port #1.	
	<b>3.2 Internal Storage (Available when internal SSD is installed)</b> Copies and verifies saved data images, bit-by-bit, from the duplicator's internal storage device.	
4. Erase	<b>4.1 Quick Erase</b> Erases device(s)' index table.	
	<b>4.2 Full Erase</b> Erases entire device(s) complying with NIST 800-88 Standards.	
	<b>4.3 DoD Erase</b> Erases device(s) complying with DoD 5220.22-M Standards.	
	<b>4.4 DoD EraseComp</b> Erase device(s) complying with DoD 5220.22-M Standards and verifies complete erasure.	
	<b>4.5 Secure Erase</b> Erases the non-loadable areas complying with NIST 800-88 Standards.	
5. Utility	<b>5.1 Show Device Info</b> Displays basic information such as device model, name, capacity, etc.	
	<b>5.2 Update System</b> Updates system firmware through the USB port.	<b>5.2.1 Update BIOS</b> Updates system firmware through the source port.

		<b>5.2.2 Create Update HDD</b> Prepares by formatting the device to a 2GB FAT partition to accept firmware file.
	<b>5.3 System Info</b> Displays system information such as controller, model number, software version, etc.	
	<b>5.4 Burn SSD Firmware</b>	<b>5.4.1 Load New Firmware</b>
		<b>5.4.2 Burn FW-&gt;SSD Slot1</b>
		<b>5.4.3 Burn FW-&gt;SSD Slot2</b>
		<b>5.4.4 Burn FW-&gt;SSD Slot3</b>
		<b>5.4.5 Burn FW-&gt;ALL Slot</b>
		<b>5.4.6 Show SSD Version</b>
		<b>5.4.7 Power Off Time</b>
	<b>5.5 Burn SATA Firmware</b>	<b>5.5.1 Load New Firmware</b>
		<b>5.5.2 Burn Firmware→SATA</b>
		<b>5.5.3 Show SSD Version</b>
	<b>5.6 Calc. CRC64</b> Calculates the CRC64 value of the source device.	
<b>6. Setup</b>	<b>6.1 Start-up Menu</b> Sets default function to display during equipment initialization.	
	<b>6.2 Copy Area</b>	<b>System and Files</b> Copies data and skips empty space. Only supports standard formats.
		<b>All Partitions</b> Copies or skips HPA, DCO, unknown partitions, modified formats, etc. defined by settings.
		<b>Whole HDD</b> Copies all source data, bit-by-bit.
		<b>Percentage (%)</b> Sets percentage of source capacity to copy.
		<b>Deep Analysis</b> Analyze the data location and then copy. It doesn't have format limitation.
	<b>6.3 Copy GPT Backup Area</b> Enable this function to copy the end GPT format.	

<b>6.4 Skip Bad Sectors</b> Skips source bad sectors.			
<b>6.5 Language</b> Sets preferred language: English, Japanese, and Spanish.			
<b>6.6 Advanced Setup</b>	<b>6.6.1 Unknown Format</b>	<b>Copy Unknown</b> Copies unknown format(s).	
		<b>Skip Unknown</b> Skips unknown format(s).	
	<b>6.6.2 Erase Master</b>	<b>Disabled</b> Source port will be unable to erase.	
		<b>Enabled</b> Source port will be able to erase.	
	<b>6.6.3 Erase Pattern</b>	<b>One Byte</b> Random character written per byte.	
		<b>Big Random Data</b> Random character written in a set of area.	
	<b>6.6.4 Skip Erase Errors</b> Skips bad sectors during Erase.		
	<b>6.6.5 HPA Copy Mode</b>	<b>Do Not Copy HPA</b>	<b>Keep Target HPA</b> Does not copy HPA data but keeps target device's original HPA setting.
			<b>Clear Target HPA</b> Does not copy HPA data and clears target device's HPA setting.
		<b>Setting Target HPA</b> Copies HPA setting from source device to target.	
<b>Copy And Setting</b> Copies HPA setting and data from source device to target.			
<b>6.6.6 Clear HPA at ERASE</b>	<b>Clear HPA Setting</b> Clears HPA setting during erase.		

			<b>Keep HPA Setting</b> Keeps original HPA setting during erase.
		<b>6.6.7 Wait HDD Time</b> Sets device power up buffer time prior to copy, erase, etc.	
		<b>6.6.8 Lock Key</b>	<b>Do NOT Lock Key</b>
			<b>Do Lock Key</b> Only down/up buttons are disabled. Reboot system for setting to be in effect.
		<b>6.6.9 Stop Motor Time</b> Sets device power down buffer time when tasks are completed.	
		<b>6.6.10 Boot Password</b> Sets up the login password.	
		<b>6.6.11 Delete Disk Signature After Copy</b>	<b>No</b>
			<b>Yes</b> Do not copy the disk signature onto target devices.
		<b>6.6.12 PCIe Speed</b> Sets data transmission speed.	<b>Normal</b>
			<b>Low Speed</b>
		<b>6.6.13 Target Tolerance</b> Sets the capacity tolerance range between the source and target. The default setting is “No limit”.	
		<b>6.6.14 Clean SSD Before Copy</b>	<b>No</b> The default setting is “No”.
			<b>Yes</b>
		<b>6.7 Restore Defaults</b> Reinstates manufacturer settings.	
<b>7. Log Manager</b>	<b>7.1 Out Today Report</b> Outputs today’s log data.		
	<b>7.2 Out Recent Report</b> Outputs recent log data.		
	<b>7.3 Out Period Date</b> Outputs a set period of log data.		



	<b>7.4 Advanced Function</b> Default password: 123456	<b>7.4.1 Clear All Logs</b> Clear all log records.
		<b>7.4.2 Setup Password</b> Allows password change.
		<b>7.4.3 Adjust Clock</b> Change time and date.
		<b>7.4.4 Add Watermark at text File</b> Creates watermark on the log report.
<b>8. Image Manager</b>  (Available when the SSD is inserted into the slot or else this function will not be displayed in the menu.)	<b>8.1 Copy SSD to Image</b> Uploads the source data onto internal SSD.	
	<b>8.2 Compare SSD with Image</b> Compares the source data with an image file stored in the internal SSD.	
	<b>8.3 Show Image Tank</b> Displays the disk information of the internal SSD.	
	<b>8.4 Show One Image</b> Display image information.	
	<b>8.5 Rename One Image</b> Rename an image file.	
	<b>8.6 Delete One Image</b> Delete an image file of the internal SSD.	
	<b>8.7 Format Image Tank</b> Formats the internal SSD for duplicator.	

*\*Specifications subject to change without notice.*

# Product Overview

- Front View

USB port for Log Report Outputs and Firmware Updates.



Control Buttons

OK Button

LCD Display

SSD slot for saving Master Image.

