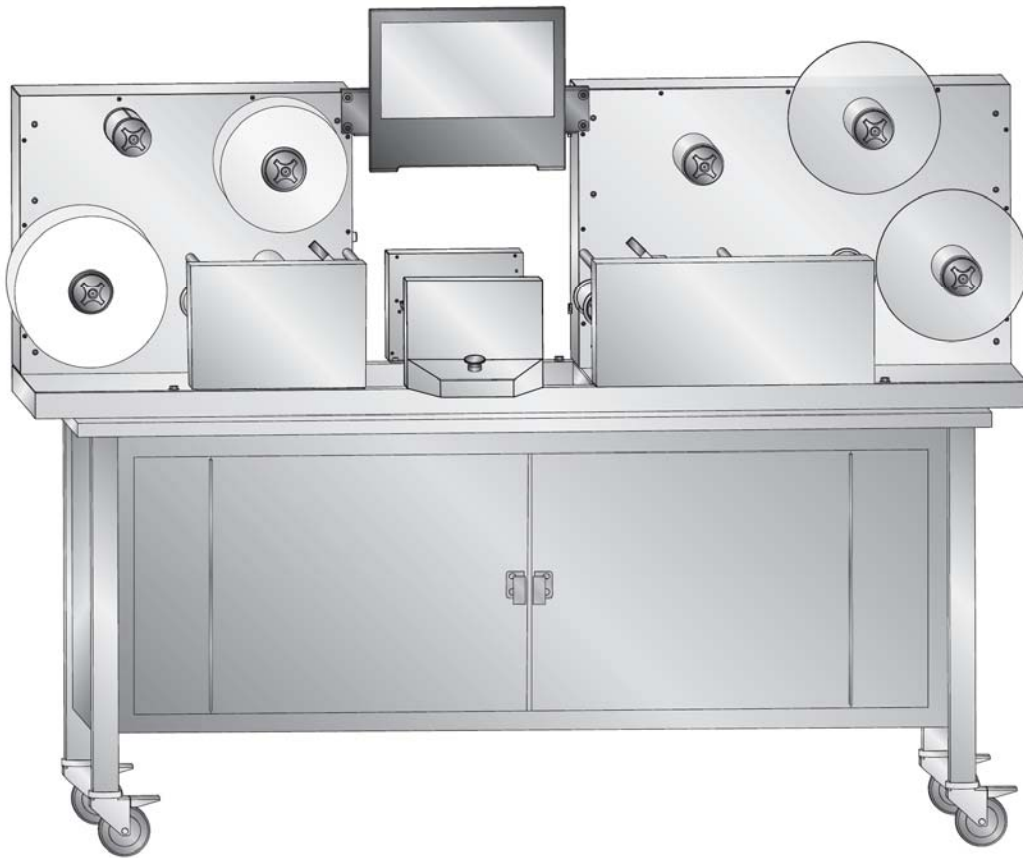# FX1200
DIGITAL FINISHING SYSTEM

Operator's Guide

PRIMERA

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

511242-070912

Trademark Acknowledgments: Primera is trademark of Primera Technology Inc. Windows is a registered trademark of Microsoft Corporation. All other trademarks are the property of their respective owners.

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 19v, 3.42 amps 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 present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

Table of Contents

Section 1: Warnings, Cautions and Notes

Thank you for purchasing the FX1200 Digital Finishing System. Please read the following Warnings, Cautions and Notes before operating your FX1200.

Note: Notes are used to notify of installation, operation, or maintenance information that is important but not safety related.

Caution: Caution is used to indicate the presence of a hazard, which if ignored may result in damage to the unit.

Warning: Warning means that a potential safety hazard exists and indicates procedures that must be followed exactly to avoid serious personal injury.

Warnings

- Do not operate the FX1200 while wearing loose fitting clothing or neck ties. Serious injury may result. If clothing or fingers are caught in the rollers, immediately press the STOP button on the front of the unit.

- Keep your hands away from the FX1200 at all times while the cutter is running. The electric motors in the FX1200 are extremely powerful and are capable of crushing fingers at nip points in the paper path. The nip points are located to the left and right of the cutter mechanism. The nip points are the points where the paper is compressed so it can be pulled or pushed through printer. If fingers are caught in the nip points, press the stop button immediately and open the nip points by pushing the levers to the right.

- Keep hands away from the cutter mechanism while the FX1200 is in use. It has a sensor monitored cover to prevent access during use. Do not attempt to alter or trick the cutter cover sensor or any other safety sensors on the FX1200. Serious injury may result.

- When replacing Slitter blades work from the back blade housing to the front. This will minimize the chance of injury since you will not be working over already installed blades. Use the magnetic covers whenever possible.

- 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 are inside. Refer to qualified service personnel. Operate the unit with only proper electrical specifications as labeled on the unit and the AC adapter.

Caution

- Do not expose adhesive when splicing new media to existing media at any point in the system.

- Do not use media that is wider than specified in the specifications section of this manual.

- Avoid harsh chemicals when cleaning the touch screen.

- Avoid touching the screen with dirty or greasy fingers.

- Do not touch the screen with sharp objects. Use only your fingers or the included stylus to touch the screen.

- Do not begin cutting labels until the splice point between new and old media has passed the cutter mechanism.

- Do not store materials in the FX1200 cabinet while it is in use. The dancer arms move rapidly up and down during operation. Materials stored in the cabinet may cause damage to the FX1200 dancer arms.

Notes

- The FX1200 cannot run while the cutter cover is open. Close this cover to run the FX1200.

- Clean the Touch screen with water and micro fiber cloth. Use side to side or up and down wiping motions.

- When replacing knives always replace all knives in a particular knife set.

Section 2: Overview of Parts and Accessories

Section 2.1: What is Included

The FX1200 includes everything you need to begin finishing labels immediately. The following items are included.

- Touch Screen Computer and power supply (refer to separate document attached to exterior of the shipping crate for mounting instructions)

- Euro and USA/Japan power cord located in supply box.

- 7 Slitter Blades. These are preinstalled in the unit.

- 10 Knives/Holders. Knives come preinstalled in color coded holders. You should have 1 red knife, 2 green knives, 3 blue knives and 4 silver knives. These are located in the supply box.

- 10 Plastic Depth Gauges. Depth gauges are used to adjust the blade depth. They screw onto the end of the knife holders. They are only used in rare circumstances where adjusting knife pressure is not a fine enough adjustment to prevent the knife from puncturing the liner. (Section 3.3D)

- Assortment of Cardboard Cores. (Located in the media box)

- 2 mm Hex Driver.

- 3mm Hex Driver.

- Utility Knife

- Starter Roll of Lamination Film – 500 feet.

Section 2.2: Indentifying the Parts

FX1200 Overview

Touch Screen Computer

Lamination Liner Mandrel
(Optional)

Upper Take Up Mandrel

Lamination Mandrel

Waste Matrix
Take Up Mandrel
(Weeder)

Unwinder
Supply Mandrel

Lower Take Up Mandrel

Lamination Station

Slitter Station

Cutter Mechanism

Left Dancer Arm

Right Dancer Arm

FX1200 Supply Side (Left)

Core Engagement Knobs

Laminate Guide Roller

Structural Bar

Nip Lever

First Media Guide Roller

Third Media Roller

Left Side Nip Point /
Lamination Roller

Second Media Roller

Nip Roller

FX1200 Cutter Mechanism

Carrier Thumbscrew

Pinch Roller Pressure Thumbscrew

Knife/Knife Holder

Pinch Rollers Release Levers

Pinch Roller

Knurled Roller

Left Cutter Guide Roller

Reference Latch

Right Cutter Guide Roller

FX1200 Take Up Side (Right)

Waste Matrix
Take Up Mandrel
(Weeder)

Right Side Nip Point

Slitter Blades

Core Engagement Knobs

Nip Lever

Second Media Roller

Slitter Rollers

Media Guides

First Media Guide Roller

Nip Roller

Waste Matrix
Peel Roller

Take Up
Guide Roller

Touch Screen Layout

The touch screen includes four tabs that contain all of the information necessary to interact with all aspects of the FX1200.

**Setup Tab**

The setup tab is used to load cut files and set the number of knives to use in a job. Click Browse to load the cut file you want to run. After a cut file has been loaded it will be interpreted by the software. The software will tell you how many knives can be used with the chosen cut file. If a number button next to the "Knives Available" area is grayed out then that quantity of knives is not possible with the job. The Track will give you the total linear feet a set of knives has been used to cut jobs. The linear feet should be reset each time a new set of knives is installed.

After you have loaded a cut file using the Browse button, a preview of the cut will be generated in the center of the screen. You will be able to verify the cut file is correct and make sure a target mark is found. Use the zoom buttons to closely analyze a cut. Click the "Select Mode" button to draw a square around an area and automatically zoom on that area.

Note: If a target is not found in the cut file the FX1200 will still proceed with the job, but not register to each page.
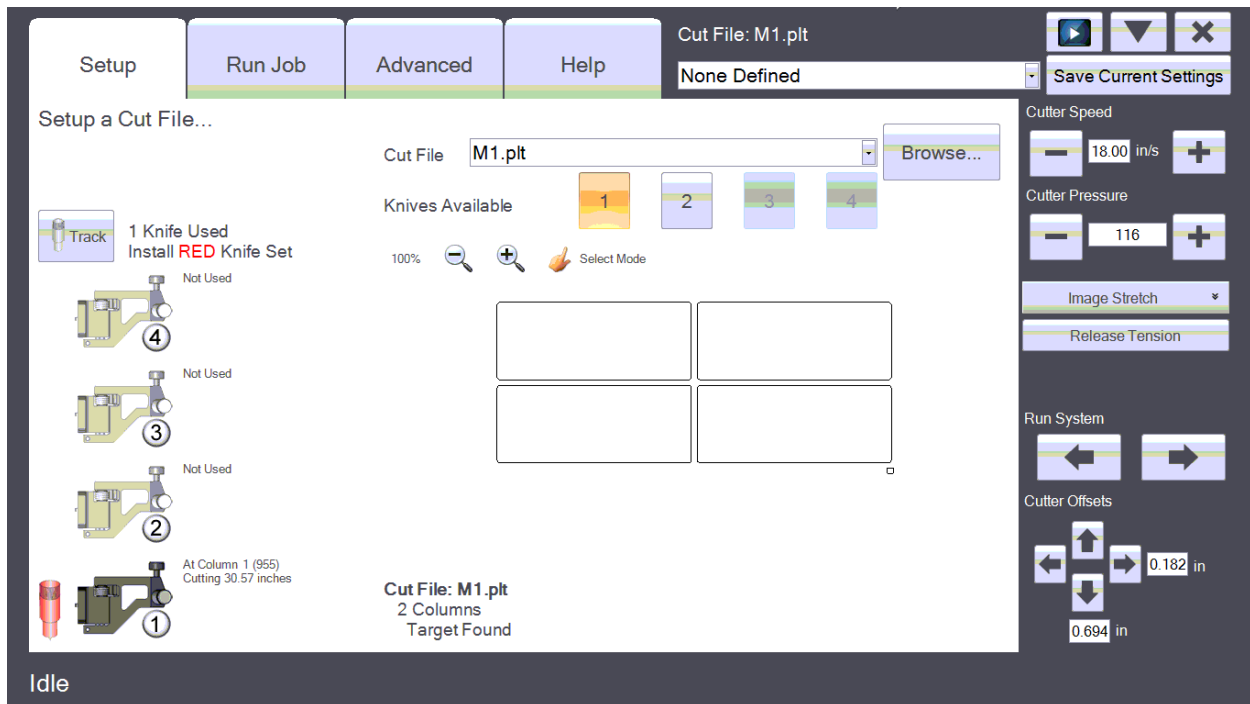

The controls on the right are available on all tabs.

Run Job Tab

This screen allows you to enable\disable mandrels, adjust tension levels on mandrels, score the face stock for easier start-up when weeding, release tension on the entire FX1200, Run 1 Copy of the cut or Run the entire job.

Error conditions for the FX1200 will be displayed in the center of the screen on the Run Job tab. After you have corrected the error click the 'X' to clear. You can also open\close the cover of the cutter mechanism to clear errors.
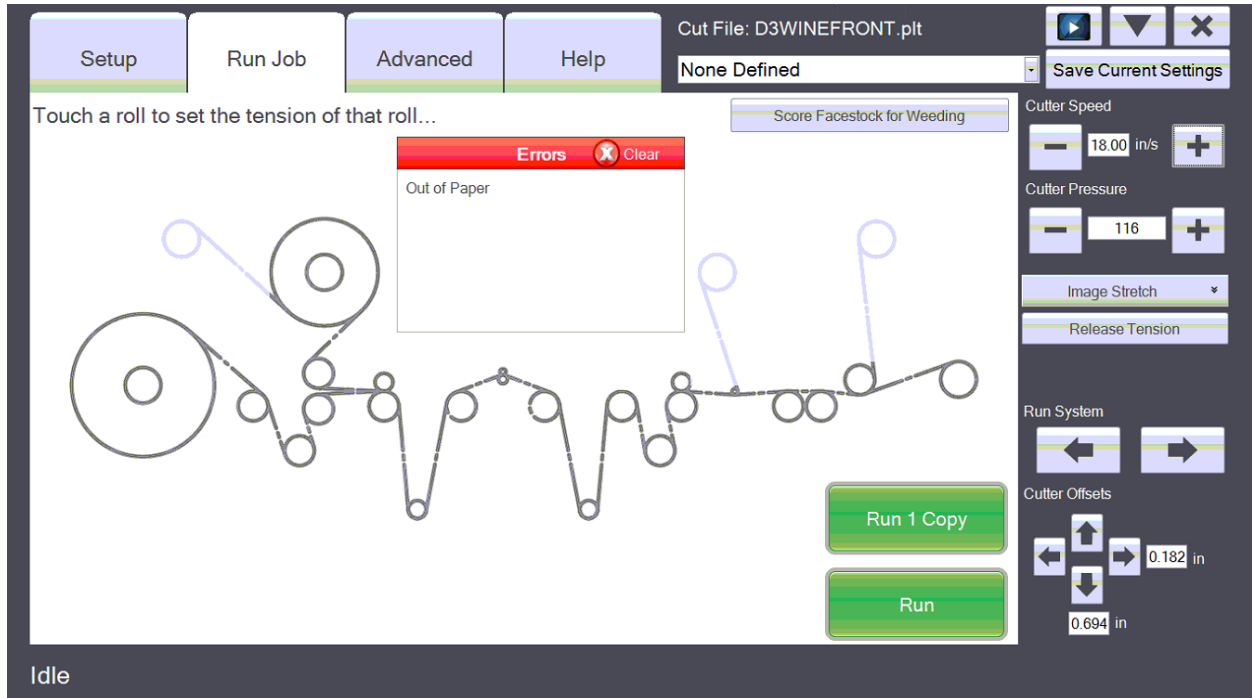
Touch the mandrel to enable, disable or adjust tensions. A window will open giving you the ability to make changes. Upper take up and lower take up mandrels have additional options for the wrap direction (Upper) and Edge Trim Mode (Lower).
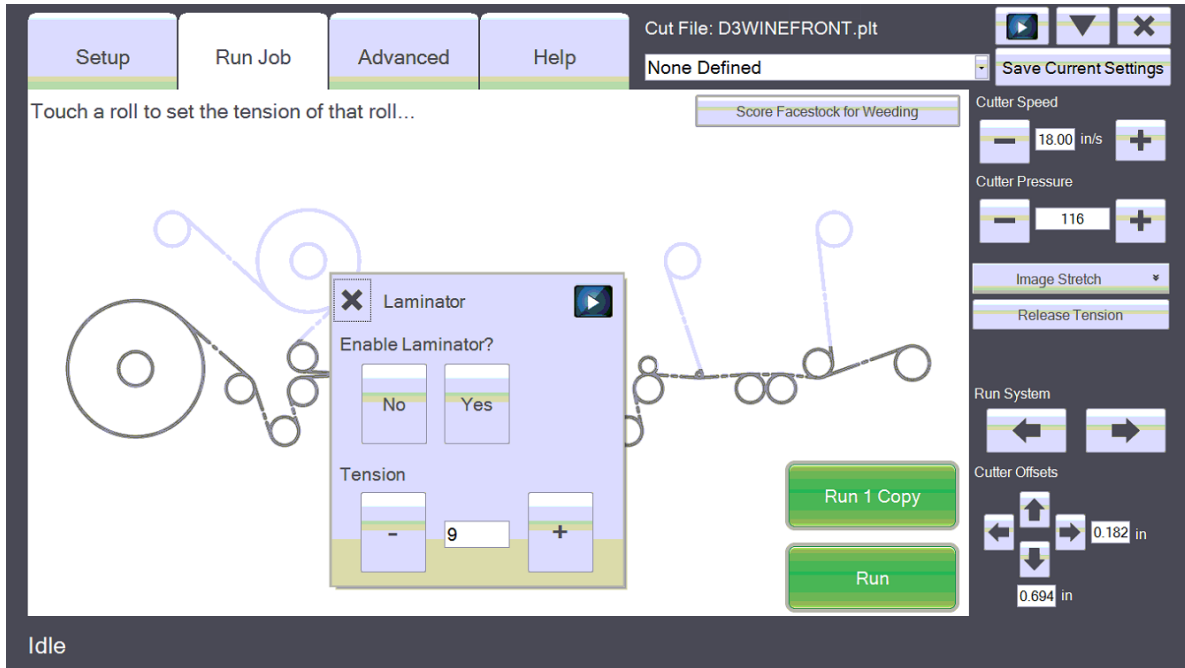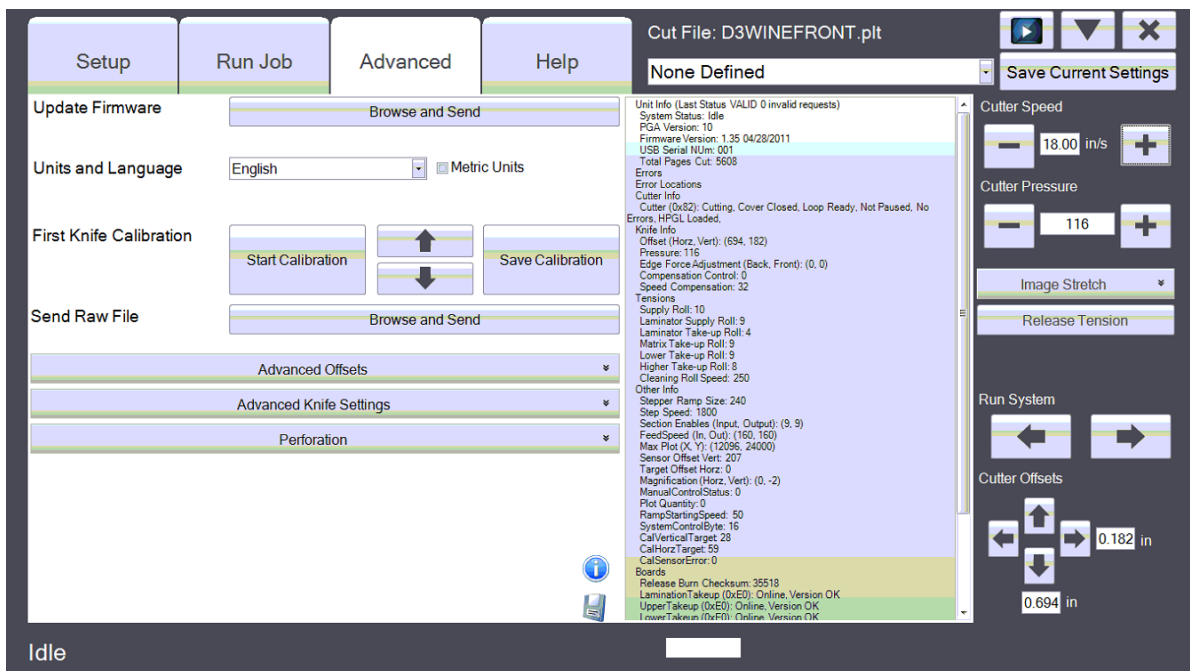

Advanced Tab

The Advanced Tab contains advanced setup and calibration options. Do not edit these settings unless directed to do so by Primera tech support.

