SATA DVD/CD
Duplicator Controller


User's Manual

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Chapter 1 Introduction:

Thank you for purchasing this SATA DVD/CD Duplicator Controller. This controller is specifically engineered to run a stand-alone DVD/CD duplicator without additional computer or processing unit. With a simple, five-button interface and a LCD screen to display menu commands and real-time status, the DVD/CD Duplicator Controller provides a fast and reliable solution for DVD and CD duplication up to 11 targets from one single master disc.

Operating Environment:

Temperature	Working Temperature	0°C ~ 75°C
	Storage Temperature	-20°C ~ 85°C
Humidity	Working Humidity	20%~80%
	Storage Humidity	5%~95%

LCD Front Panel Overview:
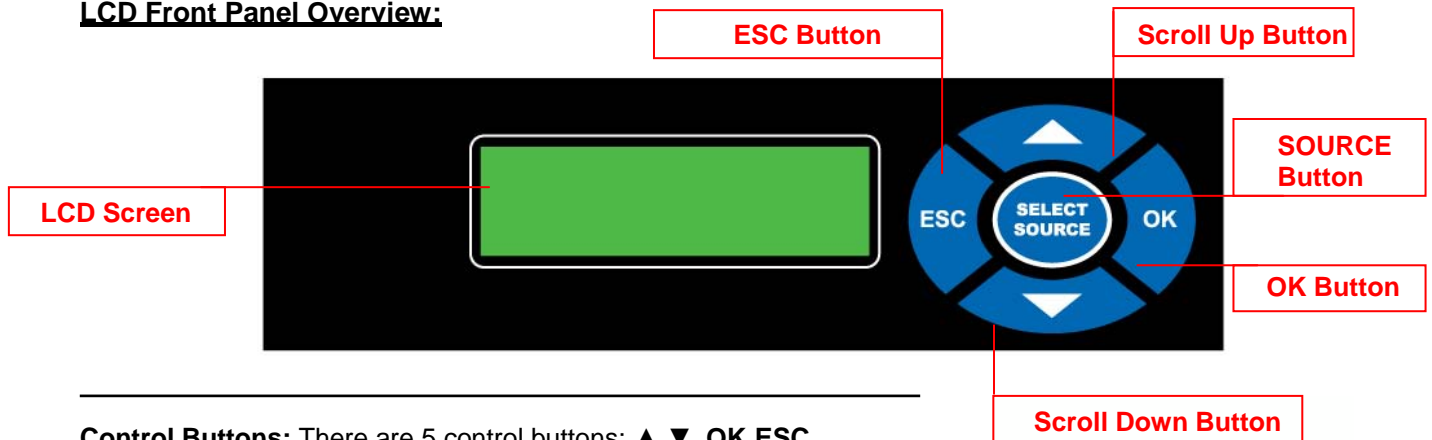
Control Buttons: There are 5 control buttons: ▲ ▼ OK ESC
SELECT SOURCE

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

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

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

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

SELECT SOURCE **:** To select source drive.

Hardware Installation Guide:

Connect drives with cables provided to the appropriate slot on controller as indicated below.

Insert 90º Angle Connectors into SATA Writer (black) Ports

Insert 90º Angle Connector into SATA Hard Drive (Orange) Port

Power Connector

Insert 90º Angle Connector into SATA Reader Port

Insert 180º Angle Connectors into SATA Writer Drives

Insert 180º Angle Connector into SATA Reader Drive

Insert 180º Angle Connector into SATA Hard Drive
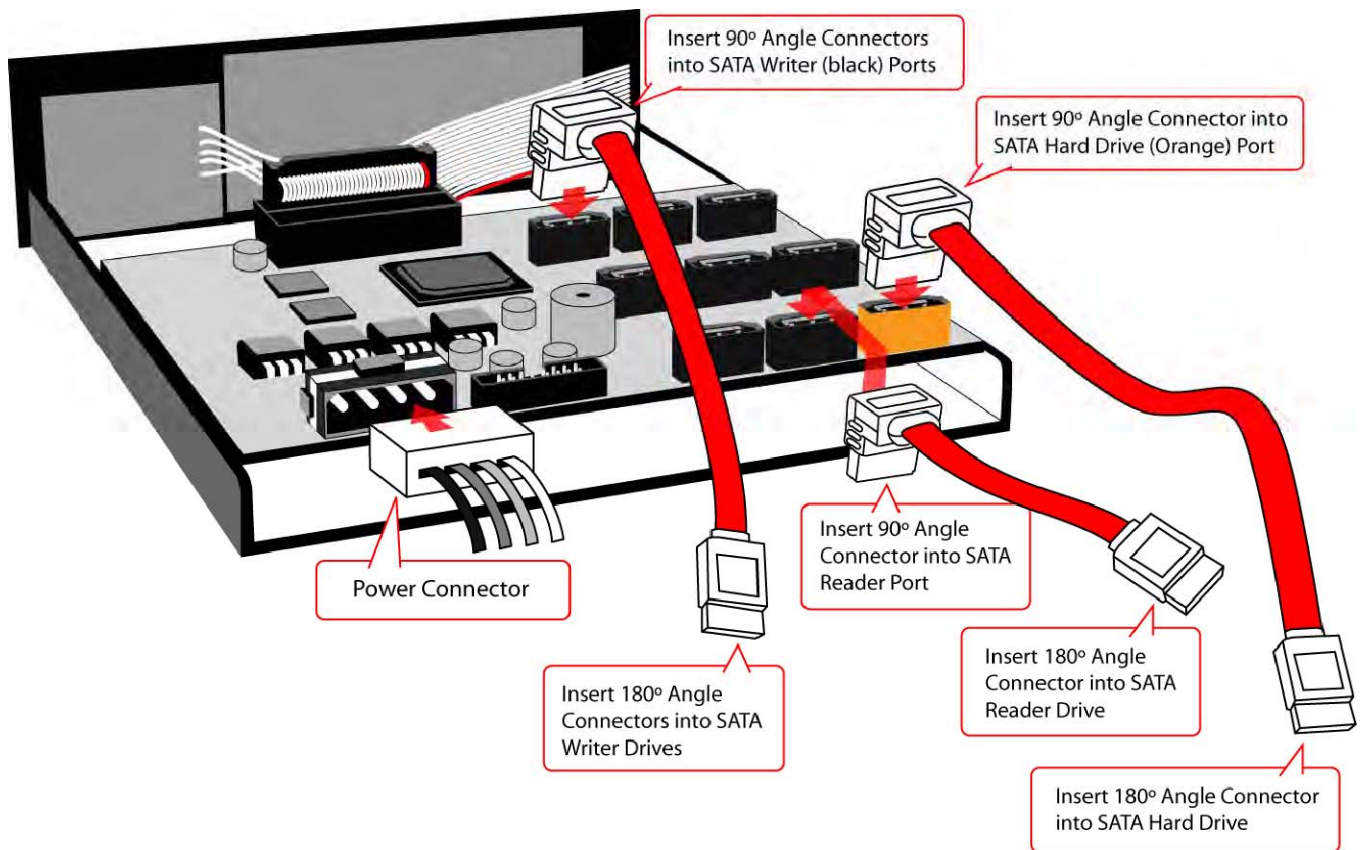
Note: If there is no HDD installed, then the reader (ROM) will connect to port1, and writers will connect to the following available ports (port 2-16). If a HDD is installed, it will connect to port 1. The reader (ROM) will connect to port 2, and the writers will connect to the following available ports (port 3-16)

