FlashMAX USB/SD/CF Duplicator User Manual

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The source port of duplicator is write-protected, and the settings and data content of any storage device in the source port will not be changed at all. Do not place the source storage device on the target port to avoid accidentally changing (deleting) of data. It has nothing to do with EZ Dupe if there is any mistake in correcting (deleting) the data by user. In addition, EZ Dupe is not responsible for the risks and data losses incurred as a result of duplication. By purchasing this product, the user accepts this statement and agrees to be bound by it.

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Before Use

1. Please read this manual carefully before operation to avoid any misconduct.

2. Make sure that the storage device you want to use is of good quality and can be used normally.

3. The capacity of target storage device must be greater than or equal to the capacity of source storage device to avoid incomplete data backup.

4. It is recommended to use the Copy + Compare function when backing up, to ensure that the backup data is 100% the same as the source data, because the target storage device may have write errors or damaged sectors.

5. When updating the firmware, please do not turn off the power. If the power is interrupted accidentally, the machine cannot be turned on, and it must be returned to the factory for processing.

6. Keep the duplicator used in a dry environment. Rain, moisture, liquid, etc. may corrode the circuit board and cause the machine to malfunction.

7. Avoid using the duplicator in dusty or dusty environments. Dust may cause bad contact with the port.

8. This product warranty does not apply to accident, man-made destruction, abuse, or improper use (such as using not in accordance with the product description, or intended to exceed the scope of use for which this product was designed, or improper use of fixtures, etc.)

9. If the duplicator performs normally, it is strongly recommended not to update the firmware, unless there is a problem in use or a new function is required.

10. For convenience, the source storage device will be referred to as the source device, and the target storage device will be referred to as the target device in this manual. The storage device used can be USB flash drive, SD or CF memory card based on the model of duplicator.

I. Introduction

This duplicator system is designed and developed based on the FPGA from the world famous semiconductor company XILINX. Every processing channel is parallel to each other with its own control unit, therefore the duplicator will not sacrifice speed for the increasing number of targets loaded - always remain the same and fast copy speed. The duplicator supports fast copy with multiple file formats created by three major operating systems (Windows/Linux/MAC), and makes mirror copies of data efficiently. Furthermore, this duplicator has been fully tested with quality assurance before leaving our manufacturing facility.

1. Features

a. Each processing channel has its own control unit and operates independently with dedicated bandwidth of up to 35MB per second.

b. Standalone operation. No PC or software is required, minimizing possible computer virus infection.

c. Instant power on and off, no warm-up or cool-down required.

d. Easy-to-use One-Touch copy operation.

e. Compare function available for verification of copy accuracy

f. Menu options are user-friendly and easily accessed through the 4-button control panel. Use ▲or ▼ button to scroll through the options and view the operation status of each channel on the 2-line backlit LCD display.

g. Support Synchronous and Asynchronous copy modes for best operation efficiency.

h. Powerful 32-bit CRC checksum to assure data integrity.

i. Heavy-duty hardware construction for commercial production or personal use.

j. 115V and 230V switching power supply maximizes portability for operation anywhere.

k. Designed to save users time and effort in creating multiple copies quickly and reliably.

l. Unique source data analysis to copy data area only to achieve highest efficiency

m. Supports multiple file formats: Windows: FAT 16/32、exFAT、NTFS, Linux: Ext 2/3/4, Mac: HFS/HFS+

n.   Not only to do copy, but also test flash media capacity and reading/writing speed.

2.   Duplicator Introduction

The following picture shows the 1-39 Flashmax USB Duplicator as an example, and it can be applied to SD and CF duplicator. The source USB port is at the upper left corner for master disk, and the rest are the ports for target disks. It is the same for all other duplicators with various number of ports. The appearance of the duplicator may be changed without notice.

The USB port is numbered as port 0 for the source port, and the remaining USB ports from left to right and from top to bottom are port 1, 2, 3, …, and so on.
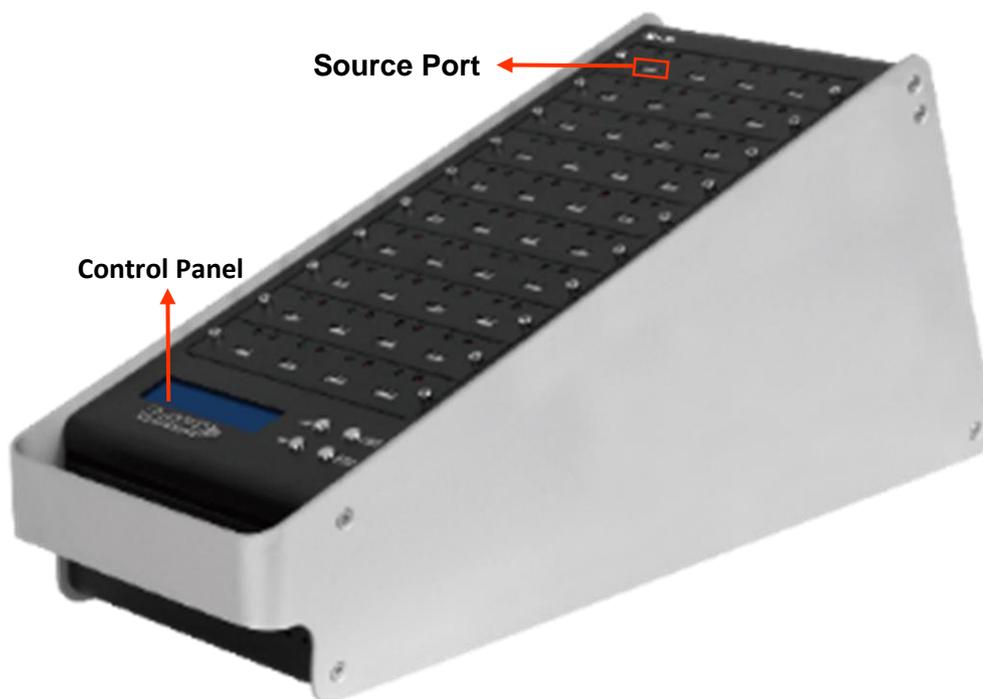
3. Control Panel Overview

▲Button

ENT Button

ESC Button

LCD Screen

▼Button

▲Button: *Up, Backward:* To navigate backward in the menu.

▼Button: *Down, Forward:* To navigate forward in the menu.

ENT Button: *Enter, OK:* Execute the function.

ESC Button: *Escape, Cancel:* Go back to the previous level in the menu.

4. Specifications

Operation	Standalone (No PC or Software is required)
Target	15, 39
Copy Speed	35 MB/s
Copy Mode	Synchronous and Asynchronous
Copy Area	File and System, Percentage, All Partition, and Whole Media,
Supported Media	USB：1.0/2.0/3.0/3.1 SD/Micro SD：SD/SDHC/SDXC CF：Support MMC SPEC v3.x/ v4.0/ v4.1/ v4.2
Supported File System Format (for Intelligent Copy)	Windows：FAT16/32, exFAT, NTFS Linux：Ext2/3/4 MAC：HFS/HFS+/HFSX
Display	2-line Backlit Monochrome LCD
Control Button	4 push-button control panel (ENT, ESC, UP, DOWN)
Memory	128MB DDR3

II. Warning

1. The duplicator tasks mentioned in this user's manual are as following: Copy, Compare, Copy + Compare, Capacity Check, and the functions under Utility sub menu, such as Format and Erase.

2. All the tasks can be executed in synchronous mode, and asynchronous mode.

3. The Green LED flashes during the execution process of a task. After the task is done, the Green LED will stay solid if the process is successful, otherwise the Red LED will be on if the process is failed.

4. Press and hold **ESC** button during the execution process of a task will stop and exit the execution of the task.

5. DO NOT unplug USB drive from the duplicator during the execution process of a task. It may cause damage to the duplicator system and media.

6. It is strongly recommended that the capacities of the source and target media are equal or similar.

7. It is not recommended to use USB card reader to copy different media on the USB duplicator, such as CF/SD/MS cards. It may cause damage to the duplicator system and media.

8. DO NOT plug in USB or flash media until the duplicator boots up. It may cause abnormal results if a USB or flash media with quality issue is plugged in before or during the boot up process.

III. Synchronous /Asynchronous Mode

1. Synchronous Mode

Synchronous Mode (default) means that the duplicator will start to execute a task after the source and target devices have been inserted and the ENT button is pressed. The task will begin and end at the same time for all target devices. Any other target device plugged in during the process of a task will not be executed with the task. Go to section **4.2 Asynchronous Mode** to enable or disable this function.

a. Insert source media into the source channel and blank media into the target channels properly. The LCD display will show no source disk when source media is not plugged in yet, and show the number of target media inserted when source media plugged in.

b. The green LED will be on if the target device is plugged in properly.

c. Select the task from menu, and press **ENT** button to execute it.

d. During the execution process, the status of each target device can be checked by using the ▲ and ▼ buttons.

e. After the task is done, LCD display will show the number of successful and failed target(s), and execution time.

2. Asynchronous Mode

Asynchronous Mode means that the duplicator will read the data from source device into system memory buffer and start to execute a task immediately when target device(s) inserted. Duplicator does not have to wait for all target device(s) inserted in order to start the execution of the task at the same time. No matter the data size of the

source device, duplicator can asynchronously execute a task if Asynchronous Mode is enabled. Go to **4.2 Asynchronous Mode** to enable or disable this function.

a. Insert source media into the source channel, select the task to execute from the menu, and press **ENT** button. Duplicator will start to execute the task now.

b. Target devices can be plugged in during the execution process, and will start to execute the task immediately

c. Target device can be removed when it finishes the execution process and its green LED is solid on. New target device can be plugged into the same channel for execution of the task again.

d. LCD display will show the percentage of execution process, the number of successful and failed target(s). Here the percentage of execution process displayed is only for the least processed target device.

e. During the execution process, the status of each target device can be checked by using the ▲ and ▼ buttons.

f. After the task is done for all target devices, press ESC button to exit from the task. LCD display will show the total number of successful and failed target(s), and total execution time.

g. Don't need to wait for all target devices to be done. Each channel executes the task asynchronously.

