SATA Blu-ray/DVD/CD Duplicator Controller

User Manual
Version 1.70

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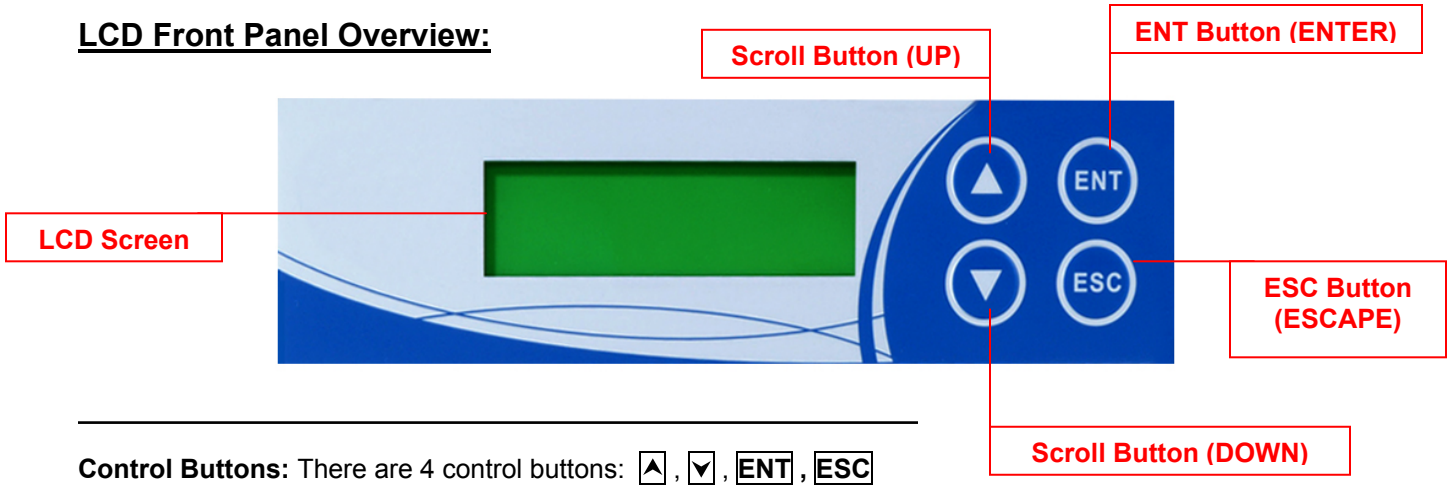
Introduction:

Thank you for purchasing SATA Blu-ray/DVD/CD Duplicator Controller. This controller is specifically engineered to run a standalone Blu-ray/DVD/CD duplicator without additional computer or processing unit. With a simple, four-button interface and a LCD screen to display menu commands and real-time status, the SATA Blu-ray/DVD/CD Duplicator Controller provides a fast and reliable solution for Bly-ray, DVD and CD duplication up to 15 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 4 control buttons: ▲ , ▼ , **ENT** , **ESC**

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

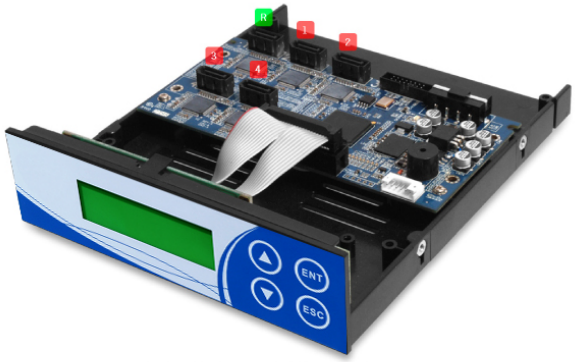
▼ : Down, Forward: To navigate forward in the menu.

ENT : Enter, OK: Execute the function.

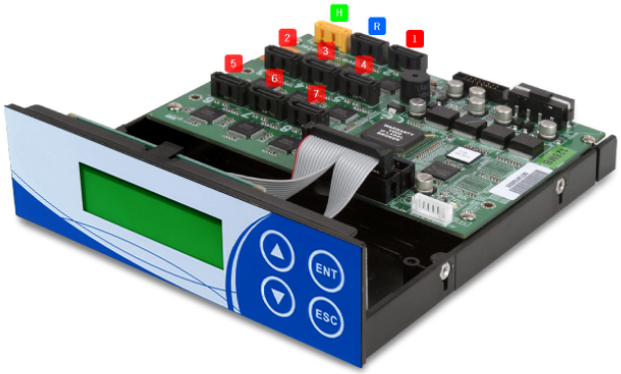
ESC : Escape, Cancel: Go back to the previous level in the menu.

Hardware Installation Guide:

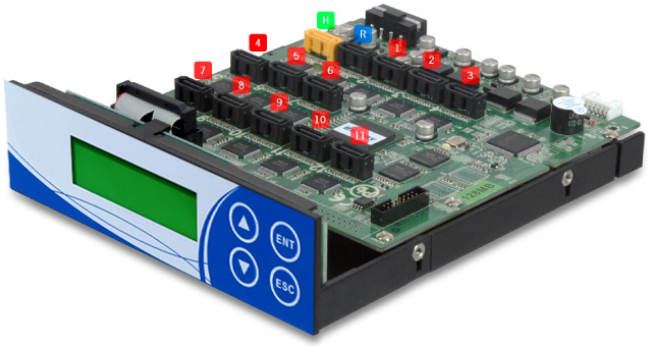
Connect drives with cables provided to the appropriate slot on controller as indicated below.



