Afinia Label DLF-220L
All-in-One Digital Label Finisher

Instruction Manual

USER MANUAL

DLF-220L
Digital Label Finishing System

THIS PRODUCT IS CERTIFIED:

IMPORTANT: Please keep the original packaging in case of return. If we receive the system in non-original packaging, the warranty will be voided.

CAUTION: Do not install Graphtec cutter software, and do not touch buttons on Graphtec Plotter unless otherwise instructed during installation."

I N D E X

SYSTEM REQUIREMENTS

i-Mark software is compatible with Windows XP and newer versions;

CPU memory 4GB;

Cutting files: Adobe Illustrator (AI) and Corel Draw (EPS).

Diagram connectors behind the on-off panel.

USB TO PC

DONGLE USB

CAMERA USB

PLOTTER USB

ERROR SENSOR MANAGEMENT
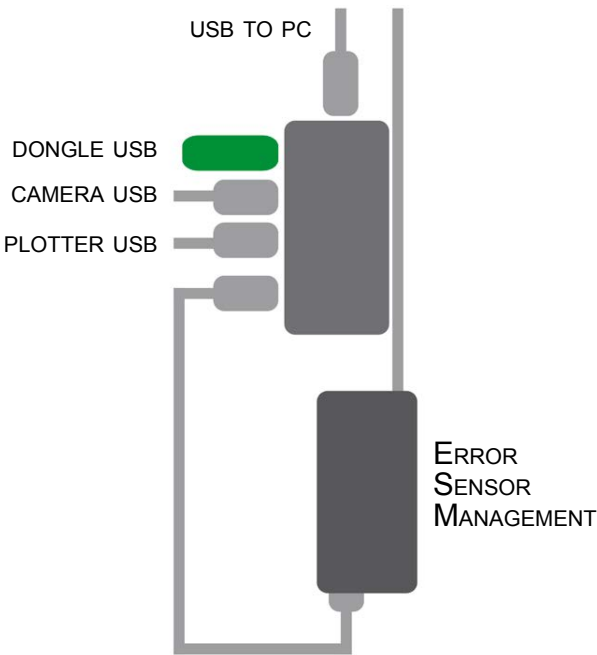
HOW TO INSTALL OUTER DISC

For printed rolls, install the outer discs on the core holder with a screwdriver.

HOW TO INSTALL THE PLOTTER

A

B

C
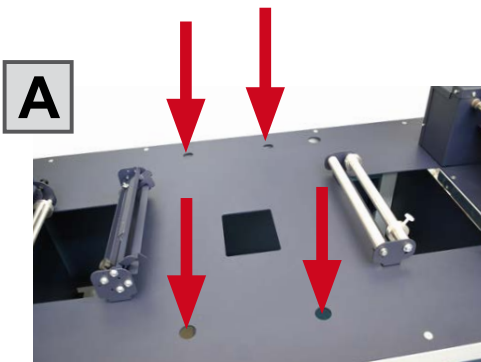
A. Remove the plotter from the packaging and place it on the plate, making sure to push the rubber feet into the holes.

B. Plug the power cord into the power strip.

C. Switch on.

HOW TO INSTALL THE CUTTING PLOTTER
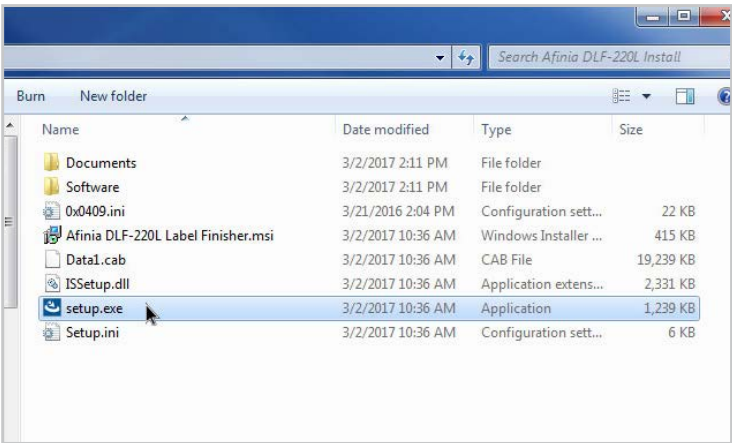
1. Download the DLF-220L Full Installer from http://afinialabel.com/support/software-drivers/ and unzip the files.
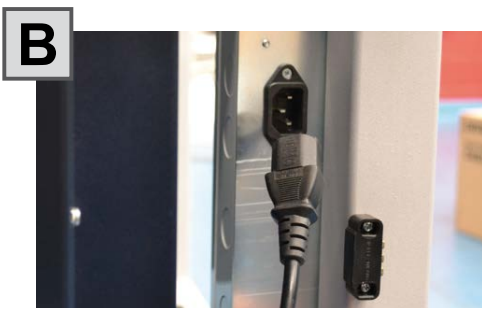
2. Open the location of the extracted files and run setup.exe. Follow the installation instructions.

3. When the window for the i-Mark installer appears, follow these next steps.

4. Click NEXT
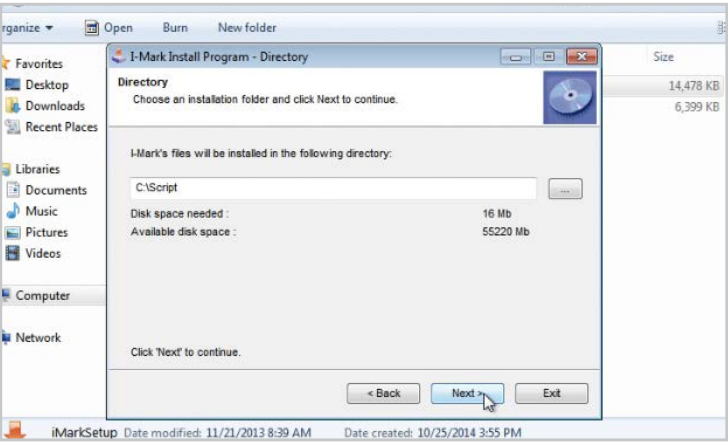
5. Click NEXT
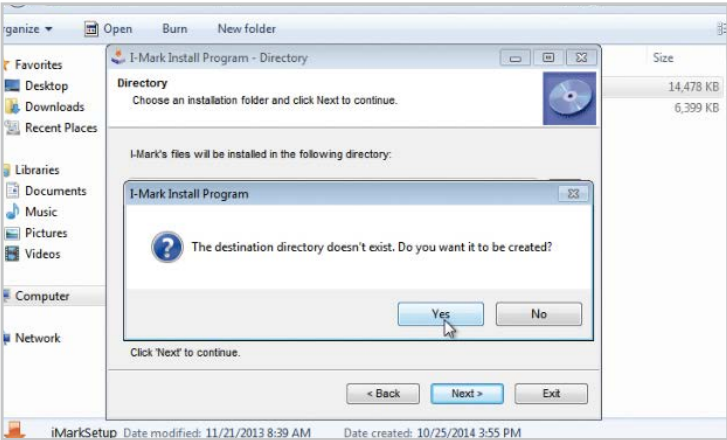
6. Click YES
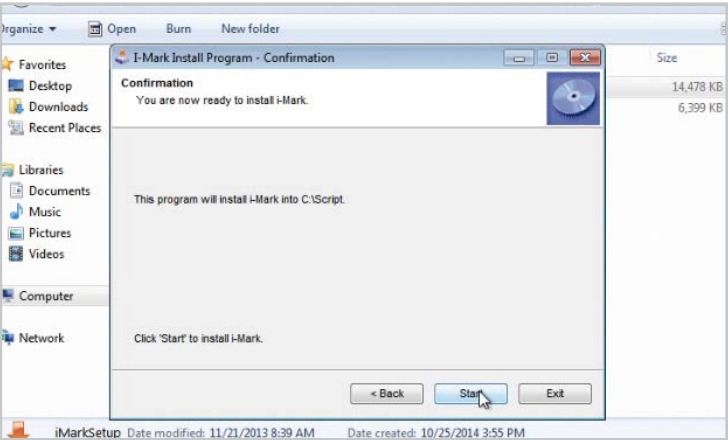
7. Click START

