

NEXCOPY



**NEXCOPY
INCORPORATED**



**STANDALONE
USB DUPLICATORS**

**USER MANUAL
USB115SA & USB131SA**

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ABOUT NEXCOPY INCORPORATED

Thank you for purchasing Nexcopy products. Nexcopy manufactures a variety of flash memory duplication systems for data loading to USB and other flash memory devices. Our product line is continually growing, so if additional memory device data loading systems are needed, please visit www.Nexcopy.com. We hope you will consider us for all your production needs.

WHAT TO EXPECT

Your Nexcopy flash memory duplication system is professionally designed and manufactured to give you years of trouble free operation. To avoid accidental damage to your new duplication system, please read and understand this manual thoroughly before operating the unit.

ABOUT THIS MANUAL

This manual is written for both novice and experienced computer users. Please read through this operator's guide from beginning to end before using the unit. This user's manual will provide the necessary information to get your equipment installed and running.

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I. INTRODUCTION

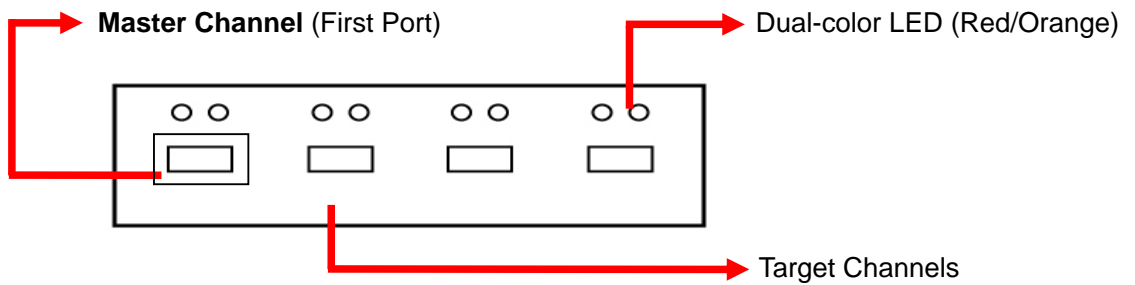
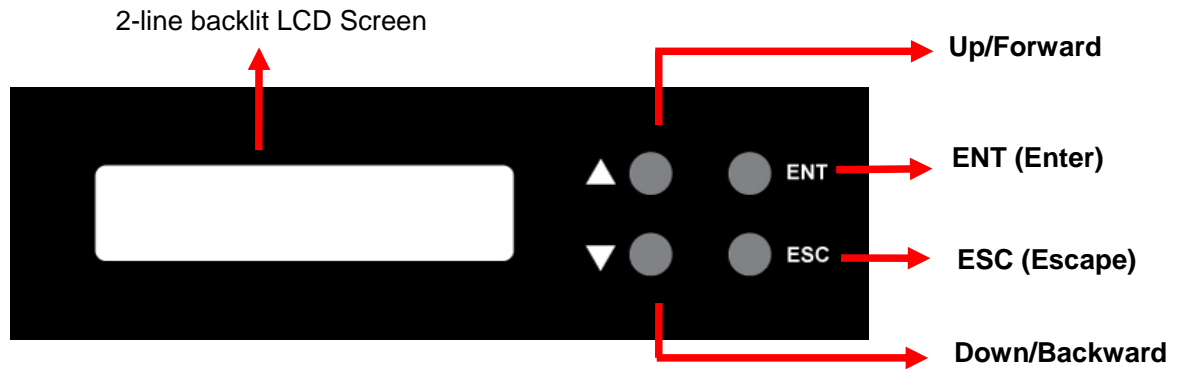
1. FEATURES

- Each channel has its own processing control unit and operates independently with dedicated bandwidth of up to 2GB per minute.
- Standalone operation, no PC or software is required to operate. Minimizes possible computer virus infection. Instant power on and off, no warm-up or cool-down required.
- Easy-to-use One-Touch Copy operation. Compare function quickly verifies copy accuracy
- User-friendly menu options easily accessible 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.
- Supports Synchronous *and* Asynchronous copy modes for best operation efficiency.
- Powerful 32-bit CRC checksum to assure data integrity.
- Heavy-duty construction for every day commercial production or personal use.
- 115V and 230V switching power supply maximizes portability for operation anywhere.
- Designed to save time and effort, creating multiple copies quickly and reliably.

