



Talon Pro

DVD/CD Duplicator

User's Guide

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## Chapter 2

## Chapter 1 Introduction

### Introducing the Talon Pro, Seven-Drive or Four Drive DVD/CD Duplicator

The Talon Pro, Seven-Drive or Four Drive DVD/CD Duplicator enables you to copy multiple CDs at once at 16X speed, and from multiple DVDs at once at 4X speed. If you load the original CD or DVD onto the hard drive, you can duplicate seven or four CDs or DVDS at a time. You can duplicate six or three CDs or DVDs at a time when you copy CD to CD, using the first CD/DVD drawer as the reader. The 40 Gigabyte hard drive has 7 partitions of 5 Gigabytes each; so you can load up to seven DVDs or CDs in the hard drive and duplicate from one partition at a time at a rate of 25 DVDs an hour. The system can duplicate CDs in 2.5 minutes.

### Features

- 16X recording speed for CDs
- 4X recording speed for DVDs
- Internal 40 Gigabyte hard drive
- Disc At Once support for audio
- Support for multiple CD formats, including:
- Multiple industrial fans for cooling
- Audio track extraction for music disc compilation



### System Specifications

Dimensions:	17"High, 7"Wide, 18"Deep ( 7 Drive )
Weight:	38 lbs.
Power:	Universal Power Supply (300 watt)
Duplication Speeds:	For CDs: 16X recording speed (7 drives) with internal hard drive (140 discs per hour with normal application) For DVDS: 4X recording speed
CD Formats	Support for multiple CD formats
Other:	Disc At Once support for Audio Copy, Copy and Compare, Verification, Emulation, and Load to Hard Drive are supported All sizes of business card CD format are supported

## Installation Instructions

Unpack the Talon Pro DVD/CD Duplicator in a clean working area with moderate temperature control. Confirm that the following items have been shipped with the system: power cable, user manual, and warranty card.

Confirm that the voltage setting (AC 115/230V) is correct.

Confirm that the power input is stable and consistent. Install an uninterruptible power supply (UPS) if necessary.

Make sure that the environment for the Talon Pro DVD/CD Duplicator is properly ventilated and free of dust, excessive heat and humidity, and electronic interference.

Make sure the system is properly grounded. Do not attempt to defeat the third ground prong on the power cable.

The system is shipped in professionally designed, foam-based external packaging. Please keep and store this packaging for future transport or storage of the system.

## Warranty Information

The Talon Pro DVD/CD Duplicator is guaranteed to be free from defect in materials and workmanship for one year. The warranty is not applicable to defects or malfunctions caused by misuse, accidents, or system changes by the end user. Talon is not responsible for damages to data or related content by the Talon Pro DVD/CD Duplicator.

Note: Talon assumes no responsibility for the illegal copying and distribution of audio, video, and text/graphics data.

## Technical Support

For detailed technical support or questions regarding the Talon Pro, Seven-Drive DVD/CD Duplicator, contact Technical Support at 952 937 8354.

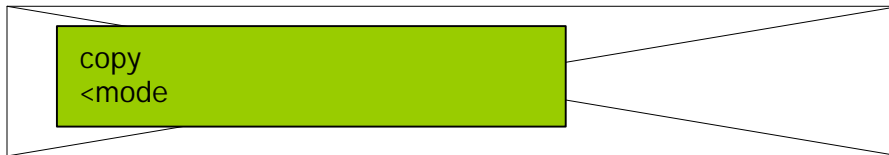
## Chapter 2 Getting Started

### Turning on the System

Plug the AC cord into the Talon Pro DVD/CD Duplicator and then into a wall outlet. Press the ON/OFF button located in the bottom right corner of the tower unit. The LCD Panel display will light up, indicator lights on each of the seven CD disc drives will flash momentarily, the ON indicator light next to the ON/OFF button will be lit, and the system will indicate it is ready for operation by emitting a three-tone beep.

### About the LCD Panel Display

When you first turn the system on, the information displayed in the LCD Panel will indicate the current mode of operation (**load**, **copy**, **emulate**, etc.)



If **copy** is not displayed in the LCD Panel Display, press the **STATUS** button to cycle through the list of operation modes (**copy**, **copy+comp**, **emulate**, **load**, **compare**, **verify**, **external**) until **copy** is displayed. This will ensure that you are in the correct mode for the first exercise presented in this manual, which is copying a CD to a CD (refer to page 5).

### For Best Performance

All master CDs must be 16X quality. All master DVDs must be 4X quality. Use Talon Branded Bulk Media (recommended for best performance), which are available in 300-disc cartons (six 50-disc spindle packs).



## Chapter 3 Duplicating CDs

### Copy an Audio CD Now!

#### Overview

This procedure explains how to set the system up for CD to CD duplication and how to make a copy of a master audio CD.

The purpose of this procedure is to give you a quick start to using the Talon Pro, Seven-Drive or Four Drive DVD/CD Duplicator. You will learn more advanced procedures, such as how to set up for duplicating Karaoke CD masters, how to load various tracks from multiple CDs into a partition on the hard drive, how to copy seven CDs at a time, etc., once you have learned a few of the basic procedures.

#### Select “Copy” for the Operation Mode

1. Turn on the system. Note the mode of operation in the LCD display area (**copy**, **load**, **emulate**, etc.). If **copy** is not already displayed as the current mode of operation, press the **STATUS** button until **copy** is displayed. Your LCD display should look something like this:

```
copy                A553M62:57
<mode
```

#### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

#### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

4. Press the **STATUS** button to change the setting from **NO** to **Yes**:

```
CD to CD            A553M62:57
[*] Yes            Go>
```

### Copying an Audio CD (continued)

#### Back to “Copy” Mode

5. Press the **START** button, and note that the **copy** mode is once again displayed. (In this case, all other sub-function defaults will be used, so there is no need to change any other sub-function options at this time.)

```
copy
<mode
```

#### Insert the Master CD

6. Place the master CD in the first CD drawer. Use the Open/Close button to open and close the CD drawer.

#### Insert a Blank CD

7. Open the second CD drawer and place a blank CD in it. Close the drawer (using the Open/Close button).

#### System Automatically Analyzes the Operation

Once you've placed the CDs in their respective drawers, you will hear the system start up. It will automatically scan the master CD to determine the size and the duration of the master CD. Look for this information in the LCD Display panel. It should look something like this:

```
copy                448M51:01
<mode              1start>
```

In the above example, the master CD is **448 Megabytes**, and is 51 minutes, and 01 seconds in duration, **51:01**.

The **1start>** prompt indicates that the system is going to make one copy as soon as you press the **START** button.

#### Begin the Copy Process

8. Press the **START** button. The system will start the copying process. Note that the LCD display shows **L** and **C** status codes. These indicate how many minutes have been read (L) and how many have been written (C). When the copy procedure is finished, you will hear a three-tone beep, the second drawer will automatically open, and the LCD panel will indicate that one CD passed, and that zero CDs failed the operation. For example:

```
PASS 1  FAIL 0
L 51  C51
```

**Copying an Audio CD (continued)****Remove the Duplicated CD**

9. Remove the duplicated CD from the second drawer and close the drawer (using the open/close button on the CD drive).

*Congratulations! You have just copied your first CD from a master CD.*

**Display the Operation Mode.**

10. Press and hold the **STATUS** button until it “chirps” then release. The LCD panel will display the operation mode once again. For example:



```
copy           448M51:01
<mode
```

**Remove the Master CD**

11. Unless you intend to make more copies of the same master CD, remove the master CD from the first drawer.

**Repeating this Procedure**

You have already set the system up to copy from CD to CD. You can repeat this procedure by placing a master CD in the first drawer, and a blank CD in the second drawer, and pressing the **START** button.

## Make Six Copies at Once from a Master CD

### Overview

This procedure explains how to set the system up for CD to CD duplication, making six or three duplicates at once. The first CD drawer will hold the Master CD, and the remaining six or three drawers will contain the copies:

### Select “Copy” for the Operation Mode

1. Turn on the system. Note the mode of operation in the LCD display area (**copy**, **load**, **emulate**, etc.). If **copy** is not already displayed as the current mode of operation, press the **STATUS** button until **copy** is displayed. Your LCD display should look something like this:

```
copy
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

4. If necessary, press the **STATUS** button to change the setting from **NO** to **Yes**:

```
CD to CD            A553M62:57
[*] Yes            Go>
```

### Making Six or Three Copies from a Master Audio CD (continued)

#### Set the Start Writers Sub-Function to 7

5. Press the **START** button, and view the **start writers** sub-function. The default for this setting is **7 or 4**. Press the **STATUS** button as many times as is necessary to display the number **7 or 4** for this setting. This ensures that all seven CD drives are available for making copies:

```
start writers
[+]      7          [Quit]
```

#### Display "setup" in the LCD display panel

6. Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you display **setup** in the LCD Display panel:

```
setup
<mode          Go>
```

#### Back to "Copy" Mode

7. Press and hold the **STATUS** button, release it when it "chirps", and note that the **copy** mode is once again displayed.