8. Check "I agree to license terms and conditions" and click INSTALL
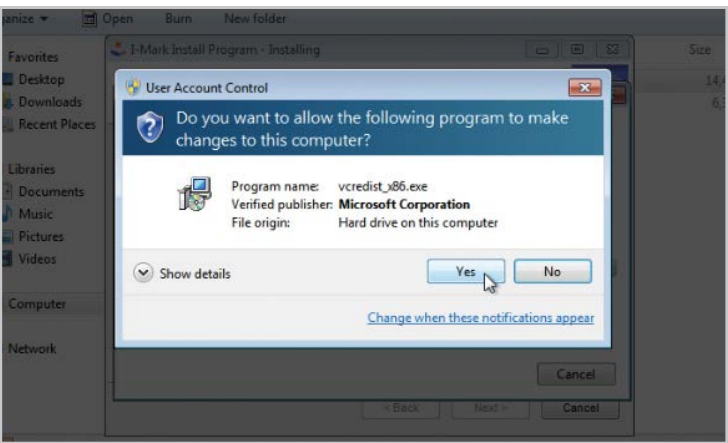
9. Click YES
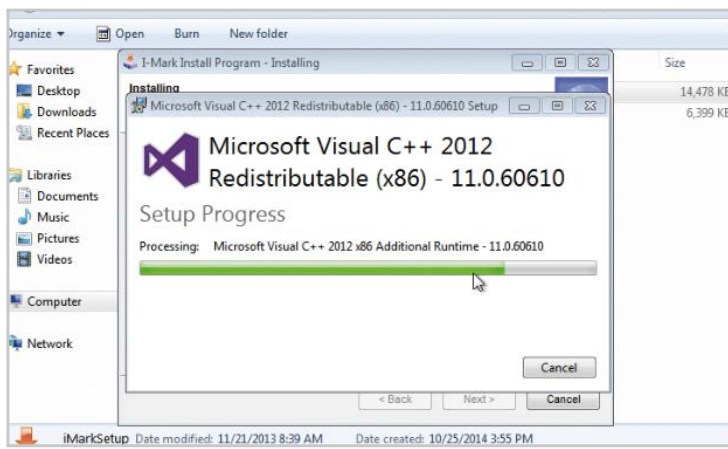
10. In process
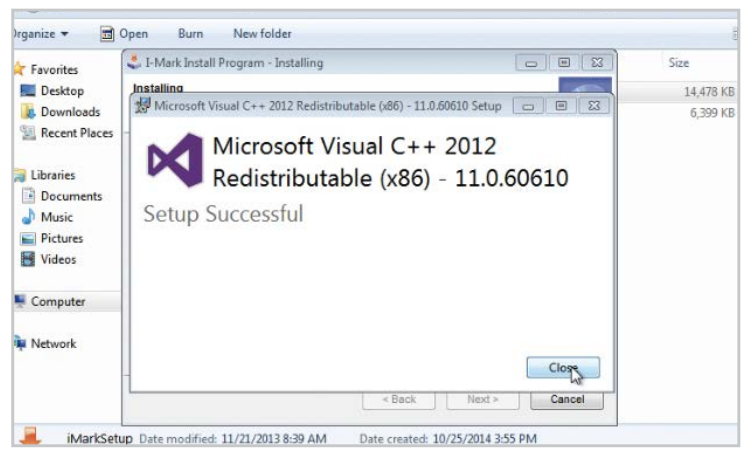
11. Click CLOSE
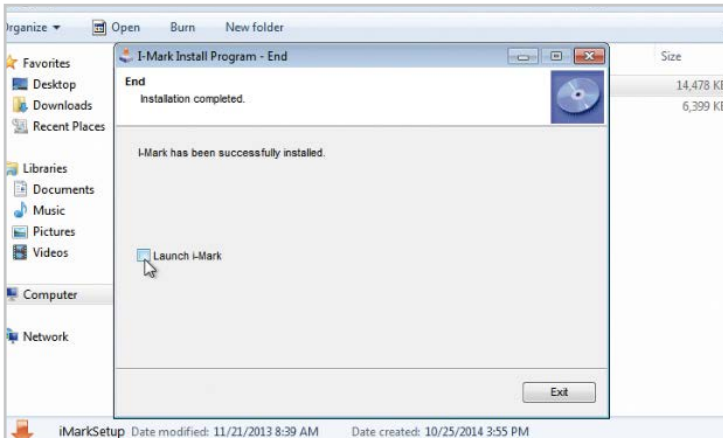
12. Uncheck 'launch i-Mark'
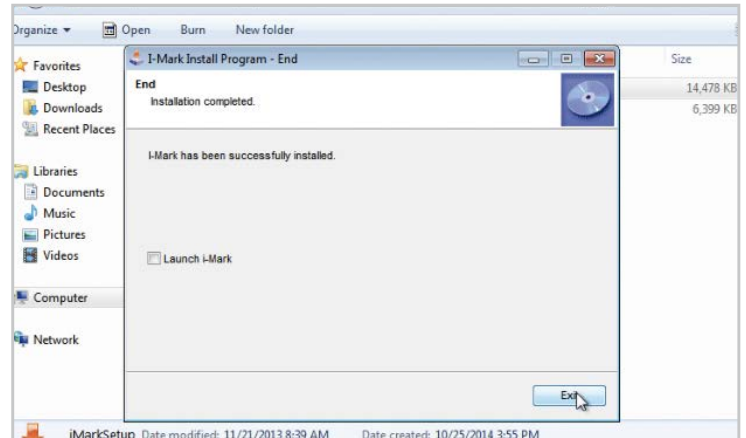
13. Click EXIT

Plug in the USB camera and the USB dongle. They will auto-install.
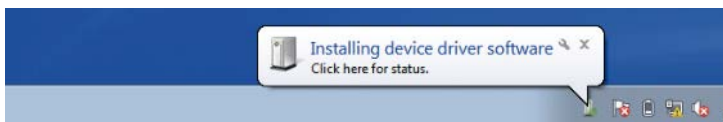
i-Mark will generate a folder in the Windows start menu.

If the USB dongle is not installed correctly or is un-plugged, the below error will be shown.

HOW TO INSTALL THE CORE HOLDER
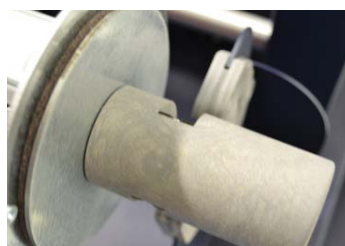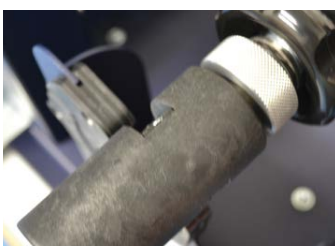
The grey handle must match with the grey holder, and the black handle with the black holder.

IMPORTANT: screws must face downward.

HOW TO LOAD & OPERATE THE LAMINATION MODULE
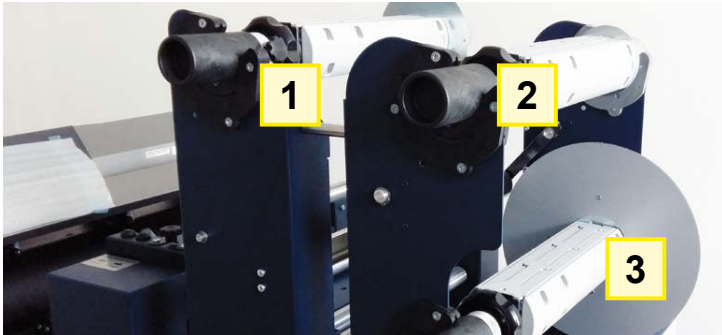
Core Holder No. 1: intended for laminate use

Core Holder No. 2: intended for laminate liner use

Core Holder No. 3: intended for printed roll use

Load the printed roll and move it against the roll guide. Tighten the core holder.

Load an empty cardboard core onto the shaft intended for laminate liner rewinding. Tighten the core holder.

Load the lamination roll and move it along the supply shaft until it matches with the web.

IMPORTANT: the lamination roll always needs to be narrower than the web width.
Example: if the web width is 7", then the lamination roll needs to be less than 7" (let's say ¼ inch on each end).

At this point you can tighten the core holder.

When the LEDs on the control panel are off, the device requires manual feeding.

Move the media through the rollers and press the FORWARD button. The media will be loaded through the rollers, whereas if you push the BACKWARD button, the rollers will roll the media backwards.
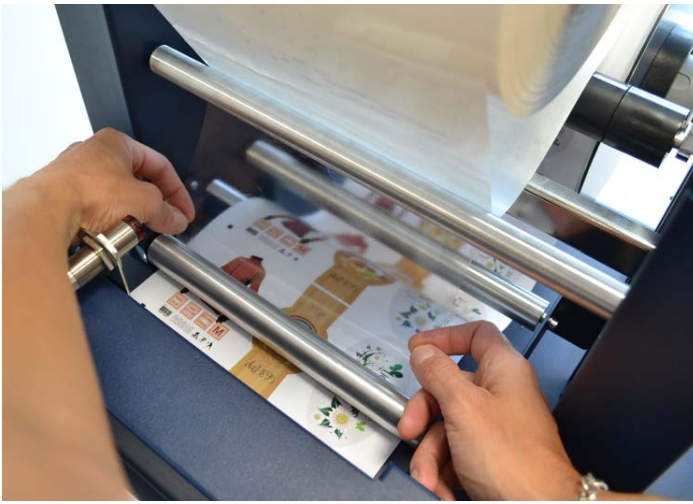
Hold the laminating film with both hands, pull it underneath the guide roller, center it, and adhere the laminating film to the web and attach the liner onto the cardboard.

NOTE: PLEASE LOOK AT THE LAMINATION PATH! (PAGE 21)

While using the knobs, adjust the pressure on the rollers to adhere the laminating film to the media, and avoid any possible air bubbles.

When the green LED is on, the automatic feeding is activated and operated by the ultrasonic sensor. When both yellow and green LEDs are on, it indicates the system is in error mode. Check to ensure the media or laminate roll is detected and has not run out. If this is not the cause, please reset the sensor.

