



TechDisc ProTM

User's Guide

Commercial Grade DVD/CD Duplicator



General Information

Copyright

Copyright ©2007 Recordex USA, Inc. All rights reserved. No part of this user's guide may be reproduced in any form without the express written permission of Recordex USA, Inc. Note: User's are permitted to print copies of this guide for personal use.

Trademarks

Recordex and all Recordex product name are the registered trademarks of Recordex USA, Inc. All other trademarks acknowledged. Apple™ is a registered trademark of Apple Computer, Inc.

Disclaimer

The information in this document is subject to change without notice.

RECORDEX USA, INC. MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL., EITHER EXPRESS OR LIMITED, EXCEPT AS PROVIDED HEREIN, INCLUDING WITHOUT LIMITATION, THEREOF, WARRANTIES AS TO MARKETABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF USE OR AGAINST INFRINGEMENT OF ANY PATENT. RECORDEX USA, INC. SHALL NOT BE LIABLE FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES EXPENSES RESULTING FROM THE USE OF THIS MATERIAL.

Legal Limitation on the Usage of Your Product

This optical duplication device is to be used exclusively for the purpose of copying non-copyright material only. This device is sold and intended strictly for the purposes of making legal copies of data onto CD and DVD discs any other use may be a violation of International Copyright Laws and may result in criminal and/or civil liability. If you are uncertain about the legality of using this device to produce copies of any particular data you should consult with your legal advisor for guidance.

Information & Support

Before calling for support please read the user's guide and refer to *Chapter 7: Troubleshooting* for advice on resolving common problems. Should service be necessary please contact the Recordex Reseller where you purchased your duplicator, or contact us using the contact information below.

Recordex USA, Inc.
PO Box 848
105 North Anderson Drive
Swainsboro, GA 30401
1-478-237-5501

Supplies

Your duplicator will perform at peak operation when you use high-quality media. Please contact the authorized Recordex retailer/dealer where you purchased your duplicator and ask them to recommend their highest quality media. Using high quality media will ensure quick and error-free duplication.

Warranty

Limited 2-year Warranty on TechDisc Pro™ Commercial CD/DVD Duplicator

What is my warranty? Recordex warrants to the original purchaser only that the CD/DVD duplicator will be free from defects in material and workmanship under normal use for a period of two (2) years from the date of original purchase. The following components are covered for two full years: controller, case, and power supply. The following components are covered for only one year: CD-ROM, DVD-ROM, CD-RW, DVD-RW and Hard Drive. All other components not specifically listed are considered covered for the two year warranty term. Recordex does not warrant against copy failures related to poor quality media. Recordex's warranty shall not apply: (i) to any duplicator subjected to accident, misuse, neglect, alteration, acts of God, improper handling, improper transport, improper storage, improper use or application, improper installation, improper testing or unauthorized repair; or (ii) to cosmetic problems or defects that result from normal wear and tear under ordinary use, and do not affect the performance or use of the product. If the duplicator develops a covered defect within the first year, Recordex will, at its option, either repair or replace the duplicator at no charge, provided that the duplicator is returned during the warranty period. If the duplicator develops a covered defect in year two, Recordex will, at its option, repair or replace any defective component at no charge for the parts used. Labor charges will apply in year two and will be estimated before warranty work is performed, and Recordex will not perform warranty work without getting approval from the customer for the labor charges estimated. **How long does this warranty last?** Two (2) years from the date of the original purchase.

How long does this warranty last? Two (2) years from the date of the original purchase.

What must I do to obtain warranty service? To obtain warranty service please contact Recordex's Customer Service Center at 1-478-237-5501 or contact your authorized Recordex Dealer for assistance in filing a warranty claim. You will receive instructions on how to properly return your product for authorized warranty repair. In order to receive warranty service you must be able to provide an original receipt for the purchase of your duplicator.

THE ABOVE STATED WARRANTY IS EXCLUSIVE AND REPLACES ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. RECORDEX WILL NOT BE HELD LIABLE FOR ANY OTHER DAMAGES OR LOSS INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES AND LOSS OF PROFITS OR REVENUES FROM WHATEVER CAUSE, INCLUDING BREACH OF WARRANTY OR NEGLIGENCE.

Type Conventions, Terms, and Symbols

The following type conventions, terms, symbols, and abbreviations are used to make it easier for you to navigate the information contained in this Users's Guide.

Symbols



CAUTION: Indicates a caution warning regarding operation of the system that may lead to personal injury or damage to the duplicator. Be sure to take careful note of any instruction flagged with a caution symbol.



IMPORTANT: Indicates a note regarding the proper use of the duplicator. For best results you should pay careful attention to instructions flagged with the important information symbol.



NOTE: Indicates a note that may provide useful information regarding operation of your duplicator. Reading these notes will help you to better understand how your duplicator operates.



UP ARROW: This represents the up arrow control button on the duplicator's control panel. This symbol is used to indicate when the up arrow button should be pressed while operating the duplicator.



DOWN ARROW: This represents the down arrow control button on the duplicator's control panel. This symbol is used to indicate when the down arrow button should be pressed while operating the duplicator.



ENTER: This represents the enter control button on the duplicator's control panel. This symbol is used to indicate when the enter button should be pressed while operating the duplicator.



ESCAPE: This represents the escape control button on the duplicator's control panel. This symbol is used to indicate when the escape button should be pressed while operating the duplicator.

Terms

SYSTEM, MACHINE, or UNIT: These terms all refer to your duplicator.

CONTROL PANEL, CONTROLLER: These terms refer to the user interface of your duplicator (see Chapter 1, Control Panel).

LCD DISPLAY, MENU: These terms refer to the blue user display located on the control panel.

MASTER DRIVE or SOURCE DRIVE: These terms refer to where the source data is stored.

TARGET DRIVE or COPY DRIVE: These terms refer to where the source data will be copied.

MASTER DISC or SOURCE DISC: These terms refer to the CD or DVD Disc that contains the data to be copied.

TARGET DISC or COPY DISC: These terms refer to the blank CD or DVD Discs.

COPY, BURN, WRITE: These terms refer to the process of permanently writing data to a copy disc.

IMAGE: This term refers to a disc's contents when it is stored on a hard drive instead of a CD or DVD disc.

Type Conventions

These distinctive typefaces are used in the user guide to depict a control panel buttons and information that is displayed on the control panel menu:

- Menu buttons that you press will appear in upper case bold typeface, i.e. **UP, DOWN, ENT, ESC.**
- Information that is displayed on the LCD will appear in this typeface: 1. Copy.

Table of Contents

General Information.....	2
Type Conventions, Terms, and Symbols.....	4
Chapter 1: Introduction.....	6
Chapter 2: Setting Up Your Duplicator.....	10
Chapter 3: Source & Target Discs.....	11
Chapter 4: Quick Reference.....	12
Chapter 5: Advanced Features.....	14
Chapter 6: Advanced Setup.....	28
Chapter 7: Trouble Shooting.....	31
Appendix A: Alerts & Error Messages.....	34
Appendix B: Technical Support.....	38








Chapter 1: Introduction

Customer Support

Your duplicator was subjected to rigorous quality control testing and inspection, however, if your system is not working properly please contact our support department so we can ensure that your duplicator is running properly. We strive to build the best product possible and we desire that every customer feel confident recommending Recordex products to their friends. If you are not fully satisfied please call our Customer Service Center today and we will do our best to make things right.

Customer Service Center
Recordex USA, Inc.
PO BOX 848
105 North Anderson Drive
Swainsboro, GA 30401
P. 1-478-237-5501
F. 1-478-237-5504
email: service@recordexusa.com

Safety Precautions

-  Please read through these important safety precautions and recommendations before setting up your duplicator to ensure safe and trouble free operation.
-  Duplicators are high-precision electronic devices. Do not use them in any manner other than as specified in this user's guide.
-  To prevent fire, shock, or other health risks do not expose the unit to moisture or rain.
-  To prevent electronic shock do not attempt to disassemble or modify the duplicator or any of its internal components. Refer all servicing to authorized service centers.
-  The internal drives utilize a laser beam that can be harmful to eyes. Do not disassemble the unit. Do not attempt to look through the front panel of the drives while the unit is powered on.
-  Do not attempt to look into the unit while the unit is powered on as eye-damage could occur if dust or other particles are forced out of the fan vents and into your eyes.
-  The duplicator warranty will become void if the unit is modified or serviced by unauthorized personnel.

Operating Environment

Before unpacking your duplicator select an appropriate operating environment for your system. You should look for an area that meets these criteria:

- A level and stable work surface,
- In an area with good ventilation, low dust and no smoke,
- With moderate temperature and humidity,
- And access to an outlet with stable power



Consider using an uninterruptible power supply with surge protection (UPS) to protect your duplicator.

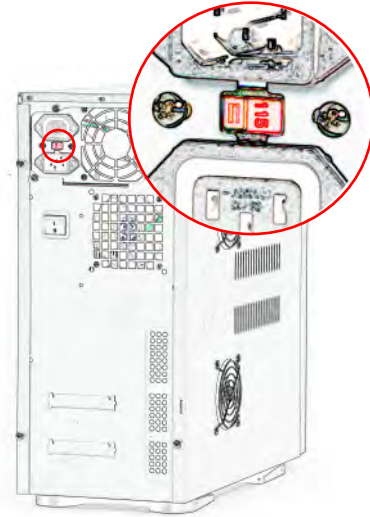


Your duplicator is able to operate in both 115 and 230V environments. The factory default is 115V but if you live in a region of the world that operates at 230V you can simply switch the voltage setting to 230V using a small screwdriver (see figure 1.1).

Figure 1.1: Voltage Switch

i Use small flat head screwdriver to change voltage switch from 115V to 230V.

! **WARNING:** Operating the duplicator at the wrong voltage setting will damage the duplicator. Make sure that voltage setting matches the power requirements for the region of the world where the duplicator is operated.

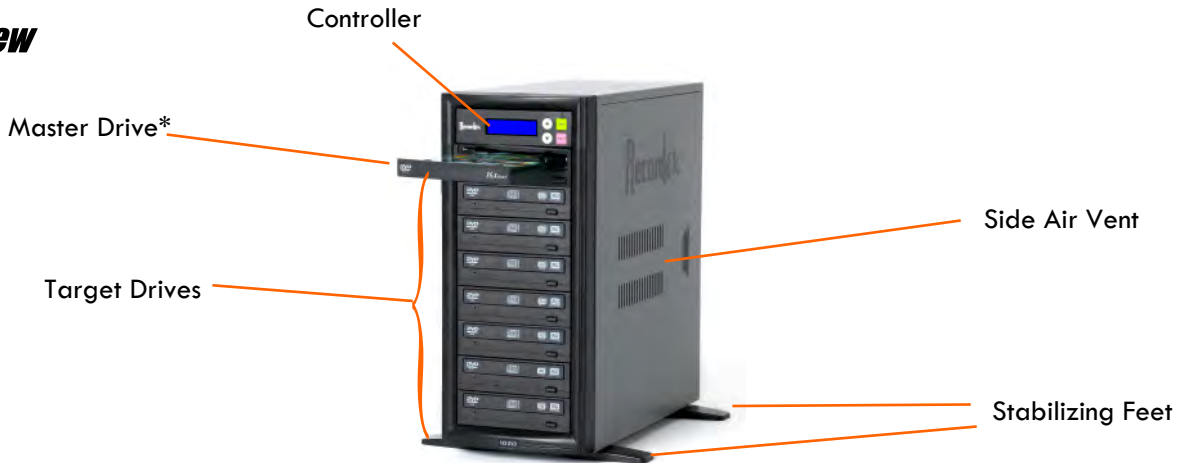


Your Duplicator

Study the image below to familiarize yourself with your duplicator.