1 to 4 Target SATA Blu-ray Controller



1 to 7 Target SATA Blu-ray Controller

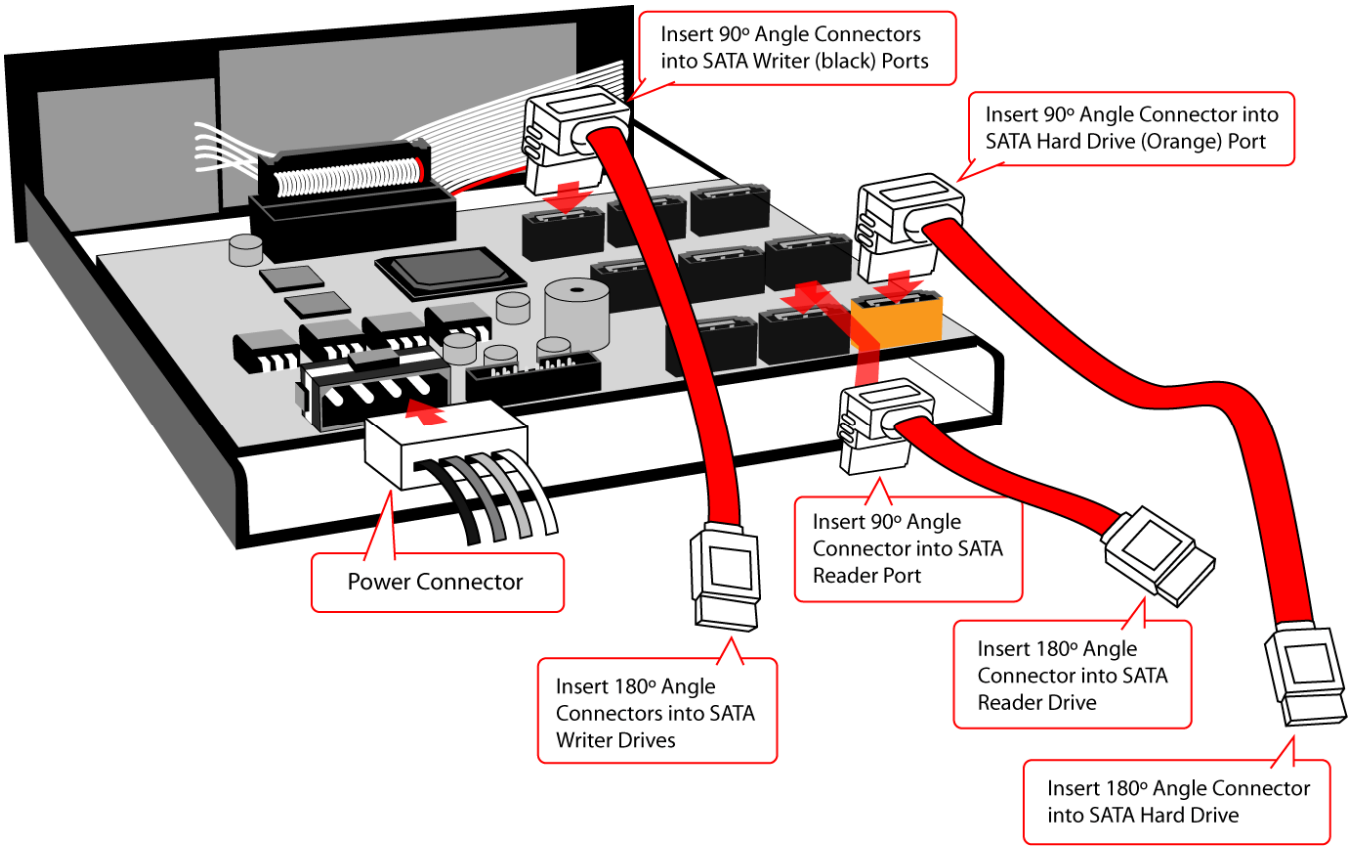


1 to 11 Target SATA Blu-ray Controller

Hard Drive

Reader

Writer



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 WRITER drive connected to Hard Disk Drive (HDD) 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.
4	Installed	Installed	Installed	When all drives are installed, ensure that the READER drive is connected to the HDD. The READER will be set as the Source Drive and as Drive#1. WRITERS will be set as Writer Drives and numbered in sequential order from Drive#2 and on.

Menu Overview:

Below is a quick reference chart of the functions available on all SATA BLU-Ray/DVD/CD Duplicator Controllers.
After the drives are successfully installed, user may access the menu functions by powering on the system.

1	**COPY**	Copies the master BLU-Ray/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 BLU-Ray/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 BLU-Ray/DVD/CDand 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	**SELECT SOURCE**	Allows the source drive to be changed to any of the available drives in the duplicator, including the Hard Disk Drive (HDD).
9	**TRACK EDIT**	Allows for the selection of individual track(s) from different master audio CDs to create custom compilation.
	9.1 Copy Track	Allows the selection of individual track(s) from the master CD and copies the selected track(s) onto all target discs.
	9.2. Close Disc	Closes the target discs when all of the track(s) are burned on to all target discs. **Note:** The copied disc(s) will NOT play back without this step. Do NOT skip this step.
	9.3 Disc Info	Displays the information regarding the track(s) on the disc(s) and how much space is remaining on the target disc(s).
10	**UTILITY**	
	10.1 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.
	10.2 Quick Erase	Erases all rewritable media (CD-RW, DVD+/-RW, DVD+/-RW DL, BD-RW).
	10.3 Full Erase	Formats all rewritable media (CD-RW, DVD+/-RW, DVD+/-RW DL BD-RW,).
	10.4 Eject All Disc	Ejects all disc trays, including source drive.
	10.5 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.
	10.6 Drive Info.	Displays information of all drives in the duplicator including the Reader, HDD (if present) and Writer drive(s).
	10.7 System Info.	Displays the duplicator controller information, such as the hardware version, buffer memory and currently loaded firmware.
	10.8 Update BIOS	Updates the firmware for the controller. **Note:** Please make sure that the firmware is approved by the manufacturer and compatible with the duplicator before performing the update.
	10.9 Copy Count	Counts the number of successful and failed copies of CD, DVD, Blu-Ray made by the duplicator.
11	**SETUP**	
	11.1 Power On Time	Sets system warm up time from 5 sec to 99 sec. Default is 15 seconds.
	11.2 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 desired number of target disc(s) are inserted and the drive trays are closed: Copy, Test, Copy & Verify, Copy & Compare, Verify and Compare.
	11.3 Startup Menu	Assigns a command to be displayed first after the duplicator has been initialized.
	11.4 Display Mode	Sets the amount of information displayed on the LCD during the performance of various functions.
	11.5 Button Beep	Enables or disables the audio feedback when buttons are pressed.

	11.6 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.
	11.7 Eject on Start	Allows the duplicator to eject disc tray(s) with disc present inside upon boot-up.
	11.8 Show Copy Time	Enables or disables the copy time to be displayed when the copy process is finished. Also allows for the various other timed functions to display the completion time.
	11.9 Reader Speed	Sets the speed at which discs are read during various processes.
	11.10 Compare Speed	Sets the speed at which the compare process is executed.
	11.11 Change Bad Master	Enables or disables changing of a master disc during the copy process when an error is detected on the master disc.
	11.12 CD Overburn	Enables or disables the duplication of overburned CDs.
	11.13 Copy CD-TEXT	Enables or disables the copying of the CD subcode (CD-TEXT) information for audio CDs.
	11.14 Show HDD Image Name	Allows the image name to be displayed on the LCD screen when selecting the HDD as the source drive.
	11.15 Boot Password	Sets password protection for machine boot-up.
	11.16 Setup Password	Sets password protection for changing setup options.
	11.17 Language	Allows different language selections for LCD display.
	11.18 Clear Setup	Clears the CMOS and resets the duplicator controller back to factory defaults.
12	**IMAGE 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.
	12.1 Select Image	Selects an image file as a source to be copied to the discs.
	12.2 Disc → Image	Loads an image to the HDD from a master CD or DVD or Blu-ray as an Image file.
	12.3 Set Reader Speed	Sets the speed of data loading from the master CD or DVD or Blu-Ray to the HDD.
	12.4 Image Info.	Displays the image file information such as image order, name, file size and type of image.
	12.5 Rename Image	Renames the HDD image partition name up to 8 characters.
	12.6 Delete Image	Deletes an image file in HDD. **Note:** A file selected as the source file cannot be deleted until a different image is selected. See 12.1.
	12.7 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.
	12.8 Format HDD	Formats the HDD, erasing ALL data stored on the HDD.
	12.9 Load & Copy	Allows an image to be loaded onto the HDD from a master CD or DVD or Blu-Ray and automatically copied on to the target disc(s). Select from 3 modes: Synchronous, Load First and Off.
13	**ADVANCED SETUP**	
	13.1 Set Burn Loop	Sets the number of test loops performed for the Burn-In process. Use the scroll buttons to select loop count.

