

User Manual

For LightScribe Duplicator

V 3.5.4

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Chapter 1: Introduction & Manual Overview

This system is a reliable, high performance, high speed, standalone manual tower system with LightScribe printing feature. With its professional industrial design and simple beginner user interface, it will make your disc publishing experience easier than ever.

Before you start:

Before you start using this system, please read the following to ensure proper operation:

1. Important Notice:

The type of system you purchase will determine the type of discs you are able to copy. For example, if you purchased a CD only system, then you will only be able to copy onto recordable CD formats. If you purchased a DVD system, then you can copy on to recordable DVD and CD formats. If you purchased a Blu-ray system, then you can copy onto recordable Blu-ray, DVD, and CD formats.

If you have a Blu-ray capable system, the terms CD or DVD can be substituted for Blu-ray within the text of this user manual.

2. System Limitations:

The system will not copy any CD, DVD, or Blu-ray discs that have Copy Protection encoded inside. Typically, the movies you purchase or rent from the store will contain copy protection.

In addition to the copy protection limitation, the system cannot copy across formats. This means that you cannot copy a DVD master onto a recordable CD or vice versa. In addition, you cannot copy the same formats if the discs have different maximum capacity limitations. This means that you cannot copy a single layer DVD or Blu-ray Disc onto a double/dual layer DVD or Blu-ray Disc or vice versa. The recordable blanks must be the same format and maximum capacity as the master disc you intend to duplicate.

3. Temperature Warning:

If the system was stored in a location where the temperature dropped below 32°F (0°C) within the past 24 hours, please leave the system in a warm room with temperatures at least 65°F (19°C) for 4 hours prior to powering it on for the first time. Failure to do so may cause irreparable harm and prevent the system from functioning.

4. External Connection Warning:

If you have an external connection installed in your system, (USB/Firewire sticker(s) should appear on your writer front drive panel(s) as an indicator). In order to operate the system solely as a standalone unit (no connection to the computer), you have to make sure all of the USB/Firewire connection(s) are off. If by any chance, the USB/Firewire connection(s) are on, please refer to “Appendix A: Optional External Device (USB 2.0/Firewire 1394) Setup Guide”

5. Maintenance:

It is very important to operate and keep the system in a dust free, clean environment since dust is the number 1 killer for optical recording devices. Failure to do so may severely damage your system. We strongly suggest you place an Air Cleaner next to the system and constantly use the Air Duster (Can Air) to clear off any dust on the surface of the system.

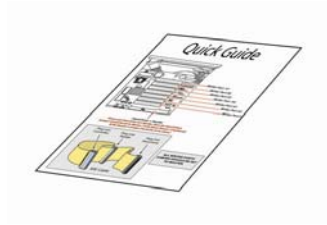


Do not try to use the Air Duster to clean the system while the reader/writer trays are open. In doing so, you may inadvertently blow dust into the recording device and damage the recording device.

6. Proper Shutdown:

To avoid possible system failures, you need to shutdown the system properly. To shutdown the system, you need to press the Up or Down Arrow button to "18. Shutdown", then press "ENT"/Enter and follow instructions on the screen to shutdown the system properly. Turning off your system without performing this function will increase the risk of damaging your system.

Package Contents:



Quick Start Guide



LightScribe Software Installation CD



Standard Operation User Manual Booklet or CD

OR



Power Cord Cable

Chapter Overview:

Chapter 2: Getting to know your system

This chapter describes the physical features and instructions on how to operate your system

Chapter 3: Basic Operations Guide

This chapter describes how to perform basic operations like Making Copies, Design and Printing Labels, Changing Speed, etc.

Chapter 4: Menu Overview

This chapter describes what every function/setting does.

Appendix A: LightScribe Software Setup Instructions

This section provides easy walkthrough on how to install the LightScribe software needed to generate the label files.

Appendix B: Optional External Device (USB 2.0/Firewire 1394) Setup Guide

This section describes how to enable one of many writers of your system as an external writer for your PC via system's USB interface.

Appendix C: Troubleshooting

This section provides many solutions on frequently asked questions and provides insights on system error codes.

Appendix D: Safety & Regulatory information

This section provides environment, health, safety and other regulatory information.

Chapter 2: Getting to know your system

System Overview



The below image is one representation of the duplicator casing. Your case's outlook may vary but will have similar principles.

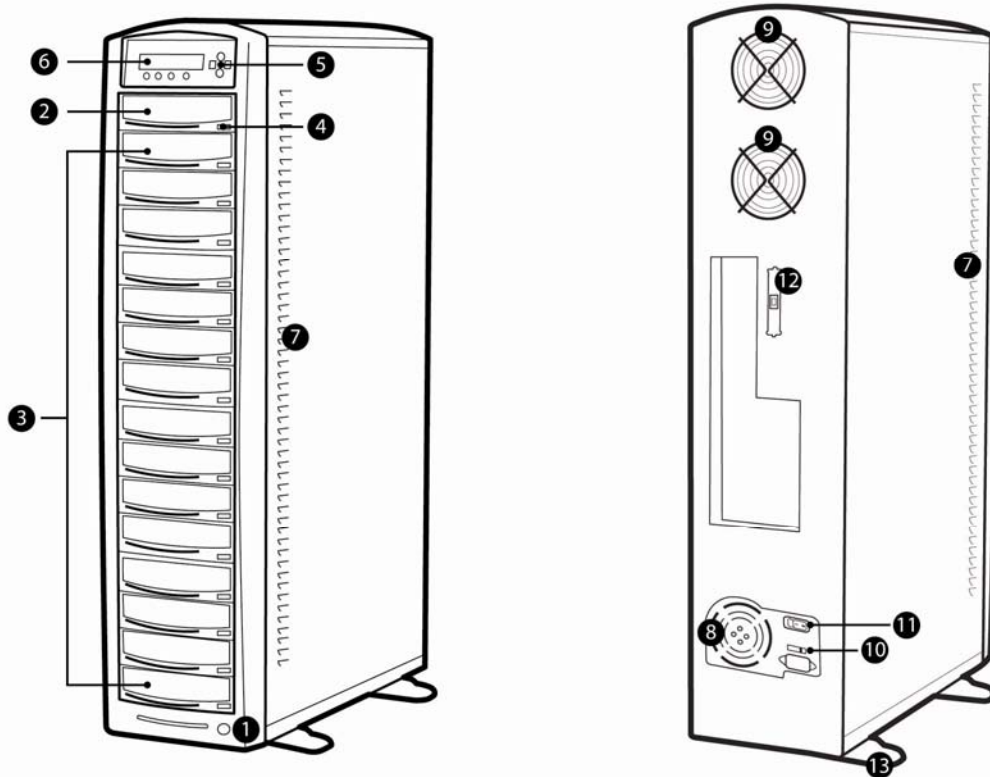


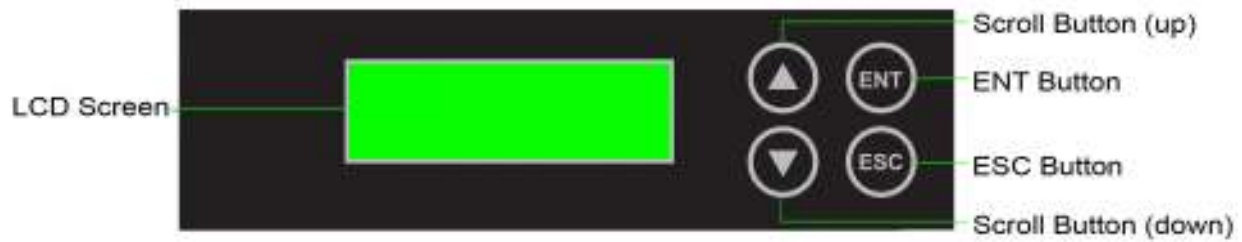
Figure 1-1 System Controls and Display

The components shown in Figure 1-1 are:

1. System Power On/Off Button
2. Optical Disc Reader
(Referred to as "Reader" throughout this manual)
3. Optical Disc / LightScribe Label Writers
(Referred to as "Writer" throughout this manual)
4. Eject Button
5. Keypad
6. LCD Screen
7. System Ventilation Vents
8. Power Supply Fan
9. Ventilation Fans
10. Power Voltage Switch (110v/220v) (not available on all models)
11. Power Supply On/Off Switch (not available on all models)
12. USB/Firewire Connection (not available on all models)
13. Stability Feet (not available on all models)

LCD Front Panel

*The below image is for reference only. Your key assignment and appearance may differ.



: Up (Menu/Option Scroll Up)



: Down (Menu/Option Scroll Down)



: Forward; Enter; OK; Execute the function



: Backward; Escape; go back to the previous function

Chapter 3: Basic Operations

Make Disc-to-Disc Copies

This process will copy your master disc onto single or multiple blank discs simultaneously. However, due to its simultaneous nature, a good conditioned master disc and a lower recording speed is recommended for higher success rates and better quality duplications.

For a disc-to-disc copy, the copy source can be either of these devices:

- The reader: The reader normally is the 1st drive from the top of the system and is most often the source typically used when making disc-to-disc copies.
- Any of the writers: One of the writers can also be used as the copy source when making disc-to-disc copies. This option is typically only used when the reader is either bad or unable to read the master disc.

If your system has a hard drive installed, it will simultaneously load the master disc image into the hard drive while copying from the reader drive to the writer drives during the first round of the copy process; Then starting from the 2nd round, all copies will be made from the hard drive for enhanced performance and reliability. If you prefer not to utilize this feature, please change the “Duplication Mode” setting to “On the Fly” under “Setup” menu. Please refer to page 39 for more details.

Section 1: Selecting the Copy Source.

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

DUPLICATOR	2.20
1.Copy	

Step 1: Use the up or down arrow button to navigate to the Select Source menu.

DUPLICATOR	2.20
7.Select Source	

Step 2: Press “ENT”/Enter button to enter the Select Source menu and you shall see a screen similar to below:

Drive 0	Port x.x
ASUS	DVD-E818A

Step 3: If you plan to use the Reader as the source, use the up or down button to locate Drive 0 (1st drive) and press “ENT”/Enter button to select it.

Drive 0	Port x.x
ASUS	DVD-E818A

If you would like to use one of the Writers as the source, use the up or down button to locate Drive 1 or up and press “ENT”/Enter button to select it.

Drive 1	Port x.x
Pioneer DVD-RW DVR-1	



If the drive you've selected is same as the original source, the system will NOT respond to the "ENT"/Enter button. Please press "ESC"/Escape button to go back to the main menu.

Once the source has been selected, you will be guided to the main menu. You should see the following screen:

DUPLICATOR	2.20
7.Select Source	

Section 2: Making Copies from the Reader (when the Reader is selected as the source drive).

Step 1: Use the up or down arrow button to navigate to the Copy menu:

DUPLICATOR	2.20
1.Copy	

Step 2: Press the "ENT"/Enter button to enter the Copy menu. You should then see the Counter feature screen.

Counter:
No Counter

The Counter feature will let you choose how many copies you want to make for your project. It allows the system to count the number of copies you've made for this job and prompt you when the desired number has been achieved.



The Counter feature is for your convenience only, and will allow you to make more copies than the amount desired, if so required.

You can choose not to input your desired number of copies if you prefer to copy continuously with no interruption. (It will still count the number of copies you've made for this job, but it will not notify you when to stop.) To do so, simply press "ENT"/Enter button when you see the "No Counter" on the 2nd line of the screen below:

Counter:
No Counter

Or, you can choose to enter the desired number of copies for this job by following the simple procedure below:

- a) Simply press the up or down button to the following screen:

Counter:
Specify Counter

- b) Then press the “ENT”/Enter button to submit. You should see the following Specify Counter screen:

```
Specify Counter:  
[      ] OK?
```

- c) Please refer to the “Input Name and Number” section of “Chapter 2: Getting to know your System” on how to enter the desired amount. Then press “ENT”/Enter to continue to the next step.