- Back View



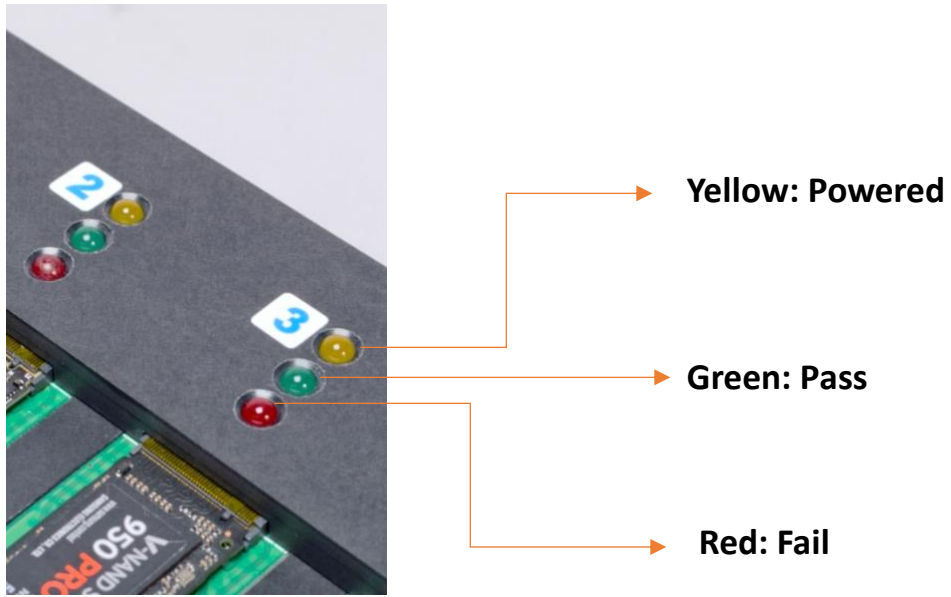
USB Port for PC-LINK

Power Input

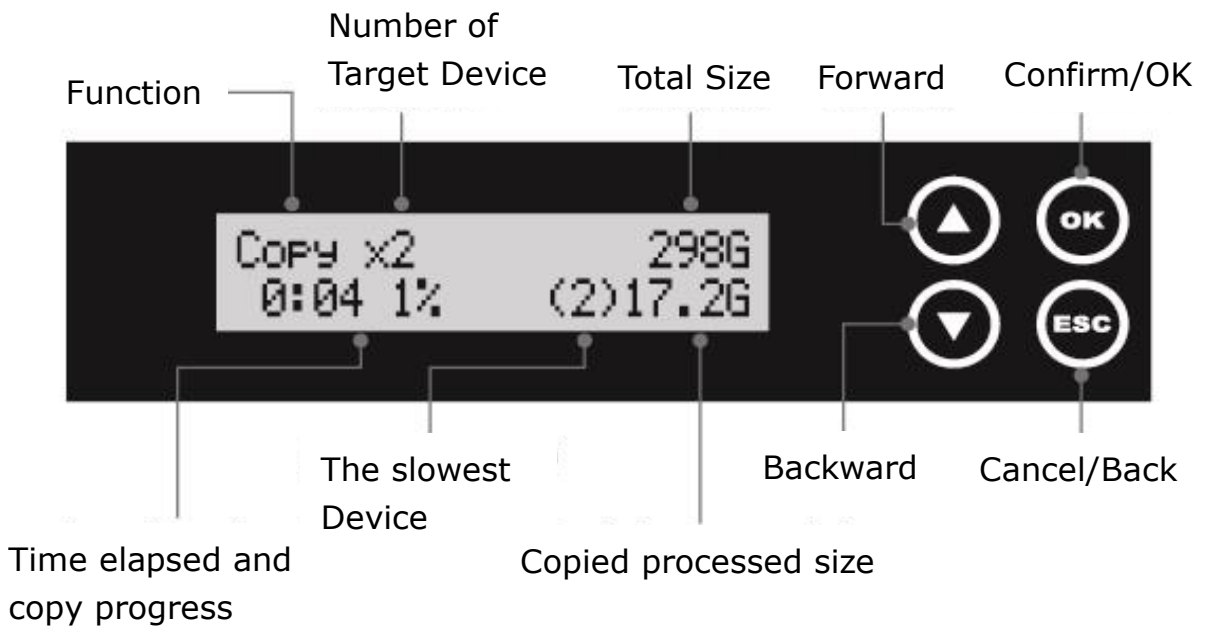
Power Switch

Grounding Port

- LED Status



- LCD Configuration



# 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 select which source to copy from. Scroll to select "1.1 Source Port" or select "1.2 Internal Storage", then press "OK" to start the duplication process.

#### Note

The number of working/connected targets will be displayed on LCD. Press "OK" to start.

The following information below states what is displayed on the LCD during duplication.

```
Copy      40.0G
          3ready
```

Function	Total Data
Copy x3	40G
1:38 25%	(4) 10.3G
Copied Time & %	Slowest Port Copied Data

#### Note

Press ▲ ▼ together for 5 seconds to stop operation on the slowest device.

### Step 4: Copy Completed!

The quantity of passed or failed target device(s) and the copied duration will be displayed on the LCD after duplication completes.

#### 1.1 Source Port

Scroll to select "1. 1 Source Port", then press "OK" to copy to targets from the source port.

## 1.2 Internal Storage *(Available when internal SSD is installed)*

Scroll to select “1. 2 Internal Storage”, then press “OK” to select which GOB Image to copy from the duplicator’s built-in storage device. The GOB Image is created through our proprietary software that is included with the duplicator.

### Caution

1. When “1.2 Internal Storage” is selected, the 1<sup>st</sup> port becomes a target port automatically (e.g. PE600 will become 1-6 duplicator). Please use the duplicator carefully as the manufacturer will not held responsible for any data loss.
2. The GOB Image (internal storage) will not copy to smaller target capacities.

## 2. Compare

Scroll to select “2. Compare”, then press “OK” to select which source to verify from. Scroll to select “2.1 Source Port” or select “2.2 Internal Storage “, then press “OK” to start the verification process.

### Note

The number of working/connected targets will be displayed on the LCD. Press “OK” to start.

### 2.1 Source Port

Scroll to select “2. 1 Source Port “, then press “OK” to verify targets from the source port.

### 2.2 Internal Storage *(Available when internal SSD is installed)*

Scroll to select “2. 2 Internal Storage “, then press “OK” to select which GOB Image to verify from the duplicator’s built-in storage device. The GOB Image is created through our proprietary software that is included with the duplicator.

## 3. Copy+Compare

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

Scroll to select “3. Copy+Compare”, then press “OK” to select which source to copy and verify from. Scroll to select “3.1 Source Port” or select “3.2 Internal Storage “, then press “OK” to start the automated duplication and verification process.

### 3.1 Source Port

Scroll to select “3. 1 Source Port”, then press “OK” to copy to and verify targets from the source port.

### 3.2 Internal Storage *(Available when internal SSD is installed)*

Scroll to select “3. 2 Internal Storage”, then press “OK” to select which GOB Image to copy and verify from the duplicator’s built-in storage device. The GOB Image is created through our proprietary software that is included with the duplicator.

#### Caution

1. When “1.2 Internal Storage” is selected, the 1<sup>st</sup> port becomes a target port automatically (e.g. PE600 will become 1-6 duplicator). Please use the duplicator carefully as the manufacturer will not held responsible for any data loss.
2. The GOB Image (internal storage) will not copy to smaller target capacities.

## 4. Erase

#### Caution

Please backup all important data before using this function.

### Step 1: Connect device(s) for sanitizing.

#### Note

Source Port is disabled for erasing. Go to 6.4.2.2 to enable source port erasing.

### Step 2: Enter function “4. Erase”

Scroll to select “4. Erase”, then press “OK” to view the 6 submenus.

#### 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 to 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 of the connected device(s).

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

## 4.4 DoD EraseComp

This function will erase all data per DoD 5220.22-M Standards, then verifies the erasure of the connected device(s).

Scroll to select “4.4 DoD EraseComp”, then press “OK” to start the erasing and verification process.

## 4.5 Secure Erase

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

Scroll to select “4.5 Secure Erase”, then press “OK” to start the erasing process.

# 5. Utility

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

Scroll to select “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 through to view connected device(s) by port number order.

## 5.2 Update System

There are 2 system update methods.

### ① Through USB port.

#### 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 firmware, and save it to the root directory in the USB drive.

#### Note

- The USB's format must be: FAT16 or FAT32.
- Ensure that the device does not have any bad sectors.

#### Step 2: Proceed to update firmware

Connect USB drive to the USB port in front of the duplicator. Scroll to select “5.2.1 Update BIOS”, then press “OK” 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.

## ② Through Source port.

### Step 1: Prepare a device for update.

Connect a device to the source port. Scroll to select "5.2.2 Create Update HDD", then press "OK" to start the format process. This will format the device to a 2GB FAT32 Partition.

### Step2: Download Firmware.

Connect this device to PC. Download the latest firmware provided by supplier's technical support, unzip the BIOS firmware, then save it to the root directory in the device.

**Note** Ensure that the device does not have any bad sectors.

### Step3: Proceed to update firmware.

Connect this device to the source port. Scroll to select "5.2.1 Update BIOS", then press "OK" 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. The manufacturer will not be held responsible for any damages.

## 5.3 System Info

This function will display basic information such as device model, name, capacity, etc... Scroll to select "5.3 System Info", then press "OK" to view the connected device(s). Then scroll through to view all information.

## 5.4 Burn SSD Firmware

- 5.4.1 Load New Firmware
- 5.4.2 Burn FW->SSD Slot1
- 5.4.3 Burn FW->SSD Slot2
- 5.4.4 Burn FW->SSD Slot3
- 5.4.5 Burn FW->ALL Slot
- 5.4.6 Show SSD Version
- 5.4.7 Power Off Time



## 5.5 Burn SATA Firmware

5.5.1 Load New Firmware

5.5.2 Burn Firmware→SATA

5.5.3 Show SSD Version

## 5.6 Calc. CRC64

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

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

Scroll to select "6. Utility", then press "OK" to view the submenus.

### 6.1 Start-up Menu

This function allows user to select the default function to display during equipment initialization.

Scroll to select "6.1 Start-up Menu", then press "OK." Then scroll through the available menus for startup.