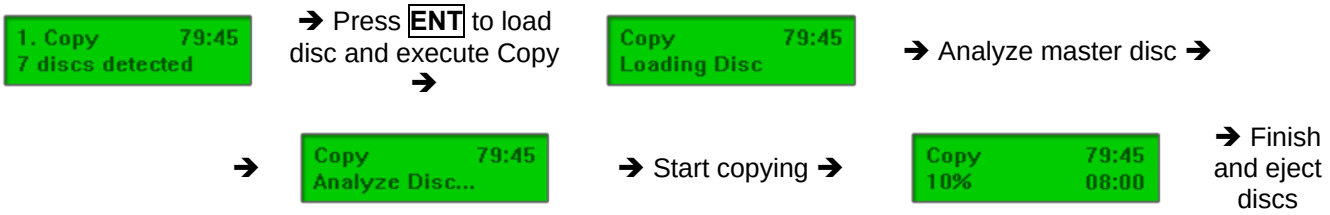
	13.2 Set Burn Time	Sets the time for the burn in process to be performed. Use the scroll buttons to select the desired time.
	13.3 Burn-In	Performs the simulation of the testing process to verify the operability of the controller and/or drive(s).
	13.4 Display Mode	Sets the amount of information to be displayed during the performance of various functions.
	13.5 Copy interrupt	Allows for interruption of any function executed by holding down the ESC for five seconds during the performance of the function.
	13.6 Update Plextor	Updates the drive firmware for Plextor-brand drive(s) using the controller.
	13.7 Update NEC	Updates the drive firmware for NEC-based drive(s) using the controller.
	13.8 Update BIOS	Allows rollback or update of the firmware for the controller.
	13.9 Adv. Counter	Tracks the total number of all CDs or DVDs or Blu-ray disc duplicated by the controller.

Functions:

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.

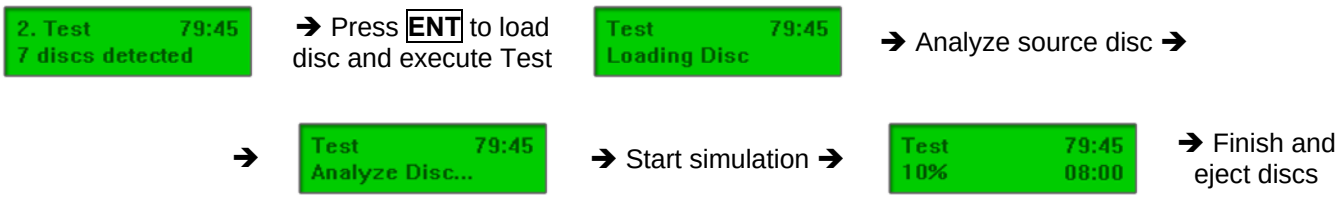


2. **Test** – This command will simulate the copy process and make sure all target discs are usable. The test process does NOT burn anything to the blank disc(s). A built-in diagnostic algorism is used to verify the chance of successful copy for each target disc.

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.

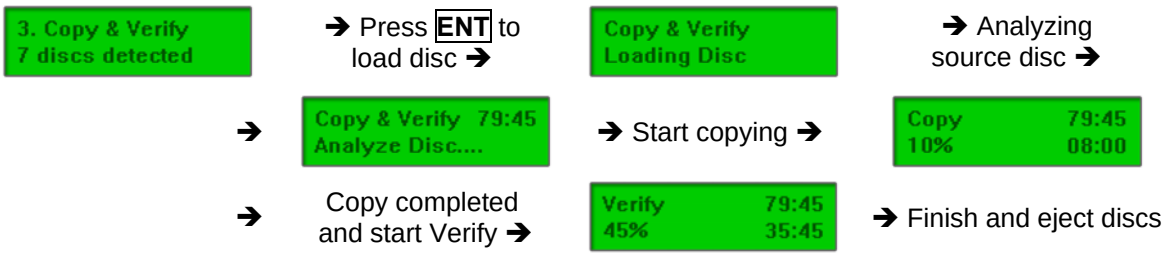


3. **Copy & Verify** – This command will perform the copy process, and immediately follow with a verification process on all target discs. This command is especially useful for audio CD duplication.

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.



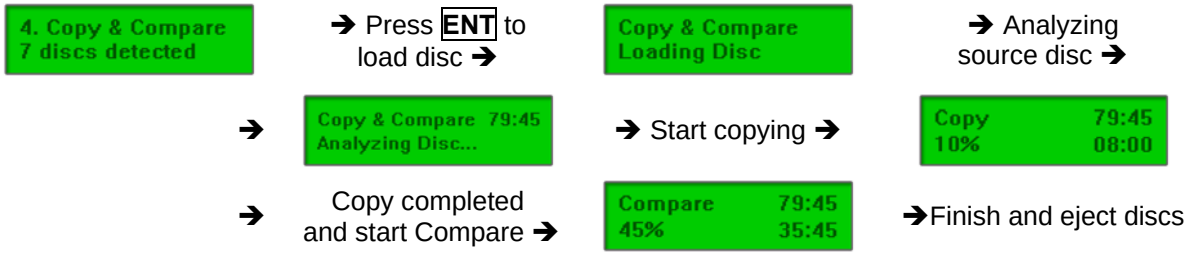
4. **Copy & Compare** – This command will perform the copy process, and immediately follows with a comparison between the master disc and the copied disc(s) to ensure the copies are exact duplicates of the master disc. This command is especially useful for DVDs, data CDs and video CDs.

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.



5. **Verify** – This command verified 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.

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.

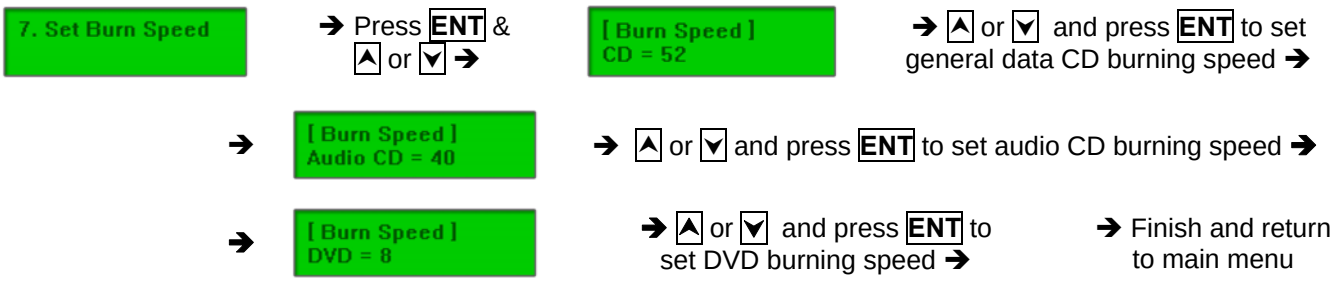
3. Eject disc tray(s) of the Writer Drives and place copied disc(s) to be compared on the tray(s). Number of drives used depends on number of copies to be compared. It is not necessary to always use all drives.
4. Use the scroll buttons to select the command “6. Compare” and press the ENT button. The 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.

7. **Set Burn Speed** – This feature allows you to set the burn speed of various types of disc: general 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, 52, 56 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 (default), 12, 16, 18, 20 MAX.
DVD DL: 1.2 (default), 2.4, 4, 6, 8, 12, 16, 18, 20 MAX.