Help Tab

The Help Tab contains this Operator's Guide along with other tech support links and tools.
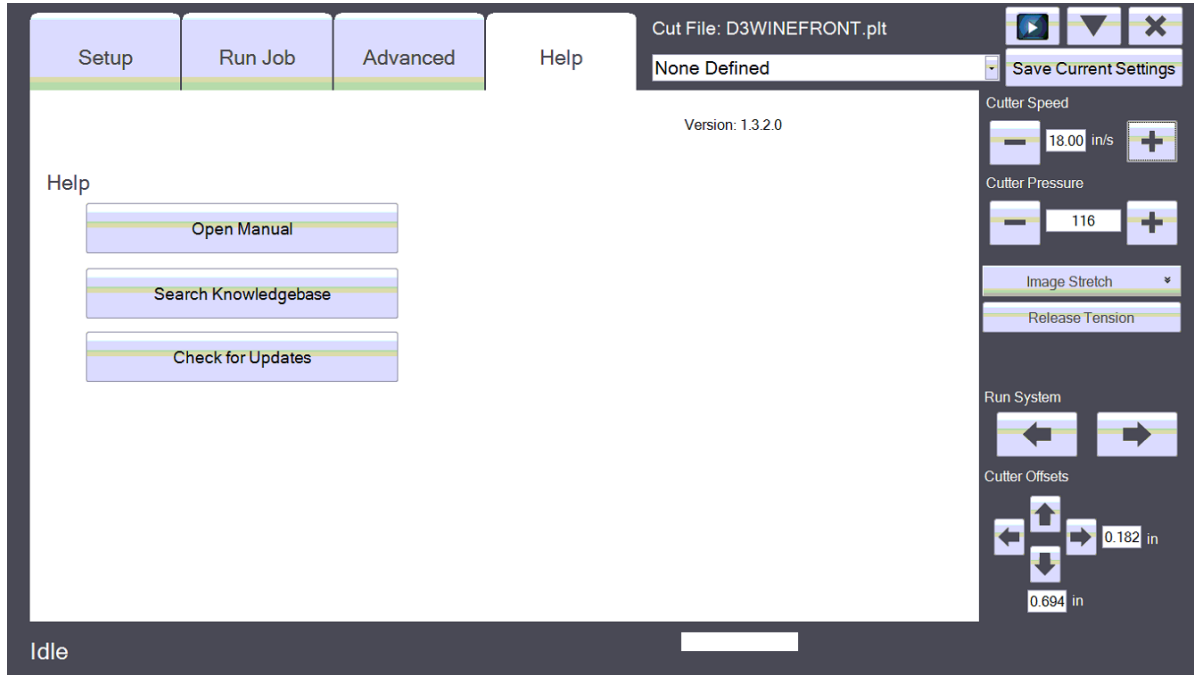
Setup Video

The Setup Video can be accessed at any time by pressing the Video Play Icon. This icon appears at various points in the software and will jump to the applicable section of the video depending on where you pressed the icon.

Section 2.3 Consumables and Accessories

Lamination Film

A 500 foot length of high gloss lamination film is included with the FX1200. Primera recommends use of lamination film. Using lamination film has the following benefits.

- Eliminates cutter and toner dust that would normally accumulate from cutting un-laminated material
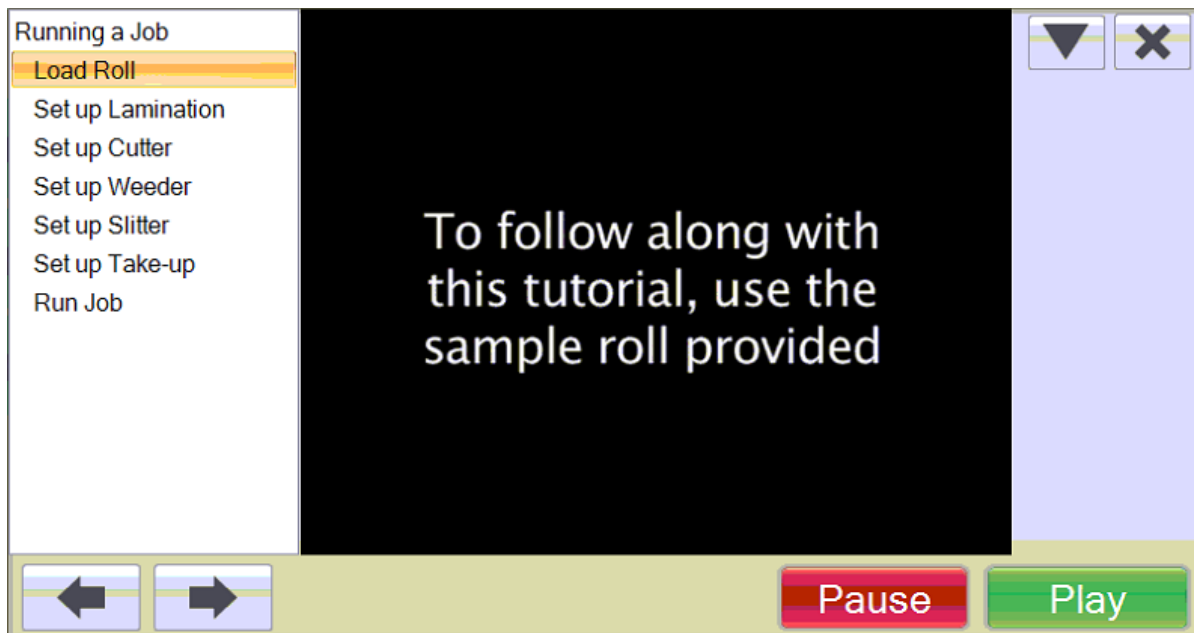
- Adds gloss finish to otherwise matte paper. This is really the only way to add gloss to a label. Since the toner from a digital printer such as the CX1200 is matte, printing on glossy material will only create gloss on non printed areas. Lamination adds gloss to the entire label and allows you to use cheaper matte paper.

- Added UV protection.

- Water resistance on paper labels. Waterproof labels (complete submersion of the label in water) will still require the use of a synthetic material since the paper and adhesive will still break down when subjected to continuous water contact.

- Add strength to the label. This is especially important if the matrix pulled up on the weeder has very thin edges or interior spacing.

- Higher scratch resistance

Lamination film is available in a large array of thicknesses, types of adhesives, amount of UV protection, etc. The most common films are made of polyester and polypropylene. Polyester is generally more expensive but has fewer tendencies to yellow over time. The type of film normally used on FX1200 is called "self-wound." This means that there is no liner; instead, the film wraps around itself. Self-wound film is generally less expensive than film with a liner. Laminating film with a liner can also be used if you order the optional Lamination Liner Mandrel.

The maximum web width for the FX1200 is 8.50". Primera recommends a laminate width of 8.25" for easier setup. The extra .25" will allow you to center the laminate on the media and reduce the likelihood of it walking off the edge of the label roll.

Optional Cleaning Brush

You may elect to have a cleaning brush installed at the factory or you may add one later.

A cleaning brush may be necessary if you regularly cut labels without lamination.

The clean brush assembly includes a brush that turns when the labels feed through the system. To clear the dust you must attach the brush to a vacuum system. The simplest implementation of this could use a standard Shop Vac with a 2 inch hose adapter.

Slitting Blades

Seven slitting blades are preinstalled in the FX1200. Seven can be used in the slitting station at one time.

Always start a new blade on position 1. When you notice the blade starting to dull, rotate the blade to the next position. The typical sign of a dull blade would be edges that are fuzzy or tearing. As each position dulls, mark it with an X to indicate that it should no longer be used. It is only necessary to replace a blade when all four positions on a blade are dull.

Cutting Knives and Knife Holders

Ten cutting knives are included with the FX1200. They are preinstalled in the knife holders.

Cutting knives last for approximately 40,000 linear feet of cutting with our standard matte label paper without lamination. This number will vary greatly depending upon materials used, cutting force, lamination etc. As the knives wear over time, the cutting force may need to be increased. The knife will not wear enough within one roll to require a change in force.

When using multiple knives you should use the knife set specified by the software. This will cause the knives to wear evenly.

> 1 knife cut = Red knife set
> 2 knife cut = Green knife set
> 3 knife cut = Blue knife set
> 4 knife cut = Silver knife set

Depending on the number of columns in your cut file the software will prompt you to use a specific knife set. In order to use multiple knives, the number of columns must be divisible by the number of knives.

For example a 4 column cut will allow you to use 1 knife, 2 knives or 4 knives. A 5 column cut will only allow 1 knife to be used.   A 6 column cut will allow you to use 1 knife, 2 knives or 3 knives.

Note: When replacing knives always replace all knives in a particular knife set.

Cutting knives can be ordered from Primera in matched sets depending on which color you need to replace.

Knife holders hold the knives in place for cutting.   You will not need replacements unless knives holders are lost or you would like to maintain additional knife sets. However, the software will only track 4 sets of knives at one time.

Cardboard Cores

Various sizes of Cardboard cores will be necessary to wind up your finished labels.   An assortment of sizes is included with your FX1200. Additional sizes are available from Primera.

Generally, you should always use cores that are the same width as your finished roll (label width + liner margins). You may also use cores that are slightly smaller.   Using larger width cores may create problems applying labels with some types of applicators.

# Section 3: Run a Job

Section 3.1: Load Roll and Splice to Web

Tools Required: Scissors, Marker

Notes Before Beginning:

- It is highly recommended that you always leave enough footer on the end of your previous job to allow for easy splicing of new material. Approximately 12 feet of footer is necessary if you intend to cut and wind every label from your previous job. If you follow this recommendation you will never have to re-thread the FX1200.

- The FX1200 comes from the factory pre-threaded. These instructions assume that material is attached to the supply mandrel and lower take up mandrel. If you have not left enough material or it was necessary to remove the paper for some other reason please see section 5.2 to find instructions on how to rethread the system.

- The following instructions represent one possible way to setup a job. You may develop your own procedures over time which may work equally well for your use of this system.

Warning: Before starting a new job, always make sure the waste matrix from the previous job has been cut. Cut the matrix as close to the web as possible and make sure to press the stock back on the liner before advancing the system forward. This will prevent the facestock from getting stuck in the slitter. Roll the excess matrix onto the weeder mandrel.

1. Press "Setup Tab" on the touch screen.

2. Press "Release Tension" This will release back tension on the supply roll and allow you to load a new roll.

3. Turn the unwinder/supply mandrel forward just enough to give you slack in order to cut the web directly over the supply mandrel. This will give you enough slack so that you can splice the new roll.

4. Loosen the core engagement knob and remove the remaining portion of the previous roll.

5. Place the new roll on the unwinder chuck. Push it back until it touches the media guide.

6. Turn the core engagement knob clockwise to lock the roll in place.

7. Peel back approximately 3 inches (7.5 cm) of label from the liner of the new roll.

8. With the scissors, cut and remove 2 inches (5 cm) of liner. This will expose 2 inches of adhesive.
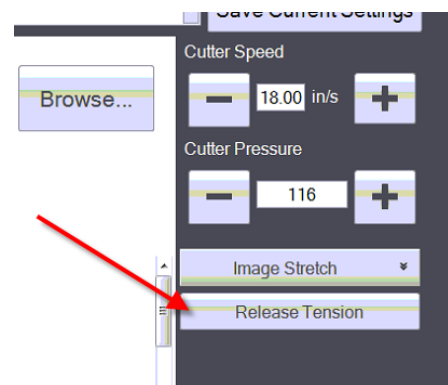
9. Align the web and new label roll with the guide.

10. Attach the new roll to the web. See graphic below.

11. **Warning!** Do not expose adhesive on the bottom of the web! It can stick to the left side nip point and wrap around the rubber roller.

Warning!

When splicing a new roll of labels **do not** allow adhesive to be exposed on the bottom of the web.
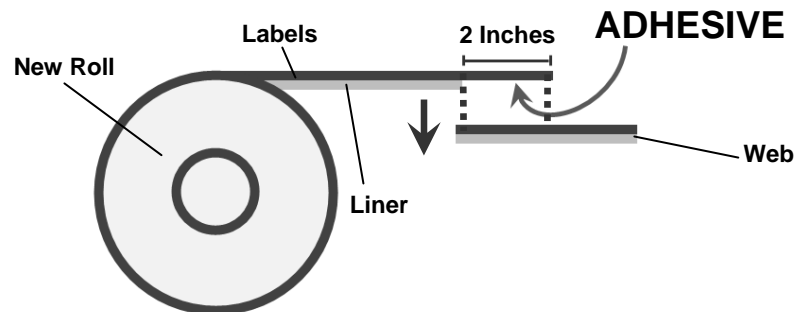
12. Mark the splice point. This will be needed later when running the media through the system.

3.2 Setup Lamination (Optional)

Tools Required: Utility Knife

Note: Before you attempt to attach the laminate film to the paper it is very helpful to add a paper starter strip to the end of laminate roll. This strip adds strength to the film and allows you to hold on to it without it folding over on itself. Simply cut a 2" by 8" strip of paper or label material. Peel back some of the film. Attach the paper starter strip. Now cut through the paper and the film so that the edge of the film and the paper are the same.

1. Load the laminate roll. Orient the roll so that the adhesive is facing to the left when the laminate is pulled from the roll.

2. Center the roll on the chuck. You may need to make some adjustments depending on the width of the web. Make sure that no adhesive from the laminate film is exposed on the under side of the web. This will build up on the nip point rollers and cause the web to slip. Lamination film should always be narrower than the width of the web.

3. Grasp the paper starter strip.

4. Pull the laminate film under the laminate guide roller.

5. Attach the laminate between the laminate guide roller and the left side nip point. Center the laminate on the web.

   Note: Once you have placed the laminate on the web, do not pull it up again even if it is not straight. As long as the laminate roll is centered above the web, the laminate position will self correct. You may see some wrinkling of the laminate until it is corrected. If the laminate is not centered on the web after it has self corrected, move the roll of laminate forward or back to center.
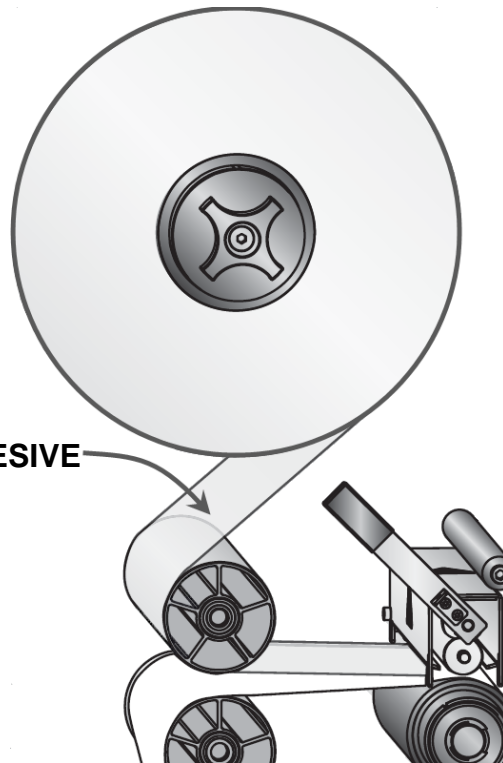
6. Remove the paper starter strip using a utility knife.

7. Enable lamination on the touch screen. Setup Tab – Setup Components – Touch the lamination mandrel.

8. Run the system forward until the splice mark is past the cutter or until smooth lamination reaches the cutter.

ADHESIVE

Note: If you add or remove laminate you will need to increase or decrease cut pressure by approximately 15 units from the pressure setting set for the previous job. See section 3.3D.
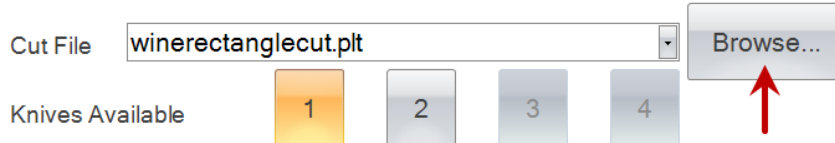
3.3 Set Up Cutter

Note: Before setting up the cutter or making any cuts make sure the splice point is past the cutter mechanism. Also make sure any wrinkles in lamination are past the cutter.

Warning: You should always cut smooth lamination to avoid damaging the cutter blades.

A. Load Cut file.

1. To select the cut file go to the Setup Tab, click the Browse button.

2. A browse screen will appear. Use the left column to navigate folders and the right column to pick the cut file. You can browse to a network folder, a folder on the touch screen hard drive or a USB memory stick.

3. The location of the last cut file will be the default location that appears on the right side of the browse window.

4. A preview of the cut will appear. Below the preview, the file name, the number of columns and the target status will be displayed. Use the zoom controls at the top of the cut preview to view details of any area of the cut.
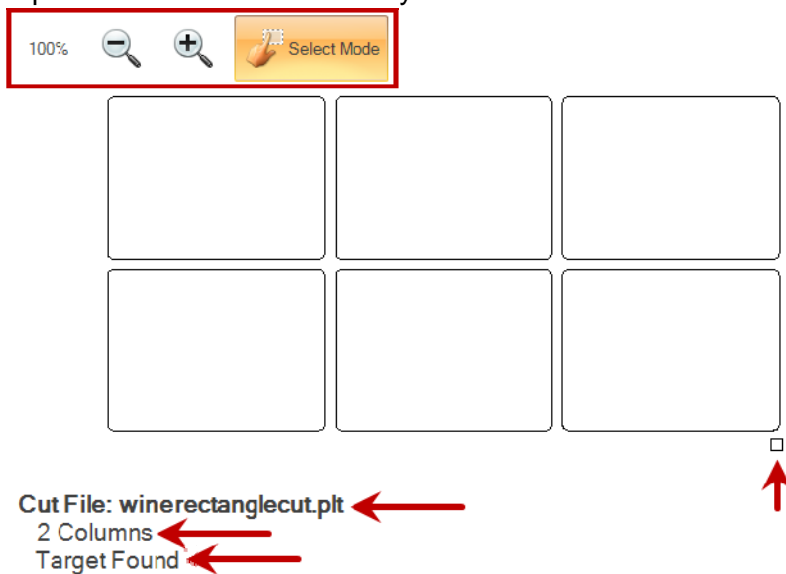
Note: If you want to avoid transferring files via USB stick, it is recommended that you set up a shared folder location on your network that is accessible by both the cut file creation software (PTPrint) and the FX touch screen computer.

B. Set Up Multiple Knives

Every cut file can be cut with a single knife. However, to increase throughput it is possible to use multiple knives on most cut files. To find out if a cut file can use multiple knives look at the Setup Cut File screen and check the knives available section at the top. If multiple knives are available, that button/number will be lit up. If it is not available it will be grayed out.

2 or 4 Knives Available

Depending on the number of columns in your cut file the software will prompt you to use a specific knife set. In order to use multiple knives, the number of columns must be divisible by the number of knives.

For example, a 4 column cut will allow you to use 1 knife, 2 knives or 4 knives. A 5 column cut will only allow 1 knife to be used.   A 6 column cut will allow you to use 1 knife, 2 knives or 3 knives.

In some cases even though the number of columns is divisible by the number of knives, you may not be able to use multiple knives. This is because of physical limitations in the movement of the carriers. Carriers can only move within a certain range so two narrow columns at the front of the web may not be cut by multiple knives. Problems like this can usually be resolved by editing your label layout.

When using multiple knives you should use the knife set specified by the software. This will cause the blades to wear evenly.