```
copy
<mode
```

#### Insert the Master

8. Place the Master CD in the first CD drawer. Use the Open/Close button to open and close the CD drawer. The system will automatically start to analyze the master CD and will display the size in megabytes and the number of minutes on the CD.

#### Insert Six or Three Blank CDs

9. Place a blank CD in each of the remaining six or three drawers. Close each drawer once you've inserted a blank CD. Note that the system automatically starts counting how many CD drives have blank CDs in them.

```
copy          448M51:01
<mode        6start>
```

**Making Six or Three Copies from a Master Audio CD (continued)****System Automatically Starts the Duplication Process**

When you put blank CDs in all six or three of the CD drawers, the system automatically starts the duplication process once it has detected that six or three drives are ready for copying. The number following the **L** shows how many minutes of the master have been read; the number following the **C** shows how many minutes have been copied.

```
C49 C49 C49
  L50 C49 C49 C49
```

**Pass/Fail Status is Displayed**

When the system has completed the duplication process, all of the copied CDs will be automatically ejected (the drawers will automatically open). The system will indicate how many passed, and how many (if any) failed.

```
PASS 6  FAIL 0
  L 51  C51  C51  C51
```

**Remove the Duplicated CDs**

10. Remove the duplicated CDs from the drawers and close each drawer (using the open/close button on the CD drive).

*Congratulations! You have just copied six or three CDs at once from a master CD.*

**Remove the Master CD**

11. Unless you intend to make more copies of the same master CD, remove the master CD from the first drawer. Note that the LCD Display shows the **copy** mode once again.

**Repeating this Procedure**

You have already set the system up to copy from **CD to CD**, using all of the available drawers. You can repeat this procedure by placing a master CD in the first drawer, and placing blank CDs in one or all of the remaining drawers. The system will automatically analyze the master and detect the number of blank CDs in the remaining CD drawers. When you are copying fewer than six CDs, you must press the **START** button to begin the duplication process. (It starts automatically when you put in all six blank CDs.)

## Load a CD onto the Hard Drive

### Overview

This procedure explains how to copy the contents of a CD into a partition on the hard drive. Once a CD is copied to the hard drive, it is easy to make many duplicates, seven at a time.

### Initial Operation Mode

1. Turn on the system. The mode of operation will appear in the LCD display area. The most common startup operation modes are **copy** and **load**. For example:

```
copy                A553M62:57
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

### Select Partition A on the Hard Drive

3. Press the **START** button until you view the **hdd partition** option:

```
hdd partition
[*] A                [Q]
```

4. Press the **STATUS** button to select the hard drive partition **A** if it is not already selected.

### Change the CD to CD Sub-Function Setting to “No”

5. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

6. Press the **STATUS** button to change the **CD to CD** setting from Yes to **No**.

Note: When the **CD to CD** setting is set to No, the **load** command is enabled in the operation mode options list.

## Load a CD onto the Hard Drive (continued)

**Set the Write Method Sub-function to Disc At Once**

7. Press the **START** button until you view the **write method** option. Press the **STATUS** button to set the write method to **Disc At Once**:

```
write method
[*] Disc At Once           [Q]
```

8. Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you return to the setup option:

```
setup
<mode                       Go>
```

**Back to the Operation Mode Display**

9. Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that **copy** is displayed.

**Select the Load Mode**

10. Press the **STATUS** button until the **load** command is displayed:

```
load                        A490M55:49
<mode
```

**Insert the Master CD**

11. Place the Master CD in the first CD drawer. Use the Open/Close button to open and close the CD drawer.

**System Automatically Analyzes and Copies the Master CD**

Once you place the Master CD in the first drawer you will hear the system start up. It will automatically analyze the master CD to determine the size and the duration of the master CD, and then the system will automatically copy the contents of the Master CD to the selected partition on the hard drive (in this example, partition A). Look for this information in the LCD Display panel. It should look something like this:

```
load                        A390M44:30
C 20 L21
```

In the above example, the master CD is **390 Megabytes**, and is **44 minutes**, and **30 seconds** in duration. The system has copied 20 minutes of the CD into partition **A** of the hard drive.

**Load a CD onto the Hard Drive (continued)****Pass Indicates Successful Load Operation**

When the load procedure is finished, you will hear a three-tone beep, the drawer containing the master CD will automatically open, and the LCD panel will indicate that the load operation passed:



```
pass                A390M44:30
C44 L44
```

**Remove the Master CD**

12. Remove the master CD from the drawer and close the drawer (using the Open/Close button on the CD drive).

*Congratulations! You have just loaded your first master CD to the hard drive.*

## Copy Seven or Four CDs at Once from the Hard Drive

### Overview

This procedure explains how to copy a CD that has been loaded into a partition on the hard drive to seven or four CDs at once.

### Initial Operation Mode

1. Turn on the system. The mode of operation will appear in the LCD display area. The most common startup operation modes are copy and load.

```
load                A553M62:57
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **hdd partition** option:

```
hdd partition
[*] A                [Q]
```

4. Press the **STATUS** button to select the hard drive partition if it is not already selected.

### Change the CD to CD Sub-Function Setting to “No”

5. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

6. Press the **STATUS** button to change the CD to CD setting from Yes to **No**.

### Copying from a Partition on the Hard Drive (continued)

**Set the Write Method Sub-function to Disc At Once**

- Press the **START** button until you view the **write method** option. Press the **STATUS** button to set the write method to **Disc At Once**:

```
write method
[*] Disc At Once           [Q]
```

- Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you return to the setup option.

```
setup                      A553M62:57
<mode                      Go>
```

**Back to the Operation Mode Display**

- Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that **copy** is displayed.

**Place Seven or Four Blank CDs in the Drives**

- Place a blank CD in each of the seven or four CD drives. Note that the system starts counting the number of active CD drives as you insert blank CDs.

**Copy Operation Starts Automatically**

Once the system has identified all seven or four blank CDs it automatically starts to copy the contents from the selected partition on the hard drive to the blank CDs. You can note the progress of the copy operation by observing the **L** and **C** status. The copy operation is complete when the number for **C** equals the number of minutes of the CD.

When the load procedure is finished, you will hear a three-tone beep, all seven drawers will automatically open, and the LCD panel will indicate that the load operation passed:

```
PASS 7  FAIL 0
```

**Remove the Master CD**

- Remove the duplicates from the drawers, close the drawers (using the open/close button on the CD drive).

*Congratulations! You have just made seven duplicates from the hard drive.*

## Copying Selected Tracks to the Hard Drive and Making a Composite CD

### Overview

This procedure explains how to:

- identify and copy selected tracks from multiple CDs into a partition on the hard drive, and
- copy the loaded tracks from the hard drive to a CD.

### Note the Initial Operation Mode

1. Turn on the system. Note the mode of operation in the LCD display area (**copy**, **load**, **emulate**, etc.). Your LCD display should look something like this:

```
copy
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup
<mode                               Go>
```

### Change the CD to CD Sub-Function Setting to “No”

3. Press the **START** button until you view the **CD to CD** sub-function:

```
CD to CD           A553M62:57
[*] Yes           Go>
```

4. Set the **CD to CD** sub-function to **No** by pressing the **STATUS** button to change the setting from Yes to **No**:

```
CD to CD           A553M62:57
[*] No            Go>
```

**Making a Composite CD (continued)**

**Set the Write Method Sub-Function to Disc At Once**

5. Press the **START** button a number of times until you can view the **write method** sub-function. Press the **STATUS** button to change this sub-function to **Disc At Once**. (The default setting is Disk At Once.).

```
write method
[*] Disc At Once           [Q]
```

**Display setup in the LCD display panel**

6. Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you display **setup** in the LCD Display panel:

```
setup
<mode                      Go>
```

**Clear the Current Partition on the Hard Drive**

7. Press the **STATUS** button a number of times to view the **clear** option:

```
clear
<mode                      Go>
```

8. Press the **START** button to clear the current partition on the hard drive.

Note that the LCD Display panel automatically changes to display the **edit** mode:

```
edit
<mode
```

**Load a Track from a Master CD**

9. Place the master CD that contains the first track you wish to copy to the hard drive in the first CD drawer. Close the CD drawer. Note that the system automatically starts analyzing the contents of the master CD and displays the prompt, **begin track**:

```
begin track
[+]      0           [Quit]
```

### Making a Composite CD (continued)

#### Select the First Track

10. Press the **STATUS** button until the number of the first track you wish to load appears. For example, if you want to load track number 9 as the first track in your compilation of tracks, press the **STATUS** button nine times to display the number 9. For example:

```
begin track
[+]      9                [Quit]
```

11. Press the **START** button to indicate that you want the copy process to start at the beginning of track number 9.
12. When **end track** is displayed in the LCD panel, press the **START** button again to indicate that you want to copy just the one track:

```
end track
[+]      9                [Quit]
```

In this example, we have just identified track 9 as the first track to be copied to the selected partition of the hard disk. The LCD will redisplay track 0, and it will indicate the number of minutes that the first track occupies in the partition. The identified track (track 9) occupies four minutes, thirteen seconds of the partition on the hard drive:

```
begin track                04:13
[+]      0                [Quit]
```

#### Copy a Track to the Partition on the Hard Disk

13. To copy the identified track from the first master CD to the partition on the hard drive, press the **START** button again. The system will copy the track and the display panel will indicate the number of minutes loaded into the partition, as shown in the example below:

```
edit                A 36M04:13
C04 L55
```

When the system has finished loading the selected track you will hear a three-tone beep, the master CD will be ejected automatically, and the LCD panel will display “**pass.**”

## Making a Composite CD (continued)

### Identify Tracks from Another Master CD

- Place another master CD into the first CD drive. Wait until the system analyzes it and displays the first of the edit prompts:

begin track	04:13
[+] 0	[Quit]

Note that the number of minutes that have been loaded into partition A of the hard drive is displayed in the top right corner of the LCD display. This number of minutes will help you decide how many tracks you can load. The maximum is 80 minutes.

### Copy the Selected Tracks to the Hard Disk

- At the **begin track 0** prompt, press the **STATUS** button to display the number of the track you wish to copy.
- Press the **START** button at the prompt, **begin track**.
- Press the **START** button again at the prompt, **end track**.
- At **begin track 0**, make your next selection using the **STATUS** button to select the track.
- Press the **START** button at **begin track**.
- Press the **START** button again at **end track**.
- Press the **START** button again to load the selected track(s).  
When the tracks have successfully loaded, the master CD is automatically ejected, and “pass” is displayed.

### Adding Consecutive Tracks

To add consecutive tracks, such as tracks 1, 2, 3, and 4, do the following:

- At the **begin track 0** prompt, press the **STATUS** button to display the number of the first track you wish to copy. :
- Press the **START** button at the prompt, **begin track**.
- At **end track**, press the **STATUS** button to select the last track in the series.
- Press the **START** button again at the prompt, **end track**.
- Press the **START** button again to load the selected tracks.  
When the tracks have successfully loaded, the master CD is automatically ejected, and “pass” is displayed.

**Making a Composite CD (continued)****Copy the Selected Tracks to the Hard Disk**

27. Press the **START** button again to load the selected track(s).  
When the tracks have successfully loaded, the master CD is automatically ejected, and **pass** is displayed.

**Deleting the Last Track**

You can delete the last track from the partition in the hard drive. Here's how: Press and hold the **STATUS** button until you view the **setup** option. Then press the **STATUS** button until you display the **delete** function. Press the **START** button to delete the last track that was loaded to the hard drive.

**Make a CD of the Selected Tracks**

28. Press and hold the **STATUS** button to display the **copy** mode.  
29. Place a blank CD in the first CD drawer. Close the drawer.  
30. At the system prompt, **1start>**, press the **START** button to copy the tracks from the hard drive to the CD.

**Duplicate Multiple CDs**

You have already set the system up to copy from the hard drive to CD, using all of the available drawers. You can make multiple copies of your track compilation by placing blank CDs in one or all of the remaining drawers. The system will automatically detect the number of blank CDs in the CD drawers. When you are copying fewer than six CDs, you must press the **START** button to begin the duplication process. (It starts automatically when you put in all six blank CDs.)

## Copying Karaoke CDs ( Karaoke May or May Not be Supported in This System )

### Overview

This procedure explains how to set the system up for duplicating Karaoke CDs or any CD that has graphics and sound files. It explains how to set up for CD to CD duplication. However, any Karaoke CD can also be loaded into a partition on the hard drive and copied from there as well.

### Start at the initial Operation Mode

Turn on the system. The system will display the operation mode that is set as the startup default operation mode. (**copy**, **load**, **emulate**, etc.).

### Access the Sub-Function Menu

1. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```

setup                A553M62:57
<mode                Go>
  
```

### Change the CD to CD Sub-Function Setting to “Yes”

2. Press the **START** button until you view the **CD to CD** option:

```

CD to CD            A553M62:57
[*] No              Go>
  
```

3. Press the **STATUS** button to change the setting from **NO** to **Yes**:

```

CD to CD            A553M62:57
[*] Yes             Go>
  
```

### Copying Karaoke CDs (continued)

**Back to  
“Copy” Mode**

4. Press the **START** button, and note that the default operation mode is once again displayed. In the example below the default operation mode is copy:

```
copy
<mode
```

**Access the  
Sub-Function  
Menu Again**

5. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

**Change the  
Write Method  
Sub-Function  
Setting to  
“Disc At  
Once”**

6. Press the **START** button until you view the **write method** option:

```
write method
[*] Disc At Once      [Q]
```

Press the **STATUS** button to change the setting to **Disc At Once** if it is not already so (as shown above).

**Change the  
CD+G Sub-  
Function  
Setting to  
“Yes”**

7. Press the **START** button until you view the **CD and G** option:

```
CD+G
[*] No                [Q]
```

8. Press **STATUS** button to change the **CD+G** setting to **Yes**. The CD +G setting, when switched to Yes, enables the duplication of CDs that have CD+Graphics: audio, text and graphics used in the same application. This type of disc is usually used for Karaoke machines.

```
CD+G
[*] Yes              [Q]
```

**Accept all  
other Sub-  
Function  
Defaults**

9. Press the **START** button until you view the **setup** option:

```
setup
<mode                Go>
```

## Copying Karaoke CDs (continued)

### Back to the Operation Mode Display

10. Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that the default operation mode is displayed. If not already displayed, press the **STATUS** button until copy is displayed:

```
copy
<mode
```

### Insert the Karaoke Master CD

11. Place the master CD in the first CD drawer. Use the Open/Close button to open and close the CD drawer.

### Insert a Blank CD

12. Open the second CD drawer and place a blank CD in it. Close the drawer (using the Open/Close button).

### System Automatically Analyzes the Operation

Once you’ve placed the CDs in their respective drawers, you will hear the system **START** up. It will automatically scan the master CD to determine the size and the duration of the master CD. Look for this information in the LCD Display panel. It should look something like this:

```
copy                448M51:01
<mode              1START>
```

In the above example, the master CD is **448 Megabytes**, and is 51 minutes, and 01 seconds in duration, **51:01**.

The **1start>** prompt indicates that the system is going to make one copy as soon as you press the **START** button.

### Begin the Copy Process

13. Press the **START** button. The system will **START** the copying process. Note that the LCD display shows **L** and **C** status codes. These indicate how many minutes have been read (L) and how many have been written (C). When the copy procedure is finished, you will hear a three-tone beep, the second drawer will automatically open, and the LCD panel will indicate that one CD passed, and that zero CDs failed the operation. For example:

```
PASS 1  FAIL 0
      L 51  C51
```

**Copying Karaoke CDs (continued)****Remove the Duplicated CD**

14. Remove the duplicated CD from the second drawer and close the drawer (using the open/close button on the CD drive).

*Congratulations! You have just copied your first Karaoke CD from a master Karaoke CD.*

**Display the Operation Mode.**

15. Press and hold the **STATUS** button until it “chirps” then release. The LCD panel will display the operation mode once again. For example:



```
copy          448M51:01
<mode
```

**Remove the Master CD**

16. Unless you intend to make more copies of the same master CD, remove the master CD from the first drawer.

**Repeating this Procedure**

17. You have already set the system up to copy Karaoke CDs from a master Karaoke CD. You can repeat this procedure by placing a master Karaoke CD in the first drawer, and blank CDs in the remaining drawers, and pressing the **START** button.

## Copying Data CDs

### Overview

This procedure explains how to set the system up for duplicating data CDs or any CD that has text, graphics, and/or sound files. It explains how to set up for CD to CD duplication. However, any data CD can also be loaded into a partition on the hard drive and copied from there as well.

### Start at the initial Operation Mode

Turn on the system. The system will display the operation mode that is set as the startup default operation mode (**copy**, **load**, **emulate**, etc.).

### Access the Sub-Function Menu

1. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

### Change the CD to CD Sub-Function Setting to “Yes”

2. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

3. Press the **STATUS** button to change the setting from **NO** to **Yes**:

```
CD to CD            A553M62:57
[*] Yes             Go>
```

## Copying Data CDs (continued)

Back to  
“Copy” Mode

4. Press the **START** button, and note that the default operation mode is once again displayed. In the example below the default operation mode is copy:

```
copy
<mode
```

Access the  
Sub-Function  
Menu Again

5. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

Change the  
Write Method  
Sub-Function  
Setting to  
“Disc At  
Once”

6. Press the **START** button until you view the **write method** option:

```
write method
[*] Disc At Once    [Q]
```

Press the **STATUS** button to change the setting to **Disc At Once** if it is not already so (as shown above).

Change the  
CD+G Sub-  
Function  
Setting to  
“Yes”

7. Press the **START** button until you view the **CD and G** option:

```
CD+G
[*] No              [Q]
```

8. Press **STATUS** button to change the **CD+G** setting to **Yes**. The CD +G setting, when switched to Yes, enables the duplication of CDs that have CD+Graphics: audio, text and graphics used in the same application.

```
CD+G
[*] Yes            [Q]
```

Accept all  
other Sub-  
Function  
Defaults

9. Press the **START** button until you view the **setup** option:

```
setup
<mode                Go>
```

### Copying Data CDs (continued)

#### Back to the Operation Mode Display

10. Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that the default operation mode is displayed. If not already displayed, press the **STATUS** button until **copy** is displayed:

```
copy
<mode
```

#### Insert the Karaoke Master CD

11. Place the master CD in the first CD drawer. Use the Open/Close button to open and close the CD drawer.

#### Insert a Blank CD

12. Open the second CD drawer and place a blank CD in it. Close the drawer (using the Open/Close button).

#### System Automatically Analyzes the Operation

Once you’ve placed the CDs in their respective drawers, you will hear the system start up. It will automatically scan the master CD to determine the size and the duration of the master CD. Look for this information in the LCD Display panel. It should look something like this:

```
copy                448M51:01
<mode              1START>
```

In the above example, the master CD is **448 Megabytes**, and is 51 minutes, and 01 seconds in duration, **51:01**.