Configuration Guidelines:

Next are the basic operation guidelines on how to set SATA devices including optical reader, writers, and/or hard drive. The system will automatically detect the drives and assign drive numbers.

	READER	WRITER	Hard Disk Drive (HDD)	System Setting Information
1	Installed	Installed	No	When machine is turned on, the system will detect and assign the READER drive as the Source Drive, which will be automatically set as Drive #1. WRITERS will be set as Writer Drives and assigned in sequential order after the READER drive, starting from Drive#2, Drive#3, etc.
2	No	Installed	No	When machine is turned on, the system will assign the WRITER drive connected to Port#1 of the controller as the Source Drive and as Drive#1. The rest of the WRITERS will then be set as Writer Drives and numbered in sequential order beginning from Drive#2 and on.
3	No	Installed	Installed	When machine is turned on, the system will assign the Hard Disk Drive (HDD) as the Source Drive and as Drive#1. The WRITERS will then be set as Writer Drives, and numbered in sequential order beginning from Drive#2 and on.
4	Installed	Installed	Installed	When all drives are installed, Port #1 will be connected to Hard Disk Drive (HDD), Port #2 will be connected to the Source drive. WRITERS will be set as Writer Drives and numbered in sequential order from Drive#3 and on.

Menu Overview (Expert Mode):

Below is a quick reference chart of the functions available on this DVD/CD Duplicator Controller. After the drives are successfully installed, user may access the menu functions by powering on the system.

1	COPY	Copies the master DVD/CD. All contents of the master disc will be duplicated on to all target disc(s) simultaneously.
2	TEST	Simulates the copy process, but no data is recorded onto the blank disc(s). **Note:** Test mode can only be done with DVD-R and CD-R media only.
3	COPY + VERIFY	Copies the master DVD/CD, and then verifies the presence of data on the copied disc(s) to ensure readability of the copied disc(s).
4	COPY + COMPARE	Copies the master DVD/CD, and then immediately follows the copy process with a bit-for-bit comparison between the master disc and copied disc(s) to ensure exact duplication. **Note:** The "Compare" function cannot be used with audio CDs.
5	VERIFY	Verifies the presence of data on the copied disc(s) to ensure that the copied disc(s) can be read back.
6	COMPARE	Performs a bit-for-bit comparison between the master disc and copied disc(s).
7	SET BURN SPEED	Allows the speed settings to be changed for various formats.
8	SOURCE SELECT	Allows the source drive to be changed to any of the available drives in the duplicator, including the Hard Disk Drive (HDD).

9	UTILITY	
	9.1 Pre-scan	Performs a scan on the master disc before the copy process starts and ensures the master disc can be copied in the duplicator.
	9.2 Quick Erase	Erases content on the media (CD-RW, DVD+/-RW and DVD+/-RW DL).
	9.3 Full Erase	Erases all data on the media (CD-RW, DVD+/-RW and DVD+/-RW DL).
	9.4 Eject All Trays	Ejects all disc trays, including source drive.
	9.5 Disc Info.	Displays basic information of the discs inserted, such as disc type, amount of data on disc for master disc(s) (in MB) and media book type. For blank media, displays the media book type, available space and speed of the media.
	9.6 Drive Info.	Displays information of all drives in the duplicator including the Reader, HDD (if present) and Writer drive(s).
	9.7 System Info.	Displays the duplicator controller information, such as the hardware version, buffer memory and currently loaded firmware.
	9.8 Update BIOS	Updates the firmware for the controller.
	9.9 Copy Counter	Shows count. Enables counter and clears counter.
10	SETUP	
	10.1 Startup Menu	Assigns a command to be displayed first after the duplicator has been initialized.
	10.2 Auto Start	Sets auto start time from OFF (no auto start) to 99 sec. Allows the duplicator to automatically start one of six following functions once the master disc and
	10.3 Display Mode	Sets the amount of information displayed on the LCD during the performance of various functions.
	10.4 Beep	Enables or disables the audio feedback when buttons are pressed.
	10.5 Power on Eject	Allows the duplicator to eject disc tray(s) with disc present inside upon boot-up.
	10.6 Reader Speed	Sets the speed at which discs are read during various processes.
	10.7 Compare Speed	Sets the speed at which the compare process is executed.
	10.8 Skip Read Error	Enables the option to halt the duplication process if there is an error on the master disc. Disables the option to allow the process to continue with the same errors as the master disc.
	10.9 Language	Allows different language selections for LCD display.
	10.10 Clear Setup	Clears the CMOS and resets the duplicator controller back to factory defaults.

11	HDD MANAGER	The management for various functions of the hard disk drive (HDD). **Note:** For this function and submenu to be displayed, a HDD must be installed in the duplicator.
	11.1 Select Image	Selects an image file as a source to be copied to the discs.
	11.2 Disc => Image	Loads an image to the HDD from a master CD or DVD as an Image file.
	11.3 Image Info.	Displays the image file information such as image order, name, file size and type of image.
	11.4 Rename Image	Renames the HDD image partition name up to 8 characters.
	11.5 Delete Image	Deletes an image file in HDD. If the source file is selected to delete, the last file on the HDD will automatically be assigned as a new source file.
	11.6 HDD Info.	Displays the information in HDD, such as the number of discs stored on the HDD and the amount of space left in the HDD.
	11.7 Format HDD	Formats the HDD, erasing ALL data stored on the HDD.
	11.8 Load & Copy	Allows an image to be loaded onto the HDD from a master CD or DVD and automatically copied on to the target disc(s). Select from 3 modes: Synchronous, Load First and Off.

Chapter 2 Functions:

There are two operational function modes available. One is "User Mode" which has the most frequently used duplicator functions. The other is "Expert Mode" which includes all duplicator functions.