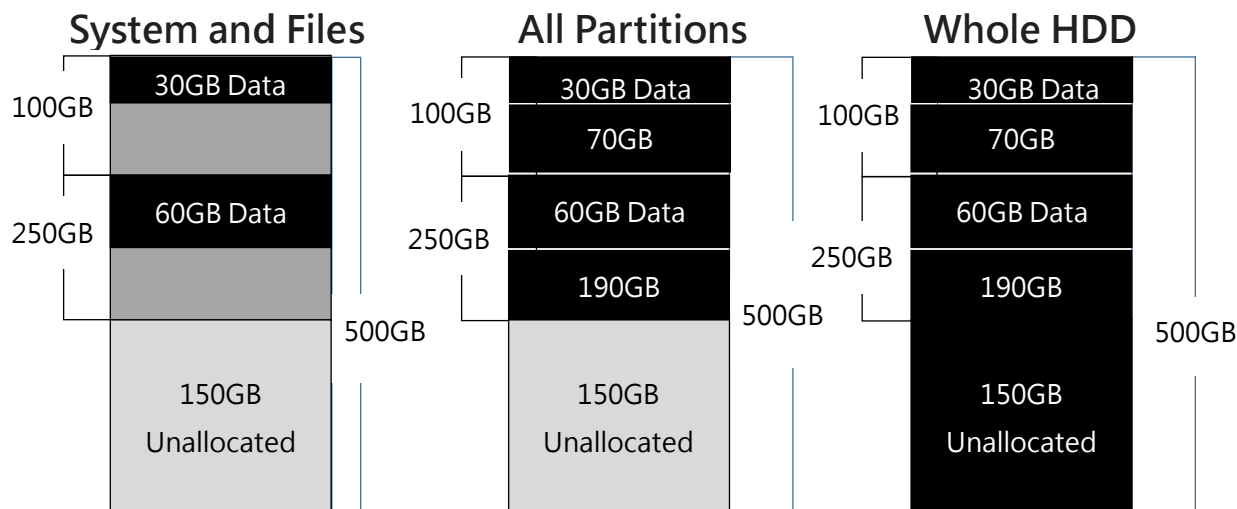
### 6.2 Copy Area

There are 5 submenu modes.

Scroll to select "Copy Area", then press "OK." Then scroll through to select one of the four copy methods.

#### ● Selecting the Proper Copy Modes

Example: There are two defined partitions in a 500GB device. The charts below illustrate what portion would be duplicated.



This function will analyze and copy only data and skip empty spaces.

This function will copy all data within the defined partitions.

This function will copy the entire device.

## ● Copy and Compare Preparations

Please consider the following settings before proceeding with copy:

- 6.2 Copy Area
- 6.4 Skip Bad Sectors

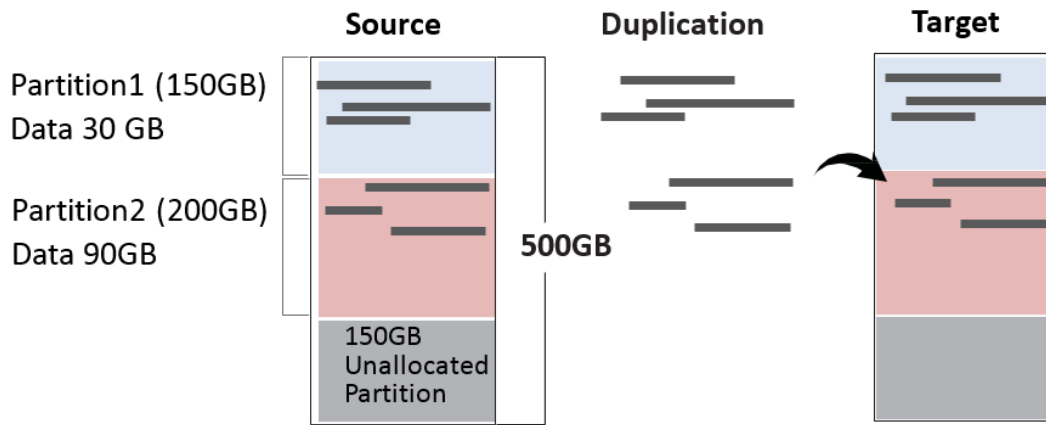
Using appropriate copy modes can greatly reduce operation time and increase efficiency. There are four copy modes with different copy methods.

### ① System and Files

Copies data and skips empty space. Only supports standard 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/LVM, and HFS/HFS+/HFSX are supported in this copy mode.

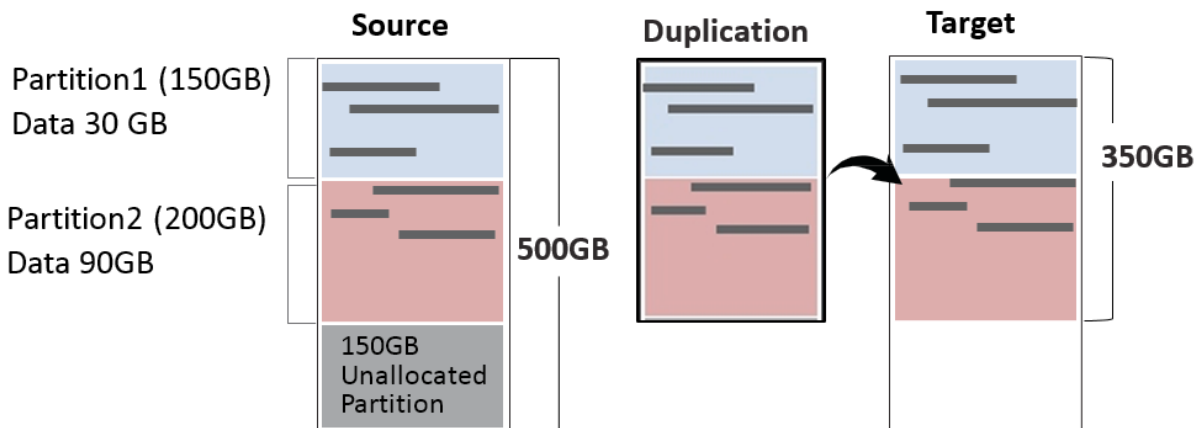


**Only 120G data area will be copied.**

## ② All Partitions

Copy or skip HPA, DCO, unknown partitions, modified formats, etc. defined by settings. 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.



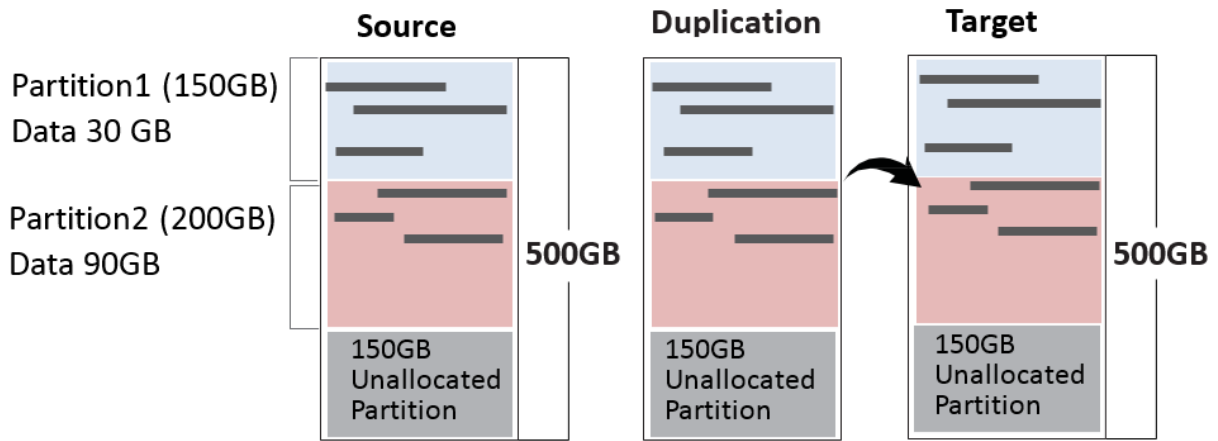
**350GB of all Partitions along with its contents will be copied.**

## ③ Whole HDD

Copies all source data, bit-by-bit.

Scroll to select “Whole HDD”, then press “OK” to save the copy method.

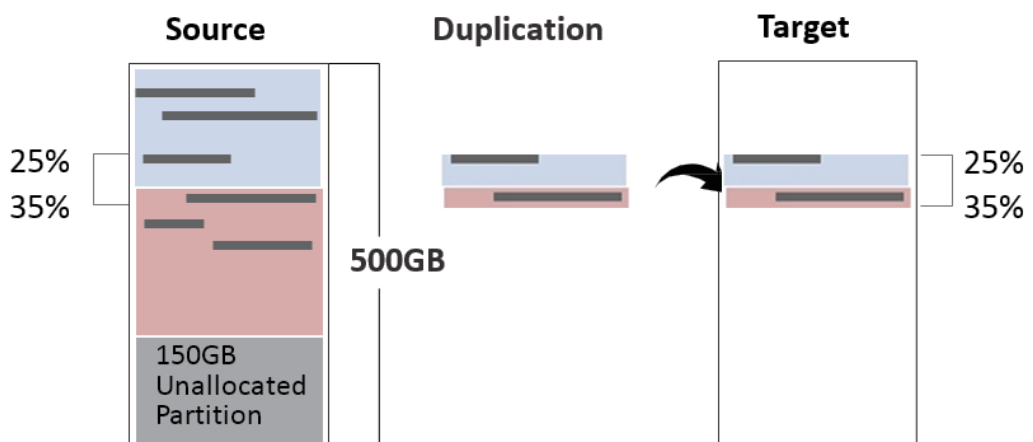
Copies the whole source device, irrespective of content, format, partition, or empty space. This mode does not analyze the data.