> 1 knife cut = Red knife set
> 2 knife cut = Green knife set
> 3 knife cut = Blue knife set
> 4 knife cut = Silver knife set

To add a knife, use this procedure:

1. Remove current knife in carrier one.

2. Insert the knife set indicated by the software in the carriers specified.

Note: It is not always the first two carriers. In fact if you are cutting a two column print, it is more likely that carriers 1 and 3 will be used.
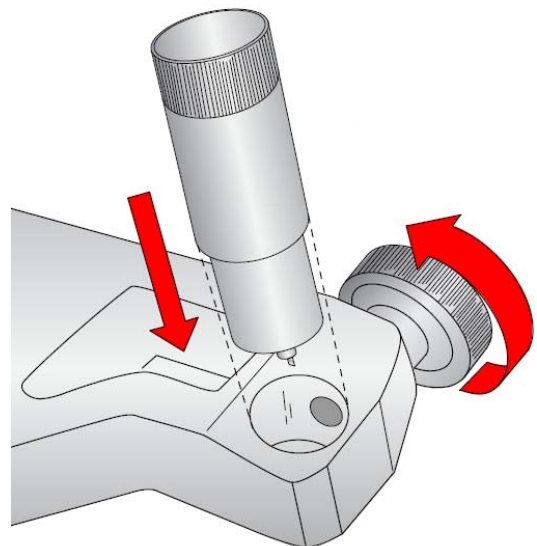
3. Loosen the thumbscrew on the knife carrier indicated in the on-screen diagram.

4. Move the knife carrier forward or backward so that the reference latch can be moved into the notch on the knife carrier.
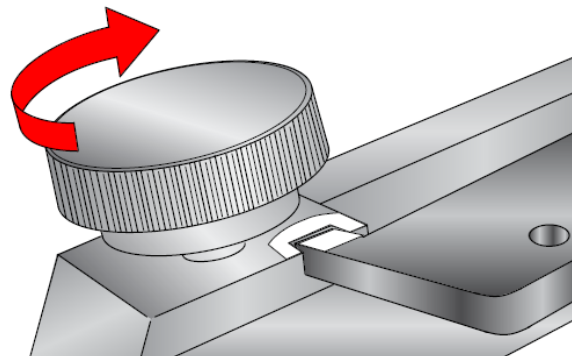

Notch

Thumbscrew

Reference Latch
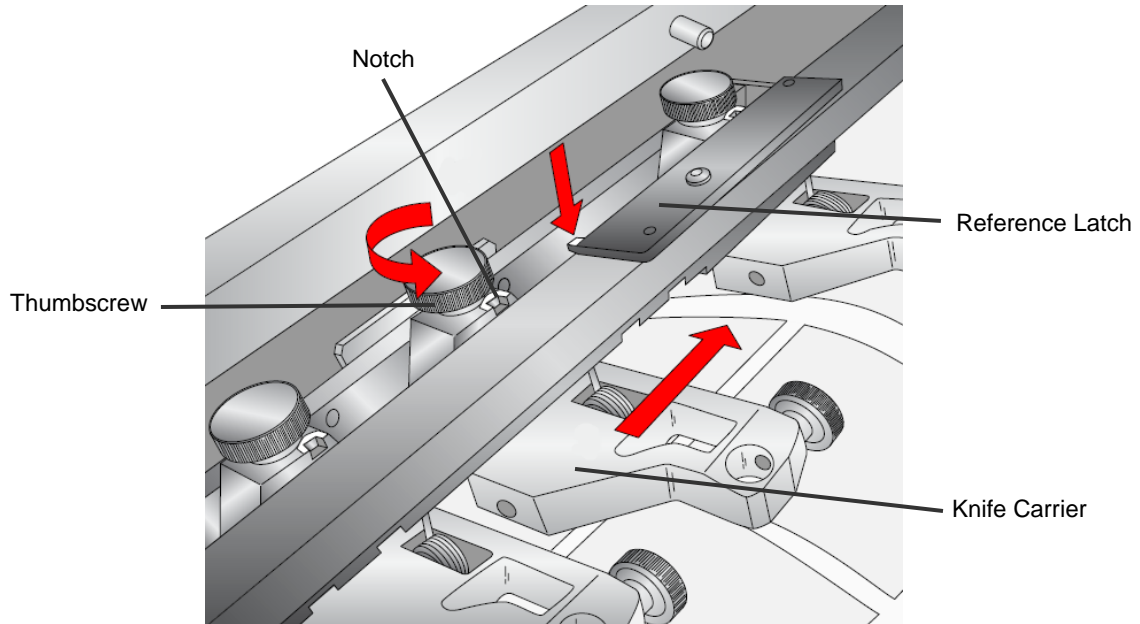
Knife Carrier

5. Push the latch into the notch.
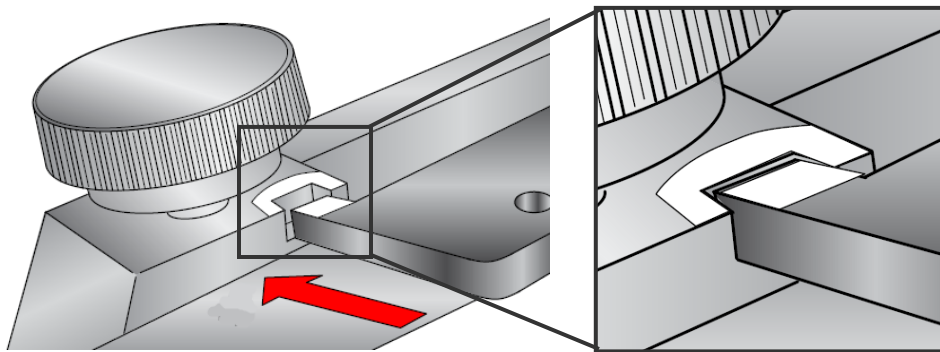
**6.** Tighten the thumbscrew to lock the knife into position.

7. Repeat steps 3-5 for each knife carrier depending on the number of knives selected.

C. Adjust the Pinch Rollers

Before making your first cut it may be necessary to adjust the pinch rollers. For now, just make sure that the rollers are spaced evenly across the web.

1. To move the pinch roller push down on the release latch.

2. Move the rollers so that they are equally spaced across the web. (You may have to adjust this later when you know exactly how your labels will line up).

3. You can increase or decrease the pressure of the roller by turning the thumbscrew on top. Turn clockwise to increase pressure and counter clockwise to decrease pressure.
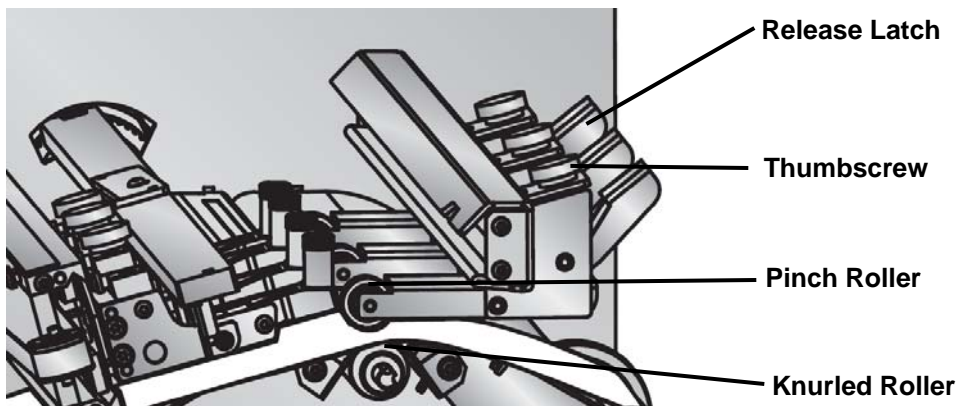
The pinch rollers exert downward pressure on the web.   The web is pinched between the knurled rollers and the pinch rollers.   The knurled roller beneath the web is what moves so that the web can move back and forth in order for the cut to be made. The knurled roller is essentially a drive roller with metal spikes that grab the back liner of the web.

You want to exert enough pressure so that the web does not slip when the cut is being made. If the web slips you will see cut lines that do not meet on cut objects.

If you exert too much pressure you will see knurled roller marks on your finished output. To avoid this you can adjust the position of the pinch rollers so that they do not touch the finished label. You can position them on the edges and in between columns.

Note: Always use all three pinch rollers. Position the outside pinch rollers on the edge of the web so that each pinch roller is completely on the web. Position the center roller in between columns.

See Section 4.3 for tips on how to design your print layout around the pinch rollers.

D. Find the Eyemark / Target

With your knives in position, cut file loaded, pinch rollers positioned, lamination enabled (optional), you are now ready to make your first cut. These first cuts will allow you to analyze the quality and position of your cut.

1. Run the system forward until the first eyemark is close to carrier one.

2. Release the pinch rollers by pressing down on each of the release latches.

3. Hold the paper beneath the guide rollers on either side of the cutter.

4. Move the paper backward or forward until the eyemark is in the window of the first carrier.

Eyemark

Carrier One
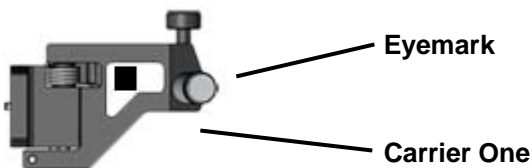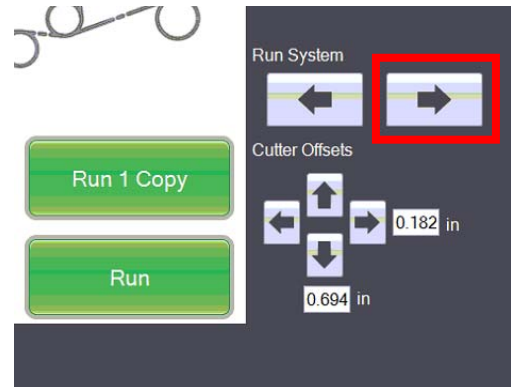
5. Engage the pinch rollers.

6. Press "Run 1 Copy"
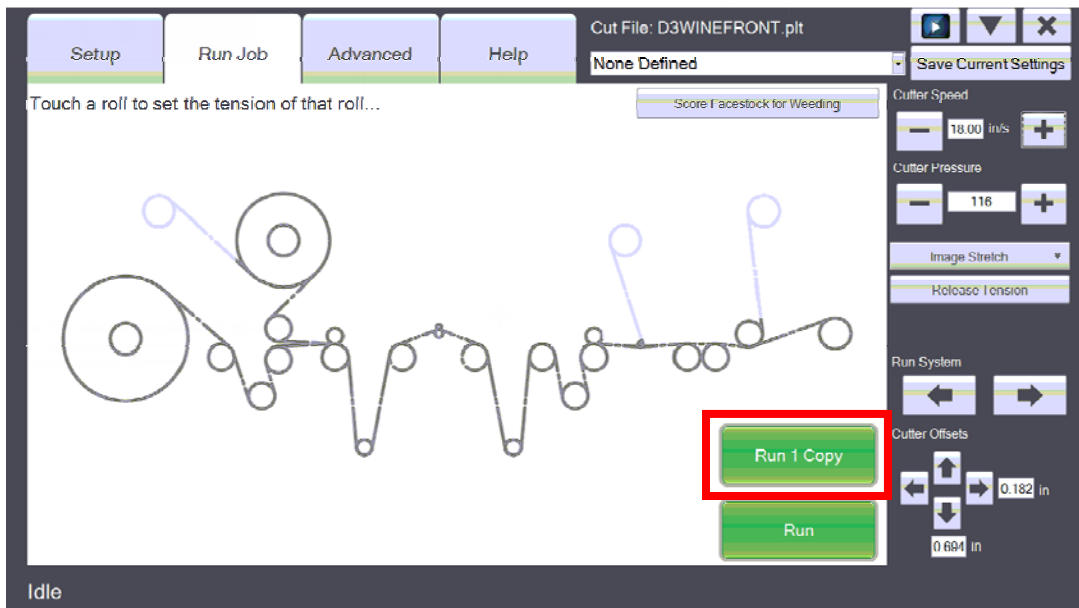
7. If the FX1200 starts cutting, the eyemark has been found. If you receive an error refer to section 5.4 for additional troubleshooting on the specific error displayed.

E. Adjusting Cut Depth/Pressure

1. After running 1 copy, attempt to peel the label from the web.

2. Check for tear. If it tears you will need to increase the Cutter Pressure from the Setup Tab. Increase pressure in small increments to avoid over compensating and cutting through the liner.

3. Check the liner. Once you peel up the label, check the liner. If it has been cut, decrease pressure.

4. Depth Gauges. (Not commonly necessary) If you cannot find a pressure setting between labels tearing and cutting the liner you may need to use depth gauges. Depth gauges are used to physically limit the amount of blade that protrudes for cutting. They screw onto the end of the knife holders. They are only used in rare circumstances with specific types of media. The plastic gauge will contact the web. To prevent marking the web, laminate the labels when the depth gauge is used.

5. Continue increasing or decreasing pressure and pressing "Cut Test" until the label no longer tears, the liner is not cut through or printed material reaches the cutter.

Note: If you add or remove laminate you will need to increase or decrease cut pressure by approximately 15 units from the pressure setting set for the previous job.

Warning: If you are using multiple blades make sure the number of knives used displayed by the software matches the actual number of knives installed.
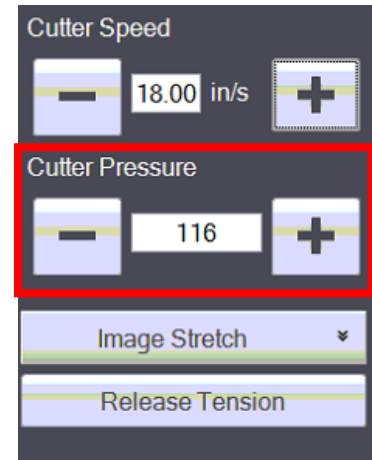
F. Adjust Cut Position

Cut lines not meeting offset <u>across</u> the web

- The web is walking during the cut. Make sure guides 3 and 4 before and after the cutter are touching the web.

- The cutter carriage belt is slipping. Contact Tech Support.
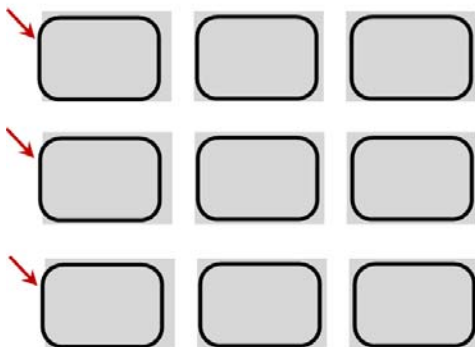
Cut lines not meeting – offset <u>with</u> the web

- Decrease Cutter Speed
- Increase Pinch Roller Pressure
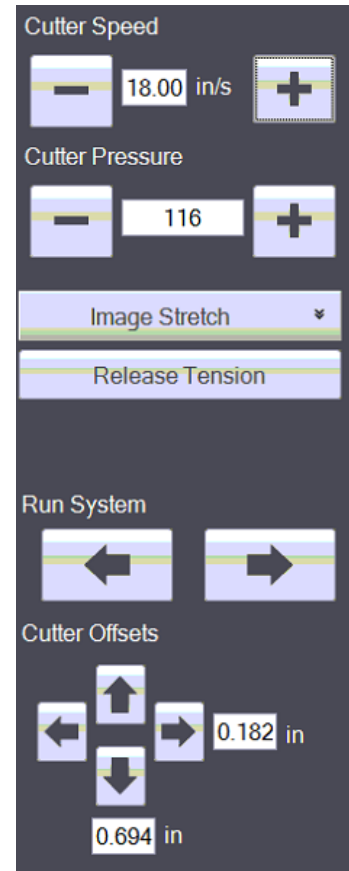 - Set the Acceleration profile to Normal. This is especially true for longer labels.

Cut is not matching the printed label.

 - Adjust Cutter Offsets. Touch the arrow to move the cut line in that direction. You can also touch the Offset value to type in specific offset value.

Cut is correct on the right side of the page but gets gradually worse as it moves left.

- This indicates that the label was printed stretched or shrunk. The FX1200 can compensate for this error by increasing or decreasing the Image Stretch.

Cutter Speed

18.00 in/s

Cutter Pressure

116

Image Stretch

Release Tension

Run System

Cutter Offsets

0.182 in

0.694 in

Note: The arrows correspond to the actual direction on the web that you want the cut line to move. In the example to the left we would press the left and top arrows. The Cutter Offset values increase or decrease counter intuitively in relation to the direction of the arrows.

Cut appears crooked/skewed relative to the printed image.

-The rear guide collar in position 3 needs forward adjustment. **See section 3.8**
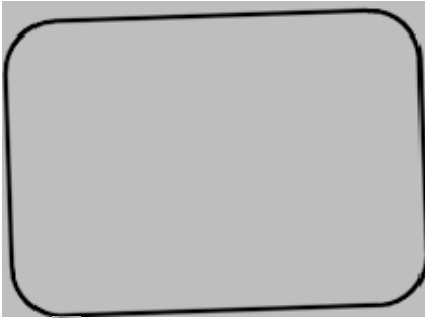

Cut appears crooked/skewed relative to the printed image.

-The rear guide collar in position 4 needs forward adjustment. **See section 3.8**

G. Score the Face Stock for Weeding

To make it easier to attach the waste matrix to the weeder, scoring the face stock of the web is recommended. This is not required but it will save on set up time. Always score the face stock after you have determined that the cut depth is correct. If the cut depth is too shallow or deep, the matrix will not properly pull from the web. In practice you can score the face stock at any point in the process of setting up the cutter. Just make sure only one knife is installed or you WILL cut through the liner.

1. To score the face stock press the "Score Face Stock for Weeding" on the Setup Components screen of the Setup Tab.
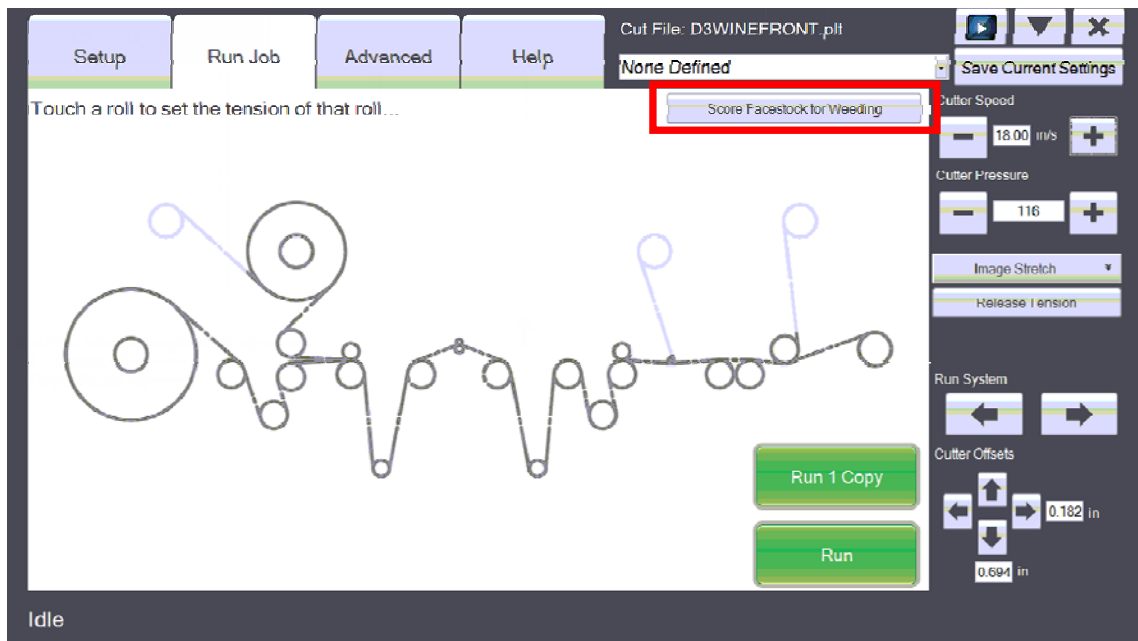

2. A warning will appear regarding multiple knives. Make sure only one knife is installed in carrier one. If you have two or more knives in the cutter you will cut all the way through the web.

