

Z Y C O N T

Zycont User's Guide

www.zycont.com

Email: ventas@zycont.com

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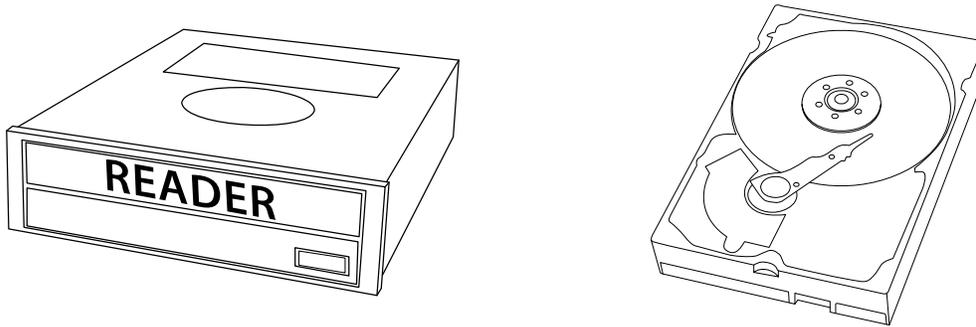
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Chapter 1: Installation

Additional Components Needed

Before you install the Zycont Duplication Controller into a duplication system, make sure you have following drives ready.



**Figure 1-1 ATAPI / IDE Disc ROM (Reader)
or ATA / IDE Hard Drive (Optional)**



Figure 1-2 ATAPI / IDE Disc R/RW/RE (Writer)

We recommend the following brands: Pioneer, NEC, Sony, Plextor, Asus, etc. (For stable duplication, ensure all writers have identical model names and firmware revisions).

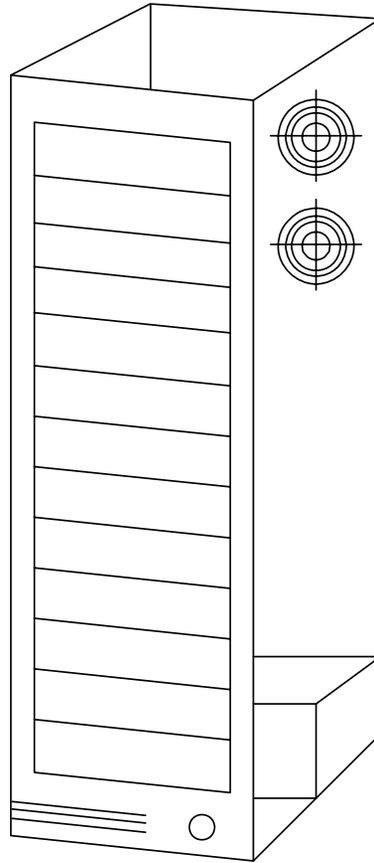


Figure 1-3 Suitable Tower Case with Power Supply

Make sure that your tower case has enough bays for all the drives. In addition, make sure the power supply is of sufficient wattage and reliable. Low-grade power supplies may cause the system to become unstable and cause severe damage to both the controller and all other devices.

Assembling / Installation

Preparing the Drives

Jumper Setting

Except as noted, the jumper settings for every drive should be set to Master mode.

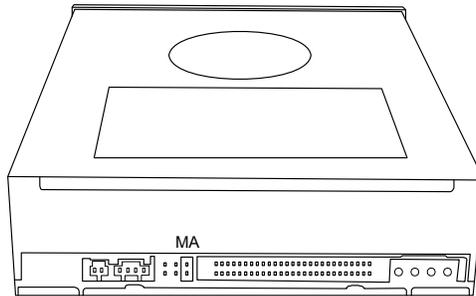


Figure 1-4 Jumper Setting to the MA / Master

The exception is when you connect both the reader and the hard drive to a single port via the same IDE cable. For this configuration, set the hard drive to Master1 and set the reader drive to Slave.

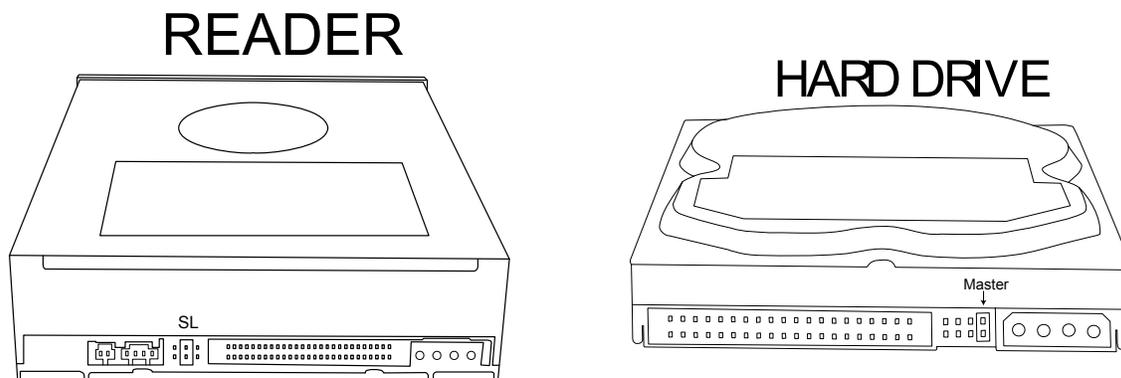


Figure 1-5 SL = Slave / MA = Master with Slave Present

1. Some drives (such as Western Digital and Hitachi) require a jumper setting of Master with a Slave present

IDE Cables

Prepare all IDE cables. One IDE cable is used for every drive. (If needed, the hard drive and the reader can share the same cable using a special three-connector IDE cable). IDE cables are provided in various lengths to suit different controller placements in a case.

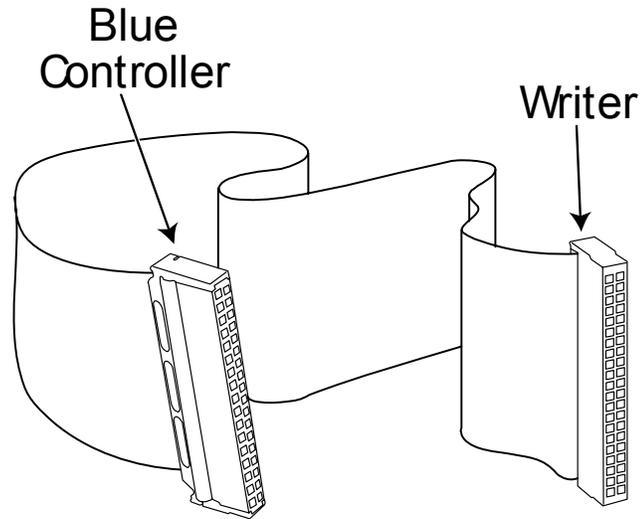


Figure 1-6 Regular IDE Cable

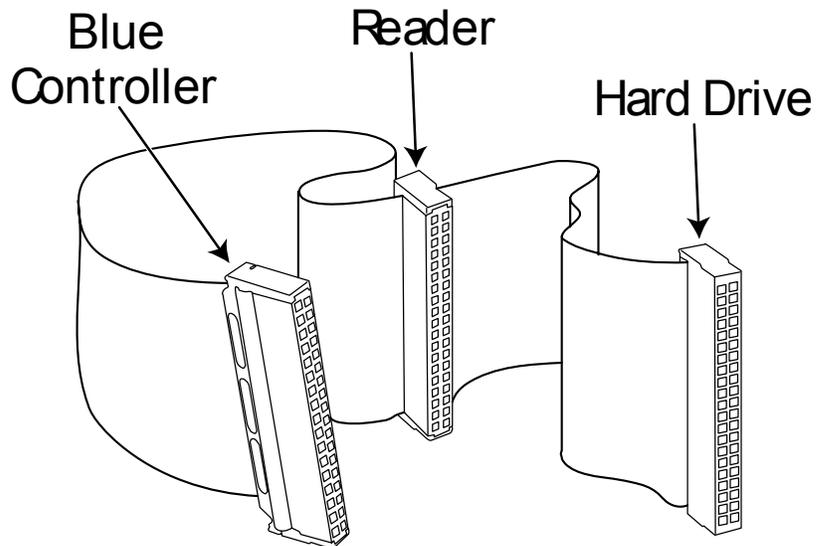


Figure 1-7 Special Three-Connection IDE Cable

Installation

Note: The following examples show how you can assemble the controller into an 11-drive Tower Case. Use a similar principle for other cases.

Mount all drives into a bay in the Tower Case. For ease of cable routing, the controller should be approximately centered in the case.

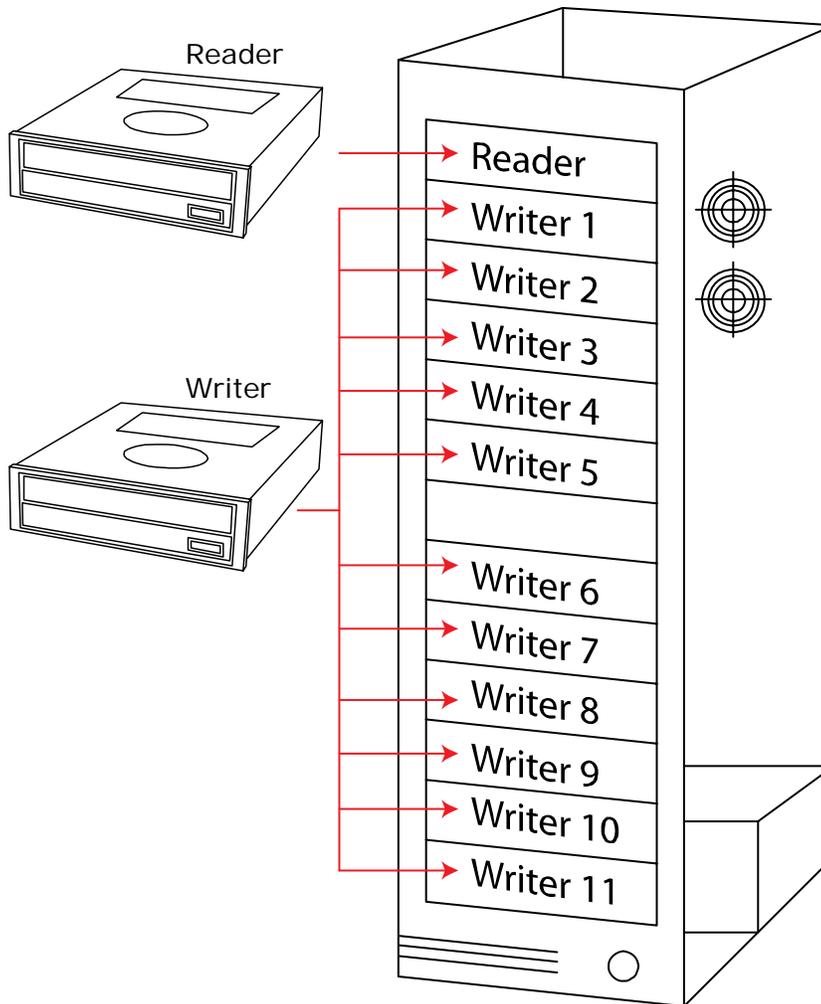


Figure 1-8 Controller installed in an 13-Drive Case

For all IDE cables, connect the blue-colored end of the IDE cable to the controllers as shown in “Controller Cabling” on page 7.