#### ④ Percentage (%)

Select percentage of source capacity to copy.

Scroll to select “6.2.4 Percentage”, then press “OK” to save the copy method.



#### ⑤ Deep Analysis

This copy mode is designed to handle special format devices. It analyzes the whole device and then copies the data area. The target device is required to be wholly cleaned prior to copy.

Scroll to select “6.2 Copy Area > Deep Analysis”, then press “OK” to save the copy method.

#### Note

1. “Deep Analysis” copy mode needs to take time to analyze the whole device capacity prior to copying.

2. "Deep Analysis" is recommended for use with "8.1 Copy SSD to Image."

**Caution**

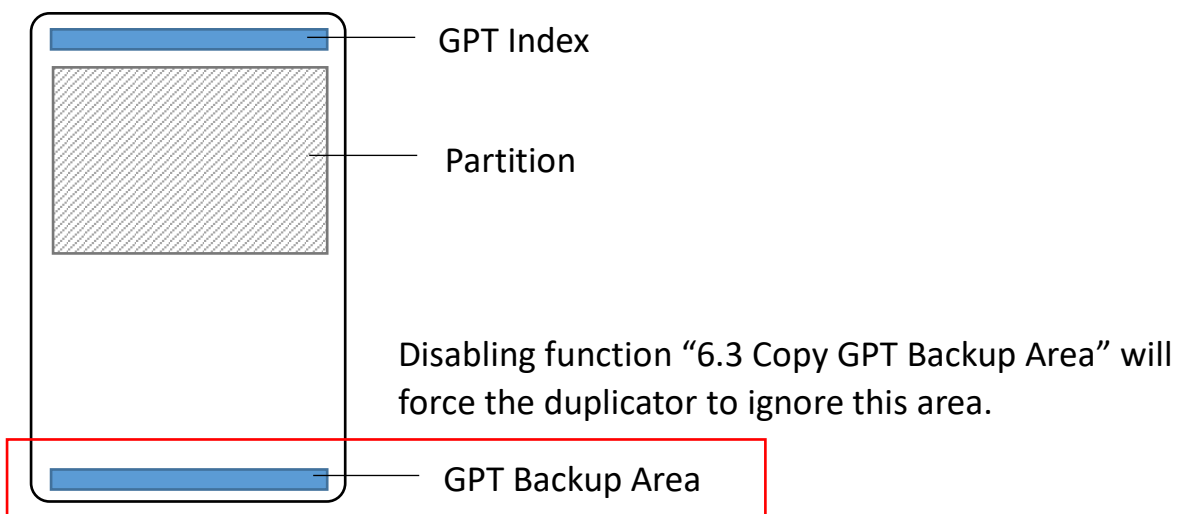
1. Use a clean source device to make the analyzed data capacity shorter. (Clean Source Device means no garbage data in the source device.)
2. The target device must be new or wholly cleaned prior to copy. Otherwise, there is risk for data combination.

### 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 SSD must be smaller than target capacity.



**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 Skip Bad Sectors

Skip source bad sectors during Copy/Compare.

Scroll to select "6.4 Skip Bad Sectors", then press "OK" to scroll through the available values for skipping bad sectors. If the device data is critical and needs to be a full clone, it is recommended to set "Skip Bad Sectors" at "0." Bad sectors can be set as unlimited or at a value from 0 to 65,535.

**Caution** The “Copy+Compare” function is advised for enhanced copy accuracy.

## 6.5 Language

Select English, Japanese, Spanish.

Scroll to select “6.5 Language”, then press “OK.” Then scroll through select the desired language.

## 6.6 Advanced Setup

This function contains settings to fine tune copy and erase functions.

Scroll to select “6.6 Advanced Setup”, then press “OK” to view the submenus.

### 6.6.1 Unknown Format

This function only works with copy functions: “System and Files” and “All Partition”.

Scroll to select “Unknown”, then press “OK”. Then scroll through to select one of two settings.

Unknown format includes all forms of modified and proprietary data and partitions.

#### ■ Copy Unknown

Copy unknown format(s).

Scroll to select “Copy Unknown”, then press “OK” to save this setting.

#### ■ Skip Unknown

Skip unknown format(s).

Scroll to select “Skip Unknown”, then press “OK” to save this setting.

### 6.6.2 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.

#### ■ Disabled

Source port will not be allowed to erase.

Scroll to select “Disabled”, then press “OK” to save this setting.

#### ■ Enabled

Source port will be allowed to erase.

Scroll to select “Enabled”, then press “OK” to save this setting.

### 6.6.3 Erase Pattern

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

#### ■ One Byte

Random character written per byte.

Scroll to select "One Byte", then press "OK" to save this setting.

#### ■ Big Random Data

Random character written in a set of area.

Scroll to select "Big Random Data", then press "OK" to save this setting.

### 6.6.4 Skip Erase Errors

Skip source bad sectors during Erase. Bad sectors can be set as unlimited or at a value from 0 to 65,535. The default setting is "0".

Scroll to select "Skip Erase Errors", and press "OK" to scroll through the available values for skipping bad sectors.

#### Note

When "6.6.4 Skip Erase Errors" sets more than 1,  
[Red Light] Erase job is failed, or bad sector quantity over the settings.  
[Green Light] Erase job is done, and no bad sectors.  
[Red Light + Green Light] Erase job is completed, and there are bad sectors. The bad sector quantity is less than the settings.

### 6.6.5 HPA Copy Mode

Scroll to select "HPA Copy Mode", then press "OK" to view the submenus. The default setting is: "Copy and Setting".

#### ① Do Not Copy HPA

This menu contains submenu settings from which users can select.

Scroll to select " HPA Copy Mode >> 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.

#### ② Setting Target HPA

Copies HPA setting from source device to target.

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

### ③ Copy and Setting

Copies HPA setting and data from source device to target.

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

## 6.6.6 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.

### ■ 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.

### ■ Keep HPA Setting

Keeps original HPA setting and data during erase.

Scroll to select "6.6.6 Clear HPA at Erase >> Keep HPA Setting", then press "OK" to save this setting.

## 6.6.7 Wait HDD Time

Sets device power up buffer time prior to copy, erase, etc...

Scroll to select "Wait HDD Time", then press "OK" to set buffer time from 5 to 99 seconds. The default is 30 seconds.

## 6.6.8 Lock Key

This function allows users to enable or disable the 4 control panel buttons.

Scroll to select "Lock Key", then press "OK" to access available settings.

### ■ Do NOT Lock Key

Scroll to select "Lock Key >> Do NOT Lock Key", then press "OK" to save this setting.

### ■ Do Lock Key

Scroll to select "Lock Key >> Do Lock Key", press "OK," then reboot the system to activate the setting.

\*\*Only ▲ ▼ buttons are disabled.



## 6.6.9 Stop Motor Time

Sets device power down buffer time when tasks are completed.

Scroll to select "Stop Motor Time", then press "OK" to set buffer time from 1 to 20 seconds. The default is 3 seconds.

## 6.6.10 Boot Password

Sets up the login password for system.

### ■ Disabled

No need password to start-up the system.

### ■ Enabled

Requires the password to start-up the system.

**Caution** The system must be sent back for reset if the password is forgotten.

## 6.6.11 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."

## 6.6.12 PCIe Speed

Set data transmission speed at "Normal" or "Low Speed."

## 6.6.13 Target Tolerance

This function sets the capacities tolerance range between the source and target device. If the capacity is outside the tolerance range, the copy will fail.

## 6.6.14 Clean SSD Before Copy

Sets to clear SSD before copy function. The default setting is "No".

## **6.7 Restore Defaults**

Restores all setting to manufacture defaults.

Scroll to select “Restore Defaults”, then press “OK” to restore settings back to manufacture defaults.

# 7. Log Manager

This menu allows user to access several submenus.

Scroll to select “7. Log Manager”, then press “OK” access submenus.

## I. Log Report Diagram

Job: COPY  
Time Start: 2018-10-12 11:46:21  
End: 2018-10-12 11:46:28

Background information of this log report

Source HDD Model : Samsung SSD 950 PRO 512GB  
Version : 1B0QBXX7  
Serial Number : S2GMNX0H713706A  
Capacity : 476.9GB(1000215216 sectors)  
Data Size : 1855.4MB(3799864 sectors)  
copy Area : System and Files  
CRC-64-ECMA-182 : F4F1D22524F48FDF

Source device Info.

Quantity Total: 1  
Pass: 1  
Fail: 0

Result

[Pass Record]

Port/Date/Time(Lapsed Time) [ Model No. ] [Revision][S/N] Capacity(Sectors)[Write Speed]  
Port:02, 2018-10-12 11:46:21 ( 6 seconds) NVMe[SAMSUNG MZVPV128HDGM-00000 ][BXW7300Q][S1XVNYAH305965 ] 119.2GB(250069680) [Write Speed=370.9MB/second]

Composite Temperature : 302 degree Kelvin (29 degree Celsius)  
Available Spare : 100%  
Available Spare Threshold : 10%  
Percentage Used : 4%  
Data Units Read : 6427.95 GB  
Data Units Written : 9580.19 GB  
Host Read Commands : 95047612  
Host Write Commands : 208258253  
Controller Busy Time : 639  
Power Cycles : 2410  
Power On Hours : 67  
Unsafe Shutdowns : 2085  
Media and Data Integrity Errors : 0  
Warning Temperature Time : 0  
Critical Temperature Time : 0

S.M.A.R.T Info.

