

Condre

CD Tracer Duplicator
User Guide

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Chapter 2

Chapter 1 Introduction

Introducing the CD Tracer

The CD Tracer system enables you to copy multiple CDs at once at 32X to 48X speed.

Features

- 32X to 48X recording speed
- Disc At Once support for audio
- Support for multiple CD formats, including:
 - CD+G (compact disc and graphics)
 - Karaoke
- Multiple industrial fans for cooling
- Audio track extraction for music disc compilation



System Specifications (7 drive tower)

Dimensions:	17"High, 7"Wide, 18"Deep
Weight:	41 lbs.
Power:	Universal Power Supply (300 watt)
Duplication Speeds:	40X recording speed (3-7 drives) with internal hard drive (140 discs per hour with normal application at max configuration)
CD Formats	Support for multiple CD formats (including CD+G, Karaoke)
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 CD Tracer system 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 CD Tracer system 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 CD Tracer system 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. Condre is not responsible for damages to data or related content by the CD Tracer system.

NOTE: There is no need to fill out a warranty card as Condre keeps track of all Duplicators by the serial number of the unit in a database.

Note: Condre 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 CD Tracer, contact Condre Technical Support at **952.253.6841**

Chapter 2 Getting Started

Turning on the System

Plug the AC cord into the CD Tracer system 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 CD writer 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 (e.g. **copy**, **emulate**, etc.)



If **copy** is not displayed in the LCD Panel Display, press the **Mode** button to cycle through the list of operation modes (**copy**, **copy+comp**, **emulate**, **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 3).

For Best Performance

All master CDs must be 40X quality. Use Condre Branded Bulk Media (CDs recommended for best performance), which are available in 300-disc cartons. Please consult the dealer where you purchased your unit for the recommended media.

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 CD Tracer 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 up to seven CDs at a time, etc., once you have learned a few of the basic procedures.

Select "Copy"

1. Turn on the system. Note the mode of operation in the LCD display area for (A553M62:57). If **copy** is not already displayed as the current mode, press the **Mode** button until **copy** is displayed. Your LCD display should look something like this:



Access the

2. Press and hold the Mode button until you hear the system "chirp." Then press the **Mode** button again. You should see **setup** displayed in the LCD



Back to

3. Press the Go button, and note that the **copy** mode is once again displayed. (Note: all other sub-function defaults will be used, so you do not need to change any other sub-function options at this time.)



Insert the Master CD

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

Copying an Audio CD (continued)

Insert a Blank CD

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

System

copy
<mode
Operation

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

448M51:01
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 Go button.

Begin the Copy

PASS 1 FAIL 0
L 51 C51

6. Press the Go button. The system will start the copying process. Note that the LCD panel shows **L** and **C** status codes. These indicate how many sectors 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:

Remove the Duplicated CD

7. 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.

Remove the Duplicated CD

8. 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.

Copying an Audio CD (continued)

Display the LCD screen. Press and hold the **Mode** button until it “chirps” then release. The LCD will display the following information: **copy**, **448M51:01**, and **<mode**. The LCD will enter operation mode once again. For example:

Remove the Master CD

10. 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 **Go** button.

Make Multiple Copies at Once from a Master CD

Overview

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

Select "Copy" for Mode

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

```
copy
<mod
```

Access the Setup Mode

2. Press and hold the Mode button until you hear the system "chirp." Then release the button. You should see **setup** displayed in the LCD display area.

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

Set the Start Writers

3. Press the Go button and view the **start writers** sub-function. The LCD display shows the number of writers in the system. Press the Mode button as many times as necessary to display the number for the number of writers you want to use. This ensures that all CD writers are available for making copies:

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

Display "Setup" in LCD panel

4. Press the Go button as many times as is necessary to cycle through all of the sub-functions until you display **setup** in the LCD Display area.

```
setup
<mode          Go>
```


Making Multiple Copies from a Master Audio CD (continued)**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 multiple 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 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 the number of drives in your system, you must press the **GO** button to begin the duplication process. (It starts automatically when you fill all blank CD trays.)

Make Multiple Copies at Once from a Master CD (continued)

**Place Blank
CDs in the
Drives**

1. Place a blank CD in each of the CD writers. 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 of the 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.

PASS 7 FAIL 0

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

**Remove the
Master CD**

11. 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.

**Note the
In
O
Mode**

copy
<mod

1. Turn on the system. Note the mode of operation in the LCD display area (copy). Your LCD display should look something like

**Access the
St
M**

setup
<mod
Go>

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

Copying Karaoke CDs

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, emulate**, etc.).