IV. Menu Overview

1. Duplicate

1.1 Copy

To copy from source device to target device(s), please go to **4.1 Copy Area** to select the setting first before this step.

1. Duplicate	**[Duplicate]** **1.Copy**	**Copy：7 7.8G** **00:15 (03) 2%**
No source device	Source and target devices inserted	Display copy progress

Result: 10:30 **Pass：7 Fail：0**	Copy: 7 number of targets **7.8G**: data to be copied **00:15**: elapsed time **(03)**: s **10%**: rate of progress
	The process of all tasks are displayed in the same format
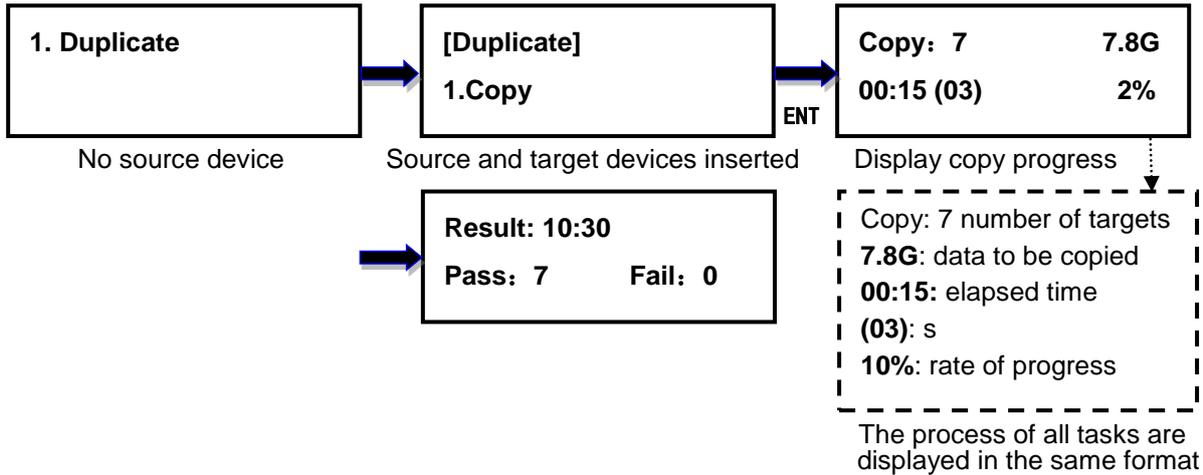
1.2 Compare

This command allows to compare the copied target devices against the source for accuracy.

[Duplicate] **2.Compare**	**COMP：7 7.8G** **00:15 (03) 10%**	**Result: 10:30** **Pass：7 Fail：0**
Source and target devices inserted	Display compare progress	Final result
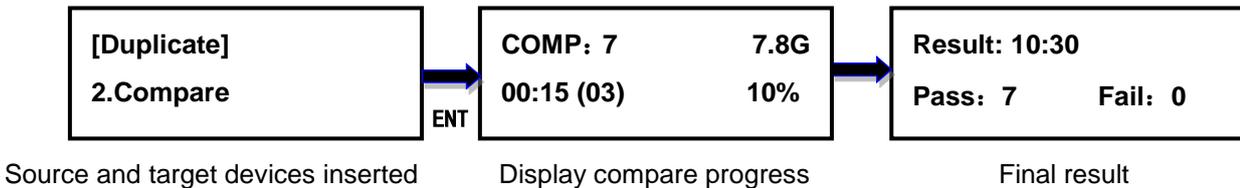
1.3 Copy + Compare

This command allows duplicator to start Copy process first, then follow with Compare process immediately.

[Duplicate] **3.Copy+commpare**	**Copy&：7 7.8G** **1:15 (03) 10%**	**&COMP：7 7.8G** **20:15 (03) 10%**
Source and target devices inserted	Display copy progress	Display compare progress

Result: 20:30 **Pass：7   Fail：0**
Final result
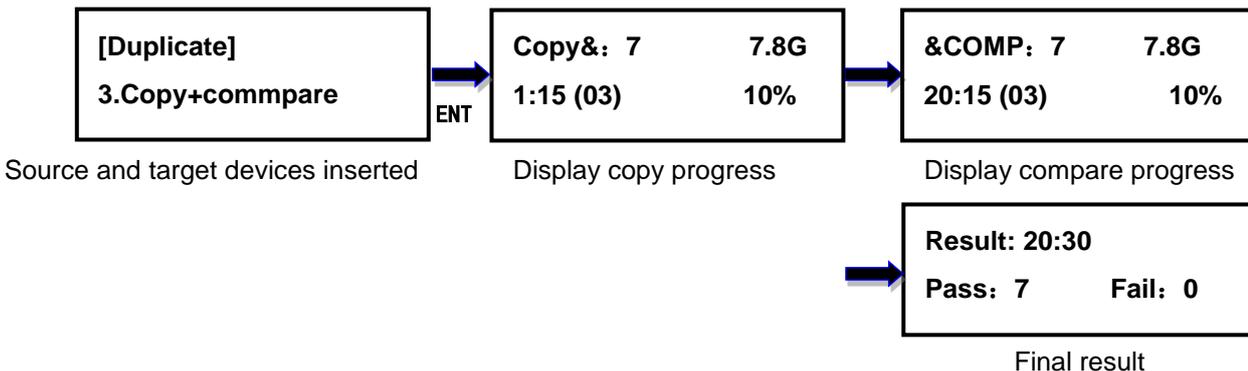
1.4 Dual Source Copy + Compare

Two source devices with identical content will be used for this task. One source device is inserted into source port while the other inserted into the 1st target port. Duplicator starts copy process first and reads data content from the source port; duplicator then starts compare process after copy is done, and reads data content from the 1st target port. By comparing the copied devices against the second source, it can find out if the source device has unexpected damage or not, and avoid the waste of time and media for further duplication. The rest of procedure is the same as regular Copy + Compare procedure.

```
┌──────────────────────────────┐     ┌──────────────────────────────┐     ┌──────────────────────────────┐
│ [Duplicate]                  │     │ D_Copy:7          1100M      │     │ 01:20              15%       │
│                              │ ENT │                              │     │                              │
│ 4. Dual Source Copy+commpare │     │ 01:50             10%        │     │                              │
└──────────────────────────────┘     └──────────────────────────────┘     └──────────────────────────────┘
   Put source devices into Source        Copy from the source on              Compare with the source on
    port and 1st target port                the source port                      the 1st target port
```

```
┌──────────────────────────────┐
│ Result:   40 : 25            │
│                              │
│ Pass：7        Fail：0       │
└──────────────────────────────┘
            Final result
```
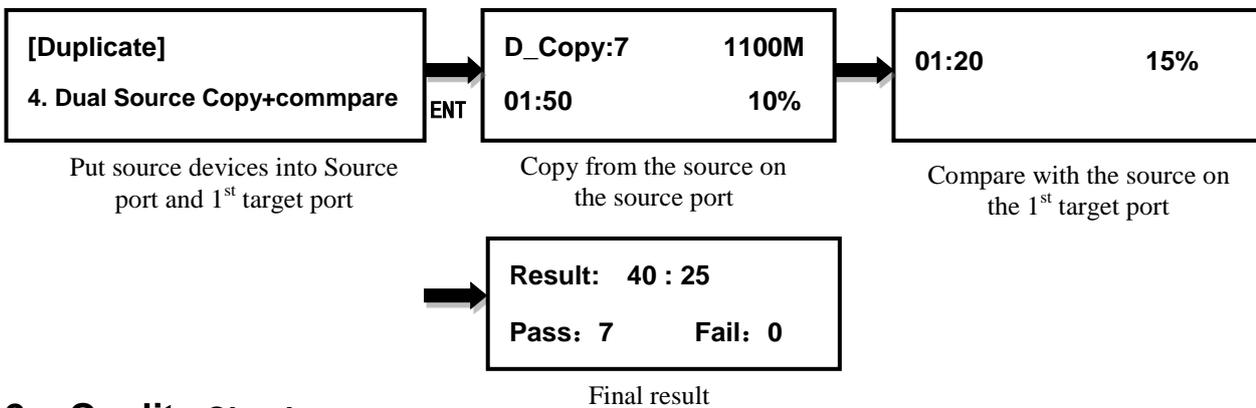
2. Quality Check

In case of the damage to the original source media, Quality Check function will not be executed on the source port.

2.1 H3 Test

Testing Read function under designated area in the flash media to verify if it is normal. It will not change the original data stored in the flash media. Attention: this function only tests Read function, but not Write function.

```
┌──────────────────────────────┐     ┌──────────────────────────────┐     ┌──────────────────────────────┐
│ [Quality Check]              │     │ H3_TEST：1                   │     │ Result: 00:46               │
│                              │ ENT │                              │     │                              │
│ 1. H3 Test                   │     │ 00:20 (03)        10%        │     │ Pass：7        Fail：0       │
└──────────────────────────────┘     └──────────────────────────────┘     └──────────────────────────────┘
```

```
┌──────────────────────────────┐     ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
│ [#1]0 K           738M       │     │ [#1]0 K: [#Port] failed capacity│
│                              │ ⤏   │ 738M: Capacity tested           │
│ R 10.9M           W 0.0M     │     │ R xxM/W xxM:                    │
└──────────────────────────────┘     │ Read & Write speed              │
                                      └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
```
              Use ▲or▼ to select the information of each port
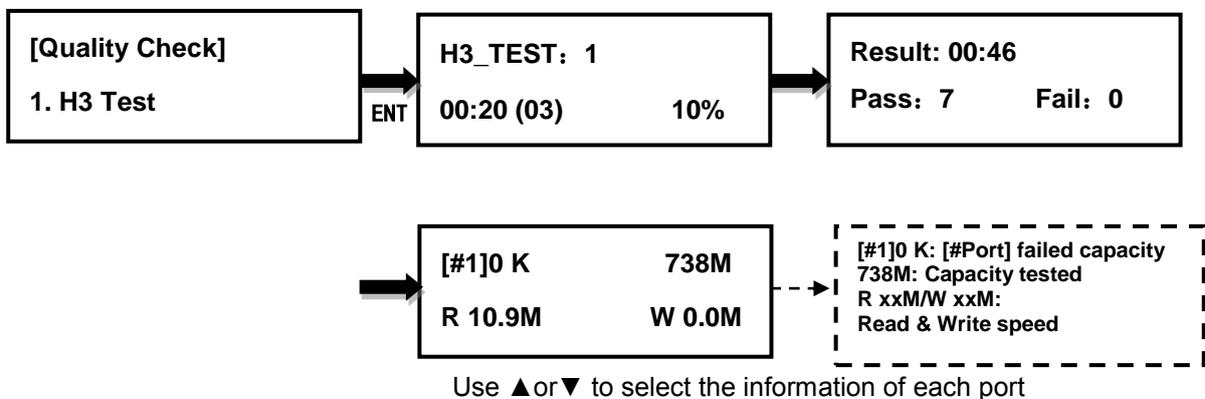
2.2 H5 Test

Testing Read and Write function under designated area in the flash media. It will clear the original data stored in the flash media, and format the flash media after the testing is done.