The **1start>** prompt indicates that the system is going to make one copy as soon as you press the **START** button.

#### Begin the Copy Process

13. Press the **START** button. The system will **START** the copying process. Note that the LCD display shows **L** and **C STATUS** codes. These indicate how many minutes have been read (L) and how many have been written (C). When the copy procedure is finished, you will hear a three-tone beep, the second drawer will automatically open, and the LCD panel will indicate that one CD passed, and that zero CDs failed the operation. For example:

```
PASS 1  FAIL 0
L 51  C51
```

**Copying Data CDs (continued)****Remove the Duplicated CD**

14. Remove the duplicated CD from the second drawer and close the drawer (using the open/close button on the CD drive).

*Congratulations! You have just copied a data CD from a master data CD.*

**Display the Operation Mode.**

15. Press and hold the **STATUS** button until it “chirps” then release. The LCD panel will display the operation mode once again. For example:



```
copy           448M51:01
<mode
```

**Remove the Master CD**

16. Unless you intend to make more copies of the same master CD, remove the master CD from the first drawer.

**Repeating this Procedure**

17. You have already set the system up to copy data CDs from a master data CD. You can repeat this procedure by placing a master data CD in the first drawer, and blank CDs in the remaining drawers, and pressing the **START** button.

## Chapter 4 Duplicating DVDs

### Copy a DVD Now!

#### Overview

This procedure explains how to set the system up for DVD to DVD duplication and how to make a copy of a master DVD.

#### Select “Copy” for the Operation Mode

1. Turn on the system. Note the mode of operation in the LCD display area (**copy**, **load**, **emulate**, etc.). If **copy** is not already displayed as the current mode of operation, press the **STATUS** button until **copy** is displayed. Your LCD display should look something like this:

```
copy          3985MDVD
<mode
```

#### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup          3985MDVD
<mode          Go>
```

#### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **CD to CD** option:

```
CD to CD
[*] No          [Q]
```

4. Press the **STATUS** button to change the setting from NO to **Yes**:

```
CD to CD
[*] Yes        [Q]
```

## Copying a DVD (continued)

### Back to “Copy” Mode

5. Press the **START** button, and note that the **copy** mode is once again displayed. (In this case, all other sub-function defaults will be used, so there is no need to change any other sub-function options at this time.)

```
copy
<mode
```

### Insert the Master DVD

6. Place the master DVD in the first DVD drawer. Use the Open/Close button to open and close the drawer.

### Insert a Blank DVD

7. Open the second DVD drawer and place a blank DVD in it. Close the drawer (using the Open/Close button).

### System Automatically Analyzes the Operation

Once you've placed the DVDs in their respective drawers, you will hear the system start up. It will automatically scan the master DVD to determine the size and the duration of the master DVD. Look for this information in the LCD Display panel. It should look something like this:

```
copy                6602MDVD
<mode              1start>
```

In the above example, the master DVD is **6602 Megabytes**.

The **1start>** prompt indicates that the system is going to make one copy as soon as you press the **START** button.

### Begin the Copy Process

8. Press the **START** button. The system will start the copying process. Note that the LCD display shows **L** and **C** status codes. These indicate how many **megabytes** have been read (L) and how many have been written (C). When the copy procedure is finished, you will hear a three-tone beep, the second drawer will automatically open, and the LCD panel will indicate that one DVD passed, and that zero DVDs failed the operation. For example:

```
PASS 1  FAIL 0
L 06602  C06602
```

Note: It may take as long as 15 minutes to copy a full DVD.

**Copying a DVD (continued)****Remove the Duplicated DVD**

9. Remove the duplicated DVD from the second drawer and close the drawer (using the open/close button on the CD drive).

*Congratulations! You have just copied your first DVD from a master DVD.*

**Display the Operation Mode.**

10. Press and hold the **STATUS** button until it “chirps” then release. The LCD panel will display the operation mode once again. For example:



copy  
<mode

**Remove the Master DVD**

11. Unless you intend to make more copies of the same master DVD, remove the master DVD from the first drawer.

**Repeating this Procedure**

You have already set the system up to copy from DVD to DVD. You can repeat this procedure by placing a master DVD in the first drawer, and a blank DVD in the second drawer, and pressing the **START** button.

## Copy Six DVDs at Once from a Master DVD ( or Three DVD's in the Four Drive System )

### Overview

This procedure explains how to set the system up for DVD to DVD duplication, making six duplicates at once. The first DVD drawer will hold the Master DVD, and the remaining six drawers will contain the copies:

### Select “Copy” for the Operation Mode

1. Turn on the system. Note the mode of operation in the LCD display area (**copy**, **load**, **emulate**, etc.). If **copy** is not already displayed as the current mode of operation, press the **STATUS** button until **copy** is displayed. Your LCD display should look something like this:

```
copy
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup
<mode                               Go>
```

### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **CD to CD** option:

```
CD to CD
[*] No                               Go>
```

4. If necessary, press the **STATUS** button to change the setting from **NO** to **Yes**:

```
CD to CD
[*] Yes                              Go>
```

## Making Six Copies from a Master DVD ( or Three Copies )....(continued)

### Set the Start Writers Sub-Function to 7

5. Press the **START** button, and view the **start writers** sub-function. The default for this setting is **7 or 4**. Press the **STATUS** button as many times as is necessary to display the number **7 or 4** for this setting. This ensures that all seven CD drives are available for making copies:

```
start writers
[+]      7           [Quit]
```

### Display "setup" in the LCD display panel

6. Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you display **setup** in the LCD Display panel:

```
setup
<mode           Go>
```

### Back to "Copy" Mode

7. Press and hold the **STATUS** button, release it when it "chirps", and note that the **copy** mode is once again displayed.

```
copy
<mode
```

### Insert the Master

8. Place the Master DVD in the first DVD drawer. Use the Open/Close button to open and close the DVD drawer. The system will automatically start to analyze the master DVD and will display the size in megabytes and the number of minutes on the DVD.

### Insert Six or Three Blank DVDs

9. Place a blank DVD in each of the remaining six or three drawers. Close each drawer once you've inserted a blank DVD. Note that the system automatically starts counting how many DVD drives have blank DVDs in them.

```
copy           3895MDVD
<mode         6start>
```

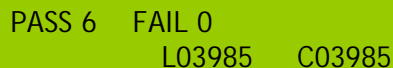
### Making Six Copies from a Master DVD (continued)

#### System Automatically Starts the Duplication Process

When you put blank DVDs in all six or three of the DVD drawers, the system automatically starts the duplication process once it has detected that six or three drives are ready for copying. The number following the **L** shows how many minutes of the master have been read; the number following the **C** shows how many minutes have been copied.

#### Pass/Fail Status is Displayed

When the system has completed the duplication process, all of the copied DVDs will be automatically ejected (the drawers will automatically open). The system will indicate how many passed, and how many (if any) failed.



PASS 6 FAIL 0  
L03985 C03985

#### Remove the Duplicated DVDs

10. Remove the duplicated DVDs from the drawers and close each drawer (using the open/close button on the DVD drive).

*Congratulations! You have just copied six ( or three ) DVDs at once from a master DVD.*

#### Remove the Master DVD

11. Unless you intend to make more copies of the same master DVD, remove the master DVD from the first drawer. Note that the LCD Display shows the **copy** mode once again.

#### Repeating this Procedure

You have already set the system up to copy from **CD to CD**, using all of the available drawers. You can repeat this procedure by placing a master DVD in the first drawer, and placing blank DVDs in one or all of the remaining drawers. The system will automatically analyze the master and detect the number of blank DVDs in the remaining DVD drawers. When you are copying fewer than six DVDs, you must press the **START** button to begin the duplication process. (It starts automatically when you put in all six blank DVDs.)

## Load a DVD onto the Hard Drive

### Overview

This procedure explains how to copy the contents of a DVD into a partition on the hard drive. Once a DVD is copied to the hard drive, it is easy to make many duplicates, seven at a time.

### Initial Operation Mode

1. Turn on the system. The mode of operation will appear in the LCD display area. The most common startup operation modes are **copy** and **load**. For example:

```
copy                3985MDVD
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                3985MDVD
<mode                Go>
```

### Change the Hard Drive Partition Sub-Function Setting to “A”

3. Press the **START** button until you view the **hdd partition** option:

```
hdd partition
[*] A                [Q]
```

4. Press the **STATUS** button to select the hard drive partition **A** if it is not already selected.

### Change the CD to CD Sub-Function Setting to “No”

5. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No                Go>
```

6. Press the **STATUS** button to change the **CD to CD** setting from Yes to **No**.

Note: When the **CD to CD** setting is set to No, the **load** command is enabled in the operation mode options list.