2.1 User Mode

1. Copy - See Page 6 > Section 2.2 Expert Mode > 1.Copy

2. Copy+Compare - See Page 8 > Section 2.2 Expert Mode > 4.Copy+Compare

3. HDD Manager - See Page 13 > Section 2.2 Expert Mode > 11.HDD Manager

4. Expert Mode - Switch to advanced functions in Expert Mode

2.2 Expert Mode

1. Copy - This command will copy the master disc placed in the designated Source Drive to all target discs in the Writer Drives. This process burns all information contained on the master disc to the target discs so the copies are exact duplicates of the master disc.
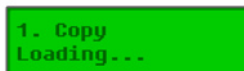
To Start the Copy Process:
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place blank disc(s) on the tray(s). Number of drives used depends on number of copies desired. It is not necessary to always use all drives.
4. Use the scroll buttons to select the command "1. Copy" and press the ENT button. The drives will automatically close trays and begin the copy process.
5. Once the copy process is completed, the disc trays will eject and the display will read "Copy Result: Pass X, Fail Y," with X being the number of successful copies, and Y being the number of failed copies. To reduce copy failure, please refer to the troubleshooting section of the manual.

➔ Load discs and Press **ENT** to execute Copy

➔ Start copying

➔Finish and eject discs

2. Test – This command will simulate the copy process and make sure all target discs are usable. The test process does NOT burn anything to the blank disc(s). A built-in diagnostic algorism is used to verify the chance of successful copy for each target disc.

To start the Test Process:
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place blank disc(s) on the tray(s). Number of drives used depends on number of discs to be tested. It is not necessary to always use all drives.

4. Use the scroll buttons to select the command "2. Test" and press the ENT button. The drives will automatically close trays and begin the test process.
5. Once the test process is complete, the disc trays will eject and the display will read "Test Result: Pass X, Fail Y, with X being the number of discs that passed the test, and Y being the number of failed copies. Use discs that have passed the test for the actual duplication.

```
2. Test
#1: No Disc => 0
```
➜ Load discs and press **ENT** to execute Test

```
2. Test
Loading...
```

➜ Start simulation

```
Test x 11    696M
10%          70M
```

➜ Finish and and eject discs
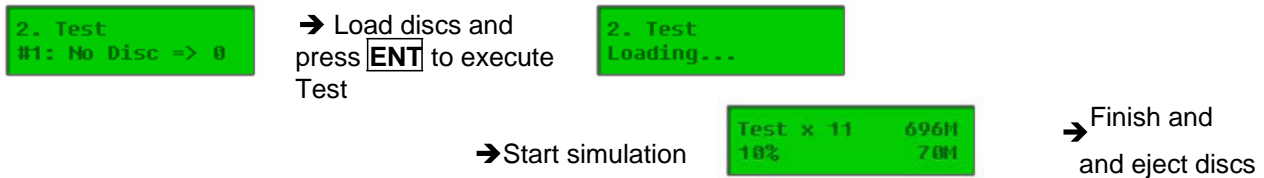
3.Copy + Verify – This command will perform the copy process, and immediately follow with a verification process on all target discs. This command is especially useful for audio CD duplication.

> **Note:** The verification process uses a Disc Readability Check to individually check the presence of data on each copy. This process does not compare the contents of duplicated discs against that of the master. It only verifies that the duplicated discs are readable.

To start the Copy + Verify process:
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place blank disc(s) on the tray(s). Number of drives used depends on number of copies desired. It is not necessary to always use all drives.
4. Use the scroll buttons to select the command "3. Copy + Verify" and press the ENT button. The drives will automatically close trays and begin the copy process.
5. Once the copy process is completed, the tray(s) will open briefly, and then automatically close again to begin the verify process.
6. Once the verify process is completed, the trays will automatically eject discs that have passed the Copy + Verify process.

```
3. Copy+Verify
#1: No Disc => 0
```
➜ Load discs and press **ENT**

```
3. Copy+Verify
Loading...
```

➜ Start copying

```
Copy x 11    696M
10%          70M
```

➜ Copy completed and start Verify

```
Verify x 11  696M
10%          70M
```
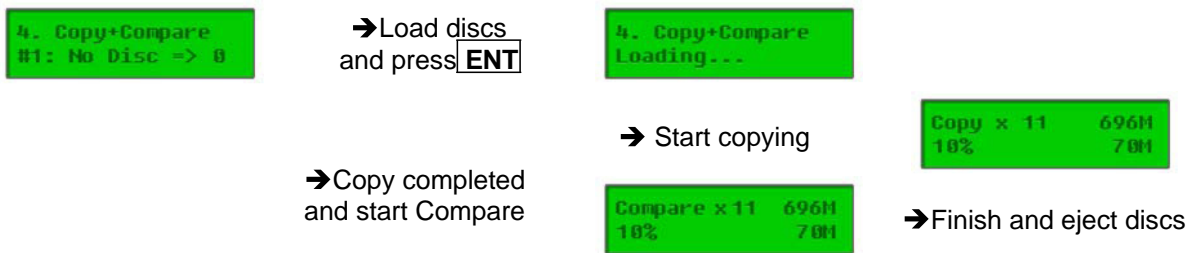
➜ Finish and eject discs

4. **Copy + Compare** – This command will perform the copy process, and immediately follows with a comparison between the master disc and the copied disc(s) to ensure the copies are exact duplicates of the master disc. This command is especially useful for DVDs, data CDs and video CDs.

Note: The Compare process is a **bit-by-bit comparison** between the master disc and the copied discs. This operation ensures that all of the copies are completely identical to the Master disc. This command is not applicable to audio CDs.

To start the Copy + Compare process:
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place blank disc(s) on the tray(s). Number of drives used depends on number of copies desired. It is not necessary to always use all drives.
4. Use the scroll buttons to select the "4. Copy + Compare" command and press the ENT button. The drives will automatically close trays and begin the copy process.
5. Once the copy process is complete, the tray(s) will open briefly, and then automatically close again to begin the compare process.
6. Once the compare process is completed, the trays will automatically eject discs that have passed the Copy + Compare process.

```
4. Copy+Compare
#1: No Disc => 0
```
➔Load discs and press **ENT**
```
4. Copy+Compare
Loading...
```

➔ Start copying
```
Copy x 11      696M
10%             70M
```

➔Copy completed and start Compare
```
Compare x11   696M
10%            70M
```
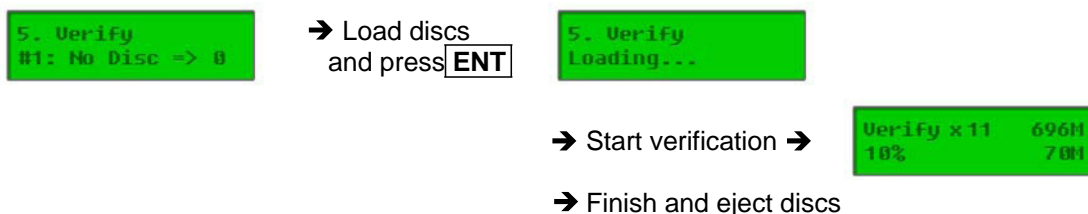➔Finish and eject discs

5. **Verify** – This command verifies readability on the master disc and/or all target discs. This command is especially useful for audio CD duplication.

