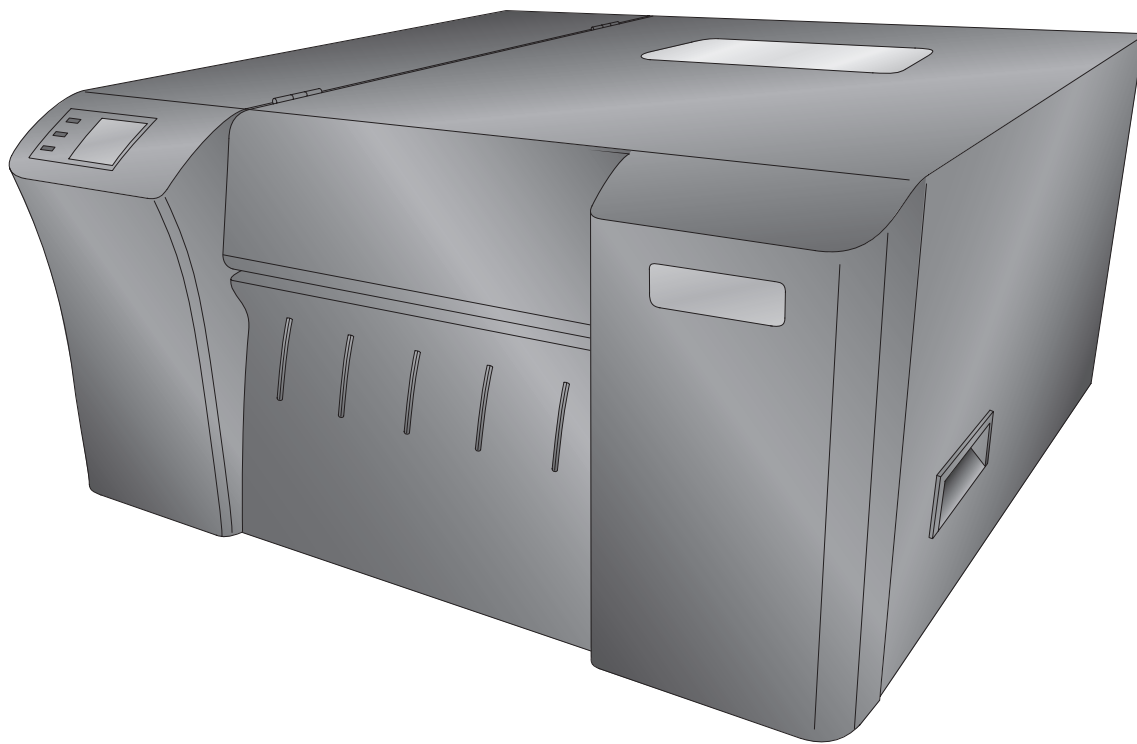


LX2000

COLOR LABEL PRINTER



Operator's Guide

PRIMERA

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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 Class A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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Section 1: Getting Started

Thank you...

...for choosing an LX2000 Color Label Printer. The LX2000 Printer will print razor-sharp text and barcodes, vibrant colors, and even stunning photo-realistic photographs directly onto rolls of labels, card stock and a variety of other approved media.

This Operator's Guide is your complete step-by-step guide to quickly and easily setting up and printing with your new Color Label Printer!

A. Choosing a Good Location

- Place the printer on a flat surface in a location with adequate air circulation to prevent internal heat build up.
- Do not place the printer near heat sources such as radiators or air ducts, or in a place subject to direct sun light, excessive dust, mechanical vibration or shock.
- Allow for adequate clearance in front of the printer to accommodate the printed label stock as it is leaving the printer to avoid the possibility of binding or jamming of the label stock. Except in the case of individual cut labels or connecting to a rewinder, the printer should sit close to edge of a table so that the printed labels hang from the front of the printer and fall to the floor or an empty box. This will prevent labels from bunching up in the front of the printer which can cause print quality issues.
- Allow for adequate overhead and left side clearance for opening the top cover to allow easy access to the label stock and ink cartridge.

B. Unpacking and Inspection

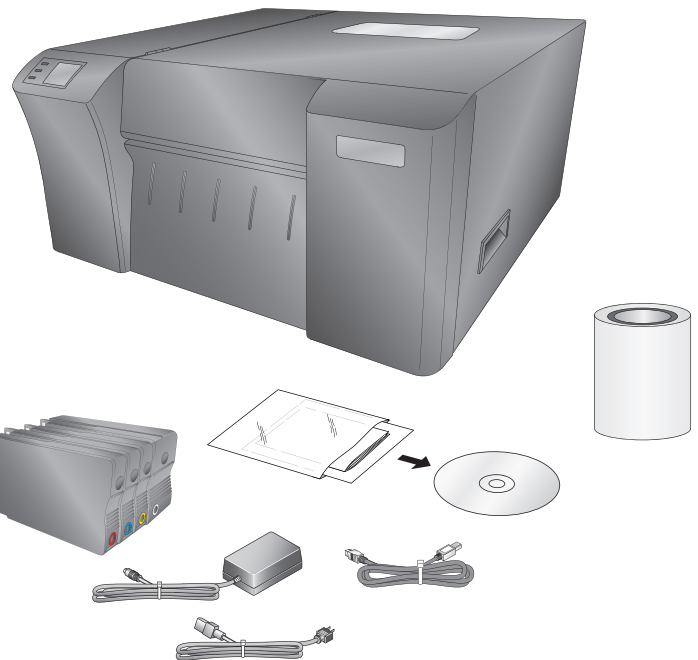
While unpacking your printer, inspect the carton to ensure that no damage has occurred during shipping. Make sure that all supplied accessories are included with your unit. The following items are included in the supply box:

- Power Adapter
- Power Cord
- USB Cable
- Software Installer CD
- Cyan, Magenta, Yellow and Black Ink Setup Cartridges
- Warranty Statement and Registration Card
- This Guide and other Printed Information

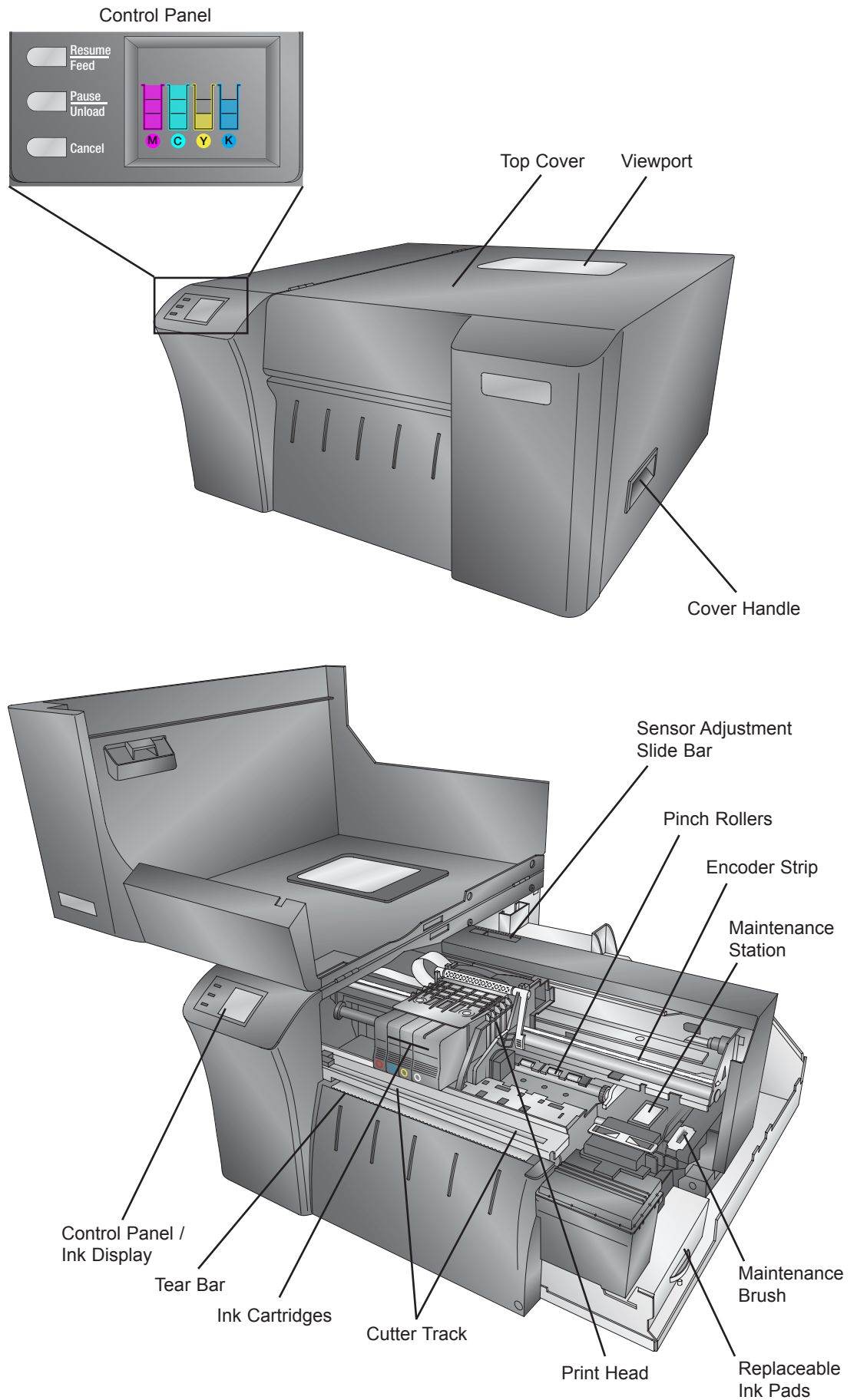
The following items are inside the printer:

- Replaceable Print Head (Already installed in the printer)
- Starter Roll of High Gloss Label Stock

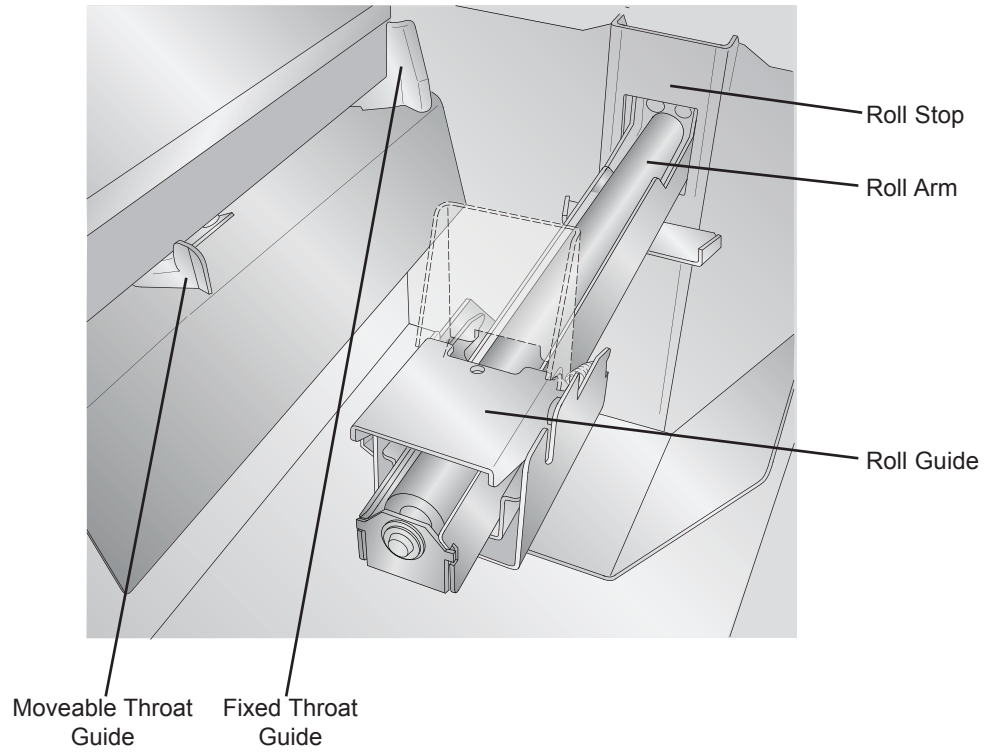
Save the carton and packing materials. They will be required should the printer need to be transported.



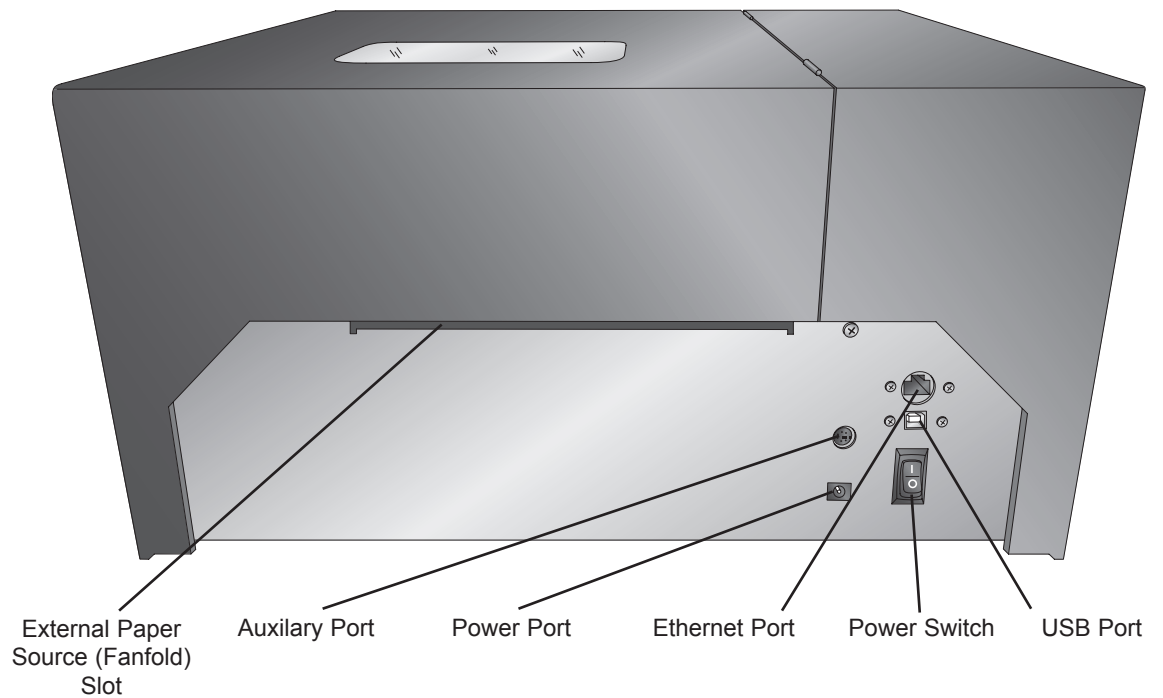
C. Identifying the Parts



Interior Label Loading Area



Back



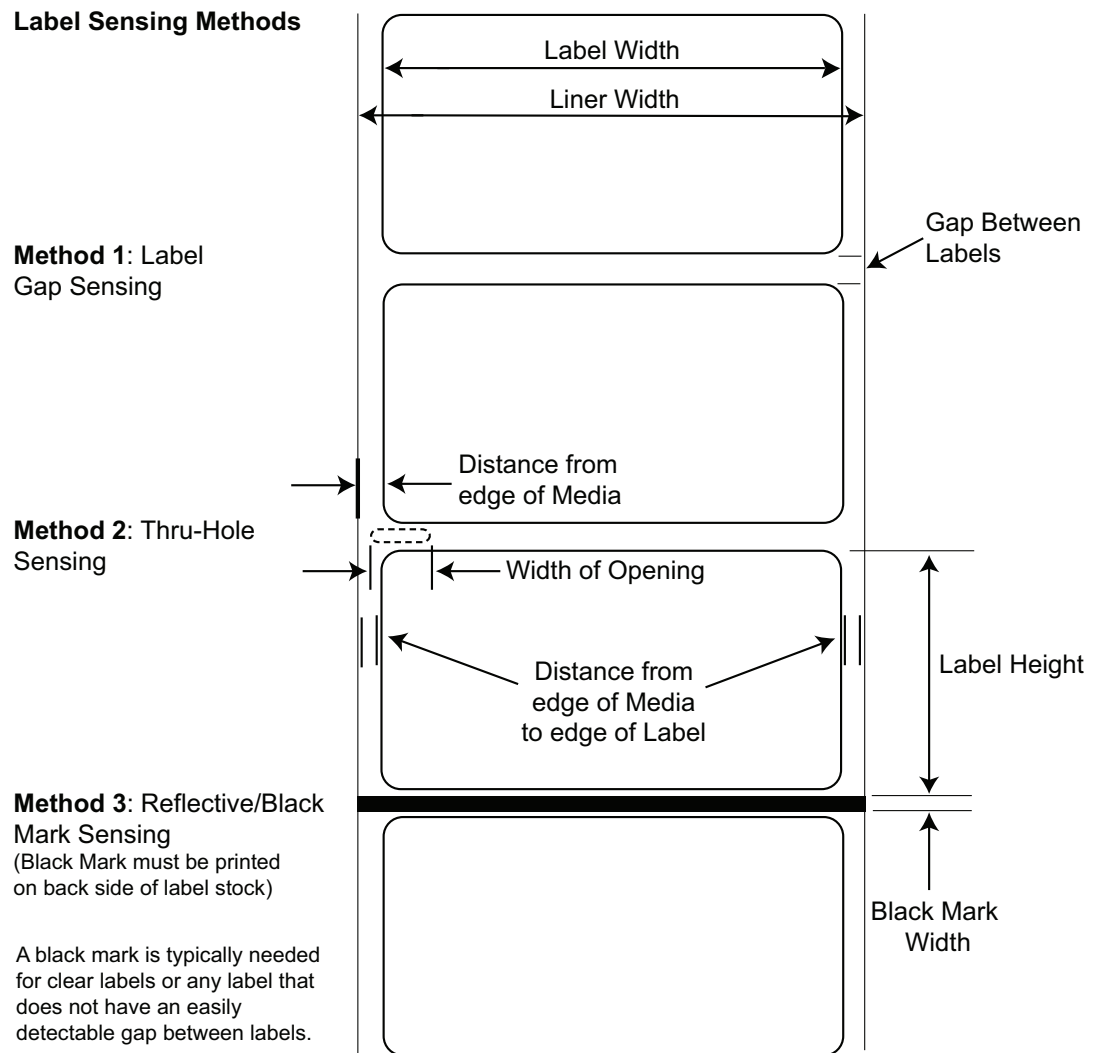
Section 2: Label Stock

A. Label and Roll Specifications

A wide variety of label stock can be used in the Printer. Refer to the specifications and settings in the following sections before ordering custom stock from Primera or any stock from another company.

Important! Test all custom made label stock with the intended printer before ordering large quantities! Primera will only assume responsibility for custom label stock ordered from Primera.

Note: See table on the next page for Max and Min values in inches and mm.



	Max	Min
Label width	8.25" (209.6mm)	0.75" (19.1mm)
Liner/media width	8.375" (212.7mm)	1.5" (38.1mm)
Label height/length	17" (431.8mm)	0.5" (12.7mm)
Gap between labels	10" (254mm)	0.1" (2.5mm)
Width of thru-hole opening	0.5" (12.7mm)	0.25" (6.4mm)
Distance from edge of media to edge of thru-hole	2.25" (57mm)	0.2" (5.1mm)
Reflective/Black Mark Width*	N/A	0.1" (2.54mm)
Max Outer Diameter (OD)	6" (152.4mm)	N/A
Inner Core Diameter (ID)	3" (76.2mm)	3" (76.2mm)
Total Thickness (Liner + Label)**	0.010" (10 mil)	N/A
Distance from edge of media to edge of label	Printer driver assumes 2 mm gap. However, this is adjustable via the left margin offset.	

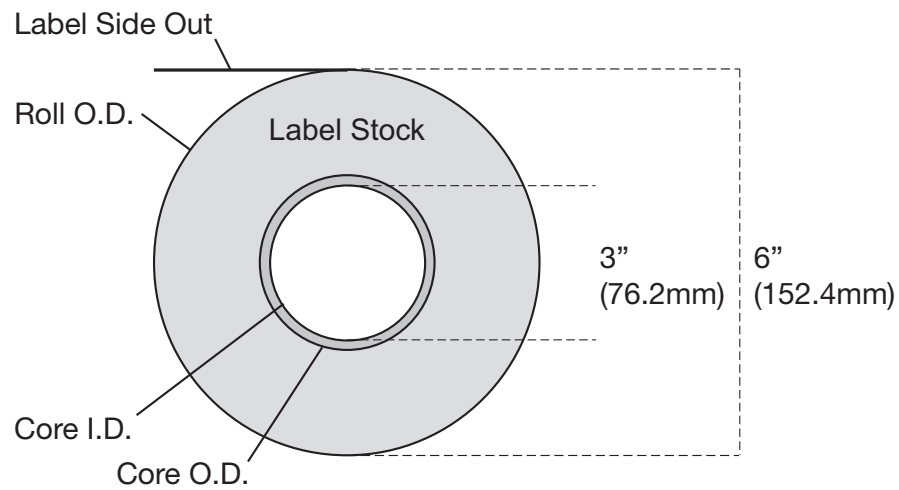
* The Reflective/Black Mark should be opaque to infrared light. The mark should be between the labels. The end of the mark should correspond with the beginning of the label.

** This is the recommended maximum. There are two factors that determine whether the printer will accept any particular stock thickness.

1. The ability for the printer to pull the paper through the print area.
2. The ability for the sensor to read through the backing if the sensor is set to die-cut.