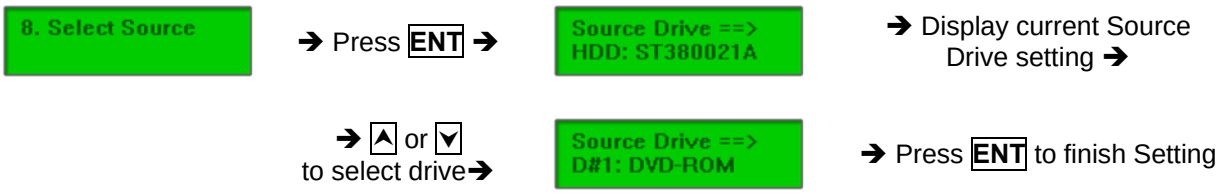
To Set the Burn Speed:
1. Power on the machine (if not already on)
2. Use the Scroll buttons to select “7. Set Burn Speed”. Press the ENT button.
3. The first speed selection is for general CDs. Use the Scroll buttons to select the desired burn speed and press the ENT button.
4. The second speed selection 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 last 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.



8. **Select Source** – 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. Select Source: Press the ENT button.

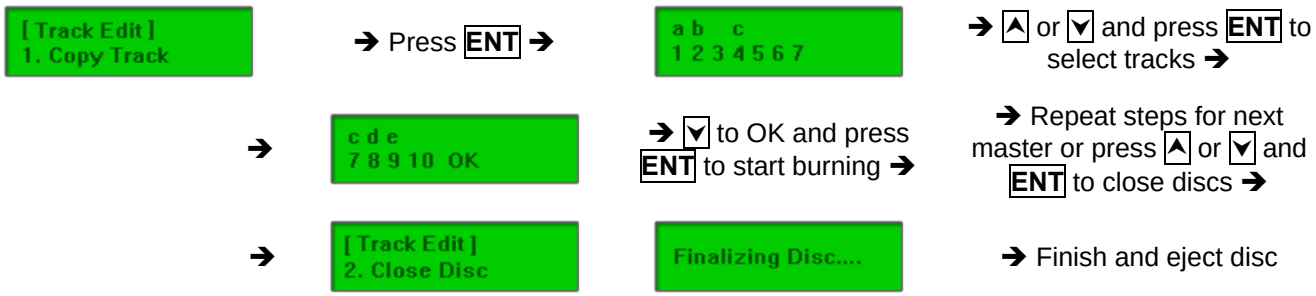
3. The current Source Drive will be displayed along with the partial model number of the drive and the port number in brackets.
4. Use the Scroll buttons to select from other available drives until the port number of the desired drive is displayed.
5. Press the ENT button. The desired drive will then become the Source Drive.



9. **Edit Track** – This command allows users to select tracks from multiple audio CDs and burn to target CDs. This command also closes edited audio CDs and displays the disc information.

To create and copy custom compilation audio CDs from multiple master discs:

1. Power on the machine (if not already on).
2. Use the Scroll buttons to select "9. Edit Track". Press the ENT button.
3. The display will read "[Edit Track] 1. Copy Track". Press the ENT button.
4. The display will read "Waiting….Master Disc". Insert the first master disc and press the ENT button.
5. Once the master disc is successfully read, the display will read "Waiting….Blank Disc". Insert blank disc(s) into writer drive(s) and press the ENT button.
6. The number of tracks on the master CD will be displayed on the lower half of the screen. Use the Scroll buttons to select track(s) to be copied. In alphabetical order, a lower-case letter will be assigned to the tracks selected.
7. Once the selection of tracks is finished, use the Scroll buttons to select "OK" at the end of the numeric listing of tracks. Press the ENT button.
8. The duplicator will begin copying the selected track(s) to the target CD(s). Once the copy process is completed, the display will read the number of tracks that are currently on the target CD(s), time used on the target CD(s) and time left (free spaces). Press the ENT button.
9. The display will now read "[Edit Track] 1. Copy Track". If tracks from a different master CD are desired, press the ENT button and repeat steps 4 through 8 for each different master CD. If selection of tracks is completed, proceed to step 10.
10. Use the Scroll buttons to select "[Edit Track] 2. Close Disc". Press the ENT button.
11. The target disc(s) will now be finalized and closed for completion. Once completed, the disc(s) will be automatically ejected. This concludes the Edit Track process.



Note: A copied audio CD must be closed (finalized) before it can be played back.

a. Once all tracks to be copied have been selected, press ▼ to select "OK" on the display. Press **ENT** to confirm and begin the copy process.

b. Once the track selection is entered, the LCD screen will read *"Copying Audio Tracks…"*, and display the track number, total time of current track and the current copying status.

c. Once the copy process is completed, the LCD screen will display the total number of tracks on target CD(s), total time used and total time remained.

d. Repeat the track selection and copy process until all desired tracks have been copied to target disc(s). Proceed with disc closing process.

Note: Once disc closing process is performed, no more track(s) can be added to target CD(s).

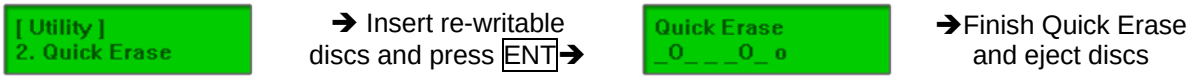
10. **Utility** – This command contains various tools to check functionality of the drive(s), information of the components, and other system information.

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.

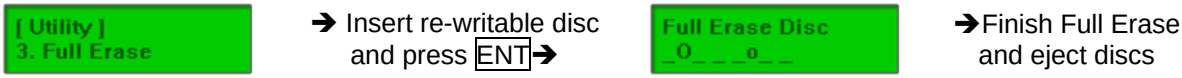
b. Select 1. Pre-scan and press ENT

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



Note: If the display shows "O" "o" blinking, Erasing is in progress. If the display shows "F" "f" blinking, DVD+RW Disc Formatting is in progress.

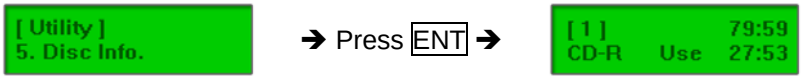
3. **Full Erase:** Performs a full erase and format of rewritable (RW) media for next use.
Note: Do NOT perform this function with recordable (R) media.



Note: If the display shows "O" "o" blinking, Erasing is in progress. If the display shows "F" "f" blinking, DVD+RW Disc Formatting is in progress.

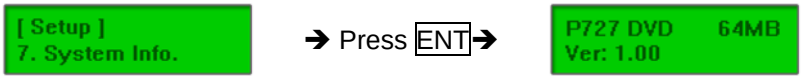
4. **Eject All Discs:** Performs a simultaneous ejection of all of the optical disk drive(s) on the duplicator.

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



6. **Drive Info:** Checks the make, model, firmware and the channel (port) of the drive(s) that are connected to the duplicator controller.

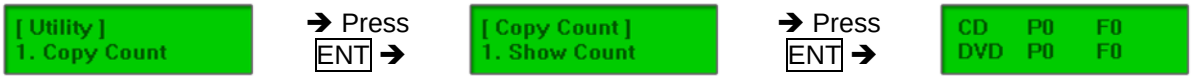
7. **System Info:** Checks the model number, buffer memory and firmware version of the duplicator controller.



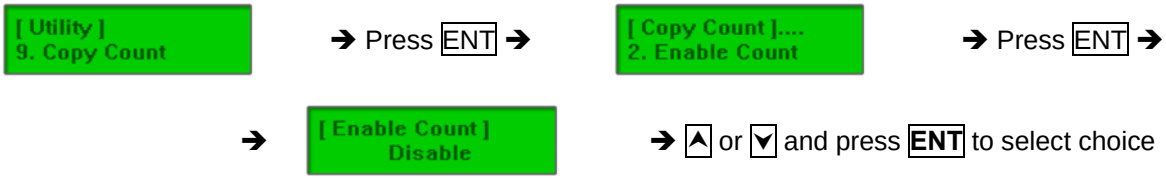
8. **Update BIOS:** Updates the BIOS (firmware) of the duplicator controller.

