



**MICROBOARDS<sup>®</sup>**  
*Technology*

# **GX-1 Disc Publisher**

*For Microsoft Windows<sup>®</sup> 2000 & XP*



## **Users Manual**



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# Introduction

The Microboards GX-1 Disc Publisher is a single drive, 50 disc, print and record system. The GX-1 combines industrial strength printing and recording into a single, easy to use duplicator. The system includes one 16x DVD recorder. Microboards and HP co-developed the printer technology, allowing up to 4800 x 1200 dpi printing. The Prassi Technology Zulu 2 software is a dynamic interface for both beginners and power users. Easily record DVD Video, DVD data, Audio CD's, Data CD's, Video CD's and much more.

Other features include:

- Asynchronous print and record function
- Creation of audio CD's from MP3, wma or wave files
- Full support for CD Text, Pre-Gap, UPC and ISRC
- Batch mode, allowing up to 8 different masters to be used at a time.
- Multi-borders support.
- Integrated print function with prn or SureThing print files.

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## What's Included

When unpacking your GX-1 Disc Publisher system, the following items should be included:

- GX-1 Disc Publisher print and record system
- GX-1 Disc Publisher Quick Start Guide
- GX-1 Unpack Guide
- Print Sample
- Power Cord
- Alignment CD's
- Blank Printable CD's
- Users Manual (This document)
- Microboards GX-1 Disc Publisher Install CD (Includes Windows 2000/XP drivers, Zulu2 software and SureThing Label software)
- Microboards GX-200HC Color Ink cartridge (14ml)
- USB Printer Cable
- Input Bin rods (already installed)
- 50 disc output assembly

If any of these items are missing, please contact your distributor or Microboards Technology Technical Support department at 952-556-1639.

**The GX-1 Disc Publisher installation disc includes an Installer that will walk you through the process step by step. Please perform the installation in order as specified in the Installer before connecting to a computer.**

## System Requirements

The Microboards GX-1 Disc Publisher has the following minimum requirements and compatibilities:

### Operating System

Microsoft Windows 2000 with SP4 or Windows XP with SP2.

### Processor

Pentium 4 (or equivalent) CPU, running at 2.0 GHz or faster.

### System Memory

Minimum 512 MB of system memory. More memory is suggested for DVD recording operation.

### Hard Drive Space

Only 10MB of free space is required on the system hard drive for the applications and drivers. For storing disc images, temporary space is needed for the full disc dimension. That could be up to about 800MB for CD or about 5 GB for DVD.

A separate internal 7200 RPM hard drive is recommended for storing your data. Using the same hard drive as the operating system can cause the system to perform slowly.

### USB Connection

USB 2.0 is required. USB 1.1 is not supported, as using USB 1.1 will result in significantly longer recording times and the potential for recording failures.

## Assembly and Installation

### Assembly Instructions

#### GX-1 Disc Publisher Assembly

Remove the GX-1 Disc Publisher system from the shipping box and confirm you received all of the items.

Place the GX-1 Disc Publisher on a stable, flat surface. You will need room both in front and to the left of the system, as discs will be accessed from both locations.

The input bin posts are pre-installed, with the wide post to the front.

The Reject Bin is pre-installed on the left side of the GX-1 Disc Publisher. This bin, which slides out, should be emptied when you know discs have been rejected.

Slide the 50-disc Output Bin into the channel between the feet at the front of the GX-1 Disc Publisher.



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# Installing Ink Cartridges

## Supported Ink Cartridges

The GX-1 Disc Publisher uses a single color ink cartridge. The part number for this cartridge is GX-200HC. If other cartridges are installed, the GX-1 Disc Publisher will not function. These cartridges are available from any Microboards reseller.

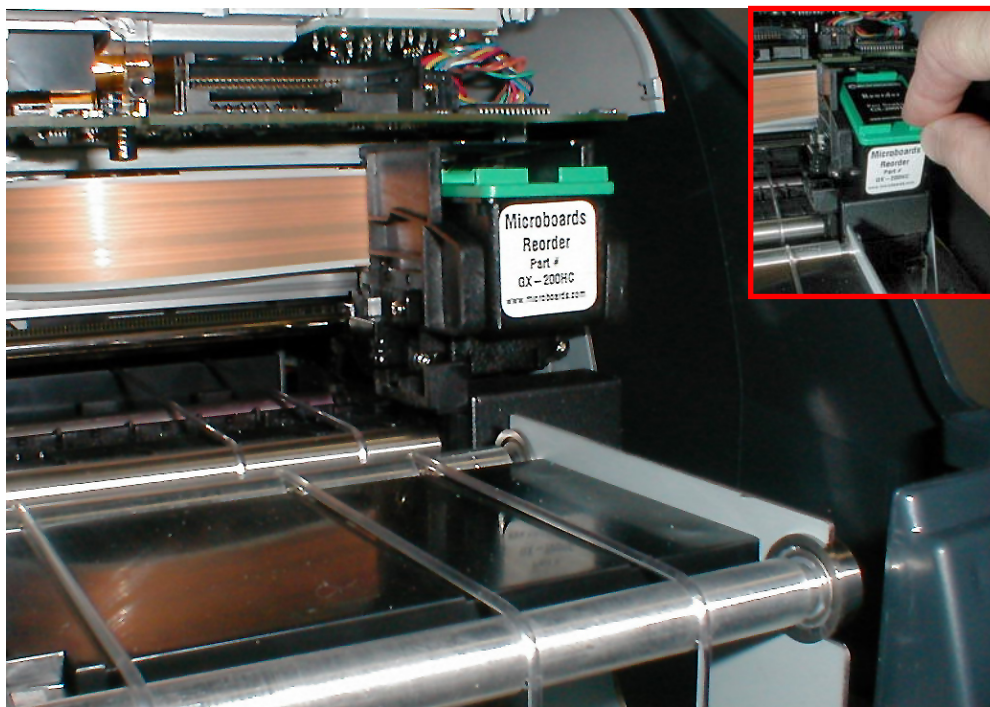
***Refill kits or non-Microboards ink cartridges are not recommended for use in the GX-1 Disc Publisher system. Use of these types of cartridges will cause the printer to fail. Use of these types of cartridges will void the warranty.***

## Loading / Replacing Ink Cartridges

Cartridges can be changed while the GX-1 Disc Publisher is on, but it should never be turned on without an ink cartridge in place.

The GX-1 Disc Publisher system ships with one GX-200HC color ink cartridge.

- Remove the front cover. The print cartridge cradle will be on the right side of the GX-1 Disc Publisher, as shown below.
- Tilt the old cartridge forward to release the cartridge from the cradle, as shown in the inset below.
- Lift the old cartridge out of the cradle.
- Remove the new print cartridge from its packaging and carefully remove the plastic tape. Hold the print cartridge so that the copper strip is at the bottom.
- With the front of the new ink cartridge tilted down, slide the cartridge into the cradle.
- Tilt the front of the cartridge back up to lock the ink cartridge in place.
- Replace the front cover.