If you are printing in continuous or reflective label sensing mode number 2 does not apply. The fact that the printer must read through the backing in die-cut mode will limit the thickness much more than the printer's ability to pull the paper through the print area. However, if you adjust opacity level of the liner enough to allow the label to be seen by the stock sensor, the thickness will only be limited by the printers ability to pull it through the printer area. For these reasons the weight or thickness of the liner is a variable that can not easily be defined. Primera recommends and uses 40# liner with all label stock. **It is important to test all label stock with the intended printer before ordering large quantities!**

Roll Specifications



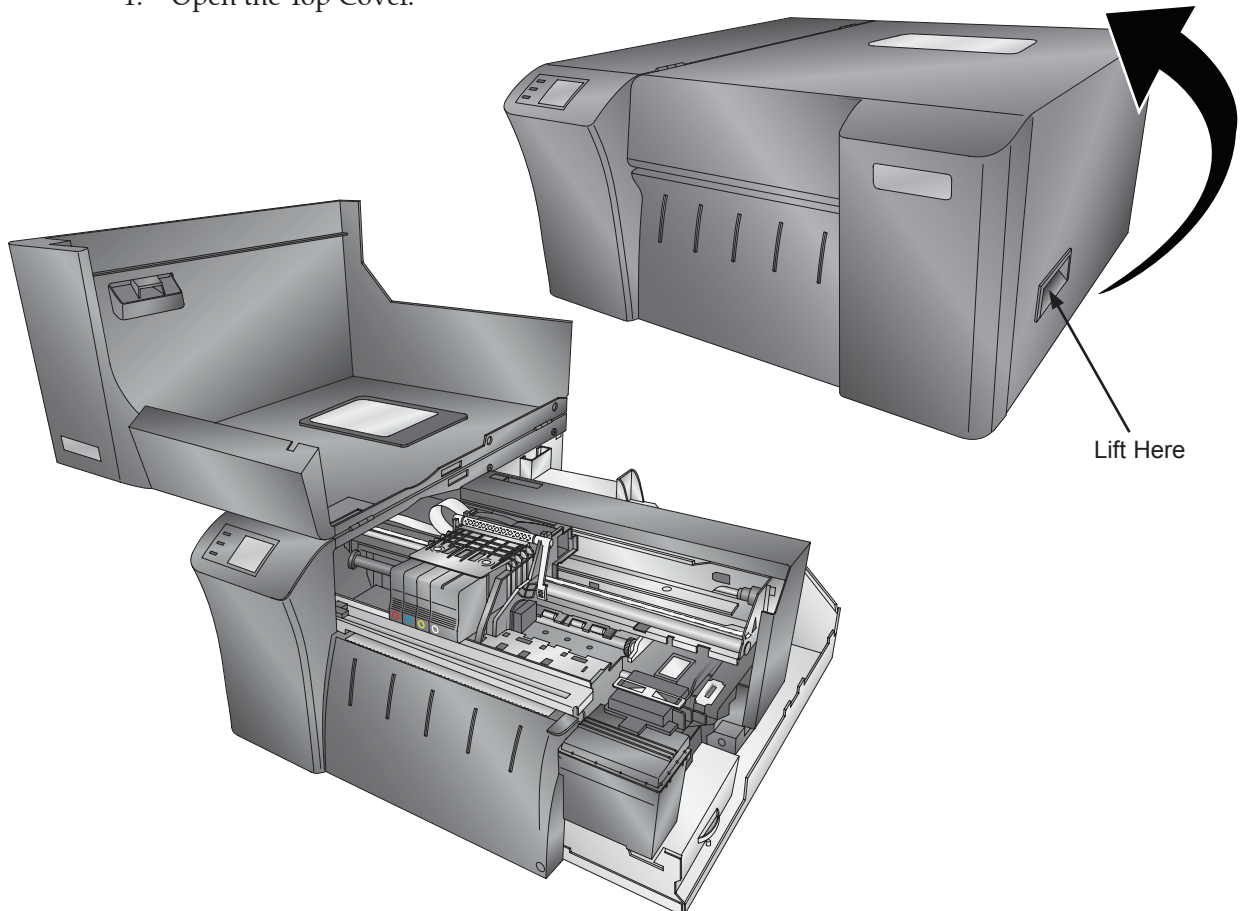
Note on Label Orientation: If you are using an applicator to apply your labels, be sure to order label stock with the correct orientation for your applicator. For example: most applicators will apply the side of the label first, so you will want to print the labels sideways.

B. Installing Label Stock

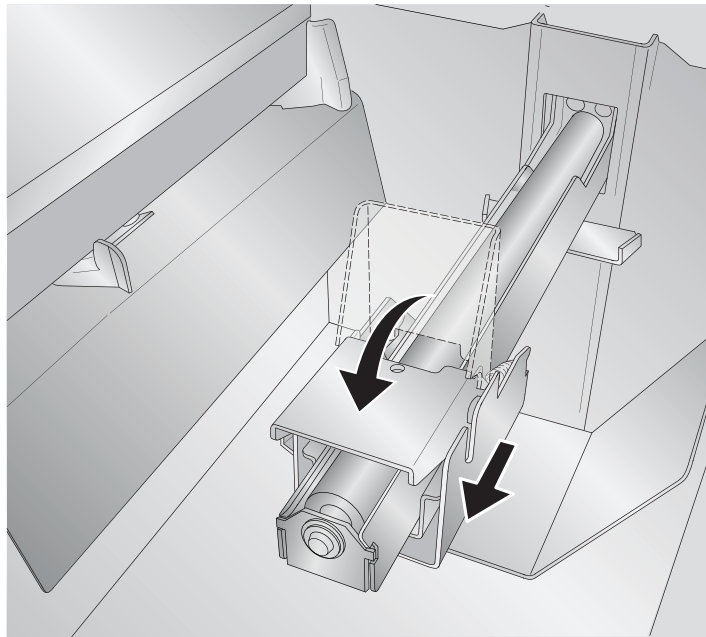
The following steps will guide you through loading label stock in your printer:

Make sure power is connected and printer is on.

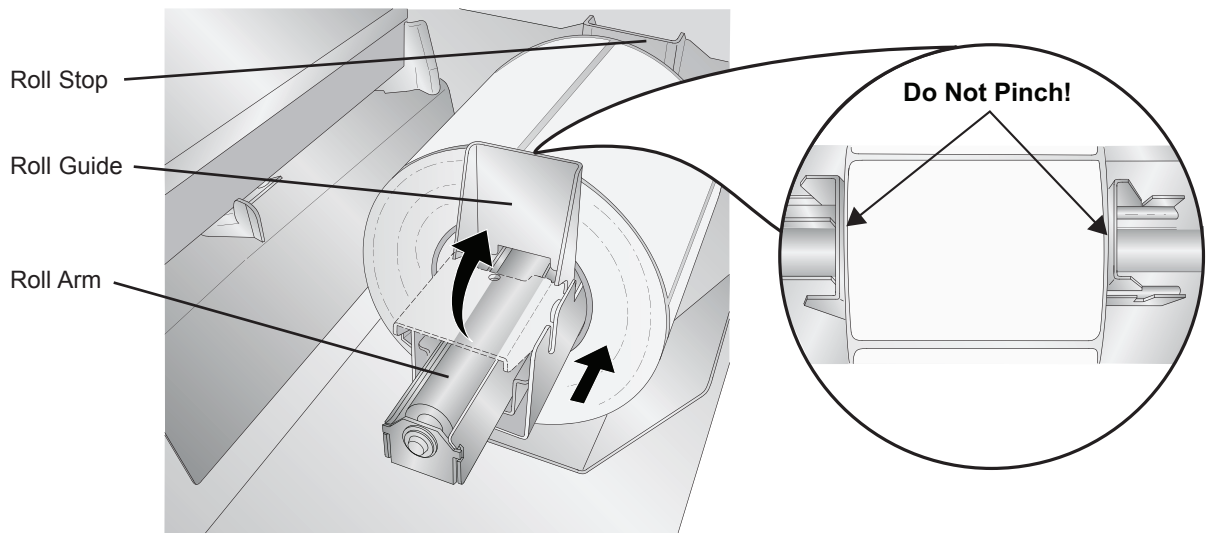
1. Open the Top Cover.



2. Lower the Roll Guide and pull it outward to make room for your label stock.



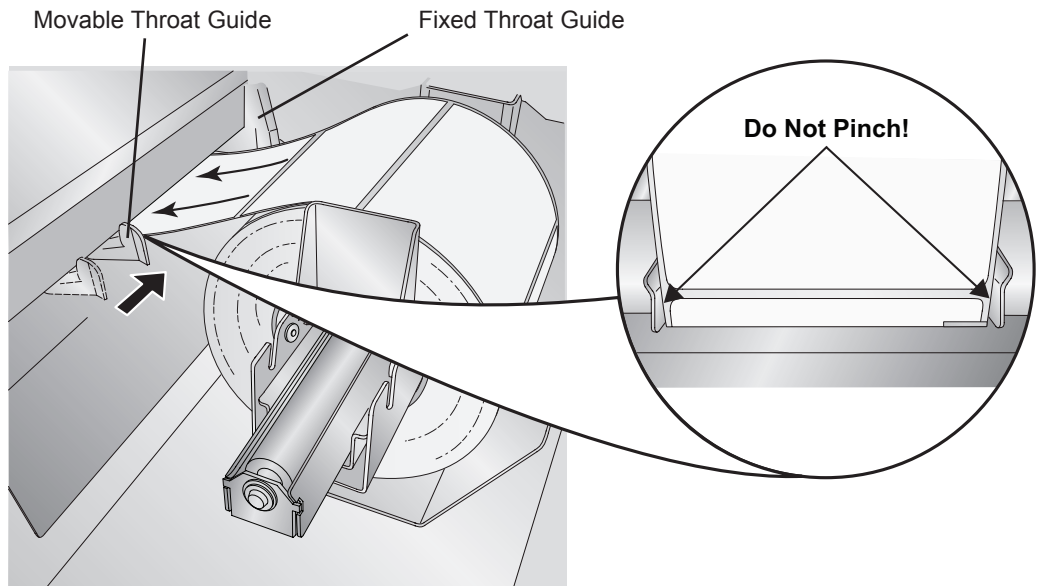
3. Remove any shipping tape from your label stock roll to ensure that it can unroll freely, making certain that no adhesive portion is exposed. It is important to note that any exposed adhesive surface can attach itself to the inner workings of the print mechanism and cause a media jam.
4. Place your roll of label stock on the Roll Arm and push it inward until it touches the Roll Stop.



5. Flip up the Roll Guide and slide it inward until it touches the label stock. The Roll Guide will automatically pull back slightly to the correct position. There should be approximately a .040" (1.0mm) gap between the roll guide and the roll.

Important Note: Be aware that some label stock may have a core that is slightly too large for the roll or the labels may have wrapped unevenly causing some to stick out beyond the edge of the core. Both of these issues can cause feeding problems.

6. Pull the Movable Throat Guide outward to make room for the label stock.
7. Place the leading edge of the label stock under the "label stock" symbols on the Throat Guides. The label stock should be placed far enough into the throat of the printer to correctly position the Movable Throat Guide but not yet into the printer itself.



8. Slide the Movable Throat Guide inward until it **almost** touches the label stock.

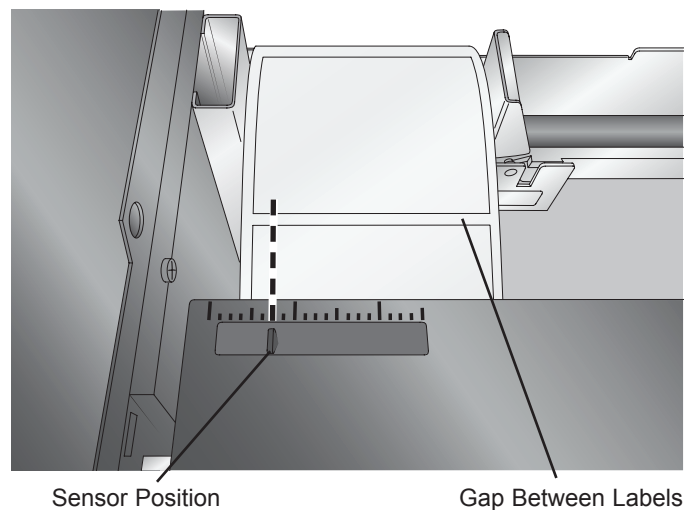
Important Note: The label stock should be close enough to the Fixed and Movable Throat Guides to provide proper guidance but not close enough to pinch the label stock. If the label stock is pinched by the guides, poor print quality or feeding problems could result.

9. Feed the label stock further into the printer until it senses the label and automatically feeds it through the printer. If the printer fails to feed the label stock, press the Load/Feed button on the front panel while continuing to guide the label stock into the printer. If the printer does not automatically grab and feed the stock or continues to feed the stock without stopping check the Stock Sensor position or mode (Section 2C or 2D).

C. Adjusting the Label Stock TOF (Top of Form) Sensor

If you are using label stock other than standard square/rectangular die-cut labels such as circular die-cut labels or through-hole stock use the instructions below to adjust the position of the label stock sensor. The sensor can be adjusted using the slide bar on the inside of the printer. Set the sensor position to correspond to any point where it will intersect with a gap between the label stock.

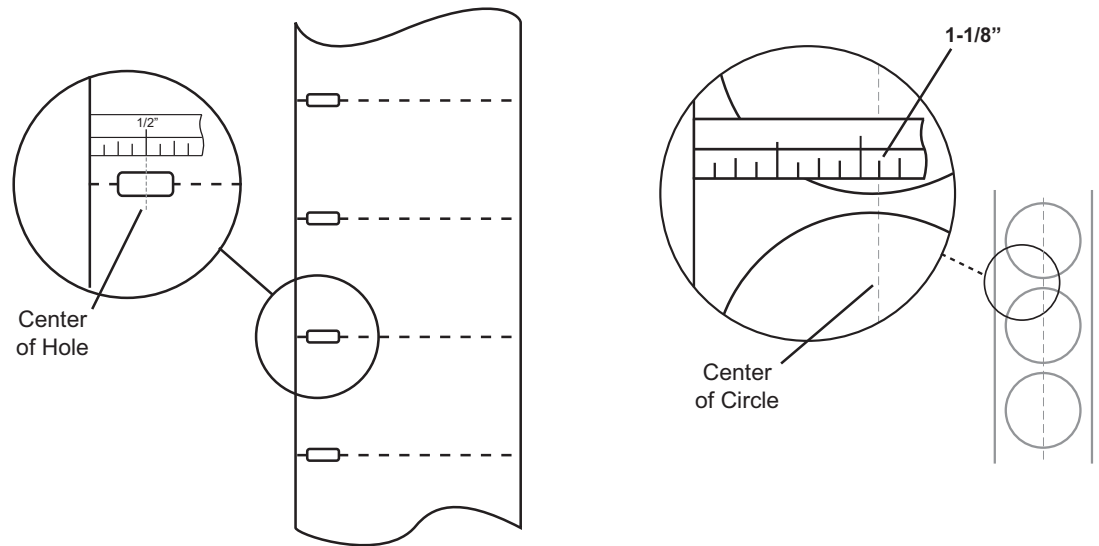
Important Note: You must adjust the TOF Sensor before loading nonstandard label stock.



Circular Labels

If you are using Circular Labels you must adjust the TOF sensor to correspond with the very top of the label where the circles are closest together. If the sensor is too far to the right or the left the printer will still sense the label, but the image may be offset downward because the printer will start printing at the wrong position. If you are using stock that has multiple labels across make sure the sensor corresponds to a place on the stock that has a label and not a vertical gap.

The sensor can only be moved a maximum of 2.3 inches (58.4mm) from the left side of the printable area. This means that the maximum diameter circular label that can be printed is 4.6 inches (116.8mm). For circular labels larger than 4.6 inches in diameter, you must have a black mark printed on the back of the label stock. This means that you must change the Stock Sensor Mode to Reflective. The printer will now look for the black mark representing the beginning of the next label instead of the diecut. For more information on changing the Stock Sensor Mode see Section 2D.



Thru-Hole Labels

Circular Labels

Set Sensor Bar to 1-1/8" for 2" circular label (1/8" liner edge gap).

Thru-Hole Labels

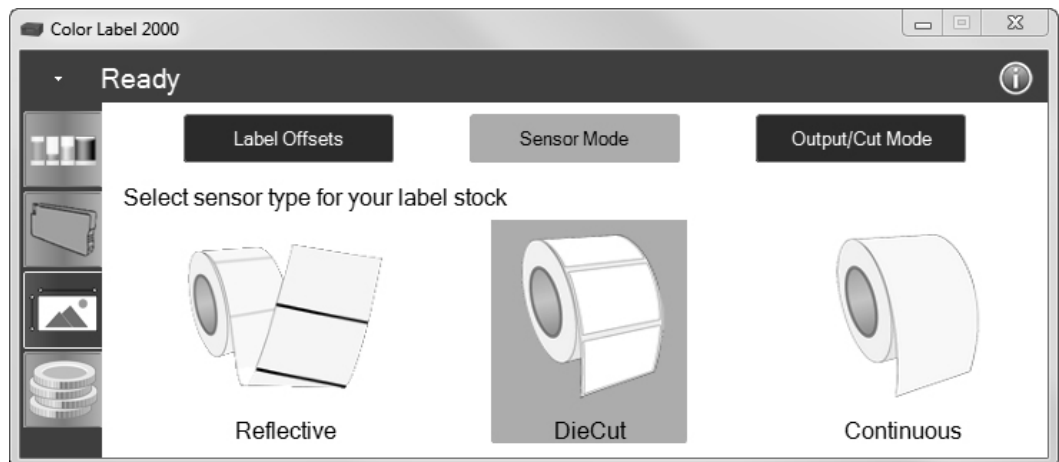
If you are using card stock or label stock that has a hole punch or a notch to identify a transition from backing to label, you can adjust the Stock Sensor to position it over the identifying mark.

D. Set the Stock Sensor Mode

The stock sensor mode refers to the method the printer will use to detect the print starting position for each label. To adjust the stock sensor mode, open the PTStatus program. PTStatus automatically installs with your printer driver and can be accessed through the printer driver or as program that is accessible in the same manner as all other programs.

Important Note: Set the Stock Sensor Mode **BEFORE** loading label stock!

1. Connect the printer via USB or ethernet and turn on the power. The Stock Sensor Mode setting is stored on printer main board so you will not be able to access it unless the printer is turned on and properly communicating with the computer.
2. Go to Start - Programs - Primera Technology - PTStatus.
3. Click on the Alignment Tab (3rd tab from top).
4. Click on the Stock Sensor Mode button.
5. Select the Stock Sensor Mode by clicking on the graphic that most closely corresponds to the stock you intend to install.



There are three sensor modes:

Die Cut (Default). If you are using standard die-cut labels that look similar to the graphic, use this setting regardless of the size of the label. Also, use this setting for thru-hole label material where a hole is punched through each label or a notch is cut in the side.

Reflective. Use Reflective for label material where a black pre-printed line (black mark) on the back of the label stock indicates the break between labels. Black marks are required on clear label stock rolls, or label where the label waste matrix (waste) is left on the liner. Black marks can also be used for irregular shaped labels, circles larger than 4.6 inches or on any stock where the print starting position can not be sensed using the label itself.

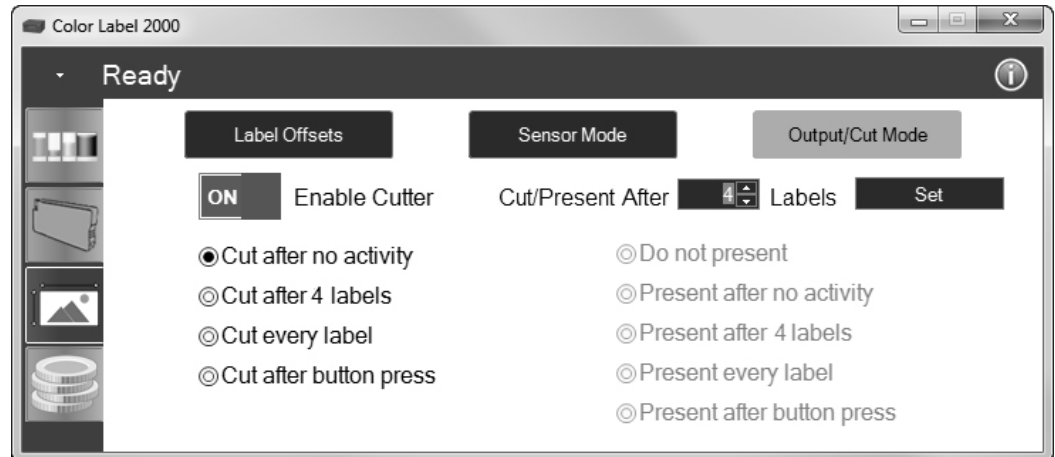
Continuous. (Sensor off) If you have continuous stock with no die-cut, reflective mark or holes, set the sensor type to Continuous. This will turn off the stock sensor. In this mode there is no way to set the print starting position. The printer will simply start printing the first label and print each subsequent label immediately after that previous one. To produce a gap between prints simply add the desired amount of white space to the end of the label being printed.

Important Note: You must also set the Stock Sensor Position (Section 2C) so that the sensor is sensing the correct point on the label stock.

E. Set the Output/Cut Mode

Use the Output/Cut Mode to adjust how the printer presents labels after they are printed or if/when they are cut after printing. To adjust the Output/Cut Mode, open the PTStatus program. PTStatus automatically installs with your printer driver and can be accessed through the printer driver or as program that is accessible in the same manner as all other programs.

1. Connect the printer via USB and turn on the power. The Output/Cut Mode Setting is stored on the printer main board so you will not be able to access it unless the printer is turned on and properly communicating with the computer.
2. Go to Start - Programs - Primera Technology - PTStatus2000.
3. Click on the Alignment Tab (3rd tab from top).
4. Click on the Output/Cut Mode button.



There are different options available which change if the cutter is enabled or disabled. If the cutter is disabled the label present options will be available. If the Cutter is enabled the present options are no longer available but cut options become available.