[Quality Check] **2.H5 Test**	**Data will be erased!** **Cancel**	**Data will be erased!** **Continue**

ENT ▲

H5_TEST：7 **00:20 (03) 10%**	**Result: 00:46** **Pass：7 Fail：0**

ENT
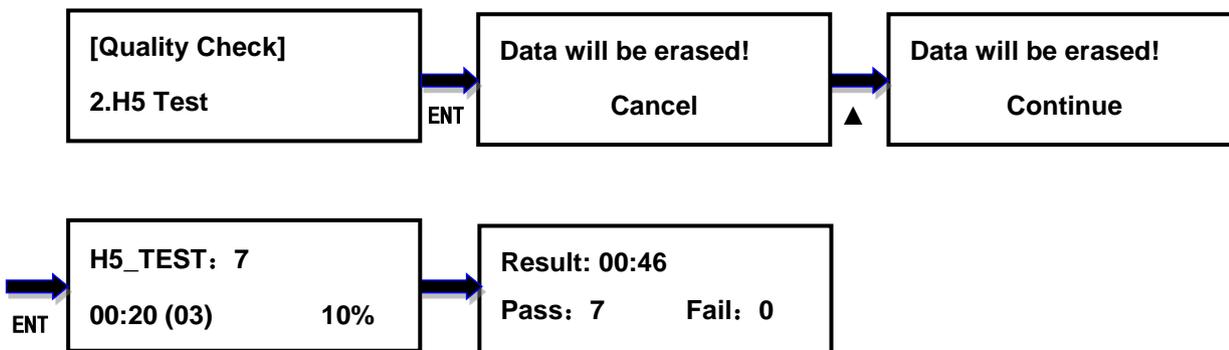
2.3   H6 Test

Testing Read and Write function under unused area (**data area are excluded**) in the flash media. It will not change the original data stored in the flash media.

[Quality Check] **3 H6 Test**	**Data will be erased!** **Cancel**	**Data will be erased!** **Continue**

ENT ▲

H6_TEST：7 **00:20 (03) 10%**	**Result: 00:46** **Pass：7 Fail：0**

ENT
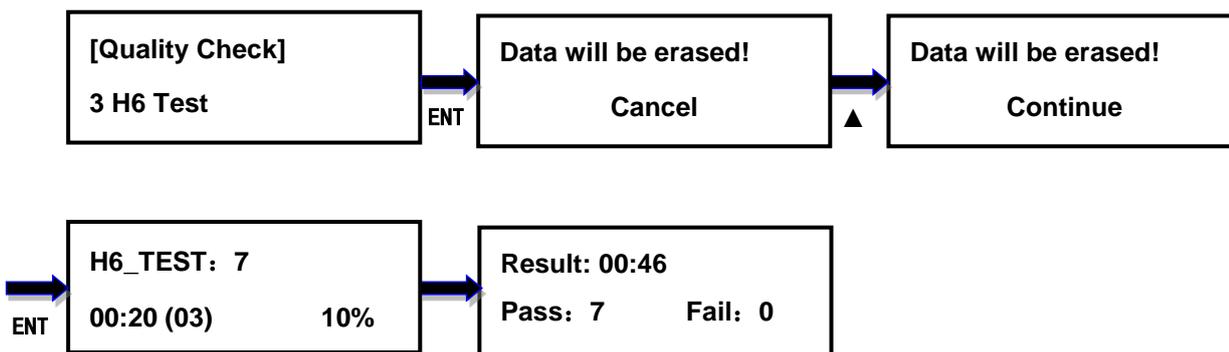
2.4 H7 Test

New method to test the Read and Write function twice under designated area in the flash media, which can effectively detect the overrated capacity of flash media. It will clear the original data stored in the flash media, and format the flash media after the testing is done.

[Quality Check] **4. H7 Test**	**Data will be erased!** **Cancel**	**Data will be erased!** **Continue**

ENT ▲

H7_TEST：7 **00:20 (03) 10%**	**Result: 00:46** **Pass：7 Fail：0**

ENT
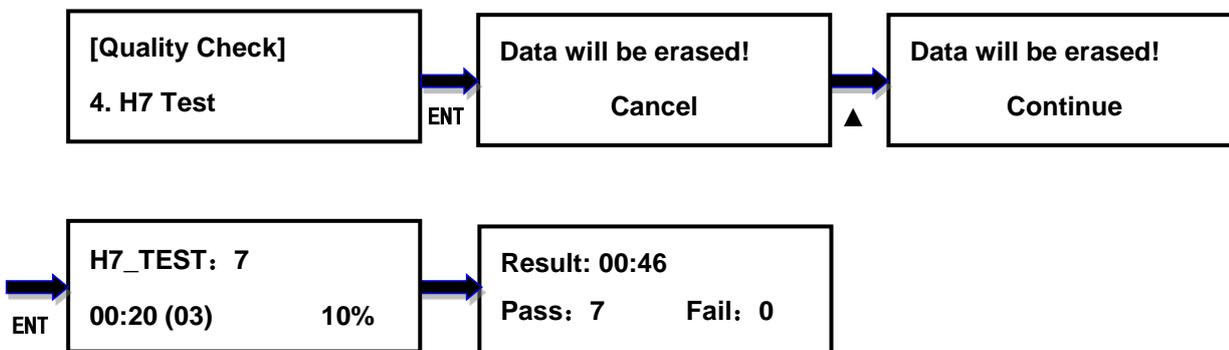
2.5 Set Test Range %

Set up the testing range. It can be set from 1% to 100%.

[Quality Check]		[Set Test Range]
5. Set Test Range	**ENT** →	100%

Use ▲or▼ to select
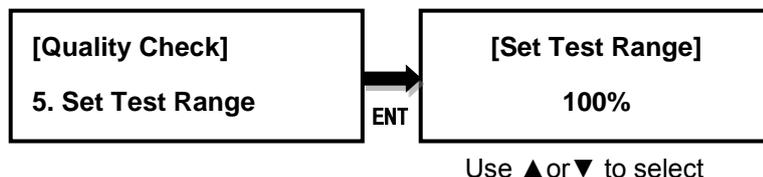
2.6 Set Test Range MB

Set up testing range. It can be set from 1MB to 9000MB. Both 2.6 & 2.7 are for setting test range, the last setting works. For example, when you set Test range=10% then set 100MB, the test range is 100MB. When you set 10% again, the test range is 10%.

[Quality Check]		[Set Test Range]
6. Set Test Range	**ENT** →	100 MB

Use ▲or▼ to select
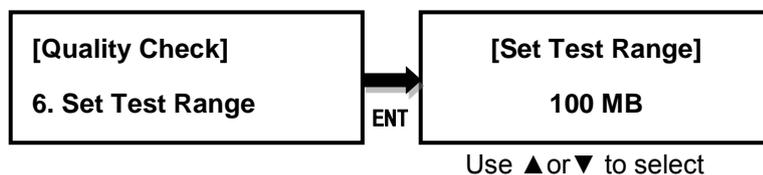
2.7 Set Bad Sector Ratio

Set up tolerance ratio of bad sector for flash media testing, from 0.01% to 50% or OFF.

[Quality Check]		[Set Bad Sector Ratio]
7. Set Bad Sector Ratio	**ENT** →	10%

Use ▲or▼ to select
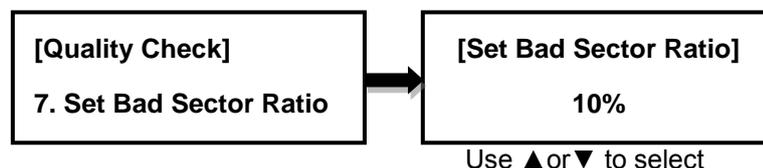
2.8 Set Bad Sector Size

Set up tolerance size of bad sector for flash media testing, from 0MB to 9999MB or OFF. Both 2.8 & 2.9 are for tolerance of bad sector, the last setting works.

[Quality Check]		[Set Bad Sector Ratio]
8. Set Bad Sector Size	**ENT** →	Below:9999M

Use ▲or▼ to select
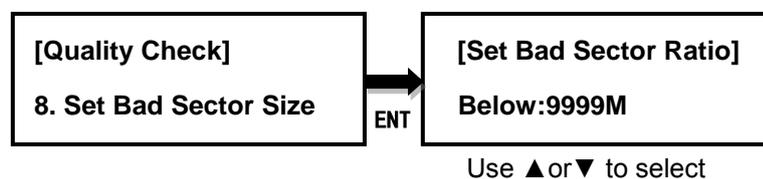
2.9   Set Speed Threshold

Set up minimum Read and Write speed for flash media testing, ranging from 0.5 MB/S to 35 MB/S or OFF.

```
┌─────────────────────────┐        ┌─────────────────────────┐
│ [Quality Check]         │        │ [Set Speed Threshold]   │
│                         │  ENT   │                         │
│ 9. Set Speed Threshold  │ ─────► │ Read: 35MB/s            │
└─────────────────────────┘        └─────────────────────────┘
```

Use ▲or▼ to select
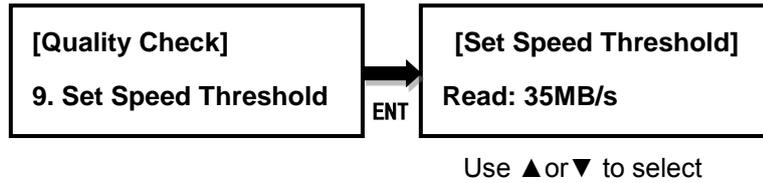
2.10 Set Capacity Threshold

The difference between actual capacity and labeled capacity of flash media is allowed and the threshold can be set up in 3 steps.

