

CopyBox

USB Duplicator



User Manual

v. 1.1

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Overview

The CopyBox 7 USB is a standalone USB stick data backup system which supports Hi-Speed USB (USB 2.0) pen drives. Users can easily and instantly back up their pen drives through the LCD panel and keys on this system without connecting their pen drives to computers. This system supports most mainstream USB pen drives and is perfect for data backup and small-scale production in households, common offices and small businesses.

Features

- Standalone USB to USB pen drive data backup controller
- Independent copy controller without the need of additional hardware or software
- Supporting one internal 3.5-inch SATA hard drive
- Supporting one-to-many data backup of Hi-Speed USB pen drives
- Instant backup of important data from the pen drives
- LCD User-friendly interfaces and the message will be displayed on the LCD
- Updating firmware via a USB pen drive

Buttons and LCD

There are four buttons and an LCD on the panel of the CopyBox 7 USB:

LCD display

Displays all functions and messages.



Selection Button "Up"

Scroll up the function list or the menu



Selection Button "Enter"

Execute the selected function.



Selection Button "Down"

Scroll down the function list or the menu.



Selection Button "Escape"

Abort the selected function.



Operational Functions

The copy controller has 11 functions in total, 8 sub-functions under the ninth function, 10 sub-functions under the tenth function and 4 sub-functions under the eleventh function. These functions are listed below:

- 1. Copy**
- 2. Async Copy**
- 3. Compare**
- 4. Async Compare**
- 5. PreScan**
- 6. ReScan BUS**
- 7. Source Size**
- 8. Select Source**
- 9. Image**
 - 9-01. Select Image**
 - 9-02. Image Info**
 - 9-03. Load**
 - 9-04. Compare Image**
 - 9-05. Delete Image**
 - 9-06. Rename Image**
 - 9-07. HDD Usage**
 - 9-08. HDD Format**
- 10. Setup**
 - 10-01. Language**
 - 10-02. Copy Size**
 - 10-03. Startup Menu**
 - 10-04. Auto Compare**
 - 10-05. Button Sound**
 - 10-06. Device Info**
 - 10-07. System Info**
 - 10-08. Fast Copy**
 - 10-09. Auto Start**
 - 10-10. Auto Start Timer**
- 11. Adv Setup**
 - 11-01. Update Firmware**
 - 11-02. Compare Firmware**
 - 11-03. H/W Diagnostic**
 - 11-04. Load Default**

1. Copy

The "Copy" function copies directly the data of the source USB pen drive to a blank USB pen drive. Before copying, please make sure that the source USB pen drive is inserted and the target USB pen drive has a disk space equal to or larger than the source drive.

Choose the first function, "Copy". Insert the source pen drive to the source USB port and a blank pen drive to the target USB port.

```
1. Copy
      USB: 8
```

8 Shows the number of detected pen drives, including the source and target pen drives. Press ENT to start copying data. The following message will be displayed on the LCD and the green LED on the CopyBox panel will blink.

```
Copy 3.0 MB/S  1%
3.7 GB   0:00:47
```

In the figure, the data volume and the copy time decrease while the completed percentage increases. Upon completion of data copying, the following message will be displayed on the LCD and the LED indicator of the USB port that has successfully completed the copying operation will turn orange and stay lit.

```
Copy
OK: 7   Fail: 0
```

2. Async Copy

The function "Async Copy" adds an extra target drive during the copying operation. Choose the second function, Async Copy.

```
2. Async Copy
      USB: 6
```

Press ENT to start copying data. The following verification message will be displayed on the LCD:

```
Acopy-4.8MB/S  4%
3.6GB  0:01:19
```

During the process, you can insert another USB pen drive as the target of the Async Copy operation. The copying parameters will change accordingly. The blinking green USD LED on the CopyBox panel shows that the copying is in progress. When the LED turns orange and stay lit, the data copying of the USB pen drive on that USB port is completed. Upon completion, the following message is displayed on the LCD.

```
Async Copy
OK: 7   Fail: 0
```



3. Compare

The "Compare" function compares the data in the source USB pen drive with that in the target USB pen drive after the copying operation finishes. Choose the third function, "Compare". Please insert the source and target USB pen drives.

```
3. Compare
          USB: 8
```

Press ENT to start comparing data. The following message will be displayed on the LCD.

```
Comp- 1.3MB/± 16%
      3.4GB 0:00:47
```

Upon completion of data comparing, the following results will be displayed on the LCD and the LED of the target USB port will turn orange and stay lit.

```
Comp- 1.3MB/± 16%
      3.4GB 0:00:47
```

4. Async Compare

The function "Async Compare" adds an extra target drive for data comparing during the comparing operation. Choose the fourth function, "Async Compare" and insert the source and target USB pen drives to the corresponding USB ports.

```
4. Async Compare
          USB: 6
```