---

## Loading Discs

The next step is to load your GX-1 Disc Publisher with output discs. The system will accept CD or DVD 120 mm (12 cm) inkjet printable discs. If the disc does not have an inkjet printable surface, the ink will not adhere to the surface of the disc. The GX-1 Disc Publisher will only accept 12 cm discs. Business card or 8 cm discs are not supported by this system.

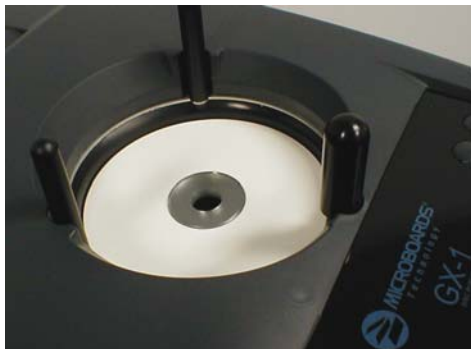


Figure 1



Figure 2

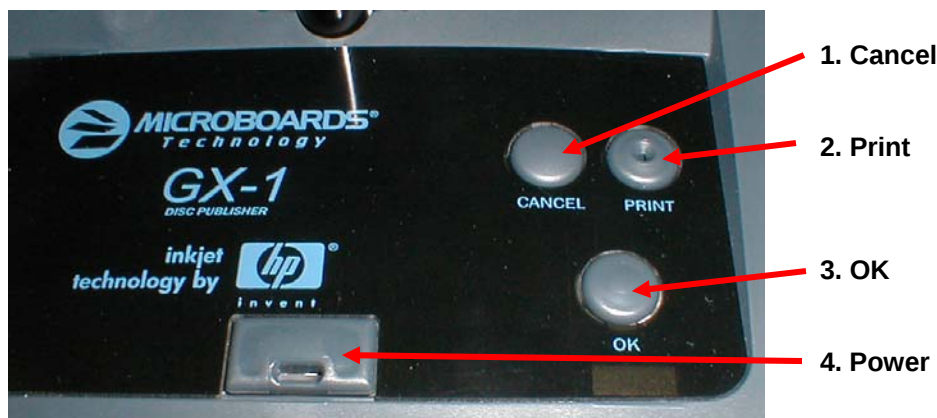
Load the first 5 or 6 discs flat, as seen in figure 1.

Load the rest of the discs at an angle, against the wide input rod, as seen in figure 2.

The GX-1 Disc Publisher will hold a maximum of 50 discs. DO NOT load more than 50 discs in the system, as this may cause the discs to feed incorrectly.

---

## Front Panel Indicators and Buttons



1. Cancel Button – Pressing the Cancel button cancels the current print job.
2. Print Button – The light on this button will flash when printing is in progress.
3. OK Button – This button will only be used when you are prompted to do so while processing discs.
4. Power Button and Light – The Power button turns the GX-1 Disc Publisher on and off. It may take a few seconds for the GX-1 Disc Publisher to turn on after you press the Power button. The green light at the base of the Power button flashes when the printer is processing.

NOTE: The AC power switch located on the back of the GX-1 Disc Publisher must be turned on first in order to supply power to the Front Panel.

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## GX-1 Disc Publisher Installation

***The GX-1 Disc Publisher installation disk includes an Installer that will walk you through the process step by step. Please use the Installer and follow the installation steps in order.***

The following installation sections are intended only as a reference for the installation process, not as a guide to installing the GX-1 Disc Publisher. Performing the installation out of order could result in an unsuccessful installation.

The GX-1 Disc Publisher Installation Quick Reference Guide will show you the order in which the installation will occur.



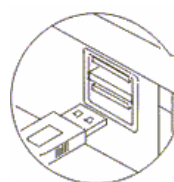
---

## Connecting to a PC

***DO NOT CONNECT YOUR GX-1 DISC PUBLISHER TO A COMPUTER BEFORE RUNNING THE INSTALLER LOCATED ON THE INSTALLATION DISK!!***

The connection between the PC and the Microboards GX-1 Disc Publisher is done with one USB cable.

1. Confirm that the power is turned OFF on the GX-1 Disc Publisher and on your PC.
2. Plug in the AC power cord to the back of the GX-1 Disc Publisher. ***Do not turn on power to the GX-1 Disc Publisher until an ink cartridge has been installed.***
3. Connect the square shaped end of the USB cable to the back of the GX-1 Disc Publisher.
4. Connect the flat, rectangular end of the USB cable into a USB 2.0 port in your PC.



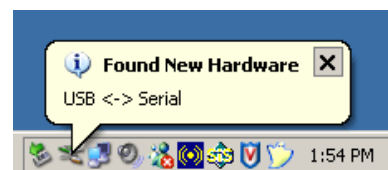
## Windows XP

*The Windows Found New Hardware Wizard will appear during any installation, including when using the Installer. Please follow all directions in the order in which they appear when using the Installer.*

Turn on power to the GX-1 Disc Publisher.

Turn on power to the PC.

Windows will now boot up and Windows XP will start stating that new hardware is found, much like this screen:

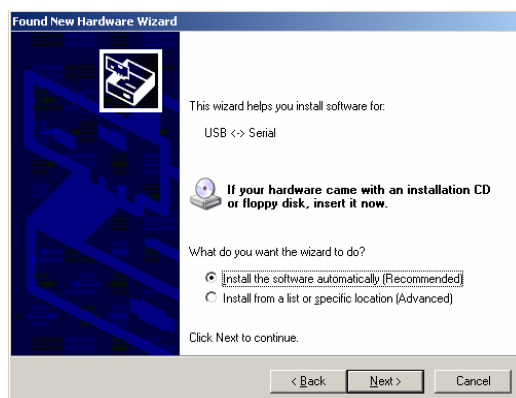


Insert the Microboards GX-1 Disc Publisher CD into a drive in your computer.