3. After you press "Score the Face Stock for Weeding", the knife will make a straight cut across the web. To avoid damage to the blade an 8.25" cut is made.   In most cases this means that there will still be uncut paper on the front and back of the web. You'll have to finish this cut later with a utility knife.

4. Once the cut is made, open the cutter cover and mark the slit point with a marker. You will use this later to set up the weeder.

5. **REPLACE ANY KNIVES THAT WERE REMOVED TO SLIT THE WEB.**

Section 3.4 Set Up the Weeder

Tools Needed: Utility Knife

1. Press "Test Cut file" repeatedly until the weeder score mark has reached or wraps around the lower take up mandrel. Depending upon how many Test Cut file sequences you ran, your weeder score mark may not have reached the lower take up mandrel or may have already wrapped around the mandrel several times.

2. Make sure a weeder core is installed. Depending on the size of the job, a used weeder core can be left in place or you may use a new core.

3. Open the right side nip point.   This will allow you to manually position the web.
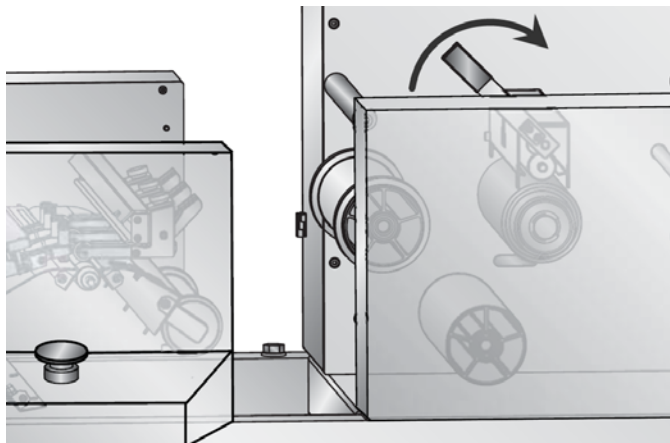
4. Complete the Weeder Score using a utility knife. Since the weeder score does not cut all the way across the web you will need to cut the last 1/8 inch (2 mm) of label from the front and back edge of the web. Gently pull back the label from the liner, slip the blade between the liner and the label and finish the cut.

    Note: Position the weeder score mark so that it is on top of the lower take up mandrel. This will give you the best position to compete the cut.

5. Manually turn the take up mandrel backwards until the score mark is positioned after the peel roller but before the slitter station

Matrix

Peel Roller

Slitter Station
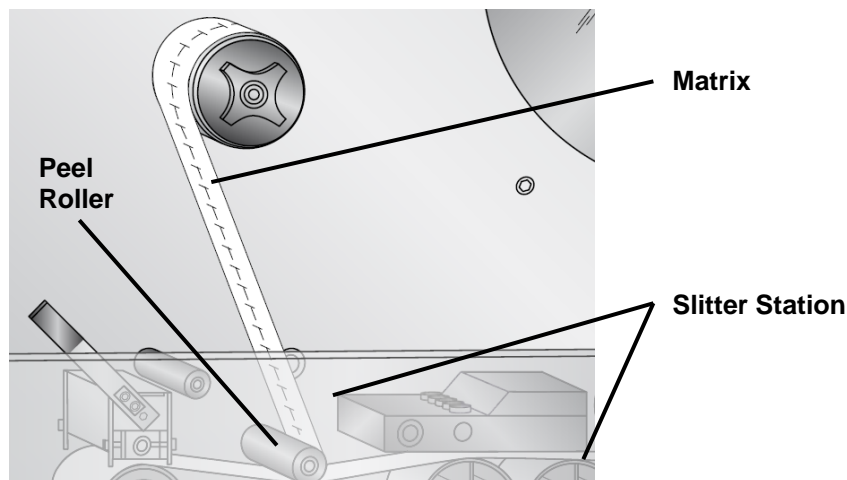
6. Pull the matrix from the liner and attach it to the Weeder. In this scenario the matrix will only hold together if you have laminated the labels.

   If the matrix does not easily pull, manually turn the take up mandrel with your right hand as you pull the matrix with your left hand. Grasp the clear label guide on the take up mandrel to turn it. This will give you enough torque to turn it with one hand and prevent un-laminated waste matrix from breaking.

7. Close the right side nip point.

8. Enable the Weeder on the Setup tab – Setup Components screen. Touch the weeder roller to enable it.

   Note: When attaching un-laminated matrix to the weeder you will need to have 18" (45 cm) of slack under the right dancer arm. To accomplish this, run test cuts until the weeder score mark wraps around the lower take up roller several times (Step 1). Now when you open the nip and manually back up the labels the slack will automatically be created.

Foam Weeder Roller Installation (Optional)

Install the Foam Weeder Roller for improved weeding performance when using synthetic materials such Polyester, Polypropylene and Vinyl. You may also choose to install the weeder roller to improve weeding performance for non-standard die cuts or any time the labels are being pulled up with the matrix.
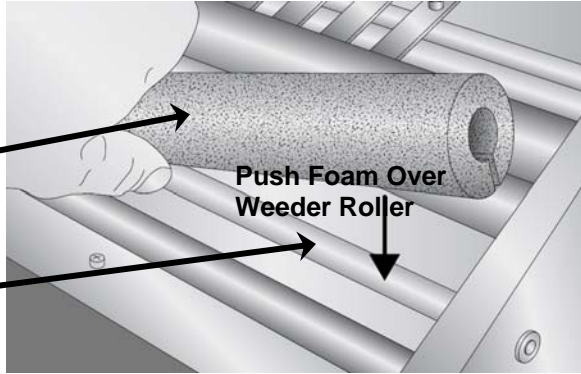

Install Here
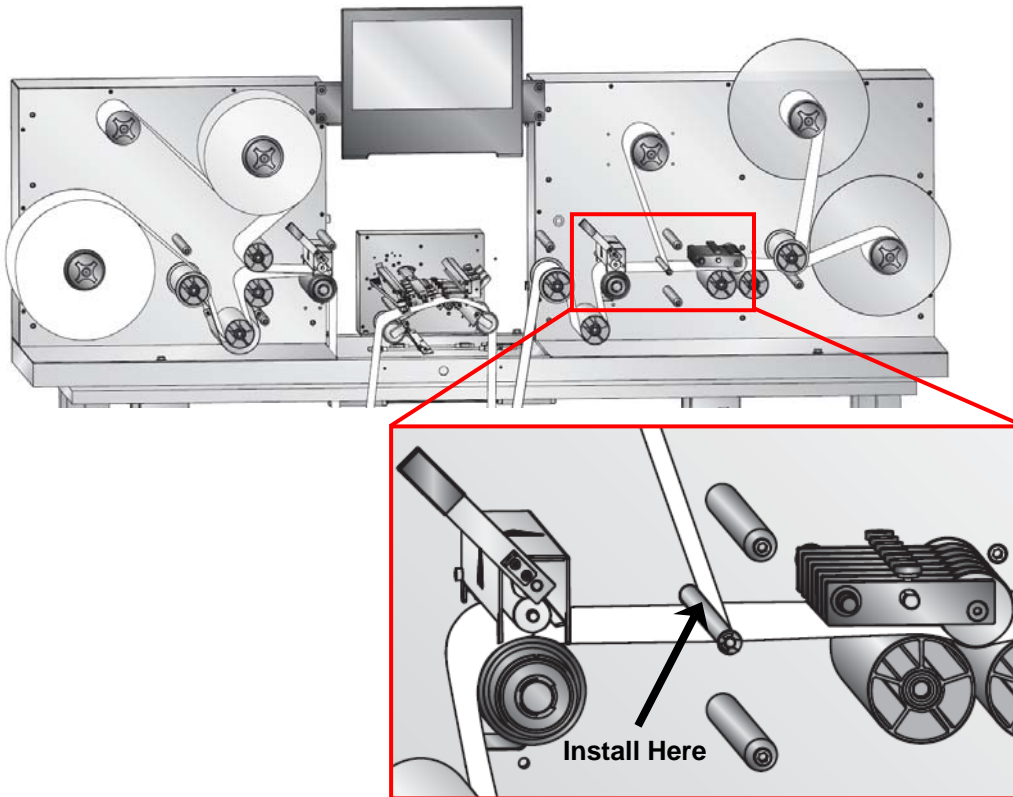
Installation Instructions:

1. The foam roller has a slit along the entire length so that you can push it over the weeder roller.

Foam Roller

Weeder Roller

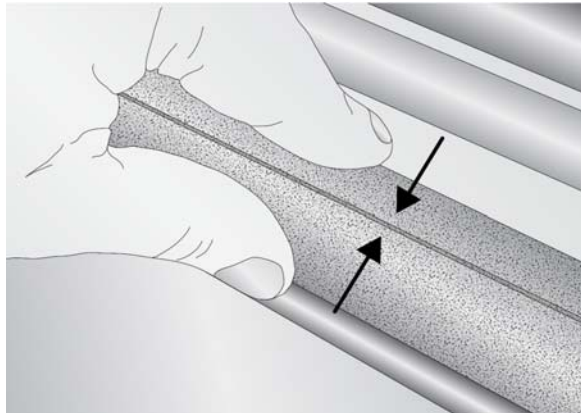**Push Foam Over Weeder Roller**

2. Rotate the foam roller so the slit is facing up. Remove the protective paper covering the adhesive.
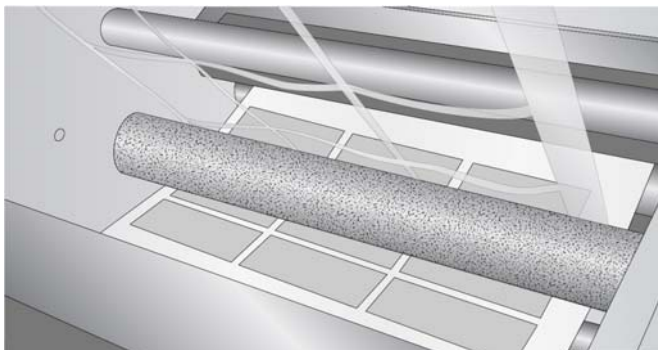
3. Push the foam together along the entire length of the slit in the foam roller. The adhesive will hold it together.

Note: Make sure the foam roller freely rotates on the weeder roller.

The graphic below shows a correctly installed foam roller in use.

Section 3.5: Set Up the Slitter

1. Seven blades are preinstalled in the retracted position in your FX1200. The FX1200 slitter station allows you retract or engage slitting blades without removing them from the unit. You will need to decide how many to engage to slit your labels. For example, depending on what type of applicator will be used you may need to slit and remove edge waste. Use this table as a guide.

Columns	Blades Needed	
	Remove Edge Waste	*Leave Edge Waste*
1	2	0
2	3	1
3	4	2
4	5	3
5	6	4
6	7	5
7	**Not Possible**	6
8	**Not Possible**	7

Typical Slitter Configuration for Three Columns.

Edge Waste   Slit Here   Edge Waste
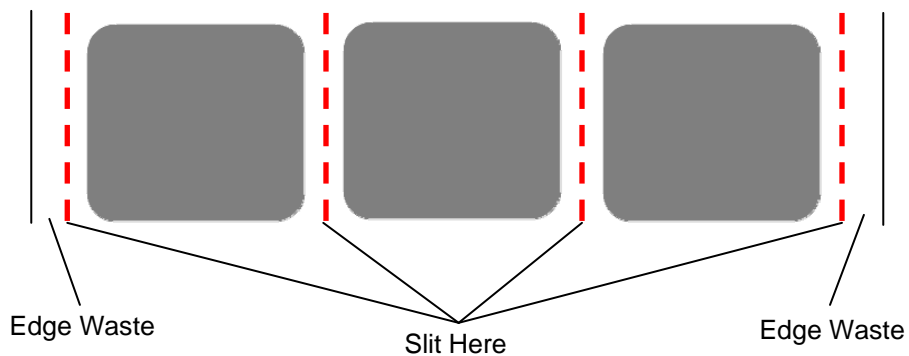
2. Press the release latches to open the slitter station.
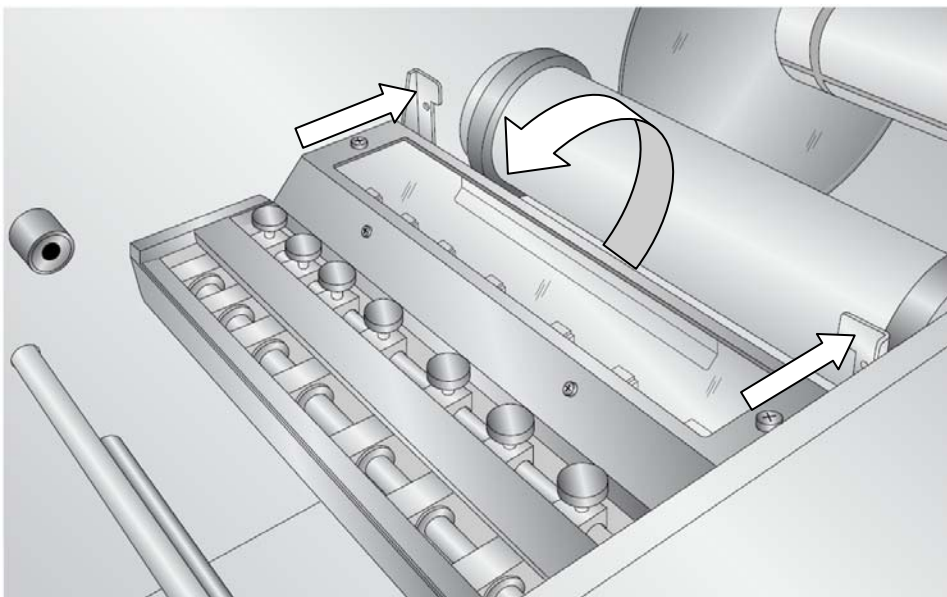
3. Loosen the thumbscrew on the blade housings you intend to engage. For optimal safety, it is recommended to use a plier to loosen the blade housing thumb and move them into the engaged position.

View from Back of unit
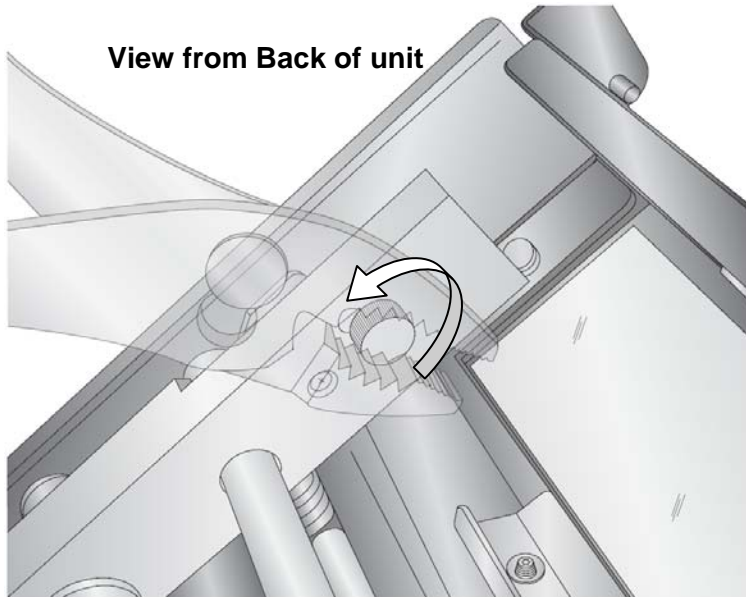
Note: Before deciding which blades to engage make sure that the blade can actually be moved to the intended position. Each blade housing has a limited range of movement. If you cannot move the blade to the intended position you will need to choose a different blade housing.

4. Pull the thumbscrew toward you to engage the slitter blade. The thumbscrew moves inside a curved slot.

Slitter blade engaged

Pull
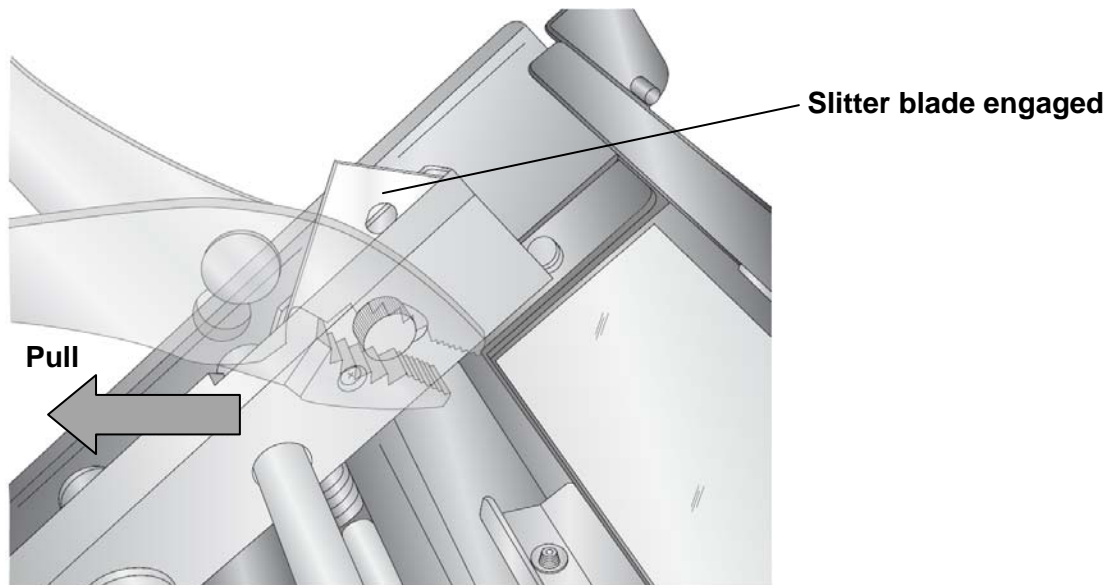
5. Tighten the thumbscrew once the slitter blade is engaged.

6. Start with the slitter blade furthest from you and repeat steps 2, 3 and 4 for each.

7. Once you have engaged the blades you want to use close the slitter station.

> **Do NOT push the cover all the way closed!** Let it rest on the spring loaded latches for now. The blades will not cut the media in this position.

8. Loosen the thumbscrews for the engaged slitters. Line them up with the correct positions between the die cut labels.
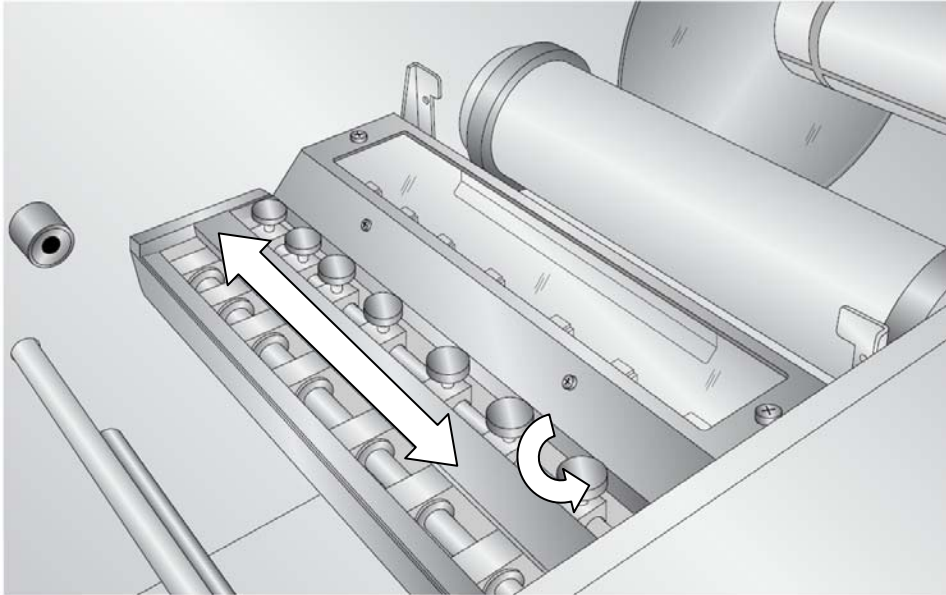
9. Once the blades are in the correct position, push the slitter station all the way closed. The blades will puncture the media once the slitter station is locked into place.

