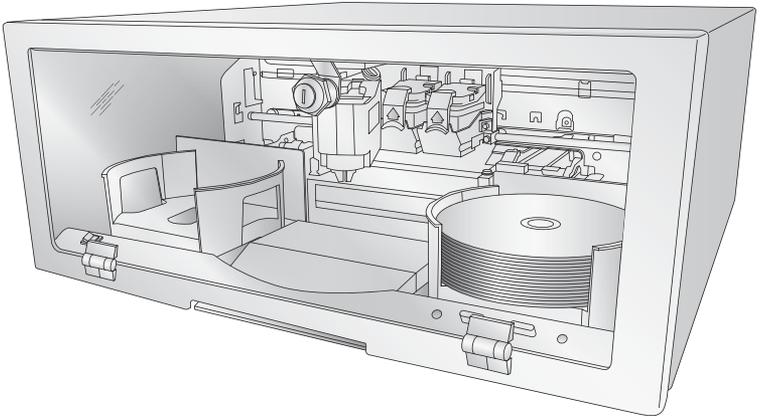




Bravo[®] XR

**Automated Optical Disc
Duplication & Printing System**



USER'S MANUAL

PRIMERA

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For the most recent version of this manual please visit
<http://www.primera.com/manuals.html>

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Printing History

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FCC Compliance Statement: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For Users in the United States: This product is intended to be supplied by a UL listed Direct Plug-In Power Supply marked "Class 2" or a UL listed ITE Power Supply marked "LPS" with output rated 12VDC, 4.5A or higher. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures. 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:

- Re-orient 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.

Use of shielded cables is required to comply with the Class A limits of Part 15 of the FCC Rules. You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate and/or obtain warranty service for this equipment.

For Users in Canada: This digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out on the Radio Interference Regulations of the Canadian Department of Communications. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Note: To ensure the unit operates within FCC limits, the power supply should be kept at least 10 cm away from the metal case.

CAUTION!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE EXTERIOR PANELS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. OPERATE THE UNIT WITH ONLY THE PROPER ELECTRICAL SPECIFICATIONS AS LABELED ON THE PRINTER AND AC ADAPTER.

CAUTION!

THIS PRODUCT CONTAINS A LASER DIODE OF A HIGHER CLASS THAN 1. TO ENSURE CONTINUED SAFETY, DO NOT REMOVE ANY COVERS OR ATTEMPT TO GAIN ACCESS TO THE INSIDE OF THIS PRODUCT. REFER ALL SERVICING TO QUALIFIED PERSONNEL. THE FOLLOWING LABEL APPEARS INSIDE YOUR UNIT:

CLASS 1 LASER PRODUCT
LASER KLASSE 1

CAUTION!

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION.

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Interactive Feature in this PDF Document

There are interactive features that will allow you to jump to different locations within the document. Each listing in the Table of Contents is interactive. Place the cursor on either the words or the page number. A small hand with a pointing finger icon appears. Click on the line with the icon and the document will jump to that page. If you want to return to the Table of Contents, move the icon to the top of the page and click on the arrow marked T O C. Navigating through the Index is similar. Place the icon on one of the listings or page numbers, click on it, and it will move to that page. The text relating to the Index listing will appear in red. Returning to the Index can be done by clicking on the arrow marked Index.

Section 1: Getting Started

THANK YOU...

...for purchasing the Bravo® XR. Bravo XR is the perfect all-in-one solution for producing professional looking CD-R and DVD-R discs.

NOTE ON TERMS AND CONVENTIONS:

From this point forward, the following terms and conventions will apply:

The Bravo XR will be abbreviated simply as the Publisher.

Optical discs, which can include many different types of discs including CD-Rs, CD-RWs, DVD-Rs and more are all referred to as CDs or discs.

A. NOTE ON MODEL DIFFERENCES

The Bravo XR comes in two different models which are:

- Bravo XR Disc Publisher (1 DVD Drive) Burns and Prints CD, DVDs and DVD-DL.
- Bravo XR Blu (1 BDR Drive) Burns and Prints CD, DVD, DVD-DL, **BDR** and BDR-DL.

These instructions are written to apply to all models. For example there are no special instructions for burning Blu-ray discs if you have a **Blu-ray** model. The software simply recognizes that you have Blu-ray capable drives and adds the BDR media type to the list of available media to burn.

B. CHOOSING A GOOD LOCATION

- Place the Publisher in a location with adequate air circulation to prevent internal heat build up.
- Do not place the Publisher near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

C. UNPACKING AND INSPECTION

While unpacking your Publisher, inspect the carton to ensure that no damage has occurred during shipping. Make sure that all supplied accessories are included with your unit. The following items should be included:

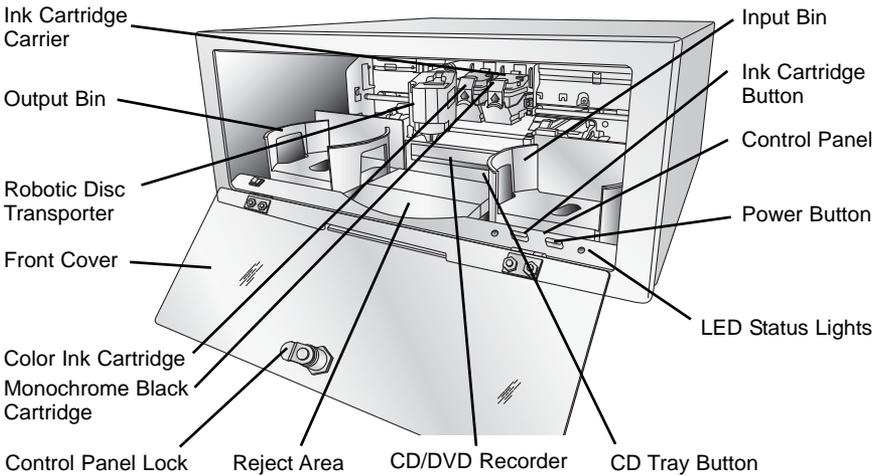
- Optical Disc Publisher
- Gray Plastic Input and Output Bins (Located inside the cardboard insert)
- Switching Power Supply with Power Cord
- One Three-Color (CMY) Ink Cartridge
- One Monochrome Black Ink Cartridge
- QuickStart Installer Disc
- USB 2 Interface Cable (Beige)
- Warranty Card
- This Operator's Manual, Quick Start Guide and Other Printed Information

Save the carton and packing materials. They will come in handy later if you ever need to transport the Publisher and/or any of its parts and accessories.

D. IDENTIFYING THE PARTS

Front Panel and Top

This illustration shows the Publisher, its Control Panel, Buttons, LED indicator lights, Input and Output Bins and other components.



The **Robotic Disc Transporter** moves discs from the Input Bin, to a CD/DVD Recorder, to the printer, and finally to the Output Bin.

The **CD/DVD Recorder** is automatically loaded and unloaded by the Publisher's Robotic Disc Transporter.

The **Recorder Tray Button** manually opens or closes the Recorder Tray. In normal operation, the in/out movement of the Recorder Tray is controlled automatically and this button is not used.

The **Control Panel** contains LED Status Lights and Buttons to control the Publisher.

The right **LED Status Light** indicates that Power is ON. The left LED Status Light is on to indicate that the cover is closed. They also blink in certain patterns to indicate an error or other condition of the Publisher. See Section 6 for a full explanation of the LED Status Light conditions.

The **Power Button** turns the Publisher's power OFF if pressed and held for five seconds. Press it quickly to turn power back on. When already powered on quickly pressing the power button will move the arm to the right or the middle to allow access to the recorder drive or the bins.

When the front cover is opened, the **Ink Cartridge Button** is used to position the Cartridge Carrier for easy ink cartridge replacement. When the front cover is closed, pressing the Ink Cartridge button will open or close the Printer Tray. (Must override cover lock sensor to simulate cover closed condition)

The **Input/Output Bins** are situated under the top cover of the Publisher. The bins will hold up to 25 discs. The right-side bin is the Input Bin for blank media; the left-side bin is the Output Bin for finished discs.

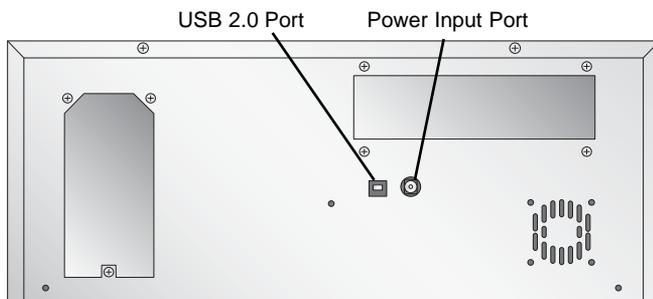
The **Reject Area** is where discs are dropped if they do not pass a software verification test. The discs slide down the ramp out in front of your Publisher.

The **Front Cover** is a durable plastic cover that will protect the Publisher from dust and interference.

The **Ink Cartridge Carrier** holds both a color ink cartridge (left-side pen) and a monochrome ink cartridge (right-side pen).

Rear Panel

This illustration shows the input ports found on the rear panel of the Publisher:



The USB 2.0 Interface is connected to an open USB 2.0 port on your PC with the USB 2.0 cable, included with your Publisher.

The **Power Input Port** connects to the included 100V~240V 12V switching power supply.

E. PC SYSTEM REQUIREMENTS

Before getting started, it is important for you to verify that your PC meets the minimum system requirements.

- Celeron processor or better running Windows XP, Vista or 7.
- 512 MB or greater RAM
- Free hard drive space of at least 10 GB.
- Available USB 2.0 Port. (This looks the same as a USB 1.0 port. Make sure you have a USB 2.0 port for optimal performance)

If your PC does not have these minimum system requirements, system performance may not be acceptable.

F. MAC SYSTEM REQUIREMENTS

Before getting started, it is important for you to verify that your computer meets the recommended system requirements.

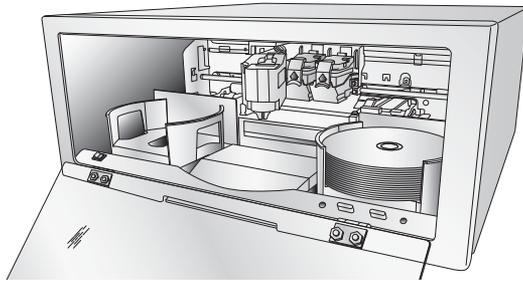
- G5 or Intel CPU running OS X version 10.5 or higher
- 512 MB RAM
- Free hard drive space of at least 10 GB
- Available USB 2.0 Port
- Do not connect the Publisher to any USB hubs or the USB port on your keyboard. It should be connected directly to an onboard USB 2.0 port.

If your computer does not have at least these minimum system requirements, system performance may not be acceptable.