Capacity: Set up labeled capacity from 32MB to 2TB, Depend on Source, and OFF.

```
┌─────────────────────────┐        ┌─────────────────────────┐
│ [Quality Check]         │        │ [Quality Check]         │
│                         │  ENT   │                         │
│ 10.Set Capacity Threshold│ ────► │ Capacity: 8G            │
└─────────────────────────┘        └─────────────────────────┘
```

Use ▲or▼ to select

Unit: You can choose the unit of 1M=1000K or 1M=1024K.

```
              ┌─────────────────────────┐
              │ [Quality Check]         │
       ENT    │                         │
       ─────► │ 1M = 1000K              │
              └─────────────────────────┘
```

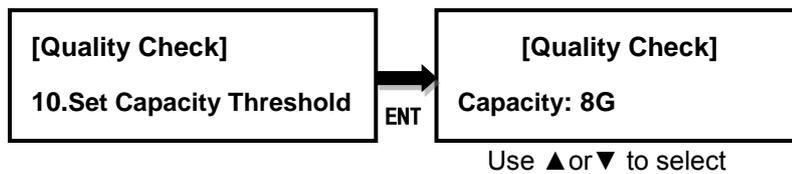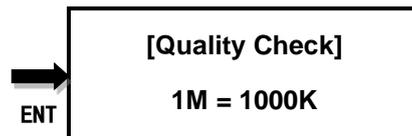**Tolerance:** Set up the tolerance ratio for the difference between actual and labeled capacity, ranging from 0 to 50%.

```
        ┌─────────────────────────┐        ┌─────────────────────────┐
        │ [Quality Check]         │        │ [Quality Check]         │
  ENT   │                         │  ENT   │                         │
 ─────► │ Upper Range: 10%        │ ─────► │ Lower Range: 5%         │
        └─────────────────────────┘        └─────────────────────────┘
```
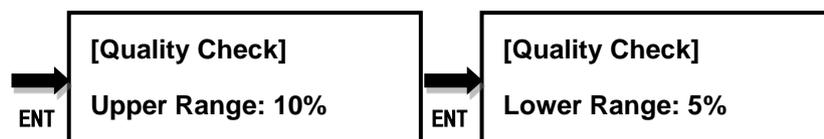
2.11 Set Error Active

This is the setting to stop or continue the test when any of the testing conditions (such as Capacity Threshold or Bad Sector Ratio) is failed to meet.

```
┌─────────────────────────┐        ┌─────────────────────────┐
│ [Quality Check]         │        │ [Set Error Active]      │
│                         │  ENT   │                         │
│ 11. Set Error Active    │ ─────► │ Stop Test               │
└─────────────────────────┘        └─────────────────────────┘
```

Use ▲or▼ to select
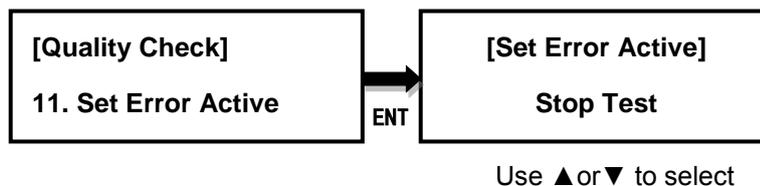
2.12 Set Format Type

H5 and H7 Test will format the flash media after testing. This setting is to set up the file system format for the Format function implemented by H5 and H7 Test. The options are Depends on Size, FAT32 and exFAT. The default is Depends on Size.

Depends on Size: System will automatically select FAT16 when the size is smaller than 2G, select FAT32 as file system format when the flash media capacity is less than or equal to 32 GB, and select exFAT when the flash media capacity is greater than 32 GB.

FAT16: Select FAT16 as file system format.

FAT32: Select FAT32 as file system format.

exFAT: Select exFAT as file system format.

[Quality Check]		[Set Format Type]
12. Set Format Type	**ENT**	Depends on Size

Use ▲or▼ to select

3. Utility

3.1 Format FAT32

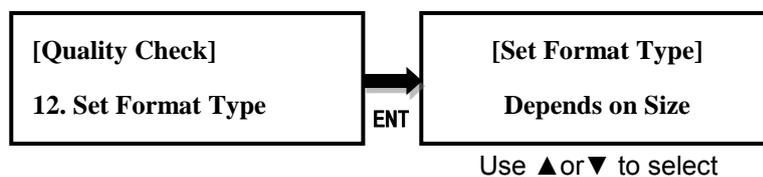This option allows to format the target device to FAT32 file format. It will not format the source device, avoiding accidently erasing the original data content. User will be asked if it is sure to format the target devices before the Format process starts.

[Utility]		Sure to format?		Format：7
1. Format FAT32	**ENT**	Yes	**ENT**	00:00 (00) Wait

Use ▲or ▼ to select option   Display progress status

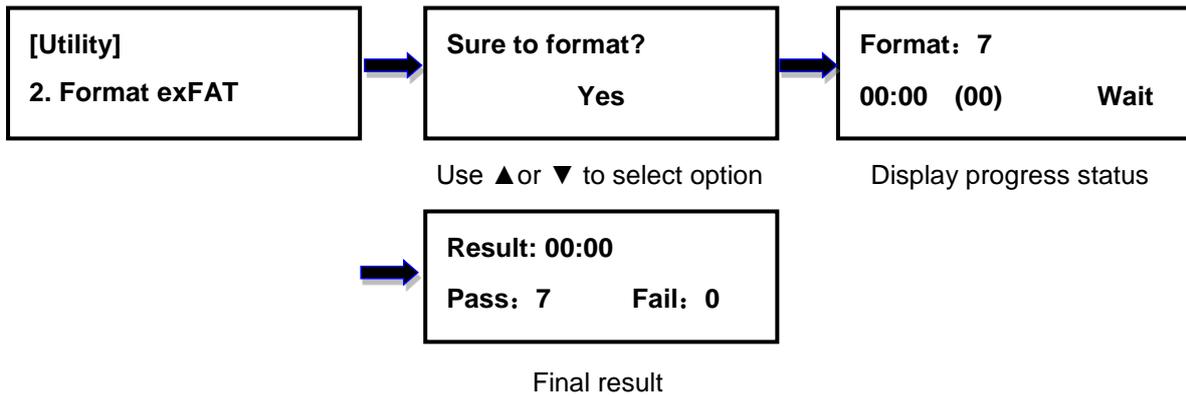|	Result: 00:00
	Pass：7 Fail：0

Final Result
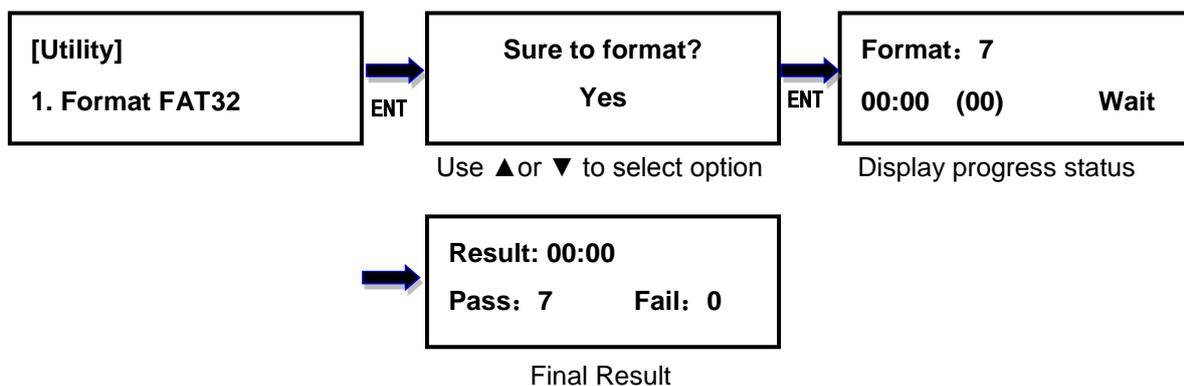
3.2 Format exFAT

This option allows to format the target device to exFAT file format. It will not format the source device, avoiding accidently erasing the original data content. User will be asked if it is sure to format the target devices before the Format process starts.

| [Utility] | | Sure to format? | | Format：7 |
| 2. Format exFAT | | Yes | | 00:00 (00)   Wait |

Use ▲or ▼ to select option   Display progress status

| Result: 00:00 |
| Pass：7   Fail：0 |

Final result

3.3 Capacity Check+Format

It will format the target devices to the file format according to the system Setup (please refer to 4.7 Set Format Type), then sort out target devices based on the capacity threshold (please refer to 4.8 Set Capacity Threshold). Duplicator will display the target device which is not in the capacity range and its red LED will flash. Press ▲▼ button to switch between the target devices with smaller capacity to check the data status. The ones without capacity issue will not be displayed to expedite the capacity check process. If Format and or Capacity Check is failed, the red LED will stay solid on.

| [Utility] | | Sure to format? | | Format：7 |
| 3.Capacity Check+Format | ENT | Yes | ENT | 00:00 (00)   Wait |