Step 3: Once the Counter selection is submitted, you shall see the following Preparation screen and the corresponding trays that do not contain disc(s) in them will automatically be ejected:

```
Preparing  
Waiting for Master
```

OR

```
Preparing  
Waiting for Blanks
```



Note

If either one of the above screens is displayed for more than 2 minutes after you have inserted your master disc or blank discs, please check the quality of the discs.

Step 4: After you’ve placed your master disc and blank discs in the drive(s), please allow 5-10 seconds for the system to detect them. After they have been recognized, then you shall see the following screen:

```
Preparing  
7 Disc Detected, Go?
```

- The “7” indicates there are seven discs recognized by the Writer. Actual quantity may be different depending on the size of your machine or the number of discs you inserted.



Note

By default, the “Auto Start” setting is set to “Auto”. Therefore, if your system is not completely filled with blank discs and there is no activity within 30 seconds, or if all writers are filled and the system detects this, the system will start automatically.



Note

Once the number of blank discs you inserted matches the number of discs detected on the screen, press “ENT”/Enter (if you are not using Auto Start or wish to speed up the process) to confirm and the following Processing screen will appear.

```
Processing...  
Please Wait
```

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

Step 5: After 2 or 3 seconds of processing time, one of the following Copy progress screens will appear. The left-hand screen is shown when “Specify Counter” is selected and the right-hand screen is shown when “No Counter” is selected.

“Specify Counter”

Copying...	4012MB
0/21 10%	401MB

“No Counter”

Copying ...	4012MB
0 10%	401MB

- 4012MB indicates the total capacity of your master disc.
- 0/21 indicates you have a project size of twenty-one copies and you have made zero copies thus far.
- 10% indicates the current percentage of the copying progress.
- 401MB indicates the current amount of data that has been copied from the master disc.

- 4012MB indicates the total capacity of your master disc.
- 0 indicates you have made zero copies thus far.
- 10% indicates the current percentage of the copying progress.
- 401MB indicates the current amount of data that has been copied from the master disc.



It is normal to see the progress indicator stay at 0-10% and 100% for approximately 30 seconds for CD duplication and up to 1 minute for DVD duplication. That is caused by the initializing and finalizing stages.

Step 6: Once the duplication run is completed, the successful copies will be ejected and you shall see the following screen.

PASS 7 FAIL 0 (7)
Waiting for Blanks

- “PASS 7” indicates that you’ve just made 7 successful copies.
- “FAIL 0” indicates that you have no failure in this run.
- “7” indicates that you’ve successfully copied 7 copies so far.

Step 7: Remove the successful copies and refill the trays with additional blank media to continue making more copies. You can also press the “ESC”/Escape button to terminate your project and go back to the main menu.

If you’ve specified a counter value for your project and your project is completed, you shall see the following screen:

Pass 21 Fail 0
Job Completed! Press OK to Finish

You can then press “ENT”/Enter to go back to main menu.



If you happen to have any failed discs (bad copy), the failed disc(s) will not be ejected automatically. You need to manually eject them and throw them away if they are write once recordable disc(s).

Making Hard Drive-to-Disc Copies

Copying from the hard drive is the best way to make copies. Overall, there are four benefits of copying from the hard drive.

- **Performance.** Copying from the hard drive will enable the writer drives to boost the copying performance to its limit.
- **Stability.** Copying from hard drive will stabilize the duplication process compared to disc-to-disc duplication.
- **Durability** – The hard drive is a more durable storage device than recordable discs. The recording surface of a recordable disc is exposed and can easily be scratched on its surface, while hard drives are covered with metal and mounted inside the system protecting it from incidental damage.
- **Convenience** – With your master disc(s) stored inside the hard drive, you can have access to each one easily. There is no need to carry your master discs every time you want to make a copy; they are all stored inside the system.



Throughout this manual, the term partition(s) is also used to refer to image files in the hard drive.

If your system has a Hard Drive installed, a partition/image will be created whenever you begin to load master disc content into the hard drive. The number of images the hard drive can hold is determined by the capacity of your hard drive and the size of every master disc image you transferred into the hard drive.



Hard Drive Manufacturers use conversion rate of 1GB = 1 Billion Bytes or 1000^3 Bytes. However, most Operating Systems, including our Duplication System use standard conversion rate of 1GB = 1.074 Billion Bytes or 1024^3 Bytes. Therefore, for an advertised 160GB Hard Drive (160 Billion Bytes), the true capacity base on our system's standard is actually 149GB.

The following steps will show you how to load your master disc into the installed hard drive as an image and copy the stored image onto blank discs.

Section 1: Loading Master Disc content into the Hard Drive as a partition/image.

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

DUPLICATOR	2.20
1.Copy	

Step 1: Use the up or down arrow button to navigate to the Hard Drive Setup menu.

DUPLICATOR	2.20
9.Hard Drive Setup	

Step 2: Press “ENT”/Enter button to enter the Hard Drive Setup menu.

If the current source is not Hard Drive, you will see the screen below. Please press the “ENT”/Enter button once to proceed.

```
Select HDD as source
OK?
```

Once you've entered the Hard Drive Setup menu, you will see following screen:

```
Hard Drive Setup
1.Select Partition
```

Step 3: Use the up or down button to locate the Load Partition menu; as shown in the reference screen shot below.

```
Hard Drive Setup
2.Load Partition
```

Step 4: Press the “ENT”/Enter key to enter the Load Partition menu and you should see the following screen.

```
Load Partition[160GB]
Load▶New Partition
```

- 160GB indicates the total available capacity of the system's hard drive – this number will vary based on the size of the hard drive installed in your duplicator.

You have a choice when loading your master disc content into the hard drive by pressing the up or down button to find your desired partition naming method:

Option 1:

A new partition/image

Screen Shot (New Partition)

Option 2:

Overwrite one of the existing partitions/images (if any exists, including the reserved partition/image)

Screen Shot (Overwrite)

Option 3:

Choose Auto Generate to have the system automatically generate a partition/image name for you.

Screen Shot (Auto Gen)

From 1 of the 3 choices above, press the “ENT”/Enter button to submit your selection.

- If you have chosen to create a new partition/image, you should see the following screen after you submit your selection.

```
Edit Partition Name
[                               ]OK?
```

Please refer to the “Input Name and Number” section of “Chapter 2: Getting to know your System” to enter the desired title. Then press the “ENT”/Enter to continue to the next step.



After you submitted a hard drive partition/image name, the system will automatically append a partition/image name suffix of .VEF.

- If you have chosen to overwrite one of the existing partitions/images, you should see the following screen after you submit your selection.

```
This Will Overwrite
[FUN1.VEF           ]OK?
```

Then press “ENT”/Enter to continue to the next step.

- If you have chosen Auto Generate, Then precede to the next step.

Step 5: Please place your master disc into the Reader or the 1st Writer if there’s no Reader installed in your system. Once the system recognizes your master disc, the loading progress screen will be displayed, as show below:

```
Loading...      4012MB
FUN1.VEF  10%   401MB
```

- 4012MB indicates the total capacity of your master disc.
- FUN1.VEF indicates the name of the partition/image where the data is being loaded into.
- 10% indicates the current percentage of the master disc that has been loaded into the hard drive.
- 401MB indicates the current amount data from the master disc that has been loaded into the hard drive.

Step 6: Once the loading process is completed, you should see the following screen:

```
Load Partition OK!
Press OK to Continue
```


You can then press the “ENT”/Enter button to go back to the Hard Drive Setup menu. And then press the “ESC”/Escape button to return to the Main menu. You should see the following screen:

```
DUPLICATOR      2.20
 9.Hard Drive Setup
```

Section 2: Selecting the Copy Source to the Hard Drive.



Ignore this section and proceed to Section 3 if you have just completed Section 1: Loading Master Disc content into the Hard Drive as an image as this process will automatically switch the source to the hard drive.

Step 1: Use the up or down arrow button to navigate to the Select Source menu.

```
DUPLICATOR      2.20
 7.Select Source
```

Step 2: Press “ENT”/Enter button to enter the Select Source menu and you shall see a screen similar to below:

```
Drive 0      Port x.x
ASUS         DVD-E818A
```

Step 3: Use the up or down button to locate the Hard Drive and press the “ENT”/Enter button to select it.

```
HARD DRVIE   Port x.x
HITACHI HDS721616PL
```



If the hard drive has already been pre-selected as the source, the system will NOT respond to the “ENT”/Enter button. Please press the “ESC”/Escape button to go back to the main menu.

Once the source has been selected, you will be guided to the Main menu. You should see the following screen:

```
DUPLICATOR      2.20
 7.Select Source
```

Section 3: Making Copies from an existing partition/image of the Hard Drive.

Step 1: Use the up or down arrow button to navigate to the Copy menu:

```
DUPLICATOR      2.20
 1. COPY
```

Step 2: Press the “ENT”/Enter button to enter the Copy menu. You should then see the Choose Partition menu.

```
Choose Partition:
[FUN1.VEF] 4012MB
```

Step 3: Use up or down button to choose the desired partition/image to copy from and press the “ENT”/Enter button to submit your selection. You should then see the Counter feature screen.

```
Counter:
No Counter
```

The Counter feature will let you choose how many copies you want to make for your project. It allows the system to count the number of copies you’ve made and prompt you when the desired number of copies has been made for this job.



Note

The Counter feature is for your convenience only, and will allow you to make more copies than the amount desired, if so required.

You can choose not to input your desired number of copies if you prefer to copy continuously with no interruption. (It will still count the number of copies you’ve made for this job, but it will not notify you when to stop.) To do so, simply press the “ENT”/Enter button when you see the “No Counter” on the 2nd line of the screen below:

```
Counter:
No Counter
```

Or, you can choose to enter the desired number of copies for this job by following this simple procedure:

- a) Press the up or down button to following screen:

```
Counter:
Specify Counter
```

- b) Then press the “ENT”/Enter button to submit, and you should see the following Specify Counter screen:

```
Specify Counter:
[    ] OK?
```

- c) Please refer to the “Input Name and Number” section of “Chapter 2: Getting to know your System” to enter the desired amount. Then press the “ENT”/Enter to continue on to the next step.

Step 4: Once the Counter selection is submitted, you shall see the following Preparation screen and the corresponding trays that do not contain disc(s) in them will automatically be ejected:

```
Preparing
Waiting for Blanks
```



If the above screen is displayed for more than 2 minutes after you have inserted your blank discs, please check the quality of the discs.

Step 5: After you've placed your blank discs into the drives, please allow 5-10 seconds for the system to detect them. After they have been recognized, you shall see the following screen:

```

Preparing
7 Disc Detected, Go?
  
```

- The "7" indicates there are seven discs recognized by the Writer. Actual quantity may be different depending on your machine. Actual quantity may be different depending on the size of your machine or the number of discs you inserted.



By default, the "Auto Start" setting is set to "Auto". Therefore, if your system is not completely filled with blank discs and there is no activity within 30 seconds, or if all writers are filled and the system detects this, the system will start automatically.



Once the number of blank discs you inserted matches the number of discs detected on the screen, press "ENT"/Enter (if you are not using Auto Start or wish to speed up the process) to confirm and the following Processing screen will appear.

```

Processing...
Please Wait
  
```

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

Step 6: After 2 or 3 seconds of processing time, one of the following Copy progress screens will appear. The left-hand screen is shown when "Specify Counter" is selected and the right-hand screen is shown when "No Counter" is selected.

"Specify Counter"

```

Copying...   H4012MB
0/21   10%   401MB
  
```

- H indicates you are copying from a hard drive partition/image.
- 4012MB indicates the total capacity of your master disc image.
- 0/21 indicates you have a project size of twenty-one copies and you have made zero copies thus far.
- 10% indicates the current percentage of the copying progress.
- 401MB indicates the current amount data that has been copied from the master disc image.