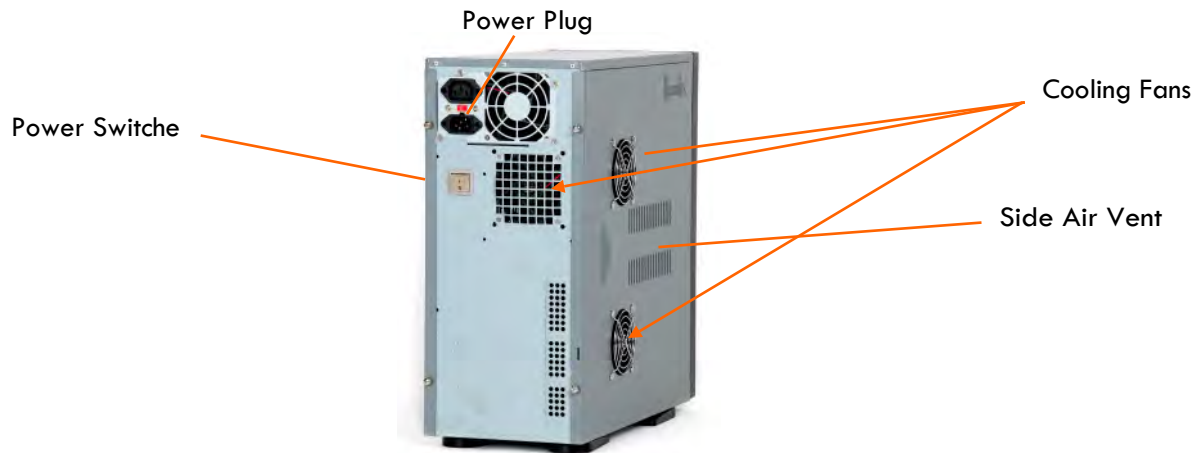
Front View

Figure 1.2



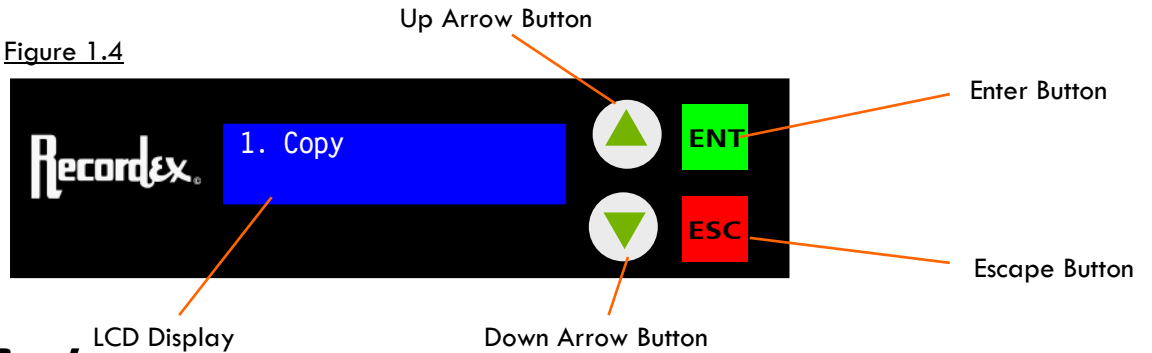
Back View

Figure 1.3



Control Panel

Figure 1.4



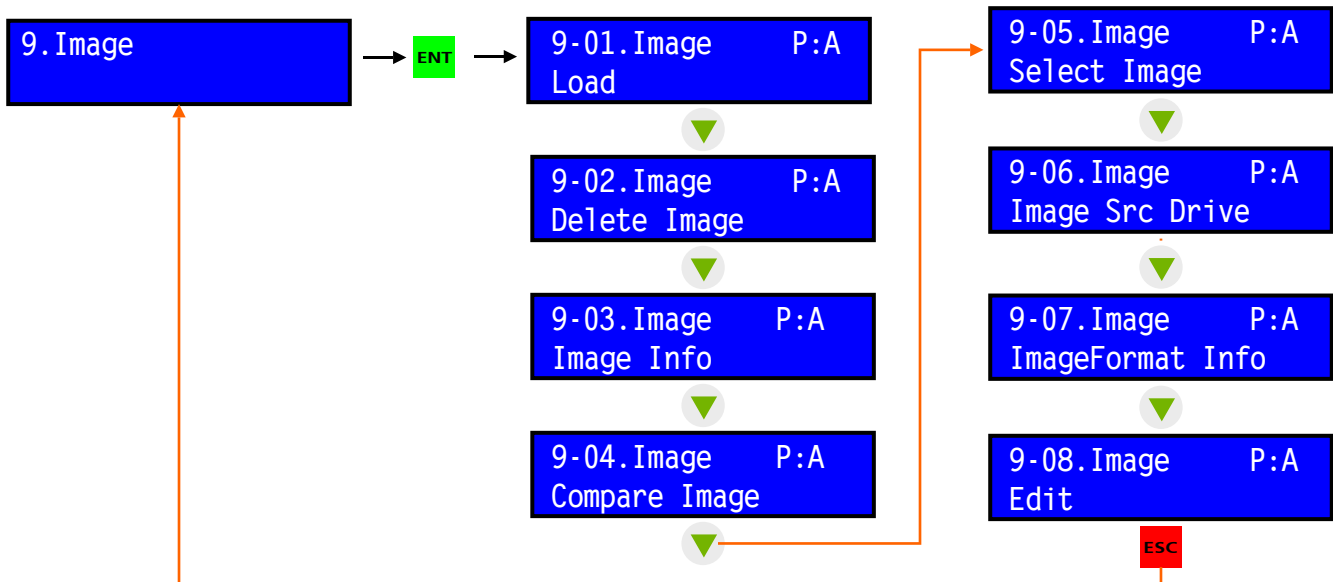
Using the Control Panel

The control panel provide you with an easy interface to utilize the many simple and advance features built-in to your duplicator. Once you understand how the control panel buttons work you will find it easy to find the controller features you are looking for.

Use the arrow buttons to move up or down the menu and use the **ENT** and **ESC** buttons to enter and leave sections of the controller menu. For example if you arrow down ▼ through the controller menu you will notice that the display changes to reveal the following menu options:

- 1.Copy P: A
- 2.Test P: A
- 3.Test&Copy P: A
- 4.Verify P: A
- 5.Compare P: A
- 6.Prescan P: A
- 7.Disc Info P: A
- 8.Select Source
- 9.Image
- 10.Edit Track
- 11.Setup

Each of these menu options is called a function. Some of the functions have sub-menus which hold a number of additional sub-functions. For example function #9, Image, has eight sub-functions. To access these sub-functions you simply press **ENT** when the LCD Panel is at function 9. To return to the main menu just press **ESC**. For example:



NOTE: Do not worry at this point about understanding what all of the functions mean. They are explained in detail in Chapter 4: Loading An Image.

DVD/CD Drive



Drive Tray

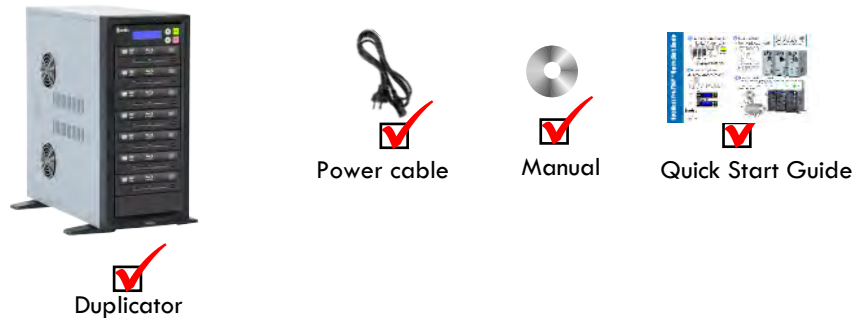
Eject Button

Chapter 2: Setting Up Your Duplicator

Taking a minute to make sure that your TechDisc Pro2100™ duplicator is setup properly will make operation smoother and more enjoyable.

Contents

First, un pack all three boxes and verify the contents of your system against the list below.



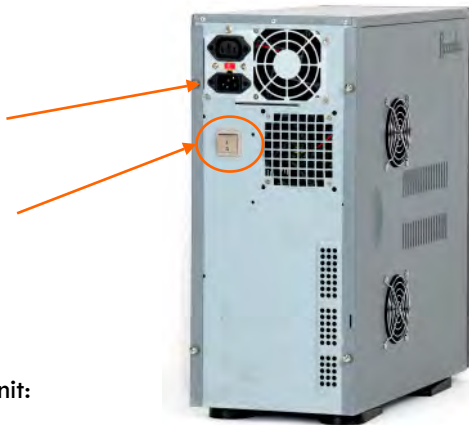
Location

Next, pick a well suited location to setup your duplicator. You should choose a level and stable work surface in an area with good ventilation, moderate temperature and humidity, and access to a grounded power outlet.

i Consider using an uninterruptible power supply with surge protection (UPS) to protect your duplicator.

Making Connections

1. Connect the power cable to the back of the unit and to the power source (i.e. Surge protector, UPS, or grounded wall outlet).
2. Turn the unit on using the power switch located on the back of the unit.



Powering On

The control panels should look like this after you've powered on the unit:



NOTE: When you power on the duplicator it will run a short self-diagnostic test during which time the LCD panel look very different from the image above. This is normal and after about 20 seconds the test will be complete and the LCD panel will look like the reference image above.

Chapter 3: Source & Target Discs

Your TechDisc Pro™ is designed to make thousands of copies at high speed. For the best results we recommend that you use the highest grade media available. Higher grade media may cost a little more but the you will have fewer failures when copying at high-speed. Recordex recommends that you contact the dealer or retailer where you bought your duplicator and ask them to recommend a high-quality disc for duplication.

There are a few steps you can take to make sure that your source discs, also called master discs, are optimized for high-speed duplication.

Disc Capacity

Make sure the disc is not too full. Due to differences in discs and disc drives it is important to not fill the disc too full or you may experience something called a target over flow error. This happens when the system determines that the source disc contains more data than will fit on the target discs. A good rule of thumb is to keep discs below these size guidelines:

- DVDs should be 4.38GB or smaller
- CDs should be 685MB or smaller

Disc Surface

Both the master and target discs need to be clean and free of any blemishes. Even fingerprints can cause issues when copying at high speeds. For best results use new media that has not been previously handled and always pick up discs by their edges and avoid touching the data surface of the disc.

Disc Quality

As mentioned above disc quality is important when copying at high speeds. Using the cheapest media may result in a higher rate of copy failures.

A failed disc is often called a **coaster** because it is good for little else than keeping your coffee table free from drink rings!

Chapter 4: Quick Reference

This section will provide you with the basics of what you need to know in order to get started making copies. First, you'll learn how to load a master image to the duplicator's hard drive, and then you'll learn how to make high-speed copies of your master image.

Loading Images - ONLY For units with an internal hard drive

First, what is an image? An image is a copy of a CD or DVD that is stored on the duplicator's internal hard drive. Images can be stored for ever or deleted after you are finished with them. It is up to you. Images are stored on the hard drive in folders called partitions. Each partition is labeled with a letter, i.e. A, B, C, ..., AA, AB, AC, and so on depending on the size of the hard drive.

To load your first image to partition A follow these steps:

1. Insert the disc into the top drive of the Host tower and close the drive tray.



Figure 4.1

2. Scroll down the controller menu using the down arrow button until you see option **9. Image** and press the **ENT** button. This will open the Image option menu where you will be able to easily load the data from your master CD or DVD to the hard drive in your duplicator. The controller display should now match Figure 4.1



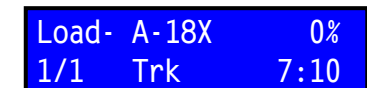
Figure 4.2

3. Press **ENT** to load the data on your CD or DVD to the hard drive. The controller will quickly check the source disc and then start copying the data to the hard drive. (See figure 4.2 and 4.3).



Figure 4.3

4. After the image is loaded the screen will update to Image Load OK. At this time you should press the Escape button **ESC** twice to return to the main menu. The controller will then read 9. Image. See Figure 4.4.



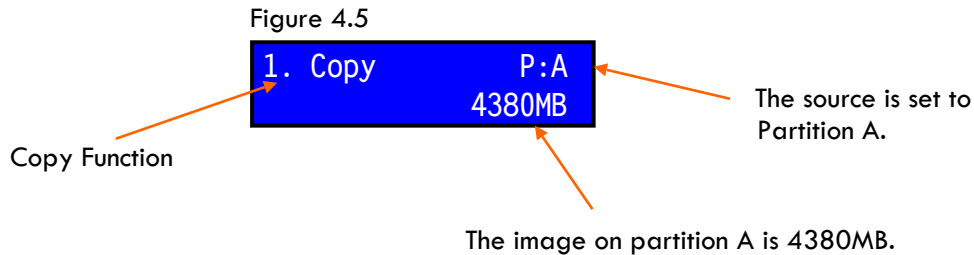
You are now ready to start making copies.