## II. How to Export Log Reports

The Log Report Management Tool assists users with monitoring, recording and managing the entire duplication process. By displaying detailed information for each port, this tool helps to identify the slowest writing device, that in turn, keeps the operation running efficiently.

Note

1. The USB must be FAT16/FAT32 format.
2. The LCD will display the number of recorded logs.  
(E.g. #1-#6 means there are 6 logs.)

### ❶ Out Today Report

Export today’s log report via USB port to a USB drive.

### ❷ Out Recent Report

Exports a recent log report (1-28 days) via USB port to a USB drive.



## 🔍 Out Period Date

Exports a specific time period's log report via USB port to a USB drive.

### 7.1 Out Today Report

Outputs current day log report

Scroll to select "7.1 Out Today Report", then press "OK" to output log report to a USB drive.

### 7.2 Out Recent Report

Outputs recent log report

Scroll to select "7.2 Out Recent Report", then press "OK" to output log report to a USB drive.

### 7.3 Out Period Date

Outputs recent log report

Scroll to select "7.3 Out Period Date", then press "OK" to output log report to a USB drive.

### 7.4 Advanced Function

This menu allows user to access several submenus.

Scroll to select "7.4 Advanced Function", then press "OK" access submenus.

Default password: 123456

#### 7.4.1 Clear All Logs

Clear all log records.

Scroll to select "7.4.1 Clear All logs", then press "OK" to clear all log records.

#### 7.4.2 Setup Password

Allows password change.

Scroll to select "7.4.2 Setup Password", then press "OK" to change to desired password.

#### Note

If you want to change your Log password, please keep your password in a safe place in case you lose it. Please understand that the manufacturer does not provide password reset service due to the consideration of personal privacy.

#### 7.4.3 Adjust Clock

Change time and date.

Scroll to select "7.4.3 Adjust Clock", then press "OK" to adjust the time and date.

#### 7.4.4 Add Watermark at text File

Creates watermark on the log report. The log report can be checked by software (iSecuLog.exe) to prevent modifying.

**Note** Contact with our technical team for related software and operation details.

## 8. Image Manager *(Available when internal SSD is installed)*

This function allows user to manage the image files stored in the internal SSD.

- Note**
1. This function can be used when the SSD is inserted into the slot or else this function will not be displayed in the menu.
  2. When performing the “Image Manager” function, please do not remove the SSD in the slot, which will cause the copy failure.
  3. It is strongly recommended to lock the SSD slot and keep the key safely.

### 8.1 Copy SSD to Image

Upload the source data into the internal SSD as an image file.

### 8.2 Compare SSD with Image

Compare the source data with an image file in the internal SSD.

### 8.3 Show Image Tank

Display the information for internal SSD.

### 8.4 Show One Image

Select and display the information for an image file.

### 8.5 Rename One Image

Select and rename an image file.

### 8.6 Delete One Image

Select and delete an image file.

### 8.7 Format Image Tank

Format the internal SSD.

**Caution** This function will delete the data in the internal SSD.

# Image Management

Users can easily create a GOB image on PC, upload it to the machine and do duplication.

## 1. Software Introduction

1.1 Connect the PC Link USB drive/disc on PC, it will show two folders.

📁 PCIe Software: The installation software is stored in this folder. Please copy the folder from PC Link USB drive/disc to PC.

📁 Usermanual: The user guide is stored in this folder.

1.2 Double click 📁 PCIe Software, it will show three folders.

📁 Driver: The PC needs to install the driver first in order to install other software.

📁 GOB Compiler: Used for creating GOB Image.

📁 PCIE-Upload Image: Used for uploading the GOB Image to PCIE duplicator.

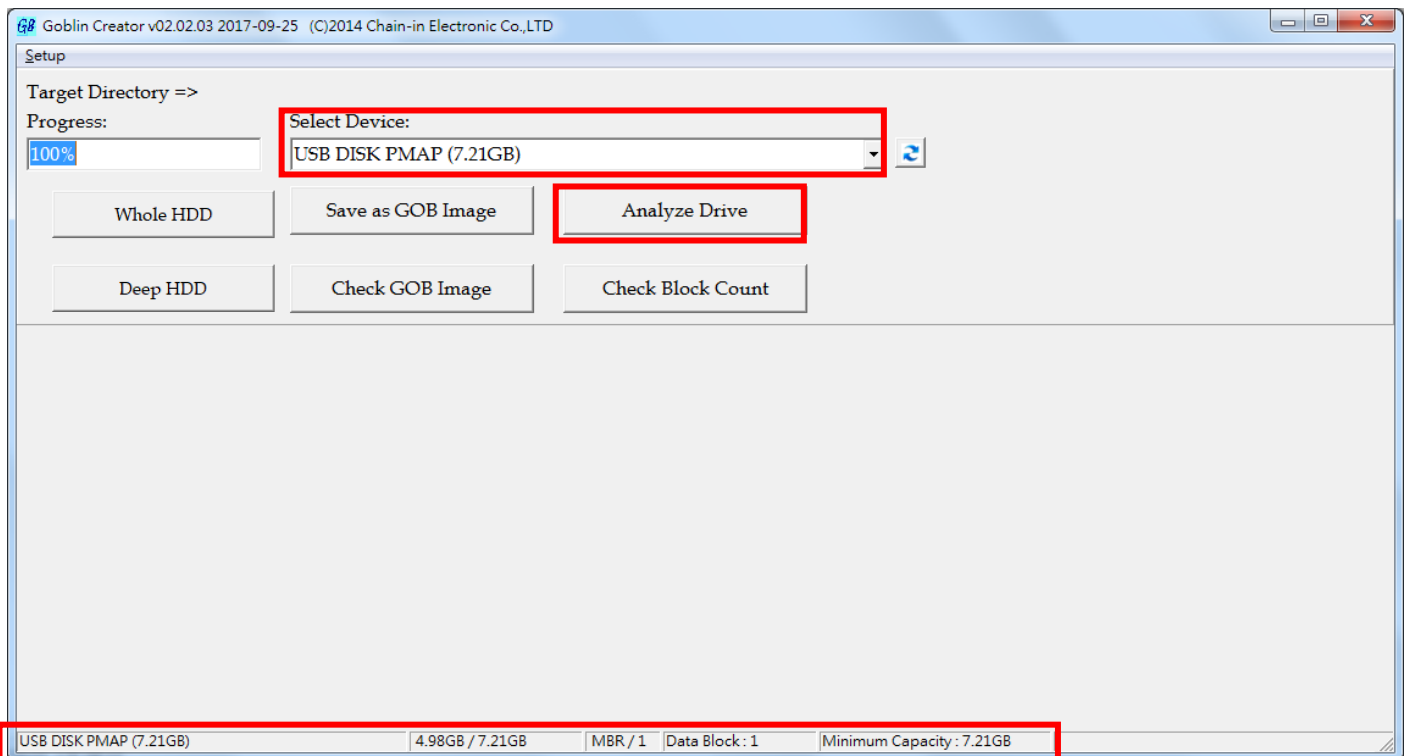
1.3 Double click 🗑️ to install the driver.

## 2. Creating a GOB Image


2.1 Connect a source drive to PC.

2.2 Double click 📁 GOB Compiler and execute "GOB Compiler 🗑️ application".

2.3 Select the source device, and then click "Analyze Drive," it will display data details at the bottom.



**Note**

If the device has not been detected in the list, please click  "renew button" in the right.

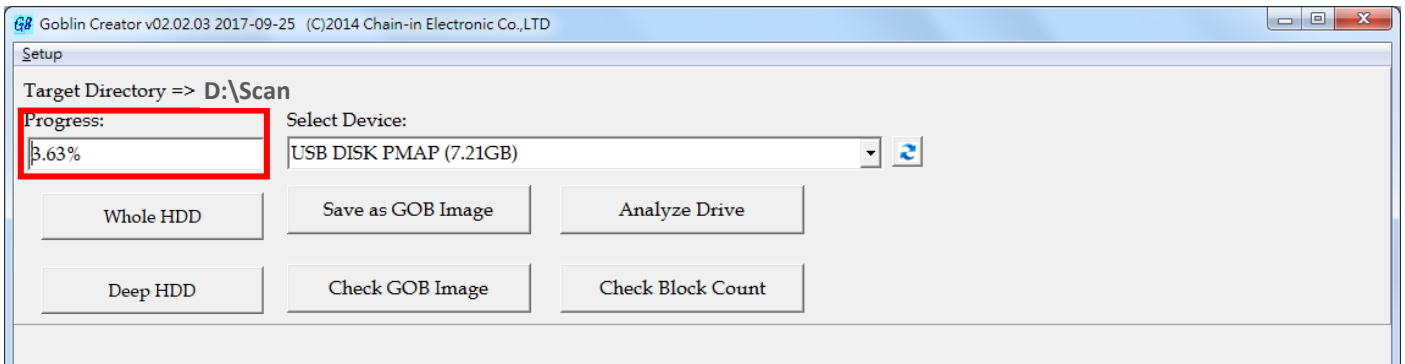
**Caution**

Please note the GOB Image file will not copy to smaller target capacities than the original source drive capacity.