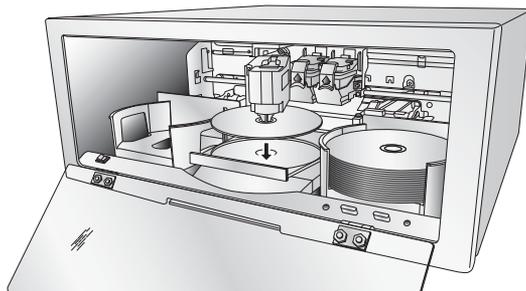
G. OVERVIEW OF OPERATION

Your new Publisher is an automated, precision device intended for continuous-duty publishing of discs. The following is a description of the complete process of duplicating and printing a CD/DVD job on your Publisher XR (See Section 5F for Overview of Operation in backup mode):

1. Up to 25 blank discs may be loaded at one time into the Input Bin.

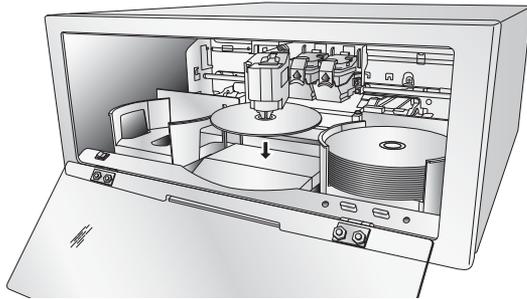


2. The Publisher's integrated Robotic Disc Transporter will first check your recorder drive for a disc by attempting to "pick" from the recorder. Then, the Robotic Disc Transporter will pick a disc from the Input Bin.
3. The Recorder Tray opens automatically and the Robotic Disc Transporter places a disc into the recorder.

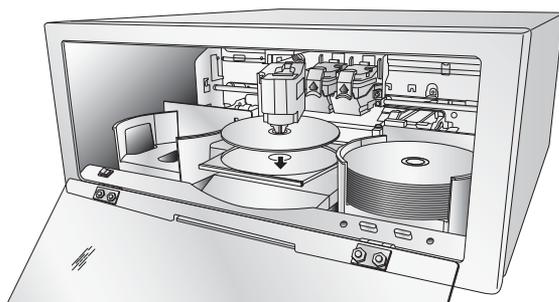


4. The Recorder Tray then automatically shuts. Robotic Disc Transporter will automatically check the Input Bin to make certain that only one disc was picked.

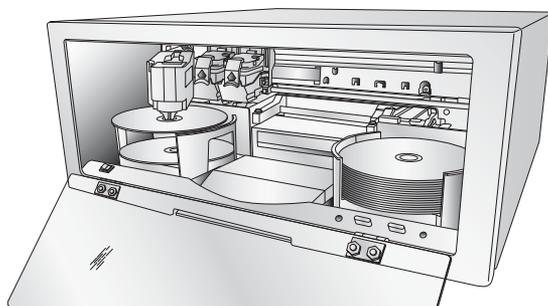
Through software control, you can perform a test on each disc before recording. If a disc does not pass (meaning that all or part of that disc is not recordable), the Robotic Disc Transporter picks it out of the **CD Tray** and sends it to the **Reject Area**.



5. The Recorder is now writing to the disc. If you were to fully record a CD with data, audio, video or music (650 MB), recording time is about 3 ½ minutes each. A full DVD records in about 10 minutes. Most jobs don't fill the entire disc, so recording time is usually less than this. After recording, the Recorder Tray opens automatically. The Robotic Disc Transporter will lift the disc out of the Recorder Tray. The Recorder Tray will close, and the Printer Tray will open. The Robotic Disc Transporter will lower the disc into the Printer Tray, and the Printer Tray will then automatically close.
6. If publishing more than one disc, the Robotic Disc Transporter will load the Recording Drive with a blank disc from the Input Bin to start recording the next round.
7. Once recording has started on the next round, printing will start with the recorded disc from the previous round. This simultaneous printing and recording greatly increases the throughput of your Publisher.



8. Print time varies according to which print mode has been selected (Section 3-A). In most cases, print time takes no more than 2 minutes. After printing the first disc, the Publisher's Printer Disc Tray opens automatically. The Robotic Disc Transporter moves the finished disc to the Output Bin.



9. The process starts over and repeats until all blank discs are gone or the number you have specified via software are copied and printed.
10. Now that you understand the order of operation, it is time to set up your Publisher.

Section 2: Hardware and Software Set-Up

This section will describe the step-by-step process of setting up your Publisher. This includes information on how to load the supplies (ink and disc media) necessary to start producing discs.

A. INSTALLING THE PC SOFTWARE

The Installer Disc has a QuickStart menu that will guide you through the process of setting up your Publisher. Please refer to the following for more information on each step:

1. Place the Optical Disc Publisher Installer CD in your CD-Rom Drive. The Installer application should automatically launch in a few moments. If it does, proceed to Step 2. If it does not automatically launch, follow these steps:
 - Double-click the **My Computer** Icon, then double-click the icon of the appropriate CD drive containing the Software Installer disc
 - Double-click **Installer.exe**
2. In the Installer Application, click the **QuickStart Install** button. The QuickStart Install will guide you step-by-step through the installation process. As you complete each step, click **Next**. Steps 1-4 are shown in Section D below as well as on the monitor. You may follow either to complete the setup.

B. INSTALLING THE MAC SOFTWARE

Before installing Discribe please note that all software must be installed on a hard disk. Once you have installed the software, store the original program CD-ROM in a safe place.

Please note that your user account must have administrative rights to properly install a new printer. You can check with your system administrator or check with Apple support to confirm whether or not your account has administrative rights.

Install the software as follows:

- a. Insert the Bravo Installation CD-ROM in your system's CD-ROM drive.

- b. Double-click the CD-ROM icon.
- c. Double-click on the **Installer.mpkg** file icon. Follow the on-screen instructions.
- d. The volume containing the operating system should be selected for installation. Click the **Continue** button. All components will be installed to their proper locations.
- e. Once the installation has completed, click **Quit**.

You have successfully installed all the necessary software! Section C below will describe how to connect the Bravo to your Mac.

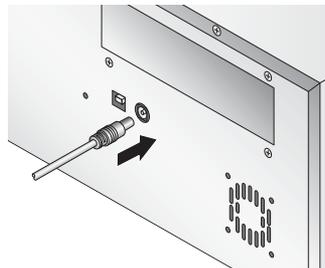
C. HARDWARE SETUP

To connect your new publisher, please do the following:

Be sure you have removed the packing tape and cardboard insert prior to applying power.

Step 1: Applying Power

- Locate the power adapter supplied with your Publisher.
- Place one end of the adapter cord into the power port on the rear panel of the Publisher.
- Unit will initialize for approximately 30 seconds.



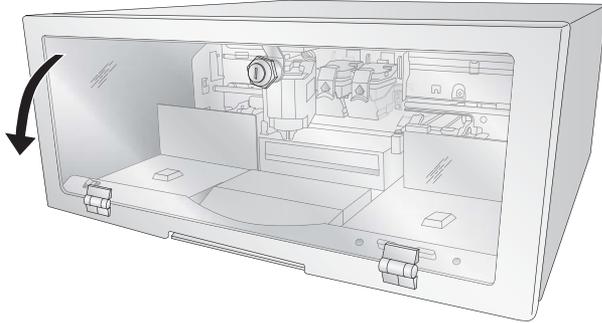
Step 2: Loading Media (Discs)

NOTE: *Your Publisher can print directly onto virtually any brand of printable-surface CD/DVD media. However, different brands of discs have different printable coatings. Because of this, you may need to adjust the printer driver settings to accommodate your specific brand of CD/DVD media. Refer to Section 3E or 3F for further printer driver information.*

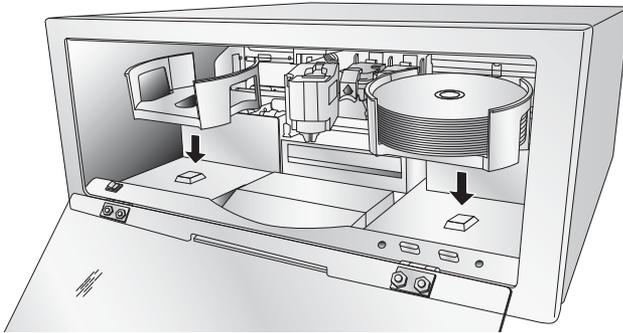
Due to the wide variety of printable-surface CD/DVD media, you may find that certain brands of discs provide higher print quality than others. For maximum print quality, use CD/DVD media authorized by Primera.

Refer to the following steps when loading discs in to the Publisher:

- Open the front cover of the Publisher



- The Publisher will automatically position the cartridge carrier and Robotic Disc Transporter to the center position allowing for easy access to the bins.

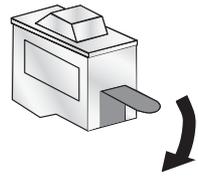


- Load the Input Bin (the bin located on the right-hand side of the Publisher) with 25 blank discs and place the bins on the mounting pegs.

Step 3: Installing Ink Cartridges

- Press the Ink Cartridge Button  to move the Ink Cartridge Carrier to the load position and open the ink cartridge covers
- Remove each ink cartridge from its packaging

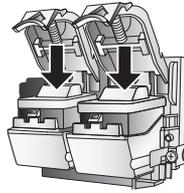
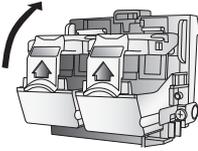
- Slowly remove the tape covering the cartridge's print head, being careful to avoid damaging the barcode label on the underside of the cartridge.



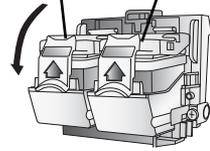
DO NOT TOUCH THE COPPER AREA!

- Insert the ink cartridges into the carrier, copper end first and snap the cartridge cover in place. Insert the color in the left holder, monochrome black in the right cartridge holder.

Pull out and lift up



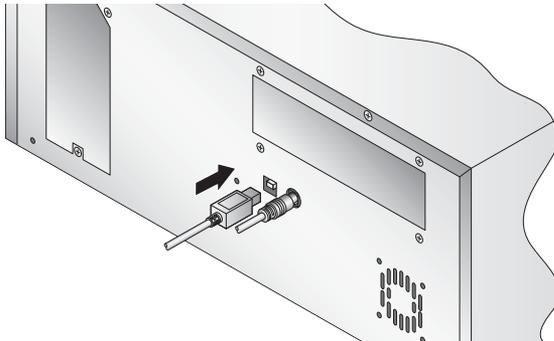
Color Black



- Close the Publisher's front cover.

Step 4: Connecting the USB 2.0 Cable

Connect the Publisher to your computer with the beige USB 2.0 Cable.



If you are using Windows, after a few moments a found new hardware wizard will appear.



Select "Install the software automatically" and click **Next**. Make sure that you have your installation disc in a drive on your computer.

You may see a notice like the one shown below stating that the device has not passed Windows Logo Testing. Click **Continue Anyway** to continue installing the printer driver for your Publisher.

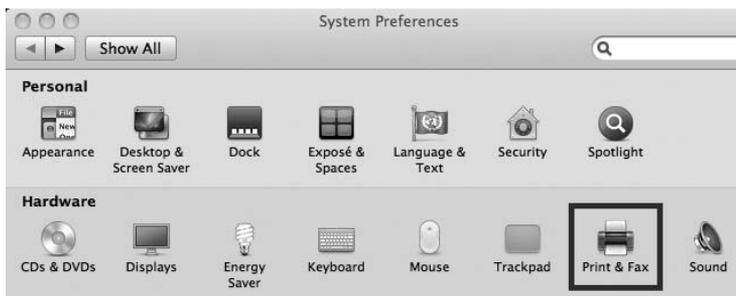


If you are using a MAC you may be required to Add the printer via the Printer Setup Utility.