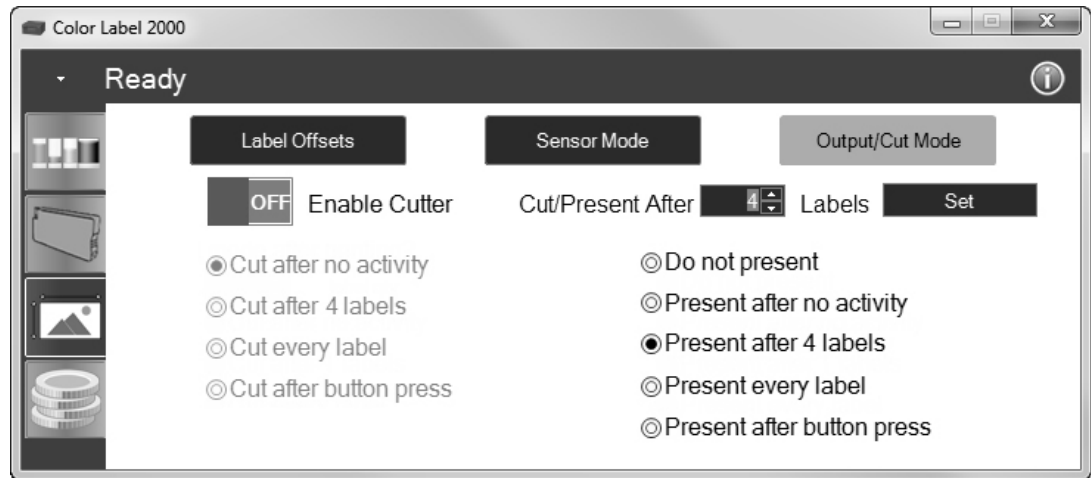
Cutter Options:

Cut after no activity. This setting will cut at the end of a print job if the printer does not receive another print job within one second of the last print job in the queue. You can use this feature to cut at the end of multi-copy job, multi-page job or multiple individual jobs in the queue.

Cut after specified number of labels. This option will cut after the number of labels specified in the "Cut/Present After ___ Labels" setting above. Change the value and then click "Set" to send it to the printer. The quantity will change on the setting to reflect the change.

Cut every label. This setting will cut after every label.

Cut after button press. This setting will cut after you press the Load/Feed button on the printer. This can be used after one label or an entire job. This feature is useful if you will not be present at the end of the print to catch the cut label.



Present Options:

Do not present. In this mode the label stock does not move after the last label is printed. This means that part of the last label printed is still in the printer. This should be used only if you have a label rewinder attached.

Present after no activity. This setting will present at the end of a print job if the printer does not receive another print job within one second of the last print job in the queue. You can use this feature to present at the end of multi-copy job, multi-page job or multiple individual jobs in queue.

Present after specified number of labels. This option will present after the number of labels specified in the "Cut/Present After ___ Labels" setting above. Change the value and then click "Set" to send it to the printer. The quantity will change on the setting to reflect the change.

Present after every label. This setting will cause the printer to feed the last label printed forward so that it and the previously printed labels can be torn off using the tear bar. If no other jobs are sent to the printer within one second after the last label has printed, the last printed label will present for tear off.

Present after button press. This setting will present after you press the Load/Feed button on the printer. This can be used after one label or an entire job.

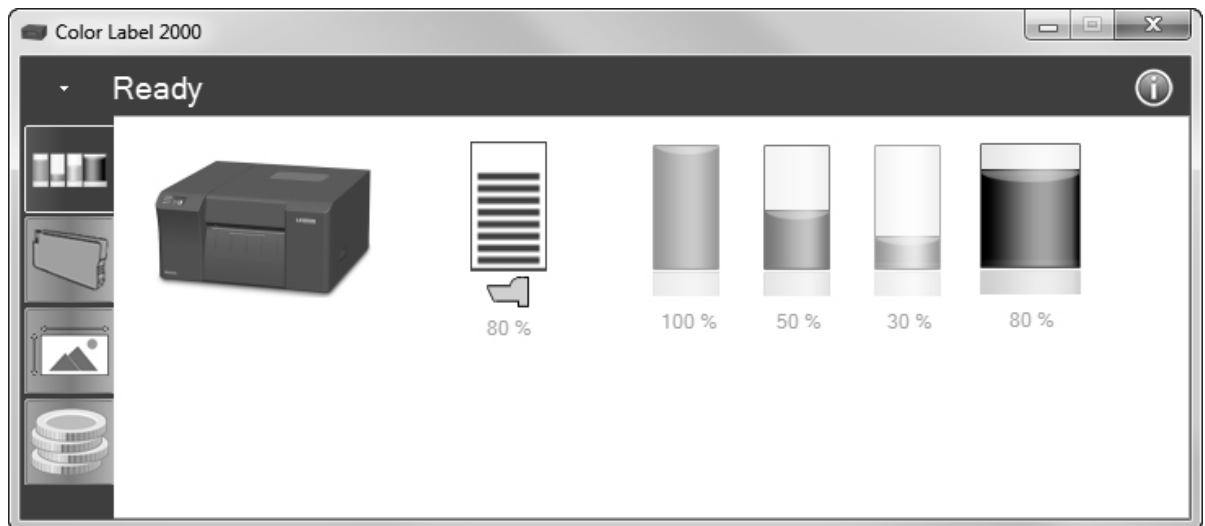
Section 3: Status Monitor

PTStatus or Status Monitor is used to interact with the printer for gathering ink levels, maintenance, alignment, cost calculation and several other functions.

PTStatus automatically installs with your printer driver and can be accessed through the printer driver preferences or as a program on your Windows start menu.

1. Connect the printer via USB or ethernet and turn on the power. The Status Monitor accesses most of the information it uses from the printer itself so the printer must be turned on and communicating for the program to open.
2. Go to Start - Programs - Primera Technology - PTStatus2000 Once open, the Status Monitor consist of four tabs that are arranged on the left side of the window. Each tab opens a screen that has various similar functions. The tabs will only be displayed if the printer is idle (not printing).
 - **Ink Tab (First Tab).** Displays ink levels, Print Head life, pauses or cancels a job, displays print counter.
 - **Cartridge Utilities Tab (Second Tab).** Aligns Print Head, cleans Print Head and changes the Ink Cartridges.
 - **Alignment Tab (Third Tab).** Adjust vertical and horizontal print alignment, changes the Stock Sensor Mode and toggles the Output Mode.
 - **Cost Tab (Fourth Tab).** Calculates cost per label based on last label printed.

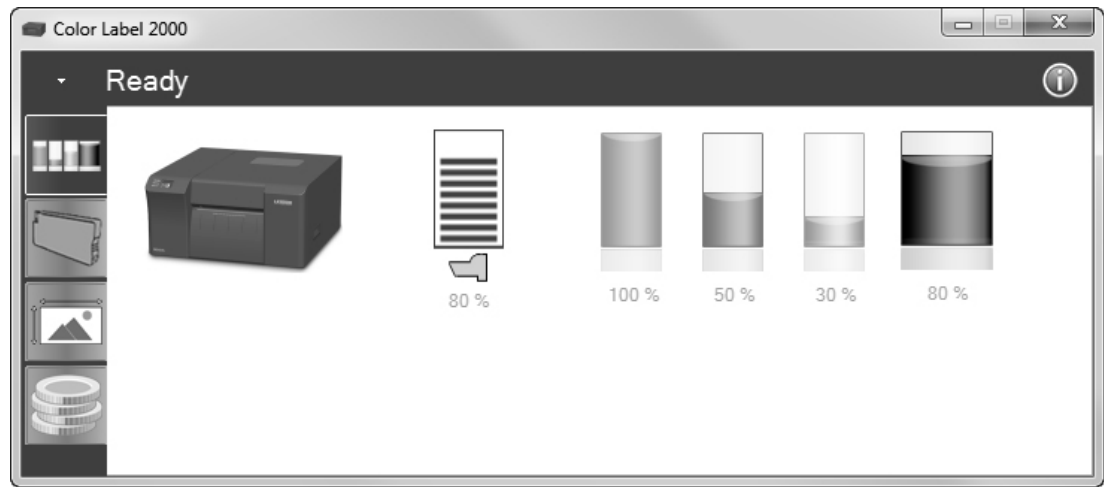
In addition to these functions you can also click the "i" icon to access the Primera Knowledgebase, contact tech support, gather version information or set applications options.



A: Monitoring Ink Levels

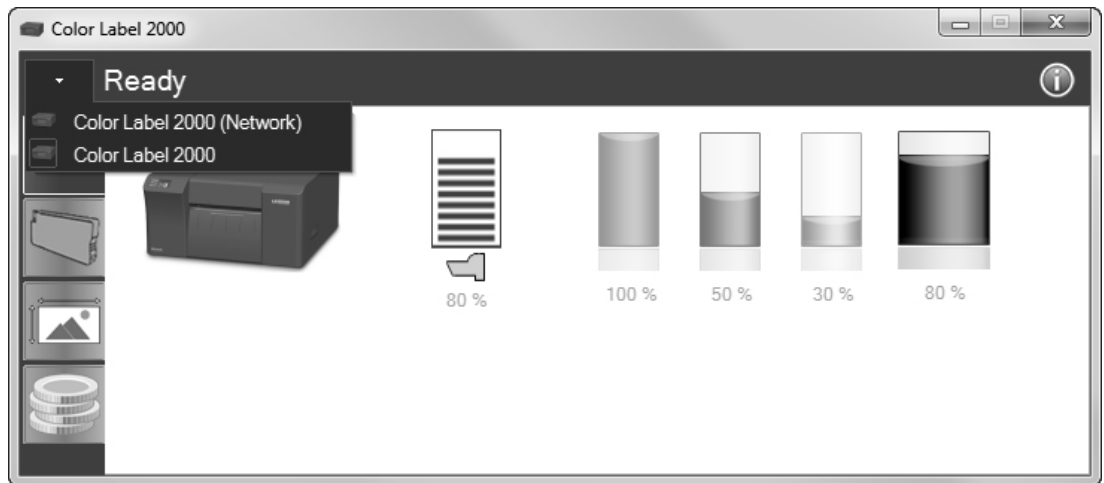
Ink levels can be monitored at any time by using the Status Monitor. Immediately after printing starts the Status Monitor will display the ink levels in the lower right corner of your screen.

The print status will also be displayed on the top bar.



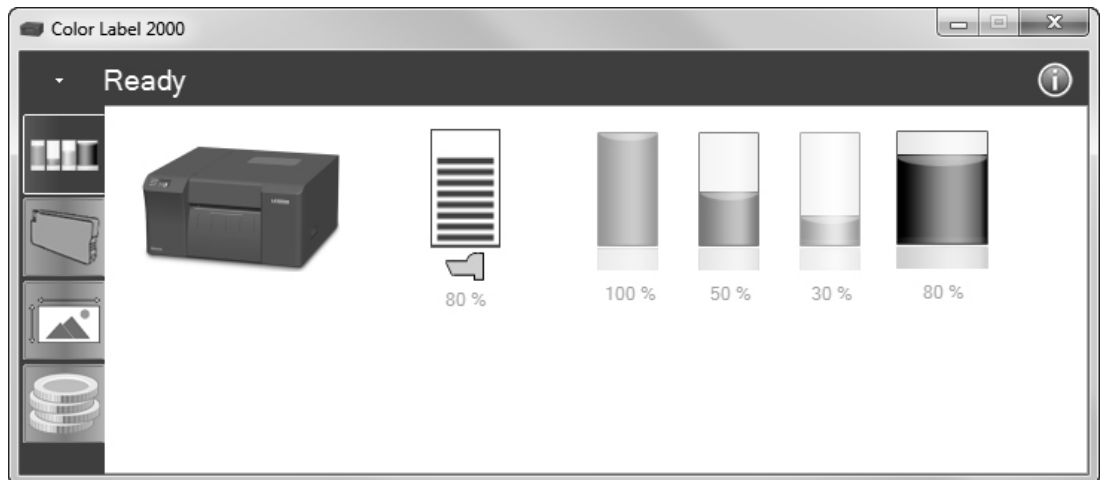
In the Ready mode, the ink percentages and Print Head life will be displayed, along with four tabs and the Print Counter. The tabs will only be displayed if the printer is Ready (not printing).

Note: *If you are using multiple printers, you can switch between them using the drop down arrow at the top of the status monitor. The title of each will correspond to the printer name as shown in Devices and Printers.*



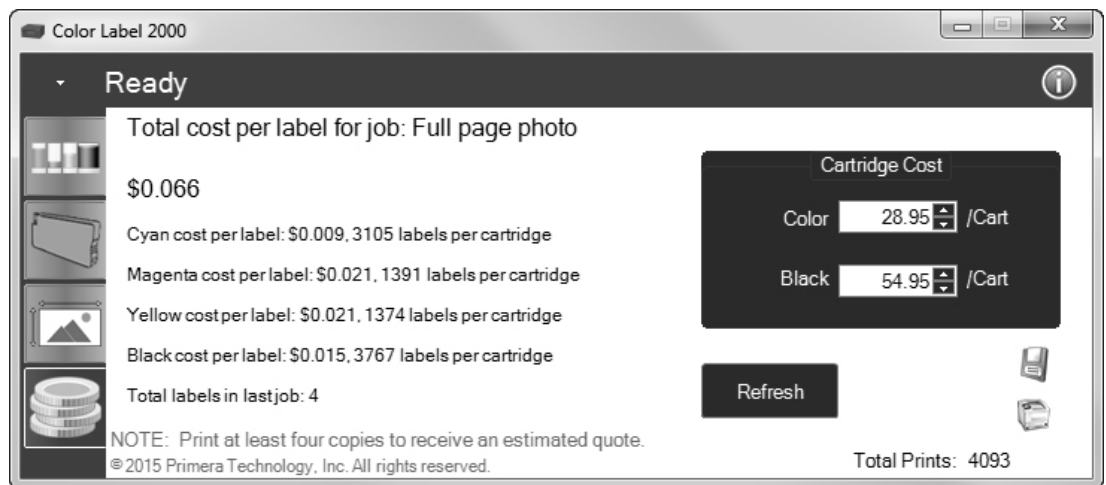
B. Print Head Life Gauge

Print Head life remaining is displayed in the status monitor. Hover your mouse over the icon to display more information.



C. Using the Cost Estimator

The cost estimator is found on the last tab of the Status Monitor. The Status Monitor automatically opens as soon as you begin printing. However, you can also access it at any time as long as the printer is turned on and communicating by going to Start - Programs - Primera Technology - PTStatus.



Ink cost is automatically and continuously calculated based on the black and color cartridge costs entered. Only the last printed label cost is displayed. For reference, the print file and date of last print is displayed at the top of the window.

- Adjust the cartridge costs according to the actual price paid for them. The estimate does not take currency into account so you can assume that whatever value you entered is displayed in your currency.
- Save a screen capture of the cost by clicking the disc icon.
- Print a screen capture of the cost by clicking the printer icon.

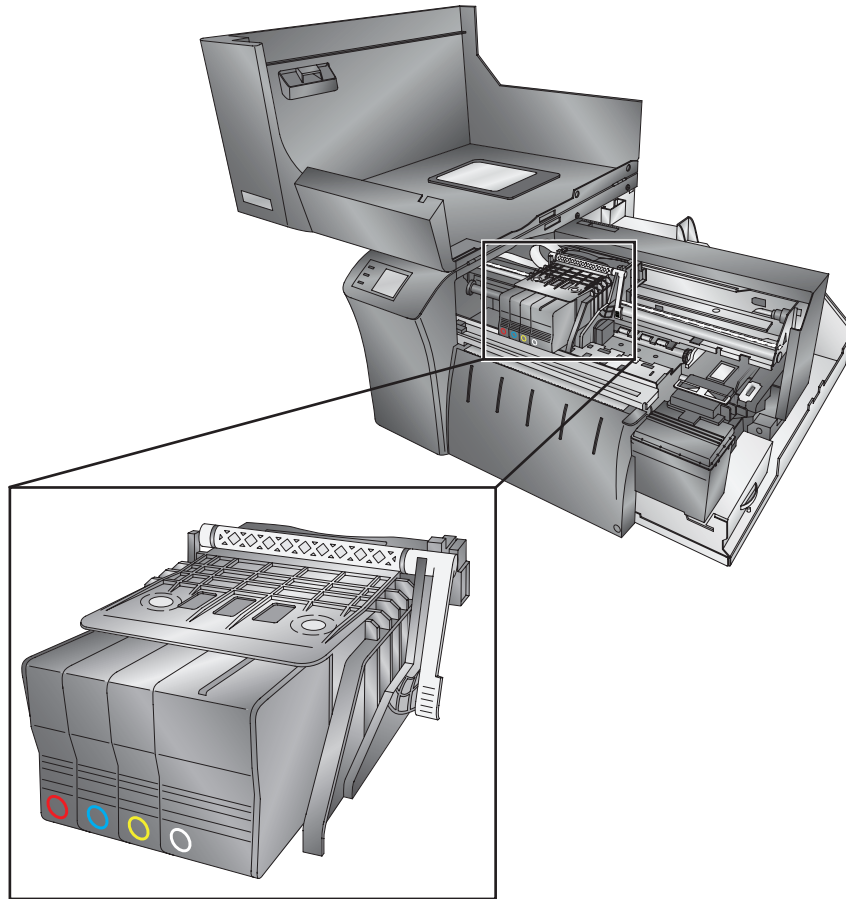
Important Note: The cost per label represents the average cost per label over an entire run of labels. This means that the per label cost will decrease and become more accurate as the number of labels printed increases. This is because the ink that is used for beginning and periodic cartridge maintenance is divided into a larger number of labels.

D. Replacing Ink Cartridges / Low Ink Warning

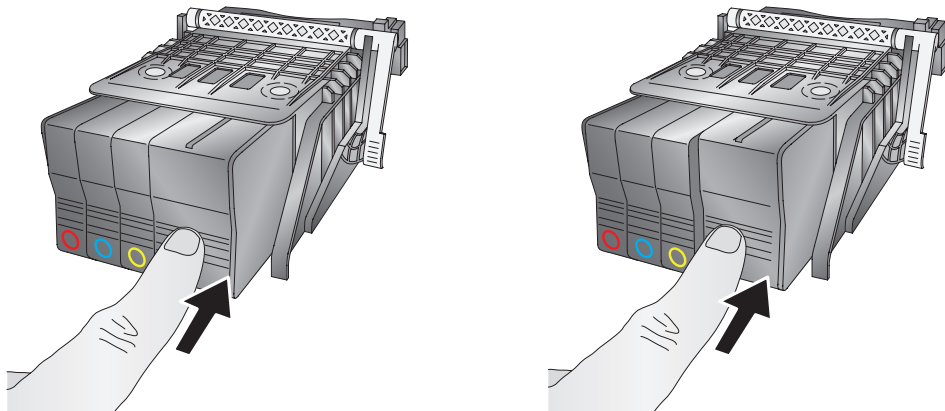
You can replace the ink cartridges at any time or wait for the Low Ink Warning to prompt you to replace the cartridges. The low ink warning will display continuously at 20% or less. When the cartridge is empty you will be prompted to change the cartridge. At the empty point there is no way to ignore the warning. You must change the cartridge.

To change an ink cartridge, follow this procedure:

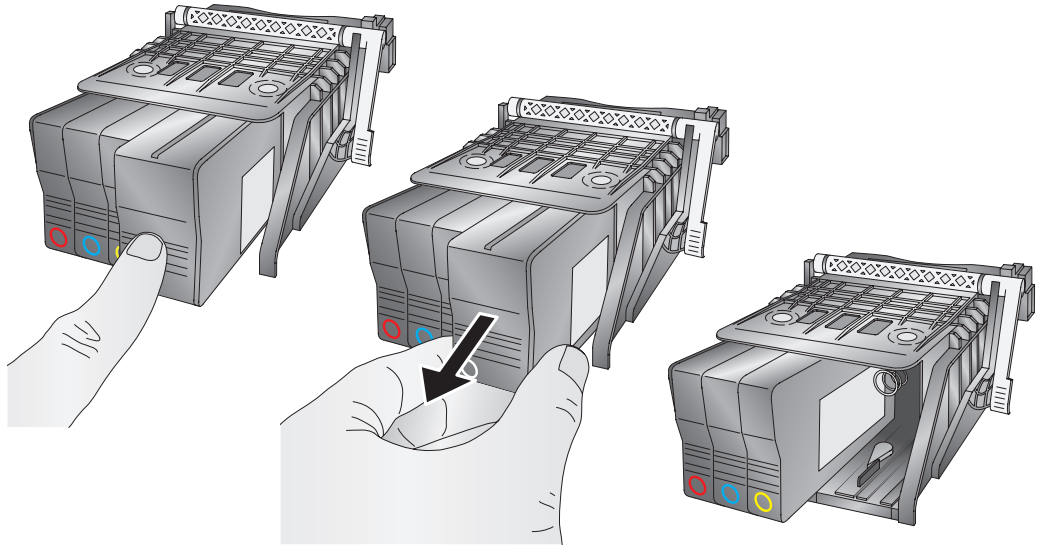
1. Open the cover. The Print Head will move to the center of the print area for easy access.