Note: The verification process uses a Disc Readability Check to individually check the presence of data on each copy. This process does not compare the contents of duplicated discs against that of the master. It only verifies that the duplicated discs are readable.

To start the verify process, please follow the instructions below:
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc to be verified in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place copied disc(s) to be verified on the tray(s). Number of drives used depends on number of copies to be verified. It is not necessary to always use all drives.
4. Use the scroll buttons to select the command "5. Verify" and press the ENT button. The drives will automatically close trays and begin the verify process.
5. Once the verify process is complete, the trays will eject the discs that have passed the verify process.

```
5. Verify
#1: No Disc => 0
```
➔ Load discs and press **ENT**
```
5. Verify
Loading...
```

➔ Start verification ➔
```
Verify x 11    696M
10%             70M
```

➔ Finish and eject discs

6. **Compare** – This command compares copied disc(s) to the master disc and ensures that the copies are exact duplicates of the master disc. This command is especially useful for DVDs, data CDs and video CDs.

> **Note:** The Compare process is a **bit-by-bit comparison** between the master disc and the copied discs. This operation ensures that all of the copies are completely identical to the Master disc. This command is not applicable to audio CDs.

To start the Compare process, please follow the instructions below.
1. Power on the machine (if not already on).
2. Eject disc tray of the Source Drive and place the master disc in the designated Source Drive (usually the top). The "master disc" is the original of which copies are made.
3. Eject disc tray(s) of the Writer Drives and place copied disc(s) to be compared on the tray(s). Number of drives used depends on number of copies to be compared. It is not necessary to always use all drives.
4. Use the scroll buttons to select the command "6. Compare" and press the ENT button. The drives will automatically close trays and begin the compare process.
5. Once the compare process is complete, the trays will eject the discs that have passed the compare process.

```
6. Compare
#1: No Disc => 0
```
➔ Load discs and press **ENT**
```
6. Compare
Loading...
```

➔ Start comparison ➔
```
Compare x11   696M
18%           70M
```
➔ Finish and eject disc

7. **Set Burn Speed** – This feature allows you to set the burn speed of various types of disc: CDs (data and VCDs), audio CDs, DVDs and dual-layer DVDs (DVD DL)

Selectable burn speeds:
CD: 1, 2, 4, 8, 10, 12, 16, 20, 24, 32, 36, 40 (default), 44, 48 MAX.
Audio CD: 1, 2, 4, 8, 10, 12, 16, 20, 24 (default), 32, 36, 40, 44, 48, 52, 56, MAX.
DVD: 1, 2, 2.4, 4, 6, 8, 12, 16 (default), 18, 20 MAX.
DVD DL: 1, 2 (default), 2.4, 4, 6, 8, 12, 16, 18, 20, MAX.

To Set the Burn Speed:
1. Power on the machine (if not already on)
2. Use the Scroll buttons to select "7. Set Burn Speed". Press the ENT button.
3. The first speed selection is for general CDs. Use the Scroll buttons to select the desired burn speed and press the ENT button.
4. The second speed selection is for audio CDs. Use the Scroll buttons to select the desired burn speed and press the ENT button.
5. The third speed selection is for DVDs. Use the Scroll buttons to select the desired burn speed and press the ENT button. Note: The selection is only available on DVD duplicators.
6. The fourth speed selection is for DVD DL. Use the Scroll buttons to select the desired burn speed and press the ENT button. Note: The selection is only available on DVD duplicators.

```
7. Set Burn Speed
```
➔ Press **ENT** & **▲** or **▼** ➔
```
[Set Burn Speed]
CD: 48x
```
➔ **▲** or **▼** and press **ENT** to set general data CD burning speed ➔

➔ `[Set Burn Speed]` / `Audio CD: 40x` ➔ ⮝ or ⮟ and press ENT to set audio CD burning speed ➔

➔ `[Set Burn Speed]` / `DVD: 20x` ➔ ⮝ or ⮟ and press ENT to set DVD burning speed ➔

➔ `[Set Burn Speed]` / `DL DVD: 12x` ➔ ⮝ or ⮟ and press ENT to set DVD DL burning speed ➔
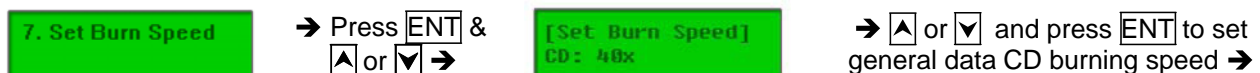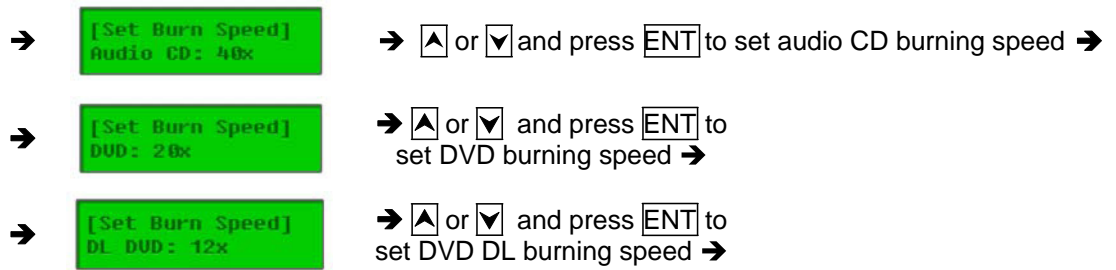
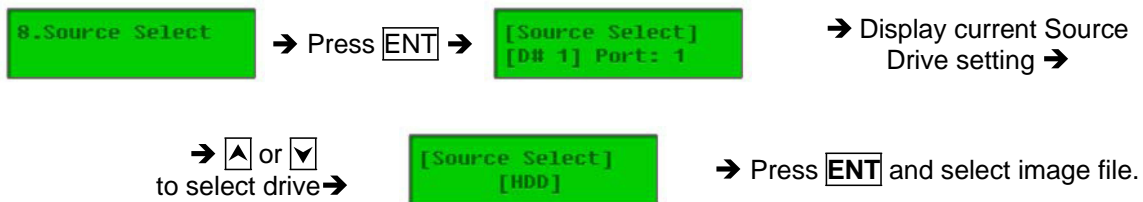8. **Source Select** – This command will allow you to change the source drive to any one of the drive(s) inside the unit, including the HDD (if installed).
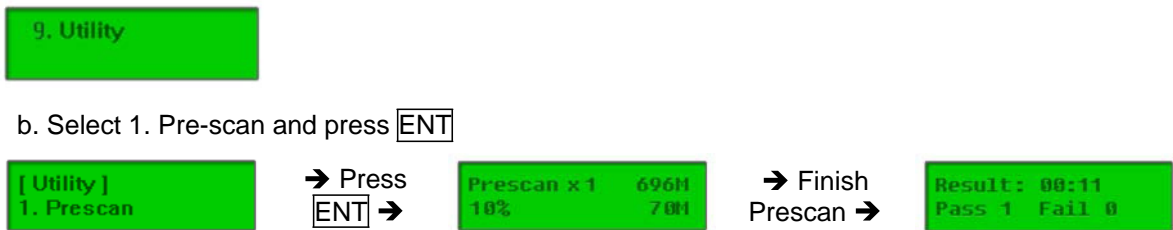
To change the source drive inside the unit to a different drive:
1. Power on the machine (if not already on).
2. Use the Scroll buttons to select the "8. Source Select: Press the ENT button.
3. The current Source Drive will be displayed along with the partial model number of the drive and the port number in brackets.
4. Use the Scroll buttons to select from other available drives until the port number of the desired drive is displayed.
5. Press the ENT button. The desired drive will then become the Source Drive.