Replacing or Rotating Blades

If a blade becomes dull you will need to rotate the blade to one of the four cutting corners. If all cutting corners have been used, you will need to replace the blade. Follow this procedure:

1. Press the release latches to open the slitter station.

2. Loosen the thumbscrew on the slitter blade housing containing the dull blade. Completely remove the thumbscrew.

3. The blade and housing will detach from the opposite side.

4. Rotate or replace the blade.

Slitter Blade   **Blade Housing**

5. Fit the blade over the locator pin and the thumbscrew capture pin.
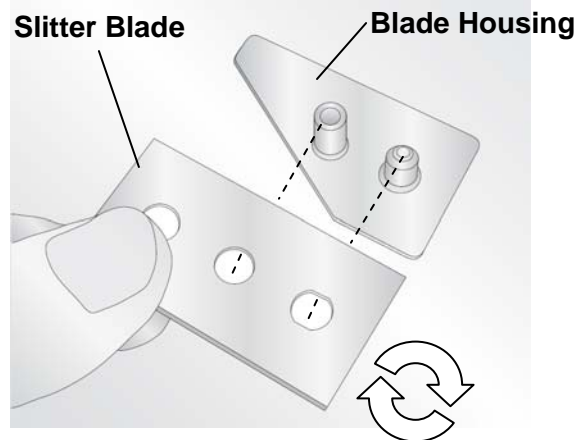
Tip! Mark the dull blade corners with a permanent marker before rotating the blade.

3.6 Set Up the Take Up Mandrels

You can configure the take up mandrels in many ways. The instructions below illustrate the recommended method assuming a two column cut wrapped onto two separate rolls on the upper take up mandrel with the edge waste trimmed and rolling over the lower take up mandrel.

Additional configurations include:

Edge waste wrap. Wrap the edge waste on small cores on the upper mandrel and wrap finished labels on the lower take up mandrel. This requires additional label guides (sold separately). You must wrap both sides of edge trim on the same mandrel to maintain even tension.

Top View

Upper Take Up   Lower Take Up

Finished Rolls

Edge Waste   Additional Label Guides
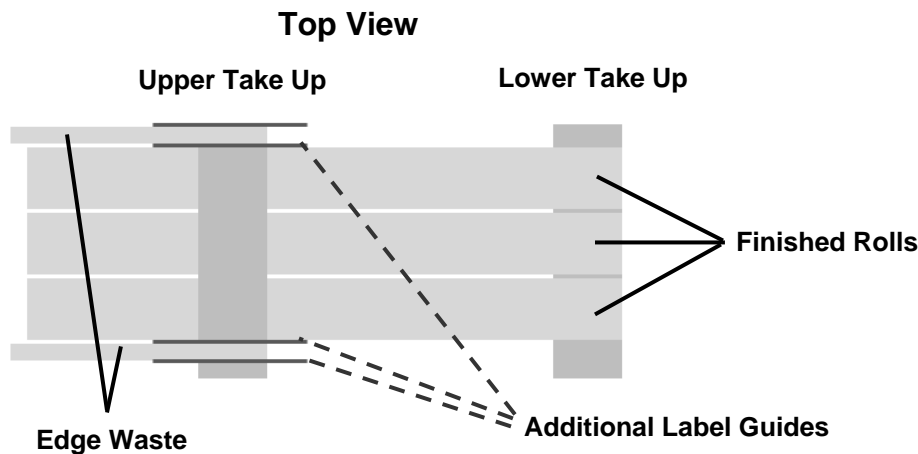
Alternating finish rollers. This method would prevent finished rolls from interleaving as they are wrapping. However, if edge waste is trimmed this method would probably require a vacuum system to remove the edge waste.

Top View

Upper Take Up   Lower Take Up

Finished Rolls

Finished Rolls

Edge waste to
vacuum system
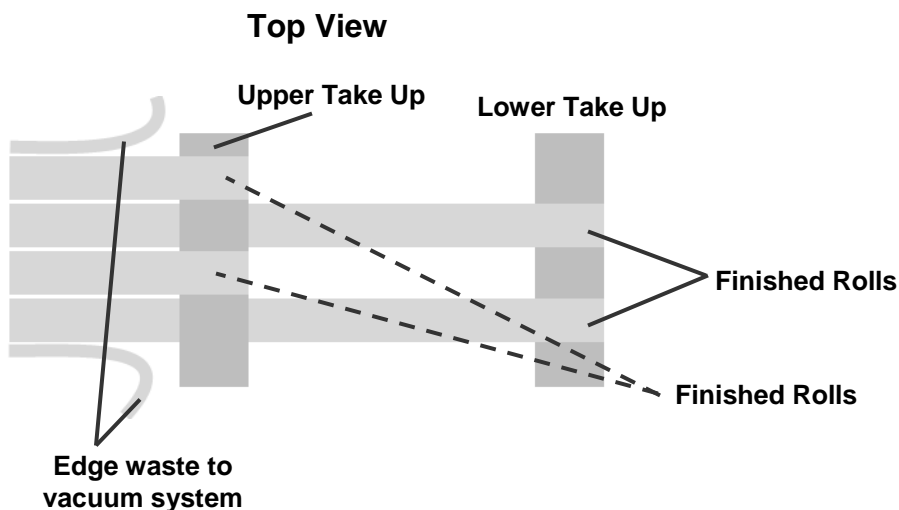
**Edge Waste to Weeder.** This involves running the waste directly from the Take Up Guide Roller to the underside of the Waste Matrix Take Up roll. This method will increase the size of the waste matrix more quickly and can cause problems for some types of cuts that require very even pulling force to properly pull the matrix.

Edge Waste over Lower Take Up (Recommended). This method is recommended if edge trim is required and because it does not require additional guides or a vacuum system.

Top View
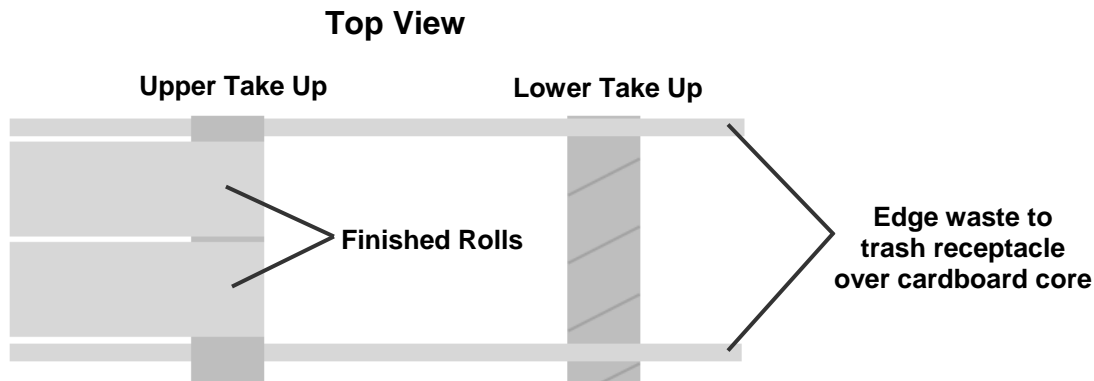
Follow these instructions to use the method above:

1. Press Test Cut File until Good finished labels have wrapped around the lower take up mandrel.

2. Manually turn back the take up mandrel until the first good labels are visible.

3. Cut between the labels at the same point for both rolls.

4. Place cores on the upper take up mandrel.

    Note: The core width should equal the width of the finished roll. It can be a little smaller in some cases depending on what type of applicator will be used to apply the labels.

5. Attach the labels to the core using waste label or tape.

    Note: Make sure the tension on both rolls is even. If they are not even and you have already attached them to the core you can easily equalize them by loosening the core engagement knob on the mandrel just a little. Now turn each core on the mandrel until both label rolls are taut. Tighten the knob again.

6. Enable the upper take up mandrel by touching the mandrel on the Setup Tab – Setup Components Screen. To enable the mandrel touch the appropriate winding direction.
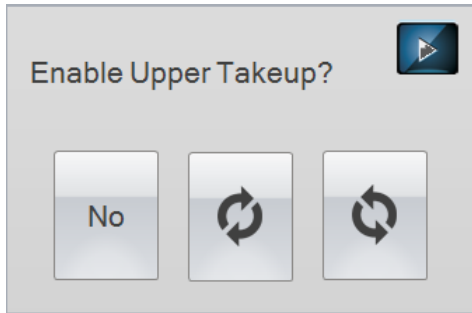
7. Remove the waste label core from the lower take up mandrel.

8. Place a new core on the lower take up mandrel.

9. Feed the edge trim waste over the new core and into a waste basket.

10. Set the lower take up mandrel to Edge Trim mode. This mode turns the lower take up mandrel to help the edge trim waste into the waste basket with out tripping the web break detection that would normally be enabled.

    Note: If the edge trim still tends to hang up on the lower take up mandrel and the frame of the FX1200, use an old waste matrix take up roll 6" to 10" in diameter instead of an empty core.

3.7 Run Job and Evaluate Tension and Guides

You are now ready to run your job. Go to the Run Job Tab. Press Run. You will be presented with several options:
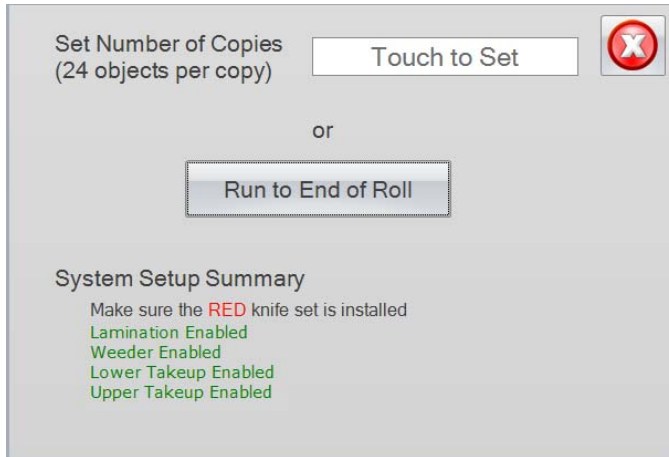
Number of Copies. Touch the box to enter the number of copies. The number of copies relates to the number of cut pages. Each cut page may have a variable number of labels per page depending on the cut file selected. The number of labels per page will be displayed.

Run to End of Roll. This will continue cutting until the system detects the supply roll is empty or it no longer finds a target.

System Setup Summary. This will display the enable/disable state of lamination, weeder and take up mandrel. If one is disabled that should be enabled, cancel this screen by pressing the X. Go back to the Setup tab and enable the appropriate mandrel.

Once the system is running you should evaluate the tension and the roller guides.

Evaluate Tension. The web should be tight at all points along the paper path. You can increase the tension of any of the mandrels. While the system is running, touch the mandrel to adjust the tension.

- Too little tension will cause the web to gather slack. Over time this will cause a jam and stop the job. It will also create loose finished rolls.

- Too much tension can cause a web break. The most likely place for this to occur is at the weeder. Depending on whether lamination is used and the size of the gaps between label rolls, tension may need to be decreased.

  If the web breaks the job stops. Web break detection occurs when a sudden change in web tension is detected on any of the five media mandrels.

Note on label curling: If finished labels are curling or peeling up or under on the edges this is an indication that tension on the web is not balanced. Decrease tension on the supply mandrel or lamination mandrel if labels are curling up. Increase tension if they are curling under**.**

Note on Media Environment: 50% humidity and 72 degrees Fahrenheit is the optimal conditions for both storage and use of label stock. Store label stock in protective plastic wrappings. Rewrap partially used stock. Do not store stock directly on concrete floors.

Label stock should be conditioned in this environment for 72 hours prior to use.

Failure to store media in these conditions may result in media tension problems. Too much humidity will cause labels to curl on the edges

Note on Preparing for the next Job: To prepare for the next job, cut the matrix as close to the web as possible and wind the excess back on the weeder mandrel. Also, after removing finished labels, reattach the web to a core on the lower take up roller.
.

3.8 Adjust Guides

The guide collars greatly affect how straight the web feeds through the FX1200. The guide collars are adjusted at the factory for use with the paper stock sold by Primera. However, *any time* you use a new roll there is a possibility that the width of the material is slightly different than the last roll. If so, you may need to adjust the guides. Also, it is often necessary to move the guide rollers in order to clean them. In this case you will also need to readjust the guide rollers.

Important Note: Before adjusting the guides always make sure the supply roll is pushed all the way back and touching the supply mandrel guide disc!

Symptoms of Misaligned Guide Collars

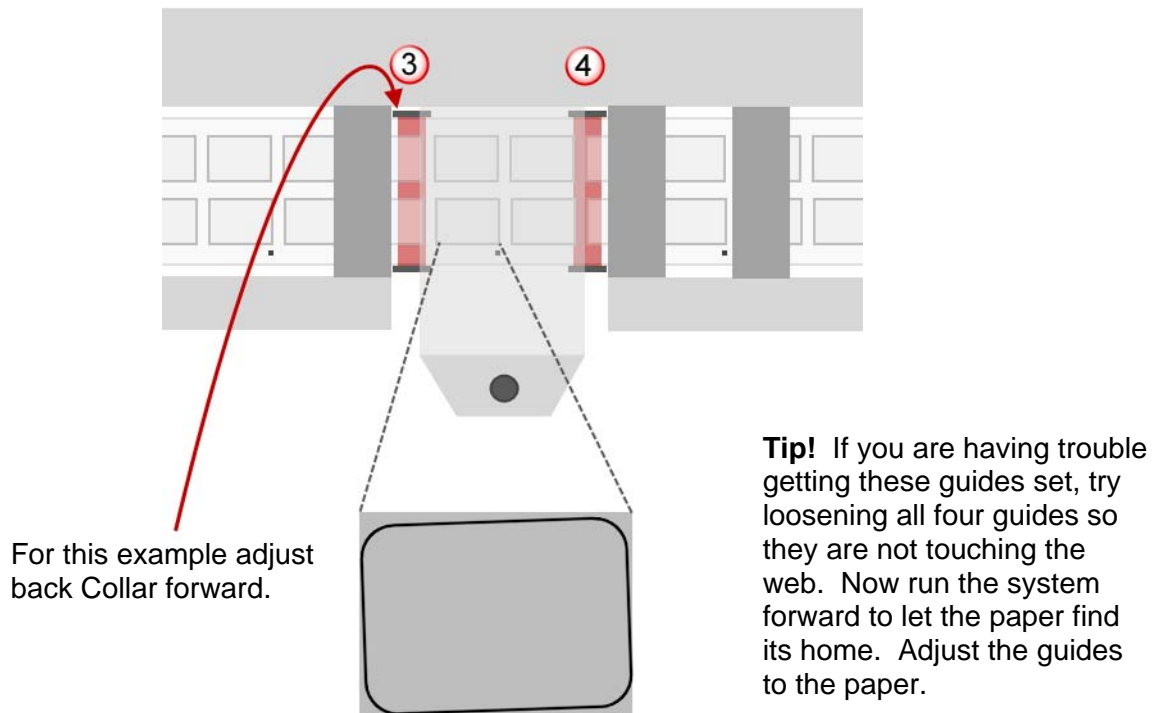1. The web is ripping or folding over on itself

2. Finished output is not wrapping straight.

3. Cut appears Skewed.

Skewed Cut

Cut

Print
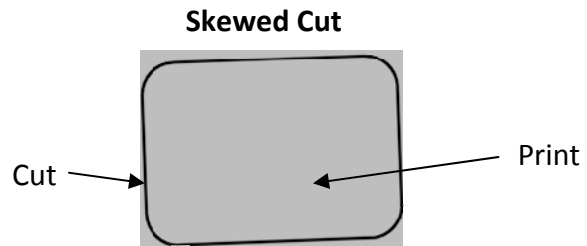
There are seven Guide Collars on the FX1200. Guides 3 and 4 are most important.

Guide Collars
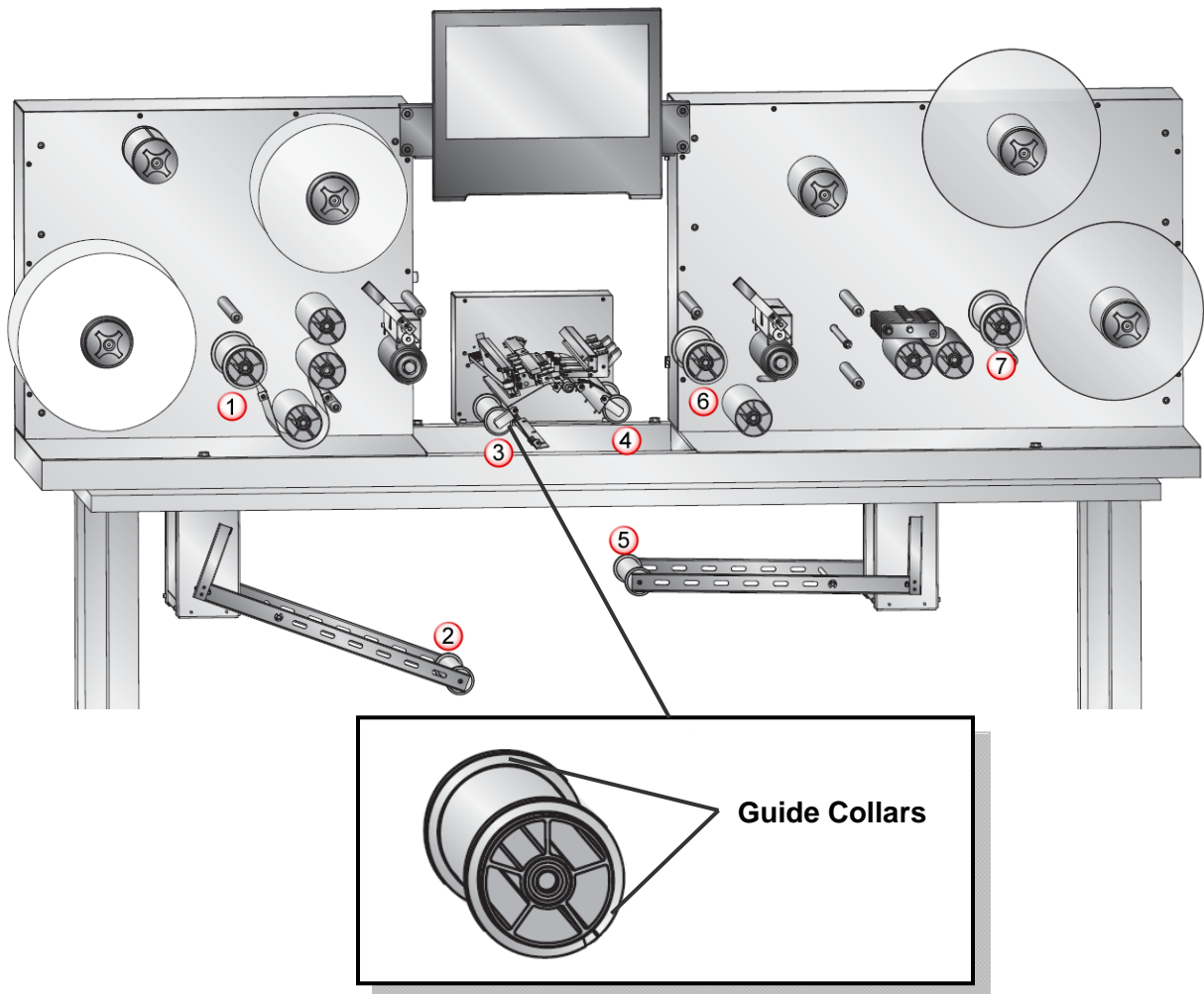
1. Guides 3 and 4 directly before and after the cutter should be touching the web. There should be no ability for the paper to move at these points. These guides should be adjusted if there appears to be a skewed cut. Depending on the direction of the skew you would need to adjust Guide 3 or 4 forward. If you adjust these collars you may have to adjust both the front and back collars to prevent the web from being pinched.