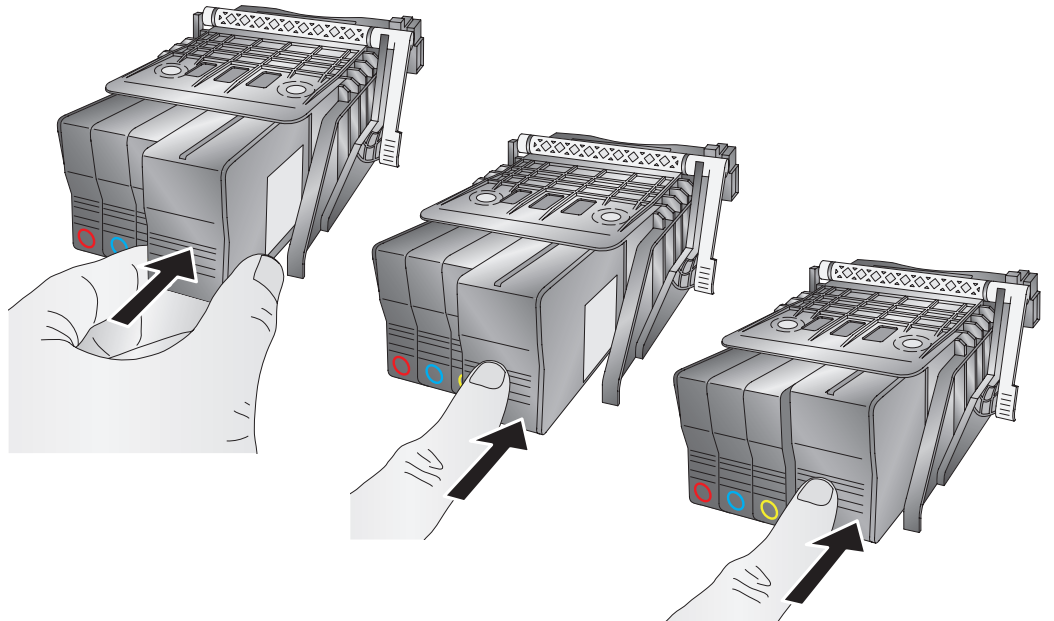
2. Remove the cartridge by pressing inward on the corresponding cartridge.



3. The cartridge will pop out slightly. Pull out the cartridge.



4. Install the new cartridge by pushing the cartridge in as far as you can and then letting go.



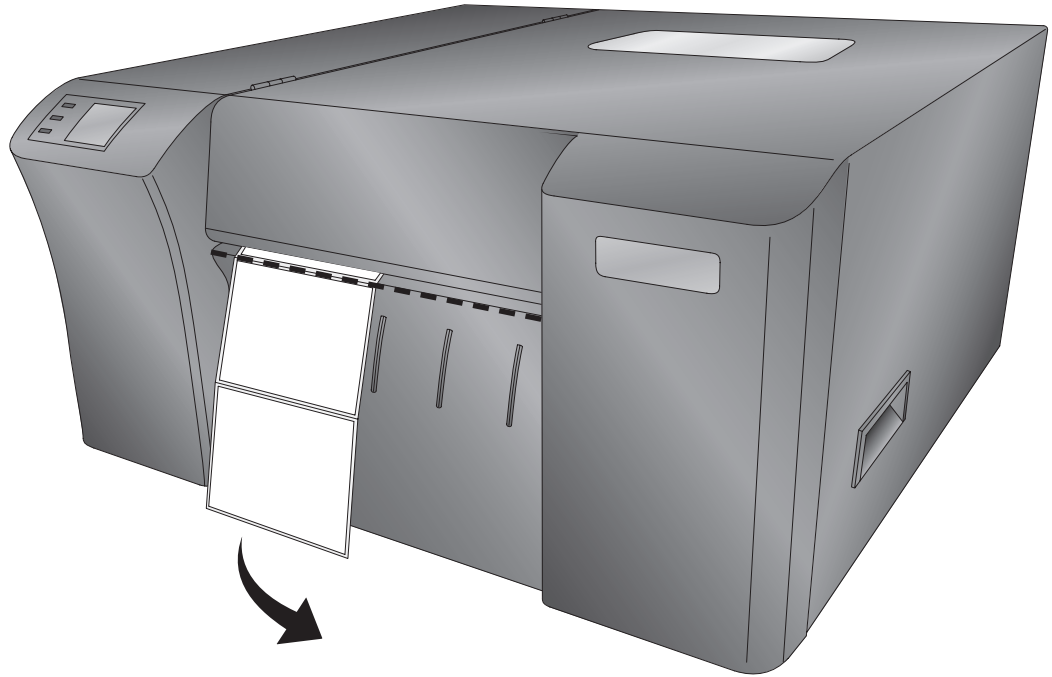
5. Close the cover. The printer will prime the new ink cartridge(s) and then continue to print if it was in the middle of a print job.

E. Alignment Print

An alignment print is necessary after every 5,000 prints and after a Print Head change. In those cases, you will be prompted by the software to run an alignment print.

You may also manually run an alignment print to improve print quality. Follow these instructions:

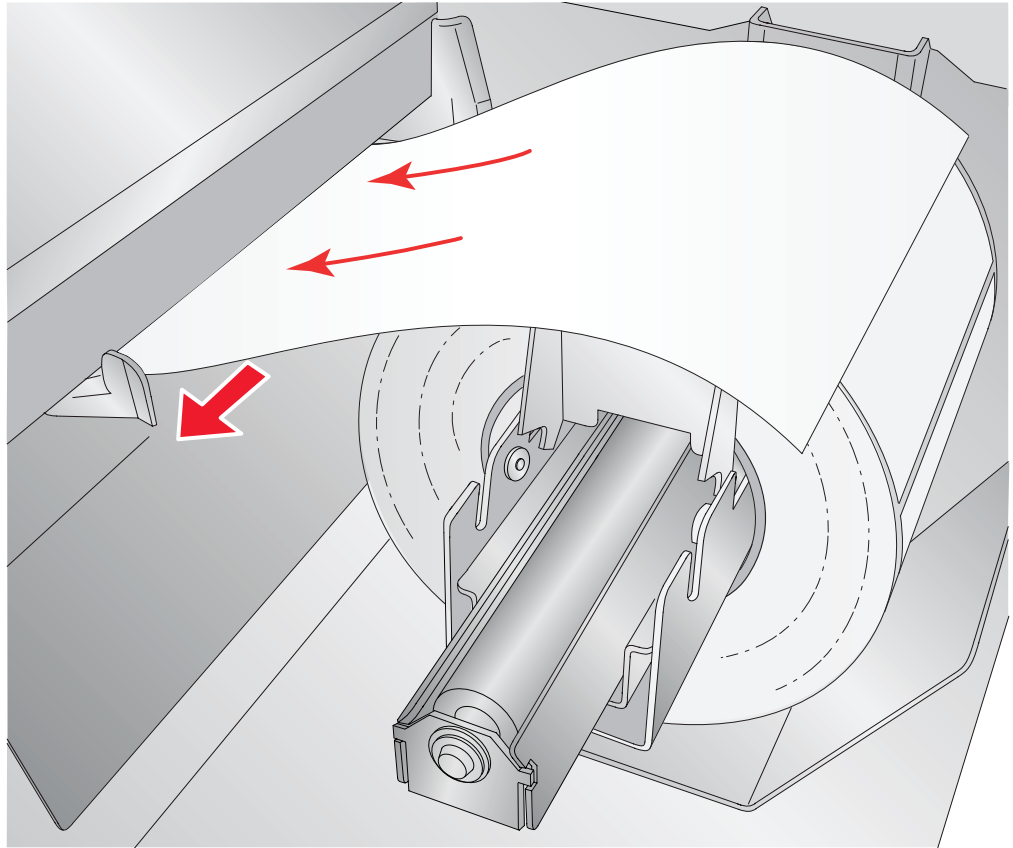
1. Open PTStatus 2000. Click on the Cartridge Tab (Second Tab). Click the Align Print Head button.
2. Tear off any printed labels. Click Next.



3. The printer will now automatically back the remaining labels out of the printer. You can leave the label stock roll in the printer.

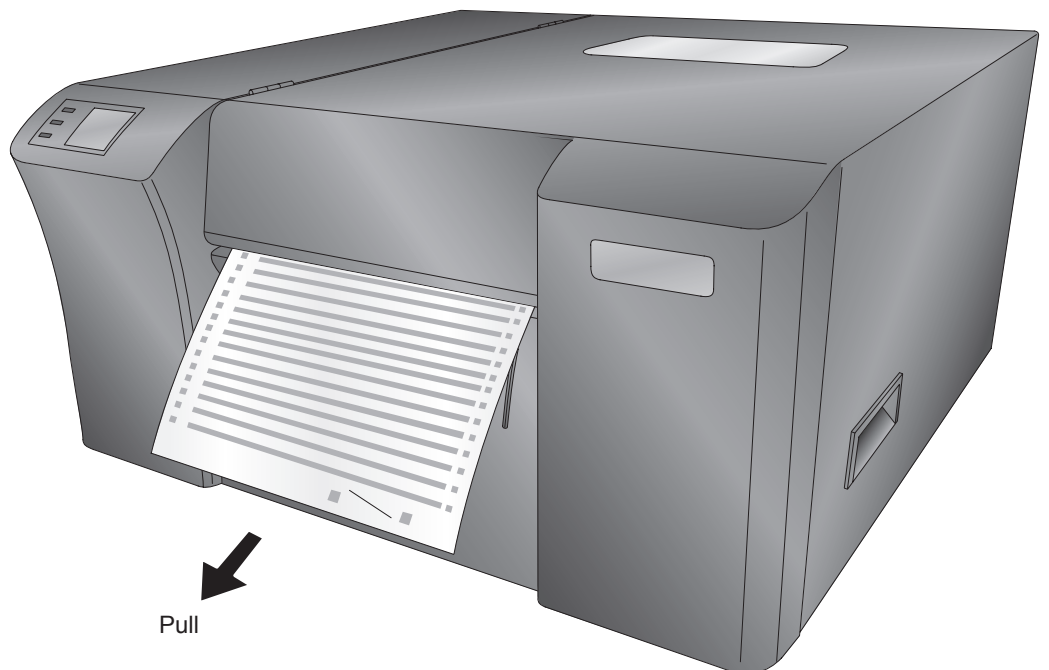
Note: *Keep the remaining blank alignment paper sheets for future alignment prints.*

4. Move the Throat Guide to the widest position and feed the alignment paper into the printer. Ten alignment sheets were included with the printer. These are slightly smaller than a standard 8.5" x 11" sheet used for most office printers. The size is actually A4, which is 8.27" x 11.69" or 210mm x 297mm. If you do not have the alignment paper, you can cut a .25" strip off of a standard size sheet to make a usable sheet.



Important Note: Use included Alignment Paper or an 8.27" x 11" (210mm x 297mm) sheet.

5. Once the alignment is complete, you will need to pull the finished alignment sheet from the printer.



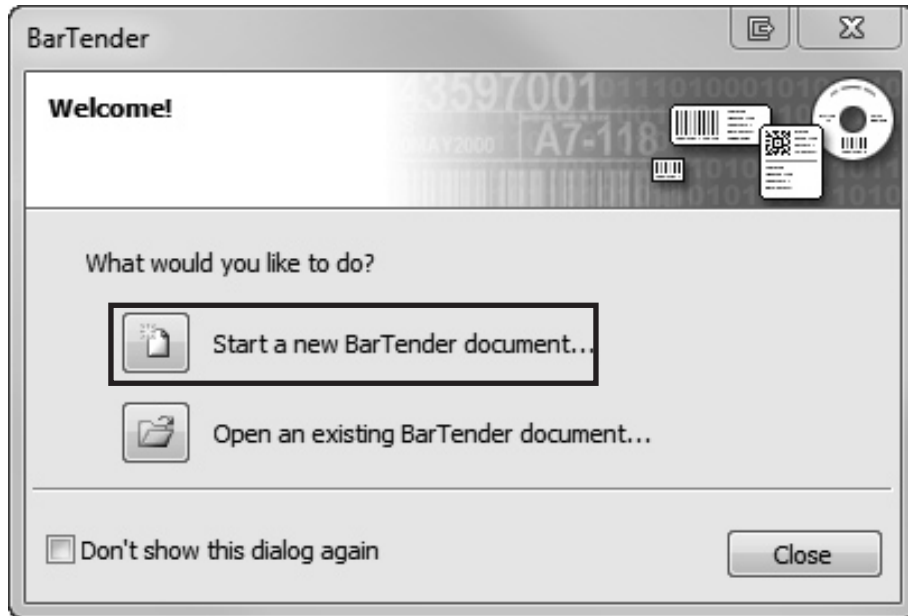
Section 4: Printing from a PC

A. Using BarTender®

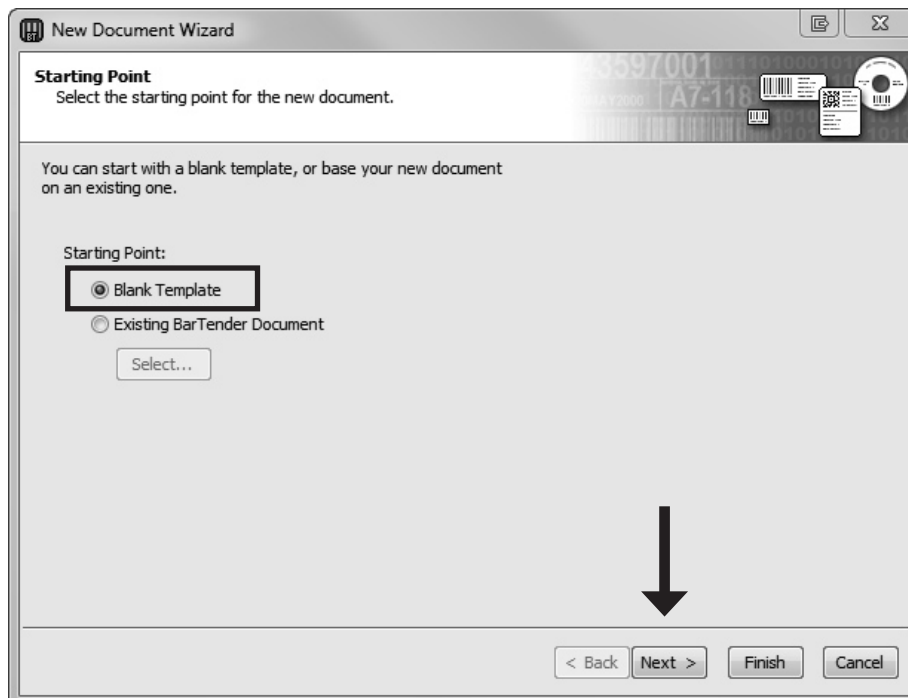
Primera Special Edition BarTender UltraLite is included with the LX2000. However, other programs can be used to print.

When you open BarTender you will be given the choice to select an existing label or create a new one using a wizard. Use the following instructions as a guide through the wizard setup process. These instructions are based on using the included sample labels. More complex labels will require additional/different options to be selected.

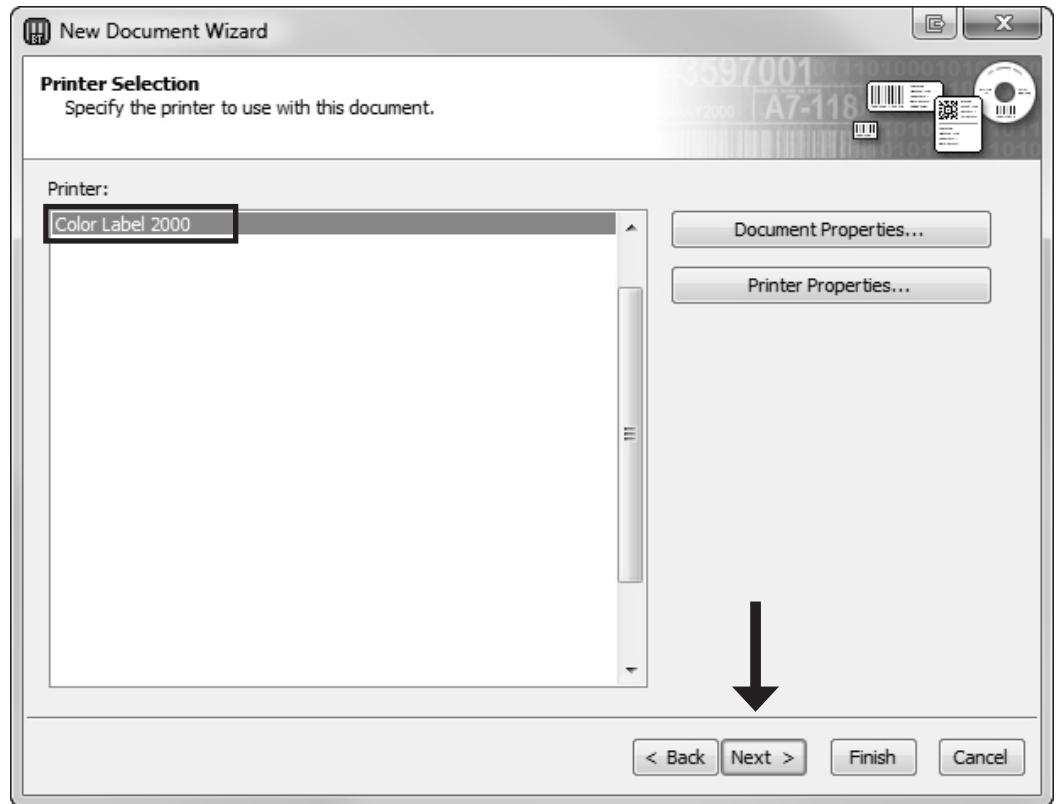
1. Choose "Start a new BarTender document..."



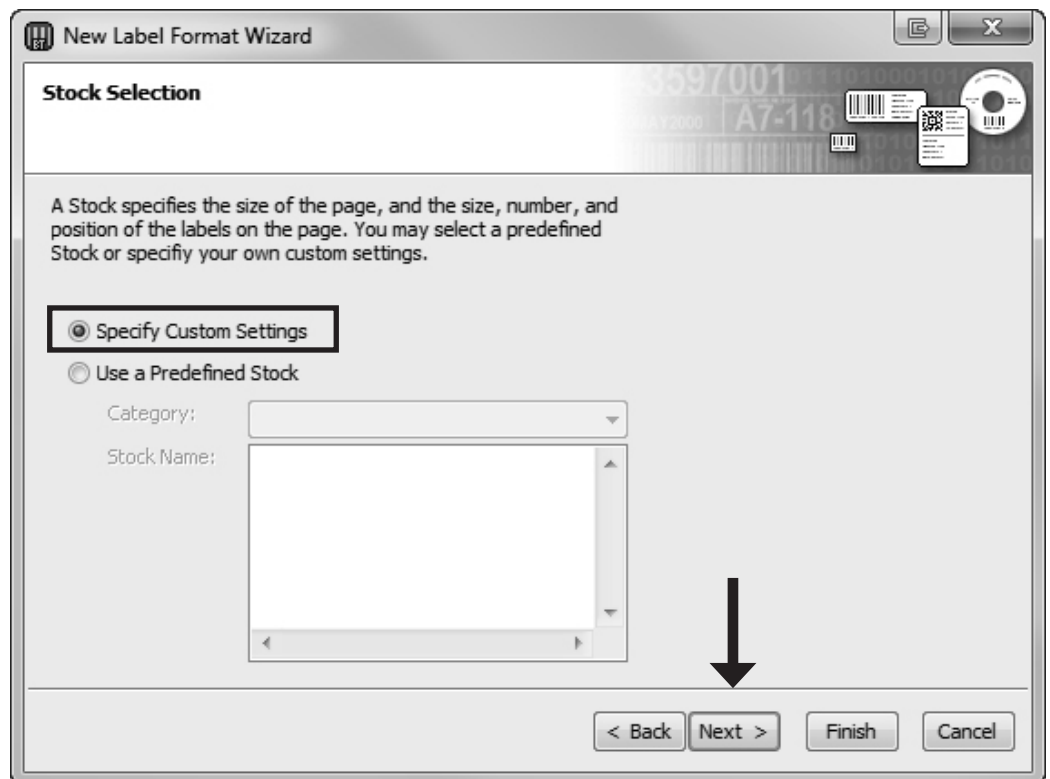
2. Select "Blank Template." Click "Next."



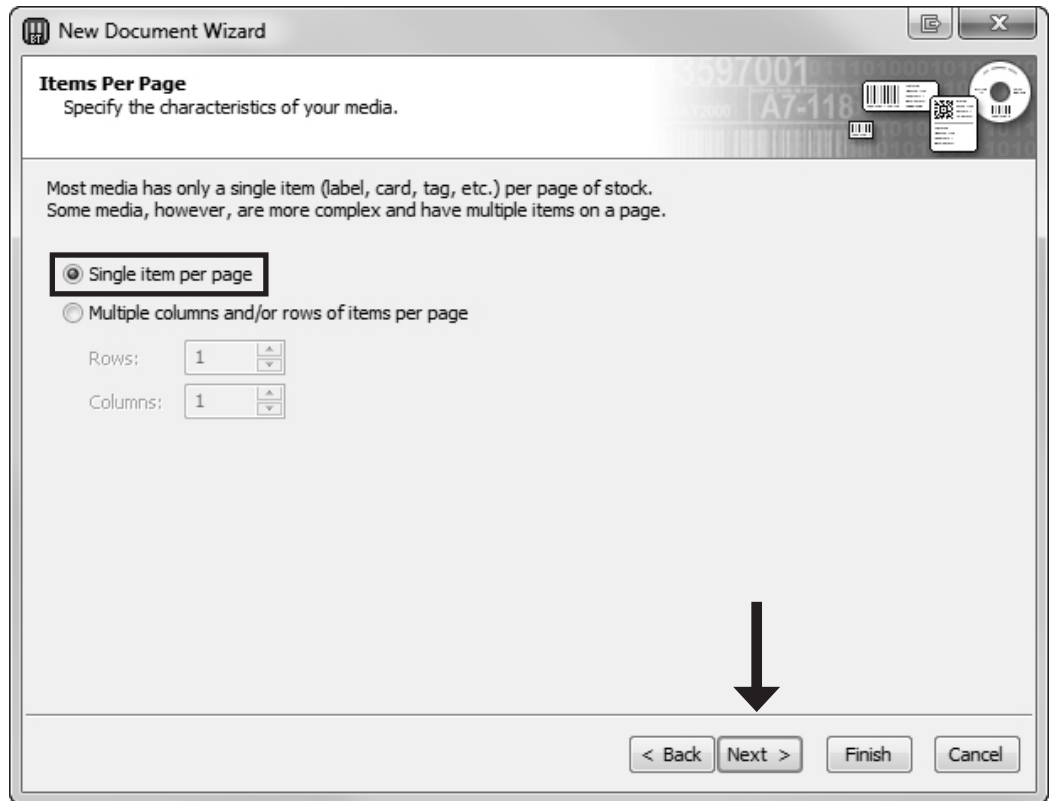
3. Select "Color Label 2000." Click "Next."