HOW TO SET THE LAMINATION SENSOR

LAMINATE SENSOR

Turn the screw on the sensor clockwise or counterclockwise. This operation has to be done without lamination in place.

If there is no lamination in place, the LED will turn on.

If there is lamination in place, the LED will turn off.

HOW TO ADJUST THE CLUTCH
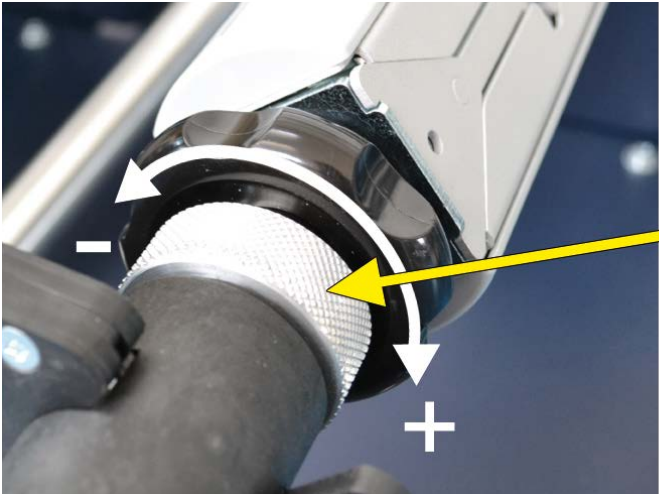
Both core holders are clutched (unpowered). They are the same, and work independently.

It is possible to adjust the clutch by tightening or loosening the aluminium handle.

WHEN TO ADJUST THE CLUTCH

It is important for the media and laminating film to have the correct amount of tension. Too much tension may damage the roller system, but too little tension may inhibit proper lamination. Use the clutch adjuster to achieve the right level of tension.

LOAD THE MEDIA INTO THE PLOTTER

Pull the laminated media underneath the tension arm, then pass it through the aluminium rollers. The guide can be adjusted to prevent the web from rolling.
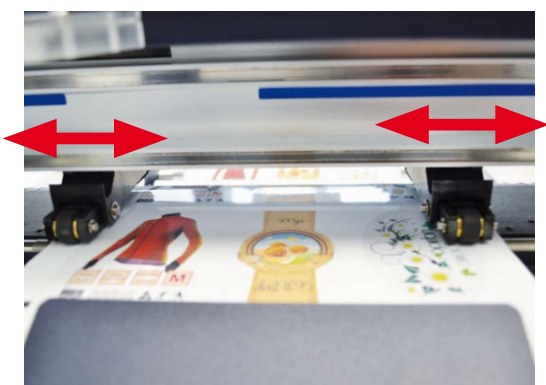
Press down the handle on the rear of the plotter.

Pull the media through the plotter and keep the media edge aligned to the alignment points. Just slide and set both pinch rollers close to the media edge.

8

While holding down the media in the aligned position, pull up the handle on the rear of the plotter to keep the media loaded.
Press button 2 as requested on the plotter's display.

HOW TO RUN THE CUT TEST

User Interface on page 16 might be helpful.

- Open i-Mark software.
- Press OPEN FILE to load the cutting file.
- Enable AUTOFOCUS box.
- Look at the left window where the preview is shown. Use the ARROW buttons to move the web until the black-mark is centered in the window. If necessary, it is possible to slide the camera left or right in order to get the black-mark centered as much as possible.
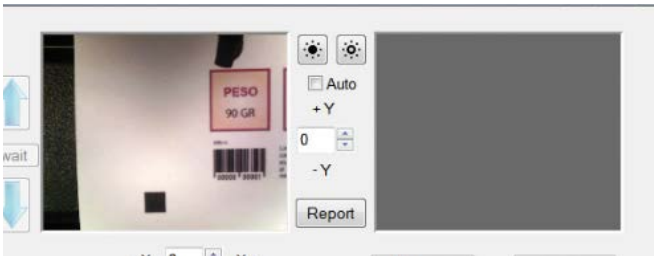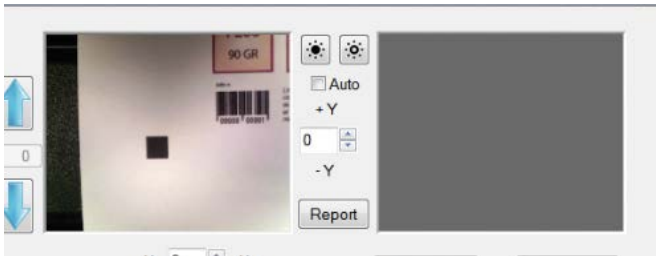

| NO | YES |

- In LABEL STEP, enter the value of the space between the top of the higher black mark to top lower black-mark, see page 18 for diagram.
- Press CUT TEST to check for cut depth. If the liner has been cut, decrease the cutter pressure value in the cut force box. If the label tears, increase the cutter pressure value in the cut force box.
- Make sure the label is aligned with the cut. Use the X and Y values, to adjust offsets if needed.

| MOVE DOWN THE CUTTING FILE | MOVE UP THE CUTTING FILE | MOVE TO THE LEFT THE CUTTING FILE | MOVE TO THE RIGHT THE CUTTING FILE |
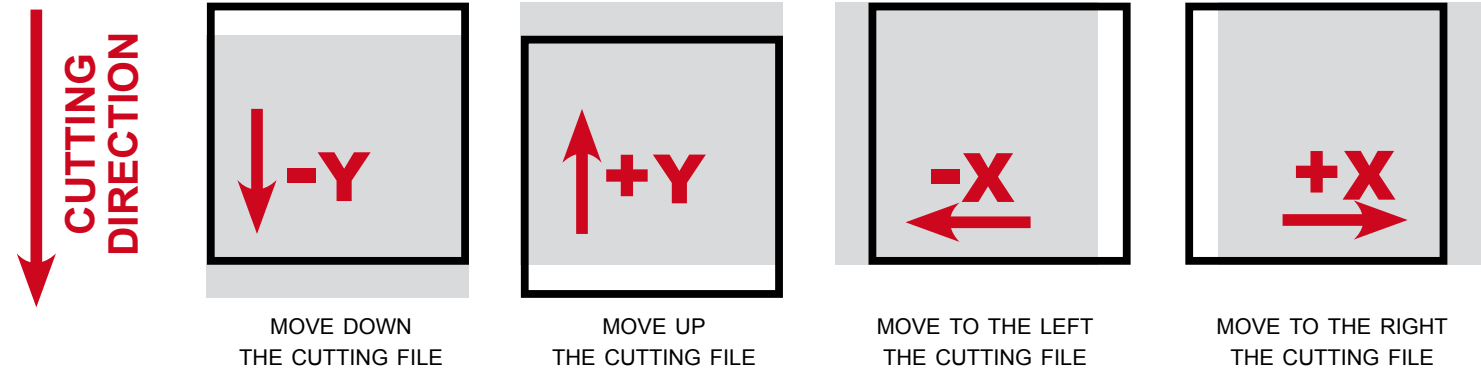
The offset can be in tenths of a millimeter. These values can be changed while the plotter is in action: the adjustment will update immediately.

HOW TO LOAD THE MATRIX REMOVER & SLITTER

After the CUT TEST, where users set the required cutting quality, press START to cut a few labels. Continue until there is enough media to allow the matrix remover module to load.

Pull the sides of the black knobs and lift up the clutch system. Other black knobs will keep the system open.

Pull the media through the aluminium rollers first (the guide can be adjusted in order to prevent the web from rolling), then through the clutch system.
Close the loading system and the media will be automatically loaded into the clutch path.

Minimum clutch
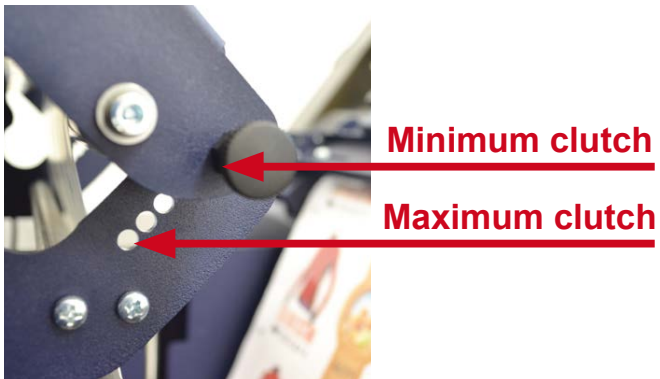
Maximum clutch

The user can adjust the clutch force, thanks to the position of the clutch system.

Maximum Clutch (rewinded roll more tight)
Minimum Clutch (rewinded roll less tight)

HOW TO LOAD THE MATRIX REMOVER CORE HOLDER

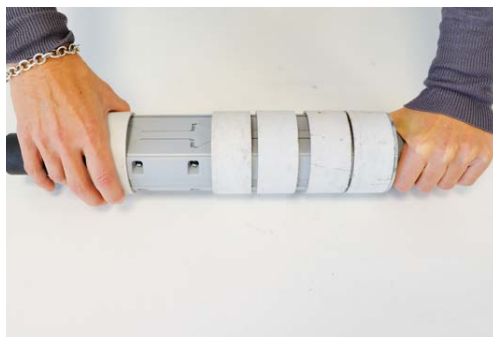**WARNING:** Before starting a job, always completely remove the waste media from the matrix remover core.
Tape the matrix uniformly on the cardboard core.