Note: IDE cables are provided in various lengths. Use them based upon the placement of the writer drive in the case.

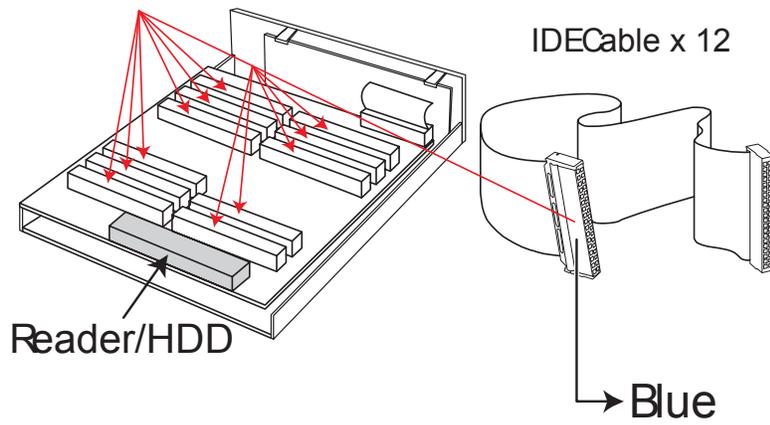


Figure 1-9 Controller Cabling

Insert the controller with the IDE cables connected into the corresponding bay in the Tower Case.

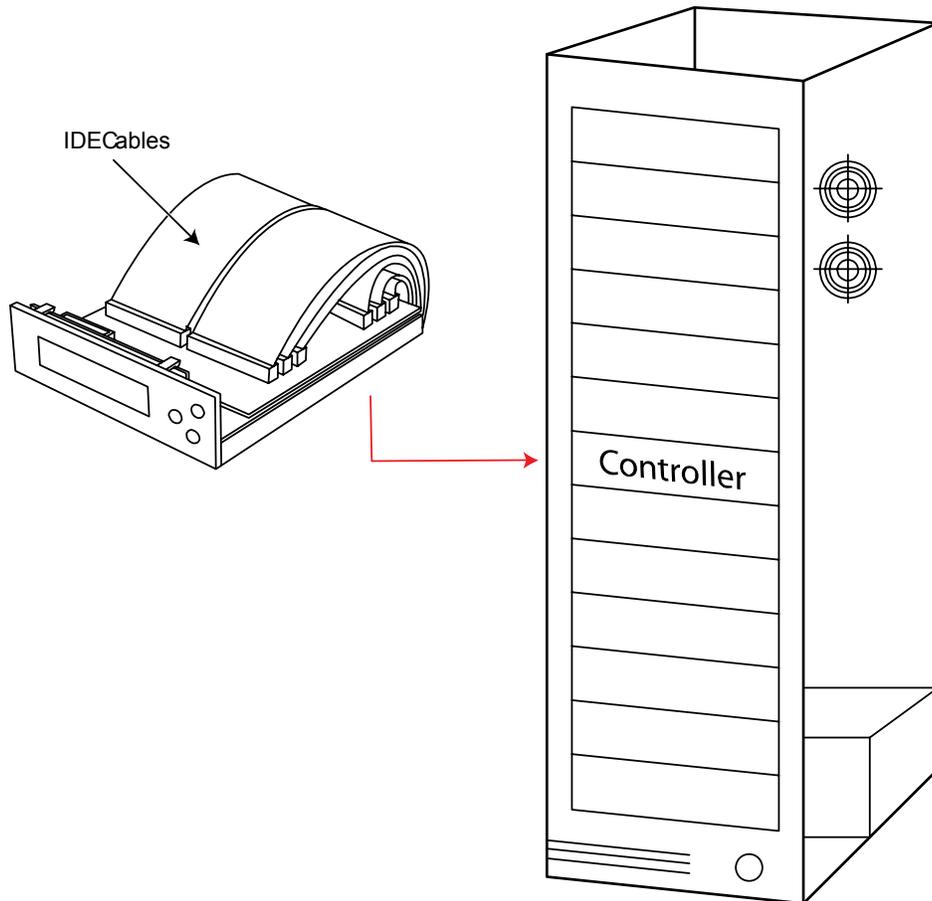


Figure 1-10 Controller Installed in a Case

Connect a loose black-colored end of the IDE cable to each of the drives.

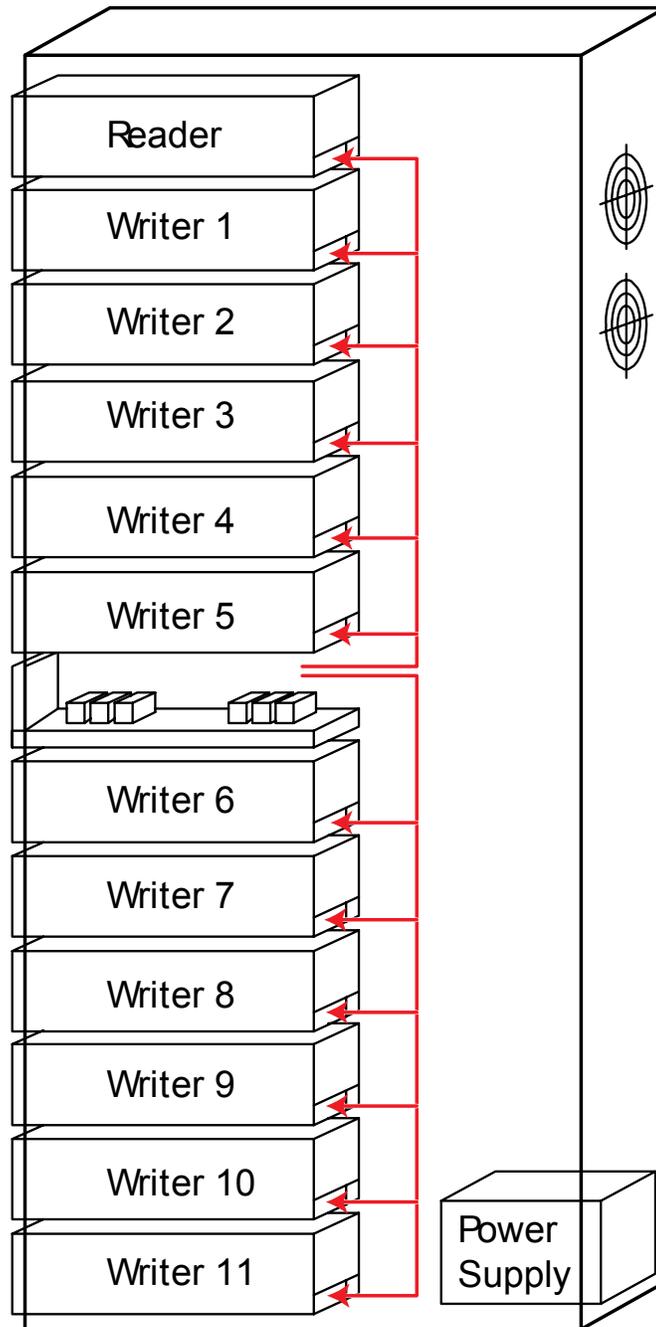


Figure 1-11 Controller IDE Cabling

Connect the power adaptor from the power supply to each drive, as well as the controller.

Warning: Ensure the power input is installed in the correct direction on the controller's power connector to avoid damaging the controller.

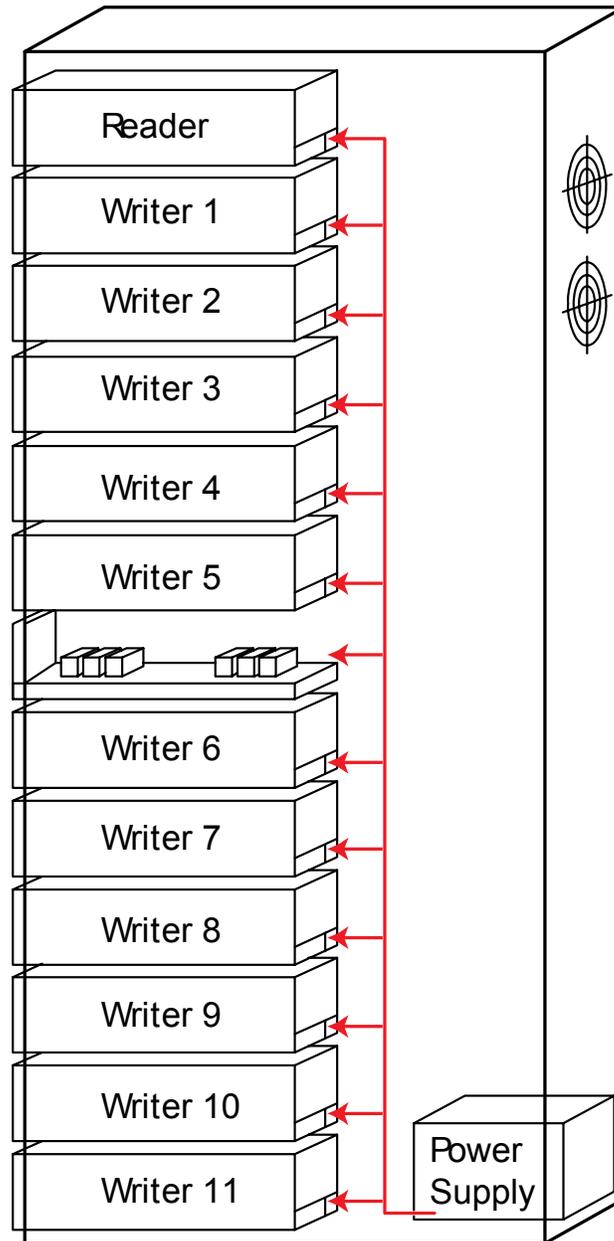


Figure 1-12 Controller Power Cabling

The installation is complete. Close the tower and install the case screws.