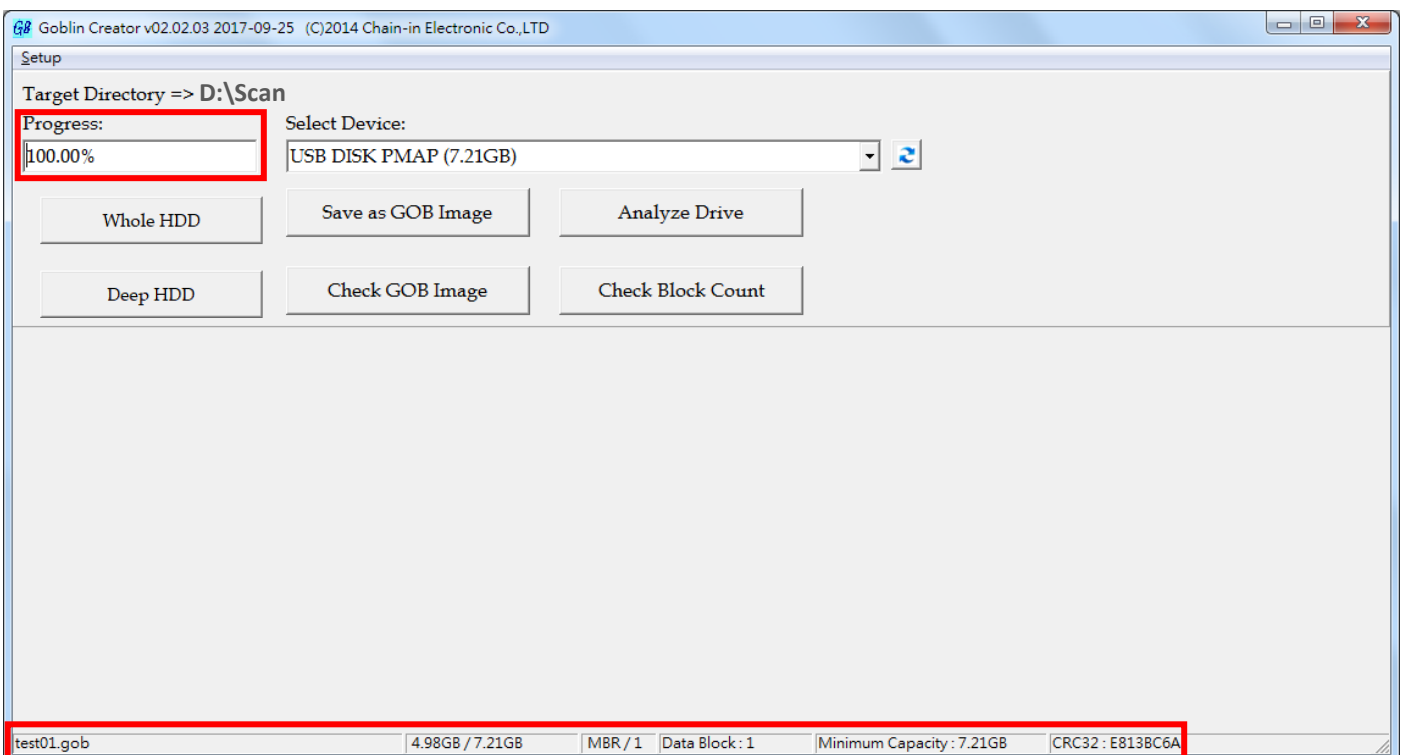
2.4 There are 3 modes for making GOB image files, System and Files, Whole Device, and Depth Profiling Analysis.

**1 System and Files:**

- a. Click "Save as GOB Image," named the image and click "Save." The GOB file will be created.
- b. During compiling process, the percentage of production is shown in the "Progress".

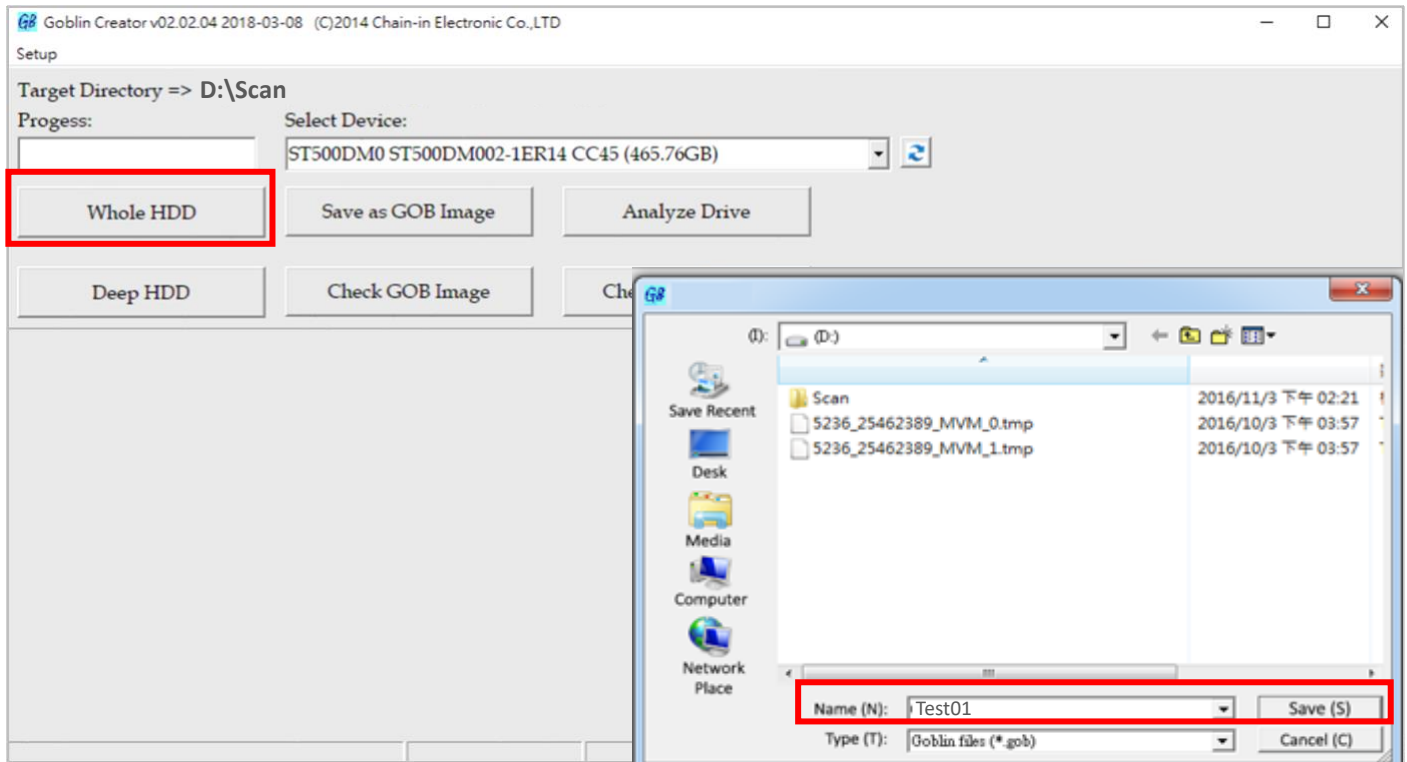


c. After completion, the detail of image information will display at the bottom.