Access the Setup Mode

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



Change the CD to CD Setting to “Yes”

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



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

Copying Karaoke CDs (continued)

Back to "Mode" 4. Press the **Go** button, and note that the default operation mode is once. For example below the default operation mode is

```
copy
<mode
```

Access the Setup Menu 5. Press and hold the **Mode** button until you hear the system "chirp." Then release the button. You should see **setup** displayed in the LCD

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

Change the Write Speed Setting to "Disc At Once" 6. Press the **Go** button until you view the **write method** option:

```
write method
[*] Disc At Once    [0]
```

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

Change the CD Function Setting to "Yes" 7. Press the **Go** button until you view the **CD and G** option:

```
CD+G
[*] No             [0]
```

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

```
CD+G
[*] Yes           [0]
```

Accept all of Factory Defaults 9. Press the **Go** button until you view the **setup** option:

```
setup
<mode          Go>
```

Copying Karaoke CDs (continued)

Back to the
O
M

10. Press and hold the **Mode** button until it “chirps.” Then release the **Mode** button. The default operation mode is displayed. If not already in copy mode, press the **Mode** 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

Once you’ve placed the CDs in their respective drawers, you will hear the system automatically scan the master CD to determine 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 M**egabytes, 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 Go button.

Begin the
C

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

13. Press the **Go** button. The system will begin the copying process. Note that the LCD panel displays **L** and **C** status codes. These indicate how many CDs 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:

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
O copy
M <mode**



15. Press and hold the Mode button until it “chirps” then release. The LCD operation mode once again. For example:

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 go 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 Setup Mode

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

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

Change the CD to CD Setting to “Yes”

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

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

3. Press the Go button to change the setting from **No** to **Yes**:

Copying Data CDs (continued)

Back to "Copy" screen. 4. Press the Go button, and note that the default operation mode is once. For example below the default operation mode is

```
copy
<mode
```

Access the Setup Menu. 5. Press and hold the Mode button until you hear the system "chirp." Then release the button. You should see **setup** displayed in the LCD

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

Change the Write Method. 6. Press the Go button until you view the **write method** option:
Setting to "Disc At Once"

```
write method
[*] Disc At Once    [0]
```

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

Change the CD+G Function. 7. Press the Go button until you view the **CD and G** option:
Setting to "Yes"

```
CD+G
[*] No              [0]
```

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

```
CD+G
[*] Yes            [0]
```

Accept all Defaults. 9. Press the Go button until you view the **setup** option:

```
setup
<mode          Go>
```

Copying Data CDs (continued)

Back to the
O
M

10. Press and hold the **Mode** button until it “chirps.” Then release the **Mode** button until **copy** is displayed. If not already displayed, press the **Mode** 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

Once you’ve placed the CDs in their respective drawers, you will hear the system automatically scan the master CD to determine 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 M**egabytes, 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 Go button.