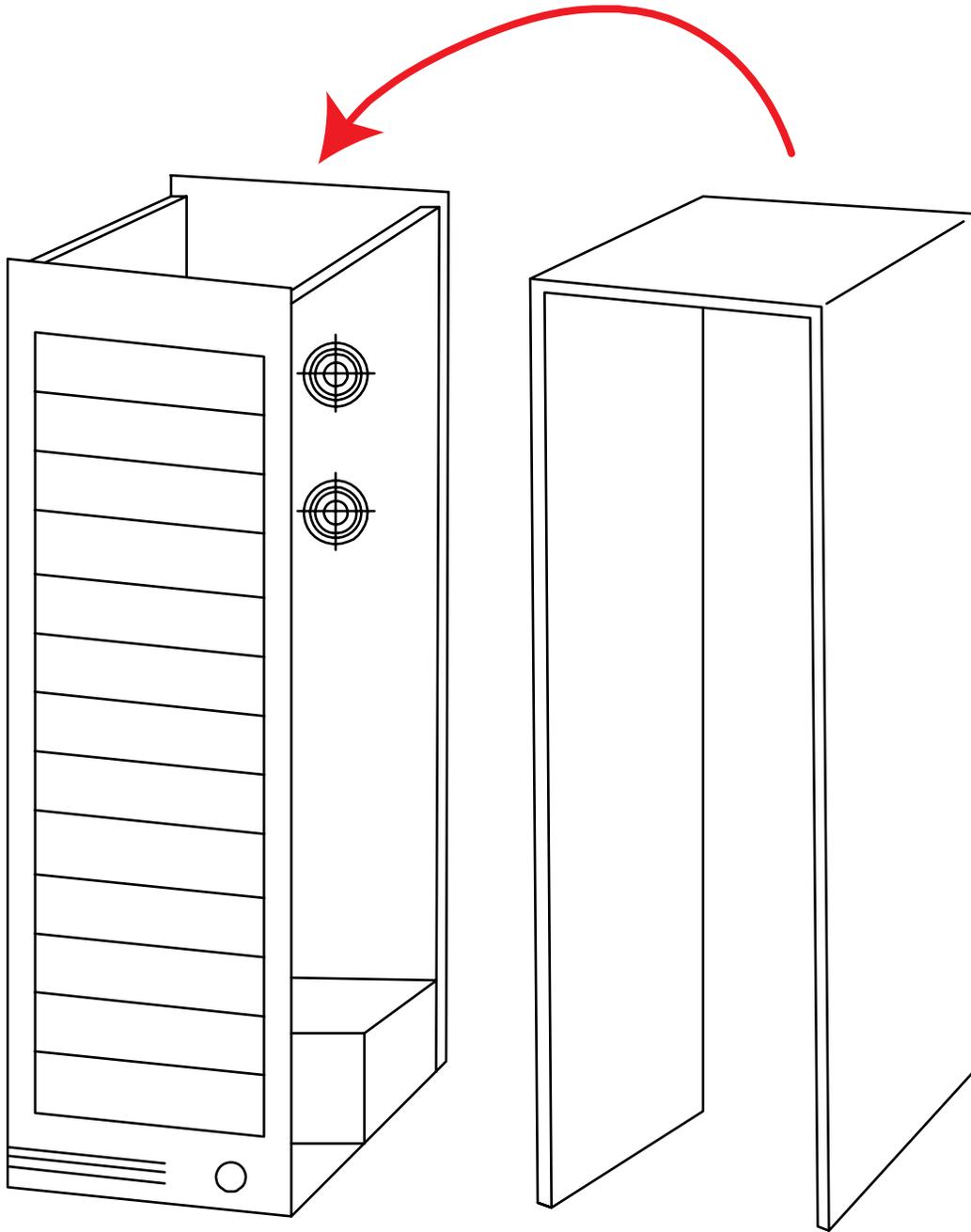


Figure 1-13 Closing the Case

Chapter 2: Operation

The ZYCONT controller is a reliable, high performance, high speed, standalone CD/DVD/Blu-Ray duplicator controller. It's professional industrial design and simple user interface will make your copying job easier than ever before.

Words and Terms

- **Reader:** The first tray from the top of your duplication system.
- **Writer:** All of the trays below the reader.

Limitations

The CD/DVD/BD* controller will not copy a copyright protected CD/DVD/BD. Normally, most discs purchased do have some kind of copy protections.

*BD: Blu-Ray

Display and Controls

Figure 2-1 shows the LCD front panel and the front panel controls.



Figure 2-1 LCD Front Panel

The LCD Display Panel displays the main functions and all messages.

Table 2-1 Front Panel Controls

Control	Name	Function
	Mode	Selection for the next function (Scrolls up though the menu)
	Back	Selection for the previous function (Scrolls down the previous menu)
	Go	Executes the function you selected

Tutorial Guide

Making Disc-to-Disc Copies

This process will copy a Master disc onto several blank discs simultaneously. Due to its simultaneous nature, a good condition Master disc and lower recording speed is necessary for both higher duplication success rates and good quality duplicates.

Turn on your duplication system. Once the controller has completed its self tests, you should see the following screen:

```
Copy
<mode
```

Step 1: Make sure the Master reading source is set to Reader. If your duplication system does not have a hard drive inside, skip to Step 2 on page 17.

Note: It is very important to make sure that your current Master Reading Source is the top tray in order to avoid unnecessary error Messages

a. To check the Master reading source, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should then see following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
CD to CD
[*] XXX                               [Q]
```

Where XXX is either *Yes* or *No*.

c. Press the <MODE> or <BACK> buttons repeatedly to set this option to *Yes* as shown in the following screen, and press the <GO> button to confirm.

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

d. You will then be guided back to the *Copy* menu. If not, press the <GO> button repeatedly until you see following screen:

```
Setup
<mode                                go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

Step 2: Start the Copy Process

a. Insert your Master disc and your blank discs into the corresponding tray(s). Allow 5 to 10 seconds for the controller to detect your Master disc and the blank discs. You should then see the following screen:

For DVD Duplication

```
Copy          4352MDVD
<mode        7start>
```

- 4352M indicates the capacity of the Master disc in the MB.
- 7 indicates the number of blank media it has detected

For CD Duplication

```
Copy          551M62 : 42
<mode        7start>
```

- 678M indicates the capacity of your CD in the unit of the MB.
- 77:13 indicates the capacity of your CD in the unit of audio playback time.
- 7 indicates the number of blank media it has detected

b. Once the number of blank discs you inserted matches the number of discs detected on the screen, press the <GO> button to confirm and you should see a Progress screen similar to the following:

```
Copy    0363/0551M    CD
Copy    4 : 38       10X
```

- The numbers in the top line indicate that 0551 MBytes (M) out of the total 0363M have been copied so far.
- The “CD” on the right-hand side indicates that the source media is a CD-ROM
- The numbers 4:38 in the center of the bottom line indicate the time since the copy operation started.
- The 10X indicates the copy speed.

Note: If the number of blank discs you inserted does not match the number of discs detected on the screen, wait 10-15 seconds for the controller to recognize all of your blank discs.

Note: By default, the duplication process will begin automatically if all of the writer trays are filled with blank media.

c. Once the duplication run is completed, you should see the following screen:

OK 3	NG 0	TOK 9
Copy	6 : 57	10X

- OK 3 indicates that there were three successful (OK) copies on this run.
- NG 0 indicates the number of copies that were No Good.
- TOK 9 indicates that you have nine successful copies total.

d. Your good copies will be ejected. Next, insert more blank discs to make more copies. Or, you can press the <MODE> button to go back to the *Copy* menu.

Note: Failed discs (bad copies) are not automatically ejected. You will need to manually eject them in order to continue.

Making Hard Drive-to-Disc Copies (for Duplication Systems with a HDD Installed)

Copying from the hard drive is the best way to make copies. There are four benefits to copying from the hard drive.

- **Performance**
Duplicating from the hard drive will boost the CD/DVD/BD duplication performance for duplication speeds of 16x or greater performance.
- **Stability**
Duplicating from the hard drive will stabilize the duplication process compared to disc-to-disc copies.
- **Durability**
The hard drive is a much better storage device than the recordable discs. The recordable discs are composed of chemical materials that tend to degrade over a period of time while hard drives are made of magnetic disk that will last over a 100 years. the recordable discs are also exposed and are very easy to scratch while hard drives are covered with metal and mounted inside the duplication system.
- **Convenience**
With your Master discs stored inside the hard drive, you can access each one easily. There is no need to carry your Master discs; it is all inside the duplication system.

The (optional) built-in hard drive is divided into a number of partitions or slots. Each partition holds one and one ONLY Master disc image regardless of the capacity of your Master disc. A Master disc image is a file that contains everything on your Master disc. When you load your Master disc onto the hard drive a unique image is created for that Master disc, and everything you do is related to the selected image. The capacity of the partition created is the same as the size of your master disc rounded up to the next Gigabyte (GB). The number of partitions the hard drive can hold is determined by the capacity of the hard drive and the size of the partitions created. For example, if you have an 80GB hard drive with a system capacity of 74GB You can load 74 CDs or 19 DVDs (given a 4GB average capacity).

Making Copies from the Hard Drive

The following steps will show you how to load your Master disc into the hard drive as a disc image and copy the stored disc image on to several blank discs. This process is recommended for mass volume productions. Turn on your duplication system. Once the controller has completed its self tests, you should see the following screen:

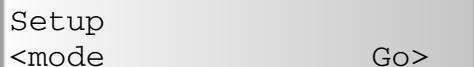


```
Copy
<mode
```

Step 1: Make sure that the Master Reading Source is set to the hard drive.

The Master reading source should be set to the hard drive in order to avoid unnecessary error messages.

a. To check the Master reading source, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see following screen:



```
Setup
<mode          Go>
```

b. Press the <GO> button repeatedly until following screen is shown:



```
CD to CD
[*] XXX          [Q]
```

c. Use the <MODE> or <BACK> buttons to set this option to *No* as in the following screen, and press the <GO> button to confirm.

1. There are many factors that contribute to the capacity difference between the advertised capacity and the actual capacity:

- hard drive Manufacturers use a conversion rate of 1GB = 1 Billion Bytes or 1000^3 Bytes. However, most Operating Systems, including our controller use the standard conversion rate of 1GB = 1.074 billion bytes or 1024^3 Bytes. Therefore, for an advertised 80GB hard drive (80 Billion Bytes), the duplication system capacity is actually 74.5 billion bytes (74.5GB).

- In addition, we round off all fractions of a GB to the lower whole number. That means for a hard drive that has a 74.5GB system capacity, we only recognize and use 74GB.