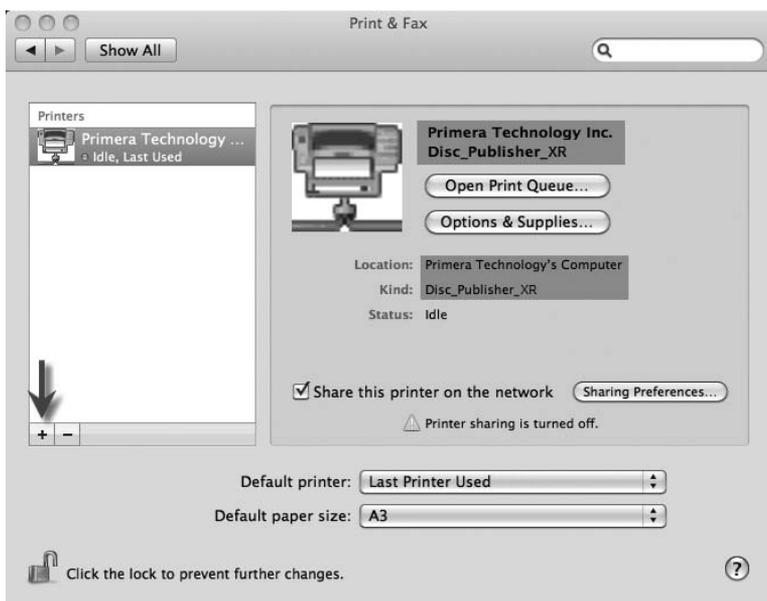
If you are using a Mac:

Connect the Publisher to your PC with your beige USB 2.0 Cable.

The printer driver will automatically install. To verify the driver installed or reinstall go to the Mac System Preferences (Apple - System Preferences). Click the Print and Fax Icon.



The driver will appear as shown below. To manually add the driver click the + button.



Section 3: Creating Discs

There are two main components to creating discs, printing and burning. For PC, SureThing CD Labler is used to design the image to print on the disc. For Mac, **Disc Cover** is used to design the image to print on disc. For Mac and PC, PTPublisher controls the recording and allows you to select the image to be printed to your discs.

A. TUTORIAL: COPY A DISC

Note: PTPublisher functions virtually the same on both Mac and PC. Every effort was made to make them look and function the same. However, due the unique benefits and limitations of both operating systems there are subtle differences. Where important, those differences will be highlighted. In general, these instructions will apply to both the Mac and PC editions.

There are three basic steps to any project. 1. Add Data 2. Add a Print File. 3. Set the number of copies and adjust options (Summary). The instructions below explain how to do the most common project - A Copy Project.

A **Copy Project** can be used to copy any CD, DVD, DVD-DL or Blu-ray master. This job type reads the master disc from the Disc Publisher drive to the hard drive of your computer. The master is stored in the **Global Image** format (*.gi) in a temporary location on your computer. PTPublisher uses this temporary file to make all subsequent copies that are requested. The master disc is read only once to create the initial temporary file.

Recommended for: All CD, DVD or Blu-ray content or disc types (Audio CD, Data CD, Software Install Disc, Video CD, DVD Video, Blu-ray Video: CDR, DVD-R, DVD+R, DVD-ROM, DVD+DL, DVD-DL, BDR, BDR-DL, etc.). This is best used for single runs where you will not need to make additional copies of the master disc a later time.

This project requires a master disc. If you do not have one use another project type. (See Section 3B)

1. Select Copy Project from the Starter Window or the **New Project Panel** on the left side of the screen. Step one of the Copy Disc wizard will be displayed.
2. You will be prompted to place the disc you would like to copy into the drive inside the Disc Publisher. The tray door will open automatically. Place the disc in the drive and click **OK**.



3. The Publisher will close the drive and read the contents of the disc. It will display disc type (CD/DVD) and show the size of the disc in Megabytes. Verify this information is correct and click the next arrow to continue.
4. Select the print label file by clicking the select a label button. When you have selected print label file, click the next arrow. There are several ways to select a print file. See the explanations below for more information.

For any job type you choose you will be prompted to select a label file to print. You may select an existing label, create a label or choose to print nothing. Simply click the next arrow to print nothing on the disc. Otherwise follow the steps below.

- 4A. Select a Label
 1. Click the browse button to open a browse window to choose your print file.
 2. Double Click on the file to add it to your project. You may add any BMP, JPG, TIFF, SureThing (PC) or Disc Cover (Mac) file. SureThing or Disc Cover files are automatically formatted correctly. All other file types should be 4.72" x 4.72" square. For best print quality the image resolution should be at least 300 dpi.

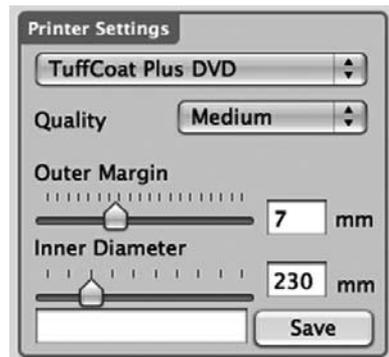
4B. Create a Label

1. Click the **Create a Label** button to open the SureThing CD Labler or Disc Cover program. These programs will allow you create a label.
2. Follow the instructions in Section 3 D or E to create a label using Sure Thing or Disc Cover.
3. Once you have designed the label, save it and close the program. A message will appear asking if you would like to use the label file you just created in your current project. Click **Yes** to use it in your project. Once you choose your label a preview will be displayed.
5. After selecting your label to print it is important to check the Printer Settings. These settings are dependent upon the specific discs you are using. Each disc (media) brand or type has a different sized non printable outer margin or inner diameter. It also has a different printable surface.

For Primera TuffCoat branded discs simply choose your media from the drop down list, the settings will be adjusted accordingly.

Inner Diameter and Outer Margin (Printable Area).

If you have other media, you may need to measure the unprintable outer margin and the inner diameter with a clear millimeter ruler to find the correct size to input here. For the outer margin, measure from the edge of the disc to the beginning of the white printable surface. For the inner diameter measure from one side of the unprintable hub to the other. The unprintable inner diameter will almost always be larger than the center hole of the discs (15mm).



Print Quality. All Primera media is automatically defaulted to the best print quality. Other media may also accept the best quality setting. However, with some media you may have to print at a lower print quality to eliminate smudging and bleeding. Some lower quality media can not hold all of the ink that is printed at the highest quality settings.

Click the next arrow.

6. The third and final step of any project is the summary screen. On this screen you can review the data and print selected for the project, set the number of copies, adjust burn options and name the job. Click the Options button to access burn speed and other options. If you do not adjust the project options, optimal settings will automatically be selected for you.

Click the "Go" button to start the job. 

B. USING PTPUBLISHER

PTPublisher allows you to record and print CDs, DVDs, and BDRs (Blu-ray) using a variety of project types described below. When the software is opened these projects will be available from the main starter menu. At any point you can access these project by clicking the project in the New Projects area on the left.

B.1 Project Types

Note: "Print Only" Project is the only project available for AutoPrinters.

Copy Project

A Copy Project can be used to copy any CD, DVD, DVD-DL or Blu-ray master. This job type reads the master disc from the Disc Publisher drive to the hard drive of your computer. The master is stored in the **Global Image** format (*.gi) in a temporary location on your computer. PTPublisher uses this temporary file to make all subsequent copies that are requested. The master disc is read only once to create the initial temporary file.

Recommended for: All CD, DVD or Blu-ray content or disc types (Audio CD, Data CD, Software Install Disc, Video CD, DVD Video, Blu-ray Video: CDR, DVD-R, DVD+R, DVD-ROM, DVD+DL, DVD-DL, BDR, BDR-DL, etc.). This is best used for single runs where you will not need to make additional copies of the master disc a later time.

The project requires a master disc. If you do not have one use another project type.

Data Project

A data disc project allows you to create a data disc on a CD, DVD or BDR using files on your hard drive. You can replicate the file structure on your hard drive or you can create your own customized file structure.

Recommended for: Use the data disc job to create software installation discs, or data discs containing image files, presentation files, PDFs, documents, MP3s or any other file type. **Data discs can generally ONLY be read by computers.**

Audio Project

This project allows you to create an audio CD using WAV, MP3, AIFF or WMA files. Note: this procedure is not for copying already created and mastered original audio CDs. If you have already created a master audio CD in another application or this application and you would like to make additional copies, please use the Copy project.

Recommended for: Creating Audio CDs

Video Project

This project involves extracting the **Audio_TS** and **Video_TS** folders from the master DVD or directing your DVD authoring software to output into Audio_TS and Video_TS folders instead of burning a master disc. For Blu-ray Video, this method involves extracting the Blu-ray folders from the master DVD or directing your Blu-ray authoring software to output into Blu-ray folders instead of burning a master disc. Note: The PTPublisher software was not meant for authoring DVDs or Blu-ray. You must use another software to burn a master DVD first. Make sure that disc plays and the menus work on all systems. You may also copy a master DVD using Copy Project or Image Project. However, the video project is the recommended method.

Recommend for: This method is especially useful if you are having compatibility problems with the formatting created by the DVD/Blu-ray authoring software or with the media type of the master disc. This method removes some potentially complicating variables from the DVD/Blu-ray Video creation process. This method eliminates the need for a master disc. Error or incompatibilities can be introduced into your master by the drive burning the master, the disc the master is burned on or the software burning the master. Instead masters can be stored on a large hard drive. This allows you to burn additional copies at any time with out locating the master. If a backup strategy is employed, hard drive storage is more reliable over the long term since it is not susceptible to scratching like a master disc.

Image Project

The Image Project allows you to copy any CD, DVD, or BDR master. You can use an existing image or create an image and then use it in the project. The master disc is read from the specified drive to the hard drive of your computer. The master is stored in the **Global Image** format (*.gi) in a user specified location on your computer. PTPublisher uses this file to make all subsequent copies that are requested. The master disc is read only once to create the initial file.

Recommended for: All CD, DVD or Blu-ray content or disc types (Audio CD, Data CD, Software Install Disc, Video CD, DVD Video, Blu-ray Video: CDR, DVD-R, DVD+R, DVD-ROM, DVD+DL, DVD-DL, BDR, BDR-DL, etc.). This is best used for jobs that are repeated on a regular basis where you will need to make additional copies of the master disc at a later time. This project type stores the master on your hard drive. This saves the time it takes to read in the master and reduces the possibility of defects being introduced into the master disc.

B.2 Steps to any Project.

Step 1: Add Data

Depending on your job type this step will be different. You may choose your master, choose data on your hard drive, choose tracks to your audio CD, choose your disc image or DVD or BDR video folders.

On most job types a volume label can also be created at this step. This is the label that will appear when this disc is inserted into a computer drive.

When you have selected the data you would like to burn click the next button.

Step 2: Add Print

If you want something printed on your disc, this is where you choose an existing label or create it. Follow these steps.

To Select an existing label:

1. Click the browse button to open a browse window or drag and drop files to the print file box or click the drop down arrow to choose previously used labels.
2. Choose any supported file types of JPG, BMP, TIFF, SureThing (PC) Disc Cover (Mac). Files should be 4.72"(120mm) square. For best print quality the image resolution should be at least 300 dpi. Non-conforming files will be stretched or increased in size to fill the full size of the disc.
3. Once the print file is selected a preview will be displayed.
4. At this point you may choose to move on to the next step by clicking the next arrow. However, there are print quality and print area settings that you may want to adjust.
5. Several preset media types that correspond with the media available at our webstore can be selected the Media drop down box. When you select a media type from this box the Print Quality, Outer Margin and Inner Diameter are automatically adjusted to fit that media.
6. To manually set these settings simply edit them. The media type will automatically change to Custom. You can save your adjusted settings by typing the name of the profile and clicking Save. This name and the associated settings will now be available to choose in the media drop down box.