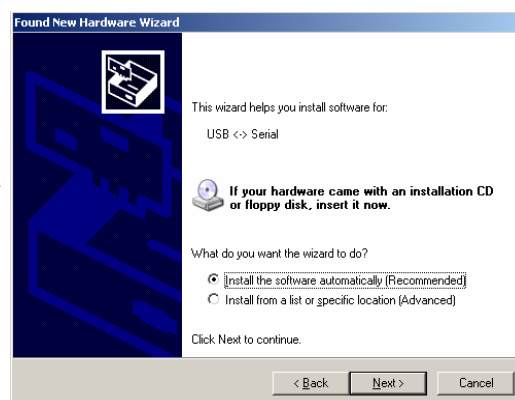
The operating system will next display the following screen:



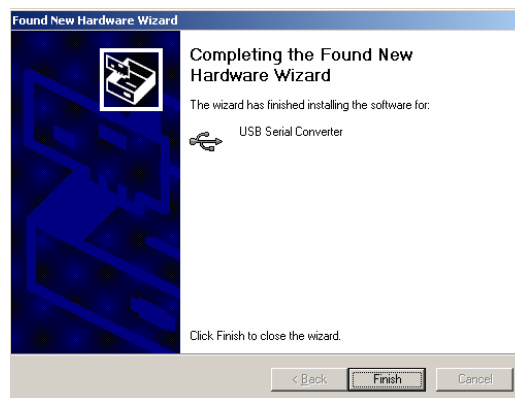
1. Select No, not this time and click Next.  
The following screen will appear:



2. Click the Next button and the files will be copied from the CD.



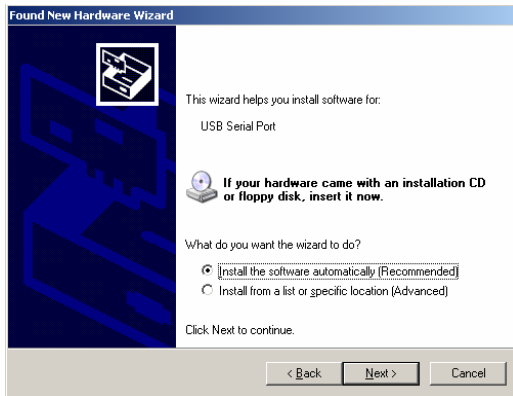
3. Click the Next button and the files will be copied from the CD.



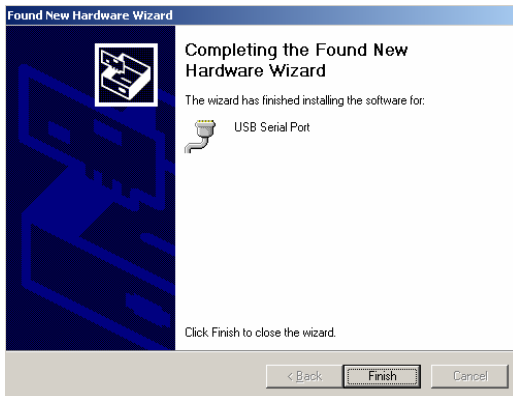
4. Click Finish  
The following screen will appear:



5. Select No, not this time and click Next.



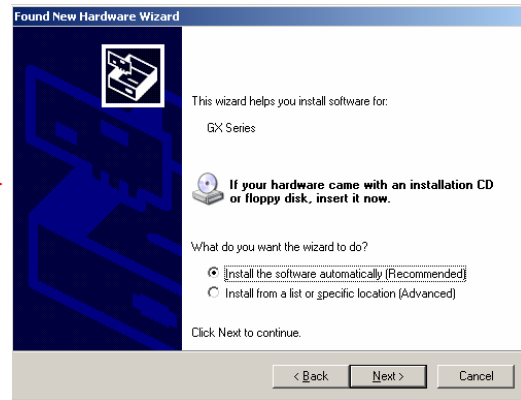
6. Click Next.



7. Click Finish for the next screen.



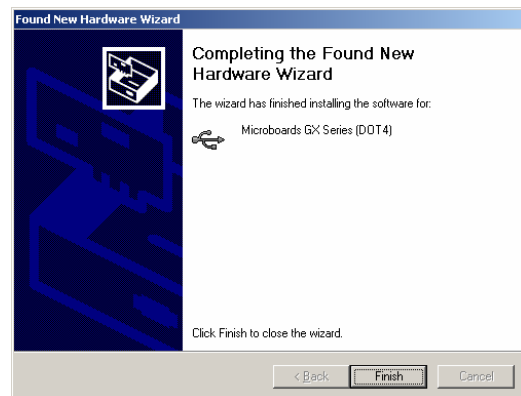
8. Select No, not this time and click Next.



9. Click Next.



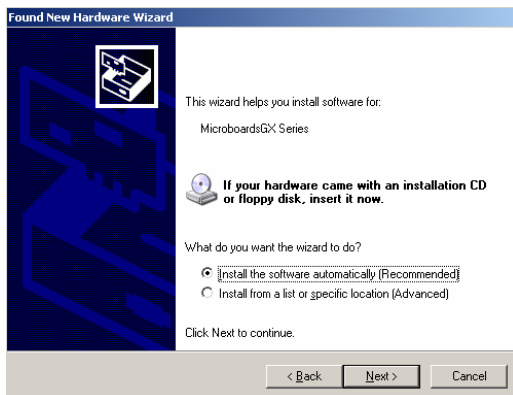
10. Click Continue Anyway.



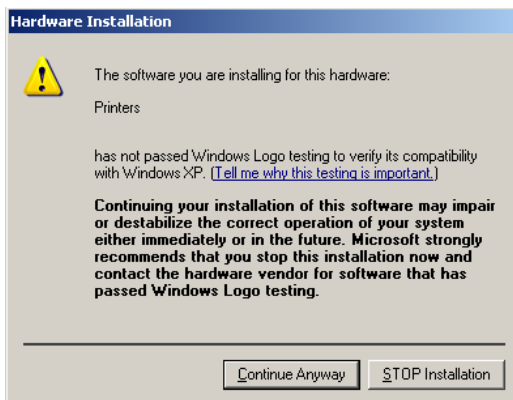
11. Click Finish for the next screen.



12. Select No, not this time and click Next.



13. Click Next.



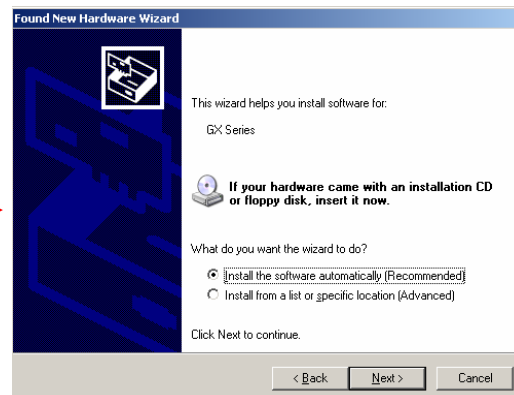
14. Click Continue Anyway.



15. Click Finish for the next screen.



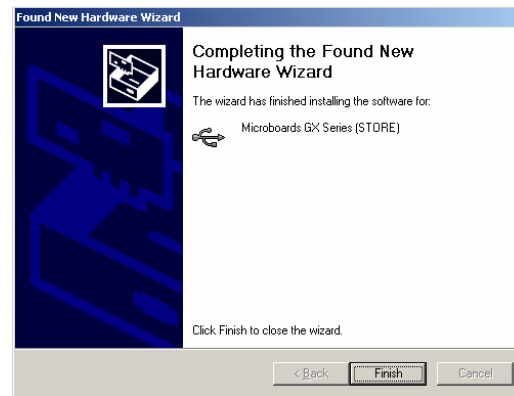
16. Select No, not this time and click Next.