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

d. Then you will be guided back to the **Copy** menu. If not, press the <GO> button repeatedly until you see following screen:

```
Setup
<mode Go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be sent back to the **Copy** menu.

Step 2: Specify the Active Slot or Partition

Note: If you have already loaded your master disc onto the hard drive, then you can skip this step and go to Step 4 on page 22.

In order to load your Master disc onto the hard drive, you need to specify the slot (partition) where you want it loaded. Each slot or partition possesses a unique index/ID. This index/ID consists of two alpha characters such as AD. The first character (A) represents the partition group and the second character (D) represents the partition index for that particular group.

Each group holds 26 partitions ranging from A to Z. Normally you should have only group A. However, if your hard drive has more than 26 partitions, then you should see more groups such as B, C, etc. to hold more partitions. So, if your hard drive consists of 12 partitions, then you should only have one partition group, A with 12 partitions inside. The indexes/IDs for your partitions are as follows.

AA, AB, AC ..., AL → 12 Partitions
Total Partitions → 12 Partitions

Or, if your hard drive has 60 partitions, then you will have three partition groups, A, B, and C with 26 partitions each for group A and B, but only eight partitions for group C. The indexes/IDs for your partitions are as follows.

AA, AB, AC ..., AZ → 26 Partitions
BA, BB, BC ..., BZ → 26 Partitions
CA, CB, CC ..., CH → 8 Partitions
Total Partitions → 60 Partitions

If you want to set the partition B of group A as the active slot or partition, do the following. (Note that the following procedures only apply to duplication systems with hard drives installed). At this point, you should see following screen:

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see following screen:

```
Setup
<mode                               go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
HDD Partition Group:
[*] X                               [Q]
```

*Note: To see following screen, you must have set the CD-to-CD setting to **No**. If you have not done so, go to Step 1 on page 19 to change the CD-to-CD setting to **No** before proceeding any further*

c. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to an A as in the following screen:

```
HDD Partition Group:
[*] A                               [Q]
```

d. Press the <GO> button once until the following screen is shown:

```
HDD Partition Group:
[*] X                               [Q]
```

e. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to a B as in the following screen:

```
HDD Partition Group:
[*] B                               [Q]
```

f. Press the <GO> button and you will be guided back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               go>
```

Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the **Copy** menu.

Step 3: Load your Master disc onto the hard drive.

If you have already loaded your Master disc onto the hard drive, then you can skip this step and go to Step 4 on page 22. At this point, you should see the following screen:

```
Copy
<mode
```

a. Use the <MODE> or <BACK> buttons to scroll through the options until you see the following screen:

```
Load AB
<mode
```

The AB indicates the partition where the data will be loaded.

b. Insert your Master disc into the top Reader tray and make sure there are no discs in the other trays. Wait for 5-10 seconds and your Master disc will start to be loaded to hard drive partition B of group A (partition AB).

```
Load    0302/0650    CD
Load    2:33        0X
```

c. Once the loading process is complete, you should see a screen similar to this:

```
Pass
Load    2:33        0X
```

- 2:33 indicates the amount of time that it took to load your disc.

Step 4: Return to the Copy menu.

a. Press the <MODE> button once. You should see a screen similar to the following:

```
Load    AB0551M62:42
<mode
```

b. Use the <MODE> or <BACK> buttons to return to the *Copy* menu as indicated in the following screen:

```
Copy    AB0551M762:42
<mode
```

Step 5: Starting the Copy Process

Note: Make sure you have taken the Master disc out of the reading tray before proceeding with the copying process. Failure to do so will result in unnecessary error messages.

a. Insert your blank discs into the corresponding Writer tray(s) and allow 5-10 seconds for the controller to detect your hard drive image and blank discs. After your hard drive image and blank discs have been recognized, you should see a screen similar to this:

```
Copy          AB551M62 : 42
<mode        7start>
```

- The AB indicates that the data is stored on partition AB.
- The 551M indicates that a 551 MByte media is required (CDROM).
- The 62:42 indicates the percentage of a 80-minute CD that will be Used.
- The 7start indicates the blank disc detected.

b. Once the number of blank discs you have inserted matches the number of discs detected on the screen, press the <GO> button to confirm, and you should see a Progress screen similar to this:

```
Copy          0363 / 0551M CD
Copy          4 : 38    10X
```

Note: If the number of blank discs you have inserted does not match the number of discs detected on the screen, wait 10-15 seconds for the controller to recognize all of your blank discs.

By manufacturer default, the duplication process will begin automatically if all of the Writer trays are filled with blank media.

c. Once the duplication run is completed, you should see the following screen:

```
OK 3          NG 0          TOK 9
Copy          6 : 58          32X
```

- OK 3 indicates that there were three successful (OK) copies on this run.
- NG 0 indicates the number of copies that were No Good.
- TOK 9 indicates that you have nine successful copies total.

d. Your good copies will be ejected. Insert more blank discs to make more copies or press the <MODE> button once to return to the **Copy** menu.

Note: Failed discs (bad copies) are not ejected automatically. You will need to eject them manually and throw them away.

Selecting the Duplication Speed

This process will allow you to adjust the duplication speed subject to your various needs. By default, the duplication speed should be set to the optimal speed. However, under some circumstances, you might want to lower the duplication speed. Those circumstances are as follows:

- **Poor Blank Media Quality**
When your media quality is questionable, lowering the duplication speed is necessary to make good copies.
- **Poor Master Disc Quality**
If your Master disc condition is not good, lowering the duplication speed will greatly reduce failure rates.
- **Duplication Quality**
Overall the lower the speed, the higher the quality of your copies. If you have time, it is a good choice to lower the speed to produce good quality copies.

There are five types of recording speed:

- CD: Copy the CD disc to CD-R discs directly (On-The-Fly)
- DVD: Copy the DVD disc to DVD±R discs directly (On-The-Fly)
- HDD to CD: Copy the hard drive CD image to CD-R Discs
- HDD to DVD: Copy the hard drive DVD image to DVD±R Discs
- HDD to BD: Copy the hard drive BD image to BD Discs

Note 1: This only applies to CD/DVD/BD duplication systems

Note 2: This only applies to duplication systems equipped with hard drives

To achieve 16X or higher DVD duplication speed performance:

- The source must be a hard drive image
- You must use 16X (or higher) speed certified recordable media

In the following example, you will see how to adjust the CD writing speed. You should see the following screen when your controller is ready.



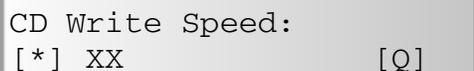
```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:



```
Setup
<mode                                Go>
```

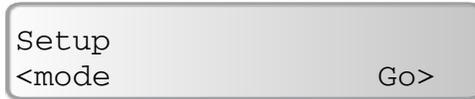
b. Press the <GO> button repeatedly until the following screen is shown:



```
CD Write Speed:
[ * ] XX          [ Q ]
```

- The XX is the speed you can choose.

- c. Use the <MODE> or <BACK> buttons to select your desired speed.
- d. Once the desired speed is selected, press the <GO> button to confirm.
- e. Then press the <GO> button repeatedly until the following screen is shown:



- f. Once the speed is set, press and hold the <MODE> button for three seconds and then release it after a beep has sounded. You will be guided back to the *Copy* menu. You have now successfully changed the duplication speed.

**Selecting the Disc Reading Source
(Applies to Disc-to-Disc Duplication ONLY)**

When you try to make a copy from disc-to-disc (on-the-fly), you will need to specify whether the Master disc is in the Reader tray, or is it in another Writer tray. This tutorial will show you how to change the disc reading source to satisfy your needs.

Note that in order for this feature take effect, you need to change the CD-to-CD setting to *Yes* inside the *Setup* menu.

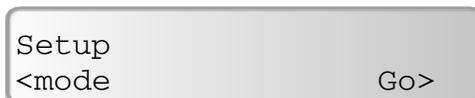
Basically, there are two scenarios that require you to select the Master reading source.

- **Disc-to-Disc Copies (read from the Reader tray)**
Used when you would normally make copies on-the-fly. You need to set the setting to Auto as your Master reading source.
- **Disc-to-Disc Copies (read from the Writer tray)**
Used when your Master disc is full of scratches and your default reader tray failed to read it. Use the writer tray as your Master reading source to make a quality copy, and use the new copy as your new Master to make additional copies.

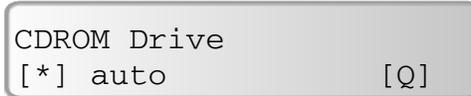
This example shows you how to select the first Writer as the source. When you turn on your duplication system, you should see the following screen when your controller is ready.



- a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:



b. Press the <GO> button repeatedly until the following screen is shown:



```
CDROM Drive
[*] auto      [Q]
```

These are the possible port options:

- Auto: This selects the reader by default.
- ATA 0.0: Reader Port Number.
- ATA 1.0 or more: Writer Port Number. It ranges from 2.0 to 11.0.

For this case, you will choose the smallest ATA number other than ATA 1.0/1.1; ATA 2.0 is the smallest one.

c. Use the <MODE> or <BACK> buttons to change the options until you see ATA 2.0. Once the Writer port is selected, press the <GO> button to confirm.

d. Then press the <GO> button repeatedly until the following screen is shown:



```
Setup
<mode      Go>
```

e. Once the correct drive is selected, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the *Copy* menu. You have now successfully set the disc reading source.

Loading the Master Disc onto the Hard Drive

The (optional) built-in hard drive is divided into a number of partitions or slots. Each partition holds one and one ONLY Master disc image regardless of the capacity of your Master disc. A Master disc image is a file that contains everything on your Master disc. When you load your Master disc onto the hard drive a unique image is created for that Master disc, and everything you do is related to the selected image. The capacity of the partition created is the same as the size of your master disc rounded up to the next Gigabyte (GB).

The number of partitions the hard drive can hold is determined by the capacity of the hard drive and the size of the partitions created. For example, if you have an 80GB hard drive with a system capacity of 74GB¹ You can load 74 CDs or 19 DVDs (given a 4GB average capacity).

In order to copy from the hard drive, you are required to load your Master disc onto the hard drive as an image. To load your Master disc onto the hard drive, do the following.

When you turn on your duplication system, you should see the following screen when your controller is ready.



Copy
<mode

Step 1: Make sure the Master reading source is set to the hard drive.

Note: Make sure that the Master reading source is set to the hard drive in order to avoid unnecessary error messages.

To check the Master reading source, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:



Setup
<mode Go>

1. There are many factors that contribute to the capacity difference between the advertised capacity and the actual capacity:

Hard drive manufacturers use a conversion rate of 1GB = 1 Billion Bytes or 1000^3 Bytes. However, most Operating Systems, including our controller use the standard conversion rate of 1GB = 1.074 Billion Bytes or 1024^3 Bytes. Therefore, for an advertised 80GB hard drive (80 Billion Bytes), the Duplication System capacity is actually 74.5 Billion Bytes (74.5GB).

In addition, we round off all fractions of a GB to the lower whole number. That means for a hard drive that has a 74.5GB system capacity, we only recognize and use 74GB.

a. Press the <GO> button repeatedly until you see the following screen:

```
CD to CD
[*] XXX           [Q]
```

b. Use the <MODE> or <BACK> buttons to set this option to *No* as indicated in the following screen, and then press the <GO> button to confirm.

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

c. Press the <GO> button repeatedly until you see following screen:

```
Setup
<mode           Go>
```

d. Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the *Copy* menu.

Step 2: Specify the active slot or partition.

If you have already loaded your Master disc onto the hard drive, then you can skip this step and go to Step 4 on page 30. In order to load your Master disc onto the hard drive, you need to specify the slot or partition where it should be loaded.

Each slot or partition possesses a unique index/ID. This index/ID consists of two characters such as AD. The first character (A) represents the partition group and the second character (D) represents the partition index for that particular group.

Each group holds 26 partition ranging from A to Z. Normally you should have only group A, however, if your hard drive has more than 26 partitions, then you should see more groups such as B, C, etc. to hold more partitions.

If your hard drive consists of 12 partitions, then you should only have one partition group A with 12 partitions inside. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AL -> 12 Partitions
Total Partitions -> 12 Partitions

Or, if your hard drive consists of 60 partitions, then you will have three partitions groups, A, B, and C with 26 partitions for groups A and B, but only 8 partitions for group C. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AZ -> 26 Partitions

BA, BB, BC ..., BZ -> 26 Partitions

CA, CB, CC ..., CH -> 8 Partitions

Total Partitions -> 60 Partitions

If you want to set the partition B of group A as the active slot or partition, do the following. (The following procedures only apply to duplication systems with hard drives installed).

At power up you should see the following screen:

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should then see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until you see the following screen:

```
HDD Partition Group:
[*] X                [Q]
```

Note: In order to see the following screen, you must set the CDto-CD setting to No. If you have not done so, go to Step 1 on page 27 to change the CD-to-CD setting to No before proceeding any further.

c. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to an A as indicated in the following screen:

```
HDD Partition Group:
[*] A                [Q]
```

d. Press the <GO> button once until you see following screen:

```
HDD Partition of A:
[*] X                [Q]
```

e. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to a B as indicated in the following screen:

```
HDD Partition of A:
[*] B                [Q]
```

f. Press the <GO> button and you will be directed back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               Go>
```

Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the *Copy* menu.

Step 3: Load your Master disc onto the hard drive.

If you have already loaded your Master disc onto the hard drive, then you can skip this step and go to Step 4 on page 30. At this point, you should see the following screen:

```
Copy
<mode
```

a. Use the <MODE> or <BACK> buttons to change to the *Load* option as shown in the following screen:

```
Load
<mode
```

b. Insert your Master disc into the top reader tray and make sure there are no discs in the other trays. After 5-10 seconds your Master disc will start to load into the hard drive partition B of group A (partition AB).

```
Load    0302/0650M    CD
Load    2:33         0X
```

c. Once the loading process is complete, you should see the following screen:

```
Pass
Load    4:52         0X
```

Step 4: Return to the *Copy* menu.

a. Press the <MODE> button once and you should see the following screen:

```
Load    AB551M62 : 42
<mode
```

b. Use the <MODE> or <BACK> buttons to select the *Copy* menu as it appears in the following screen:

```
Copy    AB551M62 : 42
<mode
```

You have now successfully loaded your Master disc into the partition AB of the hard drive. If you would like to make copies, refer to “Making Hard Drive-to-Disc Copies” on page 18.

Specifying the Active Slot or Partition on the Hard Drive

A slot or partition is a unit that holds a single image that represents the Master disc you have loaded onto the hard drive. The active slot or partition tells the controller which existing image inside the hard drive you want to use as the Master recording source. The hard drive inside the duplication system can contain many images. Operations such as copy, load, or delete all work on the image in the active slot or partition at a time. To tell the controller the slot or partition for the image you need, assign that slot or partition as the Active Slot or Partition.

Each slot or partition has a unique index/ID. This index/ID consists of two characters like AD. The first character (A) represents the partition group and the second character (D) represents the partition index for that particular group.

Each group holds 26 partition ranges from A to Z. Normally you shall have only group A. However, if your hard drive has more than 26 partitions, then you shall see more groups such as B, C, etc. to hold more partitions. If your hard drive has 12 partitions, then you should only have one partition group A with 12 partitions inside. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AL *→ 12 Partitions*
Total Partitions *→ 12 Partitions*

If your hard drive consists of 60 partitions, then you will have three partition groups, A, B, or C with 26 partitions for groups A and B, while only 8 partitions for group C. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AZ *→ 26 Partitions*
BA, BB, BC ..., BZ *→ 26 Partitions*
CA, CB, CC ..., CH *→ 8 Partitions*
Total Partitions *→ 60 Partitions*

If you want to set the partition B of group A as the active slot or partition, perform the following steps. (The following procedures only apply to duplication systems with hard drives installed).

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown

```
HDD Partition Group:
[*] X                               [Q]
```

Note: In order to see the following screen, the CD-to-CD setting must be set to **No**. If you have not done so, go back to last step to change the CD-to-CD setting to **No** before proceeding any further.

c. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to an A as indicated in the following screen:

```
HDD Partition Group:
[*] A                [Q]
```

d. Press the <GO> button once until the following screen is shown:

```
HDD Partition of A:
[*] A                [Q]
```

e. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to a B as indicated in the following screen:

```
HDD Partition of A:
[*] B                [Q]
```

f. Press the <GO> Button and you will be directed back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                Go>
```

Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the **Copy** menu.

You have now successfully set the partition B of group A as the active slot or partition.

Deleting an Existing Image in a Slot or Partition

If for some reason you would like to permanently delete your existing image in a slot or partition, perform the following steps.

Note: You do not have to delete the existing image in a slot or partition before you load a new image into that slot or partition. Loading a new image will overwrite the existing image.

If you want to delete partition B of group A, do the following. (The following procedures only apply to duplication systems with hard drives installed). When you turn on your duplication system, you should see the following screen when your controller is ready.

```
Copy
<mode
```

Step 1: Make sure the Master reading source is set to the hard drive.

It is very important to make sure the Master reading source is the hard drive in order to avoid unnecessary error messages. To check the Master reading source, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

a. Press the <GO> button repeatedly until the following screen is shown:

```
CD to CD
[*] XXX                               [Q]
```

b. Use the <MODE> or <BACK> buttons to set this option to *No* as indicated in the following screen, and press the <GO> button to confirm.

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

c. You will be directed back to the *Copy* menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               Go>
```

Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the *Copy* menu.

Step 2: Specifying the Active Slot or Partition

In order to delete a slot or partition on the hard drive, you need to specify which slot (partition) you want to delete first.

Keep in mind, each slot or partition possesses a unique index/ID. This index/ID consists of two characters such as AD. The first character (A) represents the partition group and the second character (D) represents the partition index for that particular group.

Each group holds 26 partition ranging from A to Z. Normally, you should have only group A. However, if your duplication system has more than 26 partitions, then you should see more groups such as B, C, etc. to hold more partitions.

If your hard drive consists of 12 partitions, then you should have one partition group A with 12 partitions inside. The indexes/IDs for your partitions are as follows.

AA, AB, AC ..., AL	→ 12 Partitions
Total Partitions	→ 12 Partitions

If your hard drive has 60 partitions, you will have three partitions groups; A, B, and C with 26 partitions for groups A and B, but only 8 partitions for group C. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AZ → 26 Partitions
BA, BB, BC ..., BZ → 26 Partitions
CA, CB, CC ..., CH → 8 Partitions
Total Partitions → 60 Partitions

If you want to set the partition B of group A as the active slot or partition, do the following. (The following procedures only apply to duplication systems with hard drives installed)

At this point, you should see the following screen:

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
HDD Partition Group:
[*] X                               [Q]
```

Note: In order to see the following screen, you must set the CD to-CD setting to No. If you have not done so, go back to the last step to change the CD-to-CD setting before proceeding.

c. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to an A, as in the following screen:

```
HDD Partition Group:
[*] A                               [Q]
```

d. Press the <GO> button once until the following screen is shown:

```
HDD Partition Group:
[*] X                               [Q]
```

e. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to a B as in the following screen:

```
HDD Partition Group:
[*] B                               [Q]
```

f. Press the <GO> Button and you will be guided back to the *Copy* menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               Go>
```

Then press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

Step 3: Deleting the Active Partition

At this point, you should see the following screen:

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Use the <MODE> or <BACK> buttons to select the *Clear* menu as shown in the following screen:

```
Clear      AB0551M62 : 42
<mode                               Go>
```

c. Press the <GO> button once and you should briefly see the following screen:

```
Master Cleared
```

d. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

You have now successfully deleted partition B of group A.

Changing the Setup Settings

Most of the internal settings and information are stored inside the *Setup* menu. To explore or modify them is simple. Following is an example of modify the Startup Command to *Copy+Comp*.

Once the controller has finished its self-test, you should see the following screen:

```
Copy
<mode
```

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
Startup Command
[*] Copy                               [Q]
```

c. Use the <MODE> or <BACK> buttons to select the *Startup Command* menu as shown in the following screen:

```
Startup Command
[*] Copy+Comp                          [Q]
```

d. Press the <GO> button to confirm your selection. You then be directed back to the *Copy* menu. If not, press the <GO> button repeatedly until you see following screen:

```
Setup
<mode                               Go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

You have now successfully set the Startup Command to *Copy+Comp*.

Chapter 4: Audio CD Editing

This process shows you how to perform the Audio Track Selection feature. It is used to combine audio tracks from various CDs into a single customize audio CD.

In order for the controller to do all those things, you will need a temporary storage location to hold your songs before the controller can make it an audio CD. The following are the choices you will have:

- **Hard Drive (if a hard drive is installed)**
If you choose the hard drive as the temporary storage location, you will load all of your favorite songs into the hard drive, and then copy them onto a blank 80 minute CD-R media.
- **Blank CD-R Media**
If you choose a Blank CD-R as the temporary storage location, you will copy all of your favorite songs onto the blank CD-R one track at a time. After you have finished, you will finalize the CD-R disc.

