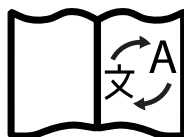


Label Cutter Finisher ColorCut LCF500 and LCF520 Series Operating Instruction



Read this manual carefully before you use this product and keep it handy for future reference.
For safety, please follow the instructions in this manual.



Scan the QR code to access translated versions of this manual in German, Italian, French, and Spanish.

Visit <https://plockmaticgroup.com/lcf500-520/> to view the manual in your preferred language.

Introduction

This manual provides information for both the LCF500 and LCF520 models. While the LCF520 shares similar capabilities with the standard LCF500, it is designed to offer up to 2x higher cutting speed by using 2 cutting heads.

Unless otherwise specified, all references to LCF500 throughout this manual also apply to the LCF520.

This manual contains instructions on the operation and maintenance of this machine. To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual. Keep this manual in a handy place near the machine.

Please read the Safety Information before using this machine. It contains information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

How to read this manual

Notation conventions

Whenever necessary, the following points for attention are indicated in this manual.

Warning:

Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

Caution:

Indicates a potentiality hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to machine or property.

Notes

NOTE: A NOTE message tells you additional useful and important information about a procedure. It is recommended that you read notes.

Safety Information

When using this machine, the following safety precautions should always be followed.

Safety during operation

Warning:

- Do not expose body parts, loose hanging hair or clothing to moving, rotating or cutting parts.
- If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrical or mechanically driven components.
- Note that components of the system and peripherals can be supplied with electric voltage even if the main power switch is turned off and the power cord is disconnected.
- To avoid hazardous situations like for instance electric shock or danger while exposed to moving, rotating or cutting devices, do not remove any covers, guards or screws other than those specified in this manual.
- Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following conditions exists:
 - Objects are dropped into the equipment.
 - Liquids are spilled inside the equipment.
 - You suspect that your equipment needs service or repair.
 - Covers are damaged, loose or missing.
 - You notice unusual noises or odors when operating the equipment.
 - If the power cable or plug is worn out or otherwise damaged.
 - Before cleaning and care (unless otherwise specifically instructed)
- Do not remove covers or guards that are fastened with screws.
- Machines with open (non-covered) automatic sheet feeders or roll feeders pose a crush/pinch hazard. Keep away from these areas when the machines are operating.
- Machines with exposed cutting carriages and heads pose a crush/pinch hazard. Keep away from the moving carriages and ensure that these machines are inaccessible to children during operation.
- Never leave these units switched on without supervision.
- If an emergency stop button is on the machine – do not use the button for regular operation. It is designed for immediate stop solely for emergency situations to ensure the safety of all individuals involved.
- Electromagnetic compliance:
 - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
 - The product (System) which is connected to this machine will be class A.

General safety

Warning:

- This equipment is not suitable for use in locations where children are likely to be present.
- Only connect the machine to a mains power supply of the correct voltage with a good earth connection; as advised by your service engineer at the time of installation. Improper Earthing of the equipment can result in electrical shock. The correct machine voltage is shown on the label at the mains power supply input on the rear of the machine. If the machine is connected to the wrong supply, the warranty is cancelled. This machine is destined for specific purpose only. Any use going beyond this specific purpose is regarded as beyond the determination. The manufacturer will not be liable for damages resulting from any use beyond the determination, unallowed operation, respectively. The user alone bears the risk.
- Do not make arbitrary changes or modifications to the machine. The manufacturer will not be liable for modifications made to the machine on your own and damages resulting thereof. The EU/UK Declaration of Conformity and the CE/UKCA mark will be invalidated if you make changes to the machine or to the individual components.

Continued on next page...

General safety, continued

- Operators are never allowed to override or bypass electrical or mechanical interlock devices. Trained technicians are allowed to use interlock cheaters only when instructed to do so. Do not expose fingers or other parts of the body to moving, rotating, or cutting devices when running the machine with the interlock cheater installed. Do not wear ties, lanyards or other things that might get trapped into the rollers and cause injuries. Do not change, adjust, or tamper with the safety interlock devices fitted to the machine. Machines including a UV-Light should never be bypassed by the operator or trained technicians. Permanent eye damage could occur.
- The machine must only be used by authorized and instructed persons. Responsibilities for operation must be clearly defined and strictly followed to avoid any uncertainty regarding safety.
- Vent holes serve for air circulation to protect the machine from overheating. Make sure that the holes are not covered.
- Always locate the equipment on a solid support surface with adequate strength for the weight of the machine. Make sure the machine is located on a level floor and that there is enough work area around it.
- To protect against fire hazard, replace fuses with those of the same type and rating. Do not change fuses before the machine is disconnected from the main power supply. Refer to the product's documentation for the correct procedure.
- Do not expose the equipment to sudden temperature variations that can cause condensation.
- Operators and technicians must be familiar with the safety information detailed in this safety pamphlet and in the product's documentation.
- To avoid hazardous situations, like for instance electric shock or danger while exposed to moving, rotating or cutting devices, do not remove any covers, guards or screws other than those specified in the product's documentation and before the machine is disconnected from the main power supply.
- Always use only the power cord intended for the machine.
- Never connect plugs unless instructed so. Never connect plugs that have a different shape / number of pins.

Caution:

- Always follow all warnings marked on, or supplied with, the equipment.
- When you disconnect the power plug from the wall outlet, always pull the plug (not the cable).
- Disconnect the power cord before you move the machine. While moving the machine, always exercise care and make sure that the power cord will not be damaged under the machine.
- Do not move the machine while the machine is running.
- Do not open covers while the machine is running.
- Do not switch off the power while the machine is running. Make sure the machine cycle has ended.
- Lay the power cord in a way that nobody will stumble over it. Do not place things on the cord.
- Never attempt any maintenance function that is not specifically described in this documentation.
- Always keep magnets and all devices with strong magnetic fields away from the machine.
- If the place of installation is air-conditioned or heated, do not place the machine where it will be:
 - Subject to sudden temperature changes.
 - Directly exposed to cool air from an air-conditioner.
 - Directly exposed to heat from a heater.
- If the machine is not used over an extended period of time it should be unplugged to prevent damage in the case of overload.
- Do not operate the equipment if you notice unusual noises or odors. Disconnect the power cord from the power source and call your authorized technician to correct the problem.

NOTE:

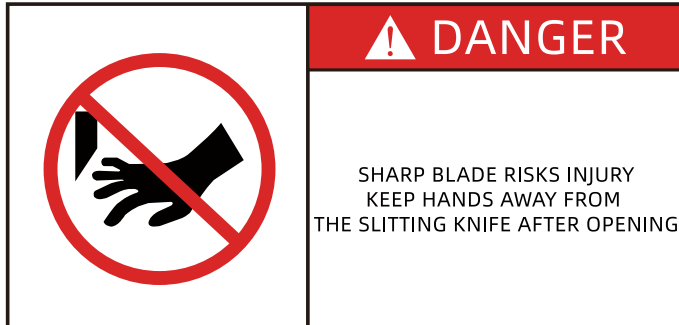
- The indications like front and rear refer to the paper transport direction.
- The operator manual always has to be available at the place of use of the machine.
- In the interest of technical development the company reserves the right to make alterations to specifications without prior notice.