"No Counter"

```

Copying ...   H4012MB
0   10%   401MB
  
```

- H indicates you are copying from a hard drive partition/image.
- 4012MB indicates the total capacity of your master disc image.
- 0 indicates you have made zero copies thus far.
- 10% indicates the current percentage of the copying progress.
- 401MB indicates the current amount data that has been copied from the master disc image.



It is normal to see the progress indicator stays at 0-10% and 100% for approximately 30 seconds for CD duplication and up to 1 minute for DVD duplication. That is caused by the initializing and finalizing stage.

Step 7: Once the duplication run is completed, the successful copies will be ejected and you shall see the following screen.

```
PASS 7 FAIL 0 ( 7 )
Waiting for Blanks
```

- "PASS 7" indicates that you've just made 7 successful copies.
- "FAIL 0" indicates that you have no failure in this run.
- "7" indicates that you've successfully copied 7 copies so far.

Step 8: Remove the successful copies and refill the trays with additional blank media to continue making more copies. You can also press the "ESC"/Escape button to terminate your project and go back to the main menu.

If you've specified a counter value for your project and your project is completed, you shall see the following screen:

```
Pass 21 Fail 0
Job Completed! Press OK to Finish
```

You can then press "ENT"/Enter to go back to main menu.



If you have any failed discs (bad copy) during a run, the failed disc(s) will not be ejected automatically. You need to manually eject them and throw them away if they are write once recordable disc(s).

Design and Printing Labels

The instructions covered in this section will help you design and print a label from your LightScribe Standalone Duplication system.



Please note that you must install the supplied LightScribe software in order to proceed with the instructions below. If you have any difficulties installing the software, please contact Tech Support for assistance.

Section 1: Design your labels with LightScribe Template Labeler and create a LightScribe Label CD

Step 1: Launch the *LightScribe Template Labeler*



- By clicking the shortcut icon **LightScribe** on your desktop.
- Or you can find the program launch shortcut in **Start > All Programs > LightScribe Direct Disc Labeling > LightScribe Template Labeler**.



Since we use this software for design and layout purpose, please ignore the “LightScribe Disc Insertion” prompt below by pressing the OK button.



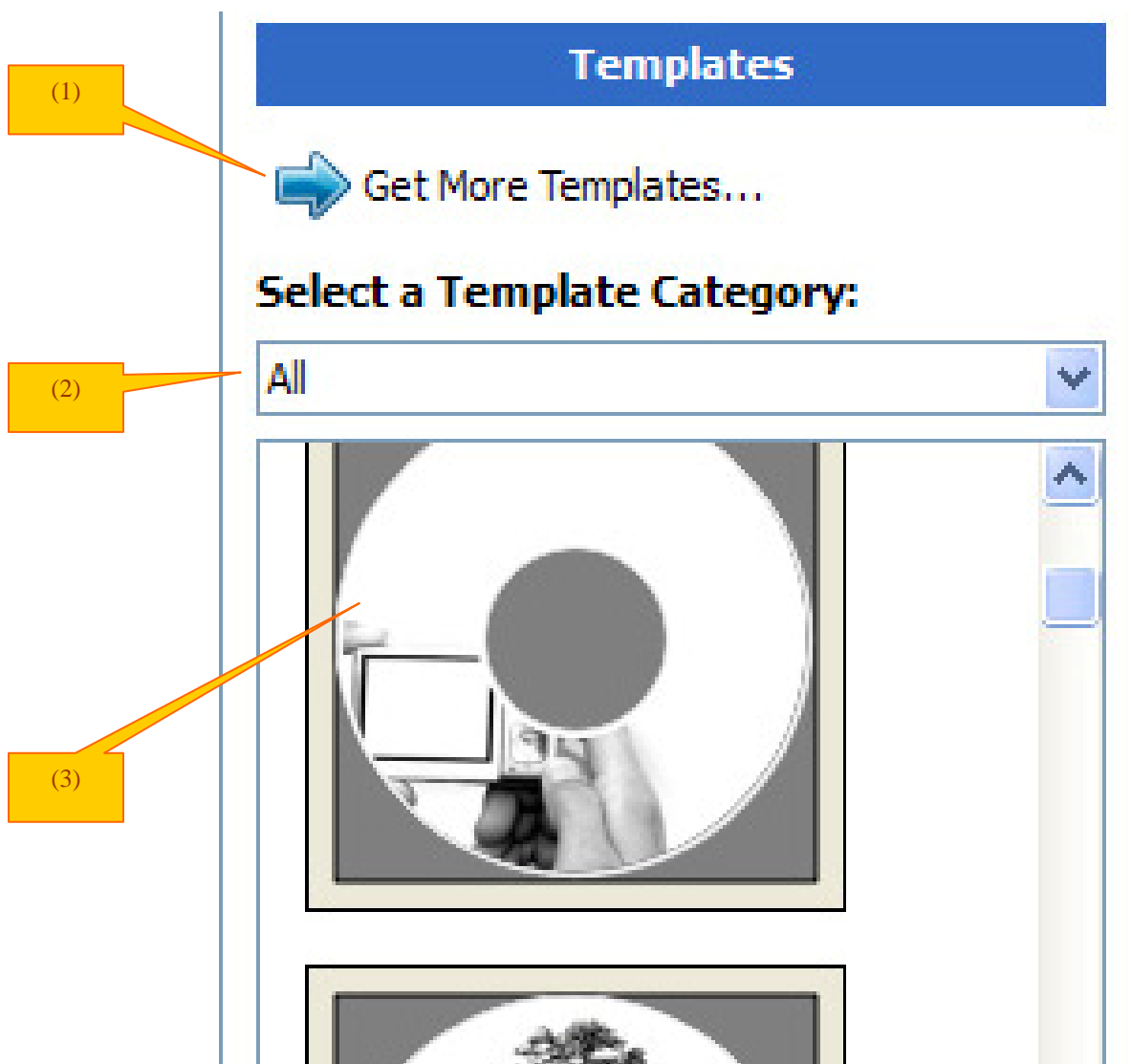
Step 2: Select Template

- Choose one of the preinstalled templates, or click on "Get More Templates" to download additional templates. (1)
- Select the Category filter function to better view and choose a template. Note that each template may appear in multiple categories. (2)
- Click on your Template choice to activate. (3)



If you prefer more advanced design capabilities instead of the pre-designed templates, you can do following:

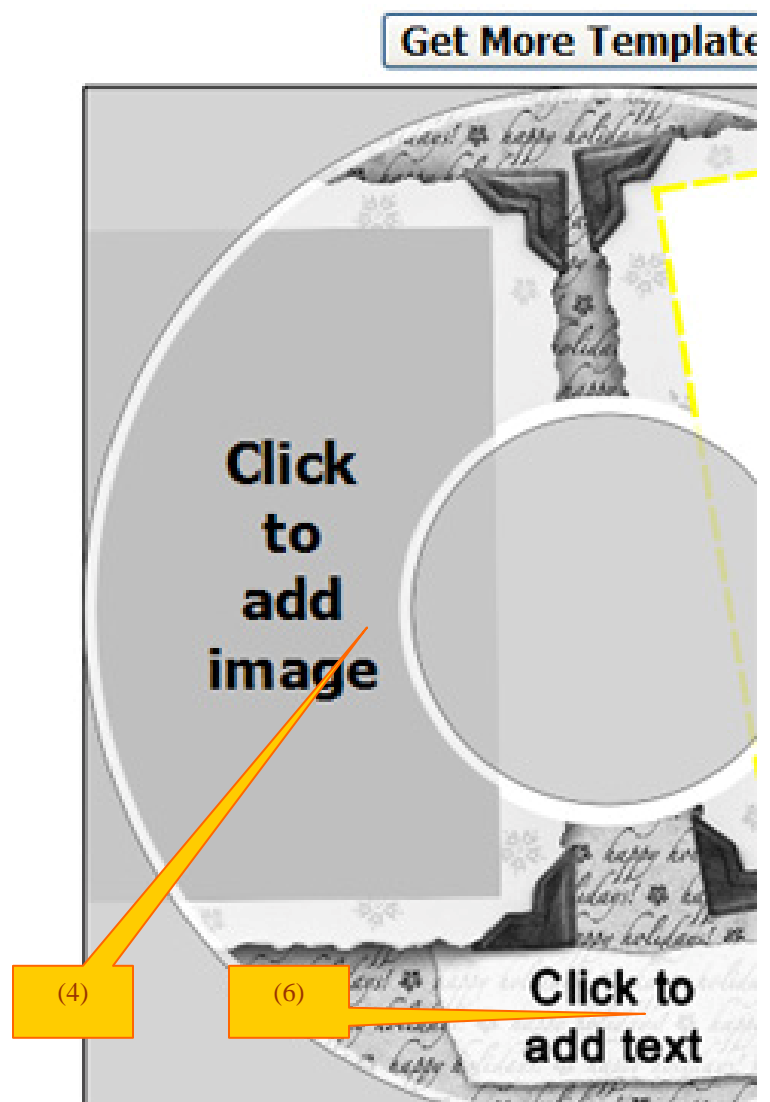
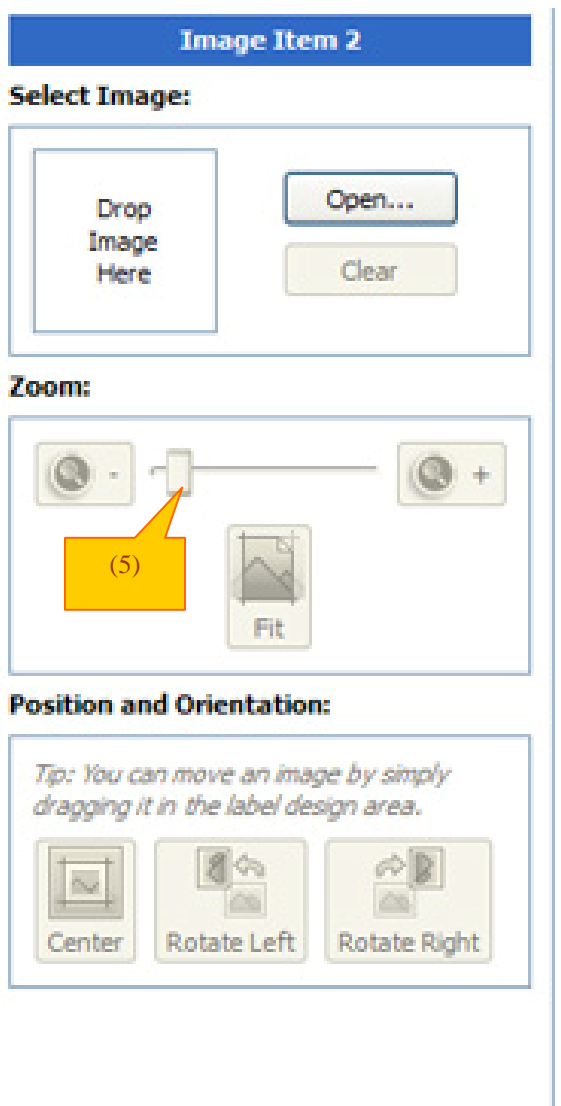
- Design your own CD label artwork using a more advance design software like Adobe PhotoShop*
- Export your completed CD artwork as a picture format like bmp, jpeg, png, etc.*
- Choose an empty template from the Template Labeler and add the exported CD artwork pictures into the empty template.*



Step 3: Insert Text and/or Pictures

- Depending on the template chosen, you may have the option to modify text box(s) or picture(s).
- For inserting pictures, just click on the dedicated area to select the picture you'd like to use. (4)
- Use the Zoom button or the scroll wheel of your mouse to size the picture, and then drag it to position where you want it within the selection window. (5)
- For text, just click on the text field, and then type the text you'd like to appear within the text field. Note you can enter multiple lines of text depending on the template chosen. (6)