Below is a description of each of the available settings.

- **Quality.** There are several choices here that correspond to the speed of the print and the saturation of the image. Higher quality = slower print speed and more vibrant and crisp prints.

- **Outer Margin.** Discs from other manufacturers vary widely regarding how far the printable surface extends to the edge of the disc. Measure the distance from the edge of the disc to the start of the white printable area. This will be between 0 and 2 mm in increments of .1mm.
- **Inner Diameter.** Discs from other manufactures vary widely regarding how far the printable surface extends to the inside of the disc. Measure the distance from one side of the inner unprintable center hub to the other. This will be between 15 mm and 50 mm displayed in increments of .1mm.

To Create a new label:

1. Click the Create Label button.
2. The label design application SureThing (PC) or Disc Cover (Mac) will open.
Design your label using the included backgrounds and clipart. You may also add your own image. Add text and any other design features.
3. Save your label by going to the File menu - Save as.
4. Close SureThing or Disc Cover.
5. You will be asked if you would like to use the label you just created in your current project. Click Yes.
6. You may now choose to adjust print settings as described above.

Step 3: Start Project (Summary - Settings)

In this step you can verify data and print information and set the number of copies. Optionally you may choose to edit burn settings. However, the default settings are optimized to give you the best quality burn. Simply click "Go" to start the job.

A summary of all the options on this step is listed below.

Project Summary

This areas displays information about the data you have chosen, a thumbnail and file name of the print file you have chosen and picture and description of the Disc Publisher Robot you have chosen. If any of this information is incorrect, use the back arrow at the bottom of the screen to go back to appropriate window to correct it.

- **Change Robot.** This is only available with multiple robots connected. Click it to change the robot to which this project will be sent.
- **Drives.** With an Xi2 connected you can choose to burn to both drives or the top or bottom drive only.
- **Protect Video with PTProtect (PC Only).** This is only available in the DVD Video and ISO image Project with purchase of PTProtect USB dongle. See the PTProtect section for more information.
- **Save Project.** On a Mac, at the top of the summary window you can type the name of your job and then click save to save it anywhere on your computer. For PC, you can save a project at any time by opening the file menu and choosing Save Project.

A project file is a small file that holds the locations of files to be burned, the location of the print file to be printed, and any specific project settings such as burn speed and number of copies. Note: A saved project file does not include the data to be burned or the print file to be printed. If these files are moved or deleted, the project file will need to be edited to reflect these changes.

- **Schedule Project.** Click this button to schedule this job to run daily weekly or monthly at a specific time. For more information on this topic see Section 3B.5.

Project Options

For any job type you can click on the Options button for additional options for that job. Below is a description of all Project Options. Not all options are available for all Project Types. If the options are not available for the chosen project type, they will be hidden. If you would like these settings to be the default for all projects of this type click "Save as Defaults".

- **Recording Speed.** Set the recording speed with this option. The fastest recording speed is determined by the lowest maximum speed of the blank media or the drive. For example: The "fastest" speed in a 20x max drive with 16x max media would burn at 16x. In many cases a slower speed should be selected to achieve the least number of rejected discs.

- **Recording Type.**

Track-at-Once. This is the default. For track at once, the laser is turned off after each track, which produces a two-second gap. The track-at-once feature, enables songs and data to be written at different intervals. The lead-in sectors that are written at the beginning of each session contain the location where additional data can be placed on the disc.

Disc-at-Once. If this option is checked, the lead-in, all the tracks and lead-out are written in same action. The laser is kept on for the entire session.

- **Closed-Finalized/Open.** A closed disc means no additional data can be added. If the disc is left open additional data can be added in another session.
- **File System.** The file system is the method by which the files and folder are arranged on the burned disc. Joliet is best for most CD burning applications. UDF 1.02 is best for DVD burning. UDF 2.6 is used for Blu-ray. The recording engine can also add a bridge which effectively adds another file system to the disc. UDF1.02 with a Joliet bridge is the default.

Most of the differences between file system types relate to file name length and character restrictions and folder level depth. ISO is the most restrictive and oldest and UDF is the least restrictive newest file type. The complete list of specifications for each is several hundred pages. Macs and PCs can read both types.

If you would like to make your burned disc compatible with very old operating systems or other less popular operating systems use the ISO system.

- **Test Record.** If this option is checked the recorder tests a disc for record ability before burning. The drive laser is set to read power and the entire surface is scanned for errors. This takes the same amount of time as recording. (DVD+R media can not be tested) This options can not be used in combination with normal recording or verify.
- **Verify.** If this option is checked, it compares the copy with the master bit for bit. If it finds a discrepancy it rejects the disc. Verify is an extremely high quality standard. If the disc is audio or video, the discs may still be playable and

the errors may not be detectable by human eyes or ears.

This operation may be useful to verify software installation discs where it is extremely important to have accurate copies of all installation files. Checking this option will double the time it takes to record each disc.

- **Set Time and Date to Mastering Time.** If this option is checked, all files on the disc will automatically be set to the current time and date.

B.3 Robot Options/Bin Selection

Double click on the bin icons at the bottom of the screen to access these settings.

Here you can designate the type of media in the left and right bins and finished bin location.

Kiosk Mode. By default, PTPublisher assumes that discs are loaded into only the right bin. It picks from the right bin and places completed discs in the left bin. Check Kiosk Mode to make the robot pick blank media from both the right and left bins. Finished media will be placed in Kiosk bin. Kiosk Mode still requires the same type of media in both the right and left bins. See Section 2D for instructions on setting up the Kiosk bin.

Bin Selection. Enable Bin Selection to use different types of media in the left and right bins. Check the box and set the media type to one of the available options. Once Bin Selection is enabled the contents of the bin will be reflected next to the bin icons. To take advantage of this feature choose a specific type of media on step one of data project. Other project types will automatically select the correct type of media. When you queue multiple projects with different media types the robot will now choose from the left or right bin depending on what media type is selected in the project and set for the bin. All finished discs will be placed in the kiosk bin.



Note: PTPublisher has no way to verify if the actual discs loaded into the bin are CDs, DVDs, DVD-DL or BDR. It is up to the user to make sure the designated media is actually in the bin.

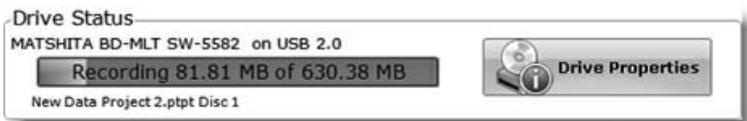
B.4 Publisher Status

The status window is automatically displayed when a job starts. You may also access it at any time by clicking the More Status link under the picture and description of the robot connected. Publisher Status is only available if the Publisher is connected.

- If no errors are present, the green check button will be displayed with a Ready indication to the left.
- If errors are present a red exclamation button will be displayed with the error explained to the right. At times the entire error will not be visible. Click More Status to view the complete error.

The Status page displays Drive Status, Printer/Robot Arm Status, and Project Status.

Drive Status shows the current status of the drive during a job. The recording progress is displayed on the progress bar along with the total size of the burn and the current amount burned.



Printer/Robot Status shows the current status of the printer if it is printing or the robot if it is moving discs.

The Project Status area of the Publisher Status window shows the current status of the job such as what disc number is printing and burning of the total number of disc to produce. From here you may also view a detailed log of the current job, view a log of previous jobs and abort currently running jobs.

To **abort** a currently running job, click the about button. The publisher will finish its current robotic command and then stop the job.

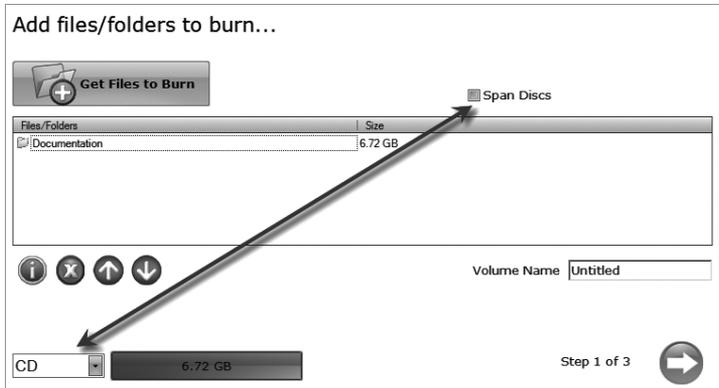
Queue Project. To queue another project to run after the current one is finished simply setup the project as you normally would. When you get to the third step of the project setup wizard, if a project is currently running a Queue button will appear instead of a Go button. Click it to queue the job.



B.5 Backup Project. (PC Disc Publishers Only)

To create a new backup project you must setup a data project and then schedule it. Follow these steps:

1. Choose Data Project from the project starter window.
2. Add the files or folders that you would like to backup. Typically there will be more data to back up than will fit on any one CD, DVD etc. If that happens you will receive a warning message and the data bar at the bottom of the screen will turn red.



To resolve this issue you may choose to span the data over several CDs or DVDs or change the media to a different type with more data capacity.

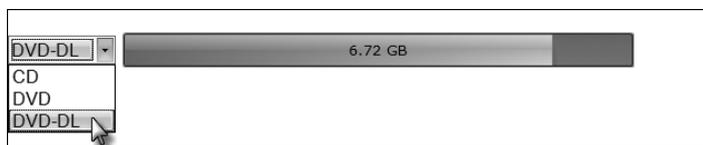


If you choose to check the **span disc** box you do not need to change media type. A Span Report button will appear which will tell you how the data will be distributed over the chosen media type.

Regardless of the media type selected for back up projects it is recommended that span discs be checked to accommodate future backups of the same files/folders which may be larger.

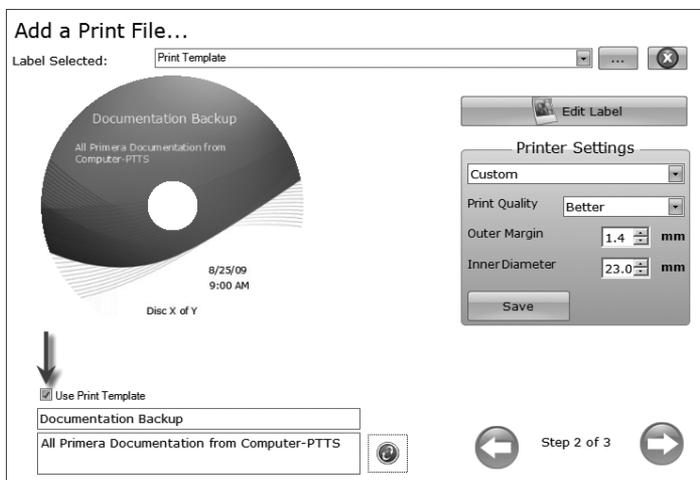
Important Note: It is not possible to span a single large file over multiple discs.

Using the media drop down list, you may also choose to change the media type to one with more capacity. The data bar will change from red to green.