System operating issues might occur if the above suggestions are not followed.

- Load empty cardboard core(s) and tighten the core holder, then place the motorized core holder in position.
- Peel back the matrix.
- Pull the matrix and attach it to the matrix remover core holder.

HOW TO LOAD THE REWINDER CORE HOLDER & SET THE SLITTER MODULE

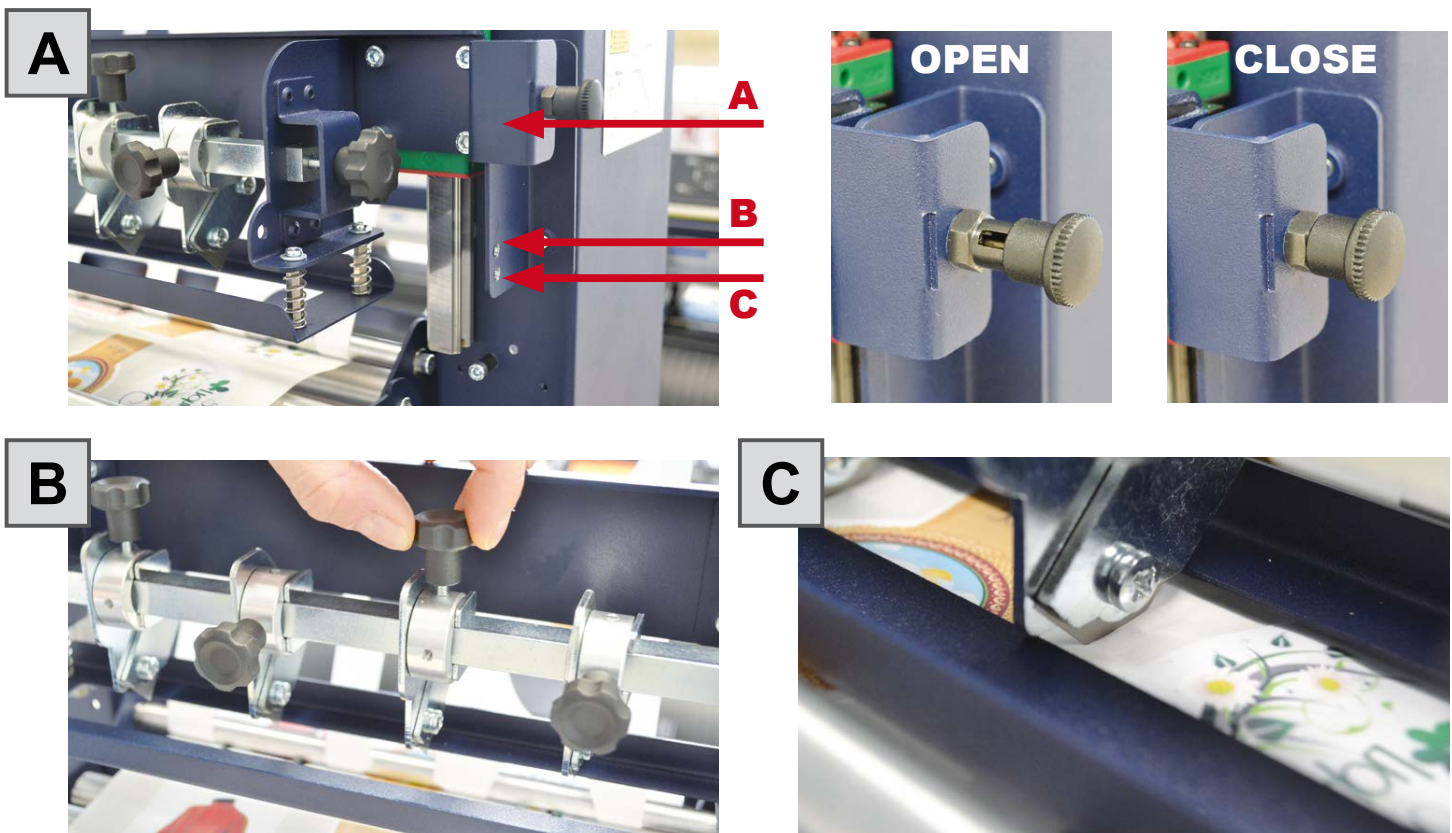
- Load empty cardboard core(s) and tighten the core holder, then place the motorized core holder in position. (Cardboard core(s) width should be equal to, or narrower than, the width of the finished roll)
- Pull the media through the aluminium rollers and attach the labels to the core using a waste label.

A

OPEN CLOSE

B

C

The slitter module has 3 positions:

- Upper position (A): the blades are closed to allow media loading;

- Middle position (B): align the blades with the edges and the center of the area between the labels, and tighten the thumb screw once the blade is in position;

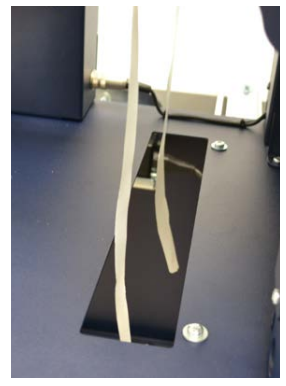- Lower position (C): the blade is set to cut the media.

The black knobs lock the slitter module in the requested position.

Screw the thumb knobs to move the blades right or left.

- Turn ON the Matrix Remover module to rewind and begin slitting media, then turn OFF.

- Cut the labels where the first "good" labels are visible;
- Make sure the tension on all rolls is even and attach each label to the core using a waste label;
- Feed trim waste into the waste basket under the hole.

Press RESUME to start your finishing process.

HOW TO ADD OR REMOVE A BLADE HOLDER

1

Remove the iron slide bar by unscrewing the thumb screw.

2

Slide the blade holder in or out.
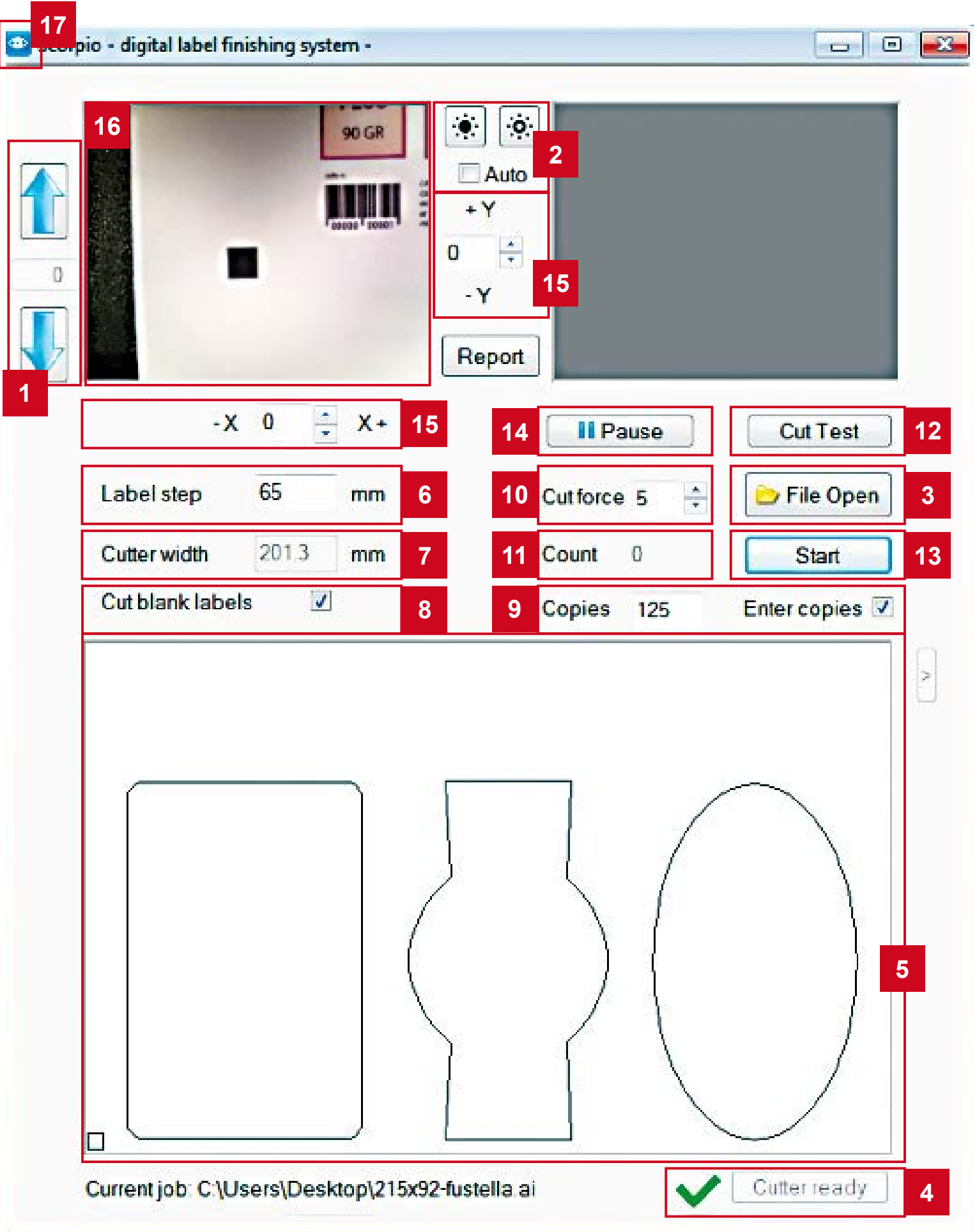
Replace the slide iron bar and rescrew the thumb screw.