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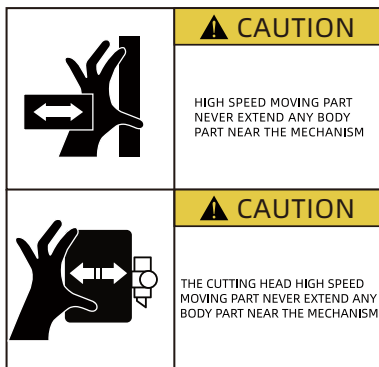
General safety, continued

Warning: PINCH / CRUSHING HAZARD!

There are “Pinch Hazard” stickers on the LCF500/LCF520 to remind the user to pay extra caution when the machine is running:



- Keep hands away from the slitting knife after opening.
- Do not ever put your hand near any knife or splitter when working.



- Never extend any body part near the operating mechanism.
- Keep fingers and hands away from the cutting head. The cutting head is very sensitive and dangerous.
- Do not touch cutting head when working, to avoid danger of yourself and machine.
- Do not drag the Tool Carriage while machine operates.



- Keep fingers and hands away from the rollers while machine operates.

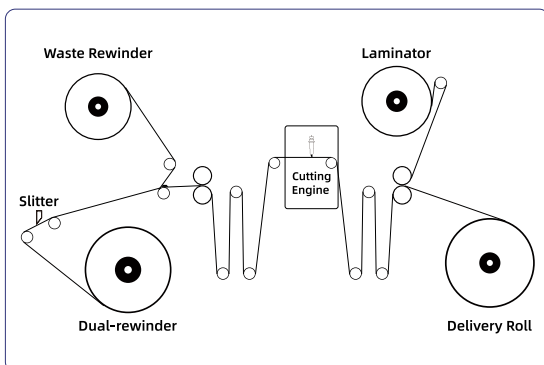
General safety, continued



- Keep fingers and hands away from the cutting head. The cutting head is very sensitive and dangerous.
- Do not touch cutting head when working, to avoid danger of machine and yourself.



- Do not ever put your hand in any connector when working.
- Do not unplug any cables while machine is operating.

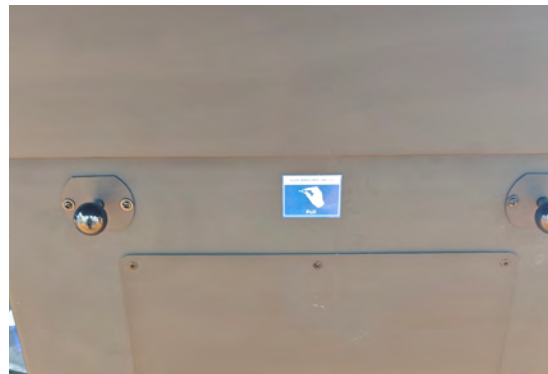
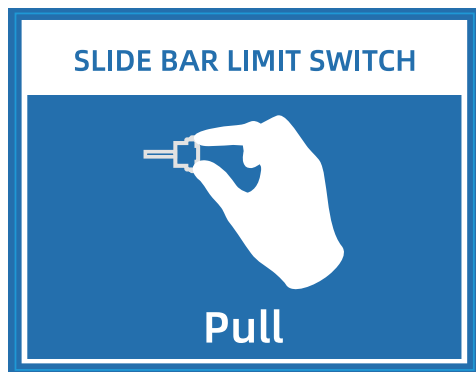


- Ensure correct Media path before machine starts to operate.

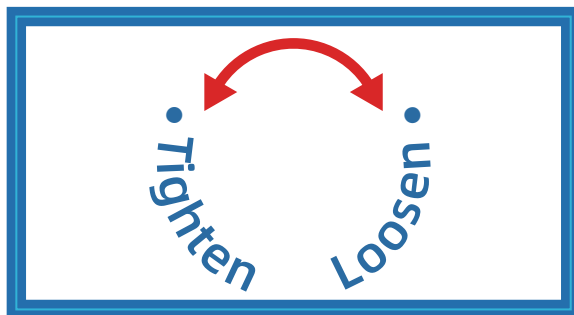


- To adjust the position of roller, use the lever. To unlock roller position, push the lever in lower position. To lock roller position, lift the lever to the top.

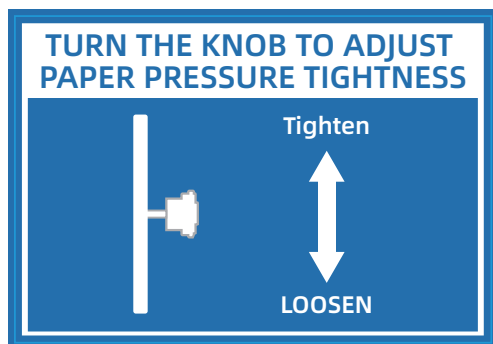
General safety, continued



- Pull the handle to release accumulator.



- To adjust roller position, twist the knob. To increase pressure twist the knob counterclockwise. To release pressure twist the knob clockwise.



- To adjust paper pressure tightness, turn the knob. To increase paper pressure, lift the knob up. To reduce paper pressure, drop the knob down.
- Turn off and disconnect the machine from the power supply before adjusting paper pressure.

Safety measures

Please read the information and safety measures carefully prior to initial operation of the unit.

- Do not place any magnetic objects in the vicinity of the cutting head; otherwise uniform contact pressure may not be ensured.
- Do not remove the connection cable to the computer while cutting is in progress.
- Relieve the pressure on the pressure rollers when not in use by moving the pressure lever up.
- Do not open or reach into the unit when it is connected to electricity supply.
- Never open the casing and do not make any modifications to the unit yourself.
- Ensure that neither liquids nor metal objects are put inside the LCF500/LCF520. Ensure that the wall socket used is grounded.
- Ensure that the connected voltage (100-240V) does not deviate by more than $\pm 10\%$. Otherwise install a voltage stabiliser.
- Remove the power plug from the unit if it will not be in use for a longer period of time.
- Never reach into the unit in the vicinity of the blade holder during the cutting operation.
- Stop any cutting jobs in progress before re-adjusting the blade holder.
- Always ensure that the LCF remains inaccessible to children during operation and never leave the unit or individual parts of it switched on without supervision.
- Do not touch the tip of the cutting blade to avoid injury.
- Disconnect from the power supply during thunderstorms; it can be damaged or destroyed by electrical surges caused by lightning.
- Do not open covers while the machine is running.
- Do not move machine while the machine is running.
- This equipment is not suitable for use in locations where children are likely to be present.