Step 4: Preview and Print Label

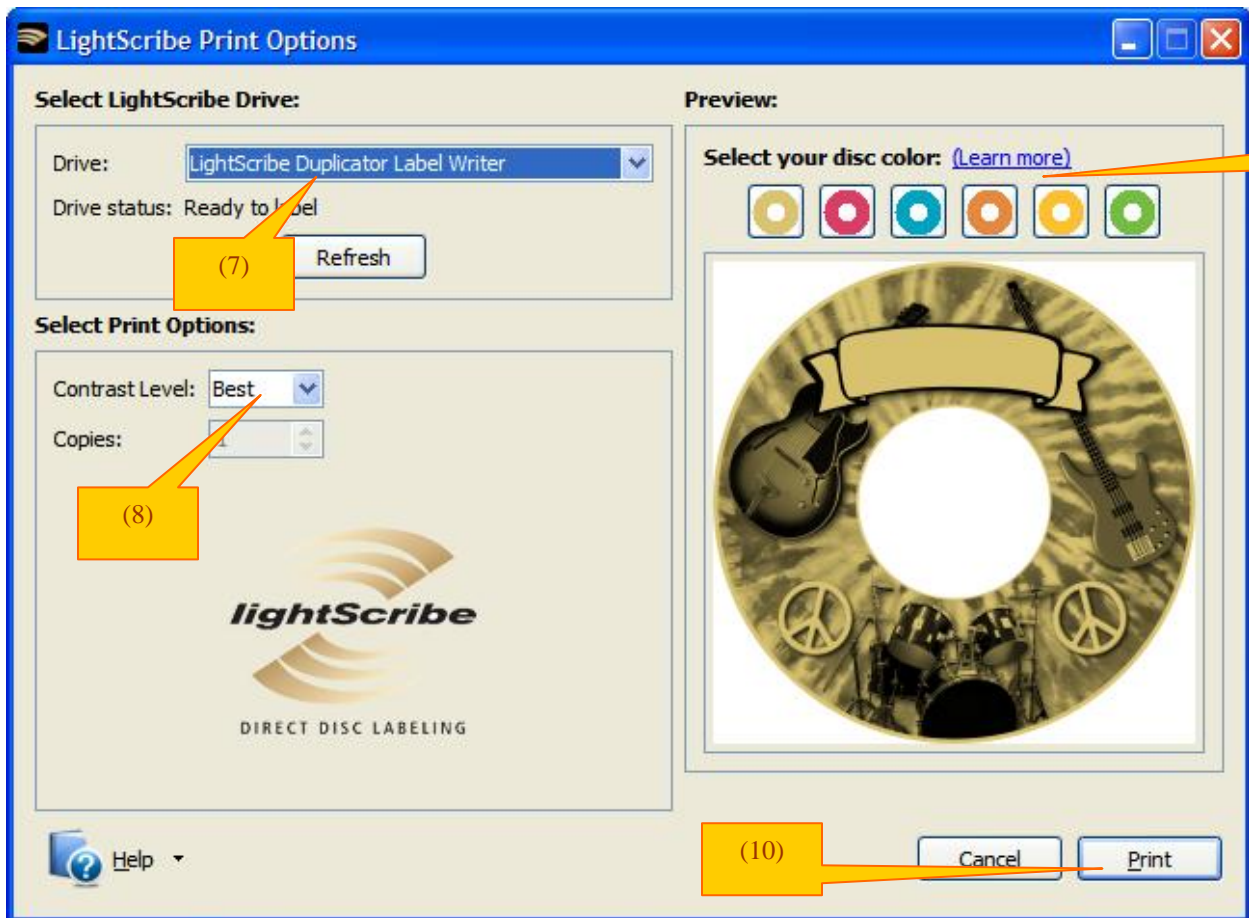


Step 5: Click on "Preview and Print" to bring up the print window.

- Select the "LightScribe Duplicator Label Writer" as the LightScribe Drive. (7)
- Select the "Best" contrast mode for the darkest print. (8)
- Select the label surface color of the disc you wish to label onto. (9)
- If you are satisfied with the preview, click "Print" to begin generating the Duplicator Label file (.lsi files). (10).



You will be asked for the location & the name of the label file(s) you wish to generate. In addition, due to the system display limitation, make sure the file name does not contain any foreign characters other than 26 Greek alphabets, numerical digits, and/or some basic symbols like "-", etc.



Step 6: Create a Label CD

- Locate the label file(s) (.lsi files) on your PC.
- Create a Data CD with the label file(s) via a CD/DVD Creating Software; like Nero Burning-ROM or Roxio Classic CD Creator



Do NOT place label file(s) under any directory/folder of the Label CD. Failure to do so will result in the label file(s) not being recognized by your system.

Section 2: Selecting the Print Source of the system as the Reader.

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

DUPLICATOR	2.20
1.Copy	

Step 1: Use the up or down arrow button to navigate to the Select Source menu.

DUPLICATOR	2.20
9.Select Source	

Step 2: Press the “ENT”/Enter button to enter the “Select Source” menu and you shall see a screen similar to below:

Drive 0	Port x.x
ASUS	DVD-E818A

Step 3: If you plan to use the Reader as the source, use the up or down button to locate Drive 0 (1st drive) and press the “ENT”/Enter button to select it.

Drive 0	Port x.x
ASUS	DVD-E818A

If you would like to use one of the Writers as the source, use the up or down button to locate Drive 1 or up and press the “ENT”/Enter button to select it.

Drive 1	Port x.x
Pioneer	DVD-RW DVR-1



If the drive you've selected is the same as the original source, the system will NOT respond to the “ENT”/Enter button. Please press “ESC”/Escape button to go back to the main menu.

Once the source has been selected, you will be guided to the Main menu. You should see the following screen:

DUPLICATOR	2.20
9.Select Source	

Section 3: Print copies of your LightScribe label with the LightScribe Label CD you've created.

Step 1: Use the up or down arrow button to navigate to the Print menu:

DUPLICATOR	2.20
2.Print	

Step 2: Press the “ENT”/Enter button to enter the Print menu. You should then see the Counter feature screen.

Counter:
No Counter

The Counter feature will let you choose how many copies you want to print for your project. It allows the system to count the number of copies you've made and prompt you when the desired number of copies has been made for this job.



The Counter feature is for your convenience only, and will allow you to make more copies than the previously desired amount, if so required.

You can choose not to input your desired number of copies if you prefer to print continuously with no interruption. (It will still count the number of copies you've made for this job, but it will not notify you when to stop.) To do so, simply press “ENT”/Enter button when you see the “No Counter” on the 2nd line of the screen below:

Counter:
No Counter

Or, you can choose to enter the desired number of copies for this job by following the simple procedure below:

- a) Press the up or down button to the following screen:

Counter:
Specify Counter

- b) Then press the “ENT”/Enter button to submit, and you should see the following Specify Counter screen:

Specify Counter:
[] OK?

- c) Please refer to the “Input Name and Number” section of “Chapter 2: Getting to know your System” to enter the desired amount. Then press “ENT”/Enter to continue next step.

Step 3: Once the Counter selection is submitted, you shall see the following Preparation screen and the corresponding trays not loaded with discs will automatically eject:

**Preparing
Waiting for Master**



If above screens is displayed for more than 2 minutes after you have inserted your master disc or blank discs, please check them for quality

Step 4: After you've placed your label disc and LightScribe printable disc(s) in the system's writer drives (label side face down), please allow 5-10 seconds for the system to detect the label disc. After they have been recognized, then you shall see the following screen:

**Please Select Label
1. [SampleLabel.lsi]**

Please press the UP or DOWN button to select the desired label you wish to print and press the "ENT"/Enter button to confirm your selection.

Step 5: After you've selected the desired label file, the system will try to detect the LightScribe printable disc(s) in the drives. Please allow 5-10 seconds for the system to detect them. After they have been recognized, then you shall see the following screen:

**Preparing
7 Disc Detected, Go?**

- The "7" indicates there are seven LightScribe printable discs recognized by the Writer. Actual quantity may be different depending on your machine.



By default, the "Auto Start" setting is set to "Auto". Therefore, if your system is not completely filled with LightScribe printable discs and there is no activity within 30 seconds, or if all writers are filled and the system detects this, the system will start automatically.



Once the number of LightScribe printable discs you inserted matches the number of discs detected on the screen, press "ENT"/Enter (if you are not using Auto Start or wish to speed up the process) to confirm, and the following Processing screen will appear.

**Processing...
Please Wait**

If the number of LightScribe printable discs you inserted does not match the number of discs detected on the screen, please allow 15-30 seconds for the system to recognize all of your LightScribe printable discs.

Step 6: After 2 or 3 seconds of processing time, one of the following Printing progress screens will appear. The left-hand screen is shown when “Specify Counter” is selected and the right-hand screen is shown when “No Counter” is selected.

“Specify Counter”

Printing... 0/21 10%

- 0/21 indicates you have a project size of twenty-one prints and you have printed zero discs thus far.
- 10% indicates the current percentage of the printing progress.

“No Counter”

Printing... 0 10%

- 0 indicates you have printed zero discs thus far.
- 10% indicates the current percentage of the printing progress.



It is normal to see the progress indicator stay at 0% and 100% for approximately 5 minutes. That is caused by the initializing and finalizing stage.

Step 7: Once the printing run is completed, the successful printed copies will be ejected and you shall see the following screen.

PASS 7 FAIL 0 (7) Please insert Label Disc
--

- “PASS 7” indicates that you’ve just printed 7 successful discs.
- “FAIL 0” indicates that you have no failure in this run.
- “7” indicates that you’ve successfully printed 7 discs so far.

Step 8: Remove the successful copies and refill the trays with additional LightScribe printable discs to continue printing more copies. You can also press the “ESC”/Escape button to terminate your project and go back to the main menu.

If you’ve specified a counter value for your project and your project is completed, you shall see the following screen:

Pass 21 Fail 0 Job Completed! Press OK to Finish

You can then press the “ENT”/Enter to go back to main menu.



If you happen to have any failed discs (bad print), the failed disc(s) will not be ejected automatically. You need to manually eject them and you can re-use them in the next run, however, the re-print will make your copies look darker than your original design.

Select the Duplication Speed

This process will allow you to adjust the duplication speed subject to your needs.

By default, the duplication speed will be set to the optimal speed for each format and setting. However, under some circumstances, you may want to reduce the duplication speed. Those circumstances typically are as follows:

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

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

DUPLICATOR	2.20
1.Copy	

Step 1: Use the up or down arrow button to navigate to the Select Burn Speed menu.

DUPLICATOR	2.20
6.Select Burn Speed	

Step 2: Press the “ENT”/Enter button to enter the Select Burn Speed menu and you shall see a screen similar to below:

Select Burn Speed
CD to CD

Step 3: Select the Correct Speed Type

There are different types of recording speed based on the disc format and source:

- **HDD/CD to CD:** Copying to CD-R/RW media from a pre-loaded CD partition/image in the hard drive or a CD master disc in the Reader/Writer.
- **HDD/DVD to DVD:** Copying to DVD±R media from a pre-loaded DVD partition/image in the hard drive or a DVD master disc in the Reader/Writer.
- **HDD/DVD-DL to DVD-DL:** Copying to Double/Dual Layer Recordable DVD media from pre-loaded a DVD-DL partition/image in the hard drive or a Double/Dual Layer DVD master disc in the Reader/Writer.
- **HDD/BD to BD:** Copying to BD-R/RE media from a pre-loaded BD partition/image in the hard drive or a Blu-ray master disc in the Reader/Writer.

Depending on the type of duplication job(s) and your system restrictions, you need to select the correct speed type in order for this setting to take effect. To select various speed types, you need to press the up or down button to adjust and press the “ENT”/Enter button to submit your selection.