## Load a DVD onto the Hard Drive (continued)

**Set the Write Method Sub-function to Disc At Once**

- Press the **START** button until you view the **write method** option. Press the **STATUS** button to set the write method to **Disc At Once**:

```
write method
[*] Disc At Once           [Q]
```

- Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you return to the setup option:

```
setup
<mode                       Go>
```

**Back to the Operation Mode Display**

- Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that **copy** is displayed.

**Select the Load Mode**

- Press the **STATUS** button until the **load** command is displayed:

```
load
<mode
```

**Insert the Master DVD**

- Place the Master DVD in the first DVD drawer. Use the Open/Close button to open and close the DVD drawer.

**System Automatically Analyzes and Copies the Master DVD**

Once you place the Master DVD in the first drawer you will hear the system start up. It will automatically analyze the master DVD to determine the size and the duration of the master DVD, and then the system will automatically copy the contents of the Master DVD to the selected partition on the hard drive (in this example, partition A). Look for this information in the LCD Display panel. It should look something like this:

```
load
C 03983  L03983
```

In the above example, the master DVD is **3985 Megabytes**. The system has copied the contents of the DVD into partition **A** of the hard drive.

**Load a DVD onto the Hard Drive (continued)****Pass Indicates Successful Load Operation**

When the load procedure is finished, you will hear a three-tone beep, the drawer containing the master DVD will automatically open, and the LCD panel will indicate that the load operation passed:

```
pass          A3985M453
C 03985  L03985
```

**Remove the Master DVD**

12. Remove the master DVD from the drawer and close the drawer (using the Open/Close button on the DVD drive).

*Congratulations! You have just loaded your first master DVD to the hard drive.*

## Copy Seven or Four DVDs at Once from the Hard Drive

### Overview

This procedure explains how to copy a DVD that has been loaded into a partition on the hard drive to seven DVDs at once.

### Initial Operation Mode

1. Turn on the system. The mode of operation will appear in the LCD display area. The most common startup operation modes are copy and load.

```
copy                3985MDVD
<mode
```

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

### Select the Hard Drive Partition that Contains Your DVD Data

3. Press the **START** button until you view the **hdd partition** option:

```
hdd partition
[*] A                [Q]
```

4. Press the **STATUS** button to select the hard drive partition that contains the loaded DVD data if it is not already selected.

### Change the CD to CD Sub-Function Setting to “No”

5. Press the **START** button until you view the **CD to CD** option:

```
CD to CD            A553M62:57
[*] No              Go>
```

6. Press the **STATUS** button to change the CD to CD setting from Yes to **No**.

## Copying from a Partition on the Hard Drive (continued)

**Set the Write Method Sub-function to Disc At Once**

- Press the **START** button until you view the **write method** option. Press the **STATUS** button to set the write method to **Disc At Once**:

```
write method
[*] Disc At Once           [Q]
```

- Press the **START** button as many times as is necessary to cycle through all of the other sub-functions until you return to the setup option.

```
setup                      A553M62:57
<mode                      Go>
```

**Back to the Operation Mode Display**

- Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that **copy** is displayed.

**Place Seven or Four Blank DVDs in the Drives**

- Place a blank DVD in each of the seven or four DVD drives. Note that the system starts counting the number of active DVD drives as you insert blank DVDs.

**Copy Operation Starts Automatically**

Once the system has identified all seven or four blank CDs it automatically starts to copy the contents from the selected partition on the hard drive to the blank DVDs. You can note the progress of the copy operation by observing the **L** and **C** status. The copy operation is complete when the number for **C** equals the number for **L**.

When the load procedure is finished, you will hear a three-tone beep, all seven drawers will automatically open, and the LCD panel will indicate that the load operation passed:

```
PASS 7  FAIL 0
L03985 C03985  C03985  C03985
```

**Remove the Duplicates from the DVD Drawers**

- Remove the duplicates from the drawers, close the drawers (using the open/close button on the DVD drive). Press and hold the **STATUS** button until it chirps to return the system to the most recent mode setting (in this case, copy mode).

*Congratulations! You have just made seven duplicates from the hard drive.*

## Copying Data DVDs

### Overview

This procedure explains how to set the system up for duplicating data DVDs. It explains how to set up for DVD to DVD duplication. However, any data DVD can also be loaded into a partition on the hard drive and copied from there as well.

### Start at the Initial Operation Mode

1. Turn on the system. The system will display the operation mode that is set as the startup default operation mode (**copy**, **load**, **emulate**, etc.).

### Access the Sub-Function Menu

2. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```

setup                A3985M453
<mode                Go>
  
```

### Change the CD to CD Sub-Function Setting to “Yes”

3. Press the **START** button until you view the **CD to CD** option:

```

CD to CD
[*] No                [Q]
  
```

4. Press the **STATUS** button to change the setting from NO to **Yes**:

```

CD to CD
[*] Yes               [Q]
  
```

## Copying Data DVDs (continued)

**Back to  
“Copy” Mode**

5. Press the **START** button, and note that the default operation mode is once again displayed. In the example below the default operation mode is copy:

```
copy
<mode
```

**Access the  
Sub-Function  
Menu Again**

6. Press and hold the **STATUS** button until you hear the system “chirp.” Then release the **STATUS** button. You should see **setup** displayed in the LCD panel:

```
setup                A553M62:57
<mode                Go>
```

**Change the  
Write Method  
Sub-Function  
Setting to  
“Disc At  
Once”**

7. Press the **START** button until you view the **write method** option:

```
write method
[*] Disc At Once      [Q]
```

Press the **STATUS** button to change the setting to **Disc At Once** if it is not already so (as shown above).

**Change the  
CD+G Sub-  
Function  
Setting to  
“Yes”**

8. Press the **START** button until you view the **CD and G** option:

```
CD+G
[*] No                [Q]
```

9. Press **STATUS** button to change the **CD+G** setting to **Yes**. The CD +G setting, when switched to Yes, enables the duplication of DVDs that have audio, text and graphics used in the same application.

```
CD+G
[*] Yes              [Q]
```

**Accept all  
other Sub-  
Function  
Defaults**

10. Press the **START** button until you view the **setup** option:

```
setup
<mode                Go>
```

### Copying Data DVDs (continued)

#### Back to the Operation Mode Display

11. Press and hold the **STATUS** button until it “chirps.” Then release the **STATUS** button. Note that the default operation mode is displayed. If not already displayed, press the **STATUS** button until **copy** is displayed:

```
copy
<mode
```

#### Insert the Master Data DVD

12. Place the master DVD in the first DVD drawer. Use the Open/Close button to open and close the DVD drawer.

#### Insert a Blank DVD

13. Open the second DVD drawer and place a blank DVD in it. Close the drawer (using the Open/Close button).

#### System Automatically Analyzes the Operation

Once you’ve placed the DVDs in their respective drawers, you will hear the system start up. It will automatically scan the master DVD to determine the size and the duration of the master DVD. Look for this information in the LCD Display panel. It should look something like this:

```
copy                3985MDVD
<mode              1START>
```

In the above example, the master DVD is **3985M**Megabytes.

The **1start>** prompt indicates that the system is going to make one copy as soon as you press the **START** button.

#### Begin the Copy Process

14. Press the **START** button. The system will **START** the copying process. Note that the LCD display shows **L** and **C STATUS** codes. These indicate how many megabytes have been read (L) and how many have been written (C). When the copy procedure is finished, you will hear a three-tone beep, the second drawer will automatically open, and the LCD panel will indicate that one DVD passed, and that zero DVDs failed the operation. For example:

```
PASS 1  FAIL 0
```

**Copying Data DVDs (continued)****Remove the Duplicated DVD**

15. Remove the duplicated DVD from the second drawer and close the drawer (using the open/close button on the DVD drive).

*Congratulations! You have just copied a data DVD from a master data DVD.*

**Display the Operation Mode.**

Press and hold the **STATUS** button until it “chirps” then release. The LCD panel will display the operation mode once again.

**Remove the Master DVD**

16. Unless you intend to make more copies of the same master DVD, remove the master DVD from the first drawer.

**Repeating this Procedure**

17. You have already set the system up to copy data DVDs from a master data DVD. You can repeat this procedure by placing a master data DVD in the first drawer, and blank DVDs in the remaining drawers, and pressing the **START** button.



## Chapter 5 Functional Overview

### Overview of the Menu Options

Three main menus enable you to select the mode of operation, sub-functions and settings within those modes, and other system capabilities. In most instances, the **START** button advances you through the menu lists, and the **STATUS** button changes the setting of an option.

<u>Operation Modes</u>	<u>Sub-Functions</u>	<u>Other System Capabilities</u>
Copy (press the <b>STATUS</b> button for the next item in this list)	Setup (press the <b>START</b> button for next sub-function, and press the <b>STATUS</b> button change the setting)	Setup (press the <b>STATUS</b> button for the next menu item of in this list)
Copy and Compare	Show drives	Edit
Emulate	Hdd Partition	Delete
Load	CD to CD	Clear
Compare	Start Writers	Copy x1
Verify	Write Method	Emulate x1
External	Write Speed	Copy x2
	CD-ROM drive	Emulate x2
	Autoloader	Copy x4
	Load Nonblank	Emulate x4
	CDDA Load Speed	Copy x8
	Eject Disk	Emulate x8
	Buzzer	Burn In
	CD+G	Update
	Copycomp Eject	
	Read CDDA Index0	
	Skip Read Error	
	Mode 2 Compare	
	Startup Command	

## Operation Mode Details

### Copy

Use the Copy operation mode to copy from a partition on the hard disk or from a master CD or DVD placed in the first CD/DVD drive. Before actually starting the copy operation, check your sub-function settings. Here's how:

- Press and hold the **STATUS** button until it “chirps.” Then, when **setup** appears, press the **START** button to review each sub-function setting. Use the **STATUS** button to change any sub-function setting.
- If you are copying from the hard drive, make sure the **hdd partition** sub-function displays the correct partition in the hard drive. Also make sure the partition contains the correct data before copying. (Refer to page 11 for instructions on how to load a CD into a partition on the hard drive. Refer to page 35 for instruction on how to load a DVD into a partition on the hard drive.)
- If you are copying from a CD or DVD, make sure the **CD to CD** sub-function is set to **Yes**.
- If you are copying audio and graphics or text, make sure the **CD+G** sub-function is set to **Yes**.
- Press the **START** button until you can view the **setup** sub-function in the display panel. Then press and hold the **STATUS** button until it “chirps” to return to the **copy** operation mode.

When copying from a master CD or DVD, place the master in the top CD/DVD drive and blank CDs or DVDs in the remaining CD/DVD drives. The full procedure for copying an audio CD is provided starting on page 5. A full procedure for copying a Karaoke CD or any CD with text and/or graphics is provided starting on page 21. A full procedure for copying DVDs is provided starting on page 29.

When copying from a partition on the hard disk, place blank CDs or DVDs in the CD/DVD drives. The full procedure for copying CD is provided on page 14. The full procedure for how to copy DVD data from the hard drive to multiple DVDs is provided on page 38.

## Copy and Compare

The copy and compare (**copy +comp**) operation mode is used for data CDs. This operation makes copies (as described in the **copy** operation above) and then compares the copies to the master source (the hard disk image or the master CD). When you use this operation mode, the discs that have been successfully duplicated will be temporarily ejected and then automatically re-inserted for the compare operation. Discs that experience successful compare operations will be ejected automatically after comparison. The failed CD discs will remain in the CD writers. Press the **STATUS** button to eject the failed discs (if any).

To copy and compare using the CD to CD mode:

Ensure that the setup sub-functions are correct; i.e., make sure of the following:

- CD to CD is set to Yes
- Write method is set to Trk At Once
- CD and G is set to Yes
- All other sub-function settings are set to their default settings

Place the master CD in the CD reader (top CD drive).

Place blank CD(s) in the CD writer(s) drives. The system will automatically analyze the master CD, display the number of megabytes, and display the total time of the CD (in minutes and seconds).

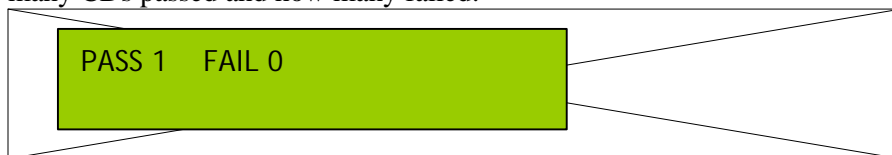
When you are copying and comparing any less than seven CDs, you must press the **START** button at the prompt, **start>**, where n is the number of CD drives that have blank CDs ready for copying.

When you fill all six of the CD writers, the copy and compare operation starts automatically.

As the system performs the copy operation, it will display **L** and **C** status codes, where **L** represents the number of minutes read, and **C** represents the number of minutes written. When they both equal the total number of minutes of the CD, then the copy operation is complete.

The discs that have been successfully copied will be temporarily ejected, and then automatically re-inserted for the compare operation. Again, the **L** status code represents the number of minutes read from the master, and the **C** represents the number of minutes compared.

When the copy and compare operation is complete, you will hear a three-tone beep, the successful copies will be automatically ejected, and the LCD display panel will indicate how many CDs passed and how many failed:



If for any reason the system does not start the analysis process, check the master CD for its integrity.

## Emulate

The **emulate** operation is used to test both the master CD and the image in the specified hard drive partition. It is a rarely-used operation, but is useful to test the system after it has been transported and set up. This operation “emulates” a copy operation. Blank discs and source disc information must be in place (either on a CD or in the selected partition of the hard drive) and the system will act as if it is copying but nothing will be actually copied.

## Load

The **load** operation is used to copy a master CD or DVD into a partition on the hard drive. A procedure describing how to load a CD is provided starting on page 11. A procedure describing how to load a DVD is provided starting on page 35.

## Compare

The **compare** operation is to be used with Data CDs only. It enables you to confirm that the data on the master CD matches that of the copied CD.

## Verify

The **verify** operation is to be used with audio and video CDs. It enables you to confirm that the data on the master CD is OK for copying – either to a partition on the hard disk or to another CD.

## External

The **external** operation is not used. It exists for future enhancements to the system involving an external hard drive.

## Sub-Function Details

To access the Sub-Function menu:

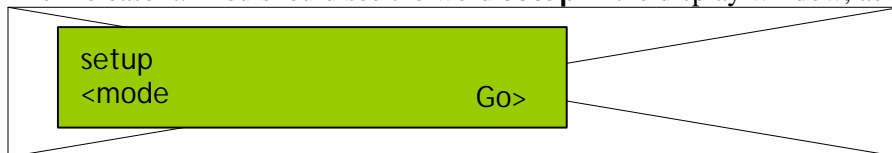
- From the operation mode (**copy**, **load**, **compare**, etc.), press and hold the **STATUS** button until it chirps. Release it. You should see **setup** in the LCD display. When **setup** is displayed, press the **START** button. (If the last operation you did was copying CD to CD, then the first option in the Sub-Functions list, **hdd partition**, will not appear until you change the **CD to CD** option to **No**.)
- If **setup** is already displayed in the LCD panel, then press the **START** button.

The Sub-Function menu includes the following sub-functions. Each sub-function is described in detail in this section:

Sub-Function	Page
show drives	51
CD to CD	54
hdd partition (appears when CD to CD is set to NO)	52
start writers	55
write method	56
write speed	57
cdrom drive	58
autoloader	59
load nonblank disc	60
cdda load speed	61
eject disk	61
buzzer	63
CD+G	64
copycomp eject	65
read cdda index0	66
skip read error	67
mode 2 compare	68
startup command	69

## Setup

To view the **setup** option, turn on the system. The system always displays an operation mode (e.g., **copy**, **load**, **emulate**, etc.) at system startup. Press the **STATUS** button until it chirps. Then release it. You should see the word **setup** in the display window, as shown below:



The **setup** option functions as a source for two menu lists:

- Sub-Functions, and
- Other System Capabilities.

Pressing the **START** button when setup is displayed leads the user into the list of sub-function options.

Pressing the **STATUS** button when setup is displayed leads the user into the list of “Other System Capabilities,” (These are described starting on page 69.)

Press the **START** button to proceed through the list of sub-functions.

Notes:

- If the **CD to CD** option is set to **Yes**, then the **hdd partition** option will *not* be viewable until the **CD to CD** option is reset to **No**.
- If the **CD to CD** option is set to **No**, then the **hdd partition** option will appear before the **CD to CD** option in the list of sub-functions.

With **setup** displayed in the LCD display panel, press and hold the **STATUS** button to return to viewing an operation mode.

## Show Drives

This is not a setting as much as it is an information list, showing the types of drives in the system. The hard drive is a 40 Gigabyte SEAGATE. The DVD-RW drives are PIONEER drives. Pressing the **STATUS** button shows each name of the drive as identified in the options list below.

### Drives in the Talon Pro DVD/CD Duplicator:

SEAGATE	ST340016A	ATA1.0	
PIONEER	DVD-RW DVR-	ATA2.0	1.20
PIONEER	DVD-RW DVR-	ATA3.0	1.20
PIONEER	DVD-RW DVR-	ATA4.0	1.20
PIONEER	DVD-RW DVR-	ATA5.0	1.20
PIONEER	DVD-RW DVR-	ATA6.0	1.20
PIONEER	DVD-RW DVR-	ATA7.0	1.20
PIONEER	DVD-RW DVR-	ATA8.0	1.20

## HDD Partition

To view the **hdd partition** sub-function, you may have to cycle through the sub-function list to change the **CD to CD** sub-function to **No**, thus enabling the **hdd partition** sub-function to appear. Begin by making sure you are viewing the **setup** sub-function. Then press the **START** button. You should see:

A screenshot of a green rectangular display window. The text inside the window is arranged as follows: the first line contains "hdd partition", the second line contains "[\*] A", and the third line contains "[Q]".