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II. CONTROL PANEL OVERVIEW





3. SPECIFICATIONS

| | | |
|------------------------|---|--------------|
| Model | Nexcopy USB Duplicator USB115SA or USB131SA | |
| Target | 15T, 31T | |
| Operation | Standalone (No PC or Software is required) | |
| Supported Media | USB 1.1 & 2.0 compatible devices | |
| Key Features | 1. Easy-to-use One-Touch Operation | |
| | 2. Support true Asynchronous & Synchronous copy modes | |
| | 3. Up to 2GB per minute dedicated throughput per channel | |
| | 4. Supports popular file formats: FAT 16/32/NTFS/Linux (Ext 2, Ext 3) | |
| | 5. Powerful 32-bit CRC data error checking to assure data integrity | |
| Display | 2-line Backlit Monochrome LCD | |
| Power Supply | 115V or 230V | |
| Control Button | 4 push-button control panel (ENT, ESC, UP, DOWN) | |
| Humidity | Working | 20% ~ 80% |
| | Storage | 5% ~ 95% |
| Temperature | Working | 32°F ~ 167°F |
| | Storage | -4°F ~ 185°F |

*Product specs may change without notice



II. DUPLICATION OPTIONS OVERVIEW

1. COPY:

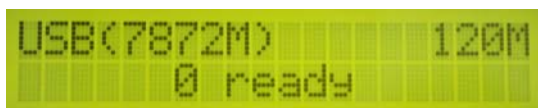
There are two copy modes available: *Asynchronous* and *Synchronous*. The duplicator will first verify the actual size of the source. If the source content is smaller than the system buffer memory, the duplicator automatically selects Asynchronous copy mode. If source content size is larger than the system buffer memory, the duplicator will select synchronous copy mode.

Compare function is for verifying data accuracy of target data after copy process is completed.

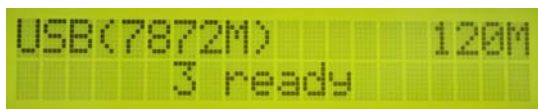
1.1 SYNCHRONOUS COPY

When the source content is *larger* than system buffer memory, the duplicator will copy the data from source to target devices. The copy process will begin and end at the same time.

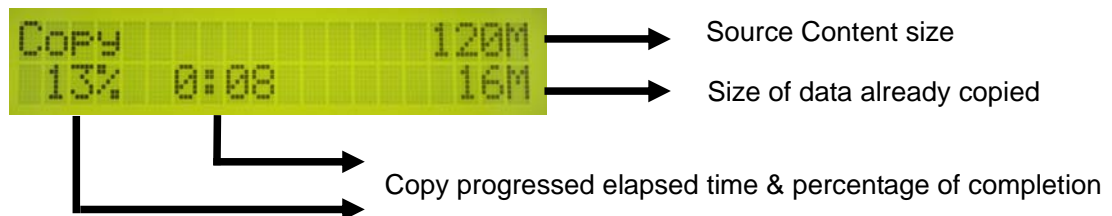
1. Insert source device into the master channel. Select Copy function and press OK.



2. Insert blank devices into the appropriate target channels. LCD will display the number of target devices found.



3. Press OK to start the copy process once all target devices have been inserted into proper target channels; or the duplicator will start the copy process automatically once all target channels are occupied.



4. Copy process is completed. LCD displays number of successful and failed copy as well as total copy time.



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Note:

1. *The Green LED's will start flashing when copying is in progress. The Green LED will stop flashing but remain on once when the copy process is completed. The Red LED will be on when the duplicator encounter any error.*
2. *DO NOT remove target device when the Green LED is flashing. This may damage the duplicator as well as the flash device.*
3. *It is strongly recommended using source and target devices of same or similar sizes and specifications to avoid error.*

1.2 ASYNCHRONOUS COPY

When the source content is *smaller* than system buffer memory, the duplicator will copy the data into system memory and from system memory directly onto target devices. Each target channel will start copy process immediately after a new target device is inserted into any target channel.

1. Insert the source device into the master channel and press OK. The duplicator will start reading and loading the source content into system buffer memory. The copy process starts immediately once a target device has been inserted into proper target channel.