17. Click Next.



18. Click Continue Anyway.



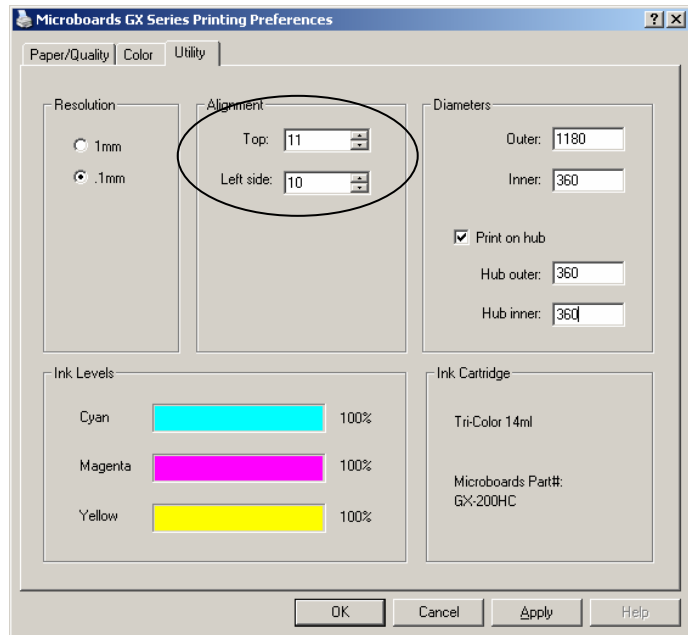
19. Click Finish.

# Setting Printer Alignment

## Alignment

The GX-1 Disc Publisher system has been aligned at the factory. The factory alignment values are on a label on the back of the GX-1 Disc Publisher. Follow these steps to enter the factory values:

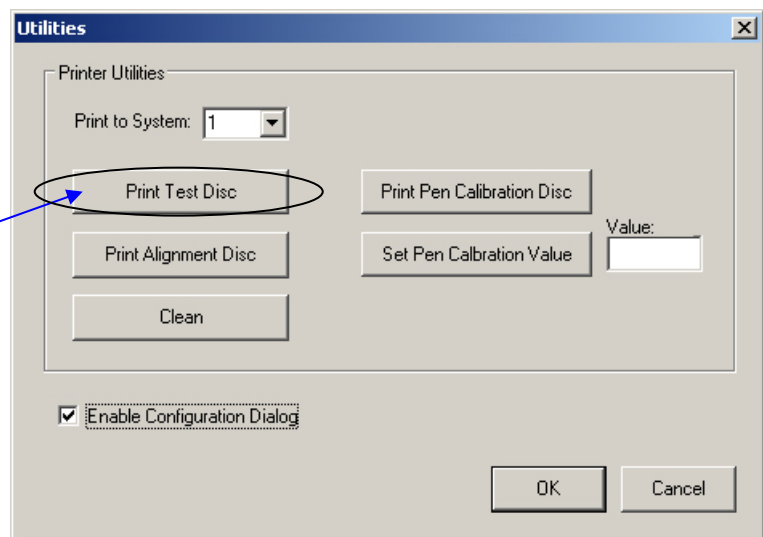
- Click on the **Start** Button on your Windows computer.
- Select **Settings** and then **Printers**.
- Right click on the Microboards GX Series icon.
- Select **Printing Preferences**.
- Select the **Utility** Tab.
- Click on the **.1mm** selection in the Resolution box.
- Enter the values listed with the GX-1 Disc Publisher into the Top and Left Side boxes.
- Click the **Apply** button.
- Click the **OK** button.



## Print Test Disc

To confirm the computer is communicating with the GX-1 Disc Publisher, print a Test Disc. This can be done with one of the inkjet printable CD's included with your GX-1 Disc Publisher, or an inkjet compatible disc you may already have. To print the Test Disc:

- Place the inkjet printable media into the input hopper.
- Launch the Zulu2 program (see page 17).
- Once Zulu2 is running, select the **Robotic** menu
- Select **Utilities**
- Select **Print Test Disc**.
- A disc will be dropped onto the belts and then printed.
- Once printing is complete, the disc will be ejected into the output hopper.
- If the alignment is OK, proceed with your printing project.
- If not, go to Print Alignment Disc.



## Print Alignment Disc

**NOTE: The Alignment Disc should always be printed using Photo mode for the best accuracy.**

There are factory default alignment values for the TOP and LEFT values for your GX-1 Disc Publisher, referring to the top and left margin sizes, respectively. These can be found on the label on the back of the GX-1 Disc Publisher. You may need to adjust the values, depending on the images you are printing. To run the alignment utility, first set the Top and Left values are 0 (zero).

1. Place an Alignment CD (see figure 1) in the input bin.

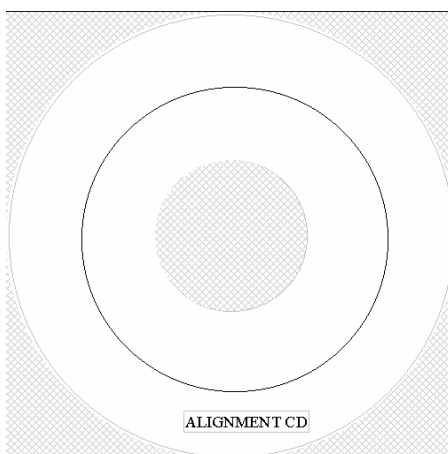


Figure 1

2. In the Utilities menu, select Print Alignment Disc.
3. The alignment guide will be printed on the disc (see figure 2).
4. Confirm the numbers that cross the circle.
5. If the circle does not cross the alignment guide at both zero points, change the vertical and horizontal numbers in the Utility Tab by the number at which the circle does cross the guide (See figure 3).
6. Once the new numbers are entered, click Apply.
7. The Alignment CD pattern is also included on the GX-1 Disc Publisher CD, so you can print additional Alignment patterns with your GX-1 Disc Publisher, once it is aligned. The alignment circle is 8 cm in diameter and is 2 cm from the outer edge of the CD.