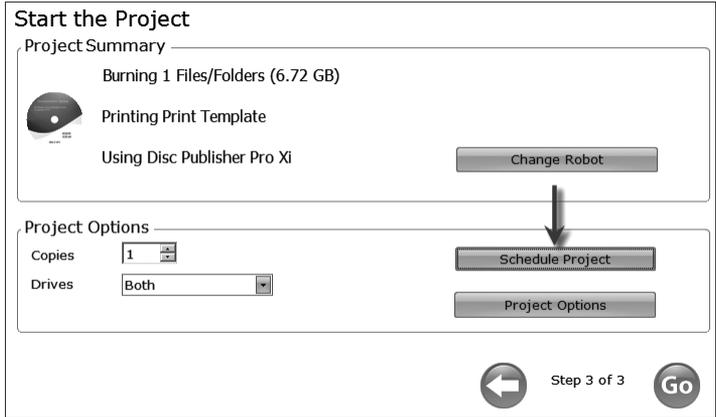
Note: Changing the media type only changes the media that the software expects. It is up to the user to make sure the selected media is actually in the bin.

3. Once you have selected the data click the next arrow to add a print file. There is a **print template** that has been designed for backup projects. It is recommended that this template be used. Check the "Use Print Template" box.

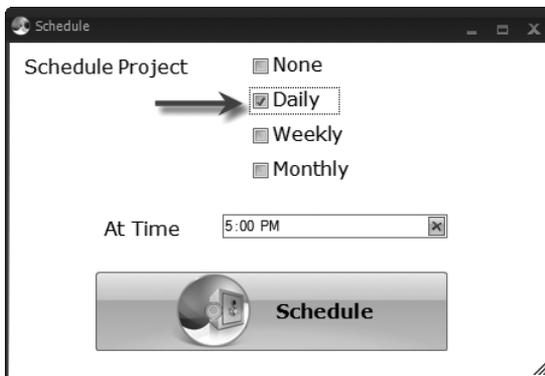


Title and description fields will appear below it. Fill out these fields with information pertaining to the backup project. Date, time and the number of discs in the backup set will automatically be printed on the disc. Click the refresh button to view your changes in the preview.

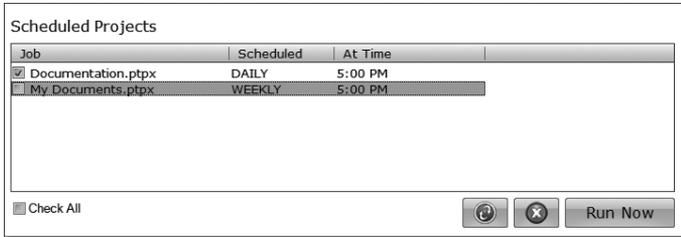
4. Click the next button to display a summary of the project. Click Schedule Project to convert this data project into a backup project. You will be prompted to save your project. Do not move projects once you have saved them. Always choose only one copy even if your project will be spanned across multiple discs.



Once the project has been saved the Schedule window will appear. Set the frequency of the backup and the time of day. Click Schedule.



The Scheduled Projects window will appear. Check the box next to the backup project you would like to run. Click Run Now to run it for the first time now. Otherwise, the backup project will proceed at the scheduled time.



You must keep the PTPublisher software open, the Disc Publisher turned on and the discs loaded for the automatic scheduled backup to occur. If you would rather not do this you may also check None on the Schedule window to run the backup project when you choose. This will add the backup project to the Scheduled Projects list and allow you to run it when ever you click the Run Now button.

You can access the Scheduled Projects list at any time by choosing Advanced Project from the project starter window. Choose Backup Project from the sub menu. Here you can view all scheduled projects, edit the project or change the frequency or time of the automatic backup.

Note: All backup runs are full backups. PTPublisher does not do incremental or differential backups by searching for new or changed data.

B.6 Rip Audio CD (PC Disc Publishers Only)

This project allows you to rip music to your hard drive in MP3 or other formats using iTunes® or Windows Media Player.

1. To rip an Audio CD to your iTunes database or Windows Media Player database choose Advanced Projects - Rip Project.
2. Choose whether to rip to iTunes or Media Player.
3. Load the Audio CD in the right bin of the Disc Publisher.
4. Click Go to start ripping CDs. Follow any onscreen prompts regarding settings that must be set before you being.

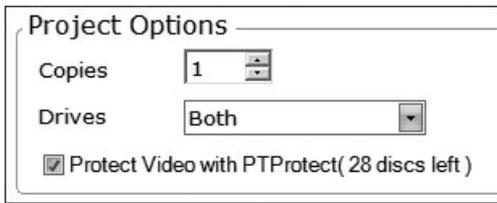
Note: The actual ripping process is completed by iTunes or Media Player. Please set all settings regarding the rip format (mp3, wav, wma, etc.), rip location, rip quality (kpbs), etc. in Media Player or iTunes.

B.7 PTProtect (PC Disc Publishers Only - Requires separate purchase of USB dongle)

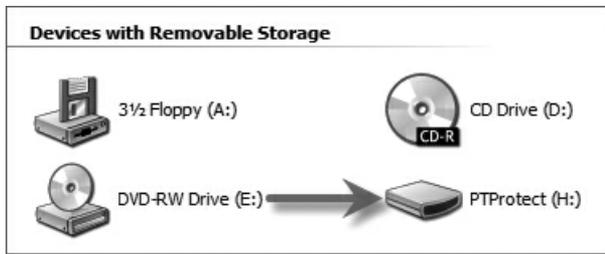
PTProtect allows you copy-protect any DVD Video and mass produce protected discs using the PTPublisher software and a Primera Disc Publisher.

You can protect an existing Master DVD by first converting it to an ISO image using PTPublisher or you can protect a DVD that is stored on your hard drive as **VIDEO_TS** and **AUDIO_TS** folders. Instructions for each of the two methods are found in the instructions with the PTProtect dongle or in the PTPublisher software help file.

To protect DVDs you must first insert the PTProtect USB Dongle (100, 250, 500, 1000 or 5000 protections) into a USB port on the same computer that the Disc Publisher is connected to. Once you insert the dongle it will appear in My Computer as the next available drive letter with a Volume Label as "PTProtect."



When PTPublisher is launched the PTProtect option will be enabled. The number of protections enabled will be visible on the Summary screen (Step 3) of the DVD Video Project or Image Project.

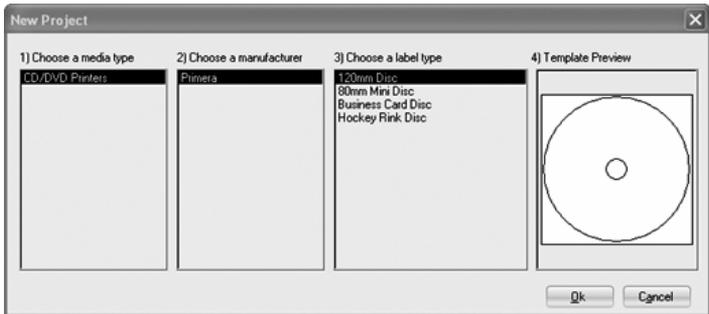


Note: You will receive 3 free protections before the dongle is connected. After the free protections are used the PTProtect option is still visible but not selectable.

C. CREATING A PRINT LABEL USING SURETHING (PC)

The SureThing Disc Labeler software included with your Publisher is a great tool for creating professional looking discs. You can use SureThing's Smart Designs to quickly label a disc, or easily import your own design in many popular file formats. The Help section included with the software will provide complete instructions on all the features in this package. (Go to the Help Menu - Choose Contents) The following is a tutorial on creating a basic disc design:

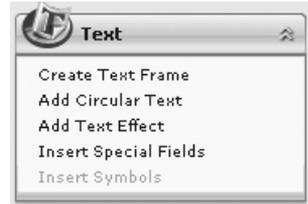
1. Open the SureThing program. Choose the 120mm DiscTemplate from the window that appears.



2. Open the background panel by clicking the arrow on the background button. Add your own background to the label by choosing Select Background.
- 3A. Browse to the location of your background image. To avoid skewed or blurry printing make sure your image is 120mm square and of sufficient resolution. We recommend 300 dpi.
- 3B. Instead of your own background, you can also choose from several included SureThing backgrounds. To choose one of these images click the **SureThing Background** button in the Browse window that appears when you click **Select Background**. Also, you can easily toggle through the backgrounds by using the toggle bar below the label. Backgrounds are controlled by the far left toggle button.

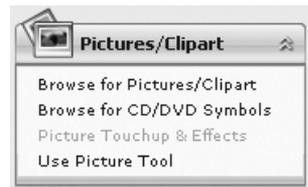


- 4A. Open the text panel by clicking the arrow on the text button. Add text by selecting one of the options below. To create text that follows the curve of the disc choose Add Circular Text.



- 4B. You may also choose from several SureThing smart designs. These design templates automatically position your text and use certain text effects to give your label a professional look. You can easily toggle through smart designs by using the middle toggle button on the toggle bar below the label.

5. Finally, Open the picture panel by clicking the arrow on the Pictures/Clipart button. Add any logos, graphics or symbols to the label. These graphics will appear on top of the background image. You can size them appropriately by dragging the corner of the selected graphic.



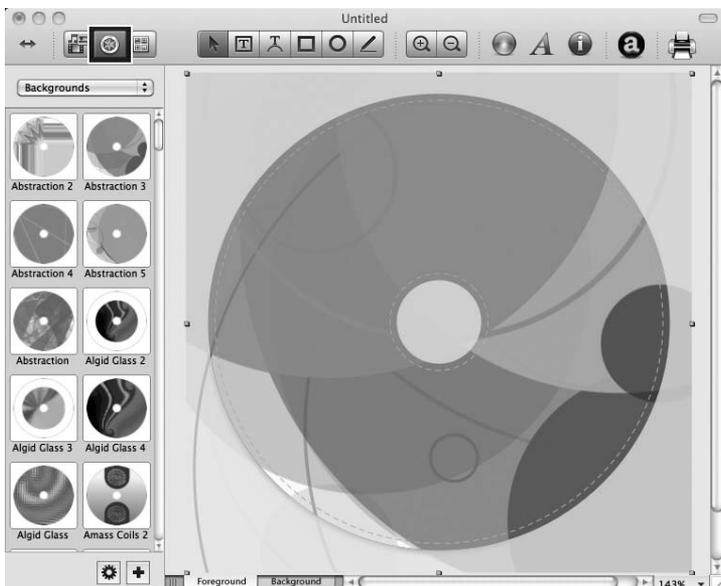
6. When you have completed design work save your label by choosing Save Project in the Actions panel.

D. CREATING A PRINT LABEL USING DISC COVER (MAC)

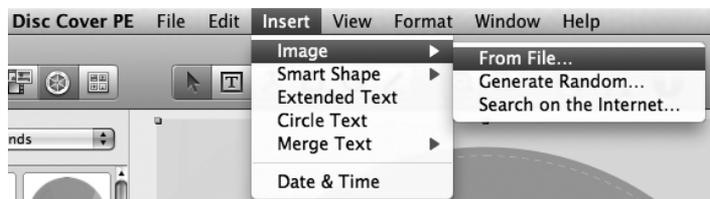
The Disc Cover Disc Labeler software included with your Publisher is a great tool for creating professional looking discs on a Mac. You can use Disc Cover's backgrounds and clipart to quickly label a disc, or easily import your own design in many popular file formats.