Figure 4.4

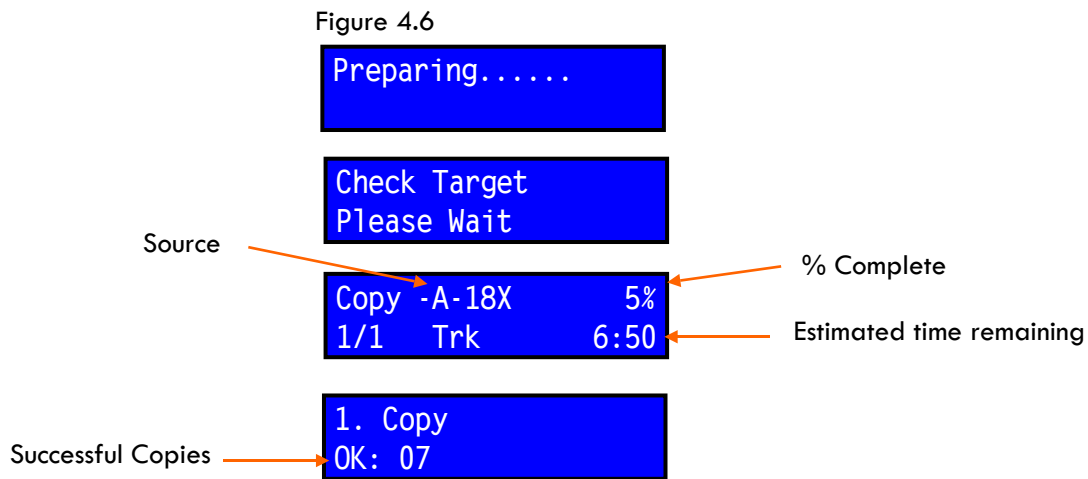


Making Copies - With Hard Drive Set as Source

Now that you have loaded an image on to the hard drive you are ready to start making copies. The first thing you'll want to do is make sure the duplicator is set to copy mode. To do this simply scroll through the controller menu until you find the copy function. The LCD panel should look like this:



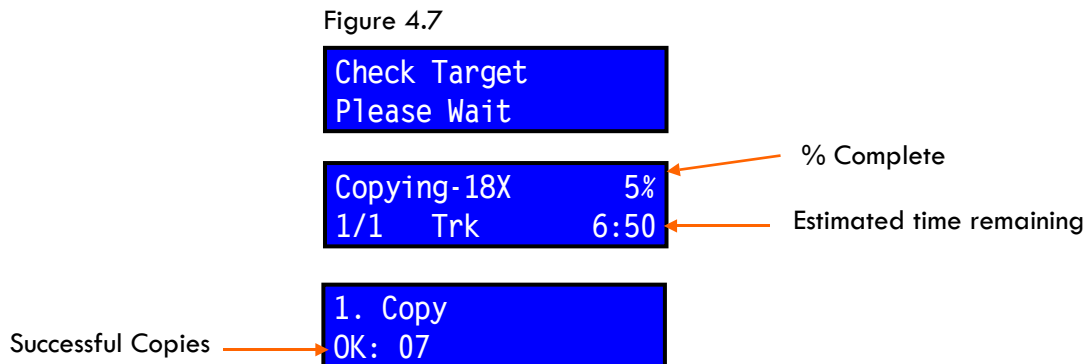
After you have set the controller to copy mode you are ready to load blank media into the target drives. Start loading your blank discs. Press **ENT** to start the copy process. The LCD panel will display the status of the copy process and indicate the estimated time left for the copy process.



After the copy process is complete the successfully copied discs will be ejected. This makes it easier to identify which discs passed and which discs failed the copy process. This is a user selectable feature and can be changed through the Setup menu by changing the setting under the Eject Disc sub-menu.

Making Copies - Without An Internal Hard Drive

To make a copy without using the hard drive simply place a master disc in the top drive and then place blank discs into the remaining drives (note that you do not have to use all the drives) and press **ENT**. This will start the copy process and the controller will look like figure 4.6 except that the Copy display will look like figure 4.7:



Chapter 5: Advanced Features

In chapter 4 we discussed the Copy function (1.Copy) and the Image function (9.Image). In this chapter you will be introduced to the rest of the functions built into your duplicator's control panel.

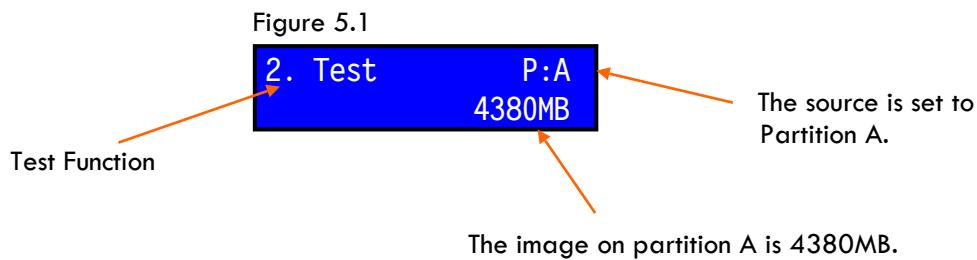
Test

The test function, 2. Test, provides you with a way to simulate a disc copy. This is sometimes useful if you are not sure if your master disc may be too big for the target disc (i.e. Target over flow). In any case the test function works just like the copy function except no data is actually written to the target drives.

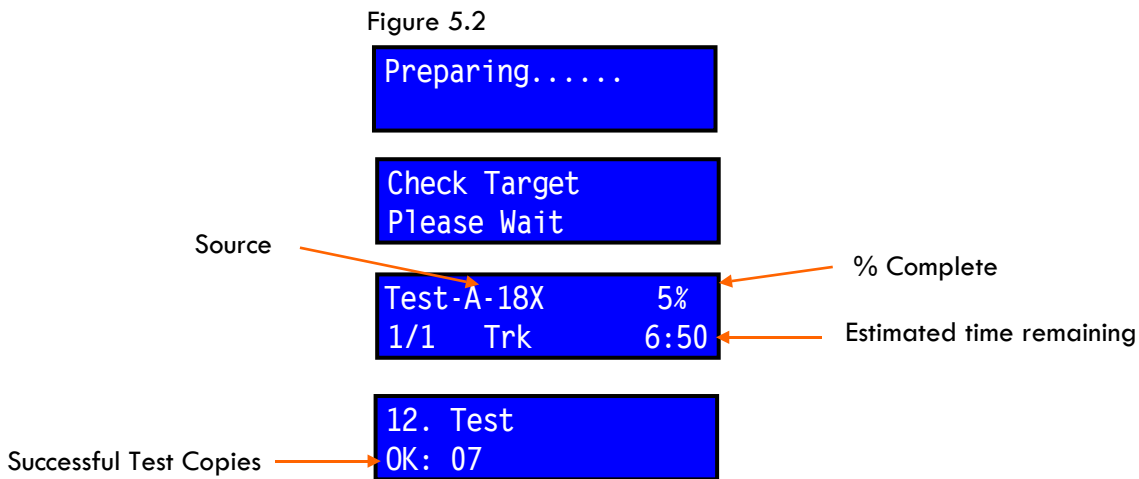


Note, although data isn't written to the target drives it is still necessary to use good quality blank discs for the test.

First, set the duplicator to test mode. To do this simply scroll through the controller menu until you find the test function. The LCD panel should look like this:



After you have set the controller to test mode you are ready to load blank media into the target drives. Once you have loaded all of the blank media press **ENT** to start the test process. The LCD panel will display the status of the test and indicate the estimated time left for the test. The controller will display the following:

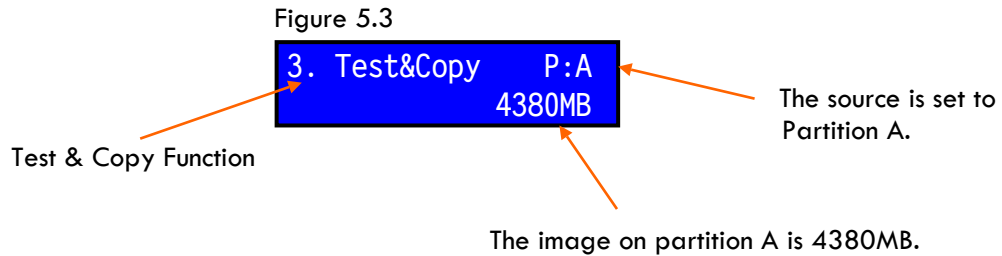


After the test process is complete the successfully tested discs will be ejected. This makes it easier to identify which discs passed and which discs failed the test. This is a user selectable feature and can be changed through the Setup menu by changing the setting under the Eject Disc sub-menu.

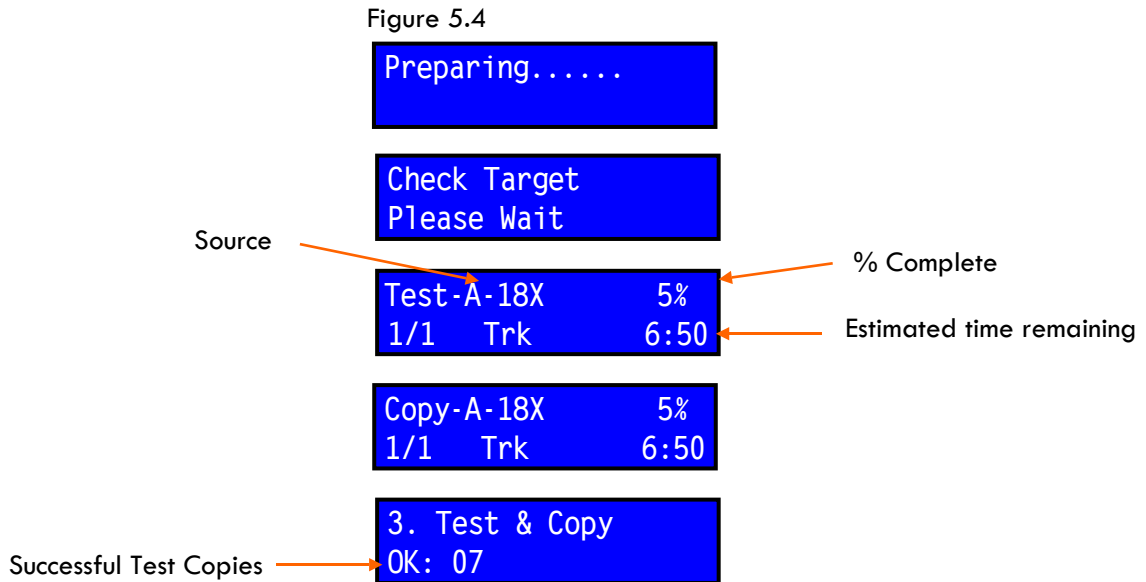
Test & Copy

The Test & Copy function, 3. Test & Copy, provides you with a way to simulate a disc copy before creating an actual copy. Essentially, this function first runs a test cycle and if the test cycle is good then a copy is made, if the test cycle fails the duplicator does not attempt to make a copy of the source image.

First, set the duplicator to Test & Copy mode. To do this simply scroll through the controller menu until you find the Test & Copy function. The LCD panel should look like this:



After you have set the controller to Test & Copy mode you are ready to load blank media into the target drives. Once you have loaded all of the blank media press **ENT** to start the test process. The LCD panel will display the status of the test and indicate the estimated time left for the test. The controller will display the following:

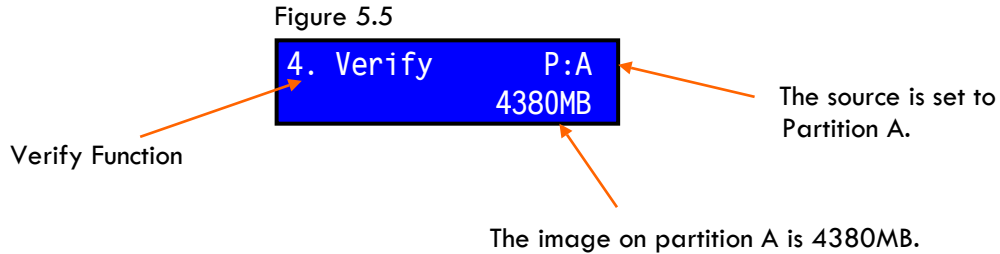


After the test process is complete the successfully tested discs will be ejected. This makes it easier to identify which discs passed and which discs failed. This is a user selectable feature and can be changed through the Setup menu by changing the setting under the Eject Disc sub-menu.

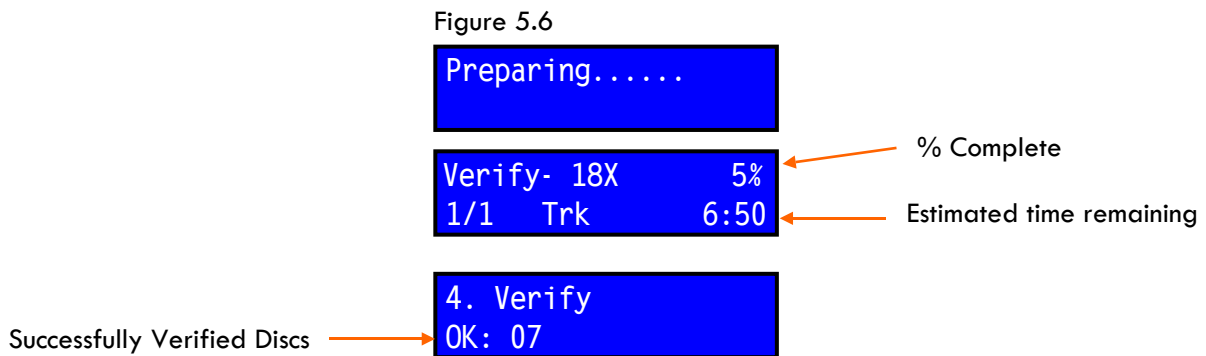
Verify

The Verify function, 4. Verify, provides a way to verify that a copied disc will read properly in a standard CD or DVD player.

To verify a disc or set of discs set the duplicator to Verify mode. To do this simply scroll through the controller menu until you find the Verify function. The LCD panel should look like this:



After you have set the controller to Verify mode you should load copied discs into the target drives. Once you have loaded all of the copied discs press **ENT** to start the Verify process. The LCD panel will display the status of the verify test and indicate the estimated time left for the test. The controller will display the following:



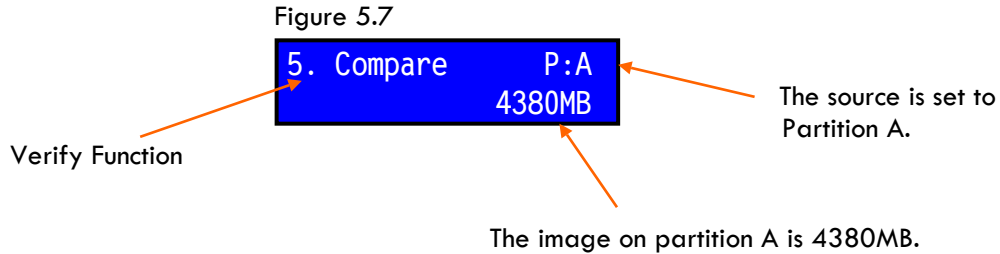
After the test process is complete the successfully verified discs will be ejected. This makes it easier to identify which discs passed and which discs failed. This is a user selectable feature and can be changed through the Setup menu by changing the setting under the Eject Disc sub-menu.

i Note: The system can only verify multiple discs at one time if all of the discs were copied from the same image.