Press ENT to start comparing data. The following message will be displayed on the LCD.

```
Acmp- 1.3MB/± 25%
      2.7GB 0:01:35
```

During the process, you can insert another target USB pen drive for the Async Compare operation. The comparing rate will change accordingly. The blinking green USD LED on the CopyBox panel shows that the comparing is in progress. When the LED turns orange and stay lit, the data comparing of the USB pen drive on that USB port is completed. Upon completion, the following message is displayed on the LCD.

```
Async Cmp OK: 7
Fail: 0 Diff: 0
```

5. PreScan

The function "PreScan" scans and tests the readability of the source USB pen drive. Choose the fifth function, "PreScan", and insert the source USB pen drive.

```
5. PreScan
          USB: 8
```

Press ENT. The following message will be displayed on the LCD.

```
Scan- 18MB/s 20%  
3.0GB      0:01:49  
  
PreScan OK!
```

6. ReScan Bus

The function "ReScan Bus" searches for the connected USB pen drives. If the controller does not automatically identify the USB pen drive, the drive can be scanned and identified again through this function.

```
6. ReScan Bus
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On. Press ENT. The following message will be displayed on the LCD.

```
Re-Scan Bus Now?  
Yes
```

Press ENT again to start scanning. The following message will be displayed on the LCD.

```
Bus re-Scan OK!  
Found 8 devices
```

The number of the connected devices will be shown in the LCD. If the device remains unfound after rescanning, please check the device for defects or check the list of compatible devices on the manufacturer website.

7. Source Size

The function "Source Size" shows the disk capacity of the source USB pen drive.

```
7. Source Size
```

Press ENT. The following message will be displayed on the LCD.

```
USB: Generic  
Total: 3953.0MB
```


8. Select Source

Function 8 Select Source is to identify and assign source drives.

Select function 8.

```
8. Select source
```

Press ENT, and then press ▲ ▼ to select the source as shown below.

```
Select Source
USB
```

9. Image

Function 9 Image is only usable under Stand Alone mode when a HDD is connected. This function includes 8 subfunctions: Load, Delete Image, Image Info, Compare Image, Select Image, Select Src Drive, Image Format Info and Edit. The loaded data is called an image file.

Select function 9.

```
9. Image
```

9.1 Select Image

This function is to select a partition in the hard disk. First, select the function by pressing ▼.

```
9-01. Image
Select Image
```

After installing a hard disk, your copy controller will format it automatically. Each partition occupies 5GB. The number of partitions is dependent on the hard disk's capacity. The partitions are alphabetically arranged. Select a partition by pressing ▲ ▼, and LCD will show the message as follows.

```
001 New image
NO NAME
```

9.2 Image Info

This function is to show the basic information of an image file stored in a particular partition. First, select the function by pressing ▼.

```
9-02. Image
Image Info
```

Press ENT, and LCD will show the information of the image file as follows.

```
001      3.9GB
NO NAME
```



9.3 Load

Now press ENT, and you will enter the following figure. Here the function Load is to let you load data from USB into the current partition of the hard disk. "P:A" means partition A.

```
9-03. Image
Load
```

Press ENT to load. LCD will show the loading information as follows.

```
Load-6.5MB/s 6%
3.6GB 0:00:47
```

After the image file is successfully loaded, LCD will show the results as follows.

```
Load Image Ok!
```

9.4 Compare Image

This function is to compare the contents of the source DVD and those of the image file in the partition. First, select the function by pressing ▼.

```
9-04. Image
Compare Image
```

Press ENT, and LCD will show the information of the image file as follows.

```
Comp-8.7MB/s 13%
3.4GB 0:01:17
```

When comparison is successfully, LCD will show the results as follows.

```
Comp Image OK !
```

9.5 Delete Image

If you want to delete an image file stored in a particular partition, you can use the function Delete Image to do so. First, select the function by pressing ▼.

```
9-05. Image
Delete Image
```

The system will ask if you are sure to delete. Use ▲ ▼ to confirm Yes or No.

```
Delete Image 002
NO NAME
```

After the image file is deleted, LCD will show the results as follows.

```
Delete Image OK !
```



9.6 Rename Image

This function is to rename the image file. First, select the function by pressing ▼.

```
9-06. Image
Rename Image
```

Press ENT, and then press ▲ ▼ to rename the image file.

```
Rename Image 001
```

After the image file is successfully renamed, LCD will show the results as follows.

```
Rename Ok !
```

9.7 HDD Usage

This function is to check the capacity of the HDD. First, select the function by pressing ▼.

```
9-07. Image
HDD Usage
```

Press ENT, and LCD will show the information of the image file as follows.