9. **Copy Count:** Tracks the numbers of successful and failed copies made by the duplicator for both CDs and DVDs. There are three (3) parts of this tool: Show Count (to display current copy counter), Enable Counter (to turn the counter on or off) and Reset Counter (to clear counter).

   1. **Show Count**



   2. **Enable Count**



   3. **Reset Counter**

➔ Press ENT to confirm or press to ESC cancel ➔

11. **Setup** – This command contains options to configure the duplicator system.

    1. **Power On Time:** Set the amount of time the duplicator controller counts down before initializing the system. The default is 15 seconds. The time can be set from 5 to 99 seconds in 1-second increments (5,6,7….97,98,99).

➔ Press ENT ➔

➔ ▲ or ▼ to select seconds and press ENT to confirm

    2. **Auto Start Time:** 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).

➔ Press ENT ➔

➔ ▲ or ▼ to select seconds and press ENT to confirm

    3. **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.

➔ Press ENT ➔

➔ ▲ or ▼ to select function and press ENT to confirm

    4. **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.

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

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

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

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

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

7. **Eject On Start:** Allows the drive(s) with disc(s) present inside to eject the disc trays when the machine is done initializing.

8. **Show Copy Time:** Allows the display of total time taken for the copy process to be complete.

9. **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, 52, 56 (default), MAX. The speeds for DVD are: 1, 2, 2.4, 4, 6, 8, 10, 12, 16, 18, 20 (default), MAX.

10. **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.

11. **Change Bad Master:** Allows the changing of the master disc during duplication when there is an uncorrectable error on the master disc(s) that threatens to disrupt the copy process.

12. **CD Overburn:** Allows the copying of CDs that have been burned over their maximum capacity. The target disc(s) must be the same capacity as the master disc.

13. **Copy CD-TEXT:** Allows the copying of the CD-TEXT on the master disc(s) to the target disc(s).

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

14. **Show HDD Image:** Allows the option to display the name of the HDD image name (default) or the image size (in MB).

➔ Press ENT ➔

➔ ▲ or ▼ to select Image Name/ Capacity and press to ENT confirm

15. **Boot Password:** Sets password protection for the duplicator before the boot-up process can be started. The boot password prevents anyone unauthorized from using the duplicator system.

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

If Disable is selected, no password will be set and the display will direct back to the Setup sub-menu.

If Enable is selected, a password must be entered using the following guidelines:

Use ▲ or ▼ to select the character desired.
Press ENT to go to the next position.
There are a total of 6 positions for the password. To enable the password, set all 6 positions.
For space, press ENT without choosing a character to leave the position empty.
Press ESC to cancel the process.
The duplicator will ask for password when the unit is restarted.

16. **Setup Password:** Sets password protection for the duplicator before the setup settings can be altered. The setup password prevents unauthorized changes to the system.

➔ Press ENT ➔

➔ ▲ or ▼ to select mode and press ENT to confirm

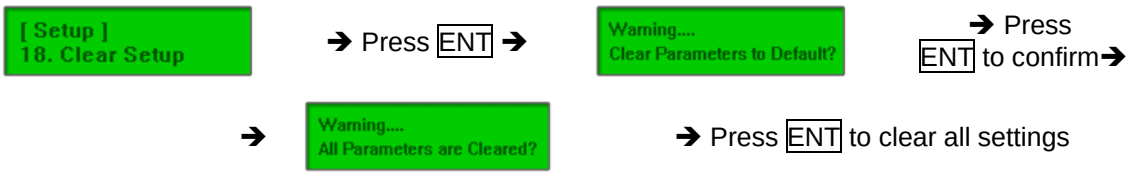
If Disable is selected, no password will be set and the display will direct back to the Setup sub-menu.

If Enable is selected, a password must be entered using the following guidelines:

Use ▲ or ▼ to select the character desired.
Press ENT to go to the next position.
There are a total of 6 positions for the password. To enable the password, set all 6 positions.
For space, press ENT without choosing a character to leave the position empty.
Press ESC to cancel the process.
The duplicator will ask for password when “11. Setup” is selected

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

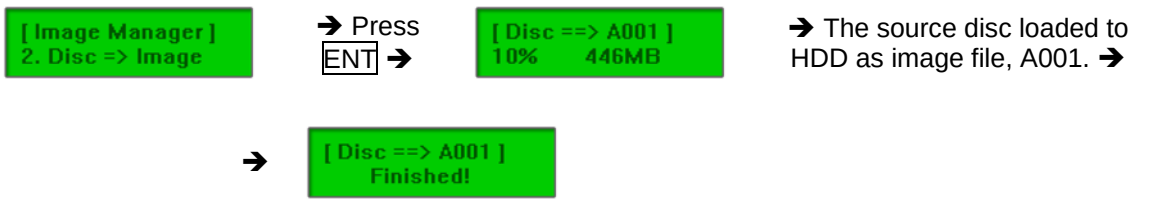
18. **Clear Setup:** Resets the duplicator controller back to factory default settings.



12. **Image 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.

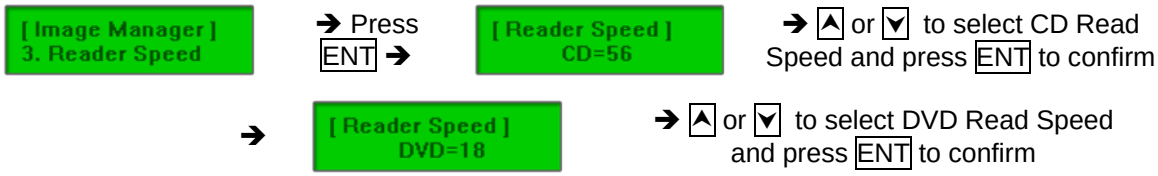
    1. **Select Image:** Allows the selection of the image(s) present on the HDD. The Scroll buttons cycle through the image(s) on the HDD and the ENT button confirms the selection while the ESC button cancels the selection. The image(s) are listed in order of which they were loaded.

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

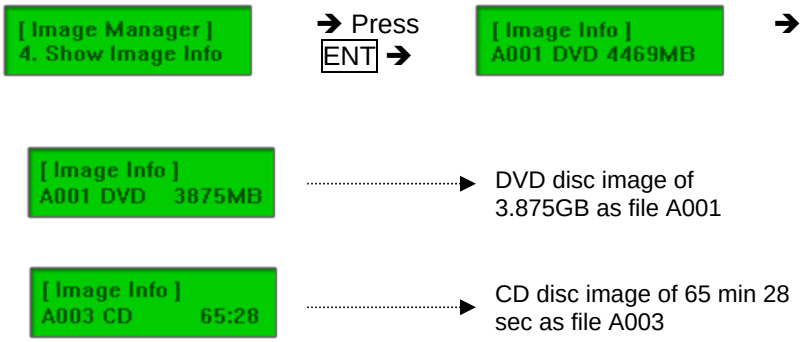


    Note: The Source Disc may be placed in the Reader Drive or any of the Writer Drives.