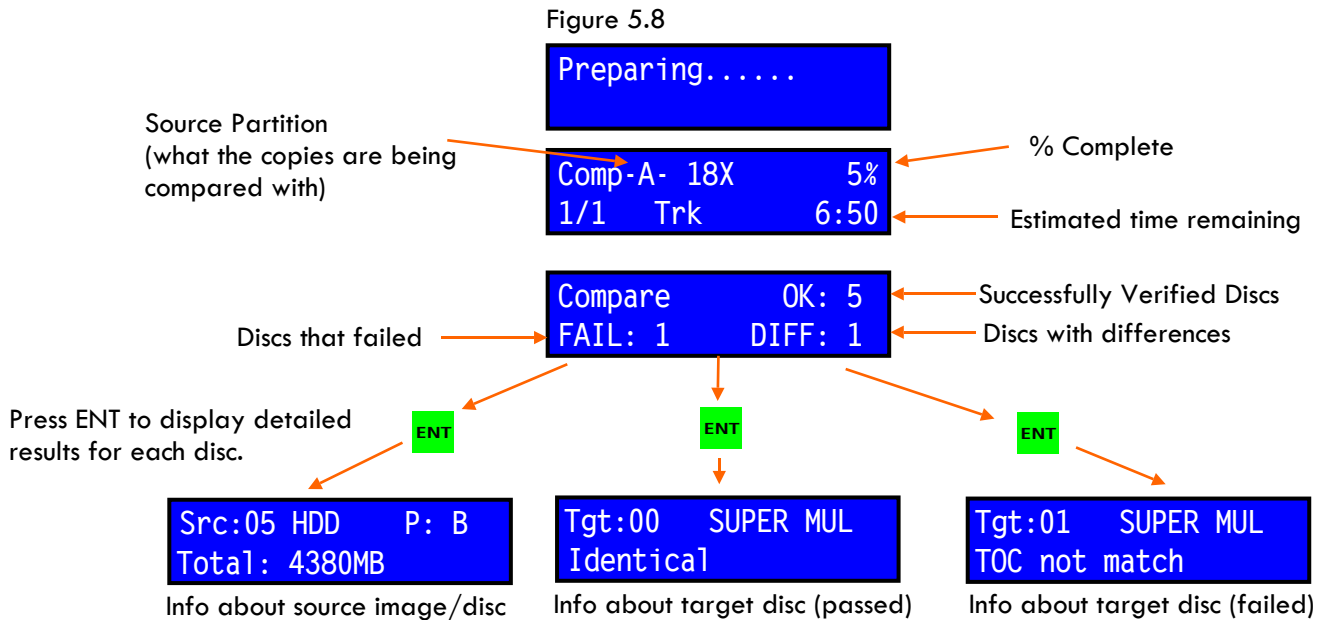
Compare

The Compare function, 5. Compare, provides a way to compare a copy disc to the source image. The duplicator will make the comparison and then report whether the discs are identical or not.

To compare a disc or set of discs set the duplicator to Compare mode. To do this simply scroll through the controller menu until you find the Compare function. The LCD panel should look like this:



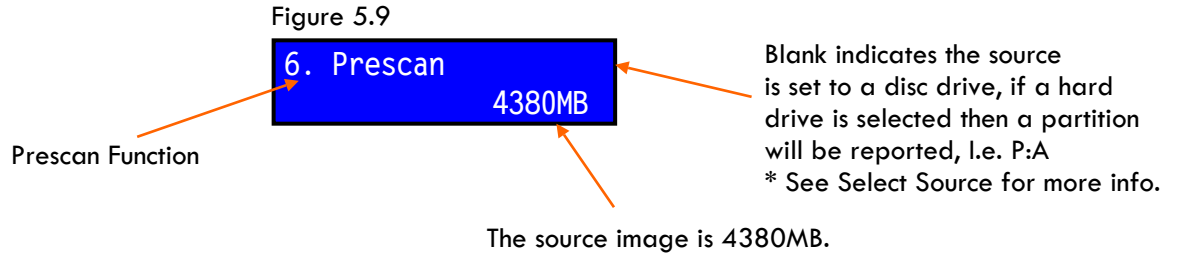
After you have set the controller to Compare mode you should load copied discs into the target drives. Once you have loaded all of the copied discs press **ENT** to start the Compare process. The LCD panel will display the status of the Compare test and indicate the estimated time left for the test. The controller will display the following:



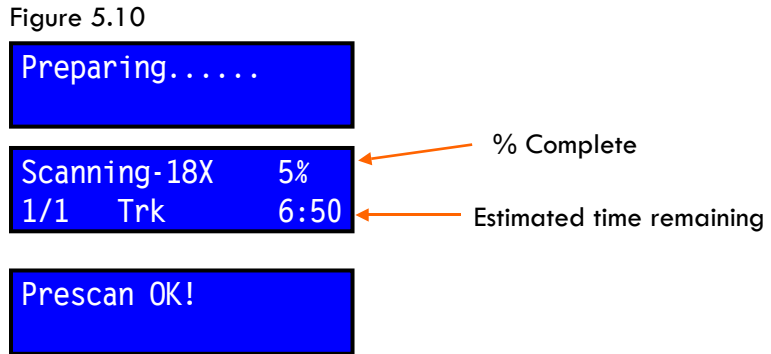
After the test process is complete the successfully compared will be ejected. This makes it easier to identify which discs passed and which discs failed. This is a user selectable feature and can be changed through the Setup menu by changing the setting under the Eject Disc sub-menu.

Prescan

The Prescan function, 6. Prescan, provides a way to test the readability of a source disc. The duplicator will read the source disc and report the status of the read process. To prescan a source disc set the host duplicator to Prescan mode. To do this simply scroll through the controller menu until you find the Prescan function. The LCD panel should look like this:

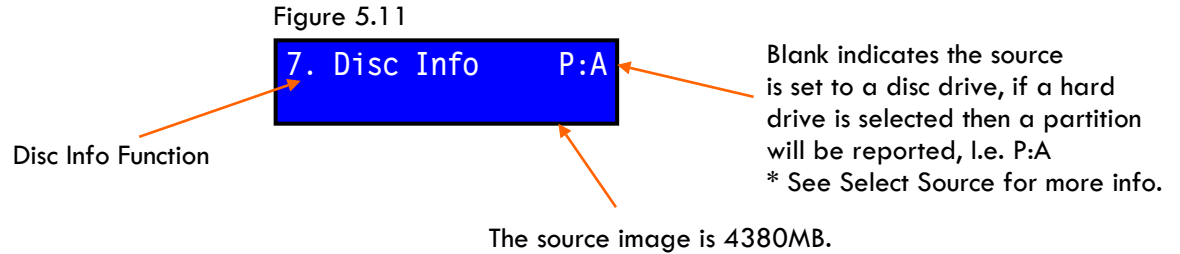


The Prescan function checks the source disc so you will want to first make sure that you have selected the source you wish to pre-scan. For information on selecting a source see section Select Source later in this chapter. Once you have loaded and selected a source disc press **ENT** to start the Prescan process. The LCD panel will display the status of the Prescan test and indicate the estimated time left for the test. The controller will display the following:

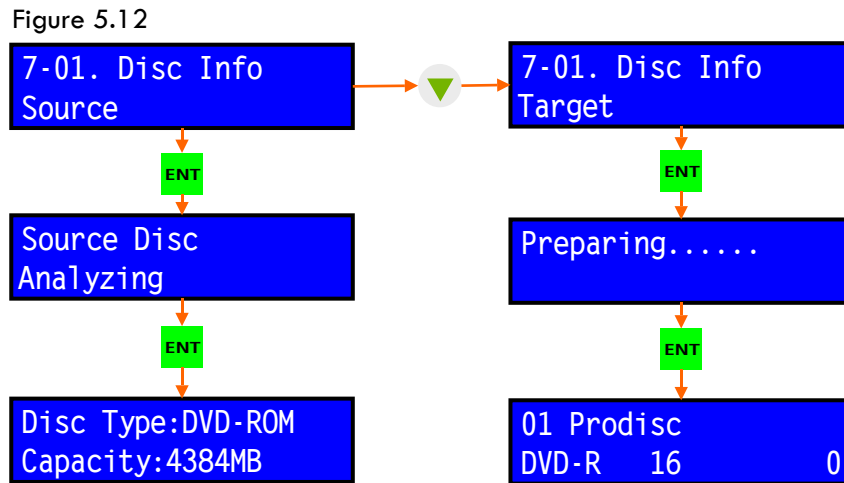


Disc Info

The Disc Info function, 7. Disc Info, provides a way to easily view basic information about source or target discs. The duplicator will read the disc info track and report the basic information such as disc manufacturer, disc size, number of tracks, disc format, etc. To retrieve the disc info for a source or target disc set the duplicator to Disc Info mode. To do this simply scroll through the controller menu until you find the Disc Info function. The LCD panel should look like this:



Pressing **ENT** will start the Disc Info function and you will be prompted to select either the source or the target drives for viewing disc information. See Figure 5.13.



Depending on the type of disc and the disc contents there may be more or less information displayed. Continue to press **ENT** to cycle through all of the disc information. Press the **DOWN** arrow button to cycle through the other target discs.

Select Source

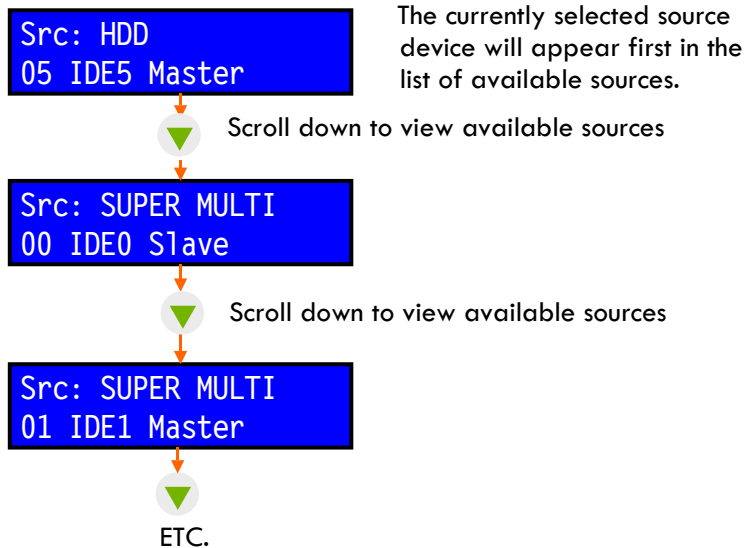
The Select Source function, 8. Select Source, allow you to select which device will be used as the source drive. It is recommended to always make copies from the hard drive (if one is installed), especially when working with large DVD master images. The duplicator supports copying from the hard drive (if one is installed) or from one of the DVD/CD drives. The duplicator ships from the factor with the hard drives set as the source drive (on models including a hard drive). To change the source simply select the Select Source function from the controller.

Figure 5.13



Pressing **ENT** will start enter the Select Source sub-menu. Scroll through the submenu using the arrow buttons to select the device you wish to use as the source drive. See Figure 5.14.