```
Free : 213.7GB
Total : 229.2GB
```

9.8 HDD Format

This function is to see how you have formatted your hard disk. Now press ESC and ▼ to enter the following figure.

```
9-08. Image
HDD Format
```

Press ENT, and LCD will show the information of the image file as follows.

```
HDD Format ?
Yes
```

After the HDD is successfully formatted, LCD will show the results as follows.

```
HDD Format
OK !
```



10. Setup

The function "Setup" changes the default settings. Once the settings are changed, they have to be saved by pressing ENT. However, the default settings are recommended for best performances. This function has 10 sub functions, including: Language, Copy Size, Startup Menu, Auto Compare, Button Sound, Device Info, System Info, Fast Copy, Auto Start and Auto Start Timer. Please refer to the figure in Page 14 for detailed information. Choose the eighth function, "Setup" as shown in the following figure.

```
10. Setup
```

10.1 Language

Now, press ENT to enter the following menu. This function can specify the language of the LCD messages.

```
10-01. Setup  
Language
```

Press ENT to enter the following menu. The default setting is English. You can change the display language to Spanish, Japanese, Traditional Chinese and Simplified Chinese.

```
Language  
English
```

10.2 Copy Size

Now, press ESC and ▼ to enter the following menu. This function controls the percentage of the source USB pen drive to be copied.

```
10-02. Setup  
Copy Size
```

Press ENT to enter the following menu. The default setting is 100%. You can change the setting to ALL and 1% to 99% of the source drive, depending on your needs.

```
Copy Size  
100% (3.9GB)
```

10.3 Startup Menu

Now, press ESC and ▼ to enter the following menu. This function allows you to choose any function except "Advance Setup" as the first item on the menu every time the system starts.

```
10-03. Setup  
Startup Menu
```

Press ENT to enter the following menu. The default setting is "Copy". You can choose any other function as the first item. Remember to save the new setting by pressing ENT.

```
Startup Menu  
1. Copy
```

10.4 Auto Compare

In the above menu, press ESC and ▼ to enter the following menu. This function automatically compares the source pen drive and the target pen drive after copying.

```
10-04. Setup
Auto Compare
```

Press ENT to enter the following menu. The default setting is "Off". You can change it to "On" by pressing ▼.

```
Auto Compare
Off
```

10.5 Button Sound

Now, press ESC and ▼ to enter the following menu. This function controls the sound of the button when it is pressed.

```
10-05. Setup
Button Sound
```

Press ENT to enter the following menu. The default setting is "On". You can change it to "Off" by pressing ▼.

```
Button Sound
On
```

10.6 Device Info

Now, press ESC and ▼ to enter the following menu. This function shows the information of the source and target USB pen drives connected to the controller.

```
10-06. Setup
Device Info
```

Press ENT to enter the following menu.

```
0      USB  CH:  0
Generic  3.9GB
```

You can browse the device information of the devices plugged to all the ports with the buttons ▲ and ▼, or enter the following menu to check the version information of the USB pen drive by pressing ENT.

```
Flash Disk
8.07
```



10.7 System Info

Now, press ESC and ▼ to enter the following menu. This function shows the system information.

```
10-07. Setup
System Info
```

Press ENT to enter the following menu.

```
USB Duplicator
2037PU ver: 1.00L
```

Press ENT to enter the following menu.

```
2037PU ver: 1.00L
2008/10/24 ACARD
```

Press ENT to enter the following menu.

```
Ram:      128MB
Flash:    4096kB
```

Press ESC to exit the menu when you finish.

10.8 Fast Copy

Now, press ESC and ▼ to enter the following menu. This function is fast data copying. (It supports FAT and FAT32 file formats.)

```
10-08. Setup
Fast Copy
```

Press ENT to enter the following menu. The default setting is "On". You can change it to "Off" by pressing ▼.

```
Fast Copy
On
```

10.9 Auto Start

Now, press ESC and ▼ to enter the following menu. This function enables automatic data copying. It has to be used together with the 9-10 function for automatic data copying.

```
10-09. Setup
Auto Start
```

Press ENT to enter the following menu. The default setting is "Off". You can change it to 1-8 by pressing ▼ according to the number of connected devices.

```
Auto Start
Off
```



10.10 Auto Start Timer

Now, press ESC and ▼ to enter the following menu. This function sets the start time of the automatic copying, which is related to the 10-09 function. If the 10-09 function is off, the 10-10 function is ineffective, too.

```
10-10. Setup
Auto Start Timer
```

Press ENT to enter the following menu. The default setting is "Off". You can change it to 50s ~ 5s by pressing ▼.

```
Auto Start Timer
Off
```

11. Advanced Setup

The function "Adv Setup" changes system status. It includes 4 sub-functions: Update Firmware, Compare Firmware, H/W Diagnostic and Load Default. Please refer the figure on Page 14 for other information.

11.1 Update Firmware

Now, press ESC and ▼ to enter the following menu. This function updates the firmware to the latest version. But you have to download the latest firmware first.