Emergency stop button

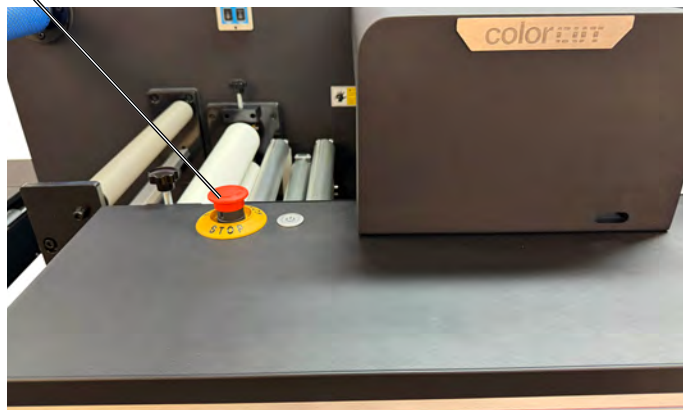


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What You Can Do With This Machine

The LCF500 Pro system offers an all-in-one solution for volume roll label production with easy loading for lamination, contour kiss-cutting, matrix removal and slitting for finished rolls.

This incredibly versatile solution provides easy roll loading to cut and finish any shape of label with the option to laminate your label rolls, remove the waste matrix and slit into narrower finished rolls where needed.

The LCF500 Pro system combines robust engineering with precision registration for instant job retrieval. Its auto-tracking technology continually monitors roll position, dynamically and actively adjusting the roller mandrel axis to deliver exceptional cutting accuracy and consistent finishing quality.

Leading features:

- Digital process means no more costly dies.
- Roll widths up to 320mm wide and 300mm diameter.
- Automatic tracking technology that continually measures roll position to dynamically adjust for cutting accuracy.
- Linear cutting speeds up to 10.5m/min dependent on label design and roll width.
- QR code/Job Library retrieves associated cut files – even for mixed job batch sessions.
- PageMark registration delivers incredible accuracy.
- Laminate rolls to provide surface protection and light fastness.
- Convert rolls with final job slitting – up to 7 rolls.
- Run jobs from command control center computer.

Complete standalone operation - even with a roll of mixed jobs.

- Maximum label length: 420mm (16.53")
- Mandrel core diameter: 76mm (3")
- Maximum input and output roll diameter: 300mm (11.8")
- Material web width: Up to 320mm (12.6")
- Registration system: 0 (Zero), 1 or 2 PageMarks with QR code
- Slitting: Up to 6 blade slitting – supplied
- Lamination: Inline lamination when required
- Rewind mandrels: One – matrix removal
- Weight (unpacked): 397kgs
- Dimensions: 1,720mm x 930mm x 1,330mm W D H
- Power supply: 110~240V AC, 50/60Hz, 350W, 3.4A

To operate your ColorCut machine and set up processing jobs, you will need a computer. This manual provides an introduction to the ColorCut Pro Software Suite, which is used for creating files and controlling your cutter. Additionally, it outlines the hardware requirements for your workstation.

Workstation Hardware Requirements

Compatible Vector Programs

	Adobe Illustrator® *	CorelDRAW® **
PC Windows	CS6; CC CC 2018 - CC 2026	2018 - 2026
Mac OS	CC 2020 - CC 2026	

*Does not support illegal copies of Adobe Illustrator

**Full version only. Does not support "Home and Student", "Essentials", "Technical Suite" edition or illegal copies of CorelDRAW

1. Multicore Intel or AMD processor with 64-bit support.
2. Windows 10 Professional / Windows 11 Professional x64 bit.
3. 4 GB of RAM (8 GB recommended (As supplied with ColorCut Pro Server Station))
4. Minimum display resolution: 1024x900.
5. Recommended Display Resolution: 1280x960 or higher.
(Screens with resolutions such as: 1152x900, 1024x900, 1280x960, 1440x900, 1440x960, 1440x1024, 1440x1080, 1600x900, 1600x1080, 1600x1280, 1920x1080 or higher.)
6. 2x available USB Ports (Note KB & Mouse often use a port each so factor this in).
7. PC directly connected to ColorCut must have Wi-Fi capability for Direct connection to Vision3 Camera Sensor (It is recommend using a PC with a built-in Wi-Fi card. Server Stations come equipped with a built-in Wi-Fi card).

Compatible OS Versions

PC Windows 10 or 11 Pro – 64bit

Mac OS version 11 (Big Sur) - Mac OS version 26(Tahoe)

Introduction

Introduction to ColorCut Pro Software

To cut your projects with the ColorCut LCF cutter, you need to be able to design your artwork and then apply lines that you designate for Half Cut/Kiss Cut Projects and artwork can be created using either Adobe Illustrator on Mac or PC, or CorelDRAW on PC.

ColorCut Pro is a plug-in that provides you the ability to send projects that you have designed in Adobe Illustrator® or CorelDRAW® directly to your ColorCut cutter with no need to convert them to a different format.

After you install ColorCut Pro™ (including ColorCut Pro - Production Studio) you will be provided with a new option within your Adobe Illustrator® or CorelDRAW® software program enabling you to send vector lines from your software to your ColorCut LCF cutter. During the installation, ColorCut Pro will also add an option that enables you to automatically add Page Registration Marks (Referred to as PageMarks in this manual) for print & cut jobs, these are scanned automatically using the ColorCut LCF's Vision3 CCD sensor, providing origin, scale, skew and rotation information. In addition ColorCut Pro will add an option for you to assign Job numbers or QR Codes to your cut jobs, enabling you to build a library of cut job files which can be used with a stand alone version of ColorCut Pro known as ColorCut Pro - Production Studio (or Job Server).

Files can be cut directly from your graphics application using the ColorCut Pro plug-in, or using the ColorCut Pro - Production Studio version of software, which can be launched separately either on the same or a different computer. ColorCut Pro - Production Studio is a simple interface that enables other individuals within your company the ability to directly cut jobs at any time without requiring Adobe Illustrator or CorelDRAW, and without having to re-open the original file. Directly cutting files using the ColorCut Pro app is the recommended way to cut files for users with constantly changing cut files and designs, or where frequent changes to the speed or force functions are desired (i.e. because of changing media).

The ColorCut Pro plug-in does not currently work with any other vector imaging programs aside from those listed in the Compatibility section below.

Files may be cut directly from PC Graphics applications using ColorCut Pro's plug-in or using the by using ColorCut Pro - Production Studio (PC only). Mac users can design their jobs, add cutting registration marks, assign Job numbers, add QR Codes and add jobs to the ColorCut Pro Job library using the ColorCut Pro Mac Client. The Mac workstation is not used to cut the files, Mac jobs are sent to the ColorCut Pro job library on a remote PC for cutting directly.

Compatibility

The plug-in requires Adobe Illustrator® (Mac or PC) or CorelDRAW® (PC only) to be installed on the computer in question. The ColorCut Pro™ software does not include the Adobe Illustrator® or CorelDRAW® software.

ColorCut Pro - Production Studio (The main application) is PC only. This is the application that communicates with cutter and will directly cut designs or can be used to created held mode cut files (*.cch files) that can be transferred along with all the cutting parameter settings directly to the cutter. This can be launched in two ways:

ColorCut Pro (Direct Plug-in): The ColorCut Pro plug-in can be accessed and launched from inside Illustrator or CorelDRAW - just under your Print command. When starting ColorCut Pro directly from Illustrator or CorelDRAW, it works just like the Print command. When the ColorCut Pro option is selected from the File drop-down menu in your graphics application, the vector lines on the currently selected layer are directly exported into the ColorCut Pro cutting window. Once exported to ColorCut Pro, simply choose the action for each colored line in your design e.g. Cut, Ignore, Perforate and click start. Cutting will commence immediately. This is a very simple way to cut directly from your file.