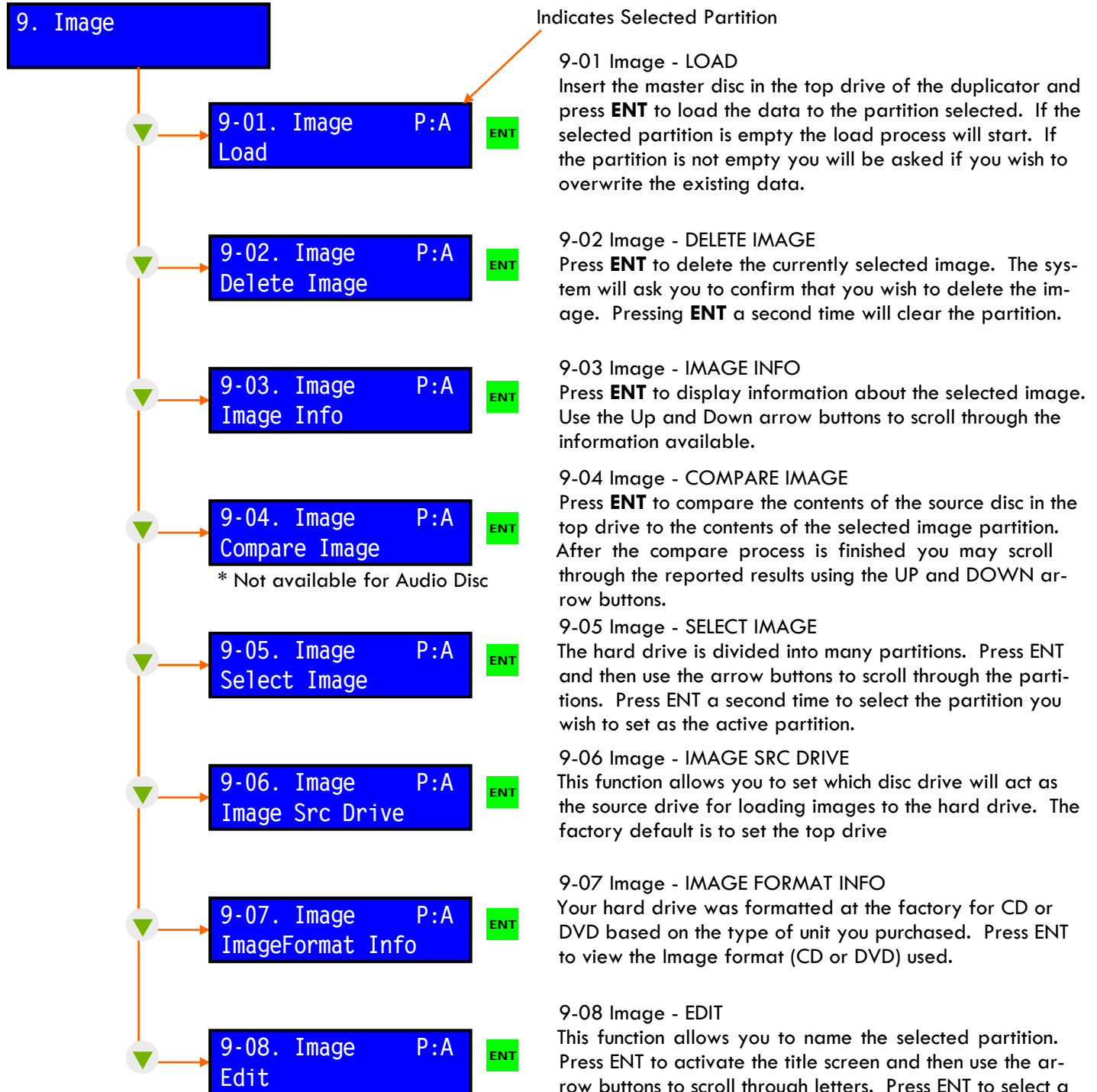
Figure 5.14



Image

The Image function, 9. Image, allows for loading, editing, renaming, moving and deleting images stored to the internal hard drive. This section will review the options available in the Image sub-menu.

Figure 5.15

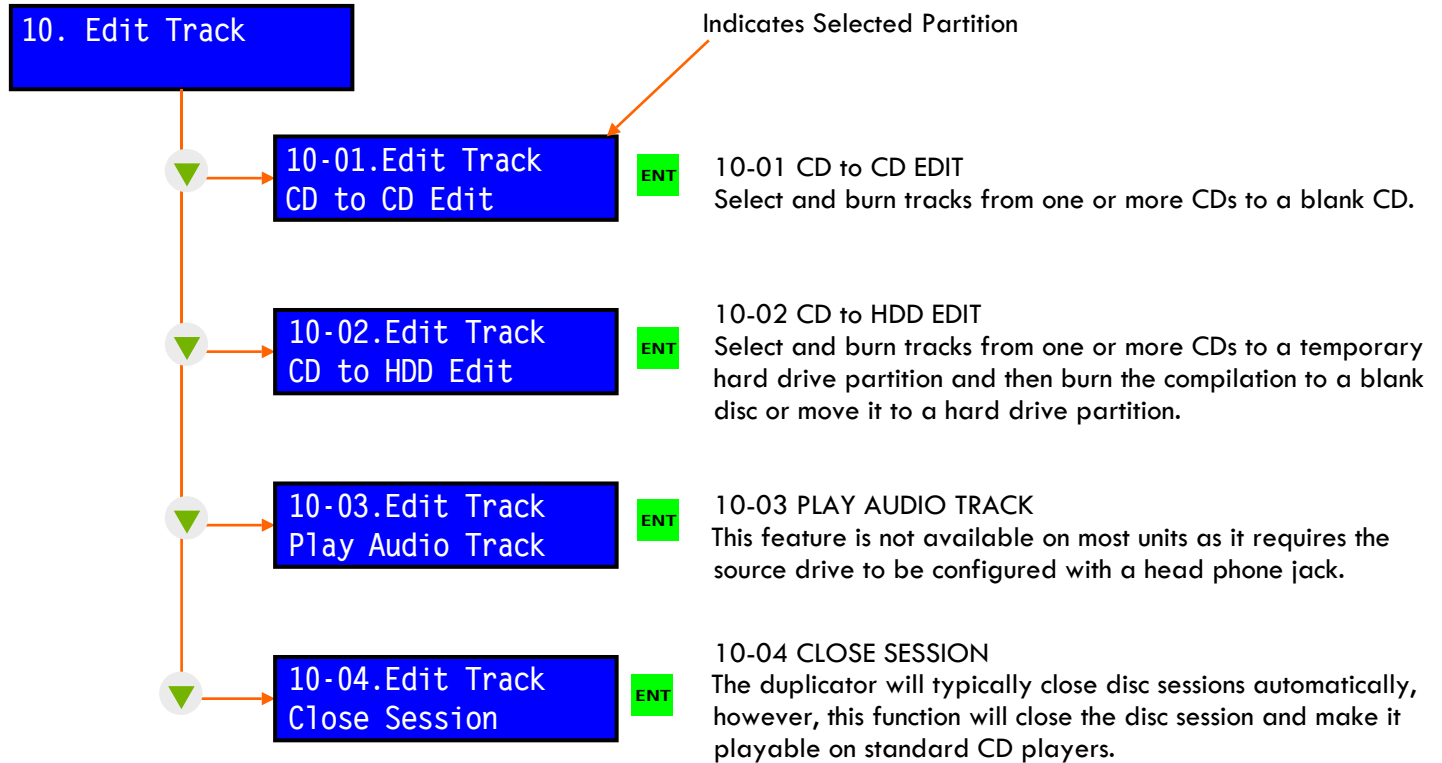


i NOTE: Press **ESC** to move back through the menu. This is an easy way to get back to the main menu. Keep pressing **ESC** until you are back to 9. Image.

Edit Track

The Edit Track function, 10. Edit Track, provides for a way to select tracks from one or more CDs and write them to a new disc or to partition on the hard drive. This is an alternative to using a computer to create a compilation disc.

Figure 5.16

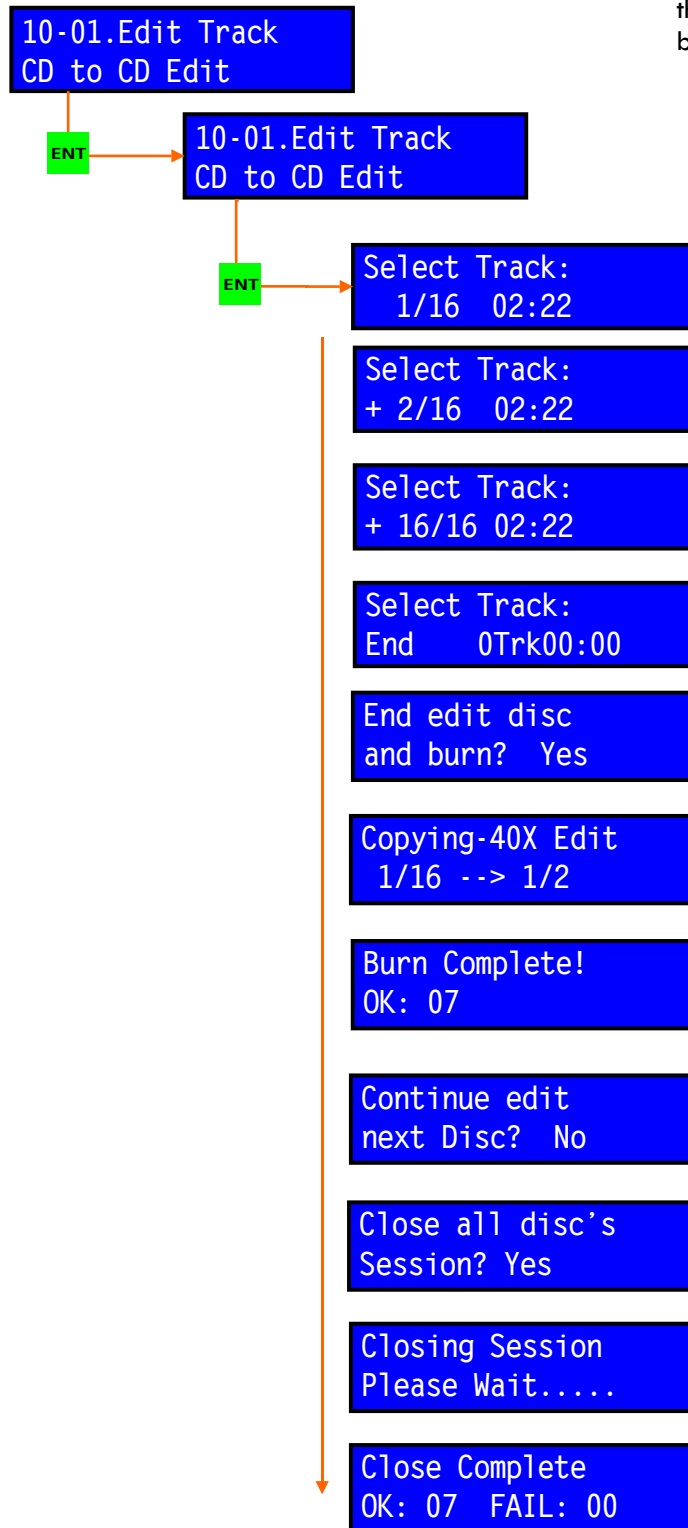


i NOTE: Press **ESC** to move back through the menu. This is an easy way to get back to the main menu. Keep pressing ESC until you are back to 10. Edit Track.

Edit Track - CD to CD Edit

This function allows you to create a compilation CD by selecting tracks from one or more CDs and then burning the compilation to a blank disc.

Figure 5.17



+ indicates that the track has been selected

Select Track:
+ 1/16 02:22

Track 1 of 16

Track Length

Scroll down the track list using the down arrow button and press ENT to select a track you wish to include in the compilation. Selected tracks will be tagged with a plus sign (+). To deselect a track simply scroll to the track and press ENT a second time. This will toggle the flag (+) on or off. Once you have selected the track you wish to include from the first disc scroll down to then end of the track list until you see End and then press ENT.

If you wish to continue editing this disc scroll down to No and press ENT to go back to the track selection screen. Otherwise select YES and press ENT to begin burning the selected tracks to a blank disc.

The LCD will report the burn progress by showing which tracks are being copied.

The LCD will report the number of successful discs copied.

Press ENT to stop and close the burn sessions and finalize the discs. Use the arrow button to scroll down to Yes and press ENT to select tracks from another disc.

Close the disc's sessions.

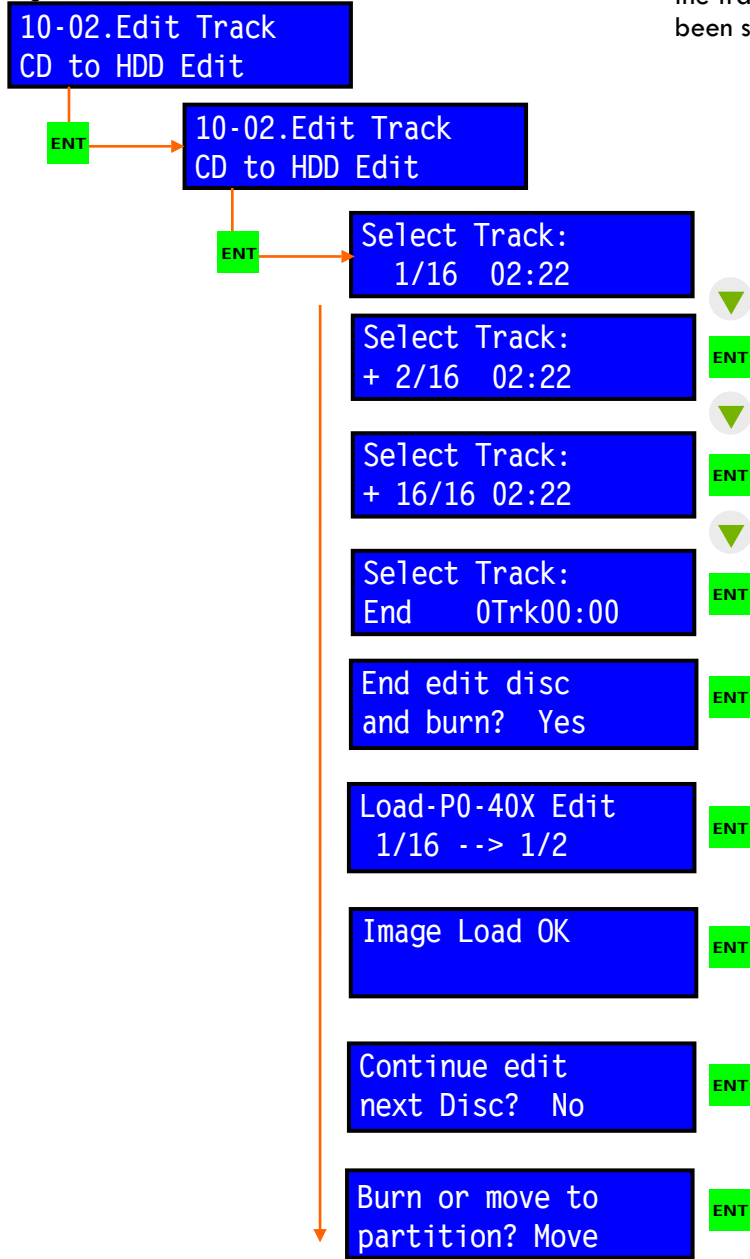
Check the close statistics to verify if all of the disc sessions closed properly.

i NOTE: Press **ESC** to move back through the menu. This is an easy way to get back to the main menu. Keep pressing ESC until you are back to 10. Edit Track.