METAL GUIDE ALIGNMENT

Metal guides can be adjusted in order to prevent the web from rolling.

i-MARK

USER INTERFACE

17 Scorpio – digital label finishing system –

16
90 GR

2 Auto
+Y
0
15 -Y
Report

1

15 -X 0 X+

14 ⏸ Pause

12 Cut Test

6 Label step 65 mm

10 Cut force 5

3 📁 File Open

7 Cutter width 2013 mm

11 Count 0

13 Start

8 Cut blank labels ☑

9 Copies 125 Enter copies ☑

5

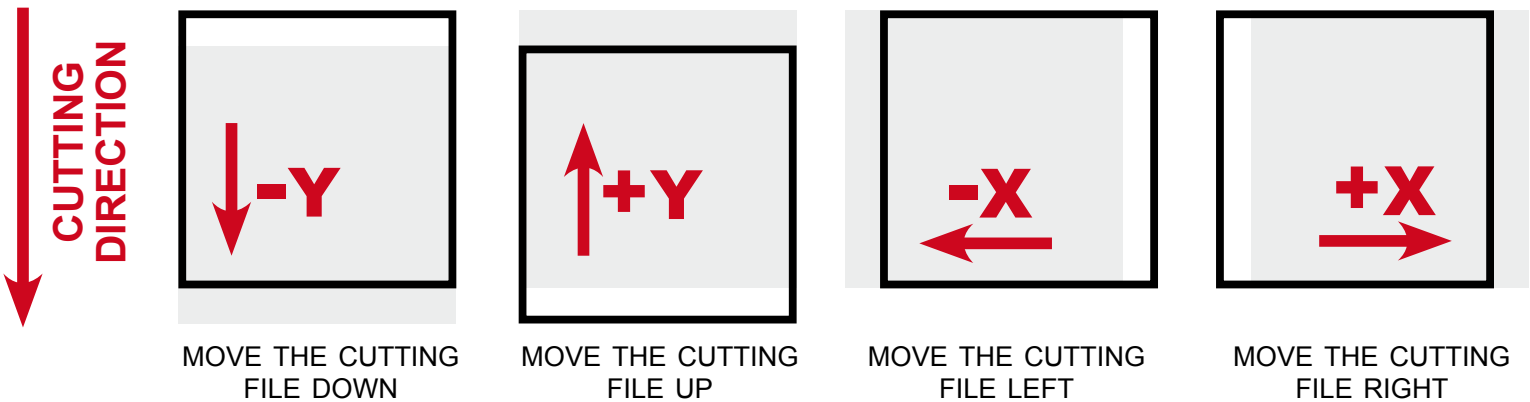Current job C:\Users\Desktop\215x92-fustella.ai

4 ✔ Cutter ready

1. Arrow buttons to adjust the media forward or backward.

2. Camera brightness setting: We suggest checking the "Auto" box for automatic adjustment, and installing the system in well-lit environment.
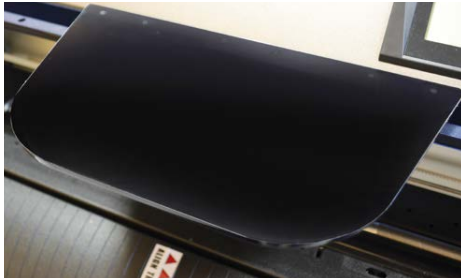
Use and adjust the black plastic to cover the camera reading area in order to prevent issues caused by light reflections on gloss media.

3. Open and load cutting file.

4. All settings are correct.

5. Cutting file preview.

6. Set the space between top to top black-mark.

7. Media width detected automatically by the plotter.

8. Enable unprinted media cutting.

9. Enable counter copy to be cut and enter the number of jobs requested.

10. Increase or decrease the value for cut depth.

11. Job cut counter.

12. Run one cut at a time.

13. Start/Stop the cutting process.

14. Pause/Resume the cutting process.

15. Offset adjustment.

CUTTING DIRECTION

| -Y	+Y	-X	+X
MOVE THE CUTTING FILE DOWN	MOVE THE CUTTING FILE UP	MOVE THE CUTTING FILE LEFT	MOVE THE CUTTING FILE RIGHT

16. Camera reading preview.

17. "About i-Mark".

ERROR MESSAGES

If the plotter is not connected correctly to the computer, the bottom of i-Mark window will display the following:

Close i-Mark program, make sure the plotter is on and connected properly to the computer through its USB cable, then re-open the i-Mark program.
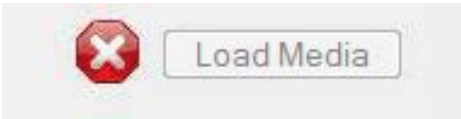

Close i-Mark program, close the handle on the plotter that is used to load the media, and push button 2 on the plotter's display. Re-open the i-Mark program.

BLACK-MARK DETECTION

It is important that the camera correctly reads the black-mark to ensure correct functionality and prevent any finishing issues.

Use the ARROW buttons to move the web until the black-mark is centered in the window. If necessary, it is possible to slide the camera left or right in order to get the black-mark centered as much as possible.
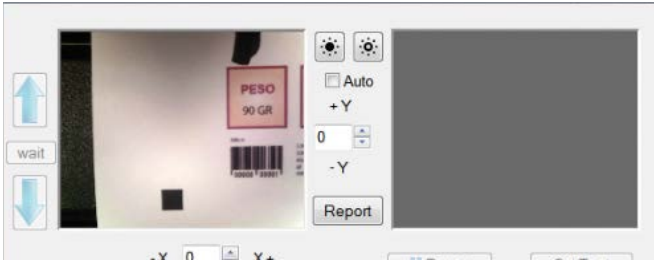
WRONG POSITION
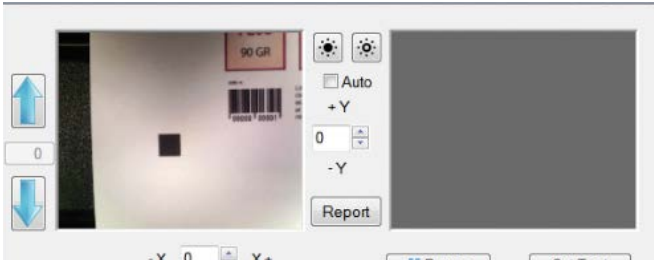
CORRECT POSITION

CUTTING FILE SPECIFICATIONS

The artwork file must be equipped with a square black register mark. Minimum length of mark sides, 4mm (0.16").

The cutting profile must be a closed shape. In the artwork file more than one cutting shape is allowed. In the artwork, save only the cutting shape and black-mark, it is not a requirement for the graphic to be saved.

If the file is using multiple drawing layers, one cannot simply disable the view of them, the graphic layers must be deleted or the profile shape must be copied in a new file and saved.