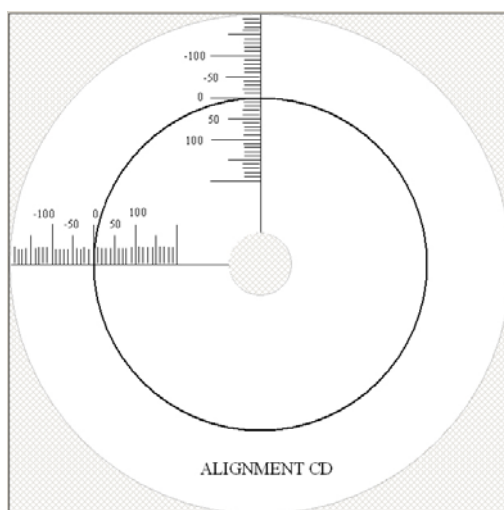


Figure 2

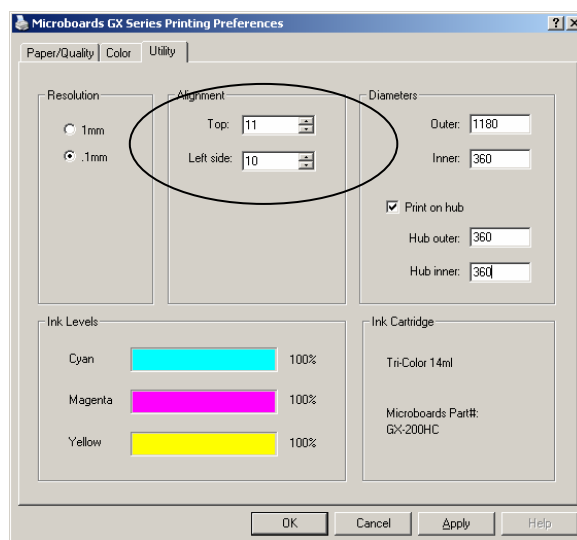


Figure 3

# Printing Preferences

Access the Printing Preferences by clicking the **Start** Button on your Windows computer. Select **Settings** and then select **Printers**. Right click on the Microboards GX Series icon, then select **Printing Preferences**.

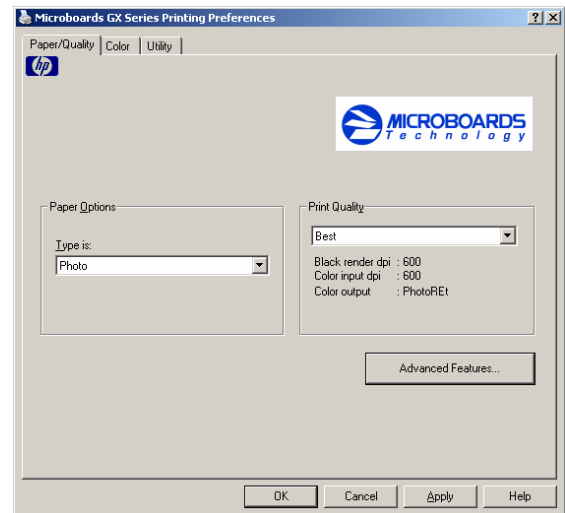
## Paper/Quality Tab

### Print Quality

- Best
- Normal
- Fast

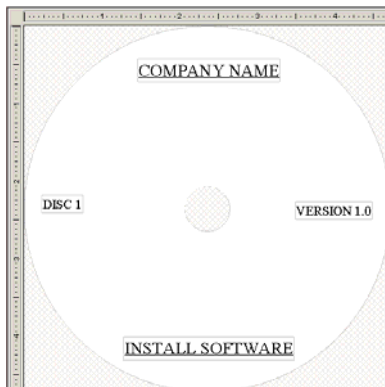
### Print Modes

- Text and Graphics
- Photo



## Printing Recommendations

Text and Graphics mode is used for printing mainly text information and small graphics. Below are some examples for images in Fast, Normal and Best Modes:



*Text and Graphics – Fast*



*Text and Graphics – Normal*



*Text and Graphics – Best*

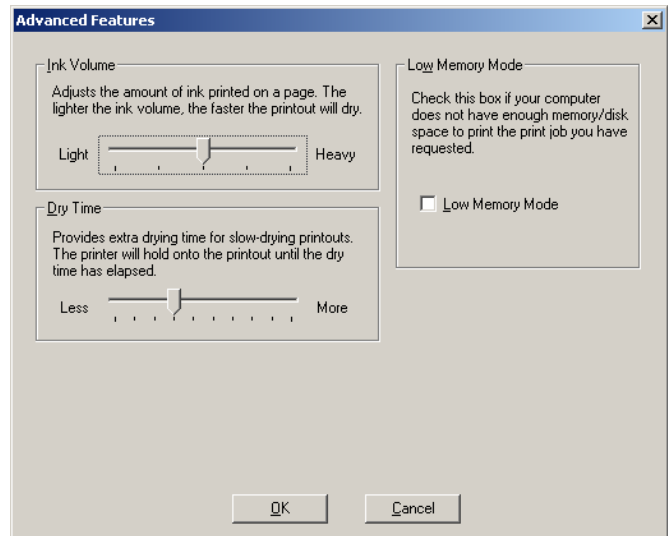
Photo Mode should be used when printing on the entire disc.  
Here is an example:

*Photo – Normal Best  
and 4800x1200 Modes*



## Advanced Features

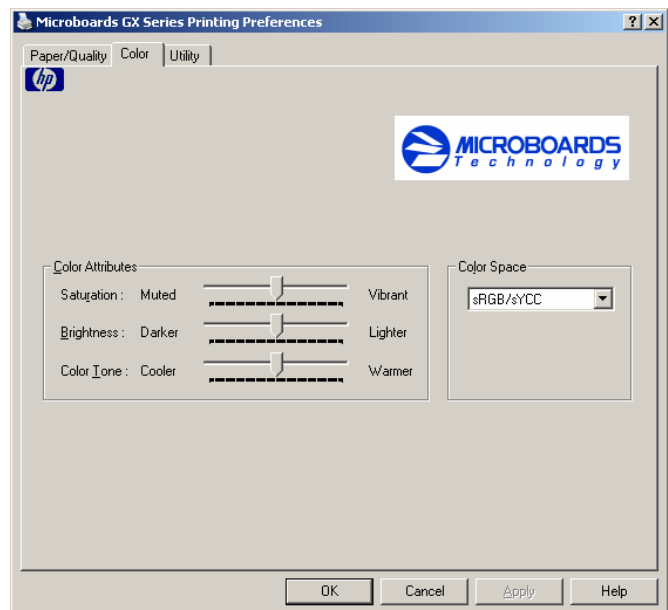
Advanced Features allow you to adjust the amount of ink placed on the disc using the **Ink Volume** setting, and adjust the **Dry Time** of the disc.



## Color Tab

**Saturation**, **Brightness** and **Color Tone** allow you to fine tune your print image.

**Color Space** defines the range of colors that can be printed. **sRGB/sYCC** will be the setting selected unless your image specifically was created using the **AdobeRGB** standard.