Format Process

| Result: 00 : 02 |
| Pass：7   Fail：0 |

Final result
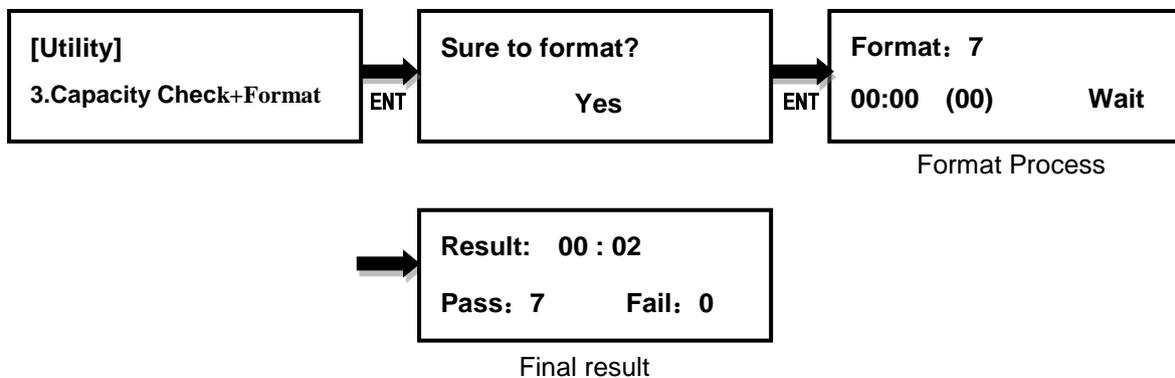
3.4 Measure Speed

This option allows to measure the actual Read and Write speed of the target device. This option will NOT alter or erase existing data on the target device.

| [Utility] | | [# 0] Read   20M | | [# 1] Read   20M |
| 4. Measure Speed | ENT | 1sec Write   16.5M | | 1sec Write   16.6M |

Display read/write speed   Use ▲or ▼ to select device
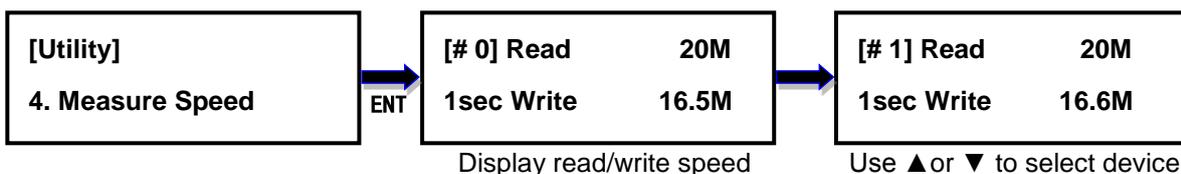
3.5 Quick Erase

This option erases the table of content of file system of the target device, so it is fast to do Quick Erase. There is chance that some files can be retrieved by software.

```
+------------------------+      +------------------------+      +------------------------+
| [Utility]              | ENT  | Sure to erase?         | ENT  | Q_Erase：7             |
| 5. Quick Erase         | ==>  |              Yes       | ==>  | 00:00   (00)      Wait |
+------------------------+      +------------------------+      +------------------------+
                                Use ▲or ▼ to select option       Display progress status

                                +------------------------+
                          ==>   | Result: 00:01          |
                                | Pass：7      Fail：0    |
                                +------------------------+
                                       Final result
```
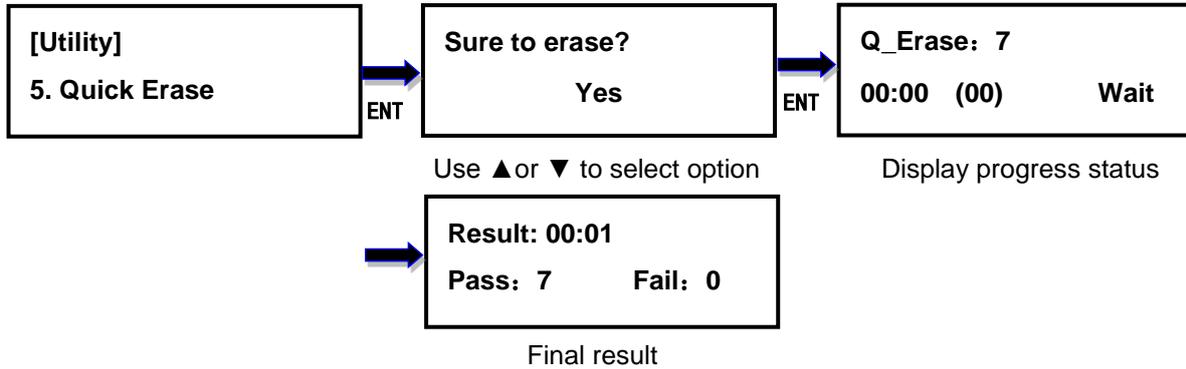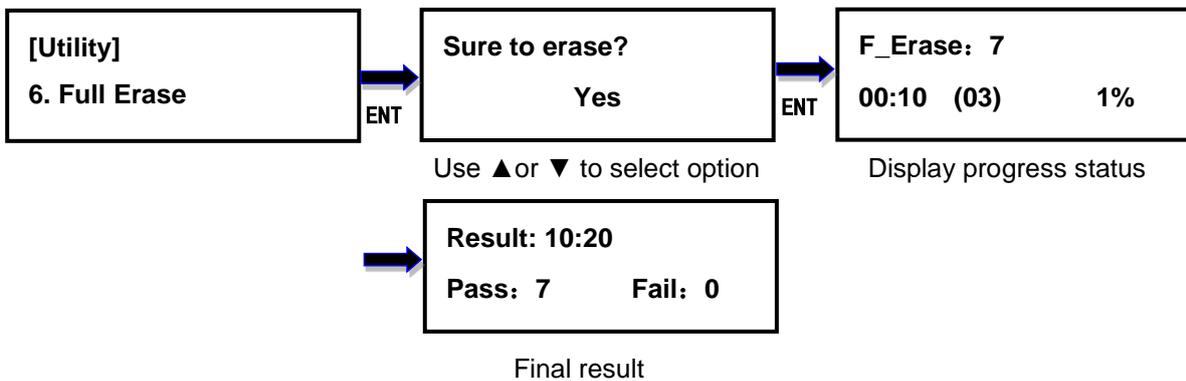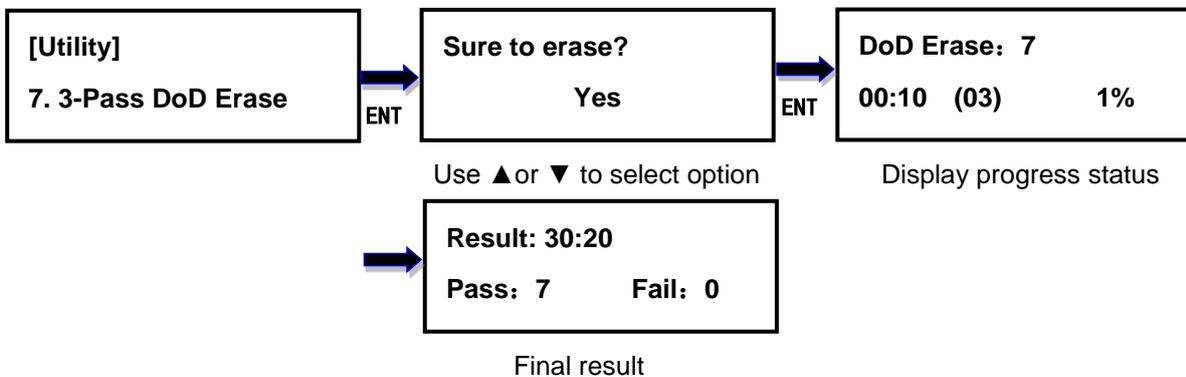
3.6 Full Erase

This option completely erases the content of target device. It takes longer time to erase and the content will not be retrieved by software.
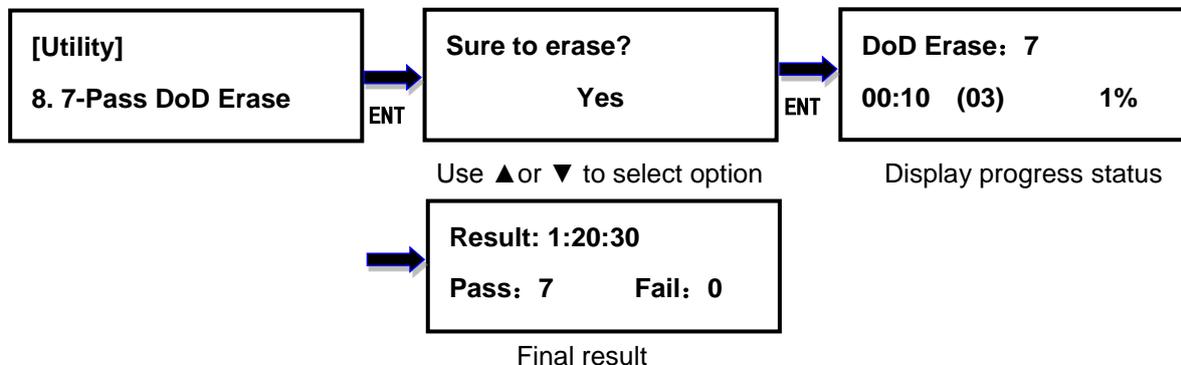
```
+------------------------+      +------------------------+      +------------------------+
| [Utility]              | ENT  | Sure to erase?         | ENT  | F_Erase：7             |
| 6. Full Erase          | ==>  |              Yes       | ==>  | 00:10   (03)       1%  |
+------------------------+      +------------------------+      +------------------------+
                                Use ▲or ▼ to select option       Display progress status

                                +------------------------+
                          ==>   | Result: 10:20          |
                                | Pass：7      Fail：0    |
                                +------------------------+
                                       Final result
```

3.7 3-Pass DoD Erase

This is to comply with the U.S.A. Department of Defense (DoD 5220) standard to fully erase the media by rewriting bit by bit three times to guarantee the data to be permanently deleted. It takes long time to erase, and the content will not be retrieved by software.

```
+------------------------+      +------------------------+      +------------------------+
| [Utility]              | ENT  | Sure to erase?         | ENT  | DoD Erase：7           |
| 7. 3-Pass DoD Erase    | ==>  |              Yes       | ==>  | 00:10   (03)       1%  |
+------------------------+      +------------------------+      +------------------------+
                                Use ▲or ▼ to select option       Display progress status

                                +------------------------+
                          ==>   | Result: 30:20          |
                                | Pass：7      Fail：0    |
                                +------------------------+
                                       Final result
```
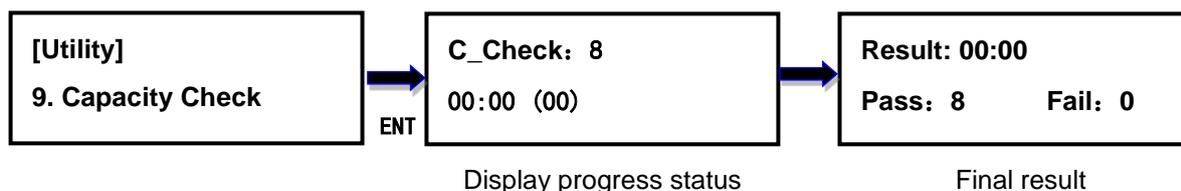
3.8 7-Pass DoD Erase