`8.Source Select` ➔ Press ENT ➔ `[Source Select]` / `[D# 1] Port: 1` ➔ Display current Source Drive setting ➔

➔ ⮝ or ⮟ to select drive ➔ `[Source Select]` / `[HDD]` ➔ Press **ENT** and select image file.

9. **Utility** – This command contains various tools to check functionality of the drive(s), information of the components, and other system information.

   1. **Prescan:** Prescans the master disc and verifies the integrity and quality of the master disc.
      a. Select Utility and press ENT to enter the sub-menu.

      `9. Utility`

      b. Select 1. Pre-scan and press ENT

      `[Utility]` / `1. Prescan` ➔ Press ENT ➔ `Prescan x1    696M` / `10%           70M` ➔ Finish Prescan ➔ `Result: 00:11` / `Pass 1  Fail 0`

   2. **Quick Erase:** Performs a quick erase of rewritable (RW) media for next use.
      Note: Do NOT perform this function on recordable (R) media.

      `[Utility]` / `2. Quick Erase` ➔ Insert re-writable discs and press ENT ➔ `[Quick Erase]` / `X1          00:10` ➔ `[Quick Erase]` / `P=1          F=0`

      ➔ Finish Quick Erase and eject discs
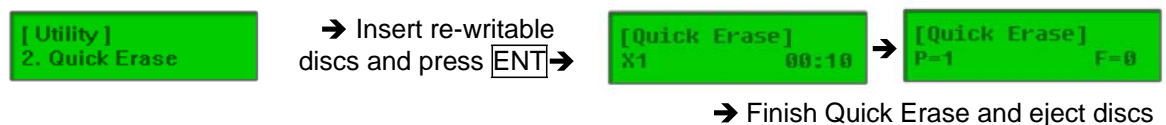
3. **Full Erase:** Performs a full erase of rewritable (RW) media for next use.
   Note: Do NOT perform this function with recordable (R) media.

```
[ Utility ]
3. Full Erase
```
➜ Insert re-writable disc
and press ENT ➜
```
[Full Erase]
X1          00:10
```
➜ Finish Full Erase
and eject discs

4. **Eject All Discs:** Performs a simultaneous ejection of all of the optical disk drive(s) on the duplicator.

```
[Utility]
4. Eject All Trays
```
➜ Press ENT ➜ All disc trays will open

5. **Disc Info:** Checks the capacity and space used on the disc(s) inside of the drive(s) of the duplicator.

```
[ Utility ]
5. Disc Info.
```
➜ Press ENT ➜
```
[1]        17 Tracks
Audio CD      697MB
```
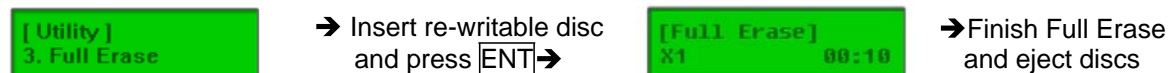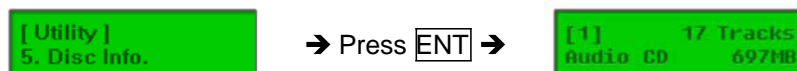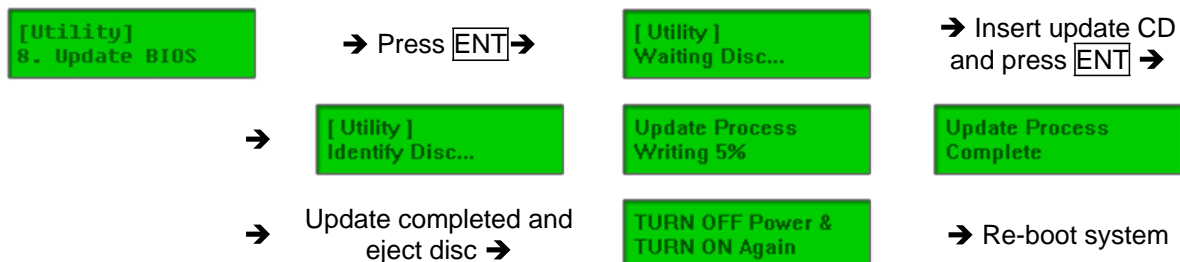
6. **Drive Info:** Checks the make, model, firmware and the channel (port) of the drive(s) that are connected to the duplicator controller.

```
[ Utility ]
6. Drive Info.
```
➜ Press ENT ➜
```
[#1] P:1      1.00
ASUS   DVD-E818A6T
```
➜ Press ▲ or ▼ to select
different Drives

7. **System Info:** Checks the model number, buffer memory and firmware version of the duplicator controller.

```
[Utility]
7. System Info
```
➜ Press ENT ➜
```
A0111D      128MB
V0.00.20
```