The Help section included with the software will provide complete instructions on all the features in this package. (Go to the Help Menu - Disc Cover PE Help) The following is an overview of the basic components of the software:

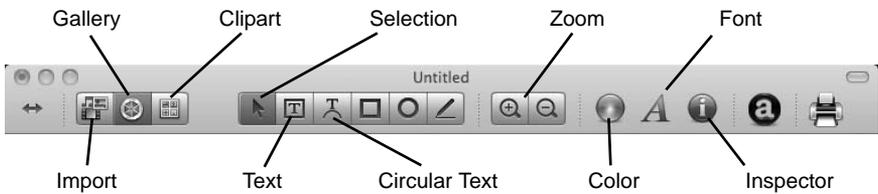
1. Open the software by clicking the Create Label button on the Add Print File step of PTPublisher. There is no way to open Disc Cover PE outside of the PTPublisher software.



2. To add a background from Disc Cover, click the the Gallery button on the top tool bar. On the image above, the Gallery button is the highlighted center color wheel button on the left side of the top tool bar.
3. Choose Backgrounds from the drop down box. Click the design that you would like as your background. Use the scroll bar to view all of the designs.
4. You may also select an image or design from your hard drive as long as it is a supported file type such as tiff, jpg, bmp or pdf. Go to the Insert Menu - Select Image - Choose From File...

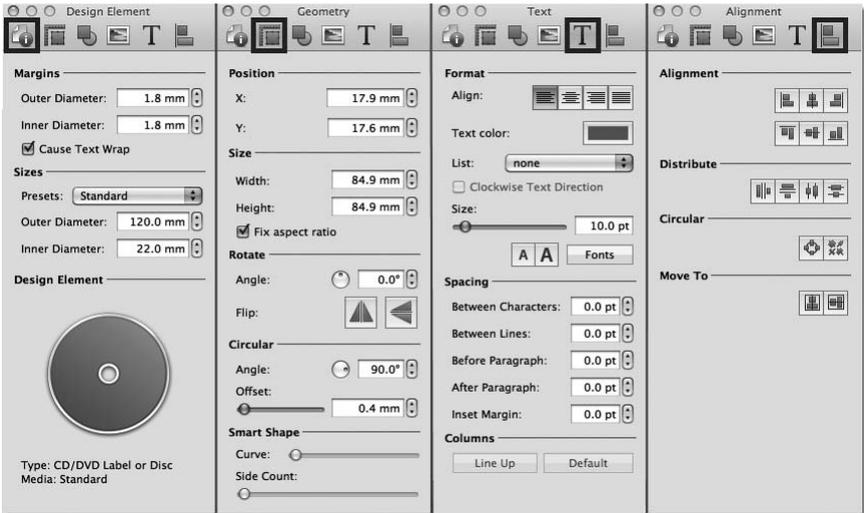


5. Once your image or background has been selected you can add text or other design elements using the buttons on the tool bar or the Inspector. Below is a short description of each of the important buttons.



- **Import** - Import song titles from iTunes or pictures for a collage from iPhoto
- **Gallery** - Choose a Disc Cover backgrounds or several backgrounds to make a collage. Create your own backgrounds and add them to the Gallery.
- **Clipart** - Choose from a wide selection of categorized clipart. After selecting this button, click the dropdown that appears to see all categories.
- **Selection** - Resize or move text, images or shapes with this tool.
- **Text** - Create a standard text box.
- **Circular Text** - Create circular text that follows the contour of the outside or inside of your disc.
- **Zoom** - Zoom out or in.
- **Color** - Change the color of the selected object with this tool.
- **Font** - Change the font of the selected text or circular text object with this tool.
- **Inspector** - Click this button to open or close the Inspector window. The inspector window includes advanced options that allow you to change the properties of your template, change size or position of the objects, add effects, edit transparency, change text properties and align objects. See the next step for more information.

- Once you have several objects on screen you may choose to use the Inspector tool to edit advanced object properties. Select the objects you would like to edit and then click on one of the six buttons on the top of the inspector. Four are shown below. See the description of each understand what options are available on each.



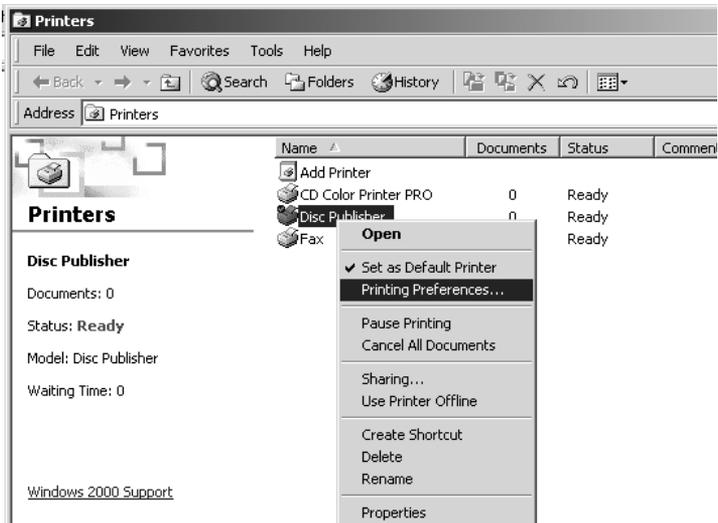
- **Design Element** - Switch to a new template, edit the current template, create your own.
 - **Geometry** - Precisely move, resize or rotate selected objects.
 - **Fill and Shadow** - Add shadow, change thickness or color of geometric objects.
 - **Image** - Add transparency or a gradient to images, clipart or backgrounds.
 - **Text** - Change line spacing, character spacing, fonts, size, or justifications of any selected text object.
 - **Alignment** - Align or distribute multiple text objects.
- Many other options such as changing the order of objects, (send to front, send to back) and exporting in other file formats are available from the Disc Cover menus.
 - Finally, save the design by going to the file menu - save as. Quit Disc Cover by choosing Quit from the Disc Cover PE menu. PTPublisher will ask you if you would like to use the design you just saved in your project. Choose Yes.

E. ADVANCED PRINTER DRIVER FUNCTIONS (PC)

Once the Publisher software has been successfully installed, you will want to take a moment to familiarize yourself with the printer driver settings for your Publisher. These settings affect the print quality of your discs. The default settings of the Publisher printer driver will fit most printing needs. Please refer to the following steps to change or verify your printer driver options:

1. For XP Professional click the Start button, then click on **Printers and Faxes**. For Windows Vista click the **Windows** button and choose **Printers**. For Windows 7 click the **Windows** button and choose **Devices and Printers**.

Click on the **Disc Publisher XR** icon with the right mouse button and select **Printing Preferences**.



NOTE: Most applications allow you to change these same printer driver options from their "Print" and/or "Printer Setup" screens. This means that you don't have to go back to the main printer setup window each time you want to change a setting or option in the printer driver. These applications will usually give you the same choices and options, but in a slightly altered format. Some applications do not save your printer driver option changes, but instead only use your changes for the current image.

Paper Size

The paper size option will be set to CD for printing onto printable surface CDs and DVDs.

Resolution

Select the appropriate print quality option for your image. Keep in mind that Normal 600 provides the lowest quality but fastest print, and that Ultra Photo 4800 provides the highest quality but slowest print. You may wish to experiment with these options to see which one is best for your particular CD media and print quality requirements.

Cartridge Type

The **Print Black with Black Cartridge** setting will print discs using both the color and black cartridges. This saves color ink by using just the black cartridge for the black areas of your design. When using this setting, be sure to perform the **Alignment Calibration** print described later in this section. Please note that the Calibration Alignment will need to be done after installing a new cartridge as alignment may vary from one cartridge to the next. Select **Color** to print using only the color cartridge. The **Monochrome Black** setting prints using the **Monochrome Black** cartridge only.

Color Matching

Click on the Color Matching down arrow and choose the color matching option that's right for you. Select **None** if you are more interested in print speed rather than color accuracy, if you have already color corrected your image for printing, or if you are using some other third party color matching software.

Select **Algebraic** if you would like the printer driver to make very simple color balance adjustments based on an RGB color model. This option gives you more natural looking images without actually utilizing any specific color matching software.

Select **PrimaColor** to enable color-matching profiles written specifically for the Publisher by Candela Color Management System. This setting automatically adjusts the color of your image according to predetermined printer profiles and default system profiles. This results in a very precise color match when attempting to print photographic images.

Select **Z-Color** to use a factory set color match scheme that is calibrated toward images that have photographic qualities.

Ink Saturation

This option controls the ink saturation of the printed image. When printing onto the printer manufacturer's TuffCoat CD media, this option can be left at its default setting of 50%. When printing onto other brands of printable CD media, you may need to adjust this control in order to optimize the ink saturation for the printable surface of your specific CD media. Click on the up and down arrows to change the ink saturation setting. Lower numbers reduce the overall ink saturation, while higher numbers increase it. Please note that higher ink saturation results in higher ink usage. This will reduce the amount of discs produced per cartridge.

Inner Diameter

This value changes the size of the non-printed center. Larger numbers cause the non-printed center to be larger and smaller numbers make the non-printed center smaller. This number is incremented by 0.1mm so a change of 10 for inner diameter changes the diameter by 1mm. For Primera TuffCoat TM media use 230 for the inner diameter.

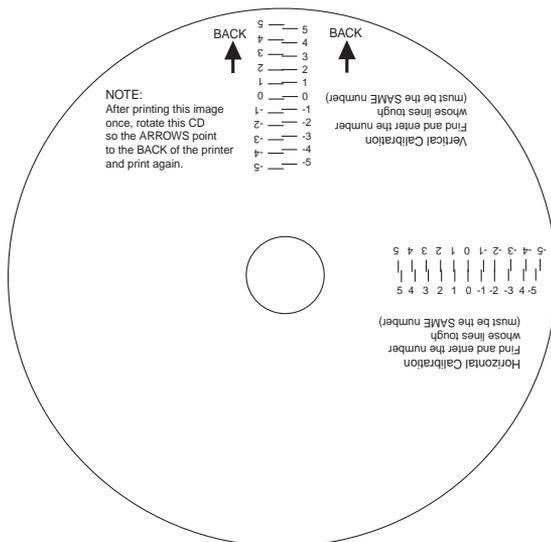
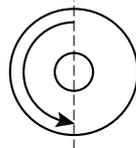
Centering Test Print

NOTE: Your printer comes from the factory pre-calibrated to print the image in the center of the CD. You can use this adjustment if you need to fine-tune this location.

If you ever wish to verify your factory-calibrated Vertical and Horizontal calibration settings, you can run a simple calibration procedure to assure that your images will be centered when printed on a CD. To do this, refer to the following steps:

1. Verify that a disc and a color ink cartridge are installed in the Publisher. It is important to use the same disc you normally use for your publishing because different brands of discs may vary slightly in size. Also, verify that the Publisher is powered ON and that it is connected to your computer.
2. Click on the **Centering Properties Test Print** button. The printer will begin printing the calibration test print.

- When the print is complete, rotate disc 180° and put the disc back in the input bin and repeat step 2 using the same disc.
- When the second run of the print is complete, you should have a test print that looks something like the following:



- Along the Vertical axis of the printed disc, find the number whose lines touch. For example, in the above illustration, the number would be 2. Enter that number into the Vertical box of the Calibration window and 0 would be entered for the Horizontal axis.
- Select the **OK** button. Your images should now be centered when printed on a disc.