Introduction, continued

Where access to the original artwork files is not practical, such as where a different user wishes to cut the job, it is recommended jobs are created with a job number and/or QR code. Adding a Job Number will automatically add the Cut file to the ColorCut Pro Job library, thereby enabling the job to be cut using ColorCut Pro

ColorCut Pro - Production Studio (Job Server) Launched from the Start Menu on your computer. Identical to the main application that launches from inside Illustrator or CorelDRAW, ColorCut Pro (Job Server) will open with no cutting file or job selected. Instead cut files are retrieved from the ColorCut Job library by entering the job number or scanning the QR Code on the printed sheets and then cut the file. The Job Server version of ColorCut Pro is stand alone, thus will cut files or jobs created and saved to the ColorCut Pro Job library using the ColorCut Pro add PageMarks & QR code feature (detailed below). Both in Direct or Job Server mode, users can choose speed, force and other cutting related controls and can set productivity options such as number of copies to cut.

Within Illustrator (Mac or PC) or CorelDRAW (PC only) you will find 2 additional functions:

ColorCut Pro ADD PageMarks is a utility that automatically adds cutting registration marks to your artwork. (Known as PageMarks). Illustrator or CorelDRAW files with PageMarks can be cut directly from Illustrator or Corel Draw by using the ColorCut Pro application.

ColorCut Pro ADD PageMarks & QR code is a utility that enables users to assign a Job number and a QR code to their artwork so that it may be cut at a later date. The QR code is automatically generated and the job number and placed on your artwork. Once a QR code has been assigned to your artwork, the cutting file is sent (in the background) to the ColorCut job library for use later with the main ColorCut Pro (Job Server) application. With Job numbers and QR codes, files can be printed (or sent to RIP's (like a Fiery) and printed at a later date). The sheets can be cut using the ColorCut Pro (Job Server) version which can be done on a separate PC and does not require the original file to be opened. The design to be cut is retrieved automatically as the user enters the job number or the cutter reads the QR code. This is ideal for larger companies looking to separate design and finishing (Cutting) of jobs.

ColorCut Pro for Mac Users

Mac users can design and generate jobs on Mac workstations using ColorCut Pro's Job library feature.

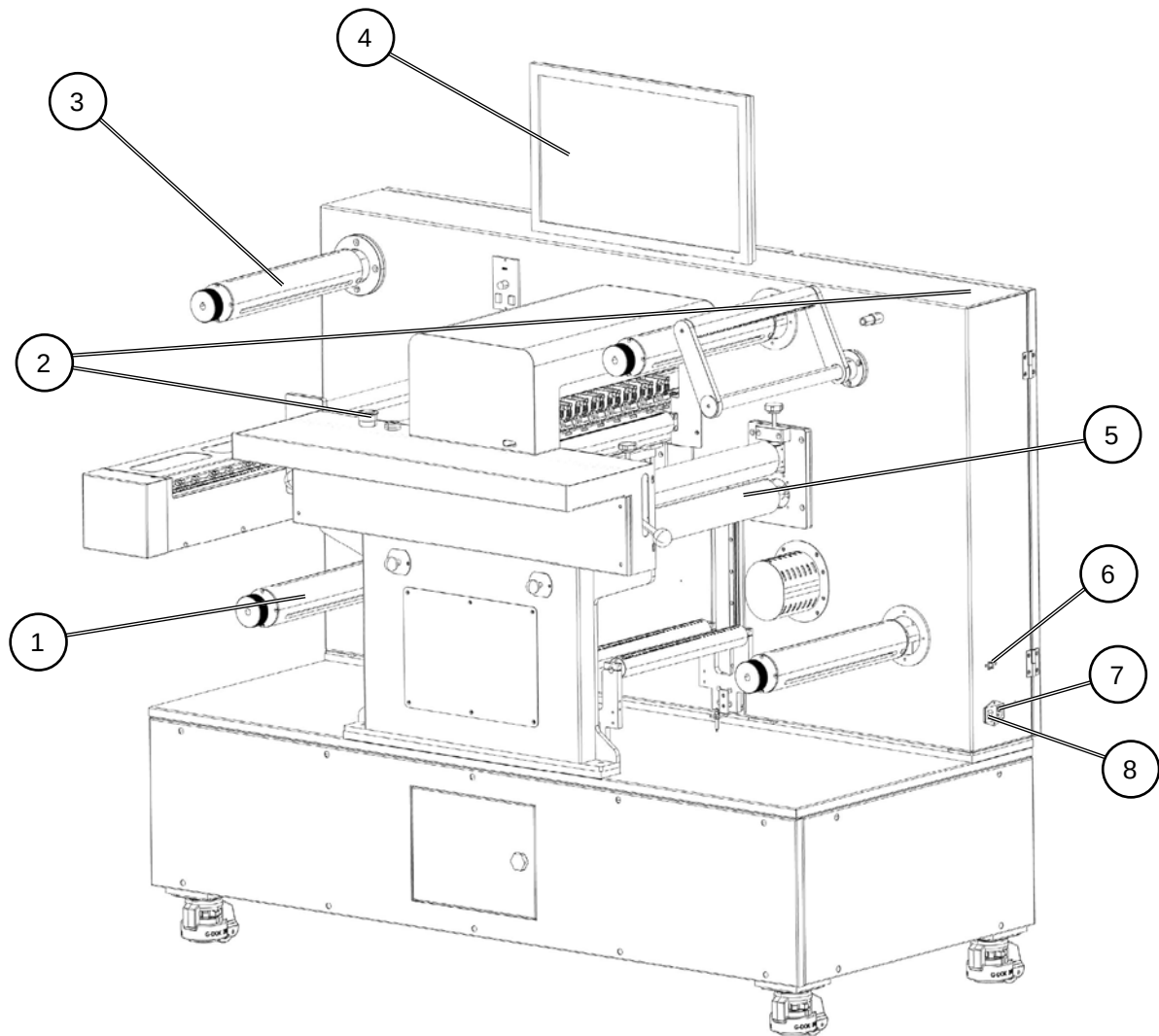
NOTE: The main ColorCut Pro (Production Studio) cutting application is PC only, so Mac users can design their artwork on the Mac and use a PC to connect to the cutter for the cutting of the jobs. Please be aware that Mac users do need to be able to have access a PC for Directly cutting their files, (or access to a PC Windows environment within their Mac to run the ColorCut Production Studio software.

Mac users can design and cut files using 2 different approaches:

1. You can use the Mac ColorCut Pro feature 'ColorCut Pro ADD PageMarks'; this utility will add the registration marks necessary to cut your file. You should then save your design as an Illustrator file that can be opened on the PC which is connected to the cutter. (If you save the files in Illustrator format, you must have Illustrator also installed on the PC to open Illustrator files). You can then use ColorCut Pro in direct mode and then cut directly from the PC version of Illustrator.
2. Connect a PC to your cutter and install ColorCut Pro - Production Studio, on the PC (on the same network as the Mac), configure the ColorCut Pro Job Library feature to act as a cut job library server for your Mac.