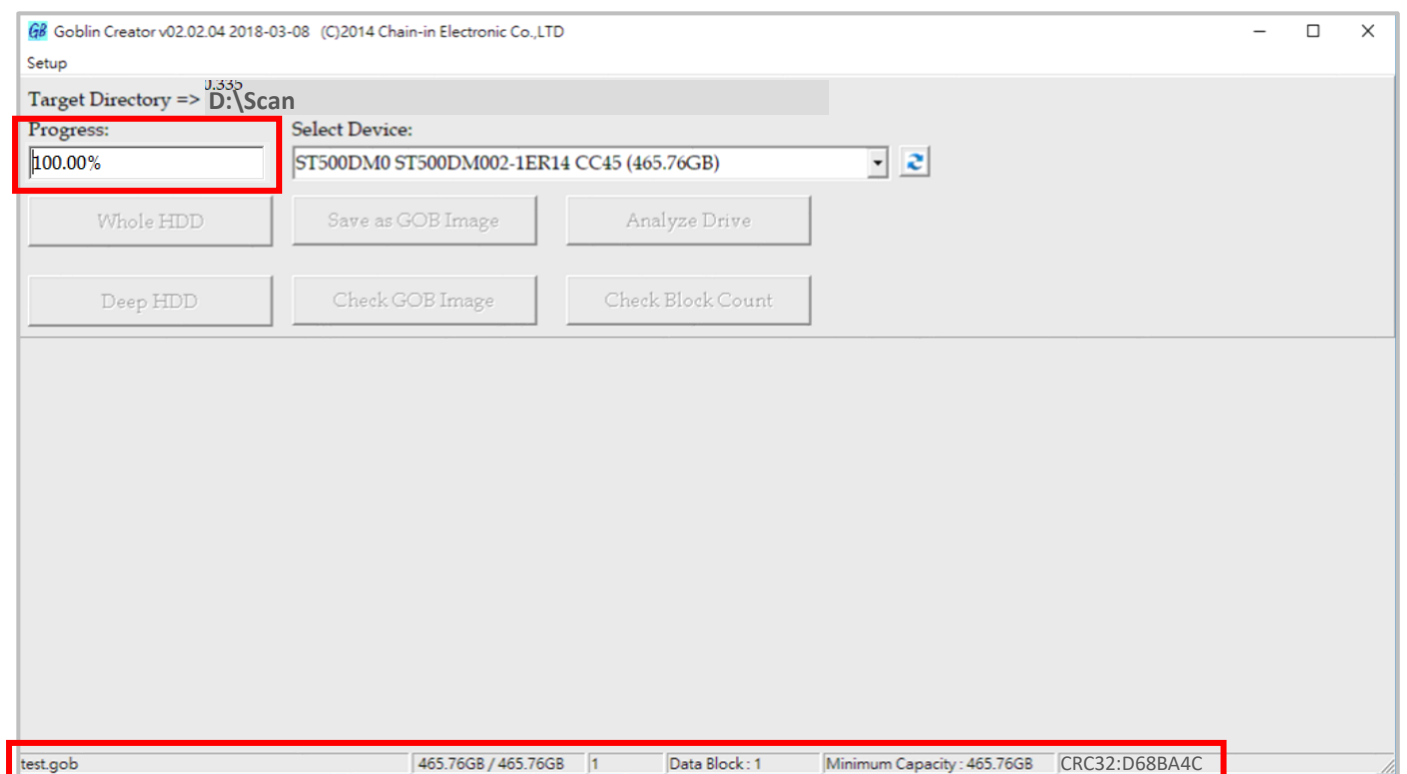
## 2 Whole Device

a. Click "Whole HDD," named the image and click "Save." The GOB file will be created.



b. During compiling process, the percentage of production is shown in the "Progress".

c. After completion, the detail of image information will display at the bottom.

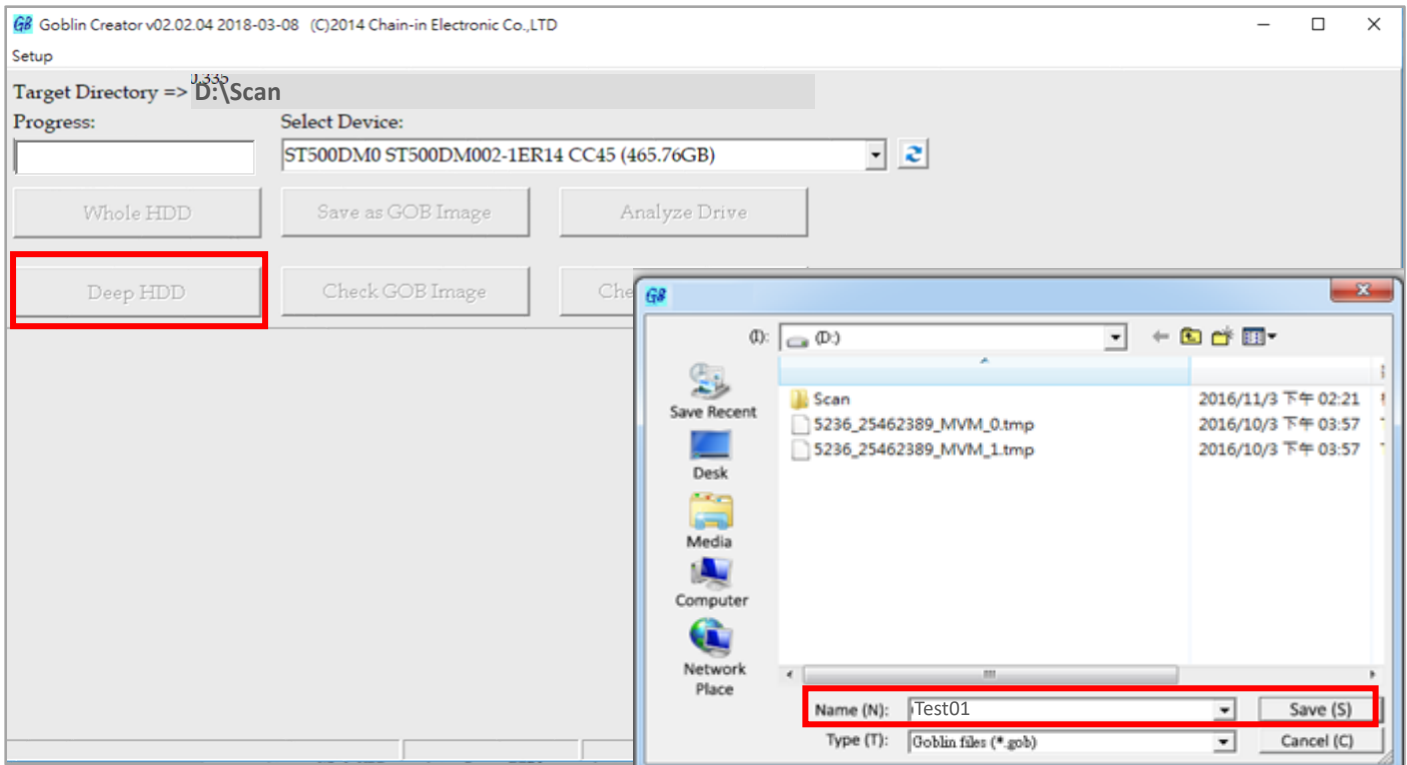




### ③ Depth Profiling Analysis

This function is specially designed for data format which “System and Files copy mode” doesn’t support. It detects data area in the source and makes the image file.

a. Click "Deep HDD," name the image and click "Save." The device will start the deep analyze process, and the GOB file will be created.



b. After completion, the progress will show “Deep Analyze 100%.”

#### Caution

- If your source device has a lot of garbage data, the image file size made through Depth Profiling Analysis will be big. It is recommended to use a clean device to make a source. Executing 4.5 Secure Erase is one way to clean the device.
- Depth Profiling Analysis copy only supports new target device (clean target device). Without using a clean target device, there will be high risk for data error.

### 2.5 Other Functions

There are 2 functions for checking the status of GOB file, including Check GOB Image, and Check Block Count.



- ① Check Gob Image: To determine if the GOB disk image file was broken or re-edited.
- ② Check Block Count: To calculate the number of data block in the disk drive. The transmission can acutely cause delays when the data block count is greater than 10000.

### 3. Upload the GOB Image to PCIE Duplicator

Steps 3.1 to 3.4 are for users who have purchased an optional internal SSD and will be setting it up for the first time.

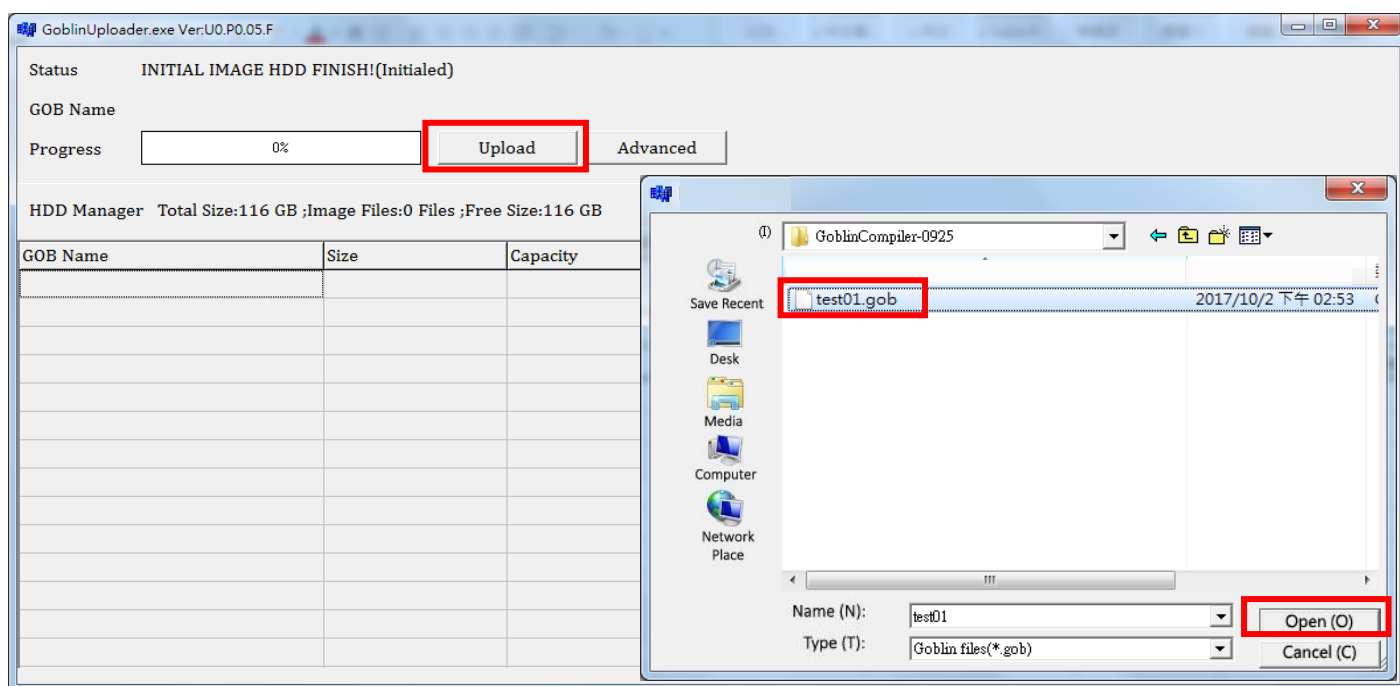
3.1 Insert an SSD into the internal port of the PCIE duplicator.