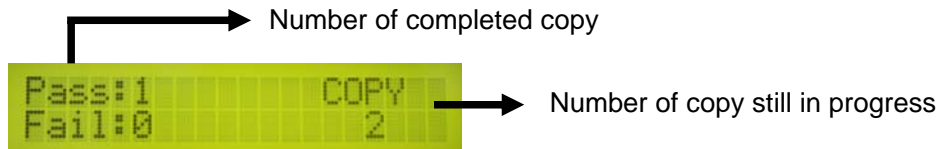
A photograph of a green LCD display showing two lines of text: "USB(7872M) 94M" on the top line and "Reading 48M" on the bottom line. The text is in a green, monospaced font.

2. The Green LED above each target channel will begin flashing during the copy process. **DO NOT** remove any device while the Green LED is flashing. Remove the target devices only after the Green LED stops flashing and replace with a new target device. The copy process starts automatically.

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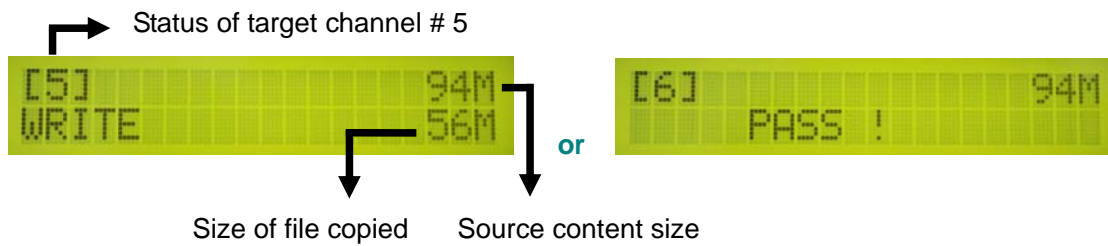
3. You do not have to wait for copy process to complete on all target channels. Simply repeat the process of removing the finished target devices and replacing with a blank one in each individual target channel. LCD displays the number of successful and failed copy as well as copy still in progress. The Red LED will come on when there is an error.



Note :

1. You can press ▲ ▼ key to view the status and progress of each independent target channel during Asynchronous copy process.
2. You can also press ▲ ▼ key to check the status of each device for error when Red LED comes on.

LCD may look like this:



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2. COMPARE:

This option allows you to compare the target device with copied data against the source for accuracy.

3. COPY + COMPARE

This option allows you to set the duplicator to compare the copy result immediately after the copy process is completed.

4. CAPACITY CHECK

This option allows you to verify the device capacity.

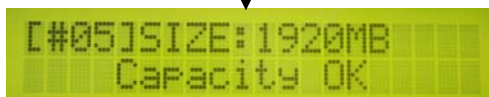
1. Insert target device into proper channel. Using ▲ ▼ buttons to scroll down the menu option to option 4: "Capacity Check", then press OK to select. The duplicator will verify the device capacity within 3 seconds. Press ▼ to display the actual capacity.



2. Use ▲ ▼ buttons to toggle through all devices in each channel to verify individual capacity.

Note:

You can use ▲ ▼ buttons to verify the device capacity when the Red LED comes on indicating the duplicator has encountered an error.



Green LED: Correct Size



Red LED: Incorrect Size Identified

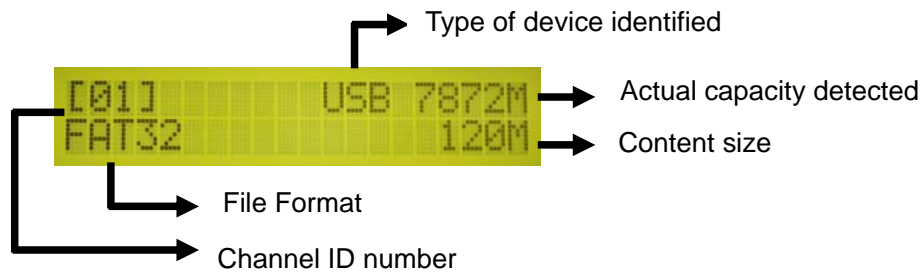
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5. INFORMATION

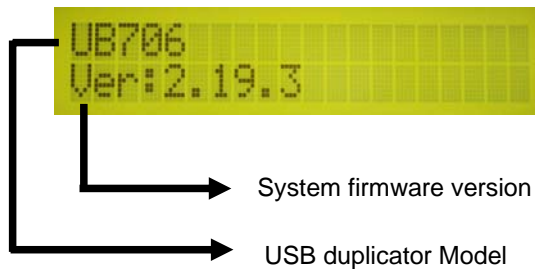
5.1 USB INFORMATION

This option displays basic information of USB selected such as type of flash media, total capacity, file format and content size.