This is to comply with the U.S.A. Department of Defense (DoD 5220) standard to fully erase the media by rewriting bit by bit seven times to guarantee the data to be permanently deleted. It takes long time to erase, and the content will not be retrieved by software.
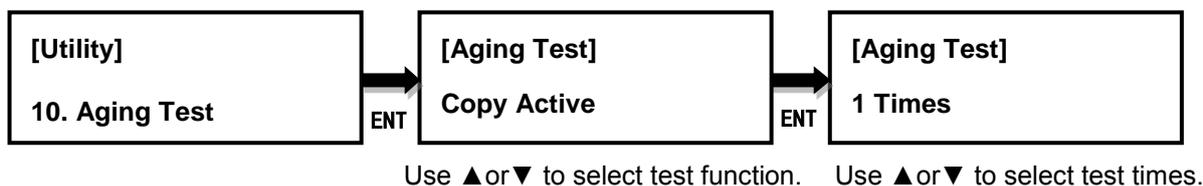
[Utility] 8. 7-Pass DoD Erase	**ENT** →	Sure to erase? Yes	**ENT** →	DoD Erase：7 00:10 (03) 1%
		Use ▲or ▼ to select option		Display progress status

→ | Result: 1:20:30

Pass：7   Fail：0 |
|---|

Final result

3.9 Capacity Check

This command allows to verify the device capacity. It can detect the actual capacity of devices within 3 seconds.

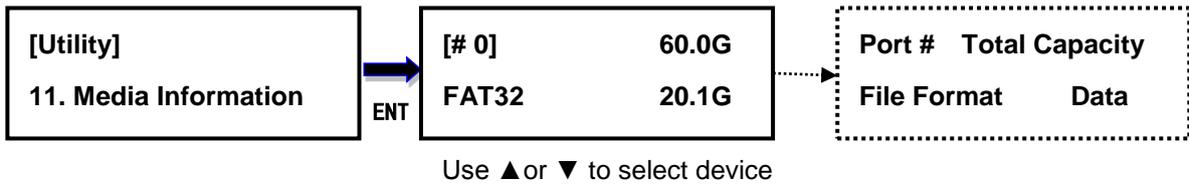| [Utility] 9. Capacity Check	**ENT** →	C_Check：8 00:00 (00)	→	Result: 00:00 Pass：8 Fail：0
		Display progress status		Final result

3.10 Aging Test

Users can set the test function and test times for Aging test. There are 3 functions, Copy, Compare, Copy+Compare, can be selected. Test times from 1 to 10,000 times can be selected.

| [Utility] 10. Aging Test	**ENT** →	[Aging Test] Copy Active	**ENT** →	[Aging Test] 1 Times
		Use ▲or▼ to select test function.		Use ▲or▼ to select test times.

3.11 Media Information

This option displays the information of selected device media, such as total capacity, file format and the size of data content.

[Utility]	[# 0] 60.0G	Port # Total Capacity
11. Media Information `ENT`	FAT32 20.1G	File Format Data

Use ▲ or ▼ to select device

3.12 Device Model

This option displays the model information of selected device, such as device model, serial information and firmware version

| [Utility]	[# 0] P: 0	[# 1] P: 1
12. Device Model `ENT`	Model information `ENT`	Model information

Use ▲ or ▼ to select device
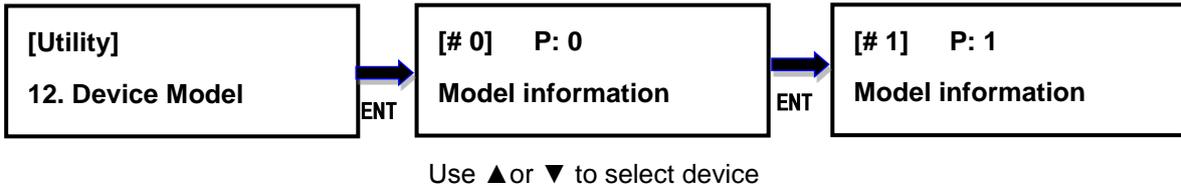
3.13 System Information

This option displays general information of the duplicator, including controller model, system memory size, firmware version, number of targets and ID Number.

[Utility]	F0107V	Controller Model
13. System Info. `ENT`	128MB	Memory

Display system information
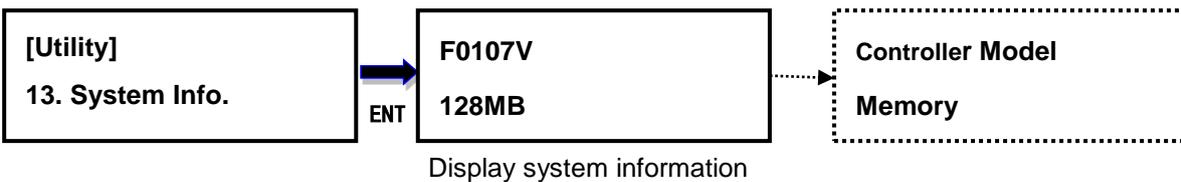
3.14 System Update

This option allows user to update the firmware of duplicator when necessary. Please obtain the proper firmware file from manufacturer, and save the unzipped file under home folder on the flash device (The file system of should be FAT32). Insert the flash device containing the firmware into the source port of duplicator and press ENT. It will update the system, reboot the duplicator automatically after update, active and operate under the new firmware. Please do not reboot the duplicator manually.

[Utility]	Update BIOS	Complete!
14. System Update `ENT`	Identify disc… `ENT`	Wait…

Looking for firmware
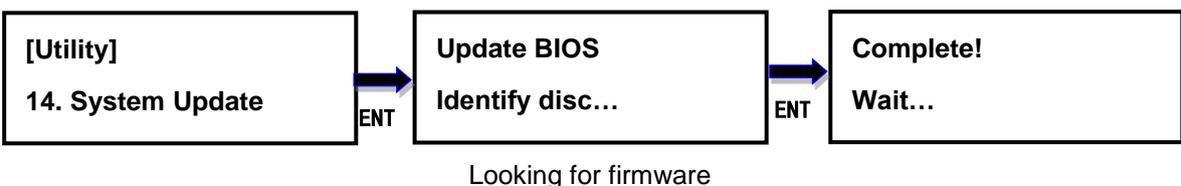
4. Setup

4.1 Copy Area

This option allows to select the area on the source device to copy onto the target devices. You may select **System and Files** to skip all the unoccupied area on the source device or **Percentage、All Partition、Whole Media**. By default, the copy area is set up as System and Files.

System and Files

The duplicator first analyzes the file format of source device. You may copy only the system and files area to save overall copy time if the file format is FAT16, FAT32, exFAT, NTFS (Windows), EXT2, EXT3, EXT4 (Linux), and HFS/HFS+/HFSX (Mac). For instance, the source device has 8GB capacity but with only 50MB of data in FAT32 file format. The duplicator will copy only the 50MB of data area to the target device, hence shortening overall copy time.
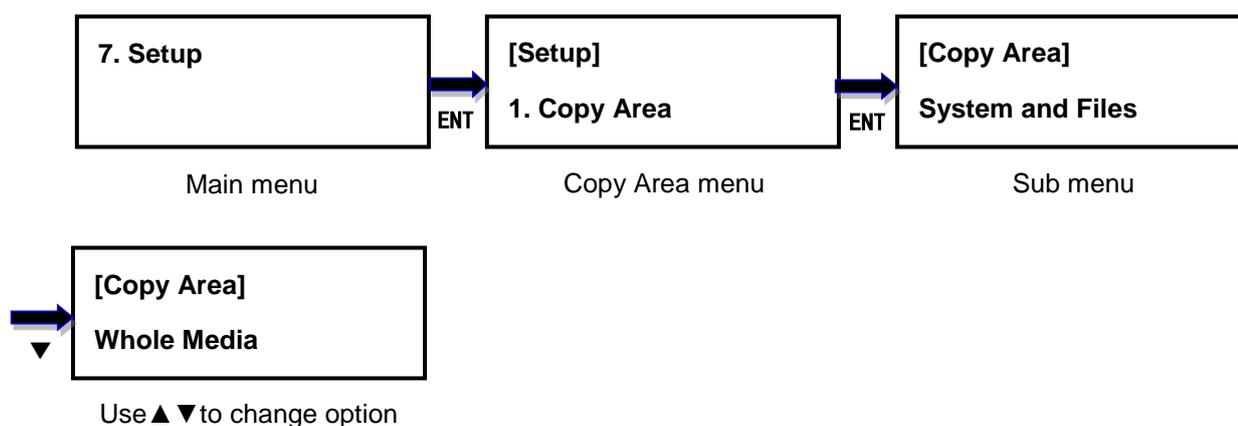
Percentage

When selected, the duplicator copies the selected percentage range. Users can set copy percentage at this item. It has nothing with data or empty spaces.

All Partition

When select, the duplicator copies all partitions in the drive. It will not copy the area that have not been partitioned.

Whole Media

When selected, the duplicator copies the entire content on the source device, including both the data and empty spaces. This option is used when you have a source device with unknown file format. For instance a source device has 8GB capacity and 50MB of data with unknown file format, the duplicator will copy the whole 8GB of content to target device.