```
11-01. Adv Setup
Update Firmware
```

You can ask your supplier for the latest firmware by email or directly download the latest firmware from the website, . Extract the zip file to a blank pen drive. You don't have to extract the file if it is a bin file. Insert the pen drive to the source USB port and press ENT. The system will start searching for the new firmware as shown in the following figure:

```
Searching F/W---
XXX/XXXXXX
```

The following message will be displayed on the LCD when the system finds new firmware.

```
Update Firmware
1. 00L->1. 01L?Yes
```

Next, press ENT to start updating the firmware. Upon completion, the system will reboot itself automatically.

11.2 Compare Firmware

Now, press ESC and ▼ to enter the following menu. This function compares the current version of firmware and the newly download firmware. It verifies whether the download version is the latest.

```
11-02. Adv Setup
Compare Firmware
```



Next, press ENT to start comparing the firmware as shown in the following figure.

```
Compare Firmware
1.01L--1.01L ? Yes
```

Press ENT to confirm the comparing.

```
Compare Firmware
Ok!
```

You can upgrade the firmware after the comparing confirms that it is the latest.

11.3 H/W Diagnostic

Press ESC and ▼ to enter the following menu. This function tests the system.

```
11-03. Adv Setup
H/W Diagnostic
```

Press ESC and ▼ to enter the following menu. The system first tests the LCD and next the buttons. Subsequently, the system carries out the RAM self test, hardware connection test and flash memory test. All the test results are displayed on the LCD. This is most easy and simple way to check whether the system functions normally.

```
LCD Test Start
```

Upon completion of the entire process, the following message will be displayed on the LCD.

```
Test finished
```

11.4 Load Default

Now, press ESC and ▼ to enter the following menu. This function restores all the settings to the default values

```
11-04. Adv Setup
Load Default
```

Press ENT and ▼ to enter the following menu. Confirm restoring to the default values by pressing ▲ or ▼.

```
Load Default
Config? Yes
```

Upon completion of loading, the following message will be displayed on the LCD.

```
Load Default
OK
```



Troubleshooting

The LCD

If nothing shows up on the LCD after system starts, please ensure the power cable is firmly connected and the sockets work normally.

The Error Messages

If a user stops the copying process by pressing ESC, an error message will be displayed on the LCD. Interruption of the copying process may freeze the system and rebooting the system is necessary. If the USB pen drive is unreadable, an error message will appear on the LCD. Please get another USB pen drive and try again. If the copy controller does not detect any device after it initializes, an error message will be displayed on the LCD.

Compatibility of USB pen drives

You can download the list of compatible USB pen drives from the ACARD website and check your drive's compatibility.

Buttons

If the buttons are irresponsive, they might not work properly. Please check the settings of the crossover switches.

Unreadable USB pen drives

If the USB pen drive is unreadable after copying, please check the drive through the "Compare" function or try again with a new pen drive.

High Failure Rate

If the failure rate of data copying is pretty high, please following the following procedures to improve it.

1. Check if the pen drive has good quality.
2. Update the firmware.

Updating Firmware

If you have trouble updating the firmware, please check the firmware. It might be caused by incorrect file download. Failure to update the firmware may make the system unable to start. In this case, please send the controller board back for repair.

The Ninth Function and Cancelling

To execute the ninth function "Adv Setup", please press and hold down ESC for 2 seconds. You can also cancel a function, such as copying and testing, during operation by pressing and holding down ESC for 2 seconds.

LCD Messages

Initialize SDRAM	Initializes the system SDRAM
Detect Drives	Detects the USB pen drives connected to the system
User Abort!	Aborting the operation in progress
Analyzing	Analyzes the source USB pen drive
Source Drive Not Exist	The source USB pen drive is not inserted or unable to identify
Target Drive Not Exist	The target USB pen drive is not inserted or unable to identify
HDD Image Not Exist	The Hard Disk do not have image file
HDD Image Read Fail	The image file can not be read or read error from Hard Disk
Source Drive Read Fail	The source USB pen drive can not be read or read error
Target Drive Read Fail	The target USB pen drive can not be read or read error
Target Drive Write Fail	The target USB pen drive can not be written or write error
Target Drive Space Not Enough	The target USB pen drive space is too small
PreScan Fail!	The PreScan of the source USB pen drive fails
Save new config Fail!	Saving the new configuration fails
Load Default Config?	Load the default configuration or not?
Preparing	The system is preparing itself for data copying
Check Target Please Await	The system is checking the target device now
Identical	The two copies of data for comparison are identical
Hold ESC to Exit	Hold down ESC for about 1 second to terminate the test