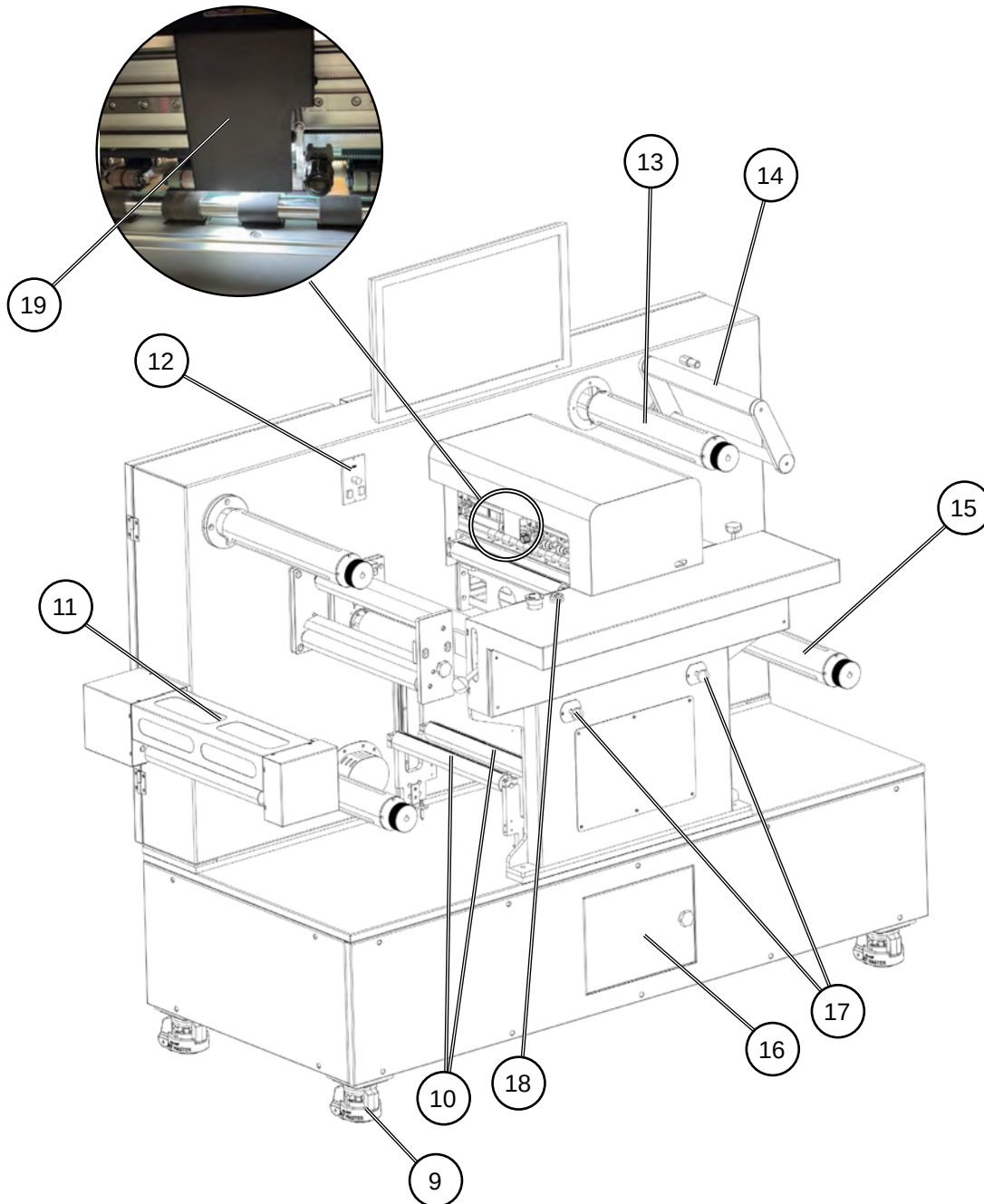
Use your Mac to create your artwork and then use the Mac ColorCut Pro feature 'ColorCut Pro ADD PageMarks & QR Code'. (On Mac, this feature is found in the Illustrator main menu, just under the Print command). This feature enables Mac users to design on their Mac and then when the 'Add PageMarks & QR Code' feature is selected from the Illustrator menu, ColorCut Pro will assign a Job number and a QR Code to the artwork, the cut file is automatically sent (in the background), to the ColorCut Pro Job library server on your PC so that it may be cut at a later date. This enables Mac designers to design efficiently on their Mac and allows Print Production operators to cut the Mac designed jobs from the remote PC connected to the cutter using the Job Server and Job Library feature.

Guide To Components



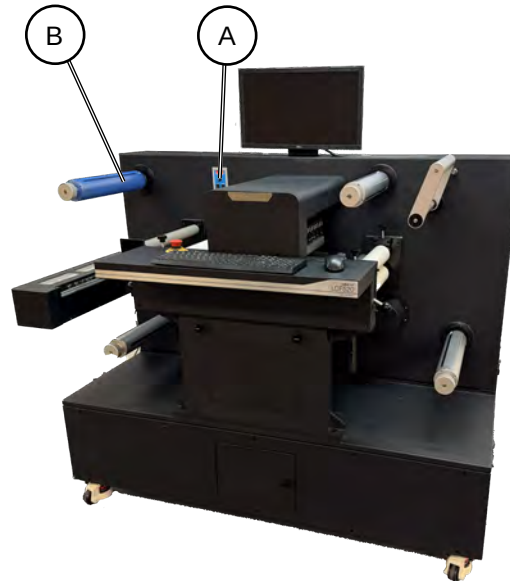
- 1 Finishing Rolls
- 2 Emergency Stop Buttons
- 3 Matrix Removal
- 4 ColorCut Pro Workstation
- 5 Grip Rollers
- 6 Ethernet Port
- 7 Power Socket
- 8 Power Switch
- 9 Castors
- 10 Accumulators

Guide To Components, continued

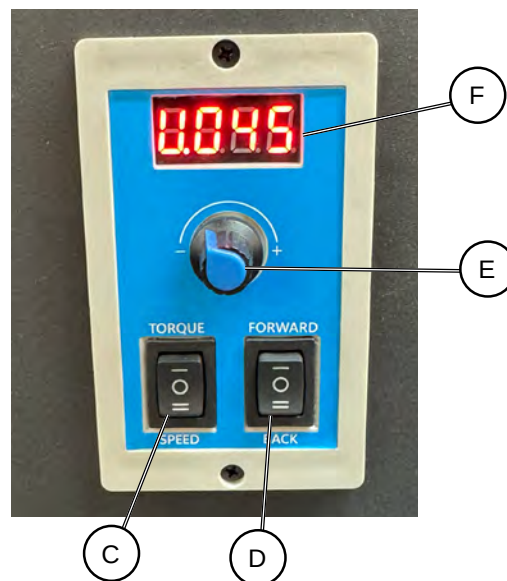


- 11 Slitting Knife Section
- 12 Matrix Adjustment Panel
- 13 Additional Feed Roller
- 14 Acoustic Muffler
- 15 Main Feed Roller
- 16 Front Door
- 17 Accumulator Locking Pins
- 18 Power Button
- 19 Tool Carriage

User Interface ColorCut LCF500/LCF520



The LCF500/LCF520 includes a control panel [A]. The control panel includes display screen, two switches, and an adjustment knob. The control panel regulates the direction of rotation and the Speed and Torque of the matrix removal roller [B].