For this example adjust back Collar forward.

Tip! If you are having trouble getting these guides set, try loosening all four guides so they are not touching the web. Now run the system forward to let the paper find its home. Adjust the guides to the paper.

2. Guides 2, 5, and 6 should have less than 1mm of gap between the web and the guide collar. They should be set so as not to impede the paper flow. However, they should be close enough so that the paper is guided into the tighter guides at position 3 and 4.

3. Guides 1 and 7 should have 1 mm or more of gap between the web and the guide collar.

4. After you make adjustments to the collars, close the nip points and run a few more pages to check alignment. If additional adjustment is needed, open the nip points and make the adjustments. This process may have to be repeated several times.

5. If the guide collars are skewing when you tighten them, tighten one of the set screws with minimal force, then turn it to the second set screw (about a quarter turn).   Pull the collar tight on the bottom to make the collar straight. Now tighten the second set screw.

Note: Once you have made adjustments for a specific paper width you will not need to readjust the guides for each new roll as long as the paper width is consistent. For this reason we recommend using the same paper width for all jobs.

Note: If 6" wide paper is used, the material must be center justified in the machine. The guide collars must both be moved in this situation.

Section 4: Creating Cut Files in PTPrint (PLT)

If you have a CX1200 and are using PTPrint, there are three methods that can be used to create a cut file.

Import Die Line (Recommended). This method involves creating the cut line in your design software and importing it into PTPrint along with the label. This method is especially useful for non standard shapes or cut lines that do not follow the edges of the printed label.

Die Cut. This method allows you to create standard shape cut lines such as circles, squares and rectangles within PTPrint. Use this method when no cut line has been created in the design software or when the source file EPS is not available and you must use flat files such as JPG, BMP or TIFF.

Contour Cut. This method senses the edge of the printed label and attempts to draw the cut line based on this information. Use this as a last resort when no EPS source file is available and the cut file necessary is a non-standard shape.

4.1 Import Die Line

This method involves creating the cut line in your design software and importing it into PTPrint along with the label. This method is especially useful for non-standard shapes or cut lines that do not follow the edge of the printed label. This is the recommended method because it creates the smoothest, most accurate cut line of all available methods.

To import a cut line you must first tag that cut line in your design program.

Adobe Illustrator instructions:

1. Open the graphic in the source application. In this example Adobe Illustrator is used.

2. If you have not already done so, create the die line. Place the die line on the bottom layer in the exact position you would like the FX1200 to cut.

3. Select the die line.

4. Open the swatches windows, click the new swatch icon.

5. A New Color Swatch will be created.

6. Double click on it to open the swatch options.
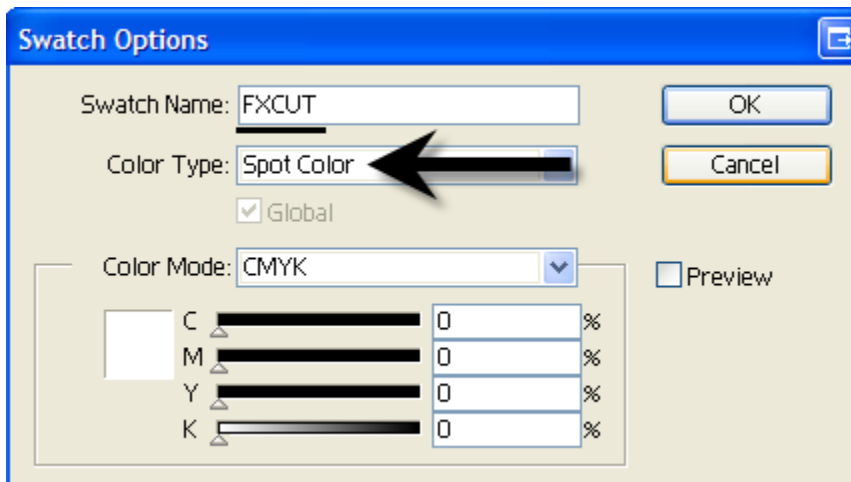
7. Rename the swatch FXCUT.

8. Set the Color Type to "Spot Color."

9. Set the color to <u>white</u>. This is necessary because any part of the imported die line which is not covered by another object will be printed unless you set the color to white.

10. Make sure the fill of the object is set to the FXCUT Swatch and the outline is transparent.

11. Click OK.

Fill = FXCUT

Outline = Transparent
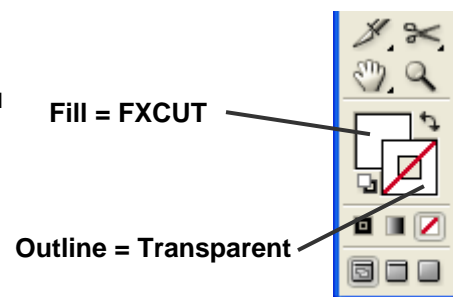
12. Save the file as an EPS (Encapsulated Post Script). **Note:** There is no need to separate the die line from the graphic. They should be saved in the same file.

13. Follow the steps in the CX1200 manual to import and array the EPS graphic.

14. If your die line was correctly named, PTPrint will automatically convert the die line into a cut line. You will know this was successful if the die line appears in PTPrint as a dashed line.

15. Go to the File menu and choose Cut. Save the cut file as a .plt file on a thumb drive or any location that the FX1200 touch screen computer is setup to access.
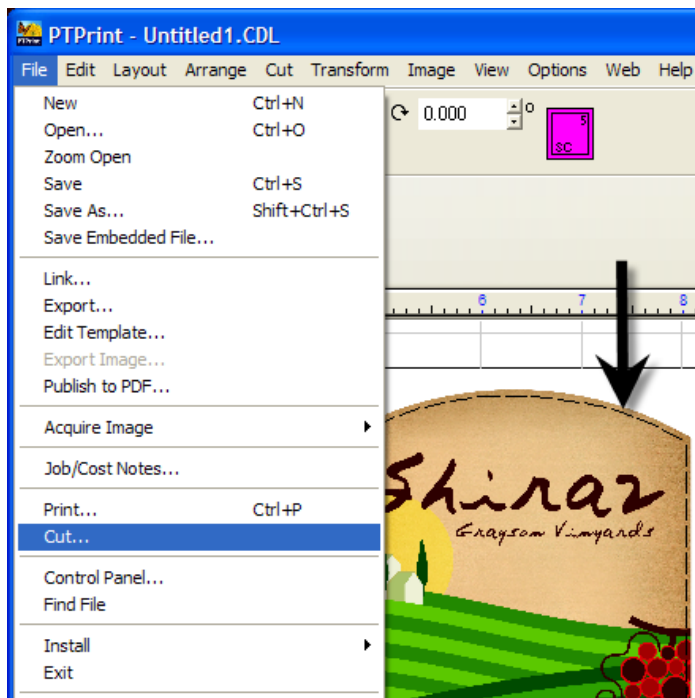
Warning: Always use this same PTPrint file to print to the CX1200. The cut lines will not print. If you change the layout of the graphics you must recreate the cut file or the cut will not align to the graphics.

Important Note: You must have the latest version of PTPrint for this procedure to work. Download the latest version from the following location on the Primera website. Follow the installation instructions provided on the website.

**http://www.primera.com/downloads/support/CX1200/CX1200.html**

4.2 Die Cut

This method allows you to create standard shape cut lines such as circles, squares and rectangles within PTPrint. Use this method when no cut line has been created in the design software or when the source file EPS is not available and you must use flat files such as JPG, BMP or TIFF.

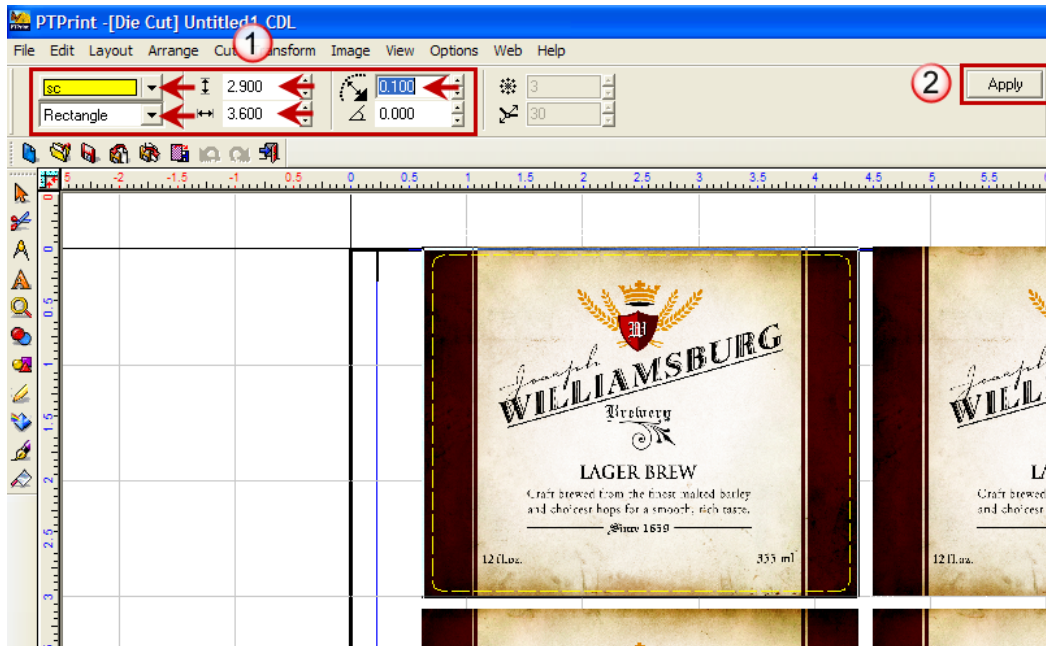Use these instructions to create a die line:

1. Follow the steps in the CX1200 manual to import and array the graphic.

2. Select any object by clicking on one of the labels on the page.
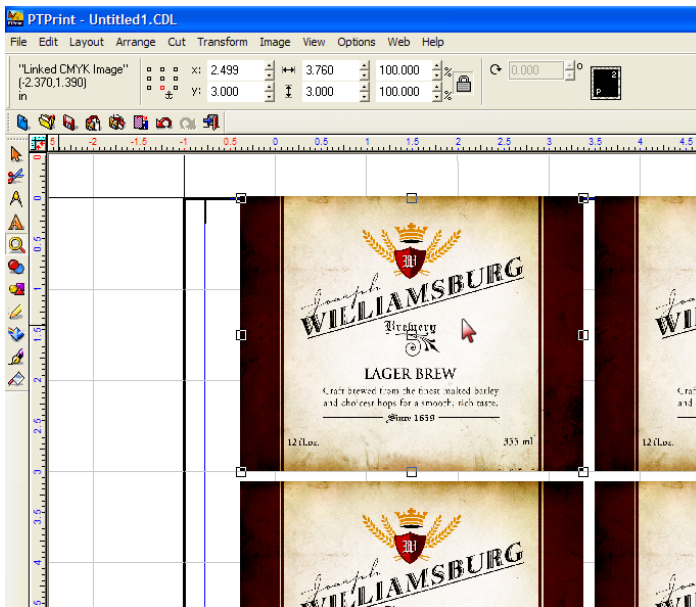
3. Go to the Cut menu and choose Die Cut…
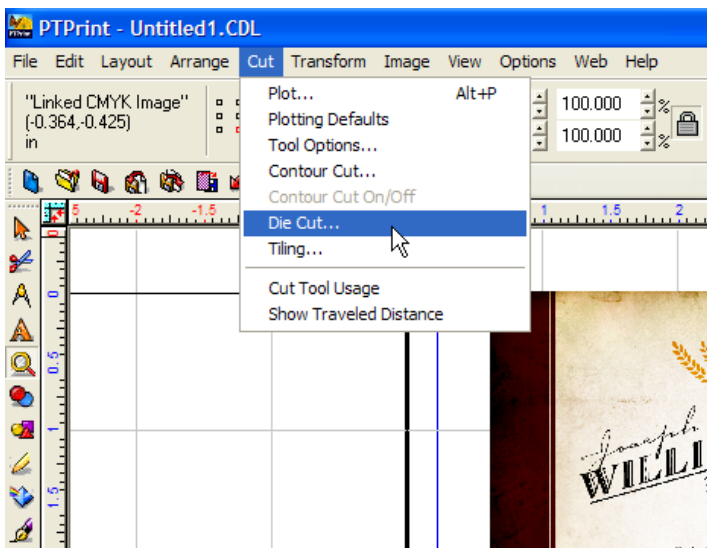
4. Now you can set the various settings that determine where the cut will be.


- Set the color of the cut. This is just for viewing purposes.
- Set the shape.
- Set the size to correspond to the size of the label that you input in the layout wizard. You can make the size slightly smaller if your label includes a bleed like the example below.
- Set the corner radius if you want round edges.

5. Click Apply to apply it to the object.

6. Once you have set the die cut for the first object you need to apply it to each of the objects on the page. To accomplish this simply select each object and then click Apply.

7. Save the cut file as a .plt file on a thumb drive or any location that the FX1200 touch screen computer is setup to access. Go to the File menu and then choose Cut.
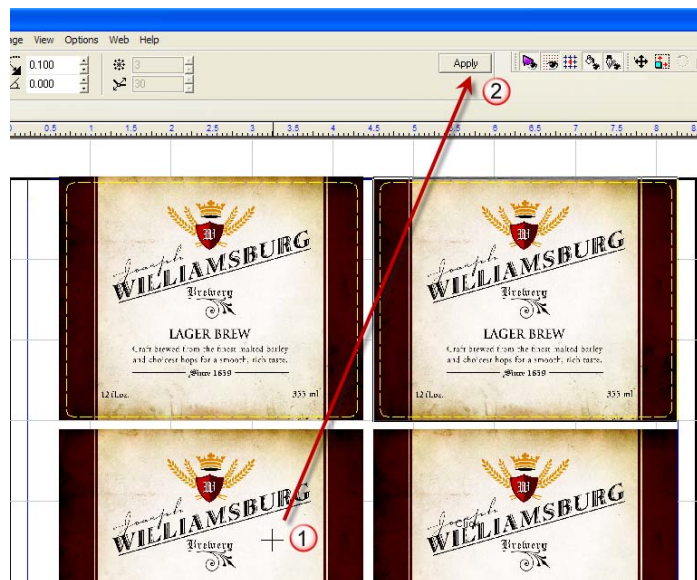

Warning: Do not click Apply twice on any one object. This will create overlaid cut lines and will cause the cutter to cut through the liner.

4.3 Contour Cut

This method senses the edge of the printed label and attempts to draw the cut line based on this information. Use this as a last resort when no EPS source file is available and the cut file necessary is a non standard shape. If you have no EPS source file but you do have access to Adobe Illustrator you should not use this method. Instead, import the graphic into Illustrator and create a die line. Use the instructions in section 4.1 to tag the die line and import it into Adobe Illustrator.

Use these instructions to contour cut:

1. Select all objects except for the target/eye mark by drawing a box around all of them.

2. With the objects selected, choose Contour Cut from the Cut menu.

3. A contour cut tool bar will appear. Make sure that Inside/Outside and Bitmap Frame are unchecked. Change the color of the contour line so that you are able to see it. Finally, click Apply.
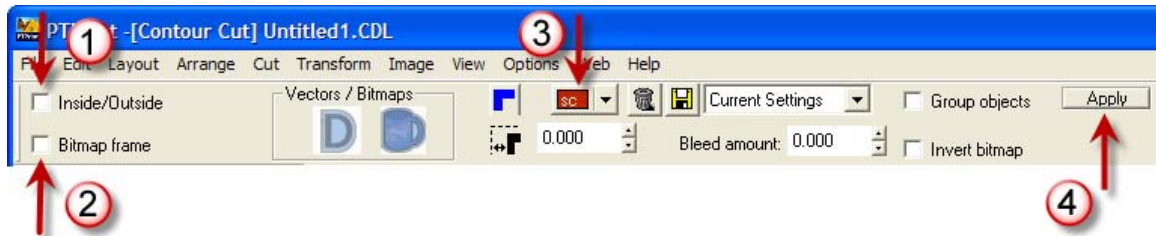

4. You will be prompted with a Threshold settings window. Set the value to 250. Click OK. This should work for most images. This determines the sensitivity of the edge detection software. Set the value too low and your contour may not follow the intended outside border. Set it too high and the counter line will be drawn around the outer most boundary of the object - a square.

48
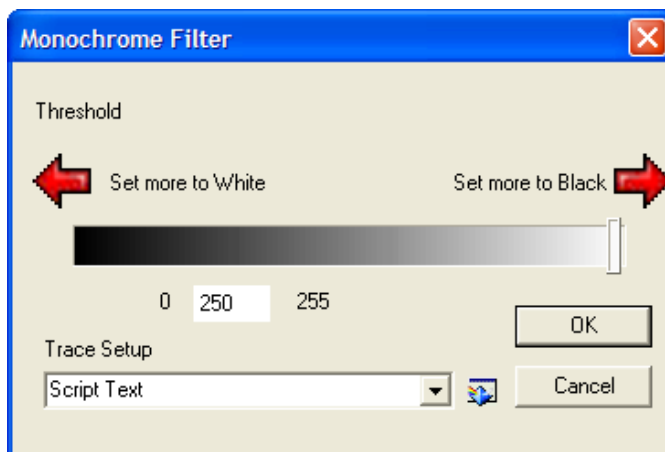
5. Below is an example of edge sensitivity set too low. Notice how the contour line invades the image on the left side. This is because the image is very light in that area.
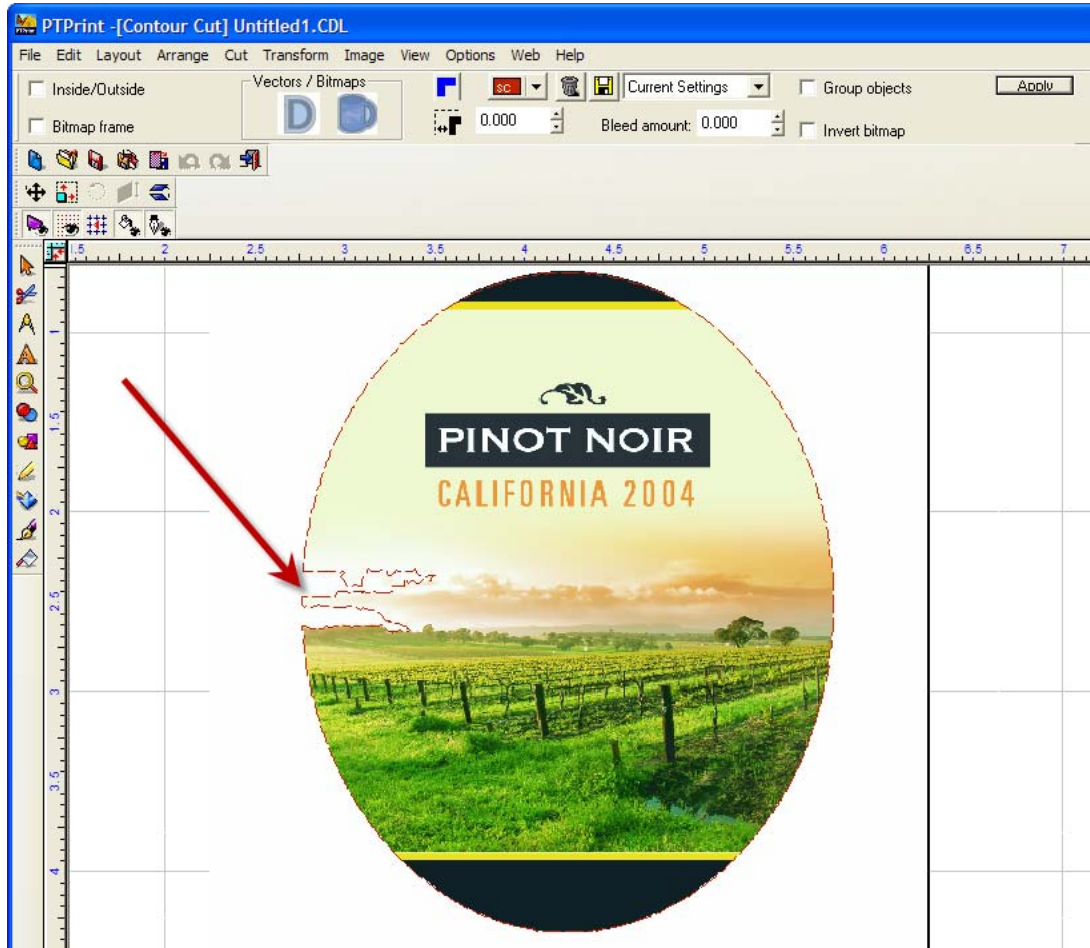
6. To retry the edge detection simply click Apply again. Note: The object must stay selected for the contour toolbar and the apply button to be visible. If it is not visible, repeat steps 1-2.