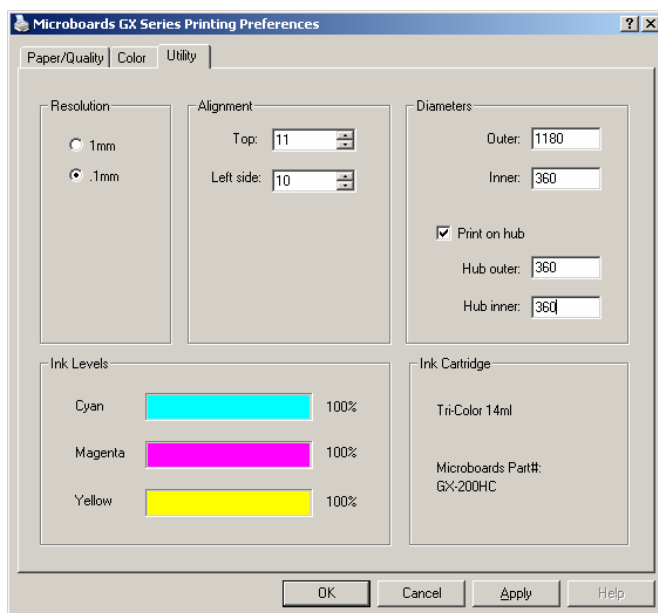
## Utility Tab

The **Resolution** setting should always be set at .1mm for best results.

**Alignment** values will move the print image on the disc.

The **Outer** and **Inner Diameters** will change the size of the area to be printed. To avoid excessive ink buildup, these values should never be set so that the GX-1 Disc Publisher is printing off the media.

If you have media with a printable inner hub separated from the rest of the disc by an unprintable ring, you can set the inner and outer hub diameters appropriately. If you are using media with a continuous print surface, the Print on Hub setting should not be checked.



### Ink Level

The **Ink Levels** show how much remains of all 3 colors, Cyan, Magenta and Yellow.

NOTE: If you place a used cartridge in the GX-1, the ink level may not be reported correctly. If the GX-1 can identify the cartridge, it may report the correct ink levels; if not, it will assume that the ink cartridge is new and will show ink levels of 100%.

Before each disc is printed, the ink levels are checked. If the level of any one color has reached 10%, a warning message will be displayed on your PC and printing will be temporarily suspended. You can either change the cartridge at this point and click OK, or click OK to continue printing using the same cartridge.

If you continue with the same cartridge, printing will continue uninterrupted until the ink level reaches 5%. The low ink level warning will be displayed once more. Again, either change the cartridge or continue.

Once the ink level reaches 3% or less, the warning will be displayed before each print.

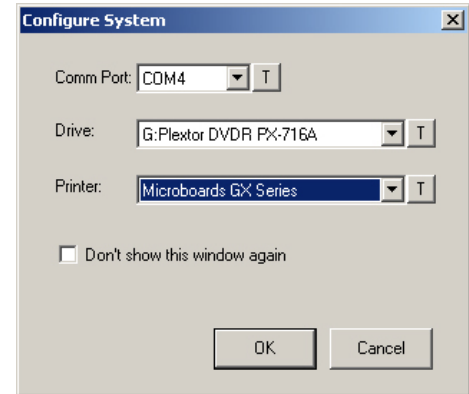
**It is strongly recommended that you replace the cartridge at this point.**

# The GX-1 Disc Publisher and Zulu2

The first time the user launches Zulu2, the software will ask you to configure the GX-1 Disc Publisher system. This only needs to be done the first time the software is used.

When launching Zulu2 for the first time, the following screen appears:

When the GX-1 Disc Publisher is installed, Windows creates a new COM port. This new port is used by the GX-1 Disc Publisher. The new port can be determined by looking at the device manager.

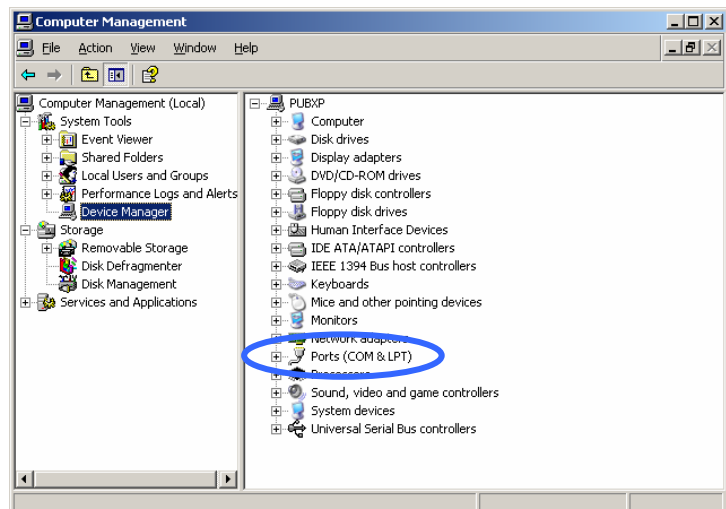


To view the device manager, right click on My Computer from the Windows Desktop or the Start button menu and select **Manage**:



The Computer Management screen will appear.

Open up the Ports (COM & LPT) selection.

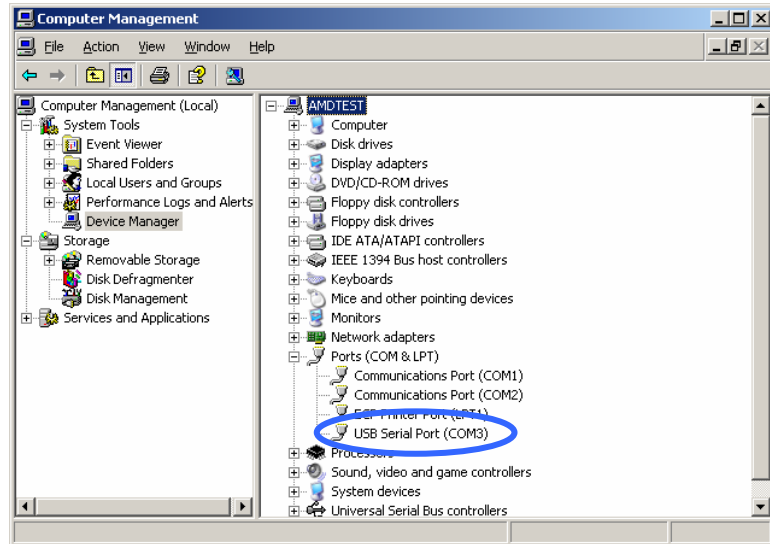


You will see an entry labeled “USB Serial Port (COMx)” entry for each GX-1 Disc Publisher you have installed. The COMx will be the COM port number to be entered into the Configure screen.

Select the COM port as found on the Computer Management screen.

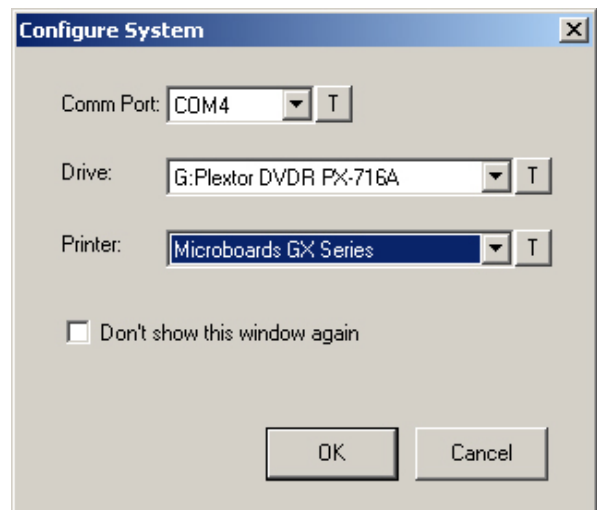
Next, select the recorder.