Switch [C] changes torque and speed settings; Position | (Upper) adjusts torque. Position || (Lower) adjusts speed. Switch [D] changes rotational direction; Position | (Upper) selects forwards (counterclockwise) direction. Position || selects backwards (clockwise) direction.

The adjustment knob [E] controls the selecting setting of switch [C]; Turn left (counterclockwise) to decrease the value. Turn right (clockwise) to increase the value.

The screen [F] provides information about the selected setting of switch [C]; Torque when switch [C] is in position |. Speed when switch [C] is in position ||.

User Interface ColorCut LCF500/LCF520, continued

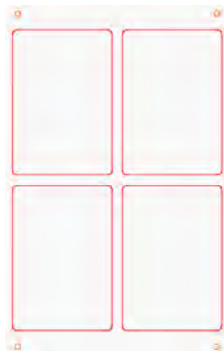


The power switch [G] controls power of the whole machine.

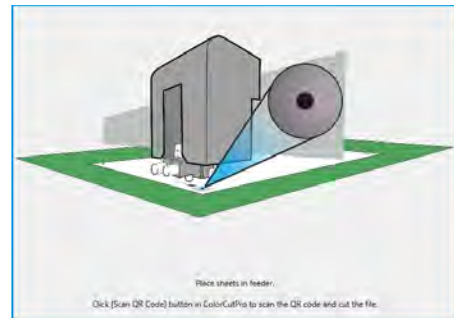
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ColorCut Pro Main Interface

Job Preview Window



ColorCut Pro Direct Mode



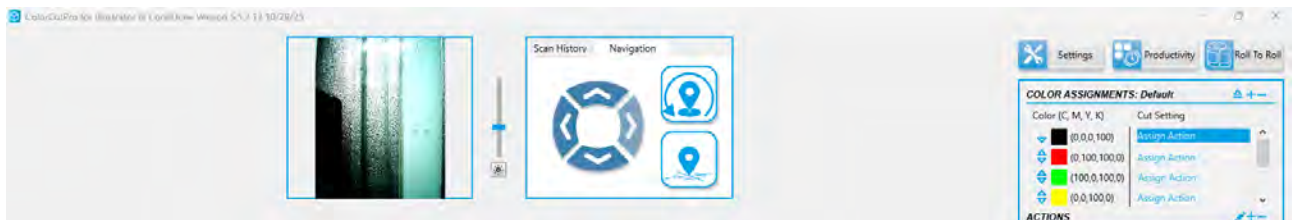
ColorCut Pro Job Server Mode

When launching ColorCut Pro in Direct mode a preview of the cutting profile on the selected layer will be shown in the Job Preview Window.

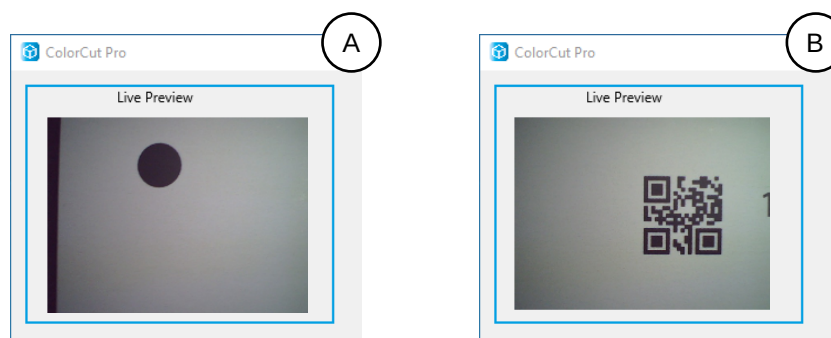
Launching ColorCut Pro in Job Server mode will display an information graphic in the Job Preview Window. This will be updated with the Cut Job file preview once you have manually entered the Job number or scanned the Barcode.

Live Preview Window

Live preview is fed through the Ethernet cable and is shown here for setup and troubleshooting purposes.

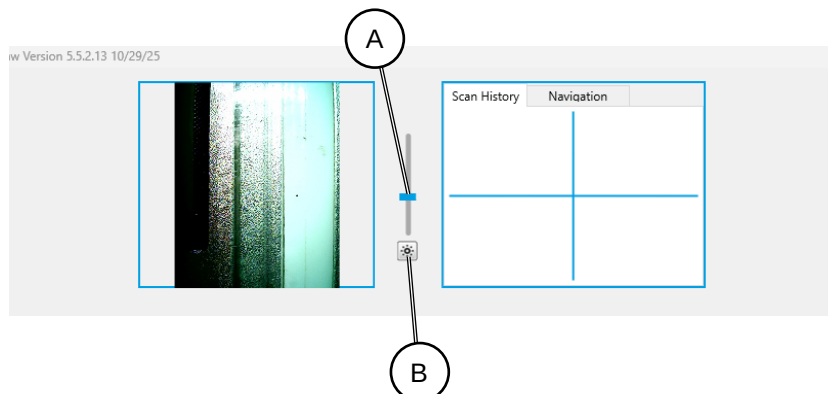


The Live Preview Window displays a real-time video of what the Vision3 CCD camera sensor captures. When starting a Cut Job, you will see the initial PageMark [A] being captured. If you are also scanning QR codes [B], you will see it being captured and then each of the other PageMarks.



Brightness/Illumination Control

The Vision3 CCD camera sensor, includes a LED strip that illuminates the area being captured. With some types of media it may be necessary to increase or decrease the brightness of the illuminated area, particularly with porous substrates or reflective/foiled materials. Adjusting the slider [A] up, will increase the brightness, while adjusting the slide down will reduce it. When positioned right at the bottom of the slide, the illumination will be Off.

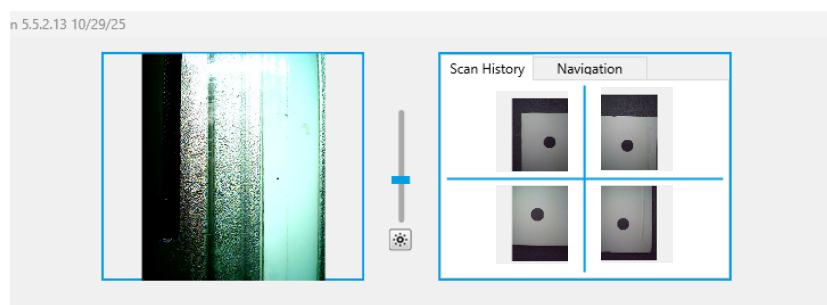


The buttons at the base of the slider [B], will reset sliders to the Default level that is recommend for daily operation.