7. This time, enter a higher value in the threshold window. You may have to repeat this procedure a few times.

If the cut lines are not smooth, you may also adjust the Trace Setup drop down menu. Typically, Script Text or CutContour are the best options.
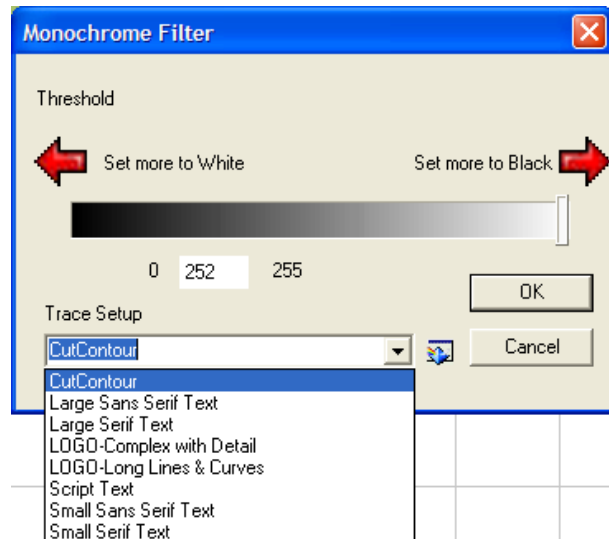
8. In this case, 252 was the correct number to choose. Now the contour line follows the outer border of the image correctly.
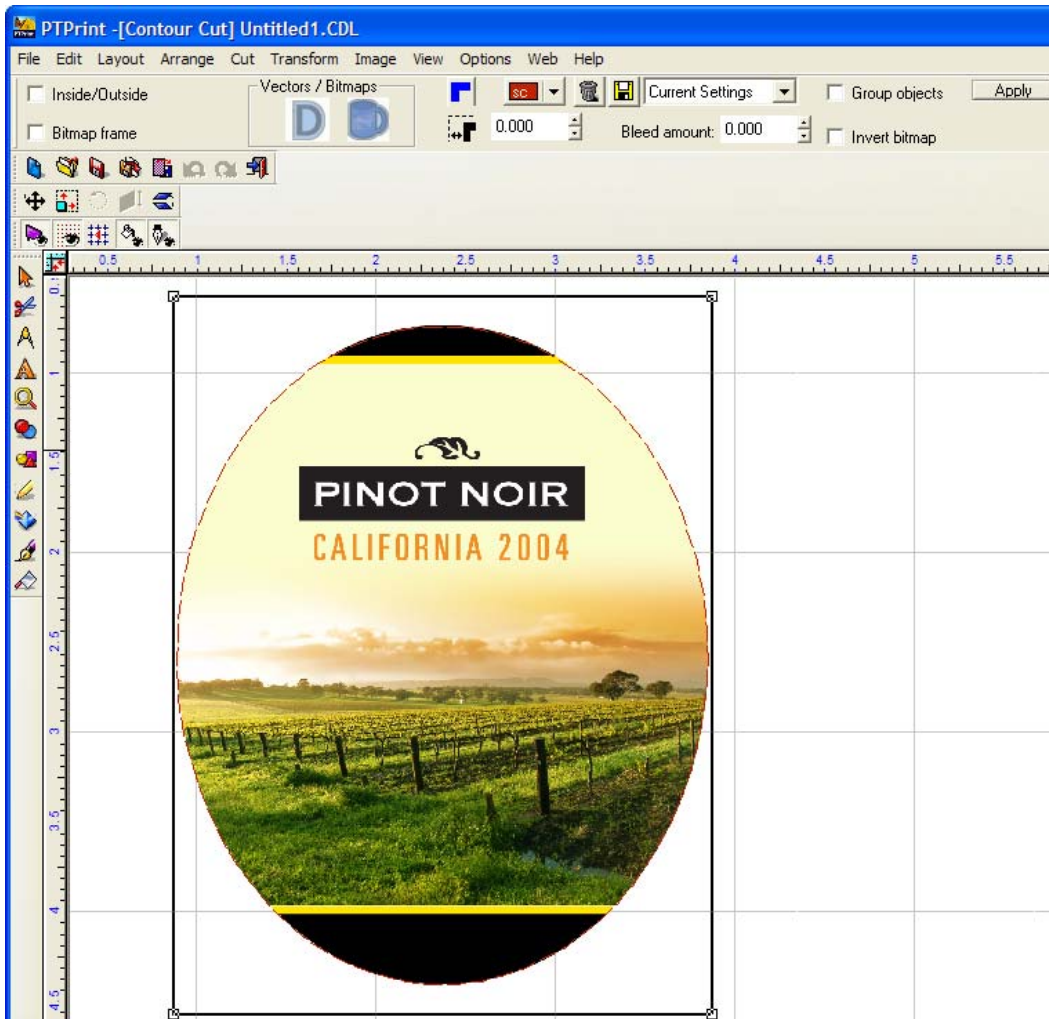
9. To add a bleed to the image adjust the border value on the contour cut tool bar. Click Apply again. Note: Any time you adjust a value on the toolbar you will need to click Apply to make the change. The threshold window will appear again with your last entered value remembered. Click OK to carry out the change.

Note: Bleed amount is NOT the correct value to adjust.
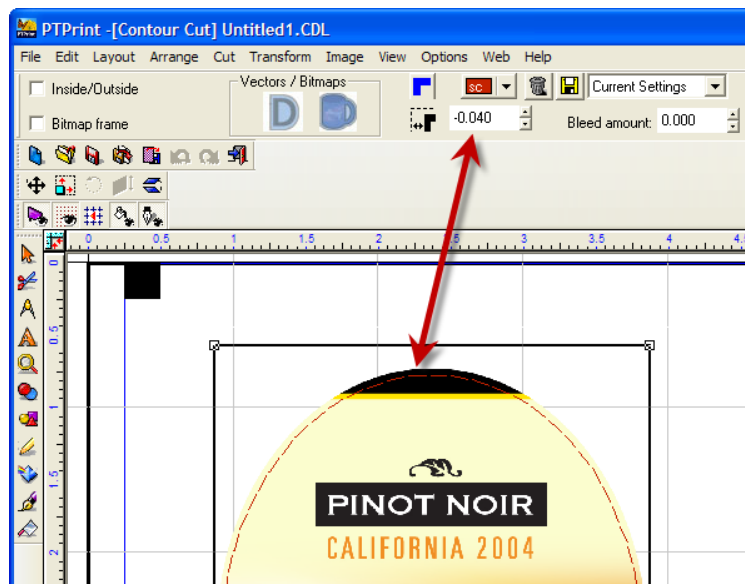
10. In rare cases you may want to extend the contour lines inside the image. Check the Inside/Outside box to enable this feature. The threshold screen will appear. Enter the desired value. Click OK. Notice how the contour line traces the "Pinot Noir" letters inside the image.
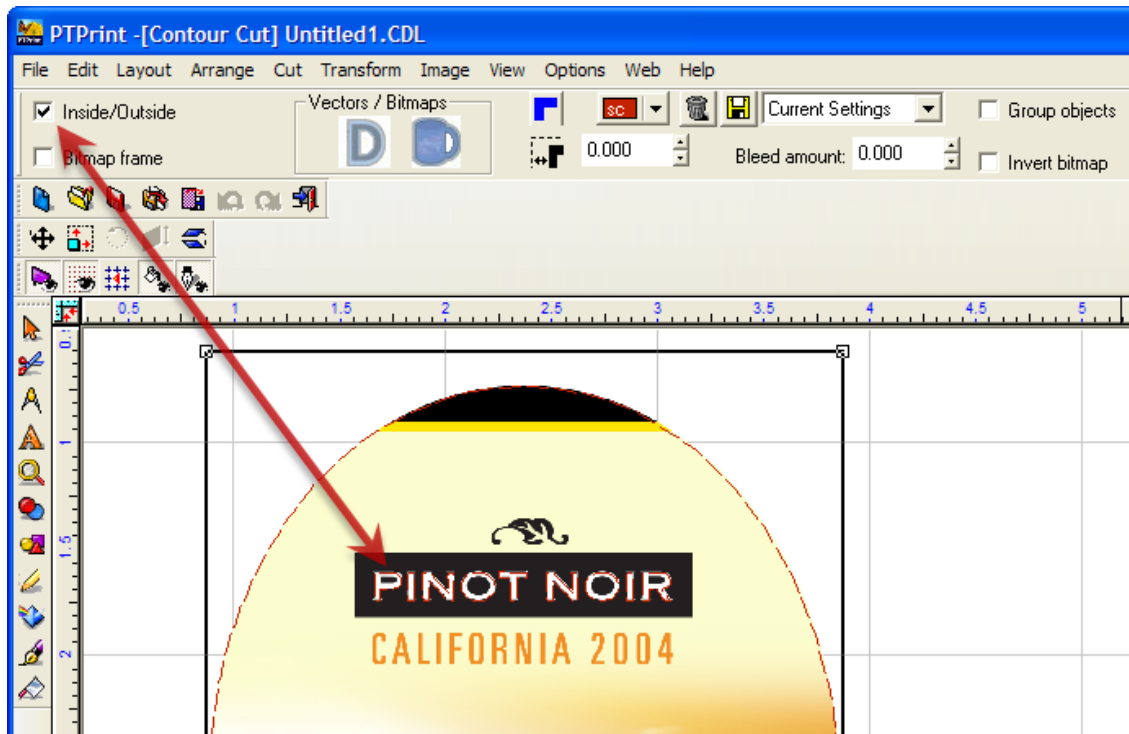
11. Save the cut file as a .plt file on a thumb drive or any location that the FX1200 touch screen computer is setup to access. Go to the File menu then choose Cut.

4.4 Cut Settings

Before creating a cut file you can adjust the Plotting Defaults and the Tool Options. Both of these will affect how the knife travels along the cut path. They can be found on the Cut menu in PTPrint.

Plotting Defaults

All settings should be set to the settings shown with the following exceptions.

Object start point. You may want to adjust this if the weeder is tearing the labels. The positions listed correspond to the page not the cutter. Left on the page = Front of the FX1200.
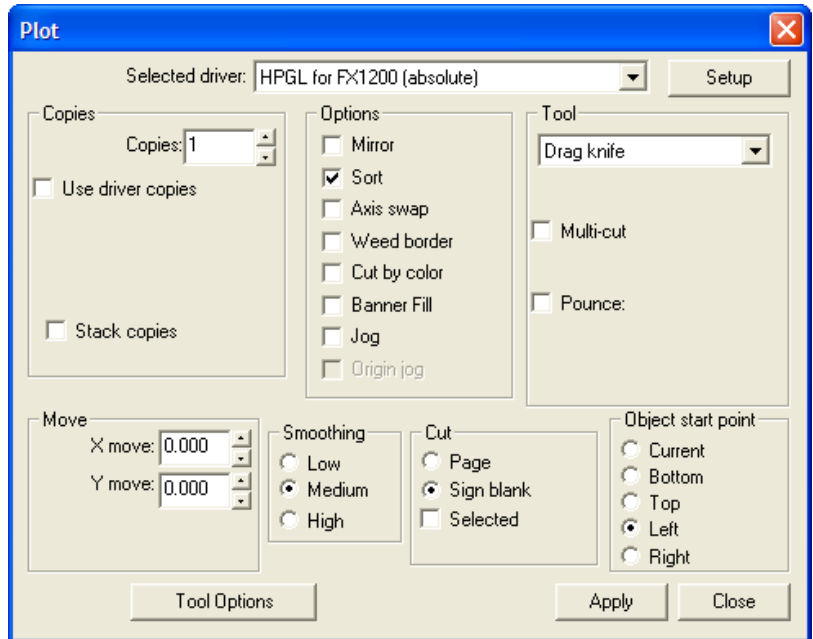
Tool Options
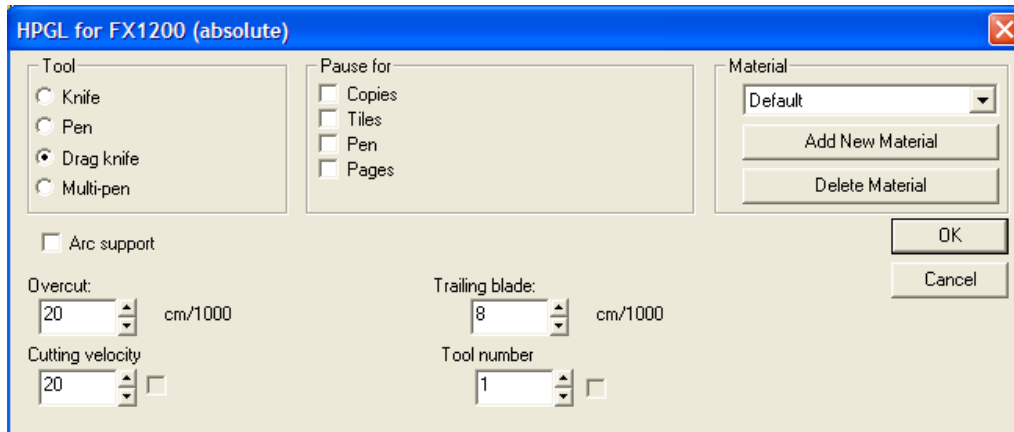
All settings should be set to the settings shown above with the following exceptions:

Overcut. Increase this value if the cut is not completing. This will usually show itself as a tear at the cut starting point.

Trailing blade. This affects the path the knife takes to go around corners. Increase the value to reduce tearing at sharp corners.

4.5 Label Layout Design Tips

When importing labels through the PTPrint layout wizard there are two items to consider that affect FX1200.

- Number of Columns in PTPrint = Number of knives available for use.
- Margins and horizontal gaps in PTPrint = Pinch Roller pressure effects.

Using the optimal number of knives will increase the speed of the cut.

Adjusting the margins and horizontal gaps will minimize the effects of the pinch rollers on the finished labels. The pinch rollers can cause a track of small bumps (knurled roller effect) to appear on your labels. This is caused by the pinch rollers crushing the media against the knurled roller in the cutter. The pinch roller in combination with the knurled roller is necessary in order to grab the paper and rapidly move it up and down the web during cutting.   This effect is NOT always visible on all media.

Columns. The number of columns affects the number of knives that can be used. In order to use multiple knives the number of columns must be divisible by the number of knives.

For example a 4 column cut will allow you to use 1 knife, 2 knives or 4 knives. A 5 column cut will only allow 1 knife to be used.   A 6 column cut will allow you to use 1 knife, 2 knives or 3 knives.

Manually adjust the columns, change the orientation or reduce the label width to fit more or less columns on the page.

Rows. Make the shortest page possible by decreasing the number of rows on the page. This will minimize any problems that might occur if the printed image is stretched or shrunk. The page height must be at least 8.5".

Horizontal Spacing. If uneven spacing is acceptable, adjust the horizontal spacing so there is at least 3/8 inch (.375 in) between labels. Each pinch roller is .375 inches wide.

Typically you will have enough margin on the edges to accommodate these rollers so you will only need to make a gap big enough for the rollers between columns.
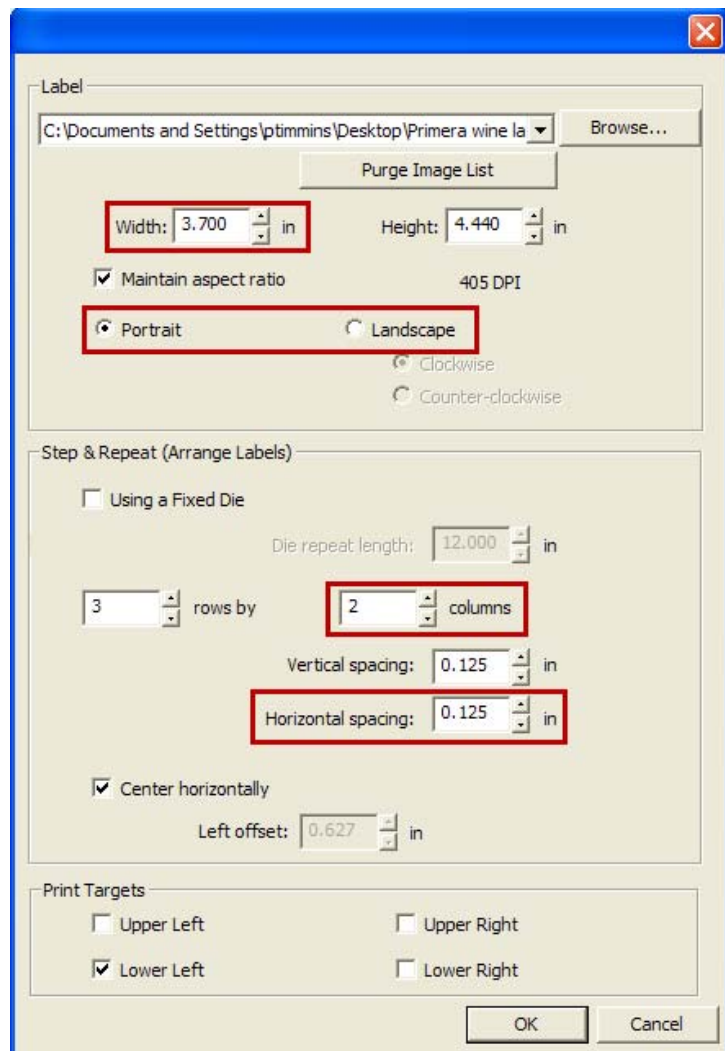
Section 5: Maintenance and Troubleshooting

5.1. Replacing Knives – Knife Tracking

When a knife is dull it will no longer cut through the label at maximum pressure. You can check the life of any knife set by clicking the "Track" button on the Setup – Setup Cut File Screen.

Knives are tracked in linear feet. The life a knife varies depending on what type of material is cut.

If your knife needs replacement follow this procedure:

1. Remove the knife holder from the knife carrier.

2. Rotate the cap of the knife holder counter clockwise.

3. Remove the knife from the holder. You can tap the holder on a hard surface to free the knife from the holder.

4. Locate a new knife. Remove the molded plastic cover from the knife. The plastic cap covers the cutting end of the knife. However both sides are sharp. The cutting end has an angled carbide tip. The top end comes to a point so it can be easily centered in the receiving divot on the knife holder cap.