Step 4: Once you have submitted the desired speed types, you should see the following screen for speed adjustment.

CD to CD Speed: 16x

You can press the up or down button to select the desired speed value and then press the “ENT”/Enter to submit the selection.



If the speed value you’ve selected is the same as the current speed value, the system will NOT respond to the “ENT”/Enter button. Please press the “ESC”/Escape button to go back to the main menu.

Step 5: Once the speed setting has been successfully changed, you shall see the following screen for 2 seconds.

CD to CD Speed: Adjusted to: 24x

Then you will be directed back to the main menu:

DUPLICATOR	2.20
1.Copy	

Mix Audio Tracks

This process will guide you to mix an Audio CD from various tracks among different Audio CDs.

The following are the ways you can mix an Audio CD:

- Mix directly to Blank CD-R media (This option is not available if you have a CD+G Duplication System):

By mixing an audio CD directly to blank CD-R media, all the tracks you selected will be transferred to the blank CD-R media directly track by track. Once you've completed your track selection(s); you will be instructed to finalize your mixed Audio CD. You can operate this by choosing "Edit Track to: Blank CD" when asked.

Please do this cautiously; if any of the Audio CD tracks you wish to mix are not readable due to scratches or poor quality, the blank CD-R media will be ruined.

- Mix through the Hard Drive (This option is available ONLY if your system has a hard drive installed.)

By mixing an audio CD through the Hard Drive, all the tracks you select will be transferred to the Hard Drive. Once you've completed your track selection(s); you will be instructed to copy them onto a blank 80 min CD-R media. You can operate this function by choosing "Edit Track to: Hard Drive" when asked.

This is considered a safer method to perform the mix audio tracks. If any of the Audio CD tracks you wish to mix are not readable due to scratches or bad quality, the blank CD-R media will NOT be ruined since the blank CD-R media isn't being recorded on until all Audio CD tracks are successfully transferred to the hard drive.

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

```
DUPLICATOR      2.20
 1.Copy
```

Step 1: Use the up or down arrow button to navigate to the Mix Audio Tracks menu.

```
DUPLICATOR      2.20
10.Mix Audio Tracks
```

Step 2: Press the "ENT"/Enter button to enter the Mix Audio Tracks menu and you shall see the Mix Mode screen similar to below (If your system is a CD+G Duplication System or does not have a hard drive installed, please skip ahead to Step 3):

```
Mix Mode:
Directly to Blank CD
```

At this point, you can press the UP or DOWN arrow to choose how you want to mix your audio tracks, either by mixing through the hard drive or directly to blank CD's. Then press the "ENT"/Enter button to submit your selection.

Step 3: Once the Mix Mode selection is submitted, you shall see following Preparation screen and the corresponding trays that do not contain disc(s) in them will automatically be ejected:

**Preparing
Waiting for Master**

Or

**Preparing
Waiting for a Blank**



If either one of the above screens is displayed for more than 2 minutes after you have placed your master disc or blank disc into the drives, please check the disc quality.

Step 4: After you've placed an Audio CD containing the track(s) you wish to copy, and a blank CD-R media in the writer drive(s), please allow 5-10 seconds for the system to detect them. After they have been recognized, then you should see the following screen:

**Total: 0 Trk 0m: 0s
Track 1: 4m:31s**

- "Total: 0 Trk 0m: 0s" indicates that you have zero track(s) selected and it has zero minutes and zero seconds playtime.
- "Track 1: 4m:31s" indicates currently you are focusing on track one of the Audio CD you've inserted and has a running time of four minute and thirty-one seconds.

Step 5: When you see the above screen shot, you can press the up or down button to display the playtime of each track on this audio CD and press the "ENT"/Enter button to select the track you wish to be mixed. Once a track is selected, you shall see the symbol "*" on the left of the track number on the 2nd line as shown in the below screen.

**Total: 1 Trk 4m:31s
*Track 1: 4m:31s**



If the track you have selected will cause the total playtime of all audio tracks to be more than your blank CD-R media capacity, you should see the following screen.

**Over Blank Disc Capacity
Press OK to Continue**



Given the limited space of the screen, the message above will scroll across the screen in order to show the full message.

You need to press the “ENT”/Enter button to return to the track selection menu. The track selected that caused this error message will be de-selected automatically. Then, you can select a different track with smaller playtime.

Step 6: Once you have finished selecting the tracks on this Audio CD you want to mix, you can press the up or down button until you see “Are you done?” on the 2nd line as in the following screen.

```
Total: 6 Trk 26m:17s
Are you done?
```

Step 7: You can now press “ENT”/Enter button to confirm your selection. The system will now start the mixing process as shown in the following screen.

```
Mixing...           1
10%                 4m:31s
```

- “1” indicates that the system is currently transferring track one.
- “10%” indicates that the current transferring progress of the current track, track one.
- “4m:31s” indicates the current running time of that track.

Step 8: Once the mixing process is completed, you will see the following screen:

```
Mixing Complete!
Finish Mixing?
```

When you’re finished adding tracks, you can choose to finalize the job (mark the completion) by performing the following steps:

- a) Press the “ENT”/Enter button when you see “Finish Mixing?” on the 2nd line of the screen like below.

```
Mixing Complete!
Finish Mixing?
```

- b) Then press the “ENT”/Enter button to submit, and you should see the following confirmation screen:

```
Mixing Complete!
Confirm to Finalize?
```

- c) Press the “ENT”/Enter button once to confirm your selection, and you should see the following Finalizing screen (if you choose to mix directly to a blank CD) or Copying screen (if you choose to mix through the hard drive).

```
Finalizing...
Please Wait
```

OR

```
Copying...   H 228MB
  0/1    10%   401MB
```

- d) Once the finalizing/copying process is completed, you should see the following screen.

```
Job Completed!
Press OK to Finish
```

You can then press the “ENT”/Enter button and you will be guided back to the main menu.

Or you can choose to mix more tracks from other Audio CD's by pressing the up or down button until you see “Insert Next Master?” on the 2nd line as in the following screen.

```
Mixing Complete!
Insert Next Master?
```

Then press the “ENT”/Enter button to repeat Steps 3 through 8. When the whole process is complete, your mixed copy will be ejected and you shall see the following:

```
Job Completed!
Press OK to Finish
```

Press “ENT”/Enter button and you will be directed back to the main menu:

```
DUPLICATOR      2.20
10.Mix Audio Tracks
```

Example of Mixing Audio Tracks directly to Blank CD

For the example below, we will mix a new Audio CD from 2 different Audio CD's.

From CD1: song 2, and song 4

From CD2: song 3, song 4 and song 5

1. Go to menu 10. Mix Audio Tracks.

DUPLICATOR	2.20
10.Mix Audio Tracks	

2. Press "ENT"/Enter button.

Mix Mode:
Directly to Blank CD

3. Press "ENT"/Enter button.

Preparing
Waiting for a Blank

4. Insert Blank CD-R media.

Preparing
Waiting for Master

5. Insert CD1.

Total: 0 Trk	0m:00s
Track 1:	4m:31s

6. Press the down button until you see "Track 2" on the 2nd line.

Total: 0 Trk	0m:00s
Track 2:	4m:49s

7. Press "ENT"/Enter button once.

Total: 1 Trk	4m:49s
*Track 2:	4m:49s

8. Press the down button until you see "Track 4" on the 2nd line.

Total: 1 Trk	4m:49s
Track 4:	4m:58s

9. Press "ENT"/Enter button once.

Total: 2 Trk	9m:47s
*Track 4:	4m:49s

10. Press down button until you see "Are you done?" on the 2nd line.

Total: 2 Trk	9m:47s
Are you done?	

11. Press "ENT"/Enter button once

Mixing...	2
0%	4m:31s

Mixing Complete!
Finish Mixing?

12. Press down button until you see "Insert Next Master?" on the 2nd line.

Insert Next Master?

13. Press "ENT"/Enter button once.

Preparing
Waiting for Master

14. Insert CD2.

Total: 2 Trk	9m:47s
Track 1:	4m:03s

- | | | |
|--|--|--|
| 15. Press down button until you see "Track 3" on the 2 nd line. | Total: 2 Trk 9m:47s
Track 3: 4m:47s | |
| 16. Press "ENT"/Enter button once. | Total: 3 Trk 14m:34s
*Track 3: 4m:47s | |
| 17. Press down button until you see "Track 4" on the 2 nd line. | Total: 3 Trk 14m:34s
Track 4: 5m:26s | |
| 18. Press "ENT"/Enter button once. | Total: 4 Trk 20m:00s
*Track 4: 5m:26s | |
| 19. Press down button until you see "Track 5" on the 2 nd line. | Total: 4 Trk 20m:00s
Track 5: 4m:27s | |
| 20. Press "ENT"/Enter button once. | Total: 5 Trk 24m:27s
*Track 5: 4m:27s | |
| 21. Press down button until you see "Are you done?" on the 2 nd line. | Total: 5 Trk 24m:27s
Are you done? | |
| 22. Press "ENT"/Enter button once. | Mixing... 3
0% 4m:47s | Mixing Complete!
Finish Mixing? |
| 23. Press "ENT"/Enter button once. | Mixing Complete!
Confirm to Finalize? | |
| 24. Press "ENT"/Enter button once. | Finalizing...
Please Wait | Job Completed!
Press OK to Finish |
| 25. Press "ENT"/Enter button once. | DUPLICATOR 2.20
10.Mix Audio Tracks | |

Change the Setup settings

Most of the internal settings and information is stored inside the Setup menu. To explore and modify them is simple. Below is an example how to modify the “Auto Start” setting. Please note that the default setup is set for optimal performance of the system, it is unnecessary to change if you are satisfied with the outcome.

When you turn on your system, after it has booted up, you should see the following signifying your system is ready.

```
DUPLICATOR      2.20
1.Copy
```

Step 1: Use the up or down arrow button to navigate to the Setup menu.

```
DUPLICATOR      2.20
11.Setup
```

Step 2: Press the “ENT”/Enter button to enter the Setup menu and you shall see a screen similar to below:

```
Setup
1.Language
```

Step 3: Use the up or down arrow button to navigate to the Auto Start setting.

```
Setup
2.Auto Start
```

Step 4: Press the “ENT”/Enter button to enter the Auto Start setting and you shall see a screen similar to below:

```
Auto Start
Auto
```

Step 5: Use the up or down arrow button to change the value to “Full”.

```
Auto Start
Full
```

Step 6: Press the “ENT”/Enter button to submit the change. Once completed, you will be guided back to the setting menu.

```
Setup
2.Auto Start
```

Step 7: Press “ESC”/Escape button to go back to the main menu.

DUPLICATOR	2 . 20
11 . Setup	



This change will only be effective for the current usage until you power off the system unless you perform the Save function under the Utilities menu, or perform the Shutdown function under the main menu.

Chapter 4: Menu Overview

1. COPY

This menu will guide you to make CD/DVD/BD copies. For more information, *please refer to “Make Disc-to-Disc Copies” on page 7 or “Make Hard Drive-to-Disc Copies (ONLY for systems that have a hard drive installed) on page 11.*

2. PRINT

This menu will guide you to design and print a label from your LightScribe Standalone Duplication system.

3. COPY + PRINT

This function allows the user to perform the disc duplication operation then the disc labeling operation as part of one process. The user merely needs to flip the disc from the data side to the label side after each duplication pass.

To use this function, the master disc partition/image and LightScribe Duplication Label file (.lsi file) are required to be preloaded onto the duplicator’s internal hard drive. For more information, *please refer to “Load Partition” under “Hard Drive Setup” on page 37, and “Load Label” under “Print Setup” on page 38.*

4. TEST

This menu will guide you to make a simulation of the 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.



Due to the physical limitation of DVD+R/RW & BD-R/RE recordable format, you can not perform this procedure on these formats. If you do so, you will encounter a failure messages.