Finally, select the Printer.



To confirm you have made the correct selection, you can click on the T box next to each item, as follows:

- When the **T** is pressed for the COM Port, the disc flippers will move up and down.
- When the **T** is pressed for the recorder, the tray will open and then close.
- When the **T** is pressed for the Printer, the belts will move in reverse.
- Once you have completed your selections, check the **Don't show this window again** box to bypass this step when launching Zulu2 again. You will be able to reset this option should it be necessary to configure the system again.

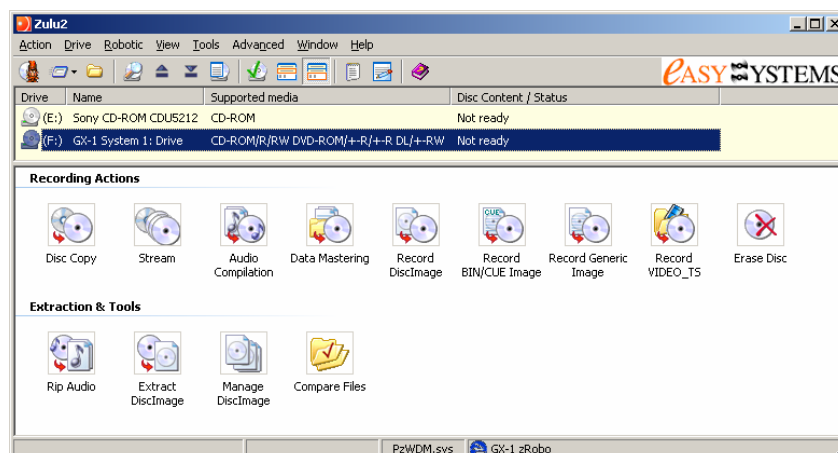


Click the **OK** button.

The system will now initialize the GX-1 Disc Publisher. The belts will be cleared of any discs and any discs in the recorders will be removed and rejected.

Once initialization is complete, the system is ready for use.

Please see the Zulu2 for Microboards Disc Publishers manual for more information on using Zulu2.



# Manual Software Re-Installation

The information in this section will only apply to a manual re-installation of the individual software packages. If you have not yet installed the GX-1 Disc Publisher using the Installer, it is recommended that you do so. Installing the GX-1 Disc Publisher in an incorrect order could result in an unsuccessful installation.

## SureThing Labeler Software Re-Installation

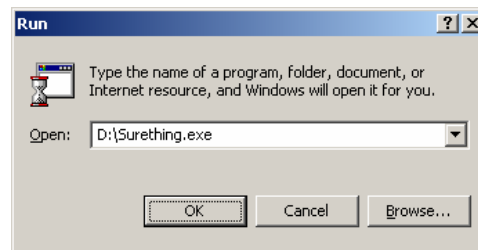
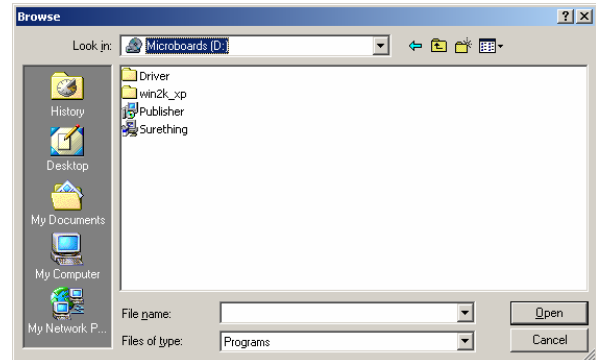
Insert the Microboards GX-1 Disc Publisher Installation CD into the CD/DVD ROM drive on your computer. The installer should open automatically; click the **Cancel** button to exit the installer.

Click the **Start** button and select Run from the Start menu. Click the **Browse** button, go to the CD/DVD drive and highlight **Surething.exe**.

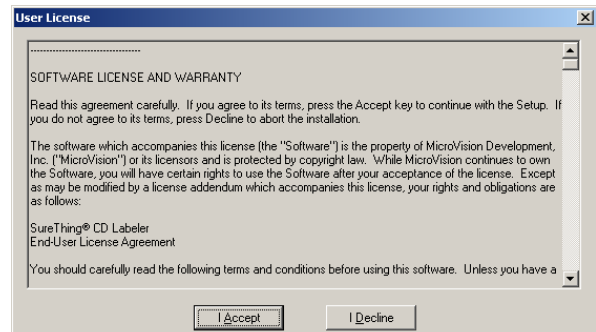
Click the **Open** button.

Click **OK**.

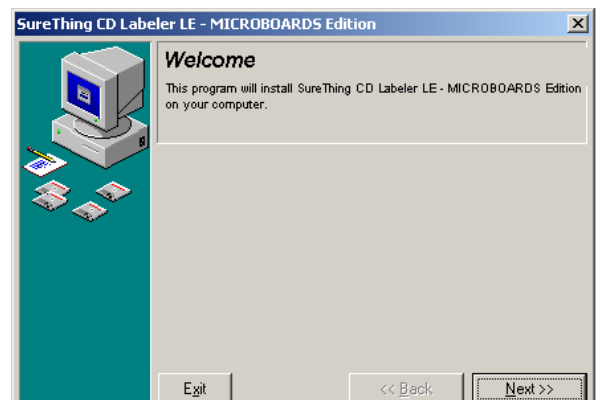
The SureThing software will now start to install.



Click the **I Accept** button.



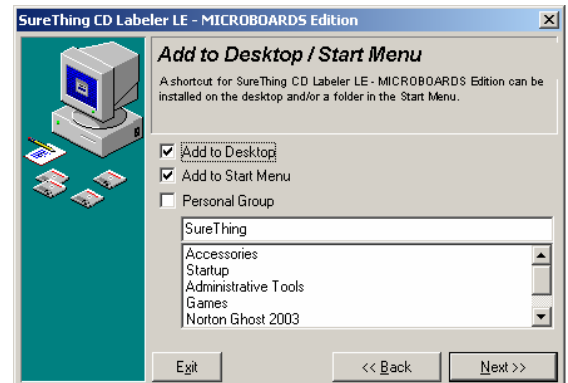
Click **Next** to continue.