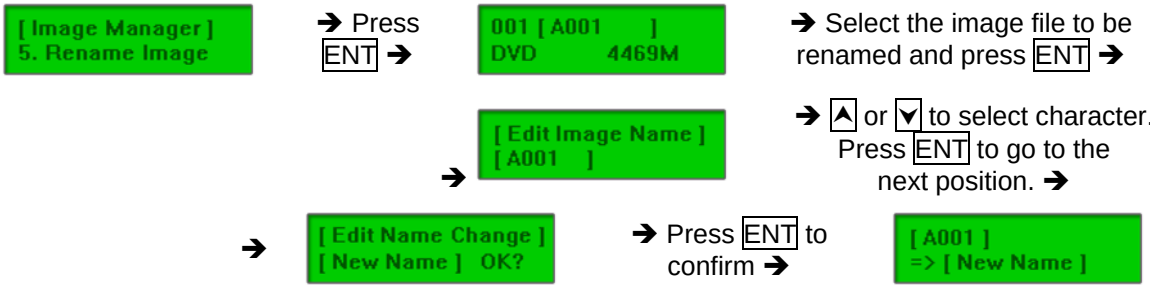
    3. **Set Reader Speed:** Change the read speed (load speed) for the HDD. The speeds for CD are: 1, 2, 4, 8, 10, 12, 16, 20, 24, 32, 36, 40, 44, 48, 52, 56 (default), MAX. The speeds for DVD are: 1, 2, 2.4, 4, 6, 8, 10, 12, 16, 18, 20 (default), MAX.



4. **Show 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/Blu-Ray or time for CD).

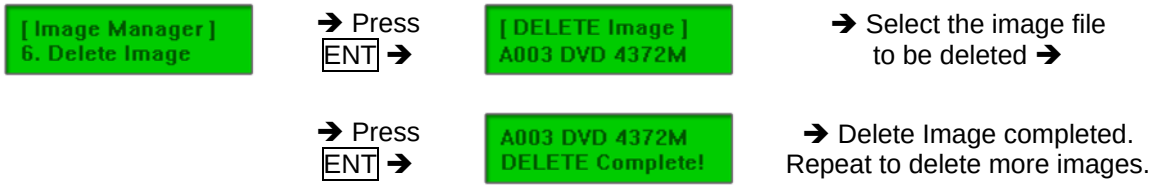


5. **Rename Image:** Renames the image instead of using default file names (A001, A002, etc.). Up to 8 characters.

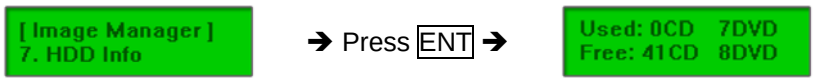


There are 8 characters for each image name. No empty space allowed in the image file name. Press ESC to cancel the process.

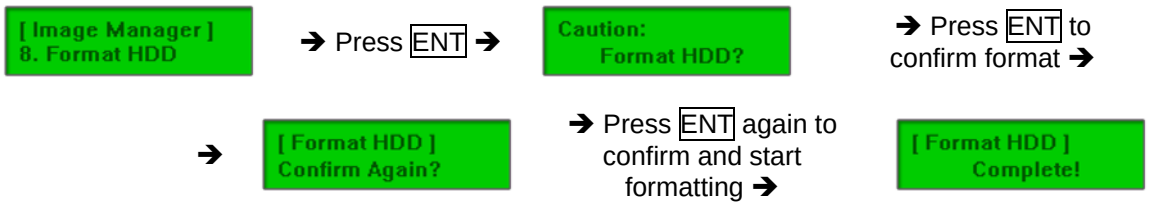
6. **Delete Image:** Deletes the image(s) from the HDD and reclaims the space occupied by the image on the HDD.



7. **Show HDD Info:** Shows the amount of used and free images available on the HDD in both CD and DVD formats.

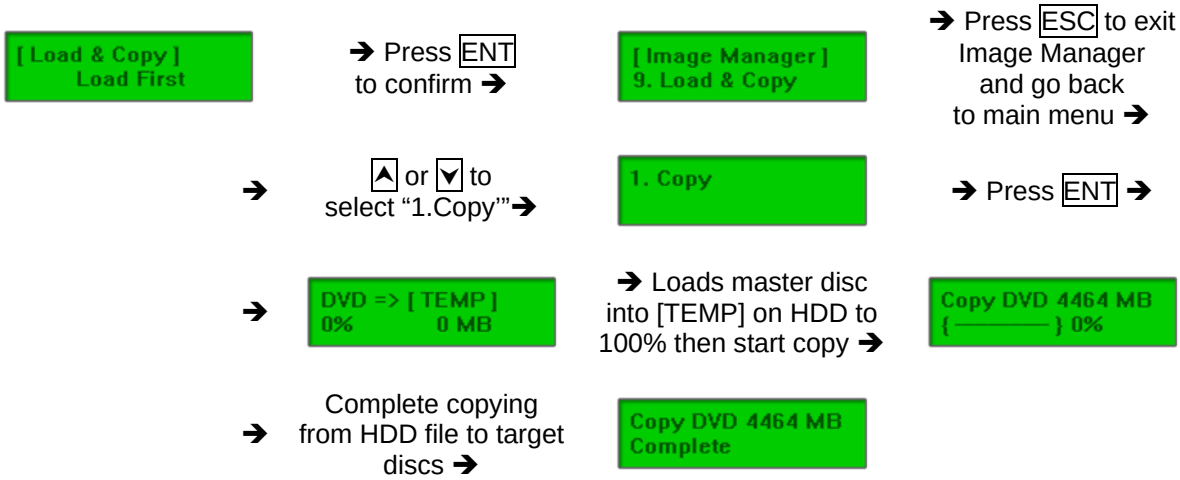


8. **Format HDD:** Deletes and formats all image(s) on the HDD, restores the HDD to factory defaults and initializes the HDD for use with the duplicator.

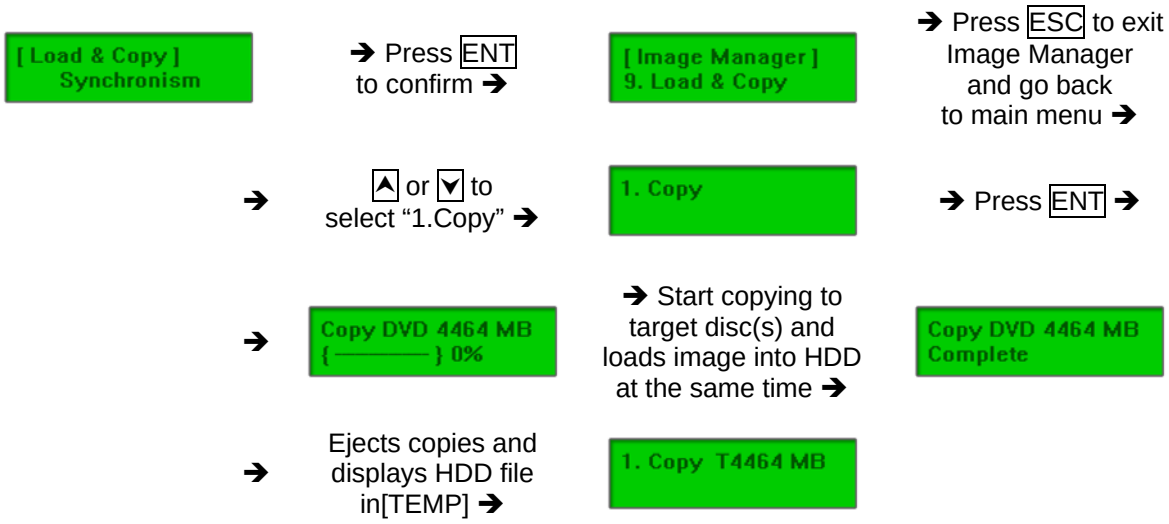


9. **Load and Copy:** There are three (3) modes in this function.