Using CorelDraw, it is possible to export using the "Selection1 only" option available in the EPS exporting function's window.
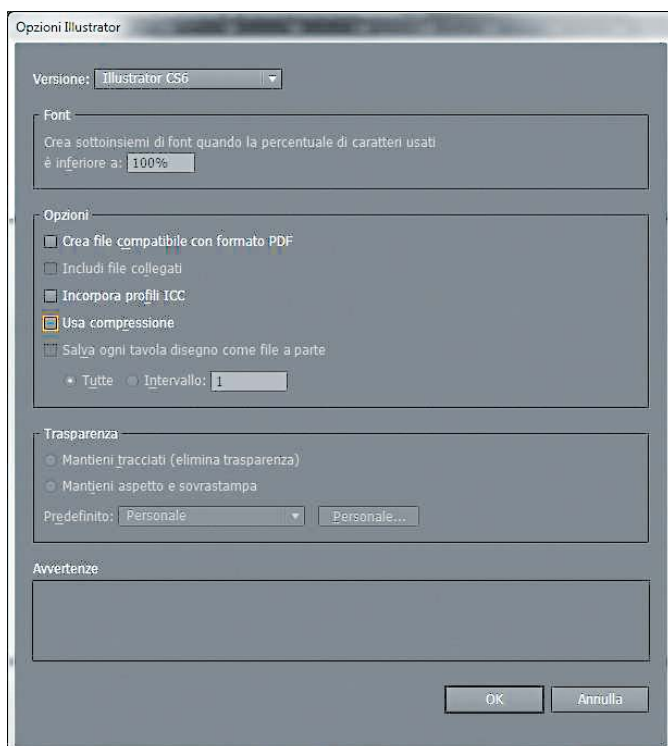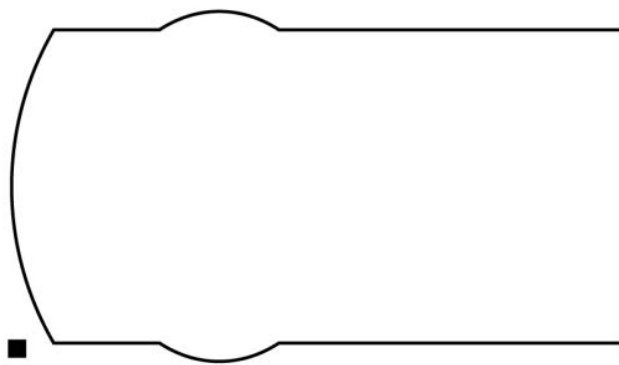
The cutting shape and the black-mark can be placed anywhere inside the layout file. The cutting shape does not require any special color and/or thickness.
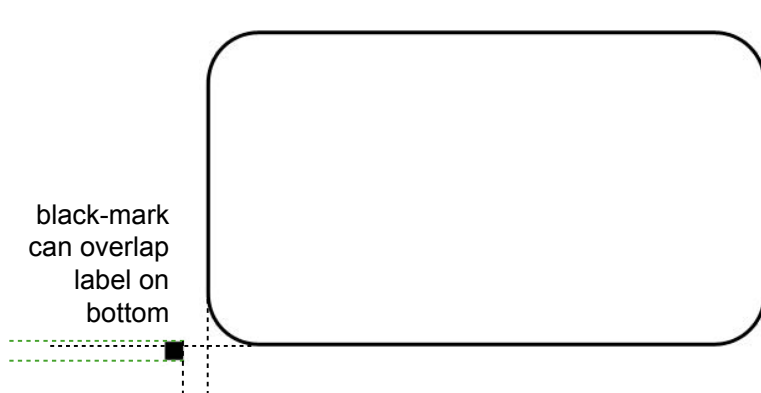
The black-mark must always be placed in the lower left corner of the layout file.

When saving using Adobe Illustrator, keep all functions shown in the saving window disabled.

All Adobe Illustrator and CorelDraw versions are allowed.
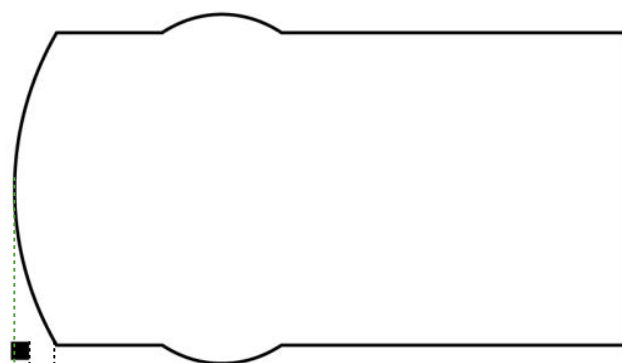
BLACK-MARK POSITION IN CUTTING FILE AND PRINTED ARTWORK

Black-mark size: 4mm x 4mm (0.16" x 0.16")

black-mark can overlap label on bottom

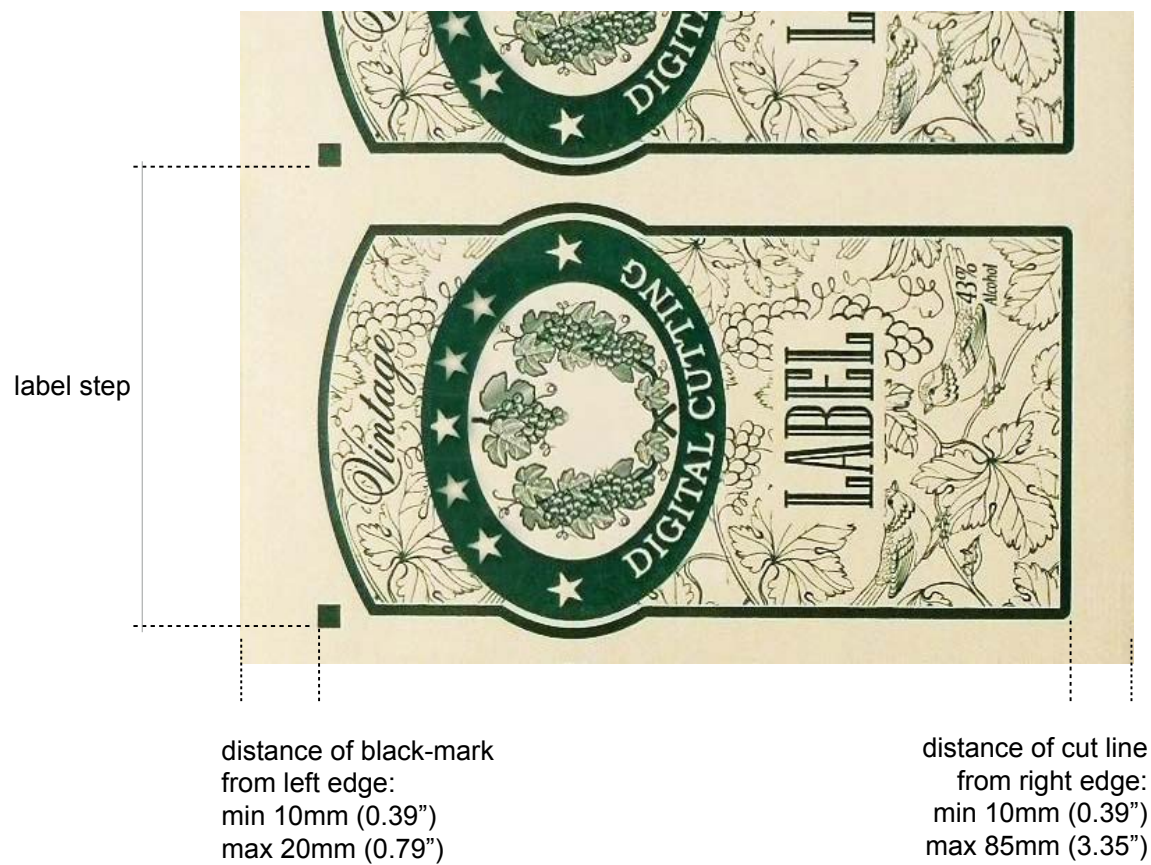minimum distance from left side of label graphics 4 mm (0.16")

for round or complex labels, black-mark can partially overlap the left side of label.
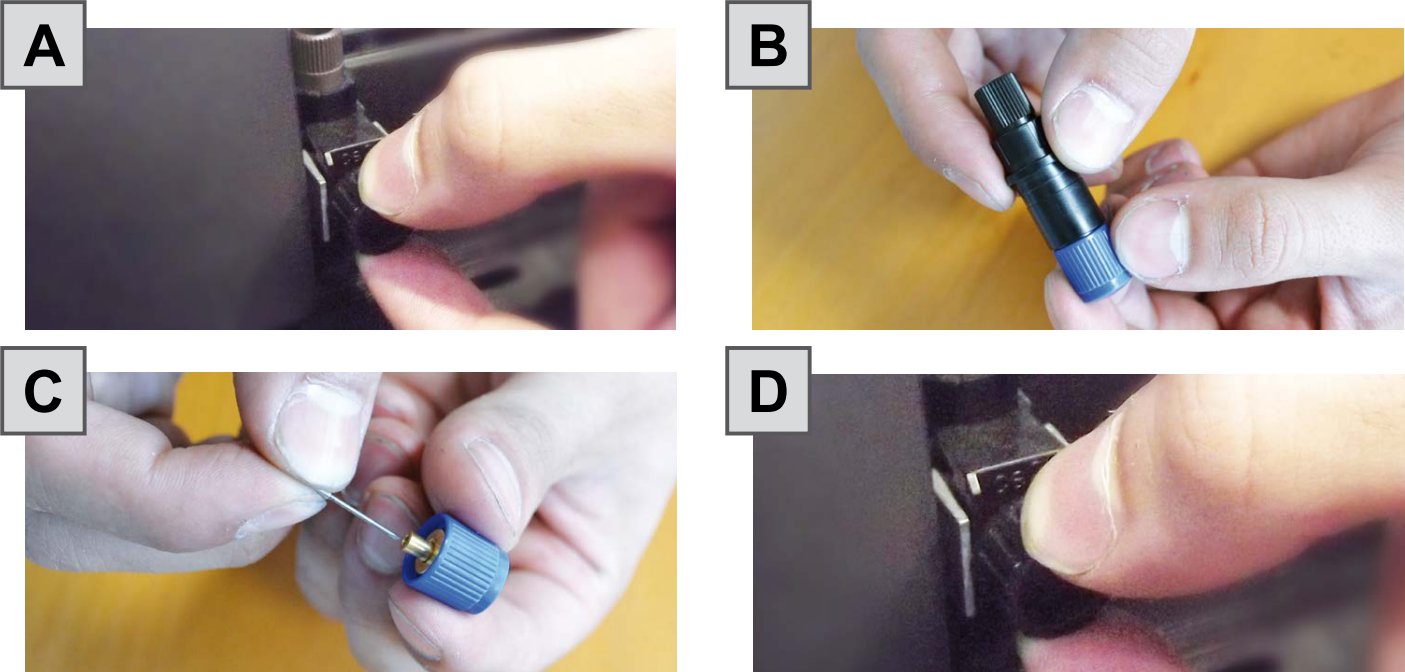
4mm is the minimum distance betwen black-mark and label graphics on bottom side.
Black-mark **MUST** be the leftmost object.