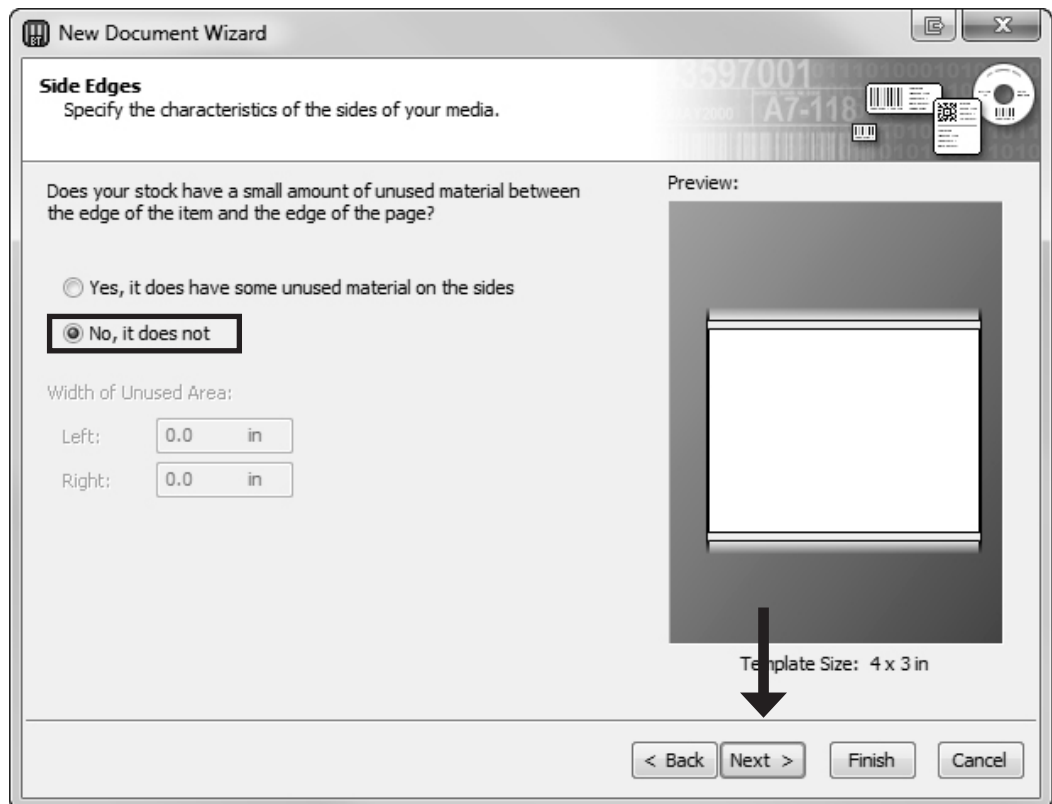
4. Select "Specify Custom Settings." Click "Next."



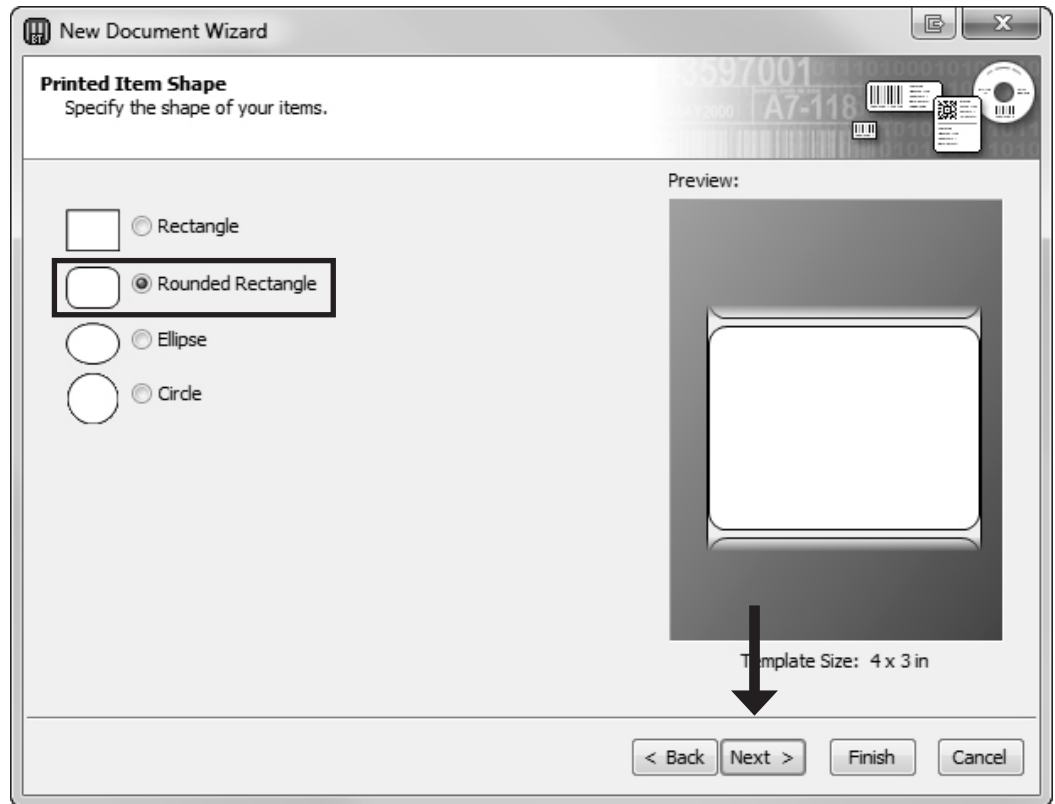
5. Set "Items Per Page" to "Single item per page." Click "Next."



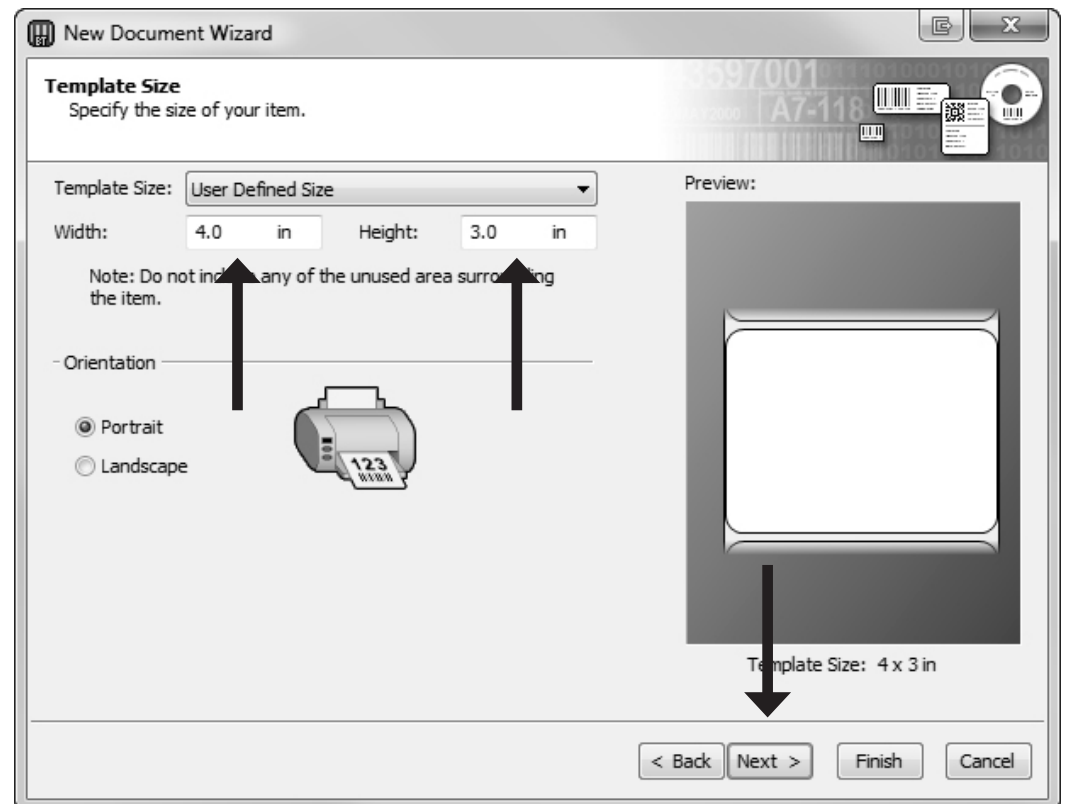
6. Set "Side Edges" to "No, it does not." Click "Next."



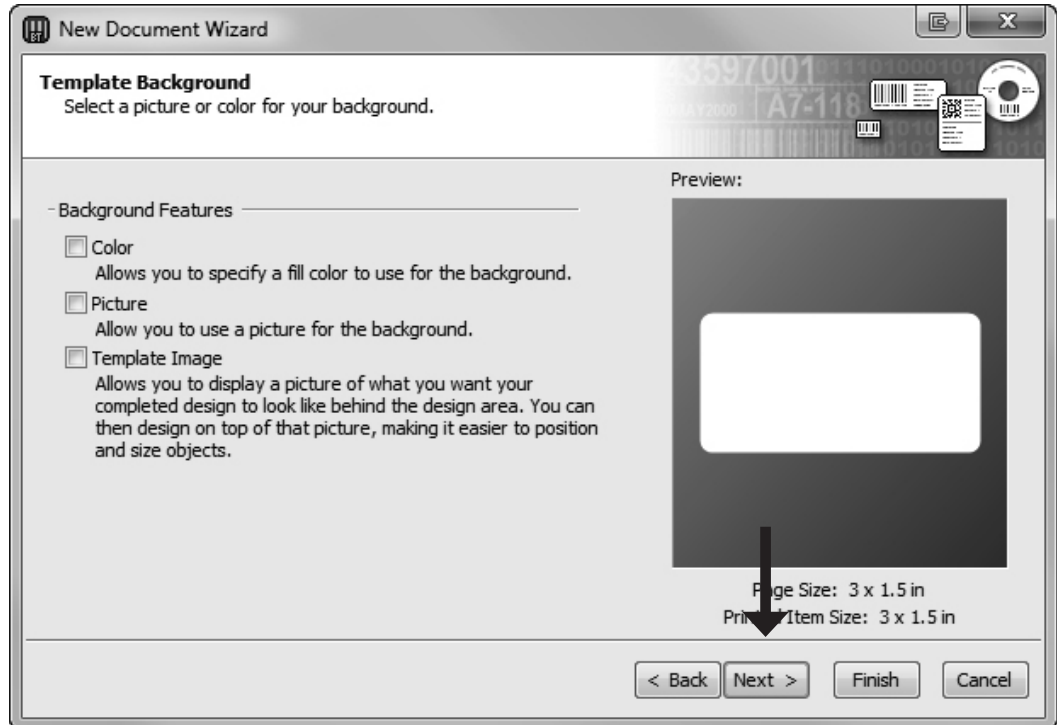
7. Set "Printed Item Shape" to "Rounded Rectangle." Click "Next."



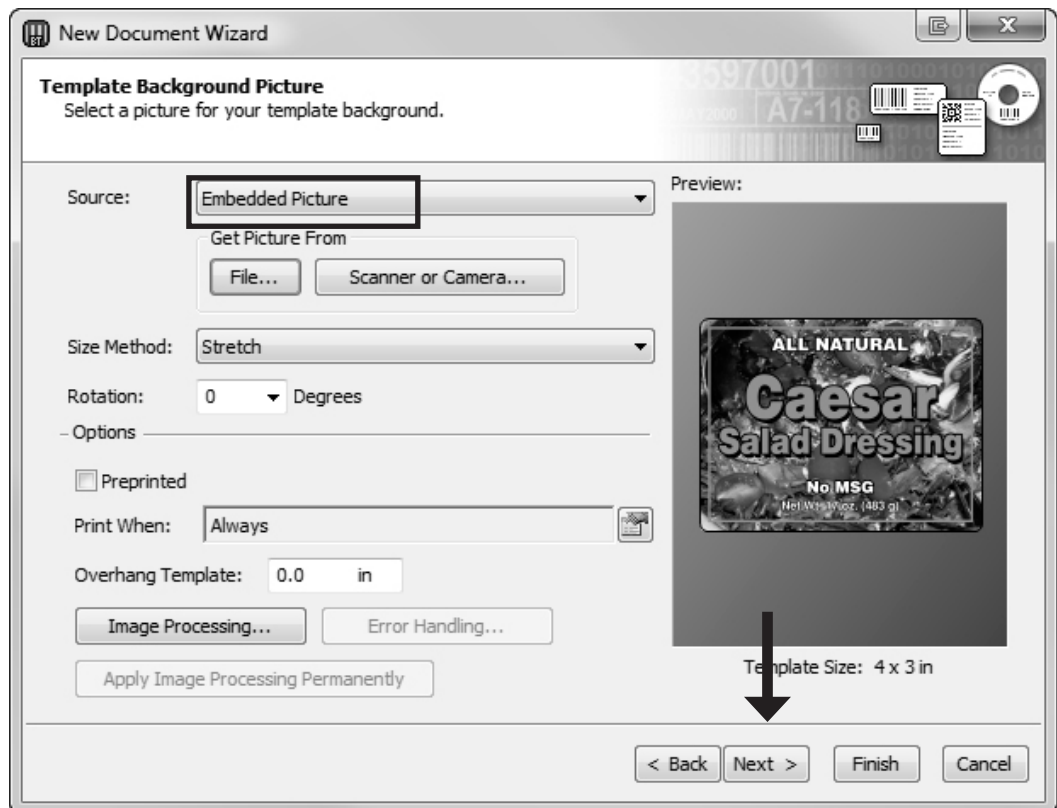
8. Set the page size, width and height to match the labels installed in the printer. Click "Next."



9. Check the "Picture" box to add a background photo or graphic to your label. Click "Next." If you click "Finish", the remaining default wizard options will be set and no picture will be added.

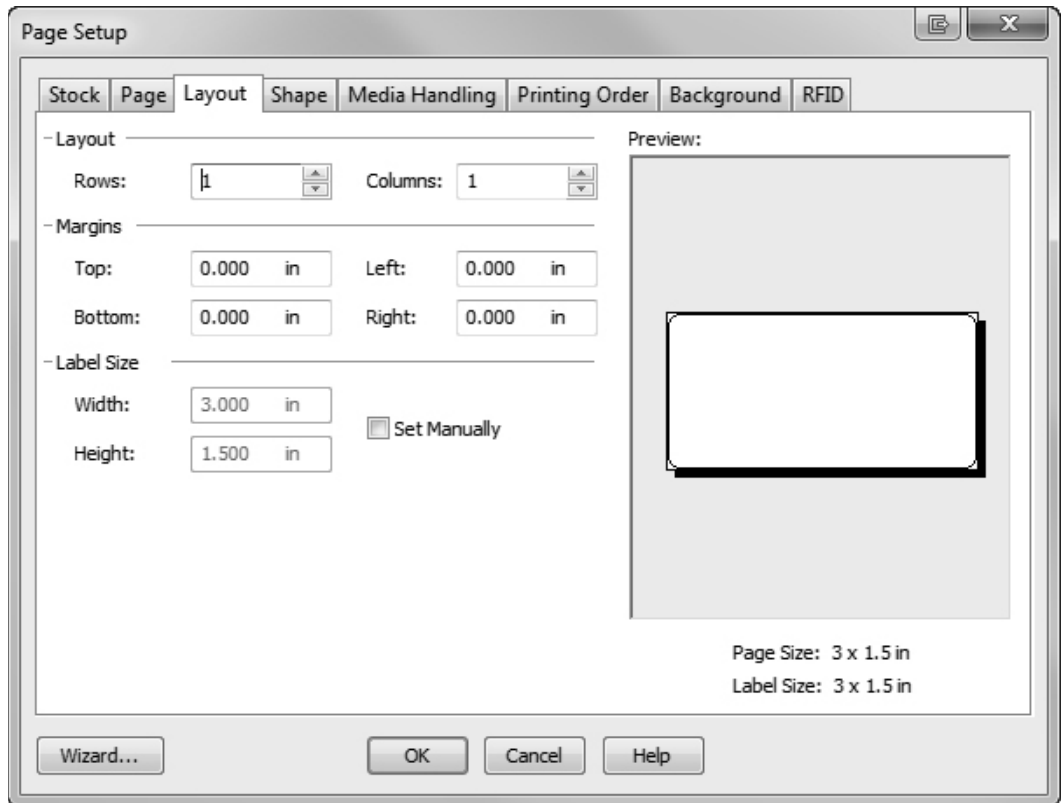


10. Select "Embedded Picture." Click the "File" Button to browse to the location of your photo/graphic file. Set the Size Method to "Stretch." Note the preview to the right. Click "Next" if you are satisfied with the layout of the photo or graphic.



11. Review the label setup summary. If it is correct, click "Finish." Your blank label will be displayed.

You can edit any of these settings by going to the File Menu and selecting "Page Setup." Basic and advanced settings are available on the various tabs.



B. Add Text, Barcodes and Graphics to a BarTender Label

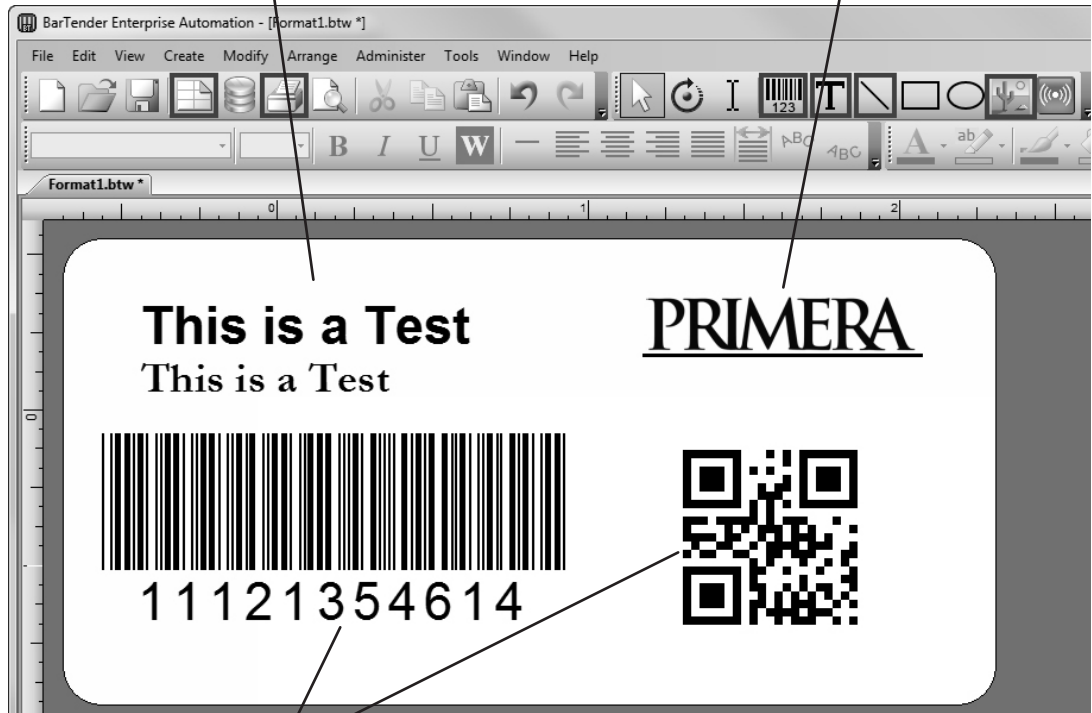
Once you have created your label size you will need to add text, a barcode and/or graphics. This can be done using one of buttons on the button bar at the top of the screen.



Add Text. Click the Text button. Now click anywhere on your label. "Sample Text" will appear. Edit the text on screen or double click it to open up text settings to change font, size and other settings.



Add Graphic. Click the Image button. Now click anywhere on your label. An Image icon will appear. Double-click it to open up image settings and browse to the image/graphic that you would like to insert.



Add Barcode. Click the Barcode button. Now click anywhere on your label. A barcode settings window will appear. Here you can choose any type of barcode and enter the value.



Print. Click the Print button to start printing.



Page Setup. Click the Page Setup button to change your label size, adjust corner radius or change the shape.



Lines. Click the Line button to add a horizontal or vertical line.