5.2 SYSTEM INFORMATION

This option displays general information of the duplicator, including controller model, and system firmware version.





6. UTILITY

6.1 FORMAT FAT16/32

This option allows you to format the file structure of the select target flash device to standard FAT format. Insert the target flash device into the target channel, scroll to menu option **6. Utility** and press **OK**. The duplicator will detect target device capacity automatically and format the device accordingly.

- FORMAT option will not alter file format original if it is already FAT16 or FAT32
- Duplicator will format the target device if it is not FAT, e.g. NTFS, Linux or FAT multi-partition. If the target device capacity is 2GB or more, duplicator will format the target device to FAT32 file structure and to FAT16 if the capacity is 2GB or less.

Note:

- You can use ▲ ▼ buttons to view the real-time status of each individual target device during Format process.
- **To avoid accidental format of source device, the Master Channel will not support Format option.**

6.2 MEASURE SPEED

This option allows you 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.

1. Insert target device into proper channel, scroll to menu option **6. Utility**, select submenu option **2. Measure Speed**, press **OK** to being the process.
2. Use ▲ ▼ buttons to view the exact Read and Write speed of each individual target device. The LCD display may look similar to this:

```
[Utility]
1.Measure Speed
```

```
[01] Read:14.3MB
Write: 7.0MB
```



6.3 MEDIA CHECK

This option allows you to verify the component quality of the target device before you start the copy process. You can select either “Normal” or “Safe” mode and define the percentage of verification range on target device you wish the duplicator to verify

6.3.1 “Safe 100%”: Duplicator will read through the entire target device. This option will NOT alter or erase the data format and existing content.

6.3.2 “Normal 100%”: Duplicator will read through and write to the target device.

Note: Existing content will be erased during the test!!!

6.3.3 “Setup Range“: This option allows you to define the percentage of target device which you wish to have the duplicator to verify. Use ▲ ▼ buttons to scroll through value between 1 to 100%. 100% means verifying the entire target device. The LCD display will look like this:



6.4 QUICK ERASE

This option erases the table of content of target device but will NOT alter FAT structure. Use ▲ ▼ button to view the real-time status of each individual channel.

6.5 FULL ERASE

This option *completely* erases the content of target device, including both file structure format and content. Use **ESC** button to exit the process. However, the original format and content will be lost.



6.6 SYSTEM UPDATE

This option allows you to update the firmware of duplicator when necessary.

- Obtain proper update firmware file from manufacturer
- Save the un-zipped files to a flash device supported by the duplicator (**DO NOT put the files in a folder!**).
- Select option *6.6 System Update*, and press **OK**. The duplicator will automatically start updating the firmware. Once completed, please turn off the duplicator for at least *5 seconds* before turning it back on again to activate the new firmware.

TIPS:

- . DO NOT remove any target device during the Copy process, i.e. when the Green LED is flashing. This may not only damage the target device or the duplicator.
- . Some users may like to use a USB converter to copy other different types of flash cards, such as CF, SD, or Memory stick etc. Since the quality and stability of each USB converter in the market is very different, a poor quality USB converter may cause the damage to the machine and also the copy quality from the Flash card.

7. SETUP

7.1 START-UP MENU

You can select one of the following options to be displayed first when the duplicator is switched on.

- Copy
- Compare
- Copy+Compare
- Capacity Check
- Information
- Utility
- Setup



7.2 COPY AREA

This option allows you to select the area on the source device to copy onto the target devices. You may select either “Only Data Area” to skip all the unoccupied area on the source device or “Whole Media”.

7.2.1 ONLY DATA AREA

The duplicator first analyzes the file format of source device. You may copy only the data area to save overall copy time if the file format is FAT16, FAT32, NTFS or Linux (Ext2, Ext3). Otherwise, the duplicator will copy the entire source device content to the target devices including unoccupied space. For instance, the source device has 2GB 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.

7.2.2 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 2GB capacity; 50MB of data and unknown file format, the duplicator will copy the whole 2GB of content to target device.

7.3 BUTTON BEEP

This option allows you to enable or disable beep sound when a button is pressed.

7.4 ASYN HOLD TIME

This option allows you to define the time delay the duplicator will wait before a new target device is inserted before the duplicator exits the Asynchronous Copy Mode. The purpose is to prevent overwriting the source device when you start another copy cycle with a difference source device but have not terminated the previous Asynchronous copy cycle. The default setting is *30 seconds*. When the duplicator detects that all the target devices have been removed and no new cards have been inserted after 30 seconds, the LCD display will prompt:



Press **OK** to exit this Asynchronous or press **ESC** to keep this status.