NOTE: While adjusting the slider may help for a one off, selected media (if you find you are frequently having difficulty scanning marks on a specific colour media or reflective media). You may find it better to use the Automatic: Retry Scan with Varying Light Levels feature. This will scan the marks on the current light level then retry the scan on a lower, then a higher light level automatically for you (See section “Result”).

Scan History

The Scan History window will display the history of each scan, enabling you see if a scan failed and to help you understand the progress of your cutter.



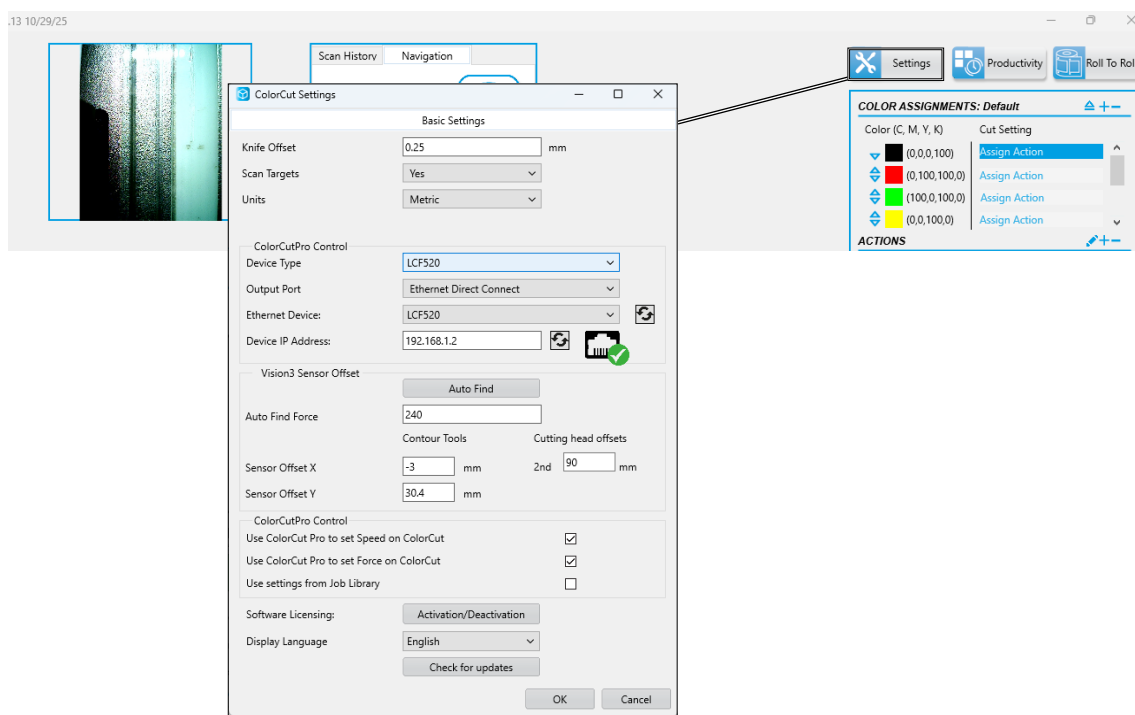
You can watch the live video preview and the Scan History window, the Vision3 sensor should appear in the centre of the video preview area. If it is slightly off centre the cutter will readjust for centre and save the position in the Scan History window, and move on to the next mark.

The LCF500/LCF520 Vision3 sensor position can also be adjusted manually.

If the margin or offset of the targets has been adjusted from the edge of the sheet, the Vision3 sensor may not move to the correct position. In this case, ensure the margin for the 1st PageMark is correctly set in the Productivity window (see section “Productivity Options”).

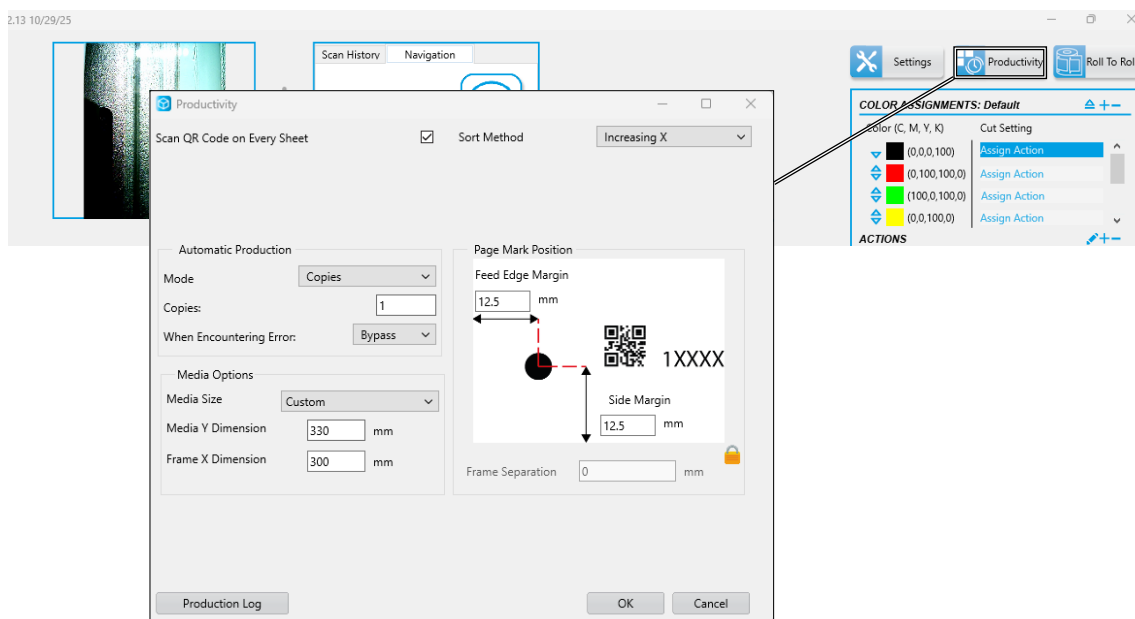
Settings

The [Settings] button will display the settings window as shown below, which allows you adjust general settings such as knife offset, target scanning, units, etc.