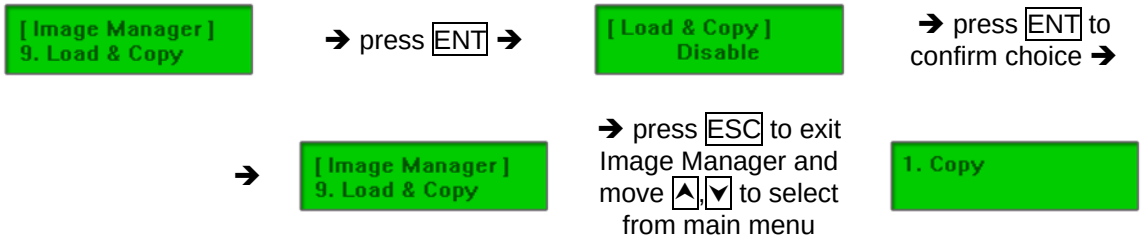
a) **Load First:** Completes loading of the image(s) to the HDD before automatically begins the copy process from the image stored on the HDD to all target disc(s). Image(s) are loaded one at a time and copied to the Writer Drives with blank disc(s) ready. The image(s) are stored in a [TEMP] partition on the HDD.



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 in the [TEMP] directory on the HDD.



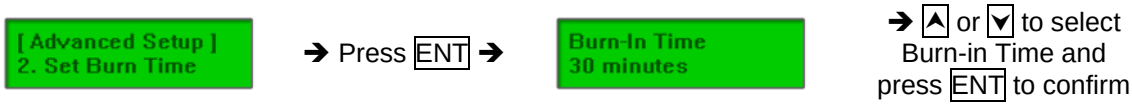
c) **OFF:** Disables the load and copy function. No temporary image is loaded to the HDD during the copy process.



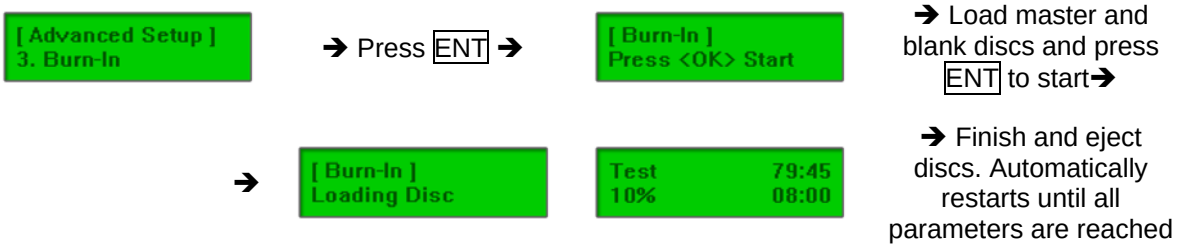
13. **Advanced Setup** – This menu is for the more advanced functions of the controller, including changing the display of the controller, updating writer drive(s) of specific brands, setting the loop and time parameters for the burn-in process to test the machine, and performing firmware rollbacks to earlier versions. **Note:** The Advanced Setup is hidden within the Setup Menu (step 11). To access Advanced Setup, navigate to Setup Menu, then press and hold down the scroll buttons simultaneously until the menu stop looping.

    1. **Set Burn Loop:** Set the number of test loops performed for the Burn-In process. The numbers of loops available are: 1 (default), 2, 5, 10, 20, 50, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000.

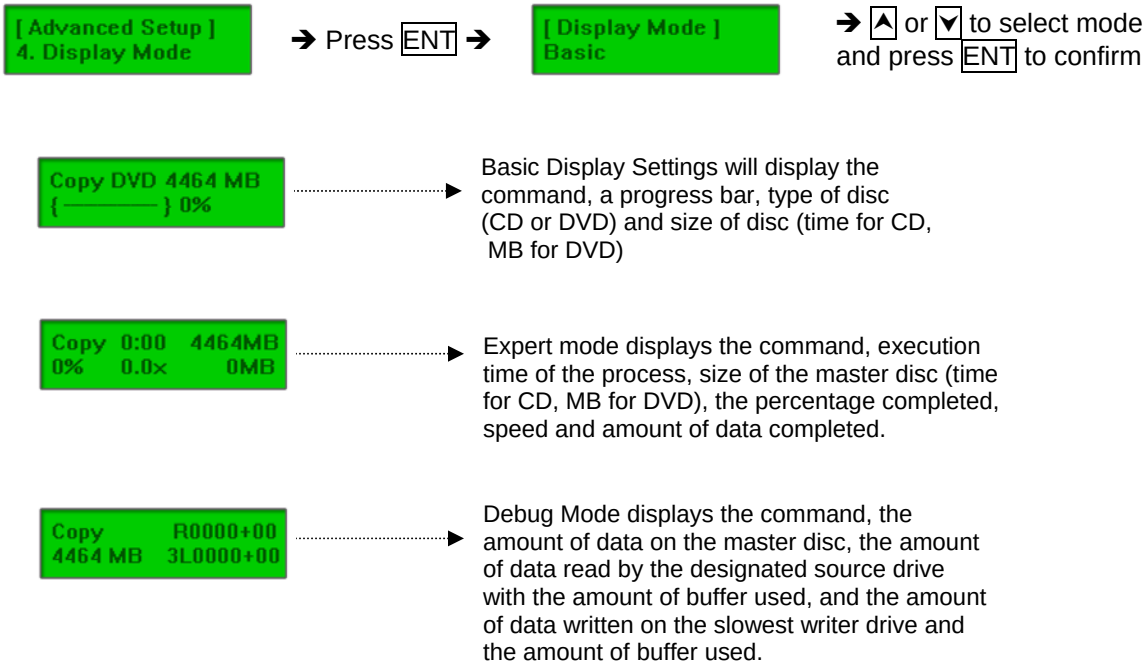
    2. **Set Burn Time:** Sets the time limit for test burn-in process. The times available are: 30 minutes (default), 1 hour, 2 hours, 3 hours, 4 hours, 5 hours….up to 65,536 hours.



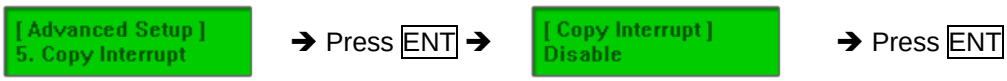
3. **Burn-In:** Performs the burn-in test which tests the unit for stability and longevity. The test is performed for the specified time and loop count selected.



4. **Display Mode:** Sets the amount of information displayed on screen. There are three (3) modes: Basic, Expert and Debug.



5. **Copy Interrupt:** Allows interruption and abortion of a command while in progress. Applies to Copy, Test, Copy and Verify, Copy and Compare, Verify and Compare functions. Also applies to sub-commands (for example, Prescan under Utility).