If you are using CD-RW/DVD-RW discs as your blank media during the simulation, any content that may have been recorded inside those discs will be permanently erased.

5. COMPARE

This menu will guide you to perform a bit-by-bit comparison between your master disc (or master disc image on the hard drive) and all the copied discs. The reason to perform this compare operation is to ensure all of your copies identically compare to the master disc.

6. TEST + COPY

This menu will guide you to perform the simulation of copying process and if everything passes during the simulation, the 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.

7. COPY + COMPARE

This menu will guide you to make copies, after which, it will perform an additional comparison process automatically to ensure data correctness.

8. SELECT BURN SPEED

This menu will guide you to adjust the duplication speed on various duplication job types. For more information, please refer to *“Select the Duplication Speed” on page 26.*

9. SELECT SOURCE

This menu will guide you to select a Reader/Writer drive as the source drive (where your master disc will be placed into) for Copy related operations. For more information, please refer to *section 1 of “Make Disc-to-Disc Copies” - “Selecting the Copy Source” on page 7.*

10. ERASE

This menu will guide you to erase your rewriteable discs in the Writer Tray. There are two options to erase your rewriteable discs:

Full Erase: It will erase the entire disc which will make it impossible to be recovered.

Quick Erase: It will erase the index of the rewritable disc, not the data section.

11. HARD DRIVE SETUP

11.1 Select Partition

This function will guide you to choose the default partition/image.

11.2 Load Partition

This function will guide you to load your master disc content into the hard drive as a partition/image. For more information, please refer to *section 1 of “Make Hard Drive-to-Disc Copies” - “Loading Master Disc content into the Hard Drive as a partition/image” on page 11.*

11.3 Rename Partition

This function will guide you to rename an existing partition/image (including Reserve partition/image) in the hard drive.

11.4 Delete Partition

This function will guide you to delete or remove an existing partition/image (including Reserve partition/image) in the hard drive.

11.5 Partition Info

This function will display additional information of all existing partitions/images in the hard drive. Such information includes partition/image disc type, capacity, etc.

11.6 Select Loading Drive

This function will guide you to select a Reader/Writer drive as the source drive (where your master disc will be placed into) for partition/image loading/creating related operations.

11.7 Format Hard Drive

This function will guide you to re-format the entire hard drive of the system. During the formatting process, all of your hard drive contents will be permanently lost. Please use this function with caution.

12. PRINT SETUP

12.1 Load Label

This function allows you to load your LightScribe Duplicator Label file (.lsi file) from the Label Disc onto the system's internal hard drive.

For instructions on how to generate the LightScribe Duplicator Label, *please refer to "Design and Print Labels" on page 18.*

12.2 Rename Label

This function allows you to rename your existing LightScribe Duplicator Label in the system's hard drive.

12.3 Delete Label

This function allows you to delete your existing LightScribe Duplicator Label in the system's hard drive.

12.4 Print Surface Info

This function allows you reveal the ID code of the LightScribe printable media's label surface and the ID code of the LightScribe writer itself for tech support troubleshooting purposes.

12.5 Select Loading Drive

This function will guide you to select a Reader/Writer drive as the source drive (where your LightScribe Label Disc will be placed into) for LightScribe Duplicator Label loading/creating related operations.

13. MIX AUDIO TRACKS

This process will guide you to mix an Audio CD from various tracks among different Audio CDs. For more information, please refer to "Mix Audio Tracks" on page 28.

14. SETUP

14.1 Language

This setting will allow you to choose which language you prefer be used to navigate the controller function of this system.

14.2 Auto Start

This setting allows you to choose Auto, Full, or Off. If Auto is selected, this feature automatically starts the duplication process when all writer drives detect recordable media inside, or waits for 30 seconds before starting the duplication process if there is at least one recordable disc in a writer drive and any of the remaining writer drives are empty. If Full is selected, this feature allows the system to copy automatically once your master disc and all of the writer trays of the system are filled with recordable media, but will not start automatically if any writer drives remain empty. If Off is selected, the copy process requires you to press the "ENT"/Enter button to start the duplication. This feature applies to applications inside the operation menu such as COPY, TEST, TEST+COPY, COPY+COMPARE, etc.

14.3 Read Error Skip

Normally, when the system encounters a reading error while reading your master disc, the duplication job will be aborted and all the recordable media will be ruined. However, if you believe that your master disc has a small, insignificant error due to physical damages, you can enable the setting to allow the system to skip any read error* it encounters.

*This function will not fix the error; it will only skip it to make the rest of the data readable.

14.4 CD Writing Mode

This setting will allow you to select which mode you would like to duplicate a CD. There are two different modes, "Disc at Once" and "Track at Once". Unless you understand completely what they mean, we strongly suggest you to set it as "Disc at Once".

14.5 Max Audio, VCD & CDG Speed

Audio CD's and Video CD's do not have internal error checking capability, so duplicating at too high a speed may cause frequent errors. This setting will allow you to adjust the maximum duplication speed for Audio and Video CD.

14.6 Buzzer

This setting will allow you to choose whether you want to hear a beep when you press a button or when a task has been completed.

14.7 Startup Menu

This setting will allow you to choose which menu you would like to see first when you turn on the system.

14.8 Screen Saver

This setting will allow you to choose whether you want to enable the Screen Saver feature or not. By enabling this feature, a screen saver will be displayed when your system has been idle for a long period of time.

14.9 Duplication Mode

There are two duplication modes: Load and Copy and On the Fly. Load and Copy allows faster duplication from the Hard Drive by simultaneously copying onto the blank media in the writer drives while loading the master disc to the hard drive. All subsequent copies will be created from the stored master on the HDD. The On the Fly mode instructs the system to copy directly from the master disc. When using On the Fly mode, no information is stored on the hard drive.

14.10 Counter

This option will allow you to enable/disable the Counter feature by turning this feature ON or OFF. This feature will notify you how many discs have been copied and how many discs are left to go.

14.11 DVD+R High Compatibility Mode

This feature will allow you to enable/disable the DVD+R High Compatibility Mode feature by turning this feature ON or OFF. The purpose of this feature is to increase the compatibility of DVD+R media with a broader range of DVD Video players. This process will increase the amount of time required to duplicate your disc(s).

14.12 ISRC

This option will allow you to enable/disable copying the ISRC code of the Audio CD. ISRC is the serial# of the audio tracks that uniquely identifies the song in that audio track. This ISRC code is commonly found in commercial Audio CD's and rarely seen on home made Audio CDs. By enabling this feature, the duplication performance will be lowered.

14.13 Disable Drives

This feature allows you to disable certain drives/trays when those drives/trays are producing high failure rates or not functioning properly.

14.14 CD Overburn

Overburning is the process of recording data past the normal size limit. Many disc manufacturers extend a recordable disc to leave a small margin of extra groove at the outer edge. This feature allows you to turn the ability to use the overburn area ON or OFF.

14.15 USB Connection / Firewire Connection (Optional)

This feature will allow you to turn on/off the USB / Firewire port on the back of your system. This option will allow one or more Writers on the system to be controlled by a PC. This feature will only be visible if supported USB/Firewire Connections were installed.

*Please note that system needs to be restarted when this setting is changed.

15. Utility

15.1 Disc Info

If you are uncertain about the type of blank recordable media you are using, the system is equipped with the disc info function to help identify and notify you of the disc information encoded within.

This feature will identify your blank recordable media's format, capacity, manufacture ID as well as the media's certified writing speed. Please note that limited information will be displayed for media in the Reader drive.

15.2 Prescan

Approximately 50% of failures reported by our system are caused by errors in the master disc which our Reader couldn't overcome. When this kind of failure occurs, it tends to waste all of your blank recordable media.

To help detect flaws in the master disc prior to performing the duplication process, we introduce the "Prescan" feature. This feature will scan and detect any bad sectors existing in the master disc. It is recommended to perform this feature before starting the duplication task for all master discs. By doing so you can prevent wasting blank media due to an error in the master disc.

15.3 System Info

By entering this menu, you will be able to see the hardware and software information pertaining to your system.

15.4 Device Info

By entering this menu, you will be able to see the information for devices built inside your system, such as the drives. That information includes but not limited to manufacture, model number, etc.

15.5 Load Default

This function will reset all of the options back to manufacture's default. You can perform this function if your system is acting abnormal. You'll need to perform "Shutdown" and restart the system in order for this to take affect.

15.6 Update Firmware

This function will update the software for your system. To update, you need to insert a manufacture Certified Update CD into the Reader and select this function by pressing the "ENT"/Enter button. We strongly suggest you do not upgrade your system's firmware unless your system is getting unstable.

15.7 Save

This function will save all the settings you've modified since the last time the system was booted.

16. Account Management

This menu will allow the Administrator to perform the following user administrative tasks. This feature is disabled by default. Prior to activating this feature, the duplicator recognizes all users as the only activated user defined as the administrator. The pre-defined password for this menu is "0000".

16.1 View User

This menu allows you to view current existing user accounts.

16.2 Create User

This menu allows you to create additional user accounts. Each user has their own settings. During this process, you will be prompted to enter a new user name (up to 8 alphanumeric letters or numbers) and user password (consists of a 4 digit number) for a new account.

16.3 Edit User Info

This menu allows you to change the existing user account's name and password. During this process, you will be asked to select the existing account and then you will be prompted to enter the new user name and new user password for this account.



User "Admin" is the administrative account, you can NOT change the user name for this account, but you will be able to change the password for this account.

16.4 Delete User

This menu allows you to delete the existing user account. During this process, you will be asked to select the existing account to be removed.



User "Admin" is the administrative account; you can NOT delete this account.

16.5 Password on Bootup

This menu allows you to enable/disable the user administrative feature prompt; user login upon boot up. During this process, you will be asked to select "ON" or "OFF" (enable/disable).

17. AUTOCOPY

This function will allow the system to operate the disc-to-disc copy function without any user inputs for ease of operation.

18. Shutdown

This function saves any system settings that you have entered and makes sure it is safe to turn off your system. Once you see the Ready to Power OFF message, then you can safely turn off the machine via the Power Switch. Turning off your system without performing this function will increase the risk of damaging your system.

Appendix A - LightScribe Software Setup Instruction

❖ Minimum Hardware Requirements

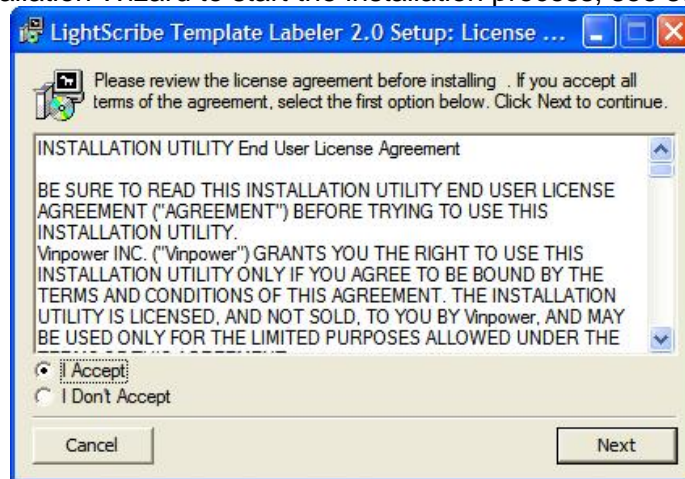
1. Pentium 3 Class microprocessor or better
2. CD/RW Recorder
3. 32Mbytes of RAM
4. 10Mbytes of free disc space on your hard drive