3.2 Connect your computer via USB cable to the PCIE duplicator with both systems powered on.

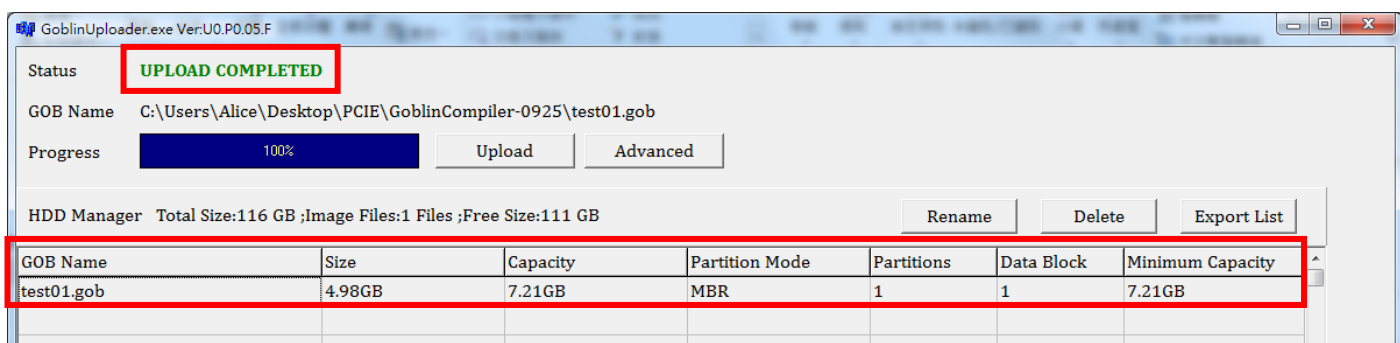
3.3 Double click  PCIE-Upload Image and execute “GOB Uploader  application.”

3.4 After successful detection, a popup menu will display (shown in the figure below). Click OK to “Format HDD FOR FIRST USE. “This formats the internal SSD installed in the PCIE duplicator.

3.5 Once formatted, click “Upload” and choose an image file. For example, select “test01.gob” then press “OPEN”.





3.6 The progress bar will launch. It uploads the GOB image to the duplicator’s internal SSD and completes at 100%.



## Note

- To verify the GOB file in the duplicator, please power off, remove the USB link cable, and then power on the machine. Scroll through to select “1.2 Internal Storage”, then press “OK” to verify the file name and size are correct.


Select Image:  
Test01.gob      5096M

- Only one duplicator is allowed to be connected.
- To resolve the error, all files must be deleted, except “GOB Uploader  application” within  PCIE-Upload Image folder.


## 4. How to copy by selecting GOB Image

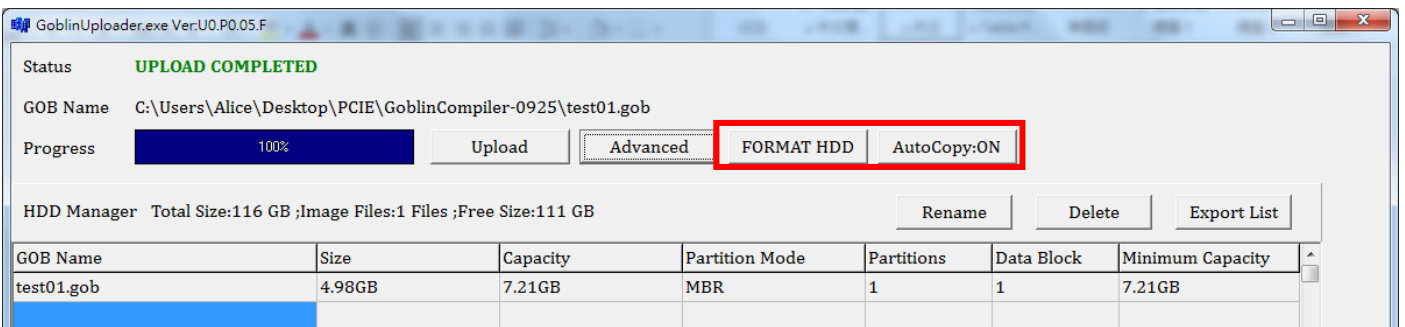
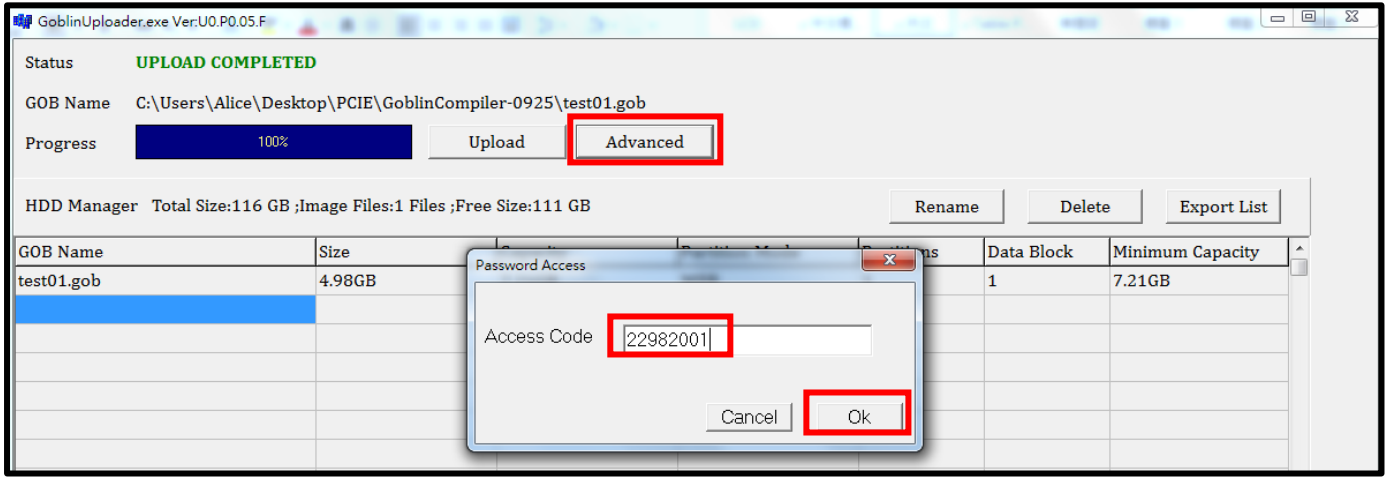
- 4.1 Confirm that the GOB Image is stored on duplicator successfully.
- 4.2 Remove the USB connection cable from duplicator to PC and reboot the duplicator.
- 4.3 Scroll to select “1. 2 Internal Storage”, then press “OK” to select the GOB Image to copy from the duplicator’s built-in storage device.

## 5. How to delete the GOB Image

- 5.1 Connect your computer via USB cable to the PCIE duplicator.  
Then, execute “GOB Uploader  application.”
- 5.2 Select the GOB file in the list, and press “Delete.”
- 5.3 Confirm the file name and then press “OK.”

## 6. Advanced Functions

- 6.1 Connect your computer via USB cable to the PCIE duplicator.  
Then, execute the “GOB Uploader  application.”
- 6.2 Press “Advanced” and enter the password, “22982001.” It will display the advanced functions on the main screen.



- **Format HDD:**  
Format the internal SSD in the PCIE duplicator.

**Caution** Please backup all important data before using this function.

- **AutoCopy:**  
It will automatically copy after the image is uploaded.

***Specifications are subject to change without notice.***