Edit Track - CD to HDD Edit --requires internal hard drive

This function allows you to create a compilation CD by selecting tracks from one or more CDs and storing the compilation on a temporary partition of the hard drive. At the end of the process you can burn the compilation to a disc or move it to a permanent hard drive partition.

Figure 5.18



+ indicates that the track has been selected

Select Track:
+ 1/16 02:22

Track 1 of 16

Track Length

Scroll down the track list using the down arrow button and press **ENT** to select a track you wish to include in the compilation. Selected tracks will be tagged with a plus sign (+). To deselect a track simply scroll to the track and press **ENT** a second time. This will toggle the flag (+) on or off. Once you have selected the track you wish to include from the first disc scroll down to then end of the track list until you see End and then press **ENT**.

If you wish to continue editing this disc scroll down to No and press **ENT** to go back to the track selection screen. Otherwise select YES and press **ENT** to begin burning the selected tracks to temporary partition.

The LCD will report the burn progress by showing which tracks are being copied.

The LCD will report if the image loaded successfully

Press **ENT** to stop and close the burn sessions and finalize the discs. Use the arrow button to scroll down to Yes and press **ENT** to select tracks from another disc.

Burn the tracks to a blank CD or scroll down and press **ENT** to move the compilation to a permanent partition on the hard drive.

If burning to discs insert blank discs in the copy trays and follow on screen prompts.

If burning the compilation to the hard drive then select a blank partition and press ENT. If you select a non-blank partition you will be asked if you wish to overwrite the existing data.

Setup

The Setup menu, 11. Setup, contains several system setup functions. For the most part it is not necessary to change any of the setup options as they are set to the factory preferred configuration prior to shipping.

Figure 5.19

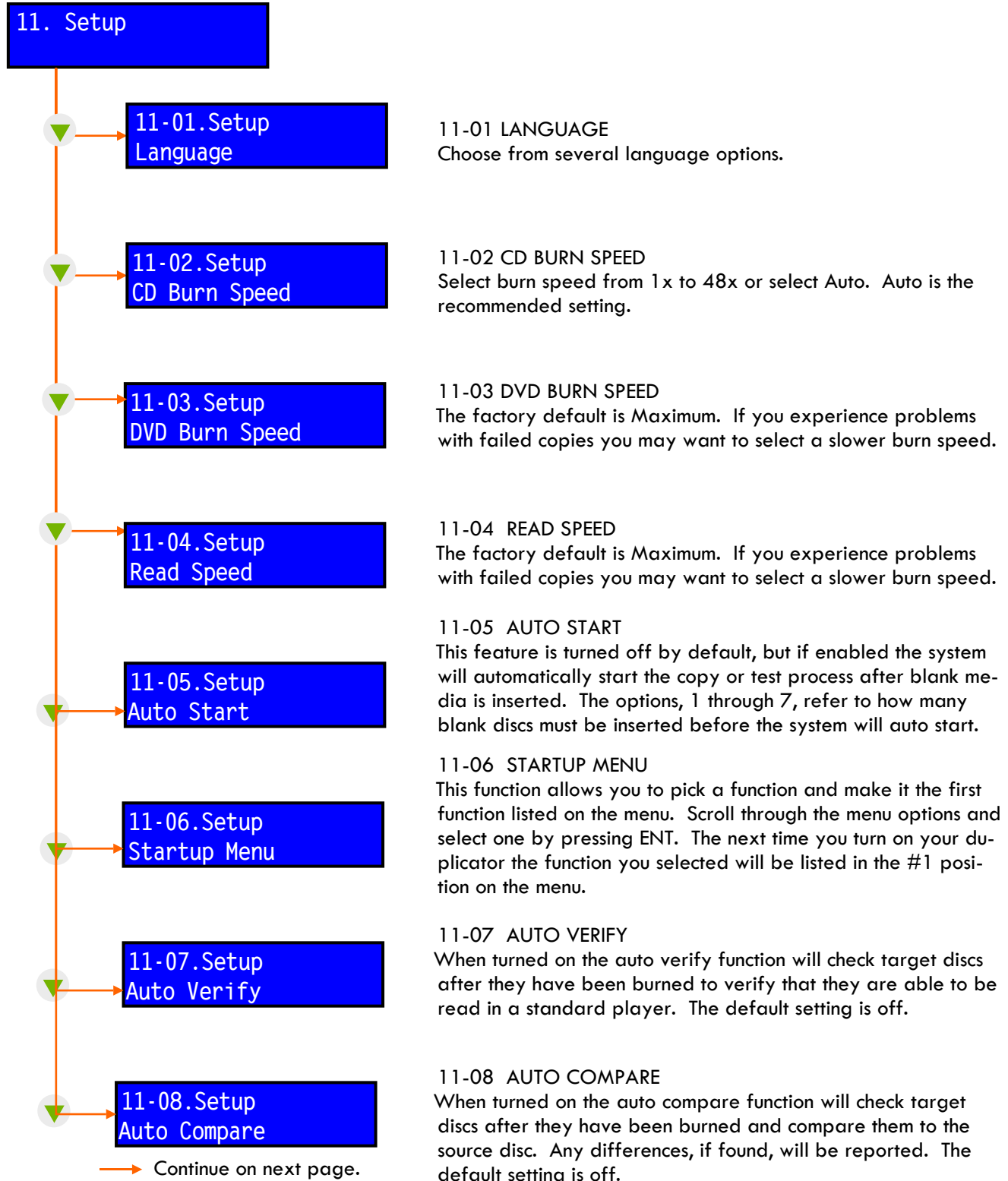
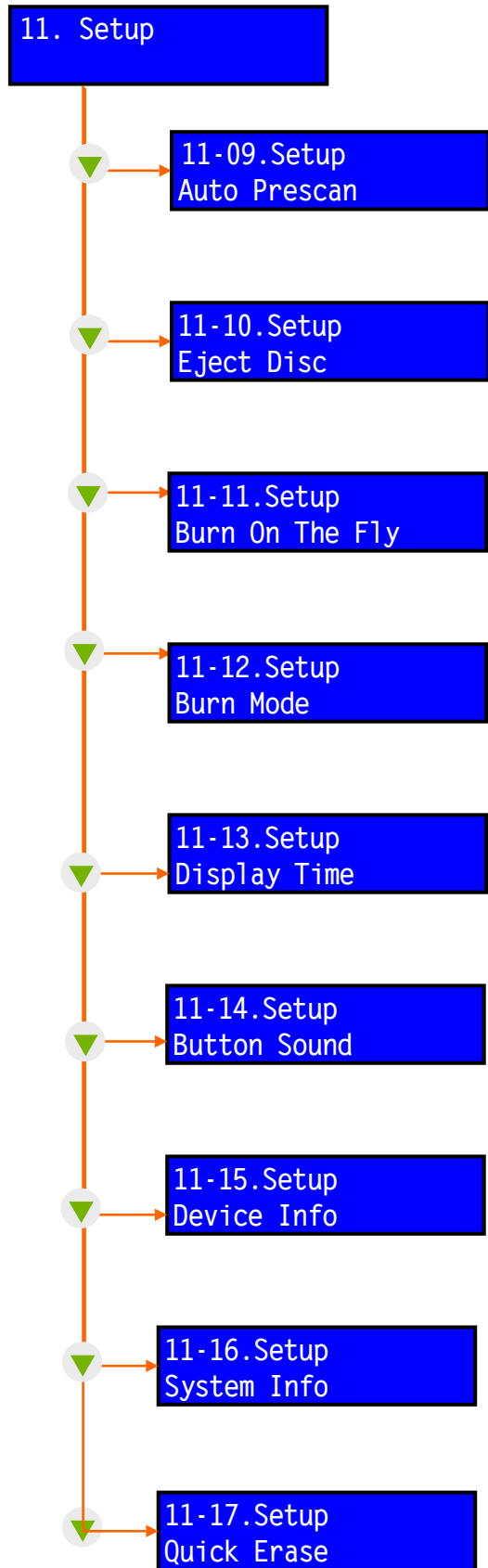


Figure 5.20



→ Continue on next page.

11-09 AUTO PRESCAN

When turned on the auto prescan function will check source discs before starting a the copy process to verify that the disc is able to be read. The default setting is off.

11-10 EJECT DISC

This setting determines whether a disc is ejected at the end of a copy or test cycle. The default setting is to eject only the discs that have successfully copied (Eject Good Only). The available options are: Good Only, All Disc, Do Not Eject.

11-11 BURN ON THE FLY

This setting when enabled allows direct copying from a CD or DVD. If turned off the duplicator will first copy the data from the source disc to the hard drive and then copy from the hard drive to the target discs. Copying from the hard drive is more reliable but not always as convenient.

11-12 BURN MODE

This setting switches the burn mode between TAO (Track-at-Once) and DAO (Disc-at-Once). In most cases the duplicator will automatically switch modes if the selected mode is not compatible with the disc.

11-13 DISPLAY TIME

Enabling this setting will cause the elapsed time to be displayed after a copy or test process is complete.

11-14 STARTUP MENU

If desired the button sound can be turned off by changing this setting.

11-15 DEVICE INFO

The controller is able to report on the model number and firmware version of each device inside the duplicator. To access this information select Device Info and scroll through the devices. Pressing ENT will display details for each device.

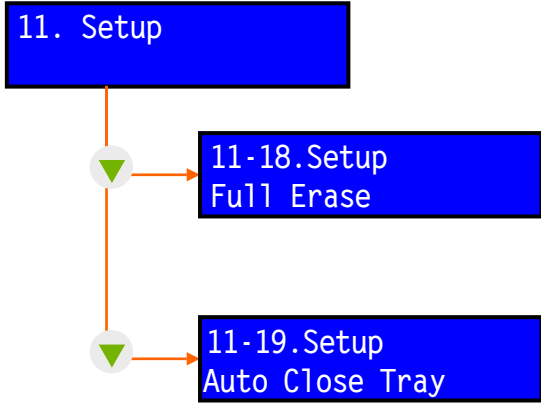
11-16 SYSTEM INFO

To view the duplicator model number and firmware revision select System Info and scroll through the available data.

11-17 QUICK ERASE

The duplicator is capable of performing a quick erase function on any re-writable disc. Simply place re-writable media that you wish to erase in the target drives and select the Quick Erase function. The media will appear blank. NOTE: The data is not truly erased but the discs can now be used as blank media. To fully erase a disc use the Full Erase function.

Figure 5.21



11-18 FULL ERASE

The duplicator is able to clear all of the data from a rewritable disc. This function takes much longer than the Quick Erase function.

11-19 AUTO CLOSE TRAY

This setting is only relevant if you have enabled the Auto Start feature (11-05). When Auto Start is enabled and Auto Close Tray is turned on the duplicator will automatically close drive trays after they have ejected once the copy process is finished. You can set the delay from 5 seconds to 50 seconds.



NOTE: Press **ESC** to move back through the menu. This is an easy way to get back to the main menu. Keep pressing ESC until you are back to 11.Setup.

Chapter 6: Advanced Setup

The Advanced Setup menu, 12. Adv Setup, contains several system setup functions that could cause your duplicator to stop operating properly if changed.

! It is recommended that you do not modify advanced settings unless you are an experienced user or you have been instructed by Recordex technical support to make a change to the Advanced Setup options.

The Advanced Setup menu is a hidden menu and can only be accessed by holding the **ESC** button down for 3 seconds.