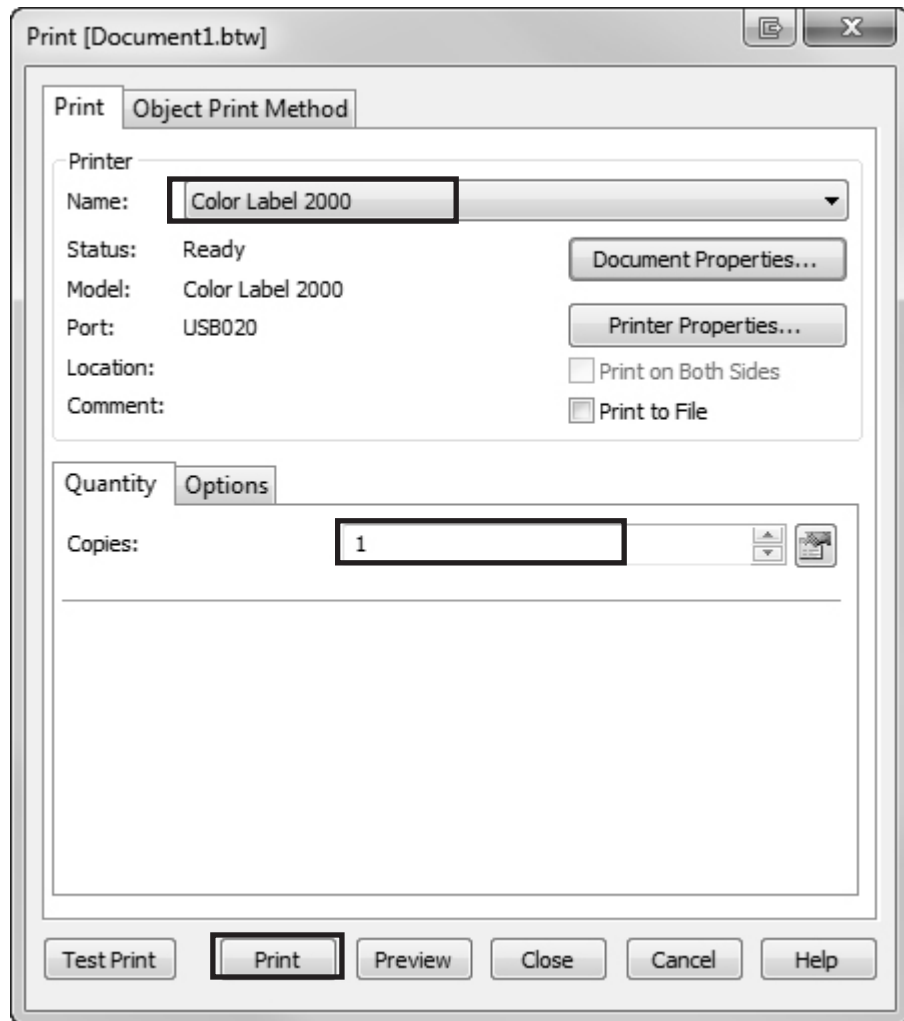
Tip! Double-click any object to open settings for that object.

Tip! Go to the Help menu to access the BarTender Manual and Tutorials.

C. Printing from BarTender



1. To print, click the Print button or go to the File Menu and select "Print." The Print Dialog window will appear.



2. Select the Color Label 2000.
3. Set the number of copies.
4. To adjust Quality Settings, click on "Document Properties." **Choose the Paper/Quality Tab.** Refer to section 4F for more information on these settings.
5. Click "Print" when you are ready.

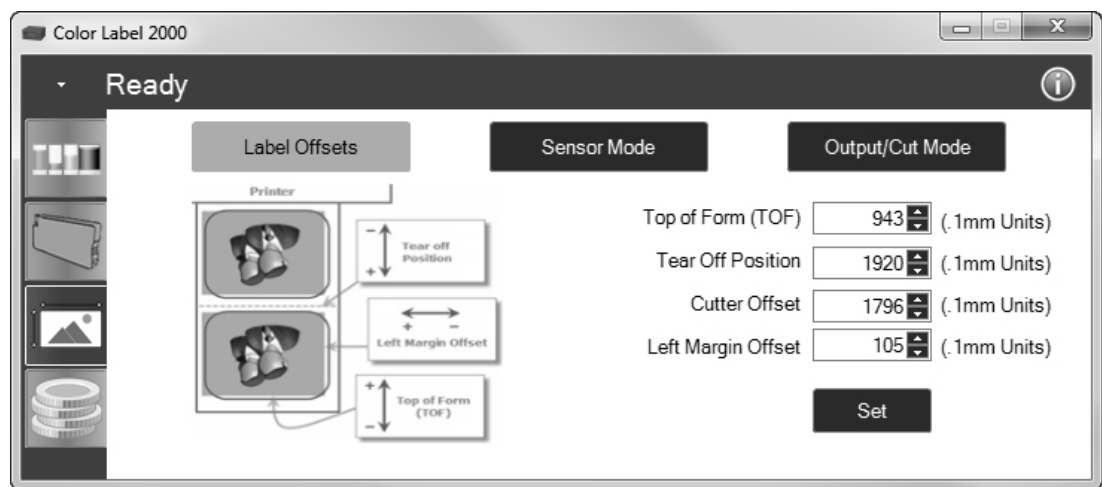
D. Adjusting Print Alignment

If your previous experience with printing is limited to printing letters and cards to 8.5 by 11 inch paper you probably are not familiar with an essential part of a label printing - Print Alignment. Standard printers feed a sheet and start printing based on the start of the sheet. They also prohibit printing to the edge of the sheet. This is to avoid any need for alignment. The LX2000 senses the beginning of the label with an optical sensor and is capable of printing to top, bottom, left and right edge. Because of this it is necessary to align the printer to work with specific types of label stock.

The LX2000 comes factory calibrated to print exactly to the edge of Primera label stock. However, due to variations in the left margins and other variables it may be necessary to fine tune these settings at the beginning of each roll. This is especially true for other non-Primera brand label stock.

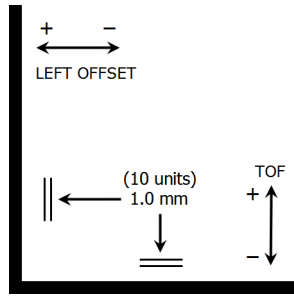
Important Note: Before adjusting alignment settings first print one label at the quality level you intend for the entire job. This will ensure the label stock is moving at the same speed and the stock sensor will sense the gap in the same way.

Adjust print alignment using the Status Monitor. Go to the Alignment Tab (third tab).



Four items can be adjusted here:

- **Top of Form (TOF).** This value moves the print start position up or down on the label. Add to the current value to move the printed label down or toward the printer. Subtract from the current value to move the printed label up or away from the printer. After adjusting the value click the "Set" button to send the value to the printer.
- **Tear off Position.** This value adjusts the position of the last label printed after it has been presented for tear off. This only applies if the output mode is set to "Present the label." Add to the current value to move the tear point closer to the printer. Subtract from the current value to move the tear point away from the printer. After adjusting the value click the "Set" button to send the value to the printer.
- **Cutter Offset.** This setting will adjust the position of the cut (if enabled). By default it should cut in the center of gap between the labels. Add to the current value to move the cut toward the printer. Subtract from the current value to move the cut away from the printer. After adjusting the value click the "Set" button to send the value to the printer.
- **Left Margin Offset.** This value moves the printed label left or right. Add to the current value to move the printed label to the right. Subtract from the current value to move the printed label to the left. After adjusting the value, click the "Set" button to send the value to the printer. Note: Before adjusting this value make sure the label stock is properly loaded so that there is no gap between the edge of the liner and the fixed throat guide. Any gap at this point will greatly affect the Left Margin Offset value needed to align the label. Also, if you adjust the value with improperly loaded label stock you will have to adjust it again if you load the label stock correctly the next time.

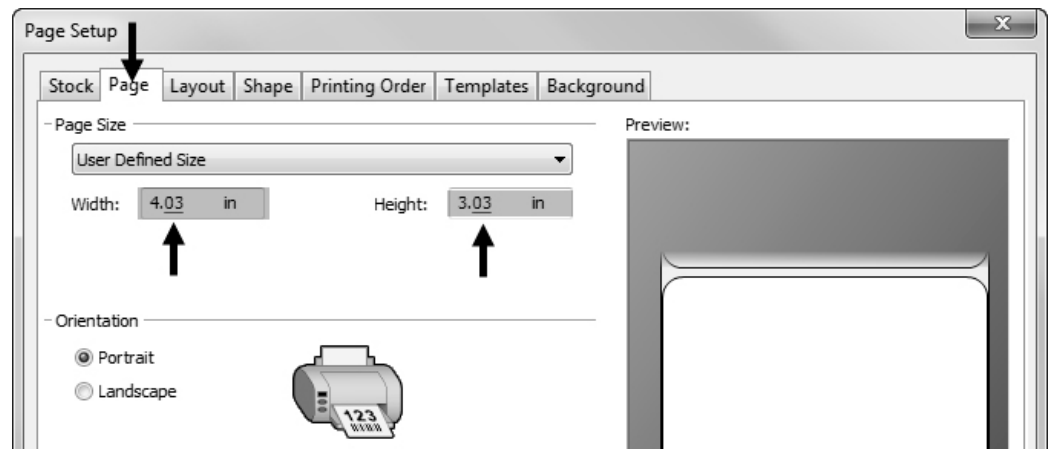


You may have to make several adjustments to one or more of these values. After each adjustment you can click the Test button to print a small test pattern on the label. This will help you find the proper alignment value.

E. Creating a Full Bleed Print

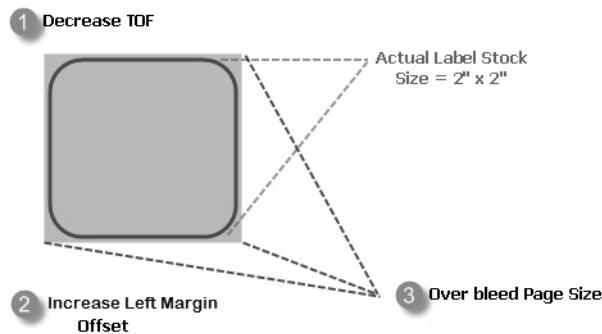
1. Adjust these settings in the status monitor and printing application (BarTender).

Page Size. Increase the page size width by .03 inches (1mm). Increase the height by .03 inches (1mm). If you are using BarTender, simply change the size under the File Menu - Page Setup. If you are using other graphics programs you will need to change the page size in the application and in the printer driver preferences.



Left Margin Offset. You must increase the left margin offset to center the over bleed on the label. If you over bleed by .03" you will need to increase the Left Margin Offset by 4. This will center the page size increase so there is a .03 inch over bleed on both left and right sides. Some additional adjustment may be necessary if the label was not perfectly aligned to begin with. See Section 4D.

TOF Decrease the Top of form by 4. This will cause the printer to start printing before the label and ensure a fully printed label. Some additional adjustment may be necessary if the label was not perfectly aligned to begin with. See Section 4D.



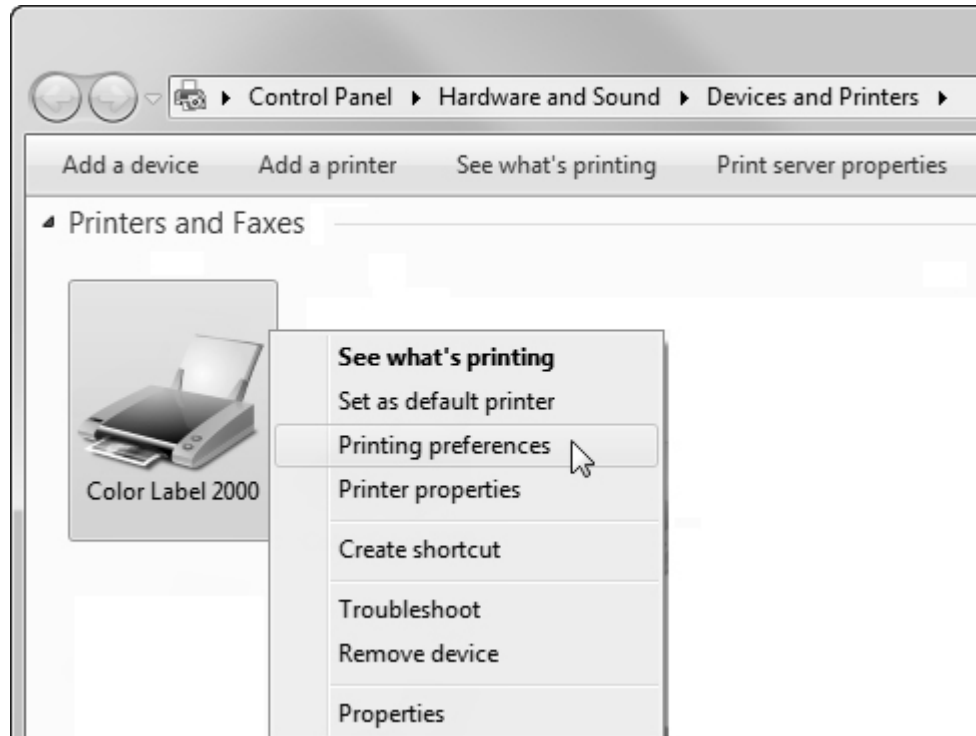
Note: It is best to over bleed as little as possible to avoid excess ink on the label backing. Also, over bleeding too much will cause the printer to skip labels. This is because the printer stops printing too late to sense the next label.

F. Printer Driver Settings

Once the printer driver has been successfully installed, you may choose to setup the driver with the appropriate print options. Refer to the following steps to change or verify your default printer driver preferences. These settings will apply to all new designs created in BarTender or other programs after the preferences were changed. Existing labels saved in BarTender will not be affected since the preferences are saved with the label. To change these preferences you will have to change printer preferences through BarTender. (File Menu - Printer Settings)

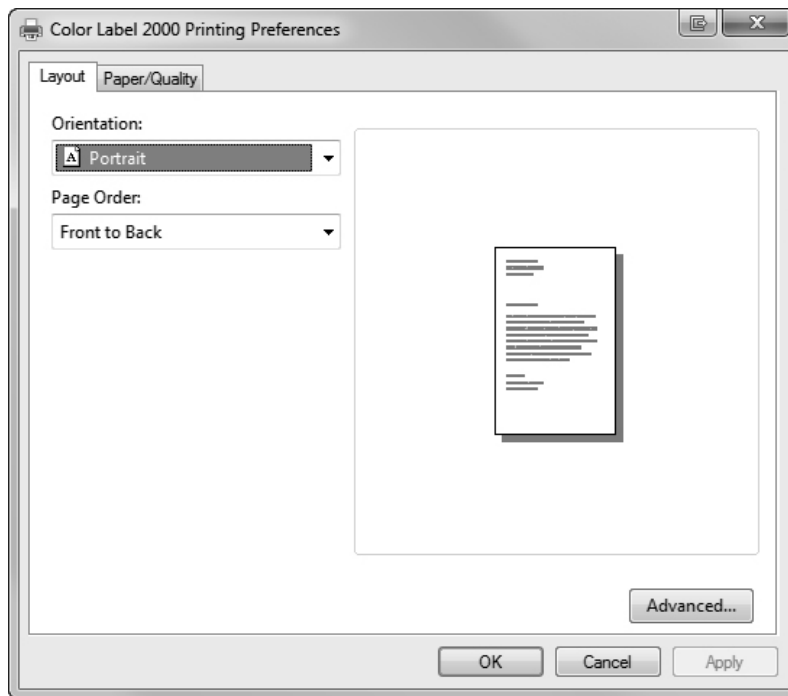
To find Driver Settings:

Click the Start button, choose Printers and Faxes (XP), Printers (Vista), Devices and Printers (Windows 7 and 8). Right-click on the Color Label 2000 Icon and select Printing Preferences from the drop-down menu.



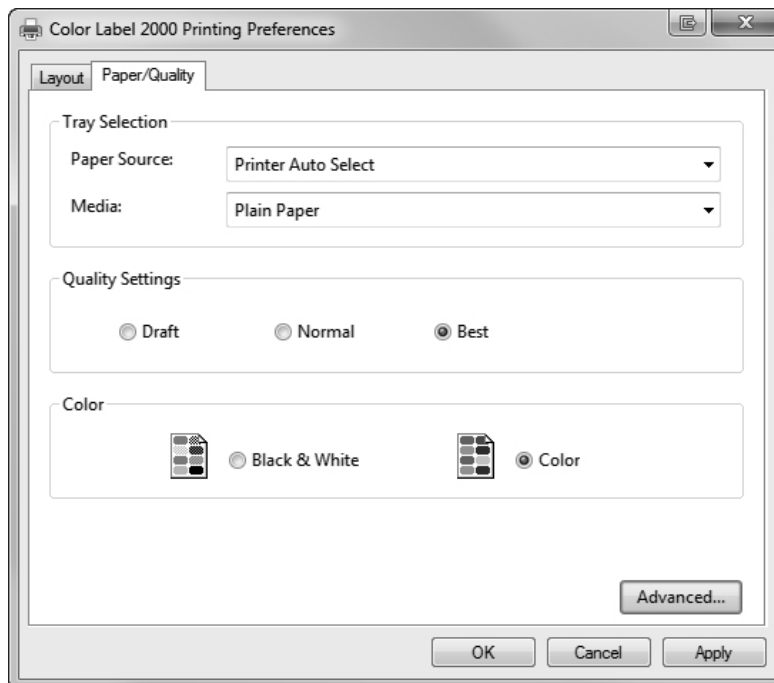
Note on PC Settings: Most applications allow you to change these same printer driver options from their "Print" and/or "Printer Setup" screens. Some applications such as BarTender save your settings with the label, others use settings only for the current print job just sent to the printer.

The preferences screen will appear.



Orientation (Layout Tab). There are two settings for orientation, Portrait and Landscape. If your text and graphics print left to right or as shown on the screen, select portrait. If you wish your printing to rotate 90 degrees from what you see on the screen so it is printing horizontally, select landscape as your orientation. Remember, this does not change the width and height Paper Size. It is only a tool for viewing a label upright on screen that will be printed sideways on the printer.

Page Order (Layout Tab). Use this feature only for multipage documents to either print the last page first (back to front) or the first page first (front to back). This will not be changed for most printing projects.



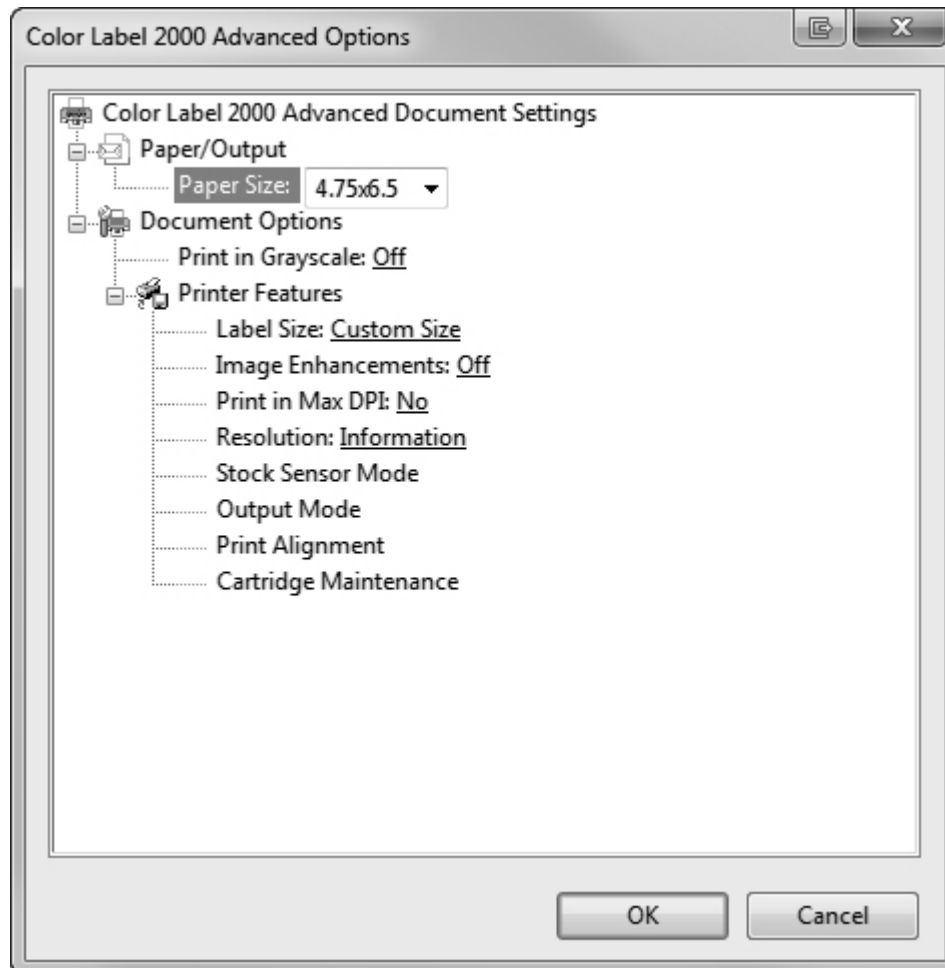
Paper Source (Paper/Quality Tab): This setting should always be set to “Printer Auto Select”.

Media (Paper/Quality Tab): This setting should be set to match the label stock purchased from Primera. The various different media types are specifically designed to create consistent color matching across all types of media. If you have purchased label stock from another source you can use these settings to affect print quality, color matching and ink saturation.

- High Gloss Paper
- Matte BOPP
- Clear Polyester
- White Polyester
- Vintage Paper
- Card Stock
- Plain Paper

Quality Settings (Paper/Quality Tab). There are three options for quality (Draft, Normal, Best) which work together with the media type to affect the quality of the printed label. Draft mode is only available if you have set your Media to Plain Paper. Together the quality settings and media type also affect the speed of the print. Best + High Gloss Paper will print the slowest. Draft + Plain Paper will print the fastest.

Color (Paper/Quality Tab). This setting affects which cartridges will be used to print the label. The “color” setting will use the cyan, magenta, yellow and black ink cartridges. The “Black & White” setting will use only the black cartridges. Color images will be converted to black and white when using this setting.



Paper Size (Advanced Button). If you are using BarTender, this setting is adjusted during the label setup wizard. If you are using a program other than BarTender you will need to use the page size setting in that program to set the dimensions of your label. If the program you are using does not have a page size setting you can set it here. Set the Paper Size to "Custom" and then change the Label Size setting to match your specific label. Keep in mind that the dimensions are always relative to the width and height of the actual label in the printer. Orientation of an image on the label should not change this setting. See Section 2A for minimum and maximum label sizes.

Print in Max DPI (Advanced Button). You can set the printer to print at the highest quality possible by changing this setting to "Yes." It dramatically slows printing speed and is only available when media is set to Matte BOPP, Clear Polyester or White Polyester.

Stock Sensor Mode (Advanced Button). Click this setting to open the Status Monitor. See Section 2D.