5. Insert the cutting end into the knife holder.

6. Using the knife holder cover center the back end of the knife in the holder. You may need to screw down the cover and reverse it several times until the knife has been centered. Do not force the cap on the holder. The carbide tip will break. A very light amount of force is necessary to secure the knife holder cap.
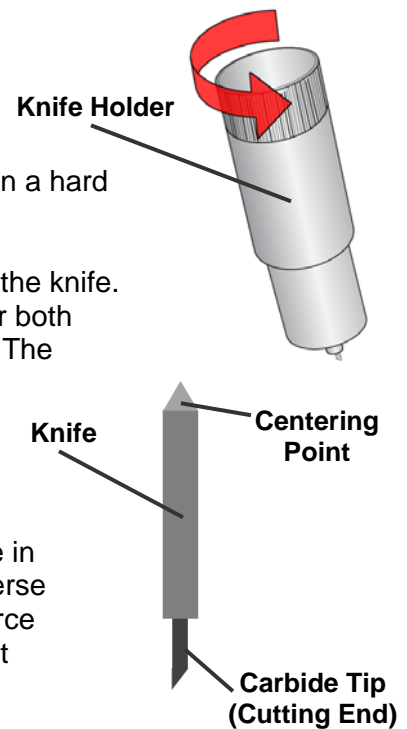
5.2 Rethread the System (Paper Path)

To rethread the system, press the Release Tension button.
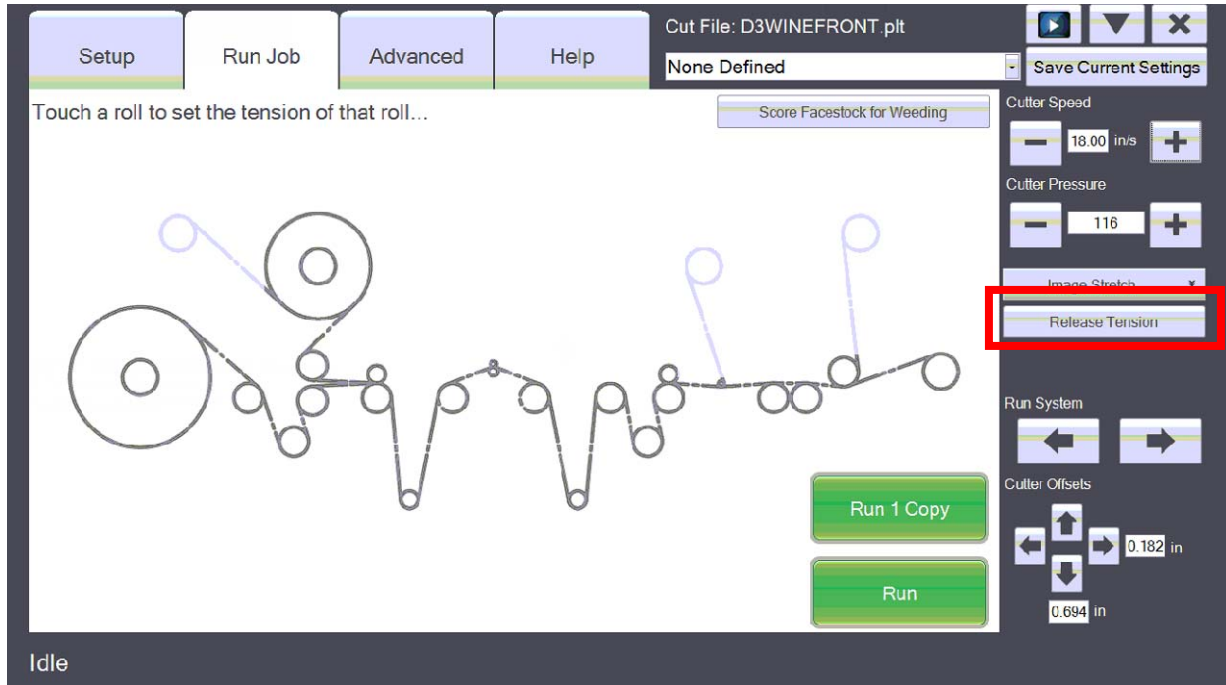
Use the Paper Path Diagram on the next page to manually rethread the system.

To start open both the left and right nip points. You may find it useful to engage the nip rollers during the rethreading process at various points in order to prevent the media from slipping back. However, in order to pull the media through the system you will need to open both left and right nip points.

Paper Path Diagram

Nip Rollers

56
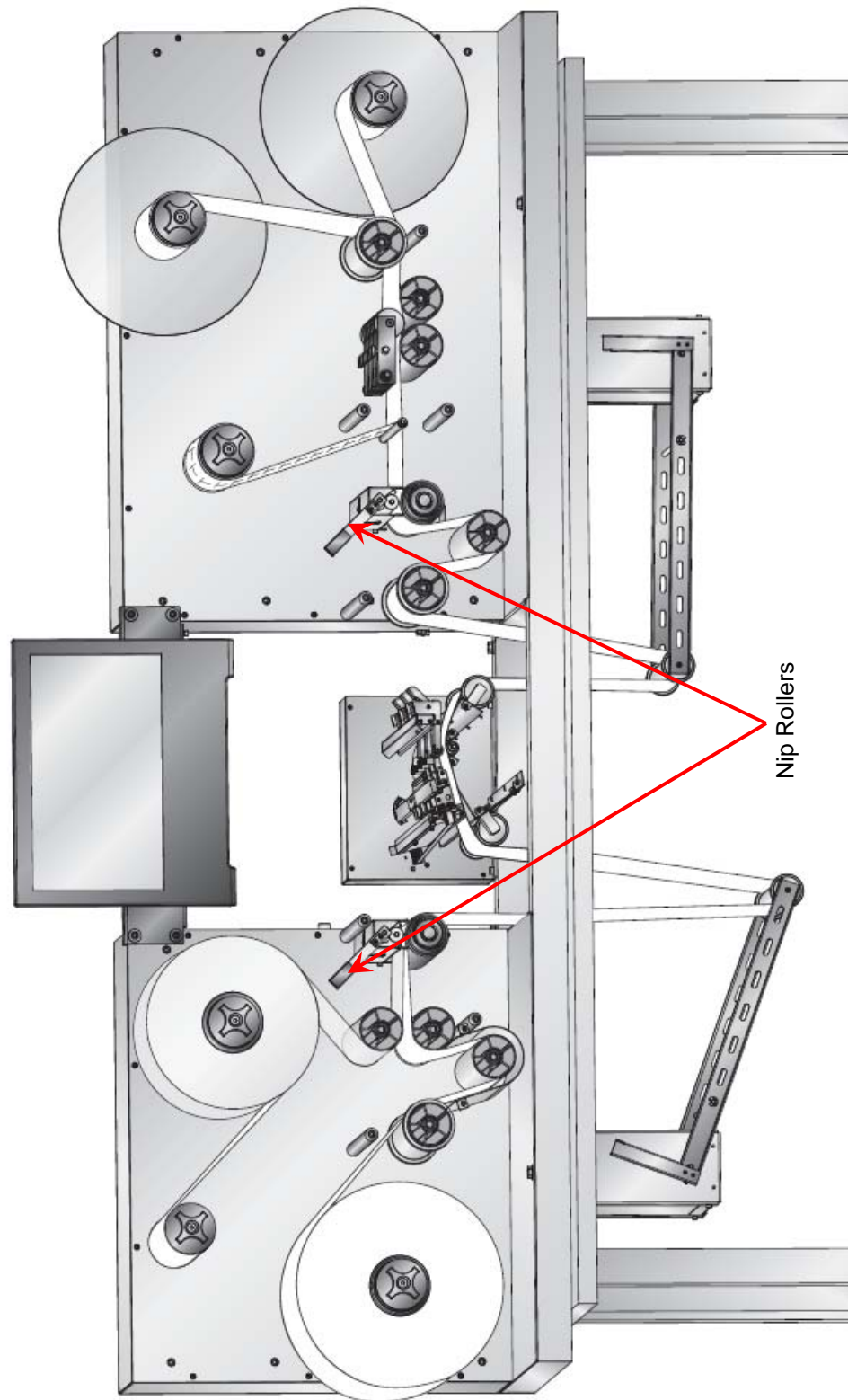
5.3 Cleaning and Maintenance

Basic periodic cleaning and maintenance is required to keep the FX1200 running smoothly.

Clean Rubber Nip Point Rollers

The nip point rollers are located on the left and right sides of the cutter. Adhesive from the edges of media can build up on these rollers. Over time this will decrease the effective pinch pressure of the nip points which can cause the web to slip.

Clean the rollers with isopropyl alcohol. To access the rubber rollers open the nip points and remove paper from the system. Clean each area and then rotate the roller as you clean it.

The upper metal roller can be cleaned by using a small amount of alcohol on a folded paper towel. Feed the paper towel through the nip point with the alcohol facing up. Grab both ends of the paper towel and pull it tight. Move the paper towel up and down the direction of the web while at the same time slowly moving it from front to back. Rotate the metal roller and repeat the procedure.

Clean the inside of the Guide Collars

Over time adhesive can build up here. Clean the collars with isopropyl alcohol.

Replace the Wear Strip

The wear strip is the surface directly underneath the cutting blade in the cutter mechanism. Over time this strip will wear down due to cutter knife pressure. It can also be damaged if the knife cuts through the liner and contacts the wear strip.

To replace the wear strip remove any media from the cutter mechanism. Grab one end of the wear strip and pull it off the cutter. If necessary, use a utility knife to get under the strip to start it. The wear strip is held in place with adhesive so there may be adhesive residue. Clean off the adhesive with isopropyl alcohol.

Remove the liner from the new wear strip. Press the strip into place. To make this process easier it is helpful to move all of the knife carriers and the pinch rollers to the back of the cutter mechanism. Press the first half of the wear strip into place. Now move the knife carriers and the pinch rollers to the front of the cutter mechanism. Finish pressing the wear strip into place on the second half.

Label Cut Dust

Label cut dust can accumulate at any place along the cut path. However, it is most likely to build up inside the cutter and at the right side nip point. A brush/vacuum attachment can be installed to minimize this dust. (See Section 2.3)

Dust typically only builds up when un-laminated material is cut. Paper media creates more dust than synthetic material. Dust build up does not cause any specific immediate problems but it can eventually cause problems with the moving parts and electronics in the cutter.

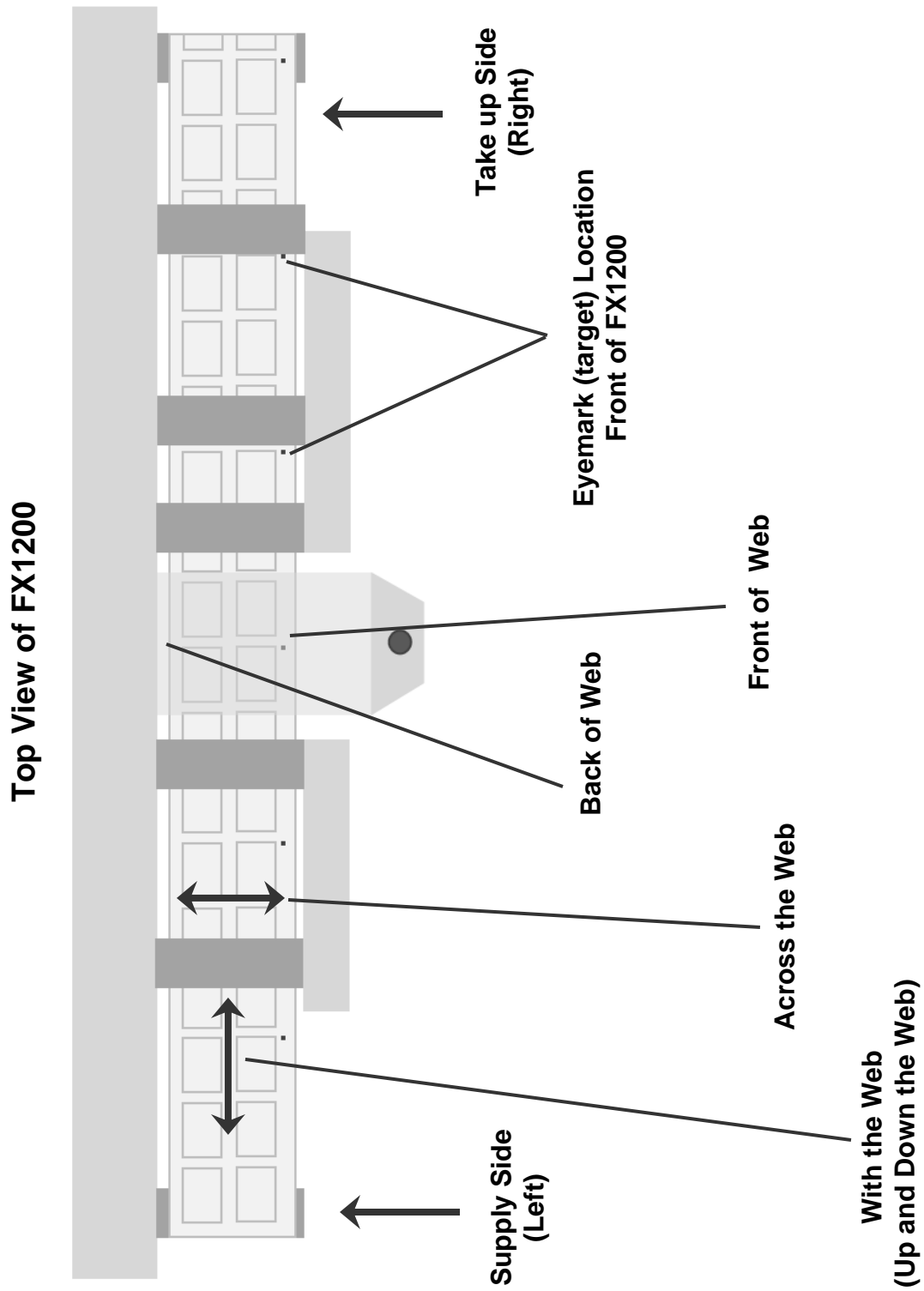Periodically vacuum the cutter area and rollers.

5.4 Problem - Solution Table

Problem	Solution
Vertical Target Error *- Error Message*	1. The cutter sensor cannot find the eyemark/target. Manually adjust the web so that the target is in the carrier window. (3.3D) 2. The print quality of the target may not be sufficient. Check for light or inconsistent printing on the target. 3. The media may be feeding crooked. Check for any frayed edges. Adjust guides accordingly (3.7). 4. The target may have been printed too close or too far away from the edge of the media. Measure the distance from the edge of target to the front plate of the cutter. Go to Advanced Tab – Advanced Offsets – Horizontal Target Offset. Set the value to the measurement you took.
Out of Paper *- Error Message*	1. This can mean that you are out of Laminate or your Supply Roll is empty 2. Lamination may be enabled but no laminate is installed. Disable lamination.
Cutter Cover Open *- Error Message*	1. The cutter cover must be closed. 2. Make sure the stop button is not engaged.
Web Break Detection (Location) *- Error Message*	This means that the web is broken at some point on the system. It typically happens at the Weeder Roller. Reconnect the matrix, laminate film or splice the web. If it continues to break, tension at that point will need to be decreased or the cuts may not be closing completely. (3.3F)
Carriage Home Error *- Error Message*	The cutter carriage is physically blocked from moving forward. Open the cover and look for a label jam. Clear the jam to clear the error.
Paper is not feeding through the FX1200 but rollers are turning	Close the left and right nip points and/or the cutter pinch rollers.
Dancer arms are topping out hitting the top of the base frame.	Close the left and right nip points.
Paper is ripping on the edges	Adjust the guide collars outward. (3.7)

Problem	Solution
There is a track of small bumps that can be seen running with the entire length of the web. The bumps can be seen on the finished label.	This is caused by the pinch rollers crushing the media against the knurled roller in the cutter. The pinch roller in combination with the knurled roller is necessary in order to grab the paper and rapidly move it up and down the web during cutting. Adjust the pinch roller locations, pinch roller pressure or design your print layout around the pinch rollers. (3.3C and 4.5)
Touch Screen is locked up or error will not clear.	1. Press the stop button, gently turn it clockwise to release. This resets the cutter. 2. Close and reopen the software. Press the X in the upper right corner. Double tap the PTFinish Icon on the desktop to reopen. 3. Reboot the computer.
One or more cut object on a page cuts through the liner. The same objects/labels are cut through the liner on each successive page.	This usually indicates that a double cut line was created in PTPrint or your source software. This is difficult to see on your screen because the cuts are directly overlaid. Find the corresponding cut location in PTPrint, click the cut line to select it. Delete it. Recreate the cut file.
Lamination is wrinkling.	1. Make sure the Lamination Roller is enabled. 2. Make sure the roll of laminate film is centered on the chuck and centered over the web.
Lamination has small bubble (fish eyes).	Typically, it takes 24 hours for air bubbles to be released from the laminate film. If they exist after this time, they are the result of the type of film being used. Quiet film is more likely to have bubbles.
The matrix is getting caught up in the slitter station.	1. Enable the Weeder on the Setup Tab – Component Setup. 2. Increase Weeder tension.
Paper is walking back to front across the web.	Adjust the guide collars inward. (3.7)

Problem	Solution
Finished labels or curling up or under.	1. Make sure the lamination mandrel is enabled if you have laminate installed. 2. If finished labels are curling or peeling up or under on the edges this is an indication that tension on the web is not balanced. Decrease tension on the supply mandrel or lamination mandrel if labels are curling up. Increase tension if they are curling under. 3. Too much humidity will cause labels to curl on the edges. 50% humidity and 72 degrees Fahrenheit is the optimal conditions for both storage and used of label stock. Store label stock in protective plastic wrappings. Rewrap partially used stock. Do not store stock directly on concrete floors. Label stock should be conditioned in this environment for 72 hours prior to use.
The splice point is ripping as soon as the system is run forward.	Make sure the paper is fed beneath the supply side second media roller. See paper path diagram Section 5.2.
Paper is walking back and forth at the take up point.	Make sure the paper is fed beneath the take up side second media roller. See paper path diagram Section 5.2.

5.5 Web Orientation/Target Specification

Top View of FX1200

Take up Side (Right)

Eyemark (target) Location
Front of FX1200

Front of Web

Back of Web

Across the Web

With the Web
(Up and Down the Web)

Supply Side
(Left)

Section 6: Specifications

Input roll max. diameter: 12" (305mm)

Output roll max. diameter: 12" (305mm)

Minimum web width: 4.5" (114mm)

Maximum web width: 8.5" (216mm)

Maximum die cutting width: 8" (203mm)

Minimum label length: 0.75" (19mm)

Maximum label length: 24" (609mm)

Throughput speed: Up to 4" (101 mm) per second or 20 FPM (6.09 m per minute)

Controls: 15.6" (diagonal measure) LCD touch screen, 16:9 wide panel, 1366 x 768 pixels; emergency stop switch

Number of cutting blades: 1 to 4

Number of slitting blades: 1 to 7

Cutting technology: Tungsten carbide pivoting knife(s)

Cutter Blade Life 40,000 linear feet with matte paper and no lamination (Variable depending on label material and lamination)

Cut file protocol: HPGL

Optical sensing: Dual two-zone

Cut speed (max. diagonal): Up to 170" (432cm) per second when using four knife blades

Processor: Intel® Atom™ 330 1.6 GHz

Operating Environment Optimal Operating Environment: 40% - 55% relative humidity and 68-74 degrees Fahrenheit (20-23 °C)

Memory: 1 GB DDR2

On-board storage: 160GB SATA 2.5" HD

Data interfaces: USB 2.0, 10/100/Gigabit Ethernet, Wireless 802.11 b/g/n, USB memory stick

Decibel levels	72 dB - 98 dB depending on lamination film used.
Dimensions:	78"W x 30"D x 56"H (198cmW x 76.2cmD x 142cmH)
Weight (estimated):	498 lbs. (226 kg)
Cut registration tolerance:	+/- .020 inches
Cut size tolerance:	+/- .005 inches
Power requirements:	Note: This system has multiple power source requirements. Cutter System: Internal 300 watt power supply. Input 100-240VAC, output 24v, 13 amp. Powers Unwinder, Laminator, Cutter, Rewinder Touch Screen Computer : Separate External Power Supply, input 100-240VAC, output 19v, 3.42 amps
Agency certifications:	UL, UL-C, CE, FCC Class A