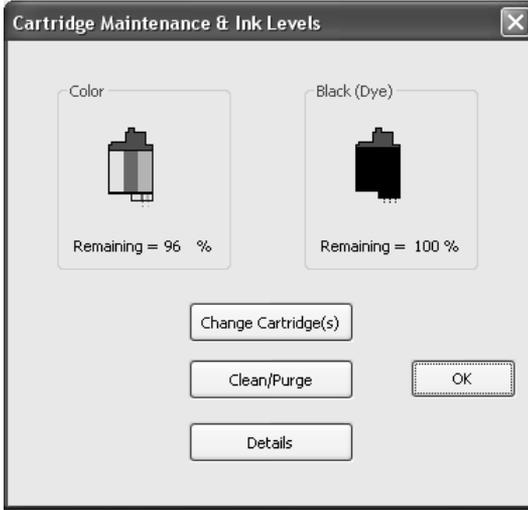
After your selections have been made, close out of the printer setup window. You are now ready to go to an application program and print. All printer driver selections will stay the same until you change them.

Enable Ink Low Warning

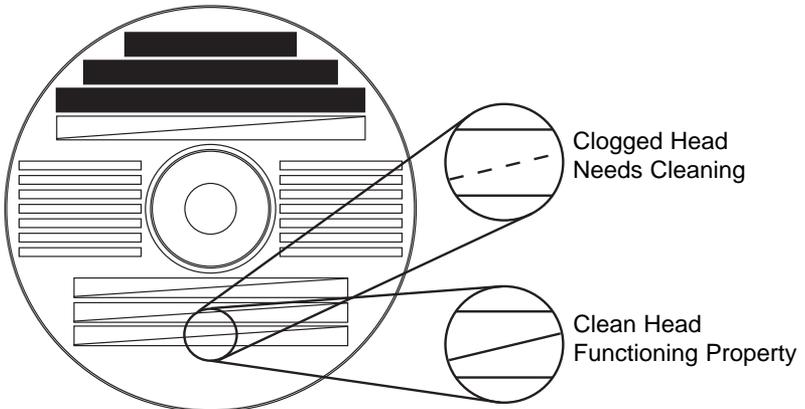
This setting lets you enable or disable the warning from the printer to tell you when the ink cartridges are getting low.

Ink Levels and Cartridge Maintenance

Select this button to display the current ink levels as well as options for cleaning and changing cartridges.



Select **Clean** button to send a simple test pattern to the printer. Be sure to have a disc in the Bravo's input bin and the front cover closed. The test pattern, shown below, purges ink through nozzles of your ink cartridge to clear any blockages. The test pattern will show if the nozzles require any further cleaning.



If the Yellow, Magenta, Cyan or Black diagonal lines printed on the disc show breaks, repeat the cleaning procedure. If nozzles still appear to be clogged, remove the cartridge and gently wipe the nozzle area sideways with a clean water-dampened cloth. If after several cleanings a color still does not appear on the test print, the cartridge may be damaged or empty and may need to be replaced.

Select the **Change** button to install a fresh, new ink cartridge or to switch back and forth between previously used cartridges. After the cartridge has been replaced according to the instructions on page 10, Step 3: Installing Ink Cartridges, select either the **New Cartridge Installed** button or the **Old Cartridge Installed** button accordingly. These selections are necessary for the printer to accurately keep track of ink cartridge ink levels.

Select the **Details** button for information on the drivers, firmware, alignment and number of discs printed with your Publisher.

Disc Output Location

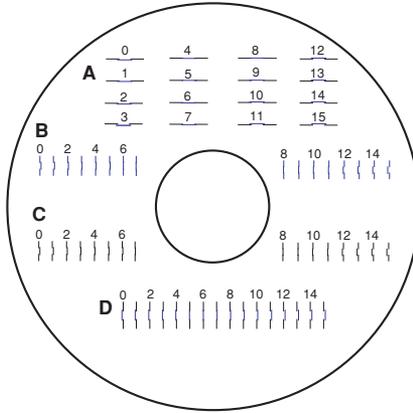
This can be set either Normal (Left Bin acts as output), or Kiosk (finished discs deposited out the Front Exit). The default is Normal (Left Bin). Note that this will only have an effect when doing printing only – this will have no affect when recording and printing through PTPublisher. In PTPublisher select **Options** from the Tools menu, then find the Options tab, now check the Kiosk Mode box.

Enable Bi-di Printing

When enabled the Bravo will print bi-directional for faster printing. The default is uni-directional printing. When you enable bi-directional printing, you should perform the Alignment Calibration described later in this section. Please note that the calibration is stored on your computer, so if you move to a new computer you must repeat the calibration.

Alignment Calibration

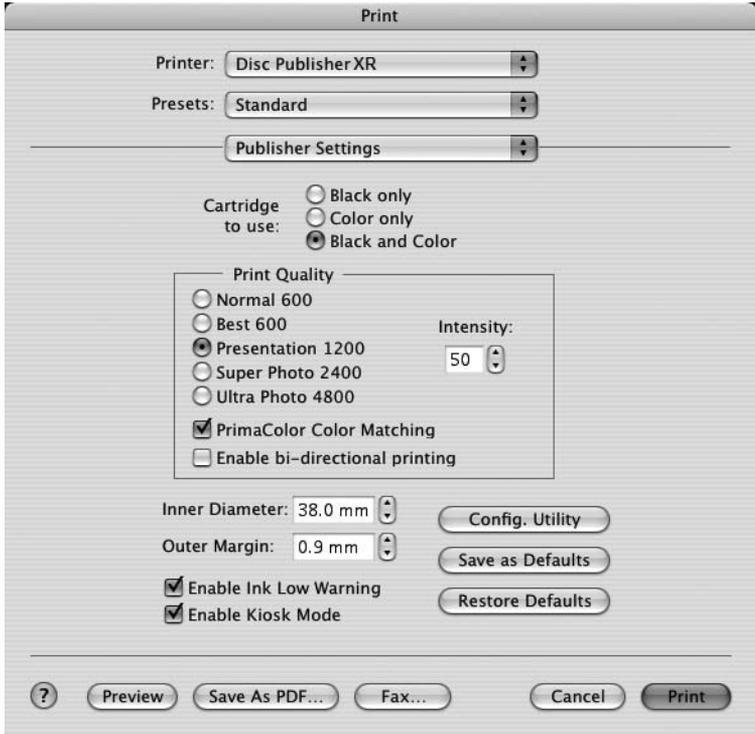
The Alignment Calibration allows you to create a test print that will provide you with values to configure your printer for Bi-Di- Printing and to align the color and black cartridges for Color+Black printing. If Bi-Di Printing is enabled, or if you use Color+Black as a cartridge type in the driver settings, it is important to perform this calibration *every time you change a cartridge*. To print, click the **Alignment Calibration Properties** button then click **Yes..** The print will look like this:



F. ADVANCED PRINTER DRIVER FUNCTIONS (MAC)

Access the advanced printer driver setting from any printing program on the Mac. Go to file - print. Select Publisher Settings from the copies and pages drop down menu. Click Save as Defaults when you are finished.

The following is a description of the printer driver settings:



Cartridge to use

The **Black and Color** setting will use both cartridges when printing your image. Color will only use the Color Cartridge, and **Black Only** will only use the monochrome cartridge for printing.

Note: If using the **Black and Color Setting**, be sure to perform the **Cartridge Alignment** found in the **Configuration Utility**.

Kiosk Mode

Kiosk Mode will allow you to increase the capacity of your Bravo from 25 to 50 discs by dispensing finished discs out the front of the unit instead of dropping them to the output bin. This allows you to place blank discs in both the input and output bins doubling your capacity. An optional Kiosk Kit is available from your Primera reseller that contains a custom output bin to catch the finished discs as they leave the Bravo. This setting will be overridden by the Kiosk Mode setting in Dscribe's Robot Write or Job Details Pane.

Print Quality

There are four options for image quality. Keep in mind that Normal 600 provides the fastest print at lower quality while Ultra Photo 4800 delivers the best quality at a slower print speed.

PrimaColor™

Click on this Check box to enable PrimaColor color matching. The PrimaColor profiles were written specifically for the Bravo to give a precise color match when attempting to print photographic images. If you are using a third-party color management system, disable PrimaColor.

Intensity

The Intensity setting will control the amount of ink saturation on the disc. When printing onto the Primera ToughCoat discs, 50% is usually sufficient. When printing on to other brands of media, or if you would like to print darker colors, you may wish to increase the Intensity setting. Please note that higher ink saturation could result in discs not drying instantly. Also, higher intensity will result in higher ink usage causing a lower yield of discs per cartridge.

Inner Diameter

The inner diameter refers to the size of the non-printed center on your disc. The size of the center hub can vary from one type of media to the next. This allows you to set the inner diameter in millimeters allowing you to print all the way to the center hub regardless of the type of disc you are using. For the discs that Primera sells, use the following guide for Inner Diameter:

- 23 mm for Primera's Tuff-Coat CDR
- 24.9 mm for the Hockey Rink Disc, Business Card Disc and 80mm CD

Outer Margin

The Outer Margin refers to where the printing will cut off around the outer edge of your disc. The size of the printable surface can vary from one type of media to the next. This allows you to set the outer margin in millimeters allowing you to print all the way to the edge regardless of the type of disc you are using.

Enable Low Ink Warning

The Low Ink Warning basically keeps you from printing discs if one or more of the colors in your ink cartridge are running out. Your Bravo monitors the amount of ink used when printing and will stop printing if one or more of your colors is within 10% of being empty, and the LEDs on the top will flash in unison. If you press the Cartridge button on the top of the Bravo it will continue to print, but you will want to closely monitor the discs that print. If discoloration occurs, you are most likely out of one or more colors and will want to change cartridges.

Save As Default

The Save As Default button will save the current settings as the system-wide defaults.

Restore Defaults

The Restore Defaults button will restore the driver settings to the factory defaults.

Config Utility

This button launches the Configuration Utility which is explained in detail in the pages that follow.

You will see both the Color and Monochrome Ink Levels are displayed. The Color Ink Level represents the lowest color in your cartridge. For instance, if your cartridge has 80% cyan 50% yellow and 65% magenta ink remaining, the level reported would be 50%. You will also see the following buttons:

Clean Cartridge

Cartridges that sit idle in the Bravo for a period of time may start to experience some drying of ink in the tiny nozzles that make up the print head. Clicking the **Clean Cartridge** button will cause the bravo to pick a disc and place in into the printer tray. The Bravo will then print a simple pattern that will flush ink through the nozzles. The test pattern will also show you if any nozzles are clogged. In the pattern you will see some diagonal lines which should be continuous; breaks in those lines indicate a clogged nozzle. Please note that it may require more than one cleaning to fully clear all nozzles. If the nozzles are not fully clear after a few cleaning prints, it may be necessary to remove the cartridge and actually clean the print head by gently wiping the nozzles with a moist cloth or paper towel and replace it in the Bravo. If this fails, the cartridge may be empty and in need of replacement.