8. **Update BIOS:** Updates the BIOS (firmware) of the duplicator controller.

```
[Utility]
8. Update BIOS
```
➜ Press ENT ➜
```
[ Utility ]
Waiting Disc...
```
➜ Insert update CD
and press ENT ➜

➜
```
[ Utility ]
Identify Disc...
```
```
Update Process
Writing 5%
```
```
Update Process
Complete
```

➜ Update completed and
eject disc ➜
```
TURN OFF Power &
TURN ON Again
```
➜ Re-boot system

➜ Press ENT ➜

9 . **Copy Counter:** Shows count. Enables counter and clears counter.

```
[Copy Counter]
1. Show Count
```
➜
```
2. Enable Counter
Enable/ Disable
```
➜
```
3. Clear Counter
```
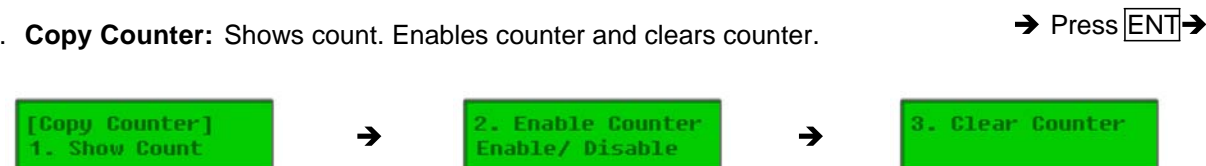
10. **Setup** – This command contains options to configure the duplicator system.

   1. **Start-up Menu:** Sets the command to be displayed first when the machine is powered up and initialized. All primary commands are available to be set for Start-up: Copy, Test, Copy + Verify, Copy + Compare, etc.

```
[ Setup ]
1.Startup Menu
```
➜ Press
ENT ➜
```
[Startup Menu]
1.Copy
```
➜ ▲ or ▼ to select function and
press ENT to confirm

11

2. **Auto Start:** Set the amount of time before the duplicator will automatically start the selected command ranging from OFF (no auto start) to 99 seconds in 1-second increments (1, 2, 3….97, 98, 99).

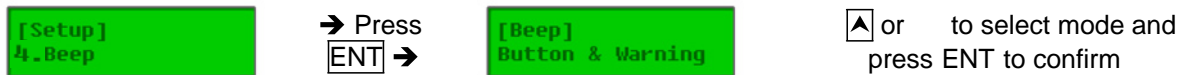|			
[Setup] 2 . Auto Start	➔ Press ENT ➔	[Auto Start] 3 seconds	➔ ▲ or ▼ to select seconds and press ENT to confirm

3. **Display Mode:** Changes the display readout during the performance of various commands. The "Basic" mode displays a progress bar, along with the amount of total data in MB on the master DVD (or in time for the master CD). The "Expert" mode displayed the percentage of the process completed, the amount of data transferred and the total amount of data on the master disc.

[Setup] 3 . Display Mode	➔ Press ENT ➔	[Display Mode] Basic	➔ ▲ or ▼ to select mode and press ENT to confirm

4. **Beep:** Turns the audio signal (a beeping sound) ON or OFF for pressing of the buttons.

[Setup] 4 . Beep	➔ Press ENT ➔	[Beep] Button & Warning	▲ or to select mode and press ENT to confirm

5. **Power on Eject:** Allows the drive(s) with disc(s) present inside to eject the disc trays when the machine is done initializing.

[Setup] 5 . Power on Eject	➔ Press ENT ➔	5 . Eject On Start Eject All	➔ ▲ or ▼ to select Eject All/ No Eject/ Eject Target/ Eject Source and press ENT to confirm

6. **Reader Speed:** Sets the reader speed for the duplicator to read the master disc(s). The speeds for CD are: 1, 2, 4, 8, 10, 12, 16, 20, 24, 32, 36, 40, 44, 48, 56 (default), MAX. The speeds for DVD are: 1, 2, 2.4, 4, 6, 8, 10, 12, 16, 18, 20, 24 (default), MAX. The read speed is pre-set to MAX variable-upon drive and media speed.

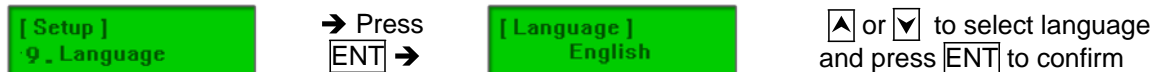|			
[Setup] 6 . Reader Speed	➔ Press ENT ➔	[Reader Speed] CD :56X	➔ ▲ or ▼ to select CD Read and press ENT ➔
	➔	[Reader Speed] DVD :20X	➔ ▲ or ▼ to select DVD read speed and press ENT to finish.

7. **Compare Speed:** Sets the speed at which the master disc is compared with the copies disc(s). The speeds for CD are: 1, 2, 4, 8, 10, 12, 16, 20, 24, 32, 36, 40 (default), 44, 48, 52, 56, MAX. The speeds for DVD are: 1, 2, 2.4, 4, 6, 8, 12, 16 (default), 18, 20 MAX. The compare speed is pre-set to MAX variable upon drive and media speed.
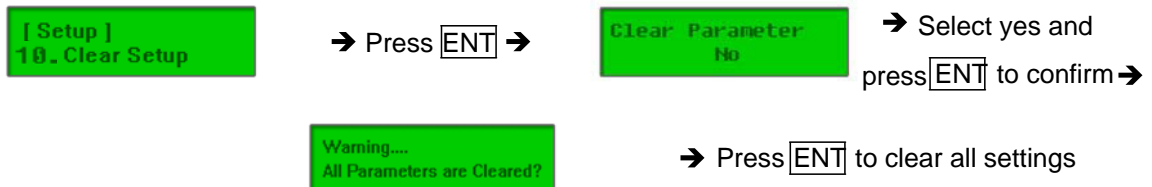
[Setup] 7. Compare Speed	➔ Press ENT ➔	[Compare Speed] CD:40X

➔ △ or ▽ to select CD Compare Speed and press ENT ➔

➔	[Compare Speed] DVD:16X	

➔ △ or ▽ to select DVD Compare speed and press ENT to finish

8. **Skip Read Error:** Allows the duplicator to skip uncorrectable read errors on the master DVD or CD. This feature can be turned ON or OFF.

[Setup] 8.Skip Read Error	➔ Press ENT ➔	Skip Read Error Disable

➔ △ or ▽ to select mode and press ENT to confirm

9. **Language:** Sets the language selection of the display. Available languages are: English (default), Spanish, Portuguese, and Japanese.