NOTE: If your duplicator is configured with a USB port then the the USB option may be listed as menu option 12

Figure 6.1

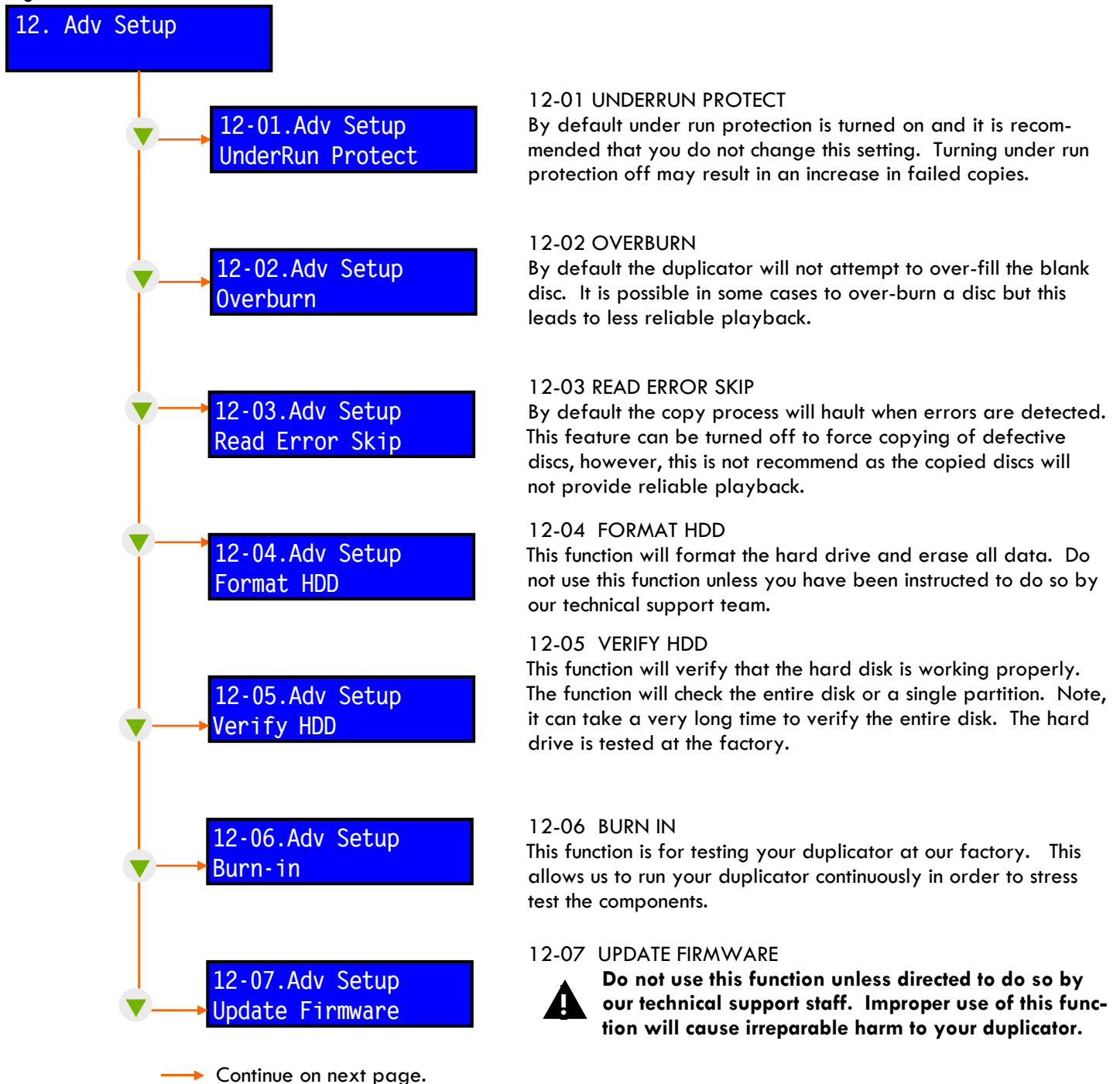
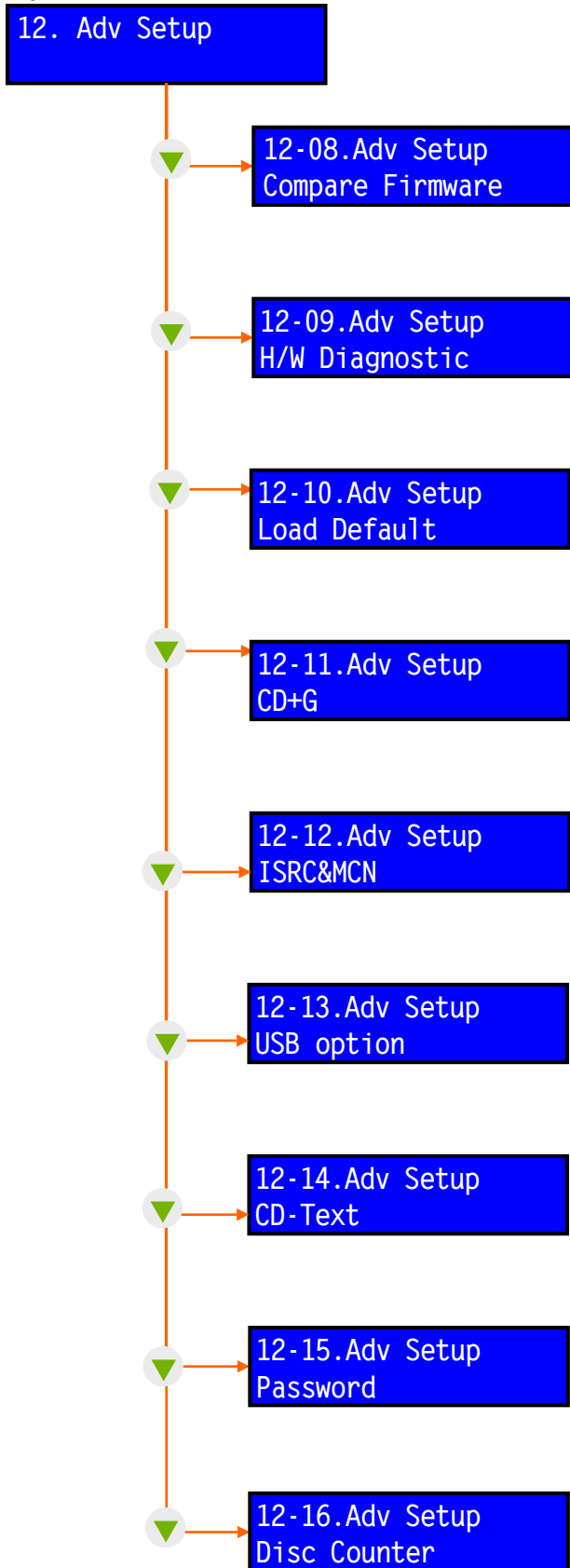


Figure 6.2



12-08 COMPARE FIRMWARE
 **Do not use this function unless directed to do so by our technical support staff.**

12-09 H/W DIAGNOSTIC
This function performs a cycle of diagnostic tests. Factory use only.


12-10 LOAD DEFAULT
This function will reset the controller to a set of default settings. This function should only be used at the direction of our support staff.

12-11 CD+G
CD+G is a special CD format that allows for video data to be stored with the audio data. The format is most often used for creating karaoke discs. To copy a karaoke disc you will need to first enable CD+G Mode using function 12-11.

12-12 ISRC & MCN
Some discs are created using ISRC codes which essentially place a digital fingerprint on the disc. ISRC data can be copied along with the disc's data by setting ISRC & MCN to on.

12-13 USB OPTION
If you purchased the option USB port please refer to the documentation that shipped with the ImageLink™ disc.

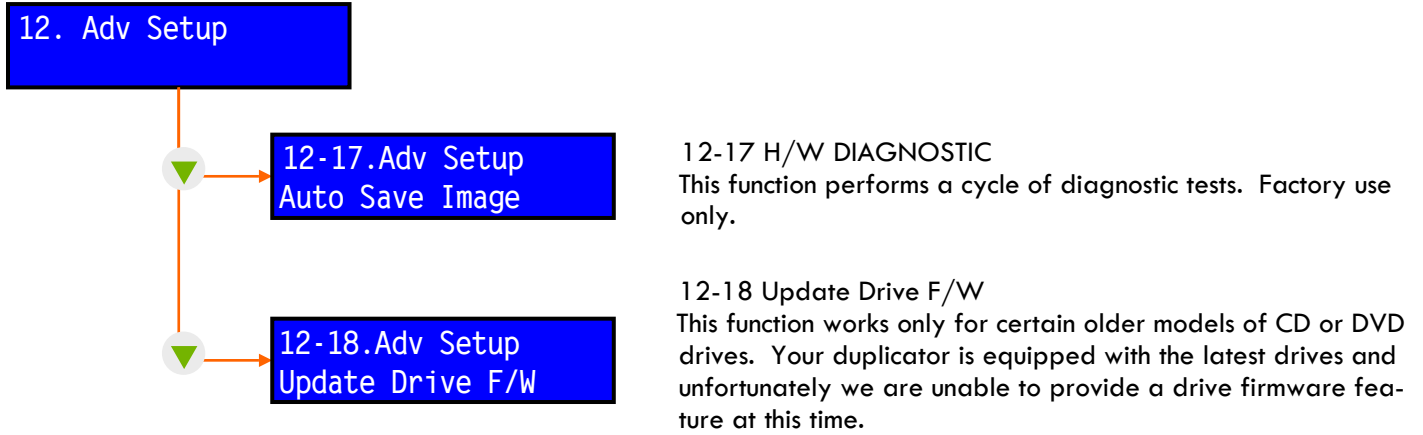
12-14 CD-TEXT
Certain audio discs include text files which provide a means for certain players to display disc and track title information. Enable CD-Text copying through menu 12-14.

12-15 PASSWORD
 **Use this function to create a password. Note, to change the password you must first enter the default password which is 85122290. Make sure you write down your password and store it in a safe place.**

12-16 DISC COUNTER
The disc counter keeps track of how many copies have been made by the duplicator and by each target drive. Scroll through the menu to view the counter for each device.

→ Continue on next page.

Figure 6.3



i NOTE: Press **ESC** to move back through the menu. This is an easy way to get back to the main menu. Keep pressing ESC until you are back to 12.Adv Setup.

Chapter 7: Trouble Shooting

This chapter covers the most common problems that we have encountered. If you are experiencing a problem there is a good chance that the solution to your problem is in this chapter. We ask that you please read through the frequently asked questions and the common problems sections before calling for technical support.

Frequently Asked Questions

General Questions

Q: Do I need a computer to operate my duplicator?

A: Definitely not. Your TechDisc Pro™ is a standalone duplicator which means that it can operate on its own and does not require a computer to be attached.

Q: Can I make only one copy?

A: Absolutely. Whether you have a three target or 21 target duplicator you can always make just one or two copies. The number of copies you make depends on how many drives you load with blank media.

Q: Can my duplicator copy both CD and DVD discs?

A: That depends on what model you purchased. All of our DVD models are capable of making copies of CDs and DVDs, however, the CD models are limited to copying only CDs.

Q: Can I copy a DVD to a CD or go the other way and copy a CD to a DVD?

A: No. You must always use matching media. CDs copy to CDs and DVDs copy to DVDs. Besides being able to store more data a DVD is created differently than a CD.

Q: Does it matter if I use an Apple computer (i.e. MAC) or a PC to make the master disc?

A: No. If you are creating your master by using software on your computer you can use an Apple or a PC. The important thing to remember is to make sure that the master disc was finalized by the software before you attempt to make copies.

Q: Why is a duplicator better than a computer for making copies?

A: If you need to make multiple copies of a disc a duplicator is much faster, but even when you are making just one copy the duplicator is an easier way to go. When making a copy on your computer you need to learn how to use burning software and the setup time is much longer.

Q: Can I duplicate DVDs that are larger than 4.7GB?

A: All of our DVD duplicators support dual layer discs. Dual layer discs will hold up to 8.5GB. To copy more than 4.7GB you need to use dual layer discs and a dual layer master.

Q: Does the duplicator only support certain brands of media?

A: No. Recordex TechDisc Pro™ duplicators are compatible with just about every brand of media. There are some brands that tend to provide a higher quality disc and you may find that buying higher quality media results in faster copy times, and better playback compatibility with household CD and DVD players.

Special Formats

Q: Can I duplicate mini-CDs and the oblong business card sized discs?

A: Yes. The duplicator's drives are equipped with a standard disc tray that will accept standard discs and small sized discs.

Q: Can I copy karaoke discs with my TechDisc Pro™?

A: Yes. For directions on how to copy in CD+G mode (this is the technical term for a karaoke disc) refer to chapter 6 and the section labeled, Advanced Setup/CD+G Mode.

Q: How do I copy CD-Text and ISRC&MCN formatted discs?

A: Refer to the Advanced Setup/ ISRC&MCN and /CD-Text sections of this user guide to turn on these copy modes.

Duplication Speeds & Quality

Q: Does duplication speed affect disc quality?

A: It may or it may not. The general rule of thumb is that slower read and burn speeds result in fewer failures and higher quality copies. However, most of the time a disc will copy just fine at maximum speed settings. We find that most of our customers are more concerned with speed so by default we set the duplicators to read and copy at max speed. If you are having trouble producing good copies you may want to try slowing down the read speed and the burn speed. To do this refer to chapter 5: Setup/Burn Speed or Setup/Read Speed.

Q: Does it take longer to make multiple copies of a disc?

A: No. The copy time will be about the same whether you are making one copy or 21 copies.

Q: Can I force my duplicator to copy or read at a specific speed?

A: Yes. And sometimes it is necessary to slow down duplication speed, especially if you are using slower media such as 4x DVD-R or 32x CD-R.

Q: If I buy 20X DVD duplicator can I still use 4x, 8x or 16x media?

A: Absolutely. A duplicator can always copy at lower speeds but a slower duplicator, i.e. 16x or 18x, is not capable at copying at a higher speed.