To edit audio CDs using the hard drive, go to “Audio CD Editing using the Hard Drive” on page 37. To edit audio CDs using the Blank CD-R Media, go to “Editing Audio Tracks to Blank CD-R Media Tutorial” on page 46.

Audio CD Editing using the Hard Drive

When you turn on your duplication system, you should see the following screen when your controller is ready.



```
Copy
<mode
```

Step 1: Select the Master Reading Source

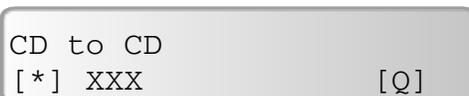
To load your favorite tracks onto the hard drive, make sure the Master reading source is set to the hard drive in order to avoid unnecessary error messages. To check the Master reading source, do the following.

- Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:



```
Setup
<mode          Go>
```

- Press the <GO> button repeatedly until the following screen is shown:



```
CD to CD
[*] XXX          [Q]
```

c. Use the <MODE> or <BACK> buttons to set this option to **No** as shown in the following screen, and press the <GO> button to confirm.



d. You will then be directed back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:



Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be guided back to the **Copy** menu.

Step 2: Specify the Active Slot or Partition

To load your audio tracks onto the hard drive, you need to specify the slot (partition) where you want the audio stored. Each slot/partition has a unique index/ID. This index/ID consists of two characters such as AD. The first character (A) represents the partition group and the second character (D) represents the partition index for that particular group.

Each group holds 26 partition ranges from A to Z. Normally, you shall have only group A. However, if your hard drive has more than 26 partitions, then you shall see more groups such as B, C, etc. to hold more partitions.

If your hard drive has of 12 partitions, then you will only have one partition group A with 12 partitions inside. The indexes/IDs for your partitions are:

AA, AB, AC ..., AL → 12 Partitions
Total Partitions → 12 Partitions

If your hard drive has of 60 partitions, then you will have three partitions groups; A, B, and C with 26 partitions for groups A and B while only 8 partitions for group C. The indexes/IDs for your partitions are as follows:

AA, AB, AC ..., AZ → 26 Partitions
BA, BB, BC ..., BZ → 26 Partitions
CA, CB, CC ..., CH → 8 Partitions
Total Partitions → 60 Partitions

To set the partition B of group A as the active slot or partition, do the following: At this point, you should see the following screen:



a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
HDD Partition Group:
[*] X                               [Q]
```

c. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to an A as in the following screen:

```
HDD Partition Group:
[*] A                               [Q]
```

d. Press the <GO> button once until the following screen is shown:

```
HDD Partition of A:
[*] X                               [Q]
```

e. Use the <MODE> or <BACK> buttons to change the X indicated in the previous screen to a B as in the following screen:

```
HDD Partition of A:
[*] B
```

f. Press the <GO> button and you will be directed back to the *Copy* menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               Go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will be sent back to the *Copy* menu.

Step 3: Load Your Favorite Tracks onto the Hard Drive

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Use the <MODE> or <BACK> buttons to select the *Clear* menu as shown in the following screen:

```
Clear
<mode
```

*Note: You must perform the **Clear** function before you load your favorite tracks onto the hard drive.*

c. Press the <GO> once to execute the **Clear** function. Once the partition has been cleared, you will see this message:

```
Master Cleared
```

d. You will then be directed back to the **Copy** menu.

```
Copy  
<mode
```

e. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Set up  
<mode                                Go>
```

f. Use the <MODE> or <BACK> buttons to select the **Edit** menu as shown in the following screen:

```
Edit  
<mode
```

g. Insert an audio CD that contains your favorite track(s) in the Master reading tray, and make sure no other discs remain in the rest of the trays. (If your Master reading source is not the Reader, make sure the Reader tray does not have any discs inside.) the controller will analyze your CD and after 5-10 seconds you should see a screen similar to the following:

```
Total: 0 Trk      0m:00s  
Track 1:         2m:52s
```

- **Total: 0 Trk** represents the number of tracks selected (0 at this point).
- **0m:00s** indicates the sum of the selected track times in minutes and seconds.
- **Track 1:** indicates the track that is currently selected.
- **2m:52s** indicates the length of the selected track in minutes and seconds.

h. When you see previous screen, you can use the <MODE> or <BACK> buttons to choose the track number that you would like to add, and press the <GO> button to confirm. If you selected Track 1 from the previous menu, you should see the following screen:

```
Total: 1 Trk    2m:52s
Track 1:      2m:52s
```

i. Use the <MODE> or <BACK> buttons to choose the next track number you would like to end, and press the <GO> button to confirm. You should then see a screen similar to this:

```
Total: 2 Trk    6m:29s
Track 5:      3m:37s
```

j. You can continue to add tracks from this disc until either you are finished, or the total time equals 80 minutes by repeating Steps **d - i**. To tell the controller that you are finished with this disc, use the <MODE> or <BACK> buttons to go past the last track on the disc. You will see a screen similar to this:

```
Total: 2 Trk    6m:29s
Are you done?
```

k. Press the <GO> button to proceed. You should then see the following screen:

```
Finalize
[*] No           [Q]
```

l. Use the <MODE> or <BACK> buttons to choose *Yes* or *No* for finalization. Finalization will make your new mixed CD playable in an audio CD player, but you will not be able to add any more tracks to it. If you choose *Yes*, you cannot add any more audio tracks to your selection. If you choose *No*, you can add more audio tracks from other audio CDs to your selection, but you will not be able to listen to the CD until it is finalized.

m. Press the <GO> Button to proceed. You should then see a loading process screen similar to this:

```
Edit    02/125M    CD
Edit    2:03     10X
```

- **02/125M** indicates the amount of data read from the disc.
- **CD** indicates that the mast disc is a CD-ROM
- **2:03:** indicates the time that the current operation has taken
- **10X** indicates the drive reading speed

n. If you said *No* to finalize, when the loading process is finished you should see the following screen:

```
Edit
Insert next master
```

To load more tracks from other audio CDs, repeat steps **g - m**.

o. If you said *Yes* to finalize, the controller will bring you back to the *Edit* menu as shown in the following screen:

```
Edit
<mode
```

p. Use the <MODE> or <BACK> buttons to return to the *Setup* menu:

```
Setup
<mode                                Go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

Step 4: Begin the Copying Process

a. Insert blank discs into each of the Writer trays that you want to use and allow 5-10 seconds for the controller to detect the blank discs. After the blank discs have been recognized, you should see a screen similar to this:

```
Copy          551M62 : 42
<mode        7start>
```

- 551M indicates the capacity of your CD in the unit of the MB
- 62:42 indicates the capacity of your CD in the unit of audio playback time
- 7 indicates the number of blank media it has detected

Note: Make sure you have taken the Master disc out of the Reading tray before proceeding with the copying process. Failure to do so will result unnecessary error messages.

b. Press the <GO> button to confirm and you should see the following Progress screen:

```
Copy    0363/0551M    CD
Copy    4 : 38       10X
```

- The numbers in the top line indicate that 0551 MBytes (M) out of the total 0363M have been copied so far.
- The “CD” on the right-hand side indicates that the source media is a CD-ROM

- The numbers in the center of the bottom line indicate the time since the copy operation started.
- The 10X indicates the copy speed.

If the number of blank discs you inserted does not match the number of discs detected on the screen, wait 10-15 seconds for the controller to recognize all of your blank discs.

c. Once the duplication run is completed, you should see the following screen:

```
OK 3      NG 0      TOK 9
Copy      6 : 58     10X
```

- OK 3 indicates that there were three successful (OK) copies on this run.
- NG 0 indicates the number of copies that were No Good.
- TOK 9 indicates that you have nine successful copies total.

d. Your good copies will be ejected. Next, insert more blank discs to make more copies. Or, you can press the <MODE> button to go back to the *Copy* menu.

Note: Failed discs (bad copies) are not automatically ejected. You will need to manually eject them in order to continue.

Audio CD Editing using Blank CD-Rs

When you turn on your duplication system, you should see the following screen when your controller is ready.

```
Copy
<mode
```

When editing audio CDs directly to blank CD-Rs, make sure the Master reading source is set to the Reader drive in order to avoid unnecessary error messages. To set the Master reading source, do the following.

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                                Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
CD to CD
[*] XXX                                [Q]
```

c. Use the <MODE> or <BACK> buttons to set this option to **Yes** as shown in the following screen, and press the <GO> button to confirm.



d. You will then be directed back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:



Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the **Copy** menu.

Step 1: Copy your favorite tracks directly to blank CD-Rs.

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:



b. Use the <MODE> and <BACK> buttons to select the **Edit** menu, and you should see the following screen:



c. Insert the audio CD with your favorite track(s) in the Master Reading tray and insert a blank CD-R disc into one of the Writer trays. Make sure no other discs remain in the rest of the trays. The controller will analyze your CD and after 5-10 seconds you should see a screen similar to the following:



- **Total: 0 Trk** represents the number of tracks selected (0 at this point).
- **0m:00s** indicates the sum of the selected track times in minutes and seconds.
- **Track 1:** indicates the track that is currently selected.
- **2m:52s** indicates the length of the selected track in minutes and seconds.

d. When you see previous screen, you can use the <MODE> or <BACK> buttons to choose the track number that you would like to add, and press the <GO> button to confirm. If you selected Track 1 from the previous menu, you should see the following screen:

```
Total: 1 Trk    2m:52S
Track 1:    2m:52s
```

e. Use the <MODE> or <BACK> buttons to choose the ending track number and press the <GO> button to confirm. You should then see a screen similar to this:

```
Total: 2 Trk    6m:30S
Track 1:    3m:37s
```

f. You can continue to add tracks from this disc until either you are finished, or the total time equals 80 minutes by repeating Steps d - e. To tell the controller that you are finished with this disc, use the <MODE> or <BACK> buttons to go past the last track on the disc. You will see a screen similar to this:

```
Total: 2 Trk    6m:30S
Are you done?
```

g. Press the <GO> button to proceed. You should then see the following screen:

```
Finalize
[*] No           [Q]
```

h. Use the <MODE> or <BACK> buttons to choose *Yes* or *No* for finalization. Finalization will make your new mixed CD playable in an audio CD player, but you will not be able to add any more tracks to it. If you choose *Yes*, you cannot add any more audio tracks to your selection. If you choose *No*, you can add more audio tracks from other audio CDs to your selection, but you will not be able to listen to the CD until it is finalized.

i. Press the <GO> Button to proceed. You should then see a copying process screen similar to this:

```
Edit    015/125M    CD
Edit    2:03       10X
```

- **015/125M** indicates the amount of data read from the disc.
- **CD** indicates that the mast disc is a CD-ROM
- **2:03** indicates the time that the current operation has taken
- **10X** indicates the drive read speed

j. If you said *No* to finalize, when the loading process is finished you should see the following screen:

```
Edit
Insert next master
```

To load more tracks from other audio CDs, repeat steps c - h.

k. If you said *Yes* to finalize, the controller will eject your master disc in the Reader tray, and finalize the disc in the Writer tray. When finalization is complete, the disc in the Writer tray will be ejected and you will be returned to the *Edit* menu.

```
Edit
<mode
```

Editing Audio Tracks to Blank CD-R Media Tutorial

This is an example of how to create a new audio CD from two different discs.