7. Setup		[Setup]		[Copy Area]
	ENT	1. Copy Area	**ENT**	System and Files
Main menu		Copy Area menu		Sub menu

[Copy Area]
▼   Whole Media

Use ▲ ▼ to change option

4.2 Asynchronous Mode

This option allows to enable or disable Asynchronous Mode. By default the Asynchronous Mode is Disabled. Please refer to Chapter III for the detail of operation on Synchronous and Asynchronous Mode.

```
[Setup]                           [Asynchronous Mode]
2. Asynchronous Mode      ENT →        Disable
```
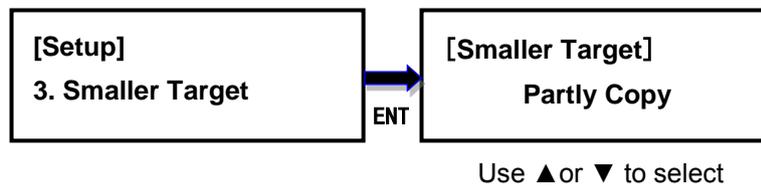Use ▲ or ▼ to select
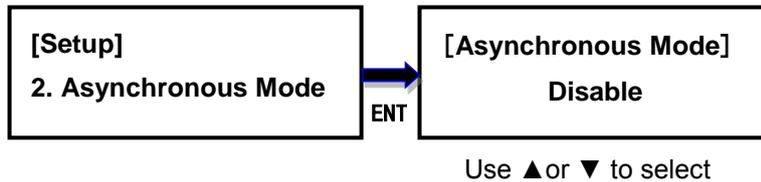
4.3 Smaller Target

If the capacity of the target device is smaller than the source device, the duplicator will partly copy or cannot copy. Partly Copy is the default setting.

```
[Setup]                   [Smaller Target]
3. Smaller Target   ENT →     Partly Copy
```
Use ▲ or ▼ to select

4.4 Unknown Format

This option allows you to Copy or Skip unknown format. If option Skip is selected here, the unknown format from source will not be copied during copy process. Copy unknown format is the default setting.

```
[Setup]                    [Unknown Format]
4. Unknown Format   ENT →        Copy
```
Use ▲ or ▼ to select
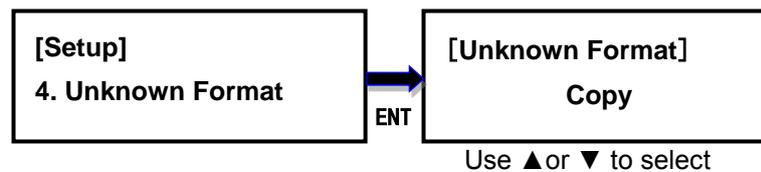
4.5 Check Before Copy

This option allows to check device real capacity before copying. By default this option is disabled.

```
[Setup]                      [Check Before Copy]
5. Check Before Copy   ENT →       Disable
```
Use ▲ or ▼ to select
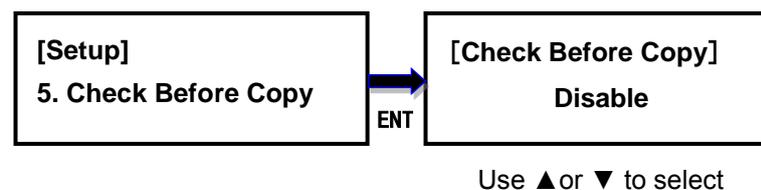
4.6 Set Slow Out Threshold

This function allows to set up read/write speed threshold for target devices. When the target device is causing the copy or compare process delay due to its lower read/write speed and the rest of the devices in the same batch have to wait for it, the Slow Out Threshold strategy will be applied as the following: the system will stop the copy or compare process for that particular target device when its read/write speed is below the threshold for continuing number of seconds based on the setting, and its red LED will flash to give warning. There are 3 settings to set up.
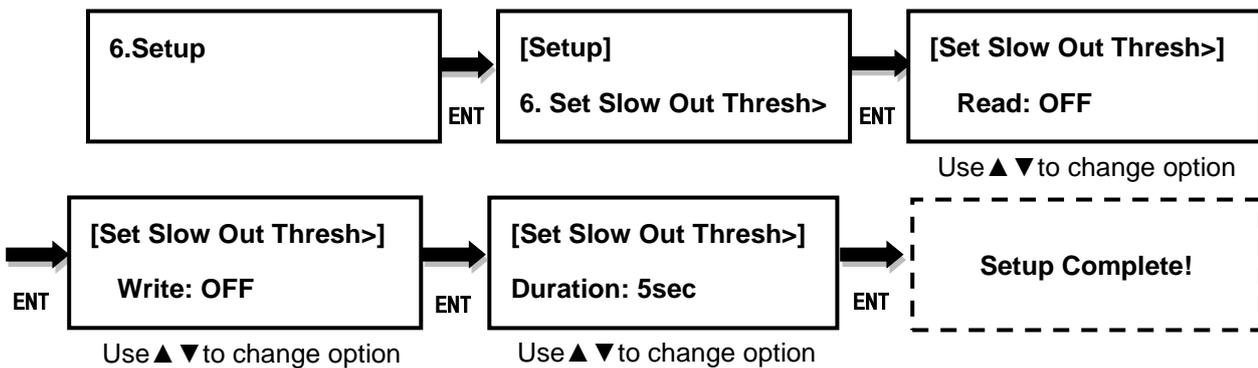
Read: set up the lowest read speed，and options are OFF, 1MB/s~25MB/s. The default setting is OFF.

Write: set up the lowest write speed, and options are OFF, 1MB/s~25MB/s. The default setting is OFF.

Duration: set up the period when read or write speed is lower than the threshold for continuing number of time, and options are 1~20second. The default is 5second.

6.Setup	ENT	[Setup] 6. Set Slow Out Thresh>	ENT	[Set Slow Out Thresh>] Read: OFF

Use ▲ ▼to change option

ENT	[Set Slow Out Thresh>] Write: OFF	ENT	[Set Slow Out Thresh>] Duration: 5sec	ENT	Setup Complete!

Use ▲ ▼to change option   Use ▲ ▼to change option

4.7 Set Format Type

This function allows to set up the target device format, and the setting will be applied by Command **3.3 Capacity Check + Format** under the main menu. The options are FAT32, exFAT, and Depends on Size. The default setting is Depends on Size.

4.Setup	ENT	[Setup] 7. Set Format Type	ENT	[Set Format Type] Depends on Size

[Set Format Type] FAT32
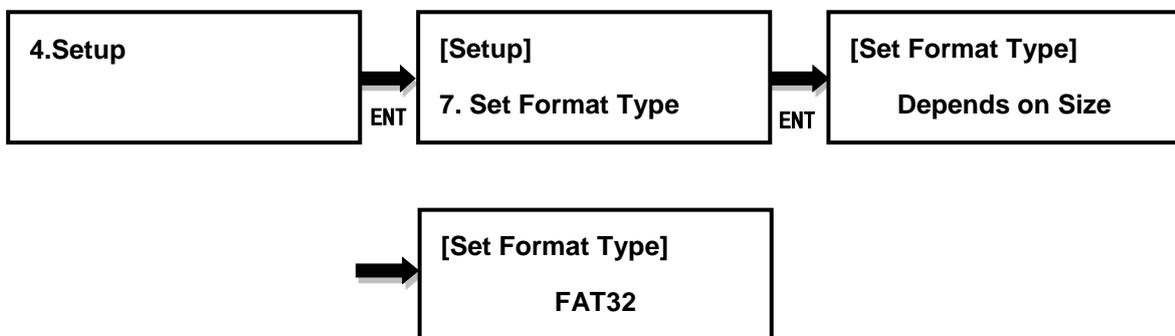
4.8 Set Capacity Threshold

This function allows to set up the capacity threshold for Command **5.8 Format + Capacity Check** under main menu. It will be failed when the target device capacity is below the threshold range, and the red LED will flash to give warning. There are 3 settings.

Capacity: the size of device capacity which will be used for sorting, and options are OFF、128M、256M、512M、1G、2G、4G、8G、16G、32G、64G、128G、256G、512G、1T、2T. The default is OFF.
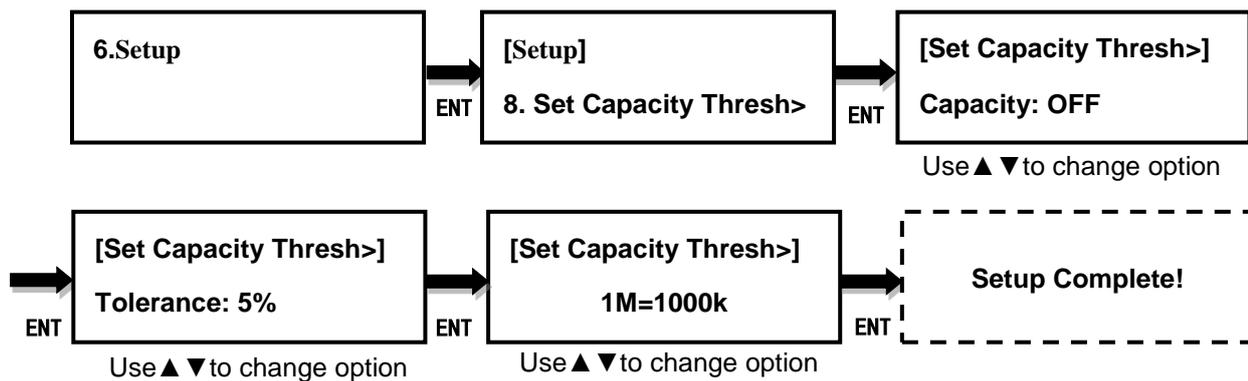
Tolerance: the acceptable range of capacity for sorting, and options are OFF, 0~50%. The default setting is 5%。

Capacity Definition: define the standard for capacity conversion. Options are 1MB=1000K and1MB=1024K. The default is 1MB=1024K。

6.Setup		[Setup] 8. Set Capacity Thresh>		[Set Capacity Thresh>] Capacity: OFF
	ENT		ENT	Use▲▼to change option

[Set Capacity Thresh>] Tolerance: 5%		[Set Capacity Thresh>] 1M=1000k		Setup Complete!
ENT	Use▲▼to change option	ENT	Use▲▼to change option	ENT

4.9 Auto Start

This function allows to set up the ready devices of auto start. When the ready devices are equal to the setting value, the duplicator will start to work automatically without pressing ENT.