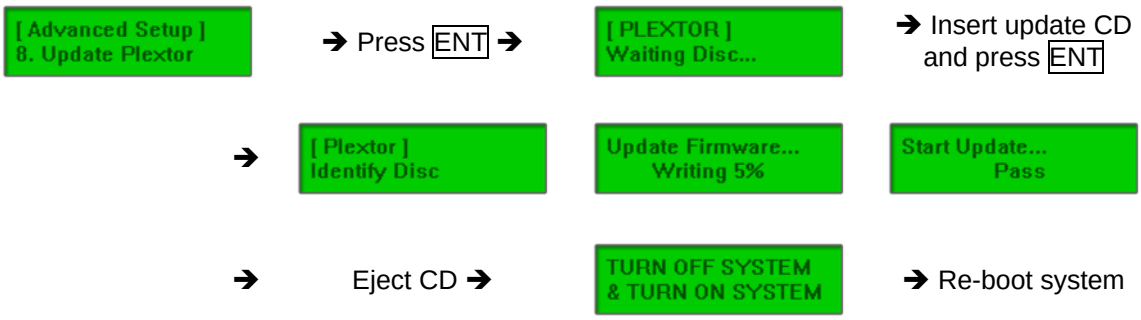
6. **Update Plextor:** Updates Plextor DVD/CD drives. Only select models tested and approved by the manufacturer can be updated by the controller.

   Note: The source drive must be different from the writer drive model being updated. This function will not work in all-writer duplicators.

Instructions for updating Plextor drives:

1. Place the CD with the appropriate .bin file inside the designated source drive.
2. Proceed to Advanced Setup menu (see section 13 on page 22).
3. Use the Scroll buttons to select "[Advanced Setup] 6. Update Plextor". Press the ENT button.

4. If the file inserted is correct, the display will read “[PLEXTOR] Updating drive…”. The drive firmware will be updated.
5. Once the drive firmware update is finished, the screen will display “Firmware Update Complete.” Restart the duplicator for the update to take effect. This completes the drive firmware update process.

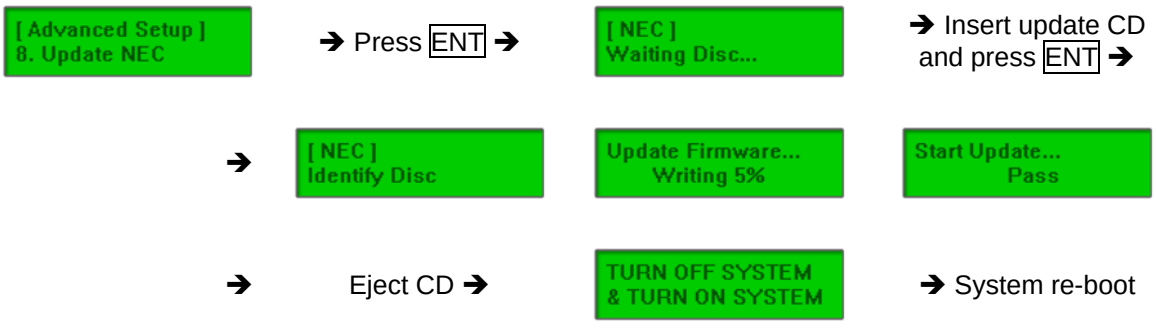


7. **Update NEC:** Updates NEC DVD/CD drives. Only select models tested and approved by the manufacturer can be updated by the controller.

   Note: The source drive must be different from the writer drive model being updated. This function will not work in all-writer machines.

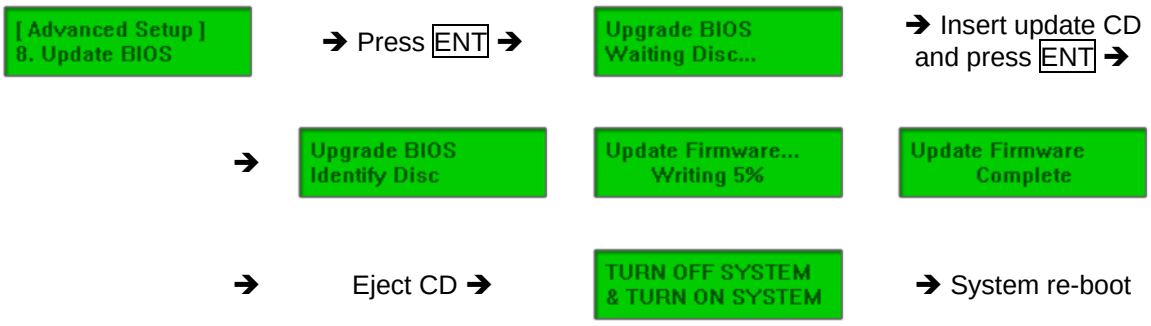
Instructions for updating the NEC drives:

1. Place the CD with the appropriate .bin file inside the designated source drive.
2. Proceed to Advanced Setup menu (see section 13 on page 22).
3. Use the Scroll buttons to select “[Advanced Setup] 6. Update NEC”. Press the ENT button.
4. If the file inserted is correct, the display will read “[NEC] Updating drive…”. The drive firmware will be updated.
5. Once the drive firmware update is finished, the screen will display “Firmware Update Complete.” Restart the duplicator for the update to take effect. This completes the drive firmware update process.



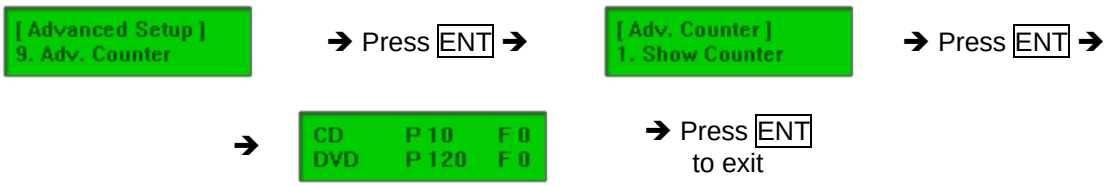
8. **Update BIOS:** Allows for update or rollback of the controller firmware. This function is used for firmware rollbacks as the standard firmware update does not allow rollbacks.

   Note: Use this command to restore previous version of controller firmware. The update command under utility menu can only update but not rollback.

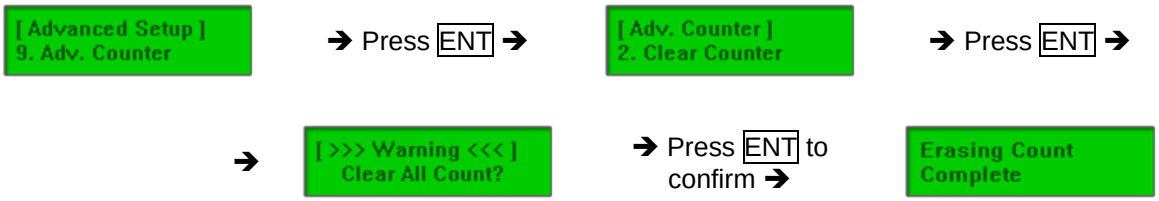


9. **Adv. Counter:** Keeps the total count to date of CDs and/or DVDs duplicated by the controller. Counter can also be reset to zero. The two options are Show Counter and Clear Counter.

   a) **Show Counter:** Shows the total number of copies (CDs and/or DVDs) duplicated by the controller to date.



   b) **Clear Counter:** Clears the counter and resets it to zero.



Basic 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 or Blu-ray 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.
   c. Change the brand of media or media type. Certain types of media may not be compatible with the drives. Poor-quality media can also cause high failure rate.

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