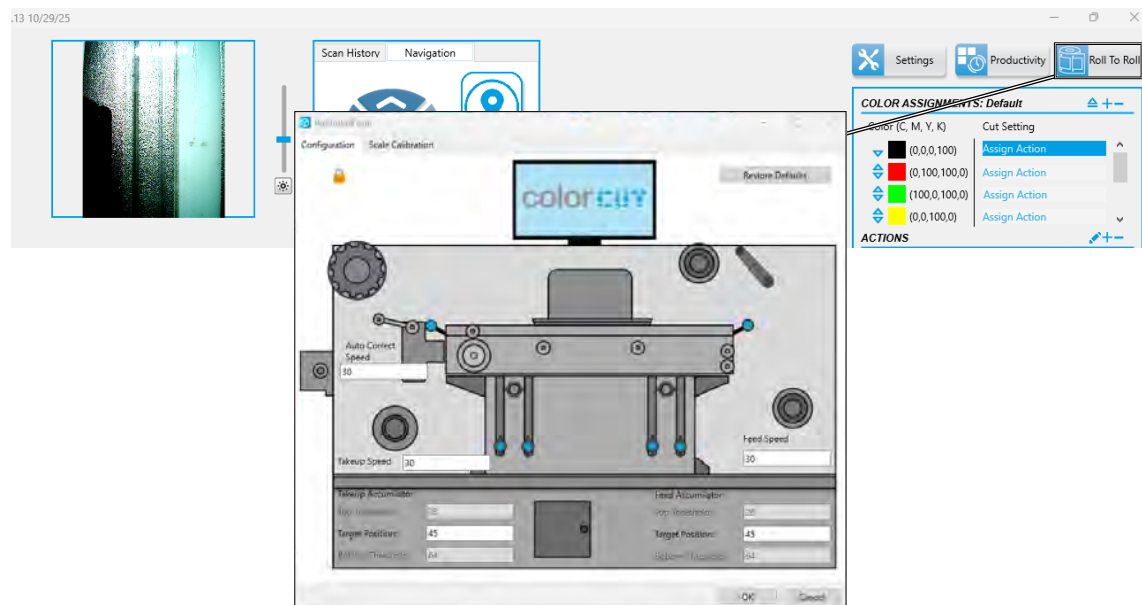
Productivity

The [Productivity] button will display the Productivity Window, required for setting the Media size and the default margin of the 1st PageMark (These are required for correct scanning of the PageMarks & QR code). The productivity options also enable optimization of features that affect the cutters productivity, including the ability to handle single frames, copies or continuous mode.



Roll to Roll

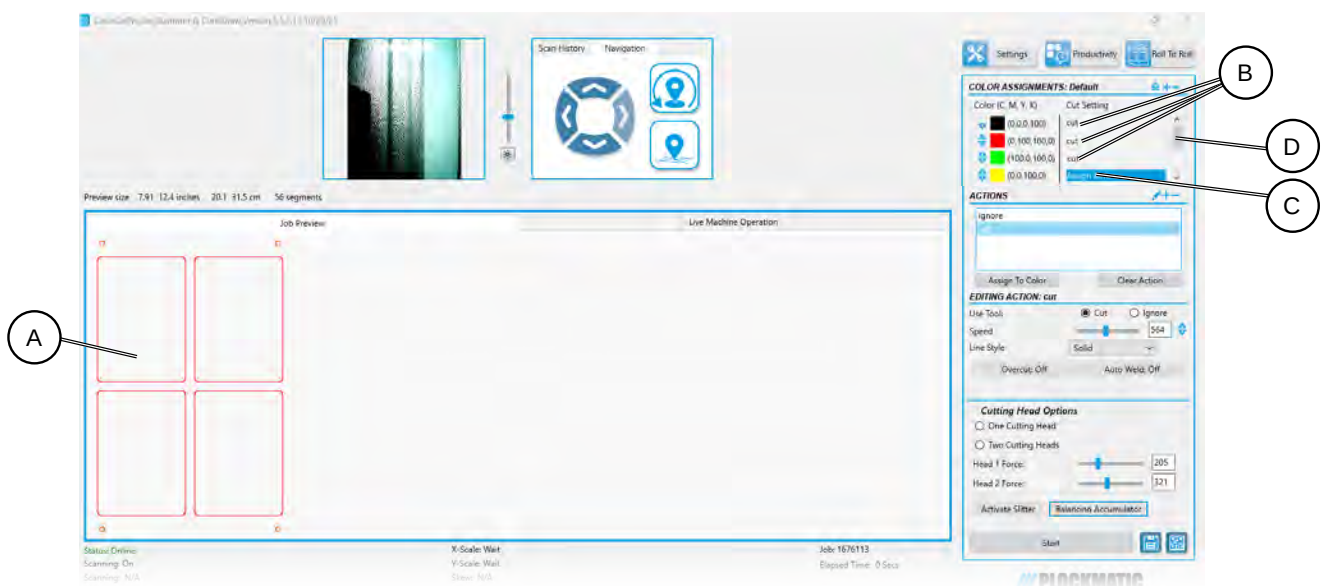
The [Roll to Roll] button will display the roll to roll window, required for setting the configuration of the machine, such as target position and speed of rollers.



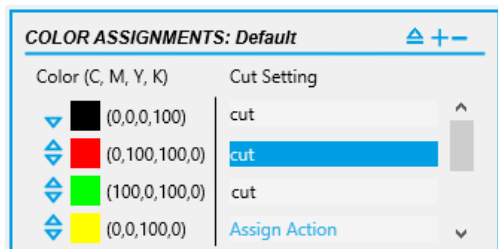
Cut Settings

ColorCut Pro displays a preview of the file to be cut in the Job Preview Window [A]. If the cut file contains different line colors then each color is matched to one of the 8 primary colors that ColorCut Pro recognises (See section “Line Colors recognised by ColorCut Pro”). The cutting lines are displayed in their respective colors, with each color listed in the “Color Assignments” window.

Next to each color, a Cut Action will be shown. The software will remember previous Cut Setting assignments applied to a color from the last time the Color was assigned. (If a Color has not previously been used, the assignment may be blank).



In the example above, there are multiple colored lines within the cutting profile. The Red, Black, and Green lines have the “cut” action [B] assigned, while the Yellow colored lines [C] have no actions assigned. If there are more colors than shown on the list, use the scroll bar [D] to view them. Each color in the job must have an action assigned otherwise the cutter will not process the job. If a color should not be processed, assign the “ignore” action to it.

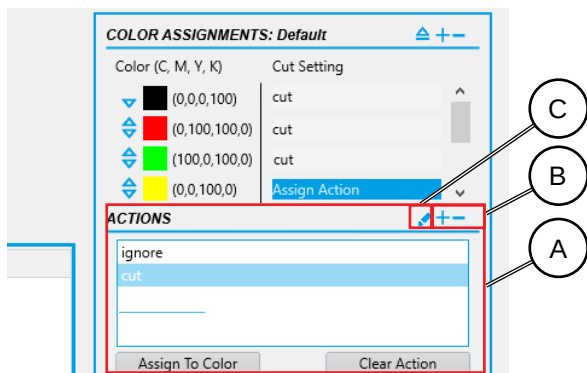


The sequence/order in which the actions are completed is the order in which the colors are shown in the Cut Settings list.

NOTE: Remember colors at the top of the list will be processed first.

Actions

You can create Actions for each process/task you wish the cutter to perform in Actions panel [A].

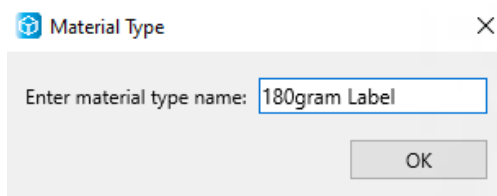


An Action is a profile consisting of the following saved settings being used:

- Cutting Tool (Cut, or Ignore)
- Speed of Tool
- Force/Pressure applied by Tool
- Type of Line (Solid or Dashed)

As you get used to your LCF500/LCF520 and the different materials you cut, you can start to save these profiles for different cutting forces or speeds dependant on the media types.