4.Setup		[Setup] 9. Auto Start		[Auto Start] Ready device Off
	ENT		ENT	

4.10 Display Mode

There are four display modes: **Auto**, **Basic**, **Show Timer**, and **Expert**. **Basic** shows the copy progress in general; **Show Timer** displays the time used for the task; **Expert** shows the devices with highest copy speed and lowest copy speed and their copy progress

respectively. **Auto** equal to Show Timer when operation mode is synchronous and **Basic** when asynchronous. By default it is Auto Mode.

[Setup]		[Display Mode]
10. Display Mode	ENT →	Basic

Use ▲ or ▼ to select

Copy：1	2.5G
P：0 F : 0	10%

Basic Mode

·····►
```
Copy : 1 number of target
2.5G : data to be copied
P : number of passed copies
F : number of failed copies
10% : rate of progress
```

Copy：1	2.5G
03:45	10%

Show Timer Mode

·····►
```
Copy : 1 number of target
2.5G : data to be copied
03:45 : copy time used
10% : rate of progress
```

| A：10	4 = 2303M
P：0	1 = 2183M

Expert Mode

·····►
```
A: 10 : number of targets in copy process
P: 0 : number of targets passed copy
4 = 2303M : the port with highest copy speed and data copied so far
1 = 2183M : the port with lowest copy speed and data copied so far
```

4.11 Start-up Menu

Choose one of the following as the default start-up function: Duplicate, Erase, Utility and Setup. The default start-up function is Duplicate.

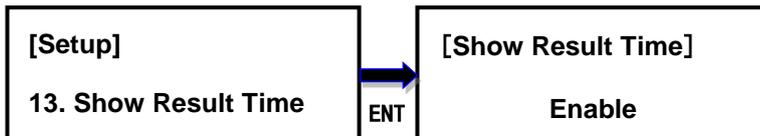| [Setup]		[Start-up Menu]
11. Start-up Menu	ENT →	Duplicate
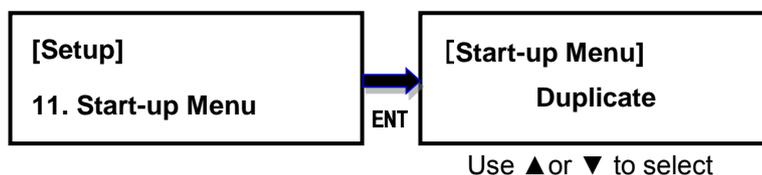
Use ▲ or ▼ to select

4.12 Button Beep

This option allows to set up button sound from the following options: Button & Warning, OFF, Warning only. The default setting is Button & Warning.
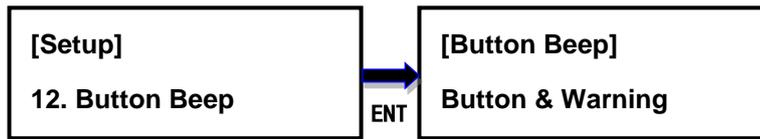
```
┌─────────────────────┐        ┌─────────────────────┐
│ [Setup]             │   ▶▶   │ [Button Beep]       │
│                     │        │                     │
│ 12. Button Beep     │  ENT   │ Button & Warning    │
└─────────────────────┘        └─────────────────────┘
                                  Use ▲or ▼ to select
```

4.13 Show Result Time

This option allows to enable or disable the display of copy time after finishing the copy process. The default setting is Enable.

```
┌─────────────────────┐        ┌─────────────────────┐
│ [Setup]             │   ▶▶   │ [Show Result Time]  │
│                     │        │                     │
│ 13. Show Result Time│  ENT   │     Enable          │
└─────────────────────┘        └─────────────────────┘
                                  Use ▲or ▼ to select
```

4.14 Boot Password

This option allows to set up password for system boot up to prevent from the unauthorized use of the duplicator. The password must be 6 characters.

```
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ [Setup]          │ ▶▶  │ Boot Password    │ ▶▶  │ [Boot Password]      │
│                  │     │                  │     │                      │
│ 14. Boot Password│ ENT │      Enable      │ ENT │   ==> _ _ _ _ _ _    │
└──────────────────┘     └──────────────────┘     └──────────────────────┘
                          Use ▲or ▼ to select       Use ▲or ▼ to select,
                                                     Press ENT to confirm
```

4.15 Setup Password

This option allows to set up password for Setup function to prevent from the change of system settings on the duplicator. The password must be 6 characters.
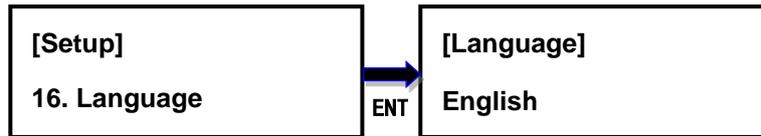
```
┌──────────────────┐     ┌──────────────────┐     ┌──────────────────────┐
│ [Setup]          │ ▶▶  │ Setup Password   │ ▶▶  │ [Setup Password]     │
│                  │     │                  │     │                      │
│ 15. Setup Password│ENT │ Enable           │ ENT │ ===> _ _ _ _ _ _     │
└──────────────────┘     └──────────────────┘     └──────────────────────┘
                          Use ▲or ▼ to select       Use ▲or ▼ to select,
                                                     Press ENT to confirm
```

4.16 Language

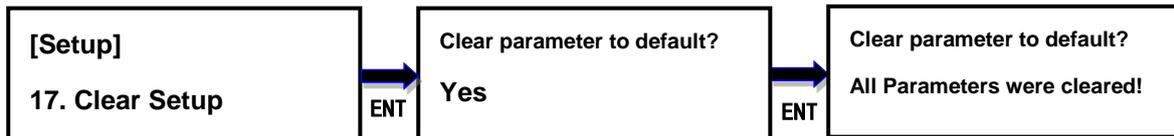This option allows to choose the language for display: English, Spanish, Portuguese, and Japanese. English is the default language.

```
┌─────────────────────┐        ┌─────────────────────┐
│ [Setup]             │  ═══▶  │ [Language]          │
│                     │  ENT   │                     │
│ 16. Language        │        │ English             │
└─────────────────────┘        └─────────────────────┘
                                   Use ▲or ▼ to select
```

4.17 Clear Setup

This option resets the duplicator back to factory default settings.

```
┌─────────────────┐      ┌──────────────────────────┐      ┌──────────────────────────┐
│ [Setup]         │ ═══▶ │ Clear parameter to default? │ ═══▶ │ Clear parameter to default? │
│                 │ ENT  │                          │ ENT  │                          │
│ 17. Clear Setup │      │ Yes                      │      │ All Parameters were cleared! │
└─────────────────┘      └──────────────────────────┘      └──────────────────────────┘
                              Use ▲or ▼ to select
```

4.18 Performance

This option allows to set up the performance for Copy function based on the following modes: Speed, Balance, and Compatibility. Speed mode is to execute the Copy function at the fastest speed, but may have compatibility issue with certain brands flash media. Balance mode is to execute the Copy function at stable speed, and have less compatibility issue with certain brands flash media. Compatibility mode is to execute the Copy function at the most stable speed, and almost have no compatible issue with flash media. The default mode is Speed.
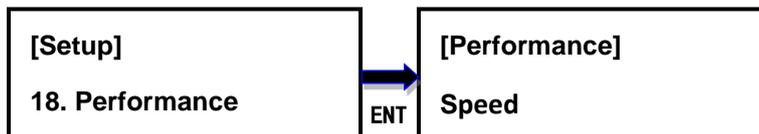
```
┌─────────────────────┐        ┌─────────────────────┐
│ [Setup]             │  ═══▶  │ [Performance]       │
│                     │  ENT   │                     │
│ 18. Performance     │        │ Speed               │
└─────────────────────┘        └─────────────────────┘
                                   Use ▲or ▼ to select
```

V. Troubleshooting

When the duplicator malfunctions or you have questions about using the duplicator, you can first check the following related problems and eliminate them. If you still have problems, you can contact the EZ Dupe technical support department. The contact information is listed at www.ezdupe.com.

Q1：Why there is no display and nothing happens when the power switch is turned on?

1. Please make sure that the power cord is tightly connected to the duplicator, and the power outlet works normally.

2. Please check whether the duplicator power voltage selection switch is in the correct position 110V or 220V. Please adjust it according to the local voltage.

3. Make sure that the power cord is not damaged.

Q2：Why can't the duplicator recognize the media device?

1. Please check if the media device can be used normally on a computer.

2. Please insert the media device into different ports for testing. If some ports can recognize the media device and some cannot, it may be that some ports have been used for too long, resulting in poor connection. Please send duplicator in for repair. If all of the ports are unrecognized, it may be the compatibility issue. Please set the Performance mode to Compatibility in 6. Setup -> 17. Performance in the main menu. If it is still unrecognizable, the media device may be of poor quality and not compatible with this duplicator. Please replace the media device with another brand.

Q3：Why is the copy failure rate high?

1. The media device quality may be poor, please change it to other brands with better quality.

2. The duplicator has been used for a long time, resulting in poor port contact with media device. Please send it to the manufacturer for inspection.

Q4：Why is the copy speed slow?

1. The copy speed depends on the writing speed of the media device. When the writing speed of the media device is slow, the copy speed becomes slow.

2. There may be a slower media device in the batch of media. Remove it (press the up and down keys at the same time to remove the slowest media device during copy process) to speed up.

Q5：Why the media device cannot be used normally after copying?

During the copying process, the duplicator reads the data from the source media device and then writes to the target media device. An error may occur during the writing process, or the target media device has bad sectors and cannot be written normally. It is recommended to use the Compare function to ensure that the data copied to the target media device is 100% the same as the source media device.

Q6：Why is copy failed?

1. Data on the source media device cannot be read normally. The source media device may be of poor quality or has bad sectors. The copying process to all target media devices will stop.

2. Target media device cannot be written normally. The target media device may be of poor quality or has bad sectors. The copying process of this target media device will stop, and others will continue to copy.

Q7：Why can't I update the firmware?

1. Different duplicators have different update files, please make sure your update files are correct.

2. Please make sure that the media file system is FAT32, the update file is uncompressed (the file extension is .BIN) and saved on the root directory of the media device.