Q: Is there a way to verify that my copies are good playable discs?

A: Yes. You can use the verify function (see chapter 5: Verify) to check your discs after copying.

Q: Are duplicated discs different than the original disc?

A: As long as the blank disc itself is fine (i.e. Has no defects) then the copies will be perfect duplicates of the master disc. This is why it is so important to use high-quality master discs as any flaws in the master will be passed along to the target discs.

Master Discs & Disc Quality

Q: Can I make copies of copy protected master discs?

A: It is important to follow copyright laws and never make a copy of any protected data unless you have received legal permission to do so. Most commercially produced DVDs and video games are copy protected and the duplicator will not copy a copy protected disc.

Q: Does the master disc have to be the same type of disc as the copy discs?

A: The master and the copy disc must both be the same type of disc, i.e. DVD or CD. It is also recommended that you master and copy discs be formatted the same, i.e. DVD+R to DVD+R, DVD-R to DVD-R, etc.

Q: Is a VCD (Video CD) a CD or a DVD?

A: VCDs are specially created CDs and can only be copied to CDs. Digital Video Disc (DVD) is something entirely different from Video CD.

Q: Do copied discs have the same tracks (CDs) or titles/chapters (DVDs) as the master disc?

A: Yes. The duplicator makes a digital copy of the disc so it is an exact replica.

Q: Will my duplicator copy both PAL and NTSC formatted movies?

A: Yes. The format of the video is not considered when making a copy.

Hard Drives

Q: Is it better to copy from the hard drive or from the top DVD or CD drive?

A: As a rule it is always better to copy from a hard drive. The duplicator will often copy faster from the hard drive and it is much less likely that there will be a copy failure when burning from the hard drive. However, due to the fact that it takes time to load the master image to the hard drive many customers choose to copy directly from the top disc drive and not worry about the speed differences.

Q: Are bigger hard drives better than smaller hard drives?

A: The size of the hard drives limits how many images you can store. So bigger is better if you don't want to run out of space.

Hard Drives - continued

Q: Can I delete images after I've loaded them to the hard drive?

A: Yes. Hard drive images are stored permanently until you delete them. Deleting images is pretty simple and explained in detail in Chapter 5: Image/Delete image.

Q: Can I add a hard drive later if I choose not to buy one up front?

A: No. The hard drive requires special installation and must be done prior to shipping from the factory.

Common Problems

1: The LCD Panel is blank and the cooling fans are not spinning.

Make sure that the duplicator is powered on. Also, check the power source to make sure that power is getting to the duplicator. For example, plug a lamp into the outlet or surge protector to make sure the outlet is working properly. Also, double check the power cord and make sure it is plugged firmly into the outlet and into the back of the duplicator.

2: Instead of making a copy the duplicator is reporting a "Target Overflow Error".

This usually happens when the master disc is larger than the copy discs. Some DVD and CD recorders will overburn a disc, that is fill it up past the recommended capacity, and master that have been overburned will not copy properly.

As a general rule of thumb we recommend keeping Master CDs to 685MB or less and Master DVDs to 4.38 GB or less. This will ensure that your master disc is never larger than your copy discs.

3: All of a sudden one or more drives will stop working and then start working again.

This usually is caused by poor quality media or caused by mixing good and bad media. Generally a drive will either work or not work, it is very seldom that it will switch back and forth from working and not working.

The most common mistakes are:

- a. Mixing CDs and DVDs.*
- b. Mixing already copied discs in with blank discs.*
- c. Loading discs into the drives upside down.*
- d. Using very inexpensive discs that are more prone to failures.*

The best way to test for these problems is to start over with new media that you are certain has never been used.

4: The duplicator reports an error reading the master disc.

If the master disc was not finalized the duplicator will have a hard time reading it. Make sure to finalize all discs before using them as a master image. If you run into problems reading a disc, stop and try a disc that has worked in the past. This will let you know if the problem is with the duplicator or the master disc. If the old master that used to work no longer works then you know you have a problem with the duplicator. However, if the old master works but the new one doesn't then you probably have a problem with the new master. Try recreating it and make sure it is finalized before trying to make a copy. If you are still having problems you should try slowing down the read and burn speeds. See chapter 5: Setup/Read Speed & Setup/Burn Speed.

5: The duplicator reports "Source Drive Not Ready" and one of the disc drives is ejected.

This happens when the duplicator does not detect a master disc. Place the master disc in the drive that was ejected and try again.

6: The duplicator reports "Target Drive Not Ready" and the disc drives are ejected.

This happens when the duplicator does not detect blank media in the target disc drives. Load the drives with blank media and try again.

Appendix A: Alerts & Error Messages

Due to the limited space available on the LCD panel it is difficult to always communicate clearly when posting an alert or error message. For that reason we've included this list of definitions and comments.

1. Operating without Hard Drive

All data will be lost, erase?

All of the data on the re-writable disc will be lost. Proceed with erasing the disc?

Analyzing

The duplicator is checking the source disc.

Audio Disc!!! Can't compare!

The compare function will not work on Audio Discs.

Cannot read TOC

For some reason the duplicator is unable to read the contents of disc.

Check Target Please Wait

The system is checking the target devices for blank readable media.

Detect Drives

The duplicator is checking for installed drives. This includes hard drives and disc drives.

DVD-RW does not Support the Func

Some functions can not be utilized with using DVD-RW media

Erase Finished

The re-writable discs have been erased.

Erasing disc

The system is erasing the data on the re-writable disc.

Fail to get Drive Info!

The duplicator was unable to read the device information from the installed drive (I.e model#, firmware version, etc.)

Fail to get Src Disc Info!

The duplicator was unable to read the source disc information (I.e. # tracks, size of disc, etc.)

Hold ESC to exit

Press ESC for a 2 to 3 seconds to terminate the current function.

Identical

The compare test found the images to match.

Initialize SDRAM

The duplicator is initializing its internal memory.

Load Default Config?

Do you want to load the default settings?

No Erasable Disc in DVD-RW!!

The disc on the DVD-RW device is not rewritable.

Preparing

The system is preparing to record.

Press a Key to Eject Fail Disc

Press any key to eject the failed disc after copying.

Press a Key to Eject Good Disc.

Press any key to eject the good disc after copying.

Read disc error

During comparison the disc could not read.

Save new config Fail!

The settings could not be saved.

Source Disc Empty!!!

The source disc does not contain any data.

Source Disc Not Ready

The source disc is not ready to be read.

Source Drive Not Ready

The source drive is not ready to read the disc.

Src&Tgt can't in the same channel

During comparison the source and target discs cannot be in the same channel.

Target Disc Not Empty!!!

The duplicator detected non-blank media in the target drive.

Target Disc Not Ready

The target disc is not ready to be written to.

Target Drive Not Ready

The target drive is not ready to write.

Target overflow

The target disc's blank capacity is smaller than the source image.

TOC not match

The TOC did not match when the images were compared.

User Abort!

The operation was canceled by the user.

2. Operating with a Hard Drive

All data will be lost, format?

All data on the hard disk will be lost. Confirm the formatting of hard disk.

Delete Image in Partition xx?

Confirm the deletion of the data image in partition xx.

Format HDD?

Confirmation that you want to format the hard disk.

Format HDD OK!

The hard disk has been formatted.

HDD not Format!

The hard disk has not been formatted.

HDD too small

The capacity of hard disk is too small for the image being loaded.

HDD too small to handle image!

The hard disc partition is too small store the data image

Image Exists Overwrite?

There is a data image in the current partition. Confirm that you wish to overwrite the existing data.

Image load Fail.

The image was not successfully loaded from the source disc to the hard disk.

Image load OK.

The image was successfully loaded from source disc to the hard disk.

No Image in Partition xx.

There is no data image stored in partition xx.

No Valid HDD!

The system could not find a hard disk.

Partition Damage

The partition is damaged.

Select HD First!

Before using this feature you must select a formatted hard disk.

Verify Disk or Partition?

Do you want to verify the entire hard disk or just a single partition?

Verify Hard Disk Fail!

The hard disk was not successfully verified. I.e. The image could not be read without errors.

Verify Hard Disk OK!

The hard disk was verified successfully, I.e. It is able to be read.

Verify Partition Header!

Verify the partition header. I.e. Check that it is able to be read.

3. Audio Editing:

Burn or Move to partition?

Do you want to move the track compilation to a hard disk partition or burn it to a disc.

Can't edit HDD

Tracks can only be extracted and edited from Audio Discs. You can not use the hard disk as the source.

Close all disc's session?

Do you want to close the disc session for each target disc?

Continue edit next Disc?

Do you want to continue the to extract tracks or do you wish to begin the copy process.

End edit disc and burn?

Finish the music disc editing and start to copy the compilation to a blank disc.

Erase selected Tracks?

Abort the selected tracks and delete them.

Ins empty disc Continue?

Do you want to insert a blank disc and begin copying?

Insert next disc

Insert the next audio disc (and select tracks to extract)

NO AUDIO track in this disc.

The source disc has no audio tracks. Only audio tracks can be extracted.

Sessions were closed already!

The sessions for the targets discs have already been closed.

Target Overflow Re-Select

The disc capacity of the selected disc is not enough to store the selected tracks.

Tgt overflow, del last trk?

The disc capacity is not enough to store the selected tracks. Do you want to delete the last track?

4. Firmware Update:

Check Sum Error!

The updated firmware contains errors.

Flash ROM fail!

Data cannot be written into Flash ROM.

Invalid firmware

The disc does not contain valid firmware.

Last update F/W Fail!

The firmware did not update successfully.

Last update F/W OK!

The firmware was updated successfully.

Searching F/W

The system is searching for valid firmware.

Update F/W xxx to yyy?

Do you want to update the firmware version from xxx to yyy?

Updating F/W

The system is updating the firmware. DO NOT POWER OFF THE MACHINE.

Appendix B: Technical Support

Every TechDisc Pro™ is rigorously tested before it is shipped to ensure trouble free operation. However, if your duplicator stops working properly don't hesitate to give us a call. Before calling make sure to have your duplicator model number and serial number ready. This will help our technical support staff to quickly identify which model you purchased. The serial number and model number are located on the bottom of your duplicator.

Contact Technical Support

Mailing Address

Recordex Technical Support
PO BOX 848
Swainsboro, GA 30401

General Phone

1-478-237-5501

Fax Number

1-478-237-5504

Email

service@recordexusa.com

CHECKLIST

1. Check the Frequently Asked Questions List.
2. Read the Common Problems list.
3. Write down the model number & serial number of your duplicator.

Model#: _____

Serial#: _____

4. Call 478-237-5501 ask for technical support.

Recordex StudioJet 50™

Professional Color Disc Printer

Recordex
USA

Automated Full Color Printing

The Recordex StudioJet 50™ disc printer is an automated print solution that allows you to print up to 50 CDs or DVDs unattended. While your doing other things your StudioJet 50™ will get the job done!

Amazingly Easy to Use

Simply attach it to your computer running Windows XP or Vista via the included USB 2.0 cable and use the included Discus Label Editing program or any graphics program of your choice to print simply amazing discs.

Unmatched Commercial Grade Quality

Our units are tough as nails but weigh just 19 pounds. As soon as you take the StudioJet 50™ out of the box you will know why Recordex has been the choice of professional duplicators for since 1969.

Never Wrestle With Labels Again

Adhesive labels are expensive, time consuming to print and affix, and reduce the quality and professionalism of the finished product. Once you start printing on discs you'll never go back to labels. Our StudioJet 50™ supports all brands of inkjet printable media and utilizes the highest resolution inkjet system available for disc printing.

Where is the Robot?

Good question. Most autoprinters use robotic picking arms. We've designed a better autoprinter by eliminating the robotic loading arm. No more alignment problems caused by shipping, no more waiting for the robot to pick up and move the disc, no more worries. Our simple feed system delivers a single disc perfectly every time and does it faster than just about any autoprinter on the market.



StudioJet 50™ AutoPrinter
Automated 50 Disc Printer, Model#: SJ50
Uses Standard HP Inks (HP56/57)

Print for half the Cost of other Printers!

Say goodbye to expensive ink. We chose to design an open print solution that allows the use of standard off-the-shelf ink cartridges. Other disc printers use proprietary ink cartridges that cost nearly twice what you'll pay for HP ink! Print and save with the Recordex StudioJet 50™. Print for [less than a dime a disc!](#)

Incredible Warranty Protection

Nobody understands service like Recordex™, and we'll prove it with our Standard 12-Month No Hassle Warranty.

Fastest Disc Cycle Time. Period.

The StudioJet 50™ is just plain fast. With fastest in the industry print cycle times you'll be amazed at just how many discs you can print. Other more expensive printers boast higher capacity, but you'll find the StudioJet 50™ gets the job done quicker due to our innovative loading mechanism that virtually eliminates disc load time.

Kodak
MEDIA PRODUCTS

Get beautiful, rich color and 4800 dpi print output on inkjet printable media. We recommend Kodak waterproof media which provides unprecedented color reproduction, archival ratings that professionals demand, and the Kodak waterproof finish. Available from Recordex Dealers in both CD-R and DVD-R formats and conveniently bulk-packaged in 45 piece cakeboxes so you can quickly and easily load your StudioJet 50™.