Output Mode (Advanced Button). Click this setting to open the Status Monitor. See Section 2E.

Print Alignment (Advanced Button). Click this setting to open the Status Monitor. See Section 4D.

Cartridge Maintenance (Advanced Button). Click this setting to Align the Print Head, Clean the Print Head or Change a Cartridge. This setting opens the Status Monitor.

Other settings (Advanced Button). All other settings on the Advanced Tab not mentioned above should not be changed unless directed to do so by tech support.

Section 5: Troubleshooting and Maintenance

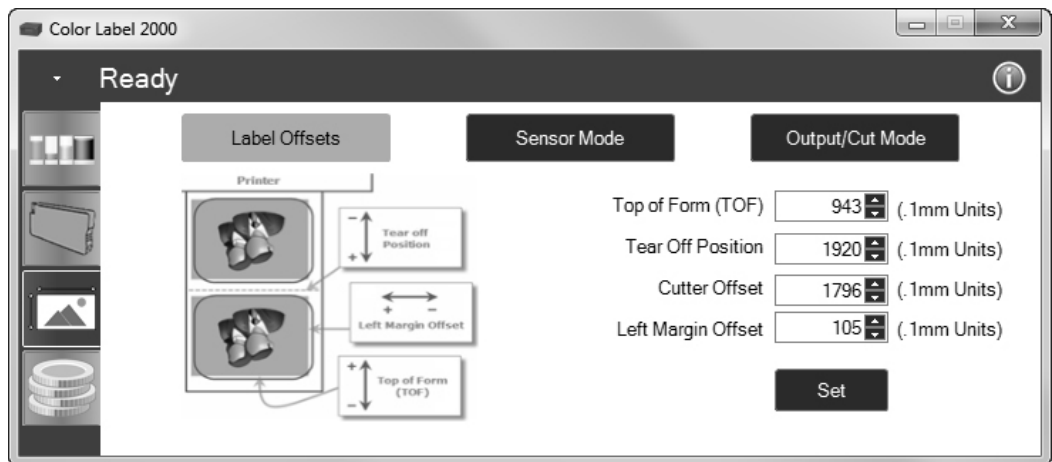
A. Solving Print Alignment Problems

Image is Vertically Offset

The LX2000 decides where to start printing by detecting the start of the die-cut label, detecting a black mark on the back or detecting a thru-hole that corresponds to the start of the label.

The following items can cause the label sensor to improperly detect the start of a label:

1. **Top of Form (TOF).** This setting allows you to fine-tune the alignment of your printing on your label stock. This will be factory calibrated. If fine-tuning is needed, increase this setting to move the image down on the label; decrease this setting to move the image up on the label. The unit of measure is 0.1mm. This setting is found on the Alignment Tab of the PTStatus Monitor.



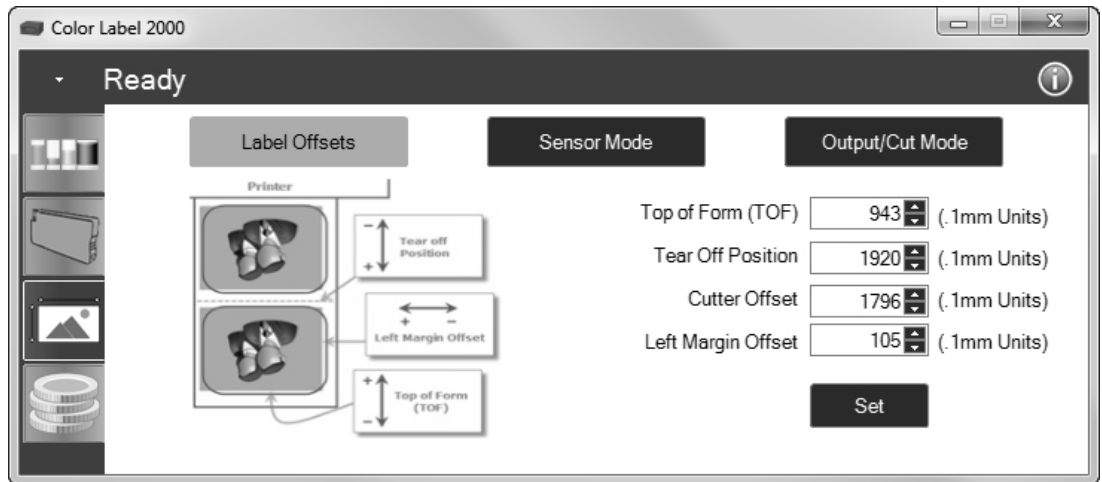
2. **Nonstandard/Non-translucent Backing Material.** Test the unit with the label sample material that came with the unit. If it prints correctly, your label stock may not be compatible. The label sensor needs to "see" through the backing/liner to detect the edges of the labels. If it can not adequately "see" through the backing/liner, problems will arise. If you must use this type of backing, try label stock that has a black mark on the back to show where the label begins. You will need to change the Stock Sensor Mode in the Status Monitor.
3. **Insufficient Label Gap Distance.** See Section 2A for label specifications.
4. **Page Size is Bigger than Label Stock Size.** If the page size set in the driver is larger than the actual label stock, ink will be printed on the gaps and the sensor will start looking for a gap too late. This can cause label skipping or inconsistent print starting points.
5. **Portrait/Landscape.** If the Portrait/Landscape setting does not correspond to the label stock installed this will also cause the printer to print over the gap and onto the next label. Make sure this is set correctly.
6. **Stock Sensor Position.** Circular, nonstandard label shapes or multiple labels across will require precise adjustment of the label sensor. If you are using circular or other non rectangular die-cut labels see Section 2C for instructions.

The image is printing horizontally offset

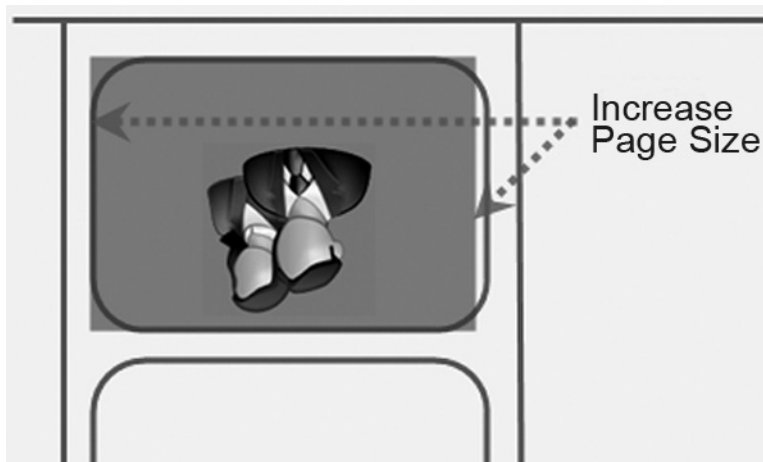
Three things can affect this issue.

Label Stock Loading. It is very important to correctly load the label stock so that there is no space between the throat guides and the label liner edge. If there is a gap between the throat guides and the label stock it may "walk" back and forth causing inconsistent horizontal image location. See section 2B for label stock loading instructions and tips.

Left Margin Offset. This adjustment is found on the Alignment tab of the PTStatus monitor. See Section 4D.



Page Size. Often the page size is not large enough for the label. If this is the case you may see white space on the right (printers left) side of the the label and no image over-lap on the opposite side. This indicates that the page size needs to be increased. Increase the page size through the printer preferences enough to cover the label.

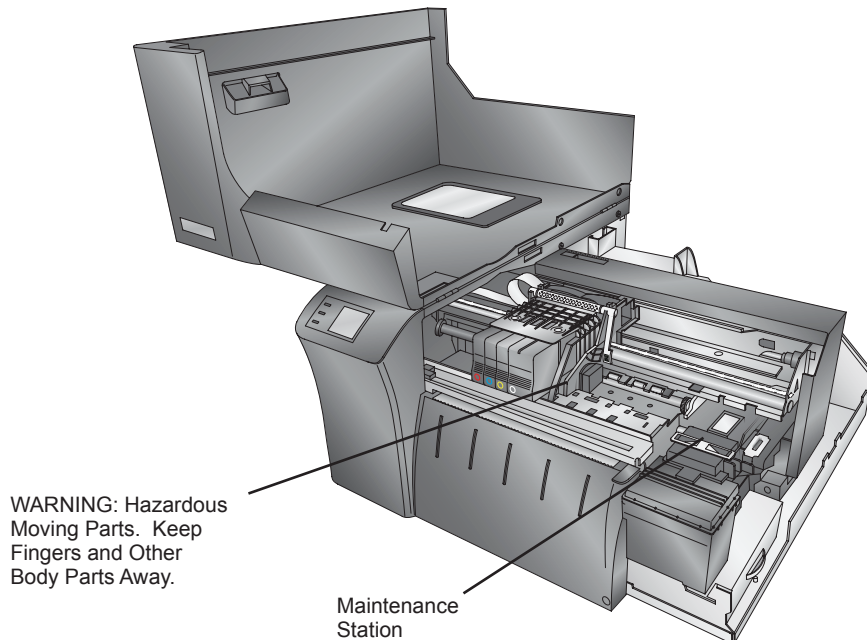


B. Solving Print Quality Problems

Many factors can affect the quality of the print. The following are listed in order from most likely to least likely:

1. **Quality Setting.** Change your quality setting. The lowest quality setting (fastest printing) may not be sufficient for many photos or graphics. The highest quality setting may cause ink to bleed on certain graphics in combination with certain label stock. Increasing the quality increases print time because the printer makes more horizontal passes across the label.
2. **Clean the Print Head.** Run an automatic Print Head cleaning print or manually clean the Print Head as described in Section 5F.
3. **Change Cartridge.** Try a new Ink Cartridge. Make sure that the ink cartridge has ink remaining. Check the ink levels via the Status Monitor.
4. **Align Print Head.** Normally, Print Head alignment is only necessary after changing a Print Head. However, in certain cases, running the alignment again can improve print quality. Align the Print Head by opening the PTStatus Monitor. Click on the Align Print Head button on the Cartridge Utilities Tab (second tab). Follow the onscreen prompts to load your paper for alignment.

5. **Clean the Maintenance Station.** Power off the printer! Clean the maintenance station located on the right side of the print area. This includes the rubber cartridge nozzle cap and the plastic squeegee. Under normal use this can become dirty with ink. Clean with rubbing alcohol and a paper towel.



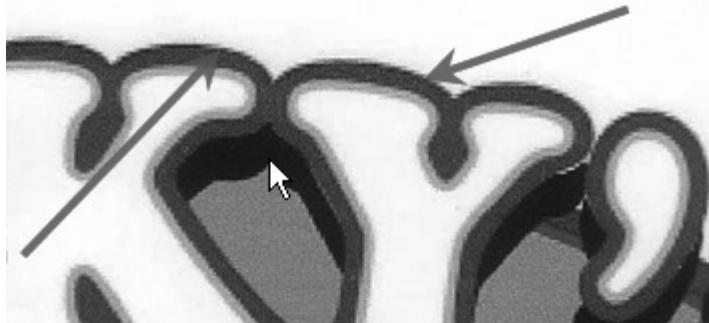
6. **Color Matching.** Change your Color Matching setting to Graphics or Photos via the printer driver preferences. See Section 4F.
7. **Cartridge Setting.** Change the cartridge setting in the driver. Try Color + Black or Color only. To change the cartridge setting, right click on the printer in the Printers and Faxes area - choose preferences -click cartridge - set it to Color + Black or Color. Color only will still print black, but will use the color cartridge to print it. We recommend "Color" only for the best possible quality on photographic images with small amounts of black. If your image has large areas of black text, graphics or barcodes, we recommend Color + Black for the best quality.
8. **Media.** Make sure your label stock is inkjet printable. Many thermal label stocks look the same as inkjet but do not allow the ink to soak into the surface of the media.
9. **Source File Image Mode.** The image mode of the source file may be set to RGB instead of CMYK. This can cause the color matching to be off. Change the image mode of the original file, resave and reprint.
10. **Copper Contacts.** Clean the copper contacts on the back of the print carriage and the contacts on the Print Head with rubbing alcohol.
11. **Image Resolution (DPI).** Try another Image. Perhaps the resolution of the current image is not sufficient for a quality print. Many graphics suitable for viewing onscreen have a DPI of 72. This is the minimum DPI for proper screen display. However, if you print this image it will look blurry and pixelated. Images that are 72 DPI are typically graphics saved for web use. We recommend a 300 DPI image.
12. **Cable.** Try another USB cable. Make sure that it is less than 6ft (2 Meters) long. Faulty cables or cables that are too long interrupt communications which can result in print quality issues.
13. **Saturation.** If ink is bleeding, decrease saturation in driver preferences.
14. **Change the Print Head.** If print nozzles of certain colors are still clogged after repeated cleanings it may be time to replace the Print Head. See Section 5G.

C. Color Matching and Design Tips

Whether you contract your graphic design or do it yourself, these guidelines will help you get the best quality labels out of your LX2000.

1. **Image Size/Shape.** The image size should correspond with the size of the label you will be printing. Note: If the source image is smaller and must be enlarged to fill the entire label space, this will affect the DPI. A 2" x 2" 300 dpi label blown up to fit on a 4" x 4" label would have an effective DPI of 75. This would not be a sufficient resolution. See item 2.
2. **Resolution.** Resolution is measured in dots per inch or dpi. 300 dpi is sufficient to get the best possible quality from most images. A 72 DPI image will look fine on screen but WILL NOT print well. Graphics and logos found on websites are typically 72 DPI. The image below was printed from a 72 DPI image. Notice the jagged edges. Remember, print quality settings found in the label printer driver will have no effect on improving a low dpi source image.

On the other hand, resolutions higher than 300 DPI will not produce better quality but may require more RAM to print and hard drive space to store. They could even slow down the print process.



72 DPI Image printed with the LX2000

3. **Image File Format.** Most graphics are created in a graphic application. Since this graphic application is not usually on the same computer as the label printer doing the printing, it is necessary to export the graphic into a universal format that can be read by other programs. We recommend TIF and BMP files for graphics. These formats are uncompressed. JPG files also work well for graphics that include photographs. All three formats can be imported into the BarTender application.
4. **Color Mode.** Set the color mode in the source graphic application to CMYK. In most cases this will produce the most accurate color reproduction of the image on screen. However, if CMYK is not producing the desired color matching try changing the source image to RGB and then exporting the image again in one of the universal formats mentioned above.

Note: Often it is useful to request that your graphic designer provide you with several different formats for you to try printing. For example you could request your image in six different formats: JPG, BMP, and TIF in RGB color mode and a JPG, BMP and TIF in CMYK color mode.

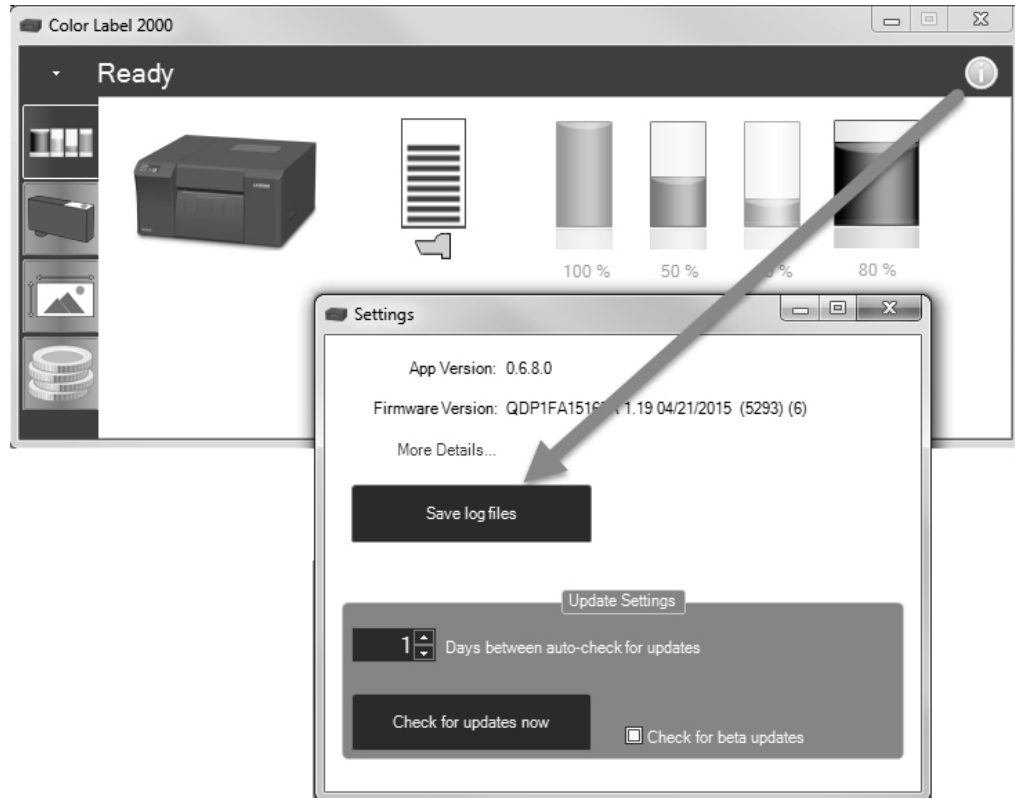
5. **Media Type Setting.** Experiment with the Media setting in the printer preferences (Section 4F) to achieve the best color matching. There are multiple media type options which correspond with the various types of label stock sold by Primera. Match this setting to the media installed in the printer to achieve the closest color match to the screen. Each of these settings employs a slightly different color table developed specifically for the media type listed.

If the printed output is not matching the color on screen, regardless of what media you have installed you can adjust this setting to change the color output.

If you are still not getting the correct color output, the graphic designer may need to change the color values of the source graphic to achieve the proper print output.

D. Save the Log Files

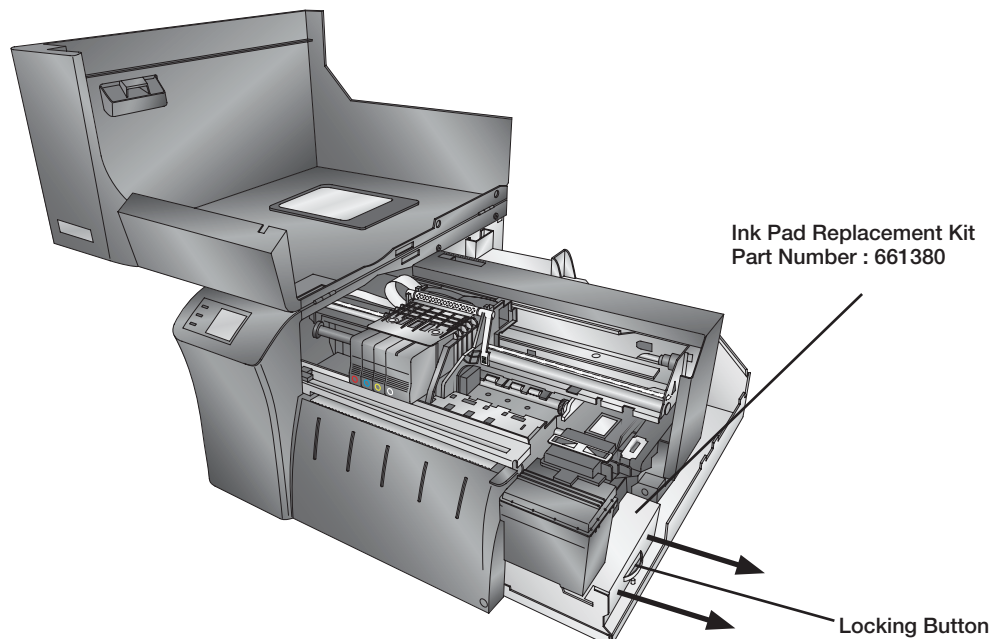
If you are encountering any problems with your LX2000 tech support may ask you to create a Tech Support Report. You can do this from the Status Monitor by clicking the "i" icon and clicking Save Log Files. A zip file will be created on your desktop.



E. Cleaning the Printer and Replacing Ink Pads

Over time, ink overspray may gather at the base of the printer. The printer uses a vacuum system to gather most of this ink on a series of saturation pads. Eventually, these pads may need to be replaced if ink begins to leak or if you notice the ink pad tray is full of liquid ink.

Open the cover. Push down on the locking button. Remove the ink pad tray by pulling it out. Replace it with a new one.

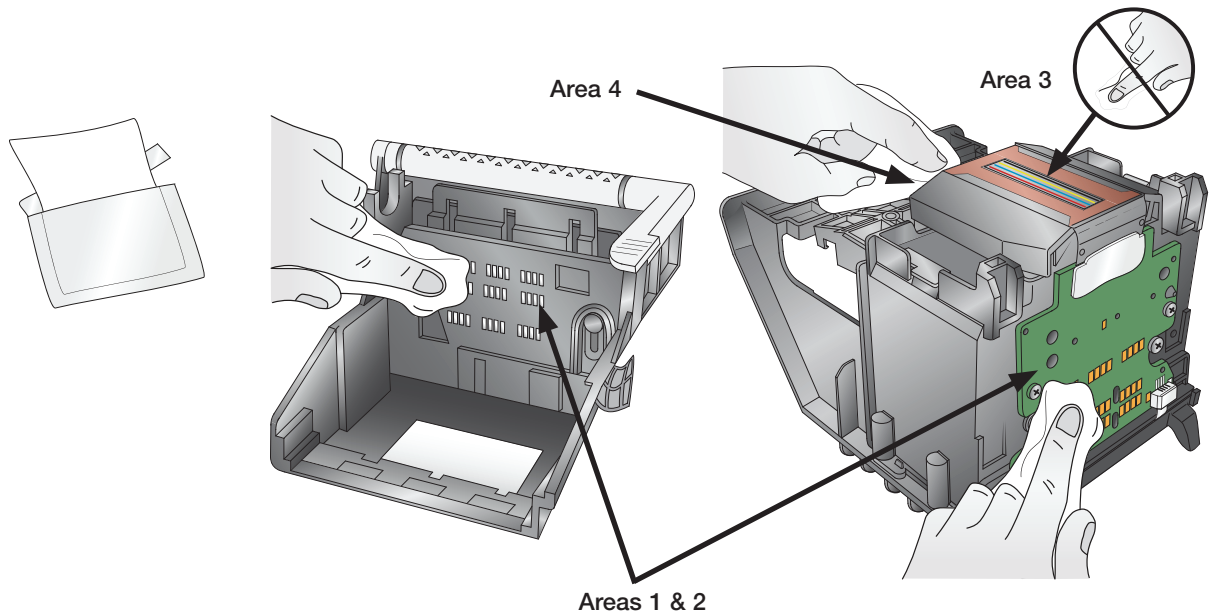


F. Cleaning the Print Head

It may be necessary to clean the Print Head nozzles if you notice reduced print quality, missing colors or if you suspect a cartridge nozzle has become slightly dried out or clogged. Try the following solutions:

1. **Secure Ink Cartridges.** Make sure the corresponding cartridge is snapped into place. Remove and reload the cartridge to make sure an air-tight connection has been made.
2. **Clean the Copper Contacts.** Ink over-spray can build up inside the printer over time causing interrupted electrical signals. Remove the Print Head and clean the copper contacts on the Print Head Carrier and the Print Head.