❖ Minimum Software Requirements

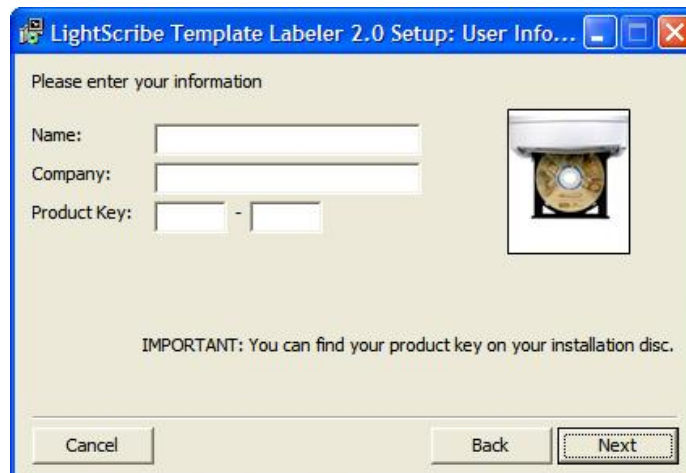
1. Windows 2000, XP, 2003 or Vista

Software Installation

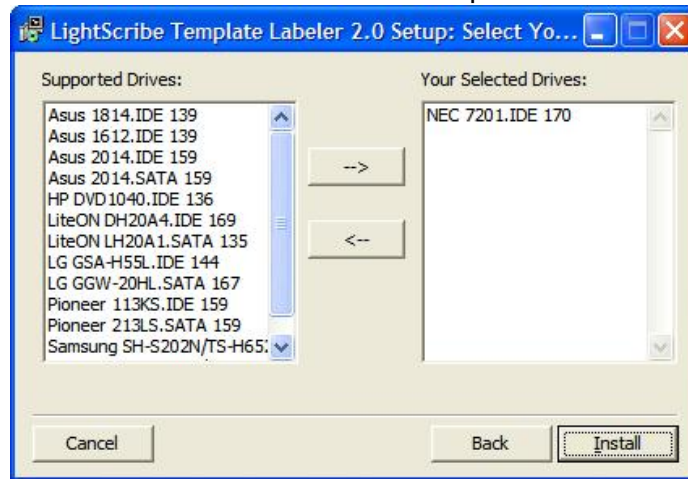
1. Insert the LightScribe Installation Disc into the CD drive of your computer.
2. Using the “My Computer” icon or Windows Explorer, click on the CD drive
3. From the CD Drive, double-click the setup.exe to run the setup program.
4. Follow the Installation Wizard to start the installation process, see screen below:



5. During the installation process, you will be prompted for a Product Key. The product key can be found on the Installation Disc.



- You will then be asked to choose the LightScribe writer model that was installed in your duplication system. The default writer that comes with your system should be pre-selected. You can then click Install to continue the installation process.

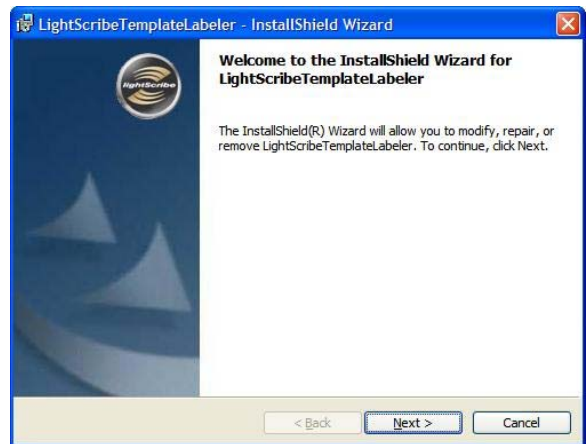


- During the installation process, the following applications will be installed:

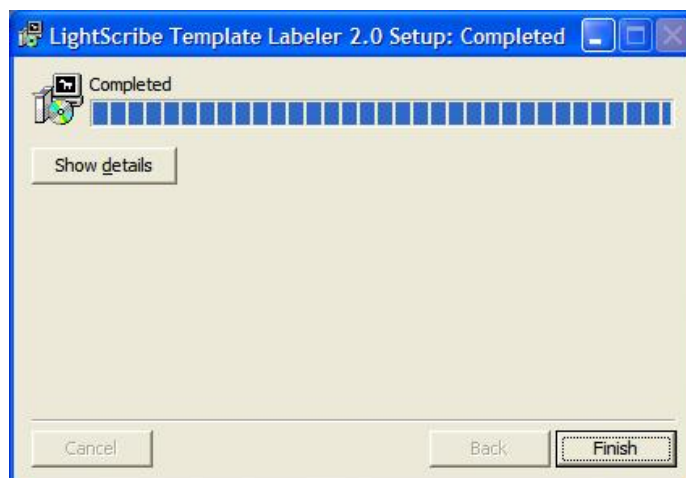
LightScribe System Software



Template Labeler



- Upon successful installation of the above software, click the Finish button to complete the installation.



Appendix B: External Device (USB 2.0/Firewire 1394) Setup Guide (Optional)

*This only applies if you have USB 2.0 or Firewire connections installed

- **If there's a switch next to the USB/Firewire Port:**
 1. Power off your system
 2. Set the USB2.0/Firewire switch to "ON" position at the back of your system.
 3. Using the standard USB 2.0/Firewire cable to connect your computer to your system.
 4. Power on your system.
 5. Your computer should recognize a number of external devices depending on the system you purchased.

- **If there is NOT a switch next to the USB/Firewire Port:**
 1. Using the standard USB 2.0/Firewire cable to connect your computer and your system.
 2. Power on your system.
 3. Go into menu 11 "Setup"
 4. Go into submenu 14 "USB Connection" or "Firewire Connection"
 5. Press up or down button to change the setting to "ON".
 6. Press "ENT"/Enter button to submit your selection.
 7. The system will either restart by itself or prompts you restart it manually by powering the system off and back on.
 8. Your computer should recognize a number of external devices depending on the system you purchased.



Above instructions are for you to turn on the USB/Firewire port. However, if you wish to turn it off, please perform the same instructions except you either set the USB 2.0/Firewire switch to "OFF" or change the USB Connection/Firewire Connection setting to "OFF".



Every PC related product has compatibility issues. Even though the USB 2.0/ Firewire connection(s) have been thoroughly tested before the unit was shipped out of the factory, there's still a slight chance that your PC/Mac computer is not compatible with the units USB 2.0/ Firewire connection. If that happens, please contact your PC/Mac manufacture for possible configuration changes to make it work or try it on another PC/Mac computer.

Appendix C: Troubleshooting

Frequently Asked Questions

- 1. No display on the LCD or the unit does not operate when the power is on.**
 - ✓ Check the power cable connection and that the environment for the power outlet is normal.
 - ✓ Make sure the power voltage on the duplicator matches the voltage of your power outlet.
 - ✓ If the system was stored in a location where the temperature dropped below 32°F (0°C) within the past 24 hours, leave the system in a warm room with temperatures at least 65°F (19°C) for 4 hours prior to powering it on.

- 2. The system can not recognize the master disc.**
 - ✓ Check the format of the master disc or the master itself for damage.
 - ✓ Your master disc may be copy protected. Normally, most of the DVD/Blu-ray Disc and some of the CD you have purchase from stores have copy protected encoded in them.
 - ✓ Use one of the Writers to read your master disc by selecting one of writers as the Copy source (*please refer to section 1 of Make Disc-to-Disc Copies* - “*Selecting the Copy Source*” on page 7.) If it works, make a copy of your master disc and treat the copy as the new master. Then set the Copy source back to the Reader and try again.

- 3. Buttons do not function.**
 - ✓ Maybe it is still busy on a task. Give it sometime and press it again. If it still doesn't work, turn off the machine, and then restart the machine after a minute.

- 4. Copy completed but the copies are not readable / executable?**
 - ✓ Use “compare” feature to check the copied disc.
 - ✓ Based on our experience, the quality of your media plays a big role on this part. Try to use high quality media to prevent such problems.
 - ✓ Please use another BD/DVD/CD player/ROM to test the copied media. Sometimes, your BD/DVD/CD Player/ROM may not be compatible with recordable BD/DVD/CD disc.

- 5. The failure rate is high.**
 - ✓ Lower the “write speed” and try again.
 - ✓ Quality of blank disc may be poor.
 - ✓ Quality of your master disc may be poor.

- 6. Do I need to upgrade my system's firmware?**
 - ✓ Unless your system is getting unstable, we strongly suggest not upgrading your system's firmware. Please contact our Tech Support if your system is getting unstable.

- 7. Cannot boot-up or fails to upgrade firmware.**
 - ✓ Contact our Tech Support.

- 8. Can I load data directly from my computer to my system's Hard Drive?**
 - ✓ No, your system's Hard Drive has a unique file system that computers will not recognize. Thus, you can't perform any read/write operations to the Hard Drive from your computer.

9. Why some writers won't copy?

- ✓ If those writers are associated with USB 2.0/Firewire IEEE 1394 connections (normally a USB or Firewire logo sticker will be placed in front of such writer's tray), please make sure the USB 2.0/Firewire connections is off and restart your system. For more information, *please refer to "Appendix A: External Device (USB 2.0/Firewire 1394) Setup Guide"*.
- ✓ Reset back to default. (Troubleshoot #10)
- ✓ Contact our tech support.

10. Why do I get "Label Not Found" error message?

- ✓ Please verify that the label file does not contain any symbols or foreign characters.
- ✓ Please verify that the label file has ".lsi" extension, like "abc.lsi"
- ✓ Please verify that the label file is located under the root of your data CD.
- ✓ Please verify that the Label CD wasn't created under Roxio's Drag to Disc, Nero's InCD or Windows XP or Vista's build-in burning software.
- ✓ Please verify that the correct writer was selected during the software installation.

11. How do I reset my system back to default?

- a) Go to menu 15.
Utilities.

DUPLICATOR	2.20
15.Utilities	

- b) Press the "ENT"/Enter button.

Utilities
1.Disc Info

- c) Press down button until you see
"Load Default" on the 2nd line

Utilities
5.Load Default

- d) Press "ENT"/Enter button.

Load Default
Press OK to Continue

- e) Wait for 3-4 seconds.

Utilities
5.Load Default

- f) Press "ESC"/Escape button.

DUPLICATOR	2.20
15.Utilities	

- g) Press down button until you see
"Shutdown" on the 2nd line.

DUPLICATOR	2.20
18.Shutdown	

- h) Press "ENT"/Enter button.

Shutdown
Press OK to Shutdown

- i) Press "ENT"/Enter button.

System Checking OK!
Ready to Power Off

- j) Power off the system and power it back on. All settings should be restored back to default.