```
hdd partition
[*] A
[Q]
```

The **hdd partition** sub-function enables you to select the hard disk partition that you intend to use (for loading a CD or DVD into, or for copying loaded information from). To select one of the 7 available partitions, press the **STATUS** button. Note that the hard disk partition selection changes each time you press the **STATUS** button, cycling through the alphabet from **A** to **G**. Familiarize yourself with this partition selection process by pressing the **STATUS** button until you return to viewing partition **A** in the display window (as shown above). When you turn the system off, the system will remember the partition last selected and that partition will be the active partition when you restart the system. You must remember to always check that you are copying to or from the correct partition when you use the load or copy operation mode.

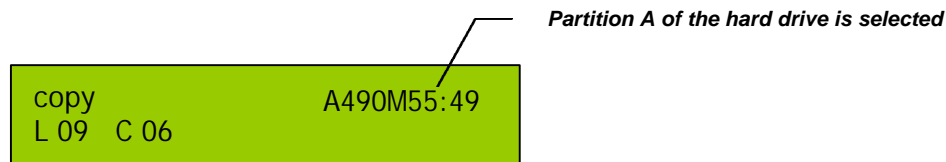
## About the Hard Drive Partitions

The hard drive in the Talon Pro, Seven-Drive DVD/CD Duplicator system contains 7 partitions. Each partition can store 5 Gigabytes of data. Therefore, you can load as many as 7 DVDs or CDs into the hard drive. And you can duplicate the information that is in a particular partition onto seven CDs or DVDs at a time.

Hard Drive Partition	Label
1	A
2	B
3	C
4	D
5	E
6	F
7	G

Before you load a CD or a DVD into a partition, or set up to duplicate CDs or DVDs from information stored in a partition, you must first select the hard drive partition. The selected hard drive partition is shown in the display.

In the following example, information stored in partition **A** is being copied onto one or more CDs:



Note in the above example that partition **A** contains 490 Megabytes of information totally 55 minutes and 49 seconds. The rest of the displayed information indicates that 9 minutes of information have been read and 6 minutes of information have been copied onto the CD(s).

### Options:

Partitions A to G (The default setting is A.)

Once you've selected a partition, press the **START** button to review the settings for the next sub-function.

## CD to CD

This sub-function enables you to specify whether or not the material to be copied is coming straight from a master CD or DVD (CD to CD = Yes) or from a partition on the hard drive to which a CD or DVD has already been “loaded.”



If you were to press the **STATUS** button, you could change the CD to CD sub-function from No to Yes. When its setting is No, then the system will assume you are copying from the selected partition on the hard disk. If you change this sub-function item to Yes, then the system will assume you are using the first CD/DVD drive as the CD/DVD Reader, and that you are copying from the original CD or DVD.

Options:

No (default)

Yes

Press the **START** button to display the next sub-function in the list.

## Start Writers

This item indicates the number of CD/DVD writers that are enabled and ready for use. The default setting is 7 or 4. In most cases it will not be necessary to change this setting. But if you want to de-activate any number of writers you can use the SETUP button to change this setting to any number ranging from 0 to 7.



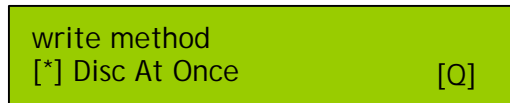
### Options:

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7 (default)

## Write Method

There are two settings for the write method option:  
Disc At Once, and Track At Once.

Disc at Once is most often used for CD/DVD duplication, so this is the default setting. Track At Once is never used in this system.

A screenshot of a software interface showing a menu for the write method. The menu is titled "write method" and has two options: "[\*] Disc At Once" and "[Q]". The menu is highlighted with a yellow background.

```
write method
[*] Disc At Once           [Q]
```

### Options:

Trk At Once

Disc At Once (default)

## Write Speed

This setting controls the maximum writing speed of the CD/DVD writers. The default setting is MAX which will use the highest writing speed of the writers (16X for CD duplication and 4X for DVD duplication). For applications requiring a lower write speed, change this setting using the **STATUS** button to adjust the writing speed. The options are listed below.

```
write speed
[*] MAX                [Q]
```

### Options:

1  
2  
4  
6  
8  
10  
12  
16  
20  
24  
MAX (default)

## CDROM Drive

The CD-ROM (Reader) drive can be selected manually. The default setting is auto, which implies that the first drive (top drive) is automatically selected as the reader drive. This option is rarely changed, but if you wish to change the default reader drive to another drive other than the top, then press the **STATUS** button to select one of the options as listed below.

```
cdrom drive
[*] auto           [Q]
```

Options:

ATA2.0  
ATA3.0  
ATA4.0  
ATA5.0  
ATA6.0  
ATA7.0  
ATA8.0  
Auto (default)

## Autoloader

This option is not used in the Talon Pro DVD/CD Duplicator system.

```
autoloader
[*] No [Q]
```

### Options:

CDF4800

classic

No (default)

## Load Non-blank disc

The **load nonblank disc** option is not used by the Talon Pro DVD/CD Duplicator system.

```
load nonblank disc
[*] No [Q]
```

Options:

Yes

No (default)

## CD DA Load Speed

A CD DA (Compact Disc - Digital Audio) disc contains tracks with audio sectors only. You can use the cdda load speed sub-function to set the load speed (the speed at which the digital audio data is read from the master CD to a partition on the hard drive). The default setting for this sub-function is Auto, which is 40X.

```
cdda load speed  
[*] Auto [Q]
```

### Options:

Auto (default)

x1

x2

x4

x8

## Eject Disc

The **eject disc** sub-function controls the ejection of the discs by the CD/DVD writers. Three options are available by pressing the **STATUS** button:

- **Always** means the CD/DVD writers will always eject the CD/DVD discs whether the duplication is successful or not.
- **No** means all discs will remain in the CD/DVD writers when the job is done. You will then need to eject the disks from the CD/DVD writers manually.
- The **Pass** setting, which is the default setting, will eject only the successfully duplicated discs and leave the failed discs in the CD/DVD writers. You must press the **STATUS** button to eject the failed CDs/DVDs.



Options:

Pass (default)

Always

No

## Buzzer

The **Buzzer** sub-function is not used in the Talon Pro DVD/CD Duplicator system.

buzzer [*] On [Q]
----------------------

Options:

On (default)

Off

## CD+G ( May or May Not Be Supported In Your System )

The **CD+G** sub-function, CD+Graphics, is set to **No** as the default. However, if you are copying audio, text and graphics used in the same application, then you will want to use the **STATUS** button to change this setting to **Yes**. This type of disc is usually used for Karaoke machines.



Options:

No (default)

Yes

## Copycomp Eject

The **copycomp eject** sub-function controls the ejection of the CD writers when the Copy and Compare operating mode is selected.

If the setting is **Yes**, the drawers will eject the recorded disks after duplicating. The system will automatically re-insert the same discs again for subsequent comparison.

If the setting is **No**, the writers will not be ejected between the copy and compare operations.

The default setting is **Auto**, which means the ejection of the writers will take place after the initial duplication.

Use the **STATUS** button to change this setting.

```
copycomp eject
[*] Auto           [Q]
```

Options:

Auto

Yes

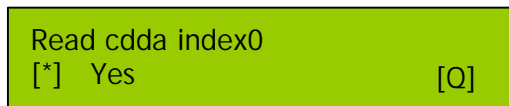
No

## Read CD DA Index 0

CD DA stands for Compact Disc-Digital Audio. A CD-DA disc contains tracks with audio sectors only (what we normally think of as a music CD). In CD-ROM, indexing involves assigning searchable 'addresses' within a track--which can be up to 99. Index 0 contains information about the tracks on the CD.

If your master CD has index markers, you must set this option to **Yes** in order to copy the markers.

Use the **STATUS** button to change this setting.



Options:

Yes (default)

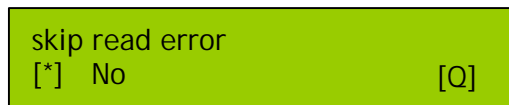
No

## Skip Read Error

In most cases you will not need to change the **skip read error** sub-function setting.

This setting controls error skipping during source reading. The default setting is **No**. When an error is detected during the load or read-in process, the duplicator will stop and display a “Read Error” message.

If the setting is changed to **Yes** (using the **STATUS** button); an error message will not be displayed even if there is an error in the reading. You can use this setting to copy source CDs with errors.



Options:

No (default)

Yes

## Mode 2 Compare

Under the ISO 9660 standard, a CD-ROM sector can be Mode 1 or Mode 2.

Mode 1 allocates 2048 bytes for user data, plus a third layer of error detection and error correction codes. This is the Mode that provides the highest integrity for computer data.

Mode 2 allocates 2336 bytes for user data, and no third layer of error detection and error correction. This mode is considered appropriate for segments of music, graphics and video, especially in CD-ROM-XA and CD-I implementations.

If you want to verify that the information on the master CD matches that on the copy, then set this sub-function to **Yes**, and the system will compare the two. The default for this sub-function is **No**.

```
mode 2 compare
[*] No [Q]
```

Options:

No (default)

Yes

## Startup Command

You can set the system up so that the startup operation mode is always the same. In most cases, users will want **copy** as the startup command. However, you may set the system to start with any of the operations listed as options below.