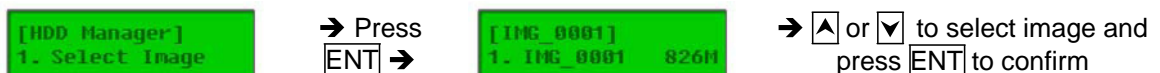|		
[Setup] 9. Language	➔ Press ENT ➔	[Language] English

△ or ▽ to select language and press ENT to confirm

10. **Clear Setup:** Resets the duplicator controller back to factory default settings.

[Setup] 10. Clear Setup	➔ Press ENT ➔	Clear Parameter No

➔ Select yes and press ENT to confirm ➔

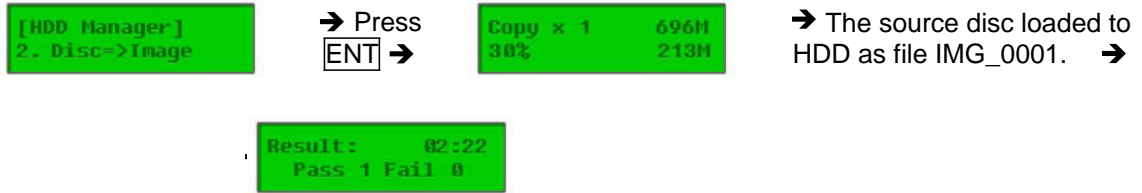|	
Warning.... All Parameters are Cleared?	➔ Press ENT to clear all settings

11. HDD Manager – This command is for the management of the hard disk drive (HDD) installed in the duplicator. **Note:** This feature is only available on duplicators with a HDD installed. If there is no HDD present in the duplicator, this feature will NOT show in the menu of commands.

1. **Select Image:** Allows the selection of the image(s) present on the HDD. The Scroll buttons cycle through the image(s) on the HDD and the ENT button confirms the selection while the ESC button cancels the selection. The image(s) are listed in order of which they were loaded.
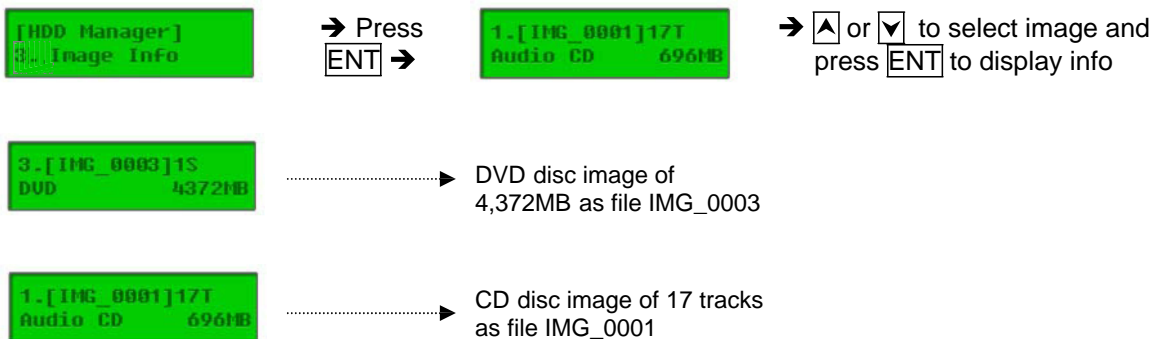
[HDD Manager] 1. Select Image	➔ Press ENT ➔	[IMG_0001] 1. IMG_0001 826M

➔ △ or ▽ to select image and press ENT to confirm

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2. **Disc => Image:** Transfers the information from the master DVD/CD to the HDD. After the image(s) transfer is complete, the reader drive is ejected and the source drive is changed to the HDD.

[HDD Manager] 2. Disc=>Image	➔ Press ENT ➔	Copy x 1 696M 30% 213M	➔ The source disc loaded to HDD as file IMG_0001. ➔

Result: 02:22
  Pass 1 Fail 0

Note: The Source Disc may be placed in the Reader Drive or any of the Writer Drives.

3. **Image Info:** Shows the image number in sequential order, the file name of the image stored on the HDD, the type of image stored, and the amount of data the image contains (in MB for DVD or time for CD).

[HDD Manager] 3. Image Info	➔ Press ENT ➔	1.[IMG_0001]17T Audio CD 696MB	➔ ▲ or ▼ to select image and press ENT to display info

3.[IMG_0003]1S
DVD   4372MB
················► DVD disc image of
4,372MB as file IMG_0003

1.[IMG_0001]17T
Audio CD   696MB
················► CD disc image of 17 tracks
as file IMG_0001

4. **Rename Image:** Renames the image instead of using default file names (A001, A002, etc.). Up to 8 characters.

[HDD Manager] 4. Rename Image	➔ Press ENT ➔	[Rename Image] 1.IMG_0001 826MB	➔ Select the image file to be renamed and press ENT ➔
	➔	[IMG_0001] =>I	➔ ▲ or ▼ to select character. Press ENT to go to the next position. ➔
	➔	[IMG_0001] =>ABCDEFGH OK?	➔ Press ENT to ➔ Or press ESC to confirm change the name

There are 8 characters for each image name. No empty space allowed in the image file name. Press ESC to cancel the process.

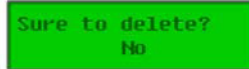5. **Delete Image:** Deletes the image(s) from the HDD and reclaims the space occupied by the image on the HDD.

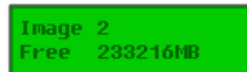| [HDD Manager] 5. Delete Image	→ Press ENT →	[DELETE Image] 2.IMG_0002 405M	→ Select the image file to be deleted →
	→ Press ENT →	Sure to delete? No	→ Ⓐ or Ⓥ to change to Yes and press ENT to confirm.

6. **HDD Info:** Shows number of images and free space available on the HDD.

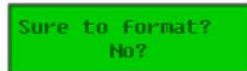| [HDD Manager] 6. HDD Info	→ Press ENT →	Image 2 Free 233216MB

7. **Format HDD:** Deletes and formats all image(s) on the HDD, restores the HDD to factory defaults and initializes the HDD for use with the duplicator.
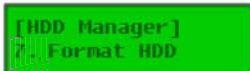
[HDD Manager] 7. Format HDD	→ Press ENT →	Sure to Format? No?	→ Ⓐ or Ⓥ to select Yes and Press ENT . →
	→	[Format HDD] Complete!	

8. **Load and Copy:** There are three (3) modes in this function.