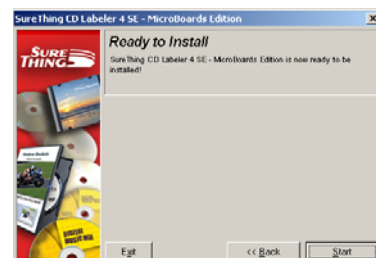
If you wish to change the default Install directory, it can be done here. Click **Next** when completed.



Next, you have options to add an icon to your desktop and/or a folder in the Start Menu. Once selected, click **Next**.

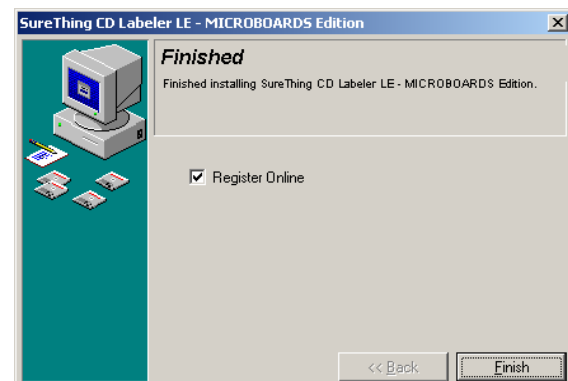


Click **Start** to begin copying the files.



The files will now be transferred from the CD to the operating system.

Once completed, the finished screen will appear. You can choose to register the software online at this screen. Click **Finish**.  
Restart your computer.



## Zulu2 Software Re-Installation

Insert the Microboards GX-1 Disc Publisher Installation CD into the CD/DVD ROM drive on your computer. The installer should open automatically; click the **Cancel** button to exit the installer.

Click the **Start** button and select Run from the Start menu. Click the **Browse** button, go to the CD/DVD drive and highlight **PrassiTech Zulu2 (EFI)GS.exe**.

Click the **Open** button, then click **OK**.

Next, the Zulu2 software install screen will appear:

Note in the upper right-hand corner that during an update of Zulu2, the version currently installed is listed under the version of Zulu2 on this installation.

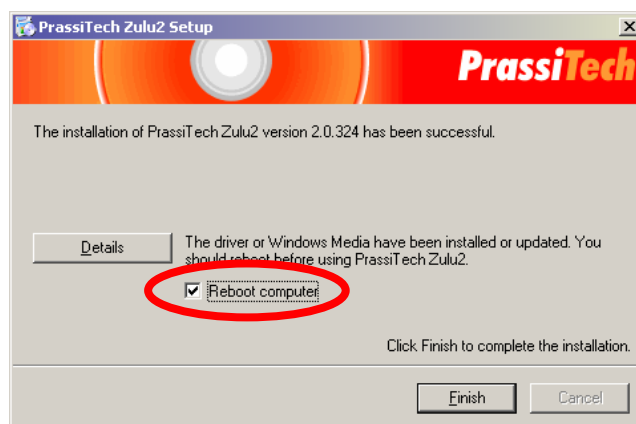
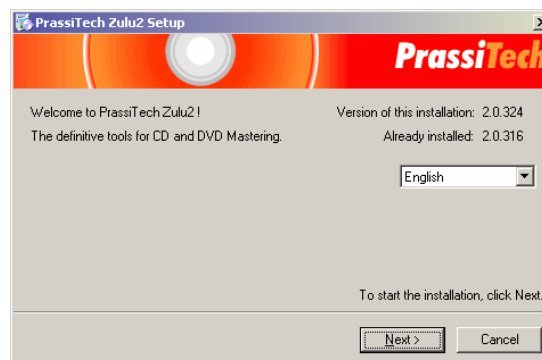
Select the language to install; the default is English.

Click **Next**.

The files will now be copied from the CD to the operating system.

Once finished, this screen will appear:

When reinstalling over an existing installation of Zulu2, the Reboot Computer option may not appear. ***If the Reboot Computer option is available, you should reboot after the installation.***



# Troubleshooting

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## Printer not printing:

1. Confirm the GX-1 Disc Publisher is plugged into a power source and is turned on. The ON/OFF switch is located at the back of the unit, above the power cable connector.
2. Confirm the green light on the power button is lit on the front panel. If AC power is on and the green light is off, press the power button firmly and wait for several seconds. If the light still does not come on, contact Microboards Technical Support.
3. Confirm the GX-1 Disc Publisher is connected to the computer, with a USB cable. This can be checked by clicking on Start, going to Settings and selecting Printers. Confirm the printer is listed and is active. If the icon is not active, make sure the Use Printer Offline is not selected. Also check to make sure the correct printer port is selected.



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## Disk Loading error:

1. If a disc is not loaded correctly, an error message will be displayed on your PC. Check to see if there are any discs on the belt. Remove any discs that are left on the belt.
2. Lift the cover and check for any discs on the front deck of the GX-1 Disc Publisher. Remove any discs found on the belts. Close the cover.
3. Next, reload the input bin and click the OK button on the error message to continue. The system will load the next disc and continue printing the remaining discs for that job.

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## Low Ink indication:

Before each disc is printed, the ink levels are checked. If the level of any one color has reached 10%, a warning message will be displayed on your PC and printing will be temporarily suspended. You can either change the cartridge at this point and click OK, or click OK to continue printing using the same cartridge.

If you continue with the same cartridge, printing will continue uninterrupted until the ink level reaches 5%. The low ink level warning will be displayed once more. Again, either change the cartridge or continue.

Once the ink level reaches 3% or less, the warning will be displayed before each print.

**It is strongly recommended that you replace the cartridge at this point.**

If you notice poor ink quality or a missing color in your prints at any time, replace the ink cartridge.

# Printing Specifications

**Print Speed:**

Depends upon percentage of coverage and print mode selected

Approx. 45 seconds for 100% full-color coverage, Photo Normal Mode

Approx. 20 seconds for 100% full-color coverage, Text & Graphics Best Mode

Approx. 12 seconds for 20% coverage Text & Graphics, Normal Mode

**Ink Cartridge Types:**

Microboards GX-200HC

**Media Types:**

Printable-surface 120mm CD-R or DVD-R

**Label Editing Software:**

SureThing™ First Edition Software for Windows included

**Maximum Print Width:**

4.72" (120mm)

**Power Supply:**

Auto Detect AC Power:

90VAC – 240VAC, 47Hz – 63Hz

**Warranty:**

One Year Limited Warranty

**Print Technology:**

HP Thermal Inkjet

Print Quality, Black: 600 x 600 dpi, with HP PhotoREt

Print Quality, Color: up to 4800 x 1200 optimized dpi, with HP PhotoREt

Color Technology: HP PhotoREt

**Memory:**

64MB

**Connectivity:**

USB 2.0 required

## Technical Support

For technical questions or support issues, please contact Microboards Technology technical support at PH: 952-556-1639, FAX: 952-556-1628, by email at [support@microboards.com](mailto:support@microboards.com) or on the web at <http://www.microboards.com>.