- CD1: Song 1 and song 5
- CD2: Song 9, song 3, and song 10

Step 1: Make sure the Master reading source is set to the Reader.

a. To check the Master reading source, press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
CD to CD
[*] XXX                               [Q]
```

c. Use the <MODE> or <BACK> buttons to set this option to *Yes* as in the following screen, and press the <GO> button to confirm.

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

d. You will be guided back to the *Copy* menu. If not, press the <GO> button repeatedly until you see following screen:

```
Setup
<mode                Go>
```

Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

Step 2: Copy Your Favorite Tracks Directly to Blank CD-R

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                Go>
```

b. Use the <MODE> or <BACK> buttons to select the *Edit* menu, and you should see the following screen:

```
Edit
<mode                Go>
```

c. Insert CD1 into the Master Reader tray and insert a blank CD-R disc into one of the Writer trays. Make sure no other discs remain in the rest of the trays. Wait 5-10 seconds and you should see the following screen:

```
Total: 0 Trk      0m:00S
Track 1:      2m:52s
```

d. When you see previous screen, you can use the <MODE> or <BACK> buttons to choose the track number that you would like to add, and press the <GO> button to confirm. If you selected Track 1 from the previous menu, you should see the following screen:

```
Total: 1 Trk      2m:52S
Track 1:      2m:52s
```

e. Use the <MODE> or <BACK> buttons to choose the next track number you would like to end, and press the <GO> button to confirm. You should then see a screen similar to this:

```
Total: 2 Trk      6m:00S
Track 5:      3m:08s
```

f. Tell the controller that you are finished with this disc by using the <MODE> and <BACK> buttons to go past the last track on the disc. You will see a screen similar to this:

```
Total: 2 Trk      6m:00S
Are you done?
```

g. Press the <GO> button to proceed. You should then see the following screen:

```
Finalize
[*]          No          [Q]
```

h. Since you have more tracks to copy, use the <MODE> or <BACK> buttons to select *No* under *Finalize* and you should then see the following *Loading* screen:

```
Edit      015/025M      CD
Edit      2:03          10X
```

i. When the loading process is finished, CD1 will be ejected and you should see the following screen:

```
Edit
Insert next master
```

j. Insert CD2 and you should see the following screen:

```
Total: 2 Trk      6m:00s
Track 1:          2m:17s
```

k. Use the <MODE> or <BACK> buttons to choose track number 9 and then press the <GO> button to confirm. You should then see the following screen:

```
Total: 3 Trk      8m:53s
Track 9:          2m:53s
```

l. Use the <MODE> or <BACK> buttons to choose track number 3 and then press the <GO> button to confirm. You should see the following screen:

```
Total: 4 Trk     11m:56s
Track 3:         3m:03s
```

m. Use the <MODE> or <BACK> buttons to choose track number 10 and then press the <GO> button to confirm. You should see the following screen:

```
Total: 5 Trk    13m:58s
Track 10:      2m:02s
```

n. Since you are done with CD2, scroll down to finalize. You should then see the following screen:

```
Finalize
[*] No           [Q]
```

o. Since you have selected all the tracks, press the <MODE> button to select *Yes* under Finalize and you should then see a *Loading* screen similar to this:

```
Edit    060/125    CD
Edit    4:03      10X
```

p. The system will eject your master disc in the Reader tray, and finalize the disc in the Writer tray. When finalization is complete, the disc in the Writer tray will be ejected and you will be returned to the *Edit* menu.

```
Edit
<mode
```

Editing Audio Tracks to the Hard Drive Tutorial

This example shows you how to create a new Audio CD from two different discs when using the hard drive.

- CD1: Song 1 and song 5
- CD2: Song 9, song 3, and song 10

You are going to load all those tracks onto the hard drive partition B of group A. Then you are going to copy them onto a blank CD-R disc.

Step 1: Make sure the Master reading source is set to the hard drive.

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode           Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
CD to CD
[*] XXX           [Q]
```

c. Use the <MODE> or <BACK> buttons to set this option to *No* as in the following screen, and press the <GO> button to confirm.

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

d. You will then be guided back to the *Copy* menu. If not, press the <GO> button repeatedly until you see following screen:

```
Setup
<mode           Go>
```

e. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You will then be guided back to the *Copy* menu.

Step 2: Specify the Active Slot or Partition

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode           Go>
```

b. Press the <GO> button repeatedly until the following screen is shown:

```
HDD Partition Group:
[*] X           [Q]
```

c. Use the <MODE> or <BACK> buttons until the X on the previous screen shows A as in the following screen:

```
HDD Partition Group:
[*] A           [Q]
```

d. Press the <GO> button once until the following screen is shown:

```
HDD Partition of A:
[*] X           [Q]
```

e. Use the <MODE> or <BACK> buttons until the X on the previous screen shows B as in the following screen:

```
HDD Partition of A:
[*] B           [Q]
```

f. You will be directed back to the **Copy** menu. If not, press the <GO> button repeatedly until you see the following screen:

```
Setup
<mode                               Go>
```

Step 3: Load Your Favorite Tracks onto the Hard Drive

a. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

b. Use the <MODE> or <BACK> buttons to select the **Clear** menu option as shown in the following screen:

```
Clear
<mode                               Go>
```

*Note: You must perform the **Clear** function before loading your favorite tracks onto the hard drive.*

c. Press the <GO> button once to execute the **Clear** function. Once the partition has been cleared, you will see this message:

```
Master Cleared
```

d. You will be directed back to the **Copy** menu.

```
Copy
<mode
```

e. Press and hold the <MODE> button for three seconds and release it after a beep has sounded. You should see the following screen:

```
Setup
<mode                               Go>
```

f. Insert CD1 into the Master Reading tray and make sure no other discs remain in the rest of the trays. (If your Master reading source is not the Reader, make sure the Reader tray does not have any discs inside). After 5-10 seconds, your audio CD will be analyzed and you should see the following

```
Total: 0 Trk      0m:00s
Track 1:         2m:52s
```

g. When you see the above screen, press the <MODE> button to choose track number 1, and press the <GO> button to confirm. You should then see the following screen:

```
Total: 1 Trk      2m:52s
Track 1:         2m: 52s
```

h. Use the <MODE> and <BACK> buttons to select track number 5, and press the <GO> button to confirm. You should then see the following screen:

```
Total: 2 Trk      6m:29s
Track 5:          3m:37s
```

i. To tell the system, that you are finished with this disc, use the <MODE> or <BACK> buttons to go past the last track on the disc then you will see a screen similar to this:

```
Total: 2 Trk      6m:29s
Are you done?
```

j. Press the <GO> button to proceed. You should then see the following screen:

```
Finalize
[*] No           [Q]
```

k. Because you are not through adding tracks, use the <MODE> or <BACK> buttons to choose *No* for finalization.

l. Press the <GO> Button to proceed. You should then see a loading process screen similar to this:

```
Edit      015/125M      CD
Edit      2:03         10X
```

- **015/125M** indicates the amount of data read from the disc.
- **CD** indicates that the mast disc is a CD-ROM
- **2:03:** indicates the time that the current operation has taken
- **10X** indicates the drive read speed

m. Because you said *No* to finalize, when the loading process is finished you should see the following screen:

```
Edit
Insert next master
```

n. Insert CD2 and you should see the following screen:

```
Total: 2 Trk    6m:29s
Track 1:    3m:57s
```

o. Use the <MODE> or <BACK> buttons to choose track number 9 and then press the <GO> button to confirm. You should see the following screen:

```
Total: 2 Trk    6m:29s
Track 9:    2m:53s
```

p. Press <GO> button to confirm. You should then see the following screen:

```
Total: 3 Trk    9m:22s
Track 9:    2m:53s
```

q. Use the <MODE> or <BACK> buttons to choose track number 3 and then press the <GO> button to confirm. You should see the following screen:

```
Total: 4 Trk   12m:25s
Track 3:    3m:03s
```

r. Use the <MODE> or <BACK> buttons to choose track number 10 and then press the <GO> button to confirm. You should see the following screen:

```
Total: 5 Trk   14m:37s
Track 10:    2m:12s
```

s. To tell the system that you are finished with Disc 2, use the <MODE> or <BACK> buttons to go past the last track on the disc. You will see a screen similar to this:

```
Total: 5 Trk   14m:37s
Are you done?
```

t. Press the <GO> button to proceed. You should then see the following screen:

```
Finalize
[*] No           [Q]
```

u. Since you have selected all the tracks, press the <MODE> button to select **Yes** under Finalize and you should then see a **Loading** screen similar to this:

```
Edit    060/125    CD
Edit    4:03      10X
```

v. When this is complete, the system will eject your master disc in the Reader tray, and finalize the disc in the Writer tray. When finalization is complete, the disc in the Writer tray will be ejected and you will be returned to the *Edit* menu.

```
Edit
<mode
```

Step 4: Start the Copy Process

a. Insert blank discs into each of the writers trays that you want to use and allow 5 -10 seconds for the system to detect the blank discs. After the blank discs have been recognized, you should see a screen similar to this:

```
Copy          551M62:42
<mode        7start>
```

- 551M indicates the capacity of your CD in the unit of the MB
- 62:42 indicates the capacity of your CD in the unit of audio playback time
- 7 indicates the number of blank media it has detected

Note: Make sure you have taken the Master disc out of the Reading tray before proceeding with the copying process. Failure to do so will result unnecessary error messages.

b. Press the <GO> button to confirm and you should see the following Progress screen:

```
Copy    0363/0551M    CD
Copy    2:33         10X
```

- The numbers in the top line indicate that 551 MBytes (M) out of the total 0363M have been copied so far.
- The “CD” on the right-hand side indicates that the source media is a CD-ROM
- The numbers in the center of the bottom line indicate the time since the copy operation started.
- The 10X indicates the copy speed.