[HDD Manager] 8. Load & Copy	→ Press ENT →	[Load & Copy] OFF	→ Ⓐ or Ⓥ to select between OFF / Synchronous / Load First and press ENT to confirm

a) **Load First:** Completes loading of the image to the HDD before automatically begins the copy process from the image stored on the HDD to all target disc(s). Images are loaded one at a time and copied to the Writer Drives with blank disc(s) ready.
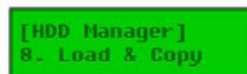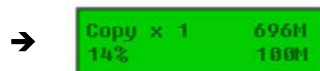
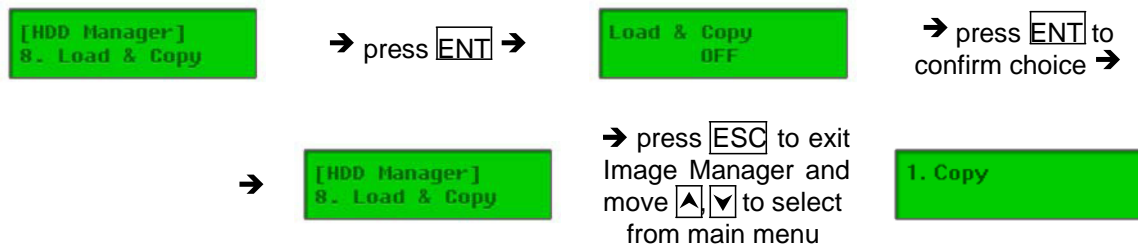| [Load & Copy] Load First	→ Press ENT to confirm →	[HDD Manager] 8. Load & Copy	Press ESC to exit → Image Manager and go back to main menu →
→	Ⓐ or Ⓥ to select "1.Copy"→	1. Copy	→ Press ENT →
→	Copy × 1 696M 14% 100M	→ Loads master disc on to HDD to 100% then start copy →	Copy × 11 696M 30% 213M
→	Complete copying from HDD file to target discs		

b) **Synchronous:** Loads the image at the same time while the duplicator is making copies from the master disc to the blank discs. As the copies being made, the image is also being created and stored on the HDD.

```
[Load & Copy]
   Synchronism
```
➔ Press ENT to confirm ➔

```
[HDD Manager]
8. Load & Copy
```
➔ Press ESC to exit Image Manager and go back to main menu ➔

➔ ▲ or ▼ to select "1.Copy" ➔

```
1. Copy
```
➔ Press ENT ➔

➔
```
Copy × 12      696M
14%            100M
```
➔ Start copying to target disc(s) and loads image into HDD at the same time
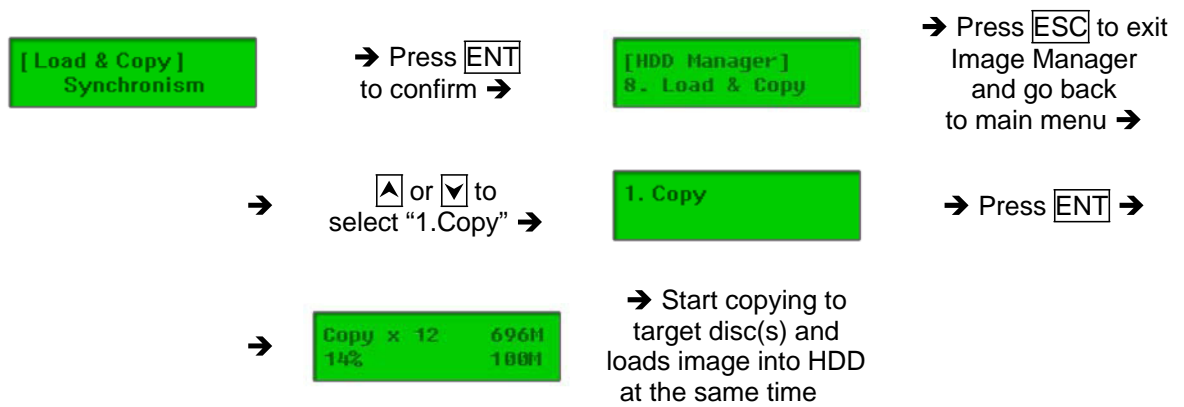
c) **OFF:** Disables the load and copy function. No temporary image is loaded to the HDD during the copy process.

```
[HDD Manager]
8. Load & Copy
```
➔ press ENT ➔

```
Load & Copy
    OFF
```
➔ press ENT to confirm choice ➔

➔
```
[HDD Manager]
8. Load & Copy
```
➔ press ESC to exit Image Manager and move ▲ ▼ to select from main menu

```
1. Copy
```

Chapter 3 Troubleshooting:

Follow these simple steps for quick and proper troubleshooting.

1. **Power does not turn on or unit receives no power.**
   a. Check power cord and outlet to make sure power connections are secured.
   b. Check voltage switch on the back of the duplicator to make sure power supply is set for correct outlet rating.
   c. Test with another power cord (same as a PC power cord) to eliminate cable failure.

2. **Master disc cannot be read**
   a. Change the master disc. The master disc may be of poor quality or with error(s) that can make duplication difficult or impossible.
   b. Remake the master disc on another disc. Master disc may be of poor quality or with error(s) that make duplication difficult or impossible.
   c. Change the source drive to one of the other drives to test.
   d. Make sure the master disc is finalized in standard ISO format.

3. **High failure rate**
   a. Change the media type. Certain types of media may not be compatible with the drives. Poor-quality media can also cause high failure rate.
   b. Lower the burn speed and attempt another copy process. Lowering the speed increases
      the stability of the duplication process.
   c. Check for available firmware updates for the unit. A firmware update may resolve any unspecified issues.

4. **Machine locks up during the copy process**
   a. Hold down the ESC button to abort the copy process. The copy process will cancel and menu goes back to the last function executed.
   b. If the button cancel does not work, power cycle the unit (power the unit off, leave off for five seconds and power the unit back on).
   c. Change the master disc. A master disc with error(s) or a poor quality master disc can cause duplication to lock up at particular points during the copy process.

5. **Button(s) do not function on the unit.**
   a. The duplicator may be busy. Buttons pressed while the duplicator is processing will not perform functions unless otherwise specified.
   b. Possible faulty button. Contact your technical support department for further information.

6. **One of the drives does not open and/or LED does not light up**
   a. Check USB and/or Firewire port switch and make sure the switch is in the OFF position before machine power is turned on.
   b. If a disc is stuck inside a drive, insert a paper clip or safety pin in the pinhole underneath the drive door and push gently. Make sure the power is OFF during this step. Then press the EJECT button of the drive a few times to test the disc tray.

7. **The blank CD or DVD is not recognized in the writer drive(s)**
   a. Test the blank disc in another writer drive. A faulty writer drive will not recognize blank discs.
   b. Change the blank disc to another disc. A defective blank disc will not be recognized by the writer drive.