Error Code

Typically the system will show an error message and error code if a problem occurs. Please reference the below diagram for a description of the error codes and the recommend solution:

Error Code	Error Message	Description & Recommended Solutions
200	Source Disc Empty	<p><u>Description:</u> The intended master disc is detected and identified successfully, but it is a blank disc.</p> <p><u>Possible Solution:</u> Please double check the master disc to ensure it contains data.</p>
201	Bad Master	<p><u>Description:</u> The master disc is detected but can not be identified within 3 minutes.</p> <p><u>Possible Solution:</u> Please check the master disc quality for defects or errors.</p>
202	No Targets!	<p><u>Description:</u> The blank disc(s) are missing when the job has already started.</p> <p><u>Possible Solution:</u> Please make sure blank discs are placed in writer trays.</p>
203	Burner Mixed or Firmware version Mixed	<p><u>Description:</u> The model or firmware version of all writers in the duplicator is not the same.</p> <p><u>Possible Solution:</u> This typically happens when you recently replaced a writer drive. Contact Tech Support.</p>
204	Targets & Master Not Compatible!	<p><u>Description:</u> The master disc and targets (blanks) do not have same format.</p> <p><u>Possible Solution:</u> Please go to "Disc Info" in "Utilities" to make sure the master disc and the blank discs are the same format, (for example, using a CD Master and CD blank discs).</p>
205	Targets Not Blank!	<p><u>Description:</u> The target (blank) discs are detected and identified as neither RW discs nor blank discs.</p> <p><u>Possible Solution:</u> Please go to "Disc Info" in "Utilities" to make sure the intended blank discs are empty.</p>

Error Code	Error Message	Description & Recommended Solutions
206	Targets & Master Size Mismatch!	<p><u>Description:</u> When the error code occurs during the Compare process, the size of the master disc and the successfully copied disc(s) is different. When the error code occurs during a Copy related process, the capacity of the blank disc(s) is less than the data size of the master disc.</p> <p><u>Possible Solution:</u> When the error code occurs during the Compare process, contact Tech Support. When the error code occurs during a Copy related process, please go to "Disc Info" in "Utilities" to make sure the blank disc's capacity is large enough to fit the data size of the master disc.</p>
207	Targets M Code Mixed!	<p><u>Description:</u> The blank discs contain different manufacture codes.</p> <p><u>Possible Solution:</u> Please go to "Disc Info" in "Utilities" to make sure every blank disc has the same media ID (M-Code). Replace the one(s) that are different if necessary.</p>
208	Targets are not RW discs!	<p><u>Description:</u> The target(blank) discs are not Rewritable discs</p> <p><u>Possible Solution:</u> Please go to "Disc Info" in "Utilities" to make sure every blank disc is a rewriteable disc.</p>
209	Master Disc is CSS Protected!	<p><u>Description:</u> The master disc is copy-protected.</p> <p><u>Possible Solution:</u> This master disc contains copy-protection. Please try a different master disc without any copy-protection.</p>
210	Bad Discs!	<p><u>Description:</u> The target (blank) disc(s) are detected but can not be identified.</p> <p><u>Possible Solution:</u> Please double check the blank disc(s) quality.</p>
211	This format can not be tested!	<p><u>Description:</u> The target (blank) disc(s) is DVD+R, DVD+RW, DVD+R DL, BD-R or BD-RE.</p> <p><u>Possible Solution:</u> Above disc formats are not supported by the Test function. Please use DVD-R/RW or CD-R/RW discs if this function.</p>

Error Code	Error Message	Description & Recommended Solutions
212	DVD is not supported!	<p><u>Description:</u> Your system does not support the DVD format.</p> <p><u>Possible Solution:</u> Please purchase a system that supports DVD.</p>
213	DVD-RAM is not supported!	<p><u>Description:</u> Your system does not support the DVD-RAM format.</p> <p><u>Possible Solution:</u> Please purchase a system that supports DVD-RAM.</p>
214	Blu-ray is not supported!	<p><u>Description:</u> Your system does not support the Blu-ray format.</p> <p><u>Possible Solution:</u> Please purchase a system that supports Blu-ray.</p>
230	Not enough HDD space	<p><u>Description:</u> The empty space in the hard drive is less than the size of the master disc.</p> <p><u>Possible Solution:</u> Please free up hard drive space by deleting unnecessary partitions/images.</p>
231	Redundant Name	<p><u>Description:</u> The name entered has already been used in the system.</p> <p><u>Possible Solution:</u> Please enter a different name, or rename the existing file name which is in conflict before you re-enter this name.</p>
232	Format Failed!	<p><u>Description:</u> The system is not able to format the hard drive. A detailed error code will be displayed at the end of the error message in the following format Example: Format Failed (Error:232) (XX-YY), XX: The index of the hard drive which generated the error YY: The error code</p> <p><u>Possible Solution:</u> Possible Hard Drive defect; please contact Tech Support.</p>
233	Hard Drive Corrupted	<p><u>Description:</u> The hard drive's information is corrupted.</p> <p><u>Possible Solution:</u> Please re-format the hard drive.</p>
235	Hard Drive Access Error	<p><u>Description:</u> There's an error when accessing the hard drive.</p> <p><u>Possible Solution:</u> Possible Hard Drive defect; please contact Tech Support.</p>

Error Code	Error Message	Description & Recommended Solutions
240	Wrong Password!	<p><u>Description:</u> The password entered is not correct</p> <p><u>Possible Solution:</u> Please confirm you typed in the correct password or try a different password.</p>
241	Login Failed	<p><u>Description:</u> An incorrect password was entered 3 times consecutively</p> <p><u>Possible Solution:</u> Wait for 5 minutes, then try to use the correct password for next the attempt. If the problem persists, call Tech Support.</p>
250	Source Cannot Be HDD	<p><u>Description:</u> The source is configured in the hard drive when trying to perform the Mix Audio Tracks function.</p> <p><u>Possible Solution:</u> Change the Copy source to the Reader.</p>
251	Copy Audio Error	<p><u>Description:</u> An error occurred during the mixing process of your audio CD.</p> <p><u>Possible Solution:</u> Try a different master or blank disc.</p>
252	Not Audio CD	<p><u>Description:</u> The Master Disc is not an Audio CD when preparing the mixing process.</p> <p><u>Possible Solution:</u> Please verify your master disc is an Audio CD.</p>
253	Over Blank Disc Capacity	<p><u>Description:</u> The total size of the selected tracks is larger than the capacity of the target blank disc during the track selection process.</p> <p><u>Possible Solution:</u> Try to select an alternative track with a smaller capacity.</p>
260	No Update File	<p><u>Description:</u> The system can NOT locate the Firmware Update File during the Update Firmware process.</p> <p><u>Possible Solution:</u></p> <ol style="list-style-type: none"> 1. Confirm the file is not a "zip" file. If it is, please extract it before you burn it into a CD. 2. Confirm the update file is written as "Mode 1" Data CD. Usually a Data CD created with Windows XP or Roxio's Drag-to-Disc is not in this format. Please use a software like Nero Burning ROM. 3. Make sure there are no other discs in the system and try to insert the update disc into another tray to perform the operation.

Error Code	Error Message	Description & Recommended Solutions
261	Wrong update File	<p><u>Description:</u> The Firmware Update File is not compatible with your system or the Firmware Update File is corrupted.</p> <p><u>Possible Solution:</u> 1. Try to re-download the Firmware Update File.</p>
262	Unknown flash model	<p><u>Description:</u> The Firmware Update File is not meant for your system.</p> <p><u>Possible Solution:</u> 1. Try to contact Tech Support for the proper Update file.</p>
263	User Abort	<p><u>Description:</u> A job is being aborted by user pressing the ESC/Escape button for more than 5 seconds during a job run.</p> <p><u>Possible Solution:</u> Restart the job when ready with the proper master disc & blank discs.</p>

Appendix C: Safety & Regulatory information

Safety Introduction

Notices and Safety

Please read the following instructions carefully before operating the machine and refer to them as needed to ensure the continued safe operation of your machine.

This product and supplies have been designed and tested to meet strict safety requirements. These include safety agency evaluation and certification, and compliance with electromagnetic regulations and established environmental standards.

The safety and environment testing and performance of this product have been verified using certified materials only.



Unauthorized alterations, which may include the addition of new parts/devices, may impact the product certification. Please contact your sales representative for more information.

Marks, Labels

Symbols

All warnings and instructions marked on or supplied with the product should be followed.



This symbol alerts users to areas of the equipment where there is the possibility of personal injury.

FCC Notices for USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

(Reference [CFR 47 Part 15 Section 15.21](#))

Changes or modifications to this equipment not specifically approved by the manufacture may void the user's authority to operate this equipment.

Safety Information

Operational Safety Information

This equipment and supplies have been designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.

To ensure the continued safe operation of your equipment, follow these safety guidelines at all times:

Do These

- Always follow all warnings and instructions that are marked on or supplied with the equipment.
- Before cleaning this product, unplug the product from the electrical outlet. Always use materials specifically designated for this product, the use of other materials may result in poor performance and create a hazardous situation.
- Always exercise care when moving or relocating equipment.
- Always locate the machine on a solid support surface (not on plush carpet) that has adequate strength to support the weight of the machine.
- Always unplug this equipment from the electrical outlet before cleaning.



Do not use aerosol cleaners. Aerosol cleaners can be explosive or flammable when used on electromechanical equipment

Do Not Do These

- Never use a ground adapter plug to connect the equipment to a power outlet that lacks a ground connection terminal.
- Never attempt any maintenance function that is not specifically described in this documentation.
- Never obstruct ventilation openings. They are provided to prevent overheating.
- Never remove covers or guards that are fastened with screws. There are no operator serviceable areas within these covers.
- Never locate the machine near a radiator or any other heat source.
- Never push objects of any kind into the ventilation openings.
- Never place this equipment where people might step on or trip on the power cord.

Electrical Safety Information

1. The power receptacle for the machine must meet the requirements stated on the data plate on the rear of the machine. If you are not sure that your electrical supply meets the requirements, please consult your local power company or an electrician for advice.
2. The socket outlet shall be installed near the equipment and shall be easily accessible.
3. Use the power cable that is supplied with your machine. Do not use an extension cord or remove or modify the power cord plug.
4. Plug the power cable directly into a correctly grounded electrical outlet. If you are not sure whether or not an outlet is correctly grounded, consult an electrician.
5. Do not use an adapter to connect any equipment to an electrical outlet that lacks a ground connection terminal.
6. Do not place this equipment where people might step or trip on the power cable.
7. Do not place objects on the power cable.
8. Do not push objects into slots or openings on the machine. Electrical shock or fire may result.
9. Do not obstruct ventilation openings. These openings are used to provide proper cooling to the machine.

Electrical Supply

1. This product shall be operated from the type of electrical supply indicated on the product's data plate label. If you are not sure that your electrical supply meets the requirements, please consult a licensed electrician for advice.
2. Always connect equipment to a correctly grounded power outlet. If in doubt, have the outlet checked by a qualified electrician.



This equipment must be connected to a protective earth circuit. This equipment is supplied with a plug that has a protective earth pin. This plug will only fit into an earthed electrical outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet.

Disconnect Device

The power cable is the disconnect device for this equipment. It is attached to the back of the machine as a plug-in device. To remove all electrical power from the equipment, disconnect the power cable from the electrical outlet.

Emergency Power Off

If any of the following conditions occur, turn off the machine immediately and **disconnect the power cable(s) from the electrical outlet(s)**. Contact an authorized Service Representative to correct the problem:

- The equipment emits unusual odors or makes unusual noises.
- The power cable is damaged or frayed.
- A wall panel circuit breaker, fuse, or other safety device has been tripped.
- Liquid is spilled into the machine.
- The machine is exposed to water.
- Any part of the machine is damaged

Maintenance Information

1. Any operator product maintenance procedures will be described in the user documentation supplied with the product.
2. Do not carry out any maintenance on this product which is not described in the customer documentation
3. Use supplies and cleaning materials only as directed in the Operator section of this manual.
4. Do not remove covers or guards that are fastened with screws. There are no parts behind these covers that you can maintain or service.



Do not use aerosol cleaners. Aerosol cleaners can be explosive or flammable when used on electromechanical equipment.

Certification

This product is certified by the following Agency using the Safety standards listed

Agency	Standard
Underwriters Laboratories Inc.	UL60950-1
Underwriters Laboratories Inc.	CSA C22.2 No. 60950-1-03
SPORTON International Inc.	EN 55022:1998/A1:2000/A2:2003 Class B, EN 61000-3-3:1995/A1:2001, EN 55024:1998/A1:2001/A2:2003

Regulatory Information

Certifications in Europe: CE Mark (European Union)

The CE mark applied to this equipment symbolizes the manufacture's declaration of conformity with the following applicable Directives of the European Union as of the dates indicated:

2006/95/EC

December 12, 2006 Council Directive 2006/95/EC as amended. Approximation of the laws of the member states related to low voltage equipment.

2004/108/EC

December 15, 2004 Council Directive 2004/108/EC as amended. Approximation of the laws of the member states related to electromagnetic compatibility.

A full declaration of conformity, defining the relevant directives and referenced standards, can be obtained from your Authorized local dealer.



In order to allow this equipment to operate in proximity to Industrial Scientific and Medical (ISM) equipment, the external radiation from the ISM equipment may have to be limited or special mitigation measures taken.