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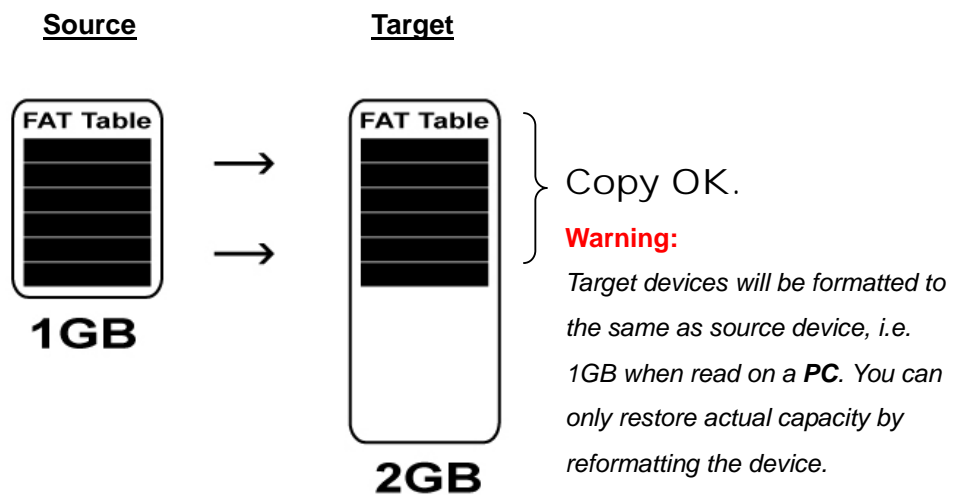
7.5 IGNORE SIZE

This option allows you to define the tolerance for capacity differences between the source and target devices. The default setting is “Don’t Care” which means the duplicator will ignore the capacity difference between source and target devices. You may define the tolerance level in percentage. For instance a **3%** tolerance for a source device with capacity of 1919MB means the acceptable capacity of target devices will be between 1976MB to 1861MB. Target devices with actual capacity outside the acceptable range will be rejected.

Note:

1. *It is recommended to use source and target devices of similar capacity and specifications to avoid unnecessary copy failure.*
2. *If the capacity difference between the source and target is larger than the tolerance setting then when you start to copy the Red LED will come on to indicate a copy error. You will then see a message “Fail” on the LCD display. Use ▲ ▼ buttons to view the real-time status of each individual device.*

7.5.1 If Source device has smaller capacity than target device:



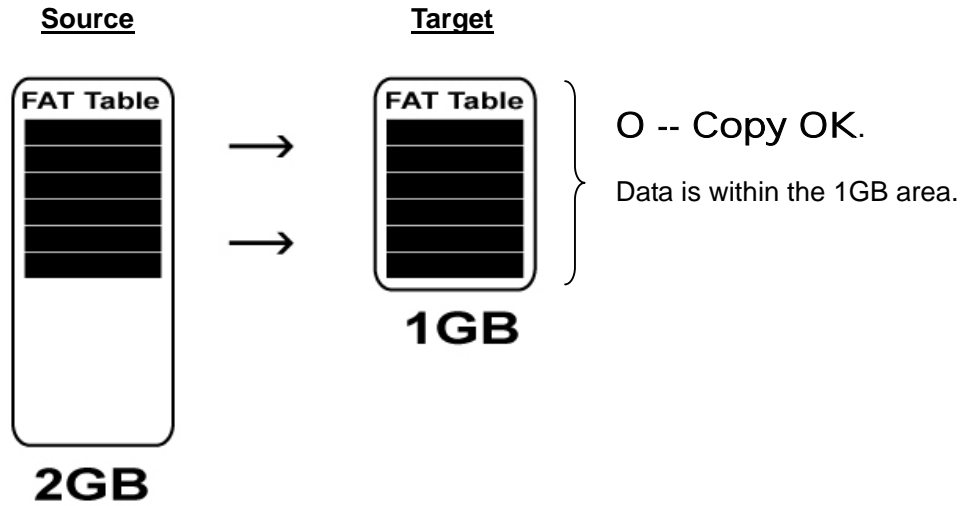
Note:

Significant capacity difference between source and target devices may cause possible error to target devices. It is strongly recommended that source and target devices should be similar in capacity and specifications.