If the number of blank discs you inserted does not match the number of discs detected on the screen, wait 10-15 seconds for the controller to recognize all of your blank discs.

c. Once the duplication run is completed, you should see the following screen:

Ok 3	NG 0	TOK 9
Copy	6:58	10X

- OK 3 indicates that there were two successful (OK) copies on this run.
- NG 0 indicates the number of copies that were No Good.
- TOK 9 indicates that you have nine successful copies total.

d. Your good copies will be ejected. Next, insert more blank discs to make more copies. Or, you can press the <MODE> button to go back to the *Copy* menu.

***Note:** Failed discs (bad copies) are not automatically ejected. You will need to manually eject them in order to continue.*

Chapter 5: Menu Overview

Main Menu Overview

Following are available basic menus. You can navigate them by pressing the <MODE> button.

Copy

This menu will perform duplication from an active Master disc. For additional information, refer to “Making Disc-to-Disc Copies” on [page 17](#).

Copy and Compare (Copy+Comp)

This menu will guide you to make copies and after the copy process has been finished, it will compare the copies to the original to ensure that they have been copied correctly.

Emulate

This menu will guide you to make simulation of copying process. During this simulation process, all write once recordable discs such as (DVD-R, CD-R) will be reusable. The purpose of performing such simulation is to ensure error free duplication.

Note: Due to the physical limitation of DVD+R recordable format, you can not perform this procedure if your recordable discs are DVD+R. If you do so, you will encounter failure messages.

Note: If you are using CD/DVD reWritable discs as your blank media during the simulation, all of the content inside those discs will be erased permanently.

Emulate and Copy (Emu+Copy)

This menu will guide you to perform the simulation of copying process and if everything has passed during the simulation, a real copying process will be performed. If there's an error encountered during the simulation, an error message will be displayed and the copying process will not be initiated.

Load XX

This menu loads the contents of the Master reading source into the currently active partition on the hard disk, where XX equals the currently set partition and group (see “Specify the Active Slot or Partition” on [page 22](#)). The partition is selected using the **Setup HDD Partition Group and command**.

Compare

This menu will guide you to perform a bit-by-bit comparison between the Master reading source and all the copied discs inside the Writer tray. The purpose to perform this compare operation is to ensure all of your copies have the exactly same information as your Master reading source.

Quick Erase

This menu will guide you to erase any rewriteable discs in the Writer Tray.

Verify

This menu will guide you to perform disc readability checks. This operation will check the readability of your Master discs and the copied discs. The purpose to perform this verify operation is to ensure all of your copies are readable.

Advanced Menu Overview

The following menus are for advance users. To navigate them, you need to press and hold the <MODE> button for three seconds from the basic menu.

Setup

This menu contains various settings for your system. Unless you have been told to do so, we strongly suggest you do not touch them unless they have been mentioned in this user manual. Following are some settings you might encounter. However, for those settings not displayed as follows, we strongly suggest you do not adjust them.

- **CD-to-CD**

This setting is the key option to determining whether you want to copy from the hard drive or you want to do disc-to-disc duplication. Setting it to *Yes* enables disc-to-disc duplication and setting it to *No* to copy from the hard drive.

Note: This setting only appears if your duplication system has a hard drive installed.

- **HDD Partition Group**

This setting allows you to change to a different slot or partition group.

Note: In order to change to a different slot or partition group, your hard drive must have 26 partitions or more. For additional information, refer to “Specifying the Active Slot or Partition on the Hard Drive” on [page 37](#).

Note: This setting only appears if your duplication system has a hard drive installed.

- **HDD Partition of X**

This setting allows you to change to a different slot or partition within the partition group X.

Note: This setting only appears if your duplication system has a hard drive installed. For additional information, refer to “Specifying the Active Slot or Partition on the Hard Drive” on [page 37](#).

- **Start Writers**
This setting allows you to set how many blanks have to be detected before automatically starting the copy process.
- **Write Method**
This setting allows you to select the duplication mode. The default is Disc-At-Once.
- **CD Write Speed**
This setting allows you to adjust the direct disc-to-disc CD duplication speed.
- **HD to CD Write Speed**
This setting allows you to adjust the hard drive to disc CD duplication speed.

Note: This setting only appears if your duplication system has a hard drive installed.

- **DVD Write Speed**
This setting allows you to adjust the direct disc-to-disc DVD duplication speed.

Note: This setting only appears if your duplication system is a DVD duplication system.

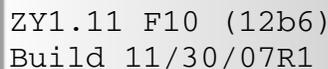
- **HD to DVD Write Speed**
This setting allows you to adjust the hard drive to disc DVD duplication speed.

Note: This setting only appears if your duplication system is a DVD duplication system AND it has a hard drive installed.

- **CD ROM Drive**
This setting allows you select the default reading device for disc to disc duplication. For additional information, refer to “Selecting the Disc Reading Source” on [page 30](#).
- **CDDA Load Speed**
This option sets the loading speed when reading a Compact Disc Digital Audio disc (Audio CD). Audio CDs sometimes need to be read at slower speeds than digital CDs to endure accurate reproduction.
- **Eject Disc**
This setting allows you to choose at what kind of situation you want the trays to be ejected.
- **Buzzer**
This option selects whether the buzzer in the duplication system sounds when pressing a key.
- **CD+G**
This setting allows you to enable or disable duplication of CD+G discs.

Note: In order to duplicate CD+G discs, your Writer drive needs to support CD+G CD.

- **CopyComp Eject**
This setting allows you to choose whether you want the trays to be ejected between the Copying and Comparing process when you perform the *Copy+Comp* operation.
- **Read CDDA Index0**
This setting allows the system to copy special pre gap data in Index0. This option should be turned off unless your disc requires it.
- **Skip Read Error**
This setting allows you to choose what to do if a Master reading error has occurred. You can abort the duplication by setting it to *No*. You can skip the error and continue to duplicate rest of the data by setting it to *Yes*. By turning this setting to *Yes*, you may not get the exact same duplicates since your Master disc has errors.
- **Mode 2 Compare**
This setting allows the system to compare some special “MODE 2” discs. Since “MODE 2” discs are not meant to be compared, the “Compare” result of this type of disc may be inaccurate.
- **Power On Wait**
This sets the detection time for devices connected to the controller.
- **GO load trays**
This option is intended as a shortcut to load all of the trays at once by pressing the <GO> button.
- **Transfer Mode**
This setting sets the transfer mode between the controller and the writers.
- **Turbo Copycomp**
This setting enable/disable the “Turbo Copycomp” mode.
- **Language**
This setting allows you to choose the language that you prefer to use when navigating the controller. The standard controller supports English and Spanish (Español).
- **Build Information**
This screen shows information about the version of the software loaded onto your controller. This information is needed when obtaining technical support.



```
ZY1.11 F10 (12b6)
Build 11/30/07R1
```

- **Startup Command**
This menu option selects the command that will be displayed at startup.
- **Autoloader**
This function allows the controller to support an external robot for automatic disc placement. For additional support, contact our Technical Support department using the information on the back of this manual.

Edit

The ***Edit*** menu will guide you to perform the Audio Tracking Selection feature. This feature will help you combine audio tracks from various CDs into a single customized audio CD. For additional information, refer to “Audio CD Editing” on [page 45](#)“.

Disc Info

This feature will show the CD/DVD media information for all CD/DVD discs inside the duplication system.

Show Drive

This menu option is used to show the types of drives installed in the duplication system. Enter the Show Drive option using the <GO> button, and use the <MODE> or <BACK> buttons to scan through the drives. Press the <GO> button to return to the next higher menu.

Burn-In

This feature will help the system to check on the performance, while simulating the mode you have choose.

Update

This function will update the software in your controller. To update, you will need to insert manufacturer Certified Update CD into the Reader and select this function by pressing the <GO> button. We strongly suggest you do not upgrade your controllers firmware unless your system is becoming unstable.

Clear

This feature erases the current partition on the hard drive and system buffer. If you want to create a mix audio CD, you must run this function first to clear the hard drive and/or the system buffer before you begin.

Format

This option erases all content on the internal hard drive.

Chapter 6: Trouble Shooting

a. No display on LCD or the unit does not operate when the power is on.

- Check to see if the power cable is connected and that the power outlet is providing the correct power.
- Make sure the power voltage matches the voltage of your power outlet.
- If your outside temperature has dropped below 0°C within the past 24 hours, leave the system inside a room with a temperature of 20°C or higher for four hours before powering it on for the first time.

b. The Reader cannot read the disc and shows an error message.

- Check the format of the Master CD/DVD disc.
- Check for the physical damage to your Master CD/DVD itself.
- Your Master disc may be copy-protected. Normally, most of the DVDs and some of the CDs you purchase have been copy-protected.
- Use one of the Writers to read your Master disc by selecting one of Writers as the Master reading source (refer to “Selecting the Disc Reading Source” on [page 30](#)). If it works, make a copy of your Master disc and treat the copy as the new Master. Then set the Master reading source back to the Reader and try again.

c. The buttons do not function.

- The system may be busy on a task. Give it some time and press it again. If it still does not work, turn-off the machine and then restart the machine after a minute.

d. Copy completed but the copies are not readable or executable.

- Use the *Compare* feature to check the copied discs.
- Based upon our experience, the quality of your media plays a big role on this part. Try to use quality media to prevent such problems.
- Use another DVD/CD player/ROM to test the copied media. Sometimes, your DVD/CD Player/ROM may not be compatible with recordable DVD/CD discs.

e. The failure rate is high.

- Lower the write speed and try again. Refer to “Selecting the Duplication Speed” on [page 28](#) for additional information.
- Quality of the blank disc may be poor.
- Quality of your Master disc may be poor.

f. Do I need to upgrade my controller’s firmware?

- Unless your system is becoming unstable, we strongly suggest you do not upgrade your controller’s firmware. Contact our distributors if your system is becoming unstable.

g. Cannot boot-up or fail to upgrade firmware.

- Contact Tech Support.

h. Can I load data directly from my computer to my systems attached hard drive?

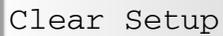
- No, not at all. Your system's hard drive has a unique file system that no computer will recognize. Therefore, you cannot perform any read or write operations to the hard drive from your computer.

i. Why some writers won't copy?

- Reset back to default. (refer to Troubleshooting, item **j.**).
- Maybe the writers are bad.
- Contact the distributors.

j. How do I reset my controller's settings back to default?

- Power-off the system.
- Press and hold the <MODE> button while the system remains off.
- While you are holding the <MODE> button, turn on the system and remain holding the <MODE> button.
- Once you hear a long beep sound, release the <MODE> button. You should see a screen similar to this:

A rectangular button with rounded corners and a light gray gradient background. The text "Clear Setup" is centered on the button in a simple, black, sans-serif font.

www.zycont.com

Email: ventas@zycont.com