Begin the
C

13. Press the **Go** button. The system will start the copying process. Note that the LCD panel shows **L** and **C STATUS** codes. These indicate how many CDs 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
```

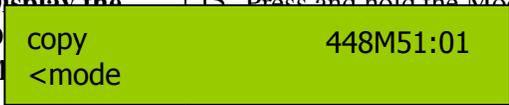
Copying Data CDs (continued)

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
O
M**



15. Press and hold the Mode button until it “chirps” then release. The LCD operation mode once again. For example:

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 Go button.

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 **Go** button advances you through the menu lists, and the **Mode** button changes the setting of an option.

Operation Modes

Copy
(press the **MODE** button for the next item in this list)

Copy and Compare
Emulate
Compare
Verify
External

Sub-Functions

Setup
(press the **GO** button for next sub-function, and press the **MODE** button change the setting)

Show drives
Start Writers
Write Method
Write Speed
CD-ROM drive
Autoloader
Load Nonblank
CDDA Load Speed
Eject Disk
Buzzer
CD+G
Copycomp Eject
Read CDDA Index0
Skip Read Error
Mode 2 Compare
Startup Command

Other System Capabilities

Setup
(press the **MODE** button for the next menu item of in this list)

Edit
Delete
Clear
Copy x1
Emulate x1
Copy x2
Emulate x2
Copy x4
Emulate x4
Copy x8
Emulate x8
Burn In
Update

Operation Mode Details

Copy

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

- Press and hold the Mode button until it “chirps.” Then, when **setup** appears, press the Go button to review each sub-function setting. Use the Mode button to change any sub-function setting.
- If you are copying audio and graphics or text, make sure the **CD+G** sub-function is set to **Yes**.
- Press the Go button until you can view the **setup** sub-function in the display panel. Then press and hold the Mode button until it “chirps” to return to the **copy** operation mode.

When copying from a master CD, place the master in the top CD drive and blank CDs in the remaining CD drives. The full procedure for copying an audio CD is provided starting on page 3. A full procedure for copying a Karaoke CD or any CD with text and/or graphics is provided starting on page 11.

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 Mode button to eject the failed discs (if any).

To copy and compare:

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

- 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 Go 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:



PASS 1 FAIL 0

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.

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, compare**, etc.), press and hold the **MODE** button until it chirps. Release it. You should see **setup** in the LCD display. When **setup** is displayed, press the **GO** button. If **setup** is already displayed in the LCD panel, then press the Go 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	24
start writers	25
write method	25
write speed	26
cdrom drive	26
autoloader	27
load nonblank disc	27
cdda load speed	27
eject disk	27
buzzer	28
CD+G	29
copycomp eject	29
read cdda index0	30
skip read error	30
mode 2 compare	31
startup command	31

Setup

To view the **setup** option, turn on the system. The system always displays an operation mode (e.g., **copy or emulate**, etc.) at system startup. Press the Mode 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 Go button when setup is displayed leads the user into the list of sub-function options.

Pressing the Mode button when setup is displayed leads the user into the list of “Other System Capabilities,” (These are described starting on page 31.)

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

With **setup** displayed in the LCD display panel, press and hold the Mode 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 CD drives are TEAC or Lite-On drives. Pressing the **MODE** button shows each name of the drive as identified in the options list below.

Drives in the Condre CD Duplicator System:

TEAC	CD-W540E	ATA2.0	1.0B
Lite-On	LTR2015		

If you were to press the Mode 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 drive as the CD Reader, and that you are copying from the original CD.

Options:

No (default)

Yes

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

Start Writers

This item indicates the number of CD writers that are enabled and ready for use. The default setting is 7. In most cases it will not be necessary to change this setting. But if you want to deactivate 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 duplication, so this is the default setting. Track At Once is never used in this system.



Options:

- Trk At Once
- Disc At Once (default)

Write Speed

This setting controls the maximum writing speed of the CD writers. The default setting is MAX which will use the highest writing speed of the writers (40X). For applications requiring a lower write speed, change this setting using the Mode 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
32
40
48 (newer models)
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 Mode 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 CD Tracer system.

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

Options:

CDF4800
classic
No (default)

Load Non-blank disc

The **load nonblank disc** option is not used by the CD Tracer Pro 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 writers. Three options are available by pressing the Mode button:

- **Always** means the CD writers will always eject the CD discs whether the duplication is successful or not.
- **No** means all discs will remain in the CD writers when the job is done. You will then need to eject the disks from the CD 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 writers. You must press the Mode button to eject the failed CDs.

```
eject disc
[*] Pass                [Q]
```

Options:

Pass (default)

Always

No

Buzzer

The **Buzzer** sub-function is not used in the CD Tracer Pro system.

```
buzzer
[*] On                [Q]
```

Options:

On (default)

Off

CD+G

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 Mode 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 Mode button to change this setting.



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 Mode button to change this setting.

```
Read cdda index0
[*] Yes [Q]
```

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 Mode 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.

```
skip read error
[*] No [Q]
```

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
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 Mode 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 Mode 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 **Error! Bookmark not defined.** 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 **Error! Bookmark not defined.**

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 Condre service personnel.

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

Glossary

CD	Short for compact disc, an optical disc storage format developed by Philips and Sony.
CD Duplication	The process of making one or more copies of a compact disc.
CD+G	CD+Graphics. Audio, text and graphics used in the same application. This type of disc is usually used for Karaoke machines.
CD-DA	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.
CD-R [Disc]	An acronym for compact disc-recordable which is a type of media that allows you to record information using a CD Recorder.
CD-Recordable	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.
CD-ROM	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.
CD-ROM Disc	A CD-ROM disc contains only data sectors as defined in the Yellow Book.
CD-ROM Drive	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 no clicks between audio tracks. Disc-at-Once has only been added/available with the recent generation of CD recorders and recent firmware upgrades.

Disk Sector	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 sectored 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.
Emulate	To test the function of a disc on a computer after formatting a complete disc image.
Enhanced CD	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.
HDCD	High-definition Compatible Digital. A proprietary method of enhancing audio on CDs.
Hz	Hertz. A unit of frequency measurement. The number of cycles (repetitions) per second.
Jewel Box/Case Karaoke	The plastic clamshell case that holds a CD for shipping or for storage. 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.
Master	The metal disc used to stamp replicas of optical discs. The tape used to make additional recordings.
Mastering	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."

Mode	<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>
Multimedia	<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>
Protective Coating	<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>
Track-At-Once	<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>
Wave	<p>A Wave file (.WAV) is a type of sound file which stores digitized analog signals.</p>
Yellow Book	<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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