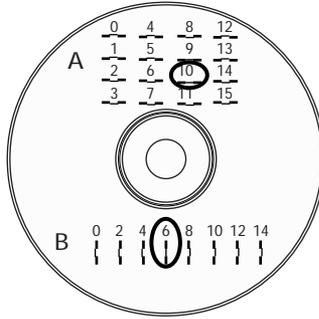
Change Cartridge

If you need to change cartridges, it is a good idea to use the **Change Cartridge** button in the Configuration Utility. This ensures the most accurate tracking of ink levels. To change a cartridge, click the **Change Cartridge** button. The cartridge holder will move to the center of the Bravo to make it easier to install the cartridges. Lift the top cover and install the cartridges and described in section 2-C of this manual. You will be prompted to let the system know whether or not you are installing a new or used color or monochrome cartridge. Once installed, click the **OK** button and the system will update your cartridge levels.

*Note: It is recommended that you perform and **Alignment Calibration Print** after installing a new cartridge.*

Alignment Calibration Print

Clicking this button will print a test disc that will provide a scale by which to calibrate the Color Ink Cartridge to the Monochrome Ink Cartridge. This is crucial when selecting the **Black and Color** Ink Cartridge setting in the Printer Driver. Make certain you have discs and ink installed in your Bravo prior to pressing this button. Once pressed, the Bravo will load a disc and print the following pattern:



Follow the on-screen instructions and enter the numbers as indicated. For instance, in the example shown, you would choose a value of 10 for the A setting and 6 for the B setting.

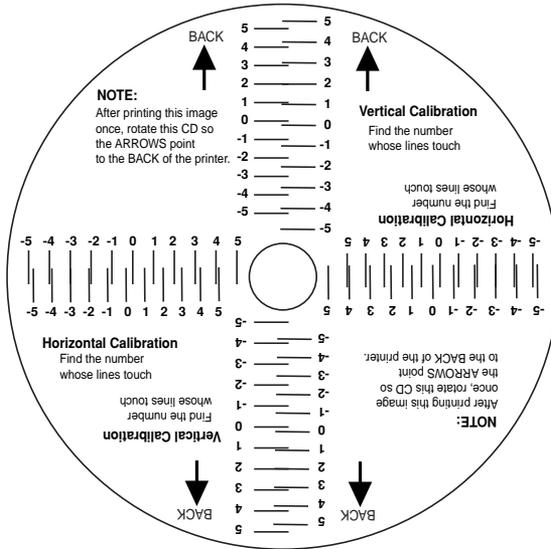
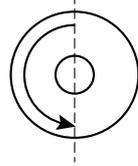
It is highly recommended that you perform this calibration whenever you change cartridges if using the **Black and Color** ink cartridge setting in the printer driver.

Image Alignment

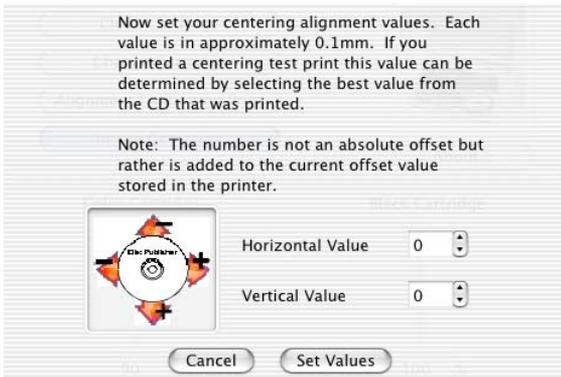
The Image Alignment button will allow you to nudge the image up, down, left, or right on your disc. To center the image, click the Image Alignment button. You will be prompted with a choice to print a test print or simply enter values to nudge the image alignment on the disc.

If you do not know the direction and distance to move the image in order to center it on your disc, you can opt to print the **centering test print**. Make sure the Bravo has discs and ink cartridges installed, and it is connected and ready to receive a print job, and then click the **Yes** button. The Bravo will pick a disc and print a scale of numbers on it. You will be prompted

to open the Bravo's front cover, rotate the printed disc 180 degrees, reload it into the input, and close the cover. Click **OK** when ready and the Bravo will pick the disc and print another scale of numbers. The disc should look like this:



Once the print has finished, you will see the following dialog box:



Look at the finished alignment disc and pick the numbers that come closest to lining up with one another. For instance, on the disc shown in this manual, the vertical alignment is 2 and the horizontal alignment is -3. Enter this in the alignment dialog box.

If you choose not to print the test print, you will simply see the alignment dialog box and can enter values to move the image. The unit of measure is roughly 0.1mm. Making the Horizontal Calibration number smaller or more negative will move the image slightly to the left. Making the Horizontal Calibration a larger value, or more positive will move the image to the right. If the Vertical Calibration number is made smaller, or more negative the image will move slightly up. If the Vertical Calibration is set to a larger value, or more positive value, the image will move down on the disc.

G. USING OTHER GRAPHICS PROGRAMS

While SureThing or Disc Cover will handle most labeling needs, other graphics programs can be used to design labels and print only directly to the Publisher.

When printing and burning through the PTPublisher software your Publisher will support the following additional standard label image file formats: BMP, TIF, JPG, GIF, PNG and PRN. These formats can be exported from most original graphics formats such as Adobe Photoshop or Illustrator.

When creating images in other graphics programs we recommend creating a 4.72 x 4.72 square image that has a 300 dpi resolution.

Section 4: Interpreting the Publisher's Indicator Lights

The Power and Busy **LED indicator lights** located on the top of the Publisher can tell you a lot about what is happening inside the Publisher. To accurately interpret what it means when these lights are on, off, or flashing, please refer to the following:

Power LED 	Ink Cartridge LED 	Publisher
on solid	off	Cover is open
on solid	on solid	Is ready to receive job.
both lights are blinking alternately with one another		Waiting for a cartridge to be installed and the lid to be closed. (See Section 2-E).
on solid	flashing rapidly	The printer tray or ink cartridge carrier has stalled. Press the Ink button to retry the operation.
flashing rapidly	on solid	The Publisher has a cartridge problem. Check to make certain that the cartridges are installed correctly and that the bar code labels on the underside of the cartridge are not damaged.
repeating pattern of both lights flashing in unison, then one light momentarily on solid.		This indicates low ink warning. If the left light stays solid after the flash, the Color cartridge is low. If the right light stays on after the flash, the Black Monochrome cartridge should be replaced.

Section 5: Maintenance and Troubleshooting

The Publisher is designed to operate for extended periods of time with very little attention. In fact, no regular maintenance is recommended other than cleaning the outside case.

NOTE: Do NOT attempt to oil or grease the Publisher's Robotic Arm shaft or other components. You will likely cause more harm than good! Any moving parts are designed to operate for the life of the machine with no additional lubrication required.

A. CLEANING THE PUBLISHER

Use a clean, lint-free rag with a small amount of ammonia window cleaner to clean the Publisher's outside case and trays. This type of cleaner is very effective on inks that may accumulate on the printer tray. Stronger cleaning solutions are NOT recommended because they may damage the paint and plastic materials from which the parts are manufactured.

Always disconnect your Publisher's power cords before cleaning. Resume operation only after the surfaces are completely dry.

B. PERFORMING A ROBOTIC SELF-TEST

To ensure that everything is working properly, a Self-Test feature is built in to your Publisher. In this mode, the Robotic Disc Transporter will go through the motions of picking and placing a disc to ensure proper working order. This test may be performed without connecting the Publisher to the computer. Perform the test by doing the following steps:

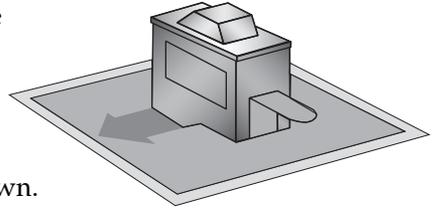
- Load some discs into the Input Bin
- The cover must be closed for this operation to complete. However, in order to access the buttons you must open the cover. To get around this problem simulate closing the cover by activating the cover lock sensor. You may do this by putting an object such as a folded piece of paper in the slot where the lock would normally be located.

- With the Publisher turned on, press the  Cartridge Button
- While holding the Cartridge Button, press the Power Button  until the robotics start to move.
- Release both buttons
- To stop the test, wait until the disc has moved to the Output Bin and press the Power Button.

C. CLEANING THE INK CARTRIDGES

It may be necessary to clean the ink cartridge nozzles if you notice reduced print quality, or if you suspect an cartridge nozzle has become slightly dried out or clogged. If you are having print quality problems, follow the steps below:

1. Remove the print cartridges.
2. Moisten a lint-free cloth with water.
3. Hold the cloth against the nozzles for three seconds. This will “wick” some additional ink onto the damp cloth.
4. Wipe in the direction shown.
5. Repeat the process.



D. TRANSPORTING THE PUBLISHER

To prevent damage to the Publishers robotic arm during shipment, it is important to properly secure it. To prepare for transport, remove the ink cartridges and disc holders, close the front cover and then do the following:

1. The cover must be closed for this operation to complete. However, in order to access the buttons you must open the cover. To get around this problem simulate closing the cover by activating the cover lock sensor. You may do this by putting an object such as a folded piece of paper in the slot where the lock would normally be located.

2. With the front cover closed, switch off power to the unit.
3. Press and hold the Cartridge Button.
4. While continuing to hold the Cartridge Button, switch on power to the unit.

Continue to hold the Cartridge Button for five seconds. After several more seconds, the robotics will undock and the arm will lower. Power will shut off automatically once the robotics are in transport position. If you have the cardboard spacer that was shipped with the unit, replace the spacer inside the unit and close the cover. If you don't have the cardboard spacer, secure the arm and cartridges to the sides of the unit with tape and close the cover.

E. TECHNICAL SUPPORT

If you have difficulties in operating the Publisher use the procedures in this manual and the additional resource listed below:

Source	Location
Primera Knowledge Base	www.primera.com/knowledgebase.html
PTPublisher Software Help files	Open the software. Click on the 
SureThing Software Help files	Open the software. Click on the Help Menu - Contents
Email Support	www.primera.com/contact_tech_support.cfm
Phone Support	763-475-6669 (Mon - Fri 8 a.m. - 6 p.m CST)

Section 6: Technical Specifications

Model	Disc Publisher XR
Printing Method	Ink-Jet
Printing Resolution	4800 x 1200 dpi, 2400 x 1200 dpi, 1200 x 1200 dpi, 600 x 600 dpi
Ink Types	Dual Cartridges: One 3-color (CMY) cartridge, and one Black Monochrome (K)
Media Types	Printable Surface CD-R, CD-RW, DVD-R, DVD+R, DVD RAM
Maximum print width	4.724" (120mm)
Minimum PC System	Intel Celeron® Processor or higher, 1GB RAM or higher, 10GB or more free hard drive space, available USB 2.0 port.
Minimum MAC System	G5 or Intel CPU running OS X version 10.5 or higher, 512 MB RAM, Free hard drive space of at least 10 GB
Disc Capacity	25 disc input, 25 disc output (default) 50 disc input, 50 disc output (Kiosk Mode) with Kiosk Kit.
Interface	USB 2.0 port
Power Requirement	100-240 VAC, 50/60 Hz, 60 watts
Operating Systems	Window XP, Vista and 7 Mac OSX Version 10.5 or higher
Weight	25 lbs. (11.34kg)
Dimensions	17"W x 7.72"H x 16.65"D (432mmW x 197mmH x423mmD)
Certifications	Emissions: FCC Class B, CE
Safety	UL, UL-C, CE
Warranty	One year return-to-depot

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