```
startup command  
[*] copy [Q]
```

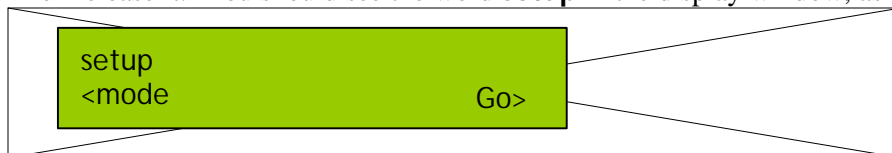
### Options:

copy  
copy+comp  
emulate  
load  
compare  
format  
test  
quick erase  
full erase  
verify  
external

## Other System Capabilities

### Setup

To view the **setup** option, turn on the system. The system always displays an operation mode (e.g., **copy**, **load**, **emulate**, etc.) at system startup. Press the **STATUS** button until it chirps. Then release it. You should see the word **setup** in the display window, as shown below:



The **setup** option functions as a source for two menu lists:

- Sub-Functions, and
- Other System Capabilities.

With **setup** displayed in the LCD panel, press the **STATUS** button to view the menu list of Other System Capabilities:

### Edit

The edit function enables you combine tracks from different CDs onto one single CD. Refer to page 16 for a detailed procedure that describes how to use this function.

### Delete

When the last music track stored in the partition on the hard drive is not the one you wish to keep, you can use the delete function to delete the last track.

### Clear

Before you put selected tracks in a partition of the hard drive, you must first clear the partition using the clear function. This process is described in the procedure starting on page 16.

**Copy x1**

**Emulate x1**

**Copy x2**

**Emulate x2**

**Copy x4**

**Emulate x4**

**Copy x8**

**Emulate x8**

Under some conditions, you may wish to reduce the writing speed of the CD writers. Switch to any of these copy or emulate speeds and the writing speed of the system will be adjusted accordingly

### **Burn In**

This function is used by the system developer to test the system. General users are to ignore this function.

### **Update**

This function is used by system developers to update the firmware of the system. General users are to ignore this function unless instructed to do so by service personnel.

When **setup** appears in the LCD display panel, press and hold the **STATUS** button to return to an operation mode.

*This page intentionally left blank.*

## Glossary

<b>CD</b>	Short for compact disc, an optical disc storage format developed by Philips and Sony.
<b>CD Duplication</b>	The process of making one or more copies of a compact disc.
<b>CD+G</b>	CD+Graphics. Audio, text and graphics used in the same application. This type of disc is usually used for Karaoke machines.
<b>CD-DA</b>	Compact Disc-Digital Audio. A CD-DA disc contains tracks with audio sectors only. In 1982 Philips and Sony introduced the necessary technology for storing digital audio signals on a compact disc, and introduced the CD-Digital Audio.
<b>CD-R [Disc]</b>	An acronym for compact disc-recordable which is a type of media that allows you to record information using a CD Recorder.
<b>CD-Recordable</b>	CD-Recordable technology allows production of CD-ROMs on the desktop ('one-offs'). It requires a PC, a CD-R recorder or drive, appropriate software, and 'recordable' media. The reduction of prices for this hardware and software, and their ease of use, has helped the growth of CD-ROM production in-house. The 'one-off' is very different from the mass-reproduced or 'hot-pressed' CDs. It is sold pre-grooved, in 63 or 74 minute capacities, and it involves a layered structure--with a sensitive chemical recording layer, and almost always with a gold reflective layer. Once recorded, the CD-R disc (one-off) performs in the same way as the mass-reproduced CDs.
<b>CD-ROM</b>	Compact Disc-Read Only Memory. A standard for compact disc to be used as a digital memory medium for personal computers. The specifications for CD-ROM were first defined in the Yellow Book.
<b>CD-ROM Disc</b>	A CD-ROM disc contains only data sectors as defined in the Yellow Book.
<b>CD-ROM Drive</b>	A peripheral device attached to a computer which allows it to read/play a CD-ROM disc. All CD-ROM players can also play back audio CDs, but you need external headphones or speakers to hear them.

- Compact Disc** CD stands for compact disc which is a general term for all formats of CD media. CD formats available on the market now include CD Audio, CD-ROM, CD-ROMXA, Video CD, CD-I and others.
- Compact Disc Formats** During the last two decades several Compact Disc formats were developed to serve different purposes and uses. Starting with the CD-DA format in 1980, as a way to distribute high quality music in a compact and convenient format, the first compact disc standard was formulated. Then, the idea of storing computer data on the same media, more than 10 years ago, lead to a new format: the CD-ROM (along with CD). In the last few years, the desire to store a whole new generation of multimedia contents(audio, video, games, pictures etc.) demanded new formats: CD-I,CD-XA, Photo-CD, Video-CD, CD+ etc. were invented.
- Digital Audio** Although digital audio can have a variety of sampling rates and quantization, the Red Book specifies CD-Digital Audio as being sampled at 44.1KHz, and quantized at 16 bits/sample, for high quality stereo sound (65,536 values).Therefore, sound of different quality, even if it is placed in a CD, is not Red Book Digital Audio.
- Digital Audio Extraction (DAE)** The process of copying CD-DA audio tracks digitally from your CD-writer or another CD-ROM drive, to a hard disk or to a recordable CD. Not all CD-ROM drives support this.
- Disc Read Head--Disc Write Head** Storage drives (magnetic and optical) have a head or heads that float over the recorded area to read and write. Obviously, CD-ROM drives have only a read head, which involves a low-intensity red laser diode (a.k.a. infrared laser diode), lenses that focus the laser on the track, and others that redirect the reflections to one of the photodiodes for appropriate decoding. Some Write-Once and Rewritable optical drives involve two heads (to write and read), while other drives, including CD-Recordable, use only one head to do both--using a high-intensity blue argon laser for the write function. For mass replication of CD-Audio, CD-ROM, and DVDs, the glass master is produced by encoders that have special recording heads.
- Disc-At-Once (DAO)** A method of writing in which one or more tracks are written in a single operation. The laser will not stop until the whole disc recording is finished and the disc is closed - hence no clicks between audio tracks. Disc-at-Once has only been available with the recent generation of CD recorders and recent firmware upgrades.

<b>Disk Sector</b>	In magnetic disks, formatting provides a geography of the platters; which are divided into concentric circles, and these circles are further subdivided into sectors. Although sectors vary in size depending on their position in the disk, they have a specific capacity in bytes. This sectorized framework is found in constant angular velocity (CAV) drives, and is compatible with the FAT used in PCs. When discussing optical discs, 'sector' is used to refer to discrete amounts of data with a specific layout or structure along the single spiral track.
<b>Emulate</b>	To test the function of a disc on a computer after formatting a complete disc image.
<b>Enhanced CD</b>	A general term for various techniques that add computer software to a music CD, producing a disc which can be played in a music player or read by a computer. Also called CD Extra, CD Plus, hybrid CD, interactive music CD, mixed-mode CD, pre-gap CD, or track-zero CD.
<b>Hard Drives</b>	Originally known as Winchester drives, these magnetic storage devices have one or more non-removable solid platters--as opposed to the floppy-disk drives. Hard drives come in various types, different capacities and configurations--and are connected to the bus through a controller or interface card. There are removable hard drives, which allow removal of the component that contains the platters--a workable option for users with security concerns.
<b>HDCD</b>	High-definition Compatible Digital. A proprietary method of enhancing audio on CDs.
<b>Hz</b>	Hertz. A unit of frequency measurement. The number of cycles (repetitions) per second.
<b>Jewel Box/Case</b>	The plastic clamshell case that holds a CD for shipping or for storage.
<b>Karaoke</b>	Literally, empty orchestra. The social sensation from Japan where people sing along to a music track. Karaoke was largely responsible for the success of laserdisc in Japan, thus supporting it elsewhere.
<b>Master</b>	The metal disc used to stamp replicas of optical discs. The tape used to make additional recordings.
<b>Mastering</b>	Technically, refers to the process of creating a glass master from which compact discs will be reproduced in quantity. In desktop recordable CD systems, mastering is done together with premastering by the desktop CD recorder, and the term is generally used to mean "recording."

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<b>Mode</b>	<p>Under the ISO 9660, a CD-ROM sector can be Mode 1 or Mode 2.</p> <p>Mode 1 allocates 2048 bytes for user data, plus a third layer of error detection and error correction codes. This is the Mode that provides the highest integrity for computer data.</p> <p>Mode 2 allocates 2336 bytes for user data, and no third layer of error detection and error correction. This mode is considered appropriate for segments of music, graphics and video, especially in CD-ROM-XA and CD-I implementations.</p>
<b>Multimedia</b>	<p>Information in more than one form, such as text, still images, sound, animation, and video. Usually implies that the information is presented by a computer.</p>
<b>Protective Coating</b>	<p>Optical discs are given a clear plastic or lacquer coat that protects the metallic layer. Even with this coating, small scratches, pressure, dirt and other markings can make the disc unreadable. The coating also prevents air from reaching and oxidizing the metallized layer--which would render the disc unreadable</p>
<b>Track-At-Once</b>	<p>With Track-at-Once writing mode, a CD-Recorder will record one track at a time. In between every two tracks (unless you are only recording a single track). The CD-Recorder laser will stop while the hard disc prepared for the contents of the next track. Each time the laser is stopped, it writes Run-Out blocks. When starting again, it writes Run-In blocks (a total of 7 blocks). These are ignored by CD-ROM readers and so do not disturb data transmission, but in some audio players you might hear a click between tracks. This is why disc-at-Once recording is preferable for audio discs.</p>
<b>Wave</b>	<p>A Wave file (.WAV) is a type of sound file which stores digitized analog signals.</p>
<b>Yellow Book</b>	<p>The book which sets out the standard developed by Philips and Sony for the physical format of compact discs to be used for information storage (CD-ROM).</p>

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