(Area 1, 2 and 4 below). Do not clean the print nozzles! (Area 3).



3. Clean the Print Head.

DO NOT touch the Print Head nozzles with a tissue or paper towel. This can damage the nozzles! This may be different than previous printers. Instead use the methods described below:

1. Open PTStatus2000.
2. Click Clean Print Head on the Cartridge Utilities Tab (second tab).

You may need to repeat this process up to 4 times depending on how clogged the Print Head is. Only repeat the procedure if you start to see improvement after each clean print.

During this process the printer will make several loud whirring noises. This is normal! This is the sound of a pump forcing ink through the nozzles. If you do not hear this sound, the clean/purge print did not complete successfully. Try again.

4. Preventing Clogged Nozzles.

Clogged nozzles on the Print Head can be caused by not using the printer for extended periods of time. Follow these guidelines:

- Always keep the LX2000 plugged in and turned on. The printer will do periodic maintenance to make sure the nozzles do not clog.
- Never store a used Print Head outside of the printer. The nozzles will dry out with exposure to air. If you must store a Print Head outside of the printer, place full or empty cartridges in the Print Head and put the entire Print Head and cartridges in a sealed plastic bag.
- Use the printer regularly!

5. **Quality Setting.** Change your quality setting. The lowest quality (fastest printing) may not be sufficient for many photos or graphics. The highest quality setting may cause ink to bleed on certain graphics in combination with certain label stock. Increasing the quality increases print time because the printer makes more passes over the media.
6. **Backup Print Head/Cartridge.** The cartridge may be empty or defective. The Print Head nozzle for one color could be clogged. The fastest way to diagnose a quality problem is to have backup Print Heads and cartridges available for comparison testing. If one color is missing, replace that color cartridge(s). Next try replacing the Print Head.
7. **Defective Print Head/Cartridge Replacement Procedure.**

If you think your Ink Cartridge/Print Head is defective, please contact tech support to arrange for a replacement. Tech support may ask you to perform troubleshooting before sending a replacement cartridge or Print Head.

Notes on Ink Cartridge/Print Head Replacement

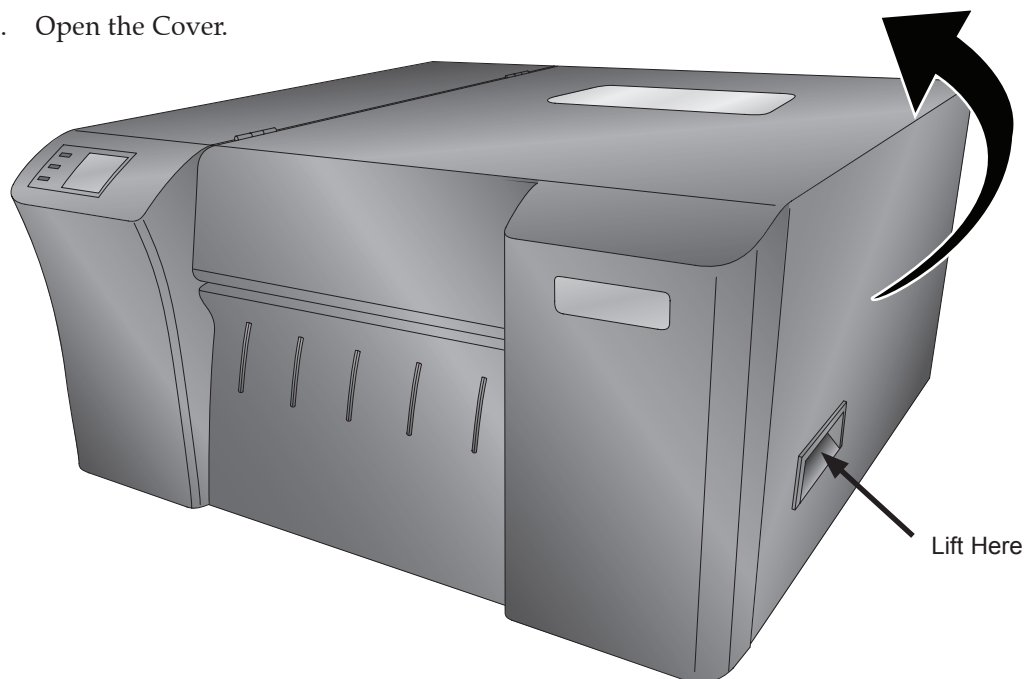
- All replacements for defective cartridges or Print Heads must be processed through Tech Support.
- To receive replacement cartridges, you may be required to send in your defective cartridges/Print Head.
- Tech Support will perform the cleaning procedures and tests mentioned above on all cartridges/Print Heads received.
- Tech Support will not replace cartridges with less than 50% ink remaining.
- Print Heads with zero percent life remaining will not be replaced.
- Print Heads with greater than zero percent life remaining prints may be replaced depending on the description and circumstances of the failure at the discretion of Primera Tech Support.

Replaceable Print Head - Part Number 53467

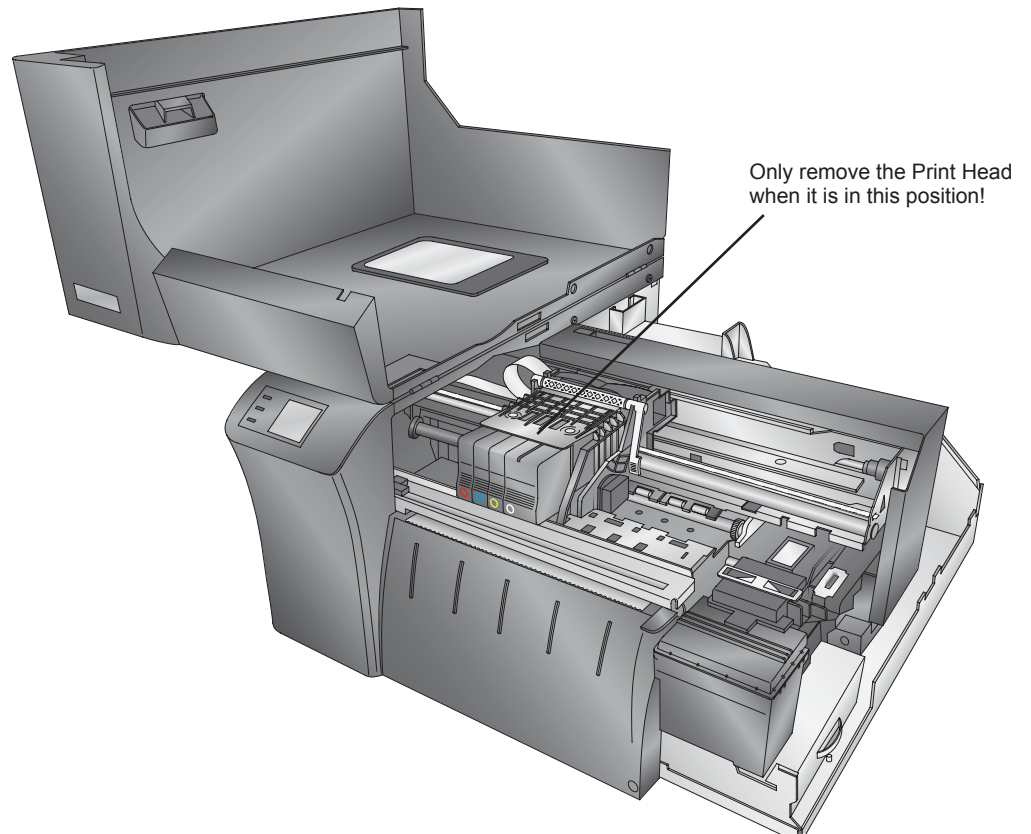
G. Replacing the Print Head

The Print Head may need to be replaced when the Print Head life monitor shows no life remaining. You should purchase a spare Print Head when this life monitor is nearing 0% remaining. You may continue using the Print Head until you notice print quality problems. To replace the Print Head follow the procedure below.

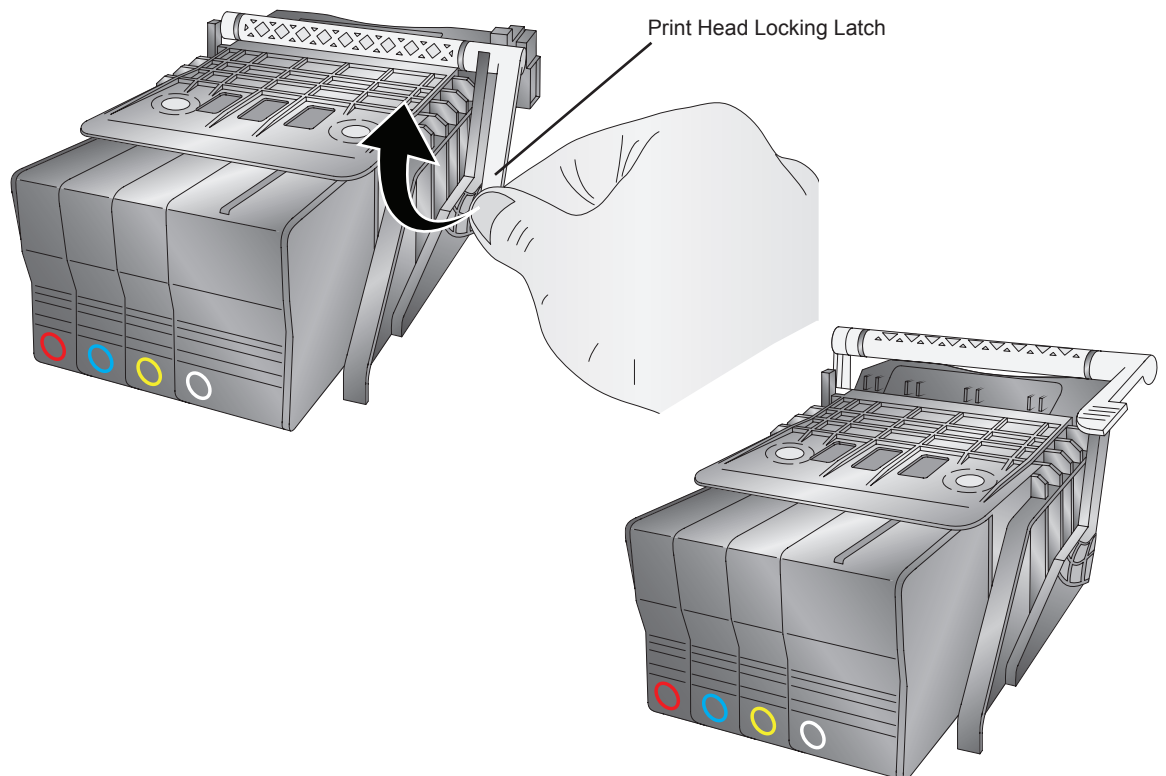
1. Open the Cover.



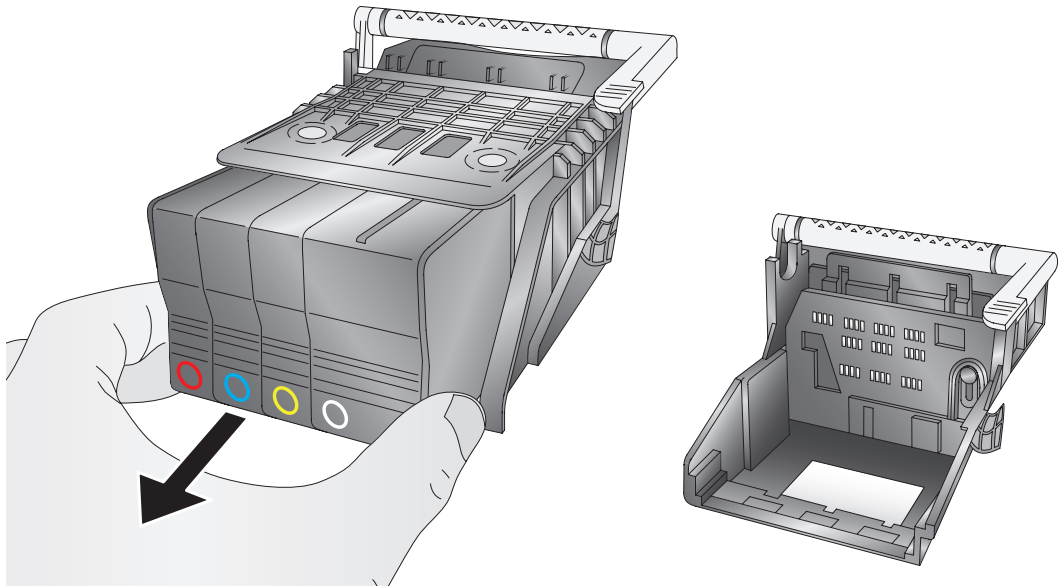
2. When the cover is open the Print Head will move to the center of the printer.
Important! If it does not move to the center as shown do NOT attempt to remove the Print Head. It can only be removed when in the position shown below!



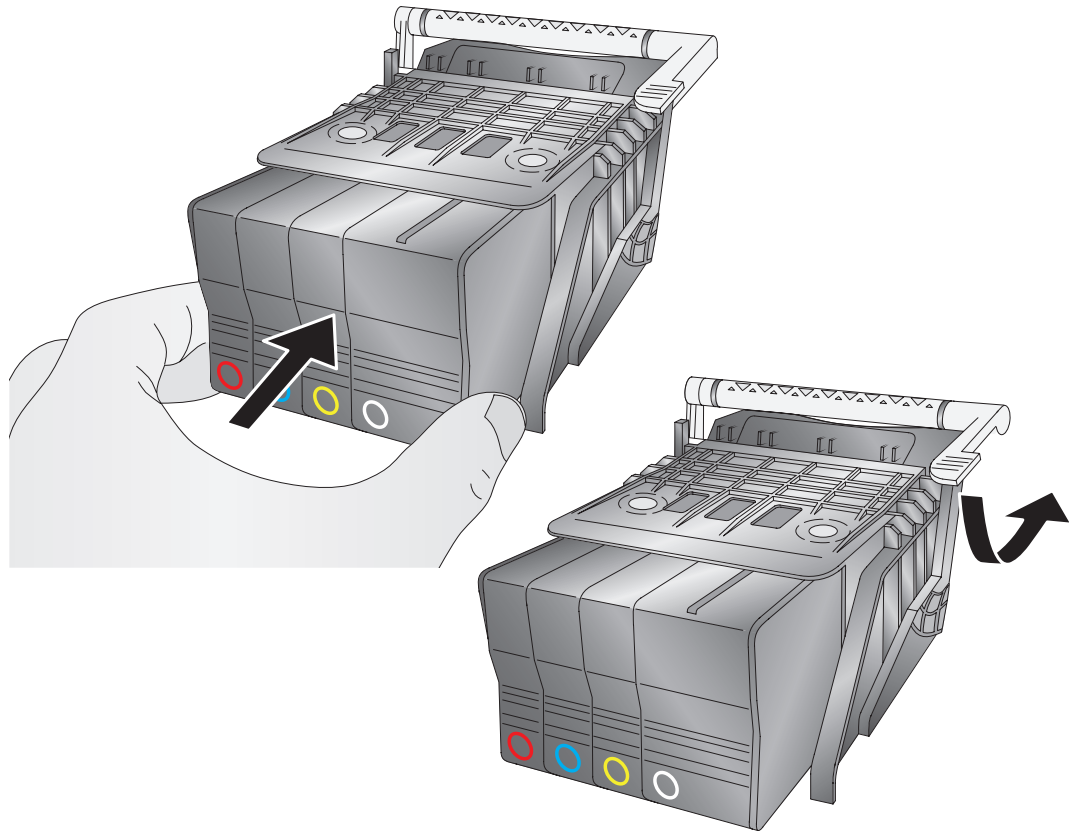
3. Locate the white Print Head locking latch. Unlock it by flipping the hand up.



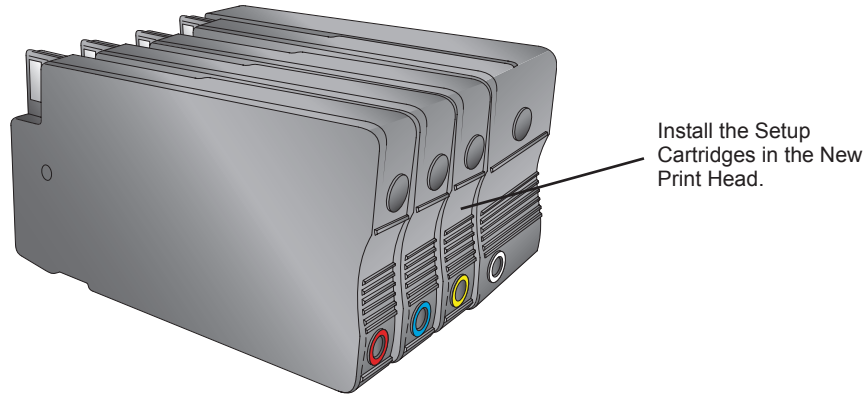
4. Remove the Print Head by pulling outward and slightly upward.



5. Locate a new Print Head. Install it as shown.
6. Lower the latch on your new Print Head.



7. Install the Setup Cartridges that came with your new Print Head. These cartridges are partially filled and specially coded. The Print Head will not function until these cartridges are installed.



8. Close the cover. The priming process of the Setup Cartridges will begin. After the priming procedure is complete, you may use these setup cartridges until they are empty.
9. You will be prompted to run an alignment print once the Print Head has been primed. See Section 3E for more information.

H. Printer Buttons and Lights

Button/Cover Functions:

RESUME/FEED-BUTTON:	
<i>Printer State</i>	<i>Press Action</i>
SYSTEM IDLE:	Feeds to next label, Cuts the label if cutter enabled. Cuts current label in LOAD BUTTON CUT MODE.
SYSTEM PAUSED:	Unpauses system.
SYSTEM BUSY PRINTING	Pauses system.
ERRORS PRESENT:	Retries to correct error or just clears error state
PAUSE/UNLOAD-BUTTON:	
<i>Printer State</i>	<i>Press Action</i>
SYSTEM BUSY PRINTING:	Pauses system.
COVER OPEN:	Unloads stock.
SYSTEM PAUSED:	Unpauses system/Resumes Printing.
CANCEL-BUTTON:	Cancels current job in progress.
COVER OPEN SENSOR:	
WHEN COVER OPENED:	Pauses current job if active, will finish printing current label. Moves Carrier to Head Change Position.
COVER CLOSED:	If closed after it has been opened the Printer will be in pause mode. Press Resume/Feed to continue.
BUTTON COMBINATIONS	
LOAD-BUTTON and UNLOAD-BUTTON	Hold buttons down until Wireless symbol changes; this will toggle the wireless antennae ON/OFF.
LOAD-BUTTON and CANCEL-BUTTON	After 2 seconds will reset the Printer

LED Indicator Lights

RESUME/FEED-LED on solid others off	Printer Ready/Idle
RESUME/FEED-LED flashing fast (6 per second)	Printer error is present -see status monitor for more informaton
RESUME/FEED-LED PULSES, others off	Printer is busy or printing
RESUME/FEED-LED flashing slow (50/50 on/off per second)	Printer is paused by button
RESUME/FEED-LED & PAUSE/UNLOAD-LED flashing slow (50/50 on/off per second)	Printer is paused by external input from 6 pin mini din
RESUME/FEED-LED and PAUSE/UNLOAD-LED alternately flash	Cover is open
ALL LEDs flash in chase mode	Printer is powering up

I. Technical Support

If you have difficulties in operating your printer, the procedures in this manual and the software User's Guide should, in most cases, solve the problem. If you still have difficulty, contact the Technical Support using one of the methods listed below.

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

Section 6: Technical Specifications

Supply roll diameter:	Up to 6" (152mm)
Media liner width:	1.50" to 8.38" (38.1mm to 212.7mm)
Label height/length:	0.75" to 24.00" (19.1mm to 609.6mm)
Supply roll core:	3" ID (76.2mm)
Print width:	0.75" to 8.25" (19.1mm to 209.6mm)
Electrical rating:	12 VDC, 5.0 A
Power requirements:	100-240VAC, 50/60 Hz, 1.7A
Speed:	6 in/sec. in Draft Mode
Agency certifications:	UL, UL-C, CE, FCC Class A
Weight:	45 lbs (20.4 kg)
Dimensions:	19.5" W x 10.2" H x 20.5" D (495mm W x 259mm H x 521mm D)
Connectivity:	Hi-Speed USB 2.0; Built-in wired Ethernet 10/100 Base-TX (RJ45) networking; Built-in wireless 802.11b/g/n networking

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