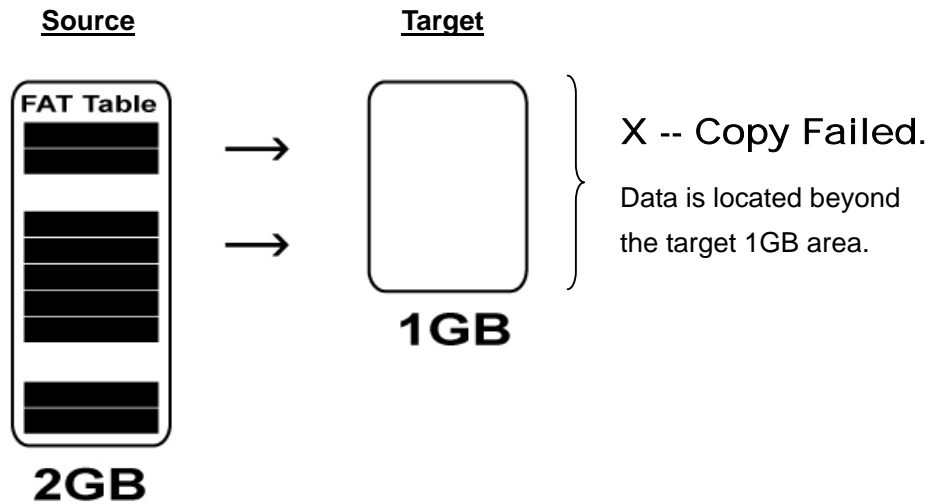


Data is stored at random locations over the entire device. There may be two possible results:

A. When content is within the capacity of the target device:



B. When the content is located beyond the target flash card's capacity.



Note:

The Copy process will fail because certain data on source device is stored beyond the first 1GB area and the source device only has 1GB capacity. The duplicator will copy the data without altering the location of the data.



7.6 ASYNCHRONOUS

Select “On” to enable or “OFF” to disable Asynchronous Copy Mode. If the option is enabled, the duplicator will activate Asynchronous mode automatically when the source content is smaller than the system buffer memory. The data will be read into the system memory to speed up the copy process. If the option is disabled, the duplicator will default to Synchronous copy mode regardless of the file size.

7.7 LANGUAGE

Select system language interface. The available options are English & Japanese.

7.8 WORKING MODE

The available options are “Turbo mode” or “Normal mode”. Turbo mode supports high-speed Flash devices in high speed copy. Default setting is “Normal mode”.

Note:

The manufacturing process of flash devices and components used in them will affect the copy result. Flash devices of lesser quality may cause error during copy process.



III. DUPLICATION OPTIONS LIST

| | | |
|---------------------------------|--|---|
| 1. COPY | Flash device-to-flash device Copy | |
| 2. COMPARE | Bit-by-bit comparison between source device and copied target device | |
| 3. COPY+ COMPARE | Create a copy first and then compare the copy against source immediately | |
| 4. CAPACITY CHECK | Check the actual capacity of flash device | |
| 5. INFORMATION | 5.1 USB Info. | Display target device information |
| | 5.2 System Info. | Display duplicator system information |
| 6. UTILITY | 6.1 Format FAT | Format target device to FAT file format |
| | 6.2 Measure Speed | Verify target device read/write speed |
| | 6.3 Media Check | Verify target device quality |
| | 6.3.1 Safe Mode | Read target device to verify quality |
| | 6.3.2 Normal Mode | Read & Write to target device for verification |
| | 6.3.3 Setup Range | Define verification area |
| | 6.4 Quick Erase | Erase target device table of contents only |
| | 6.5 Full Erase | Erase entire target device |
| | 6.6 System Update | Update system firmware when necessary |
| | 7. SETUP | 7.1 Start-up Menu |
| 7.2 Copy Area | | Select area to copy |
| 7.2.1 Only Data Area | | Copy only data area in FAT file format |
| 7.2.2 Whole Media | | Copy entire device regardless of file format |
| 7.3 Button Beep | | Enable/disable sound when button is pressed |
| 7.4 Asyn Hold Time | | Time delay before existing Asynchronous copy |
| 7.5 Ignore Size | | Set the capacity tolerance level |
| 7.6 Asynchronous | | Enable/disable Asynchronous copy mode |
| | 7.7 Language | Set system language interface |

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