BLACK-MARK POSITION IN THE MEDIA

label step

distance of black-mark
from left edge:
min 10mm (0.39")
max 20mm (0.79")

distance of cut line
from right edge:
min 10mm (0.39")
max 85mm (3.35")

HOW TO REPLACE THE KNIFE

A. Loosen the knob to remove the knife support;
B. Loosen the blue cap;
C. Replace the knife;
D. Re-install the blue cap and screw it until the knife protrudes just a little.

ATTENTION:
In order to preserve the lifespan of the plotter knife and not to wear it out quickly,
it is best to properly calibrate the knife exposure and cut force depending on the
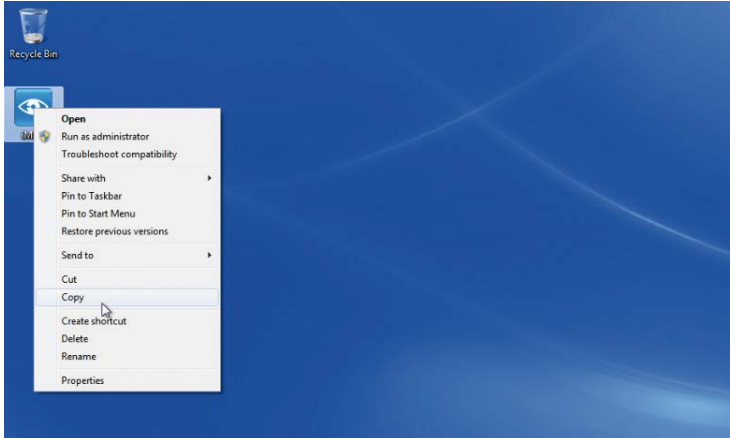*media thickness.*

HOW TO UPDATE i-MARK SOFTWARE

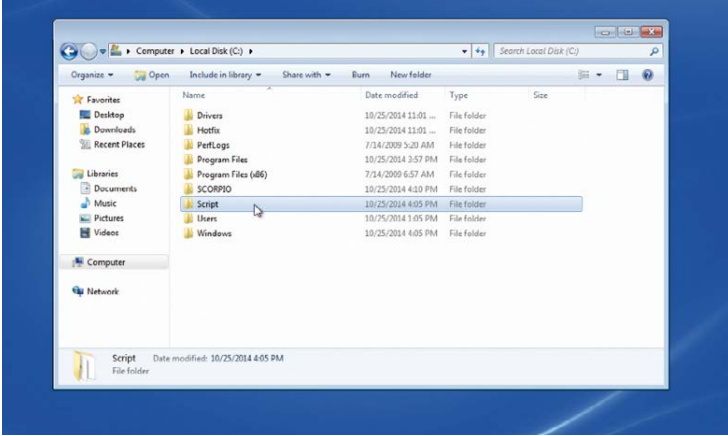1. Copy "iMark.ren" file provided to your desktop

2. Rename the extension, from REN to EXE
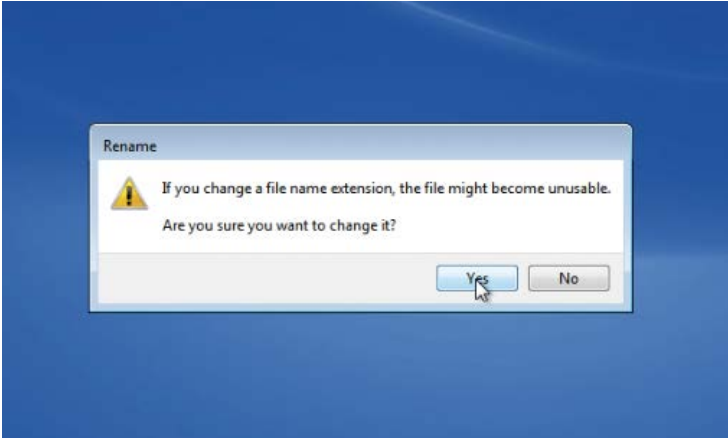
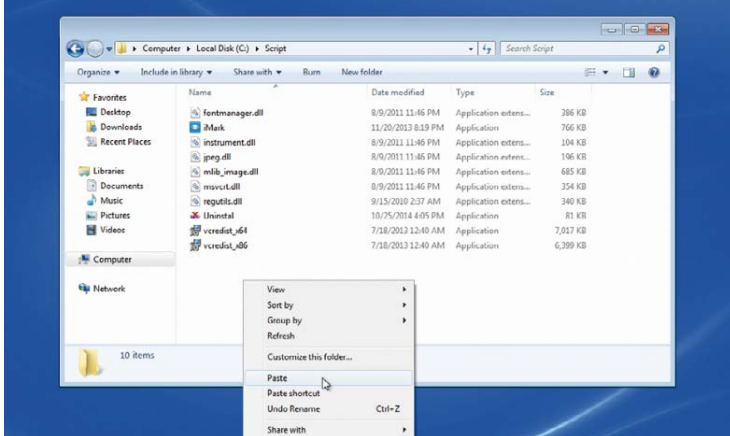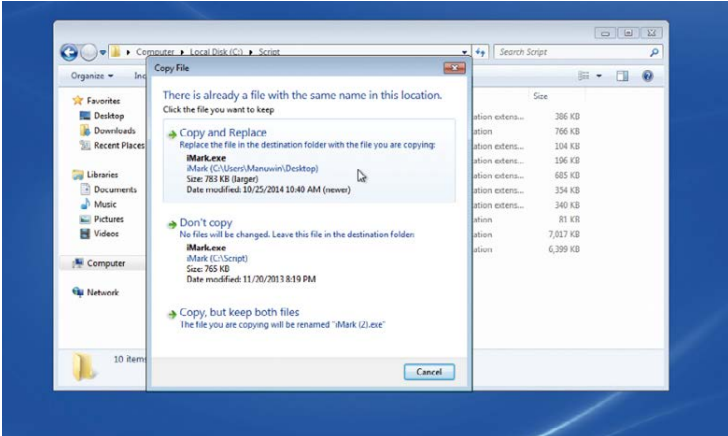
3. Click YES

4. Copy i-Mark icon

5. Open Script folder (C:…)

6. Paste i-Mark icon
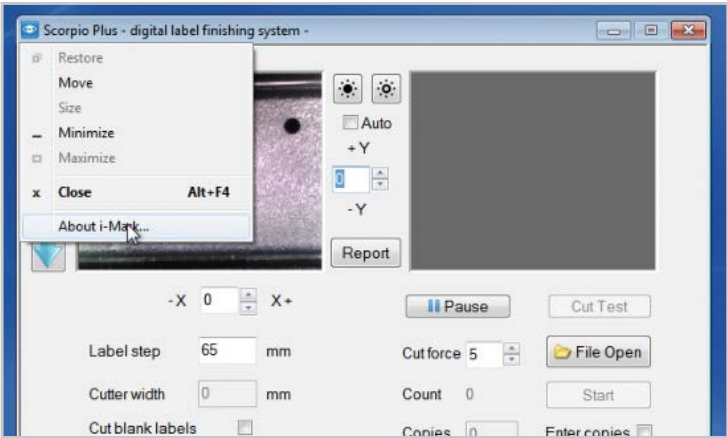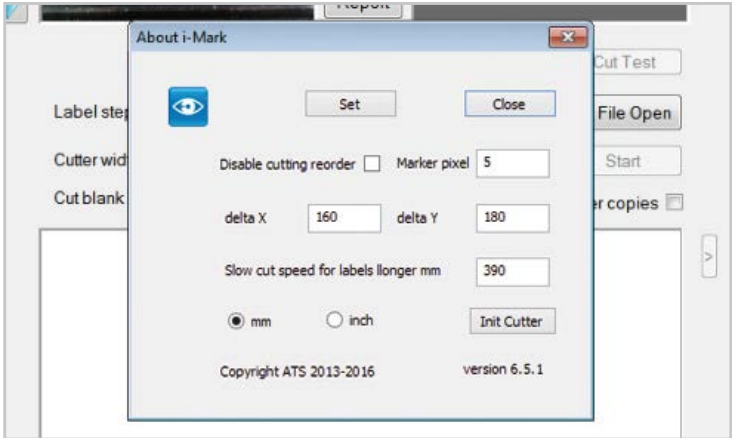

7. Select COPY AND REPLACE

i-Mark software has been updated and ready to be used.

HOW TO RESTORE PLOTTER SETTINGS

1. Open i-Mark software and click on the i-Mark logo (top left window corner), then choose "about i-Mark".
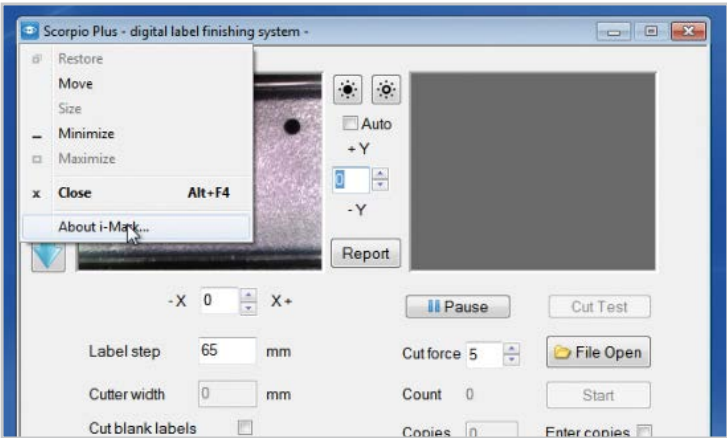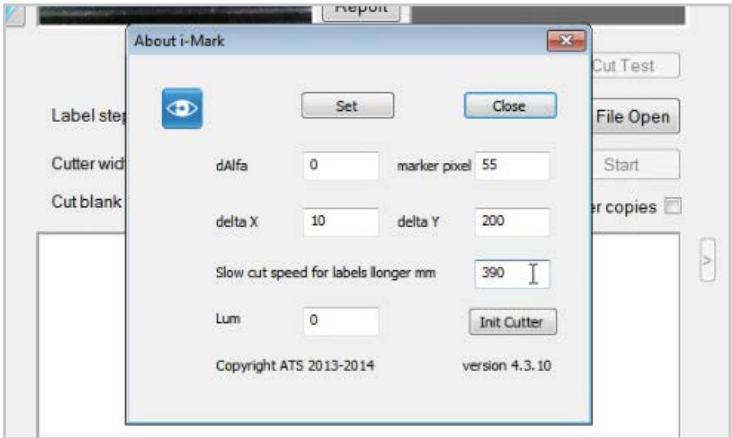

2. Click INIT CUTTER.

WHEN & HOW TO REDUCE THE PLOTTER FEEDING SPEED

When cutting labels longer than 250mm (10") we suggest decreasing the plotter feeding speed from 390 to approximately 100.

This setting prevents the web from rolling.

1. Open i-Mark software and click on the i-Mark logo (top left window corner), then click "about i-Mark".

2. Change the value in the box.

REPLACING SLITTER BLADE

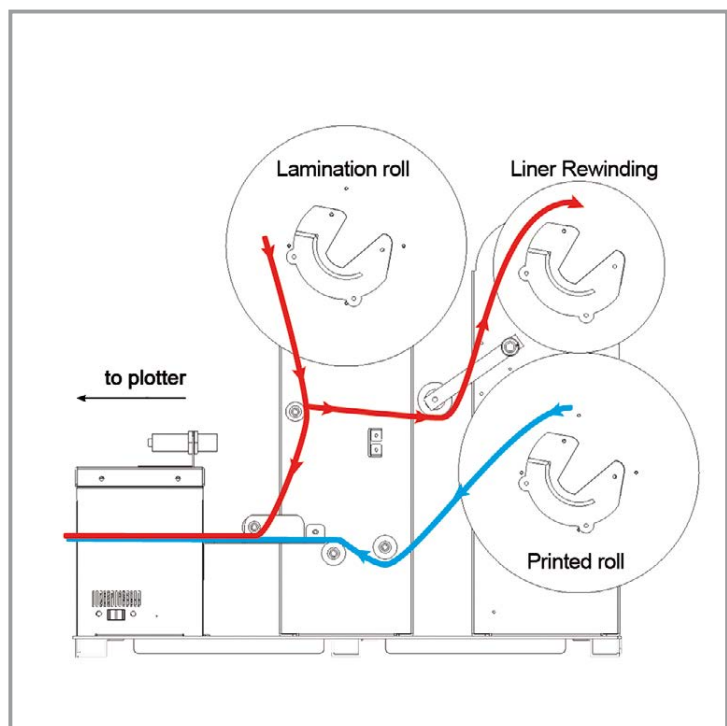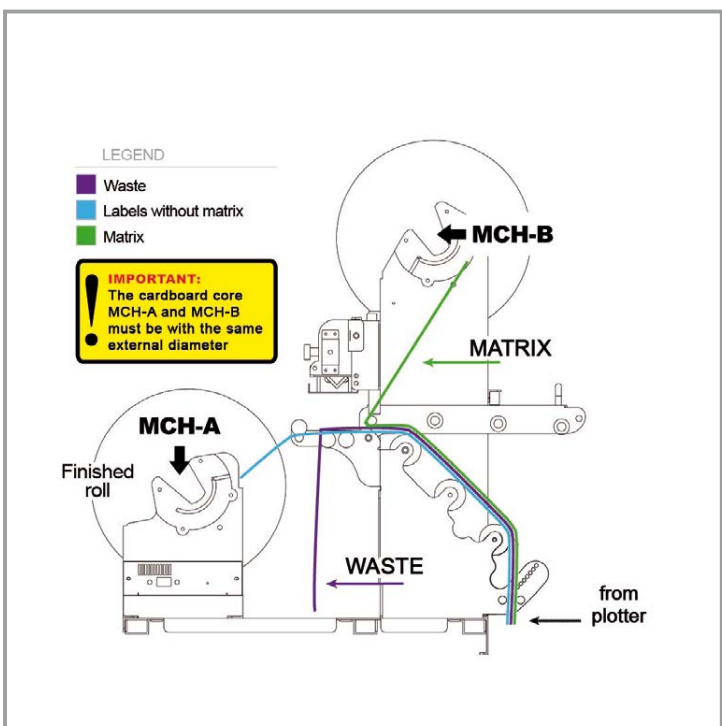
Loosen the two screws holding the blade in place.

Replace the blade.

Replace the screw to hold the blade in place.

MEDIA PATH

LAMINATION MODULE

MATRIX REMOVER AND SLITTER MODULE

ULTRASONIC SENSOR CALIBRATION

> ⚠️ **WARNING:** Before proceeding with the ultrasonic sensor calibration, turn off the module that needs to be calibrated (laminating or matrix removal).

1. Raise the tension arm to the fullest (spring has to extend completely).

2. Take a paper clip and insert it into the little hole located next to the OFF-ON switch and push it down for 5 seconds. The yellow LED will light up.

3. Release the tension arm. The yellow LED will stay on.

4. Push the paper clip down into the hole again for 5 seconds. The LED will turn off.

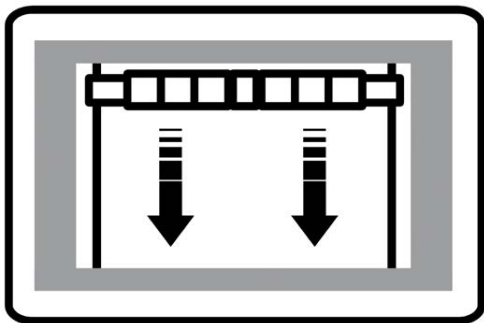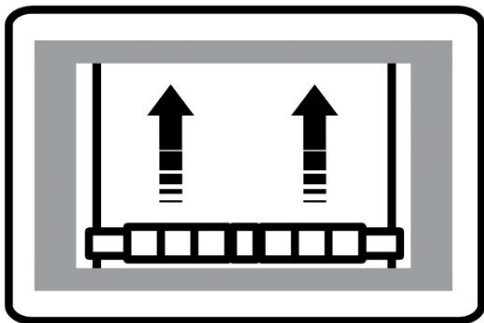Ultrasonic sensor calibration complete.

LAMINATION MODULE

ULTRASONIC TENSION CONTROLLER

SPEED INCREASE

SPEED DECREASE
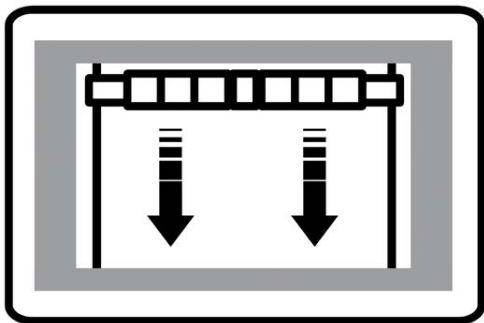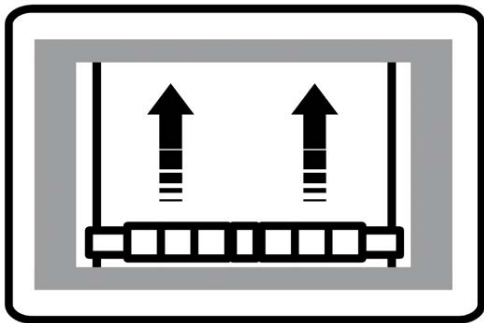
MATRIX REMOVER & SLITTER MODULE

ULTRASONIC TENSION CONTROLLER

SPEED DECREASE

SPEED INCREASE

⚠️ **WARNING:** If what's pictured above is not happening, please press the button on the circuit board until the yellow LED flashes. After it flashes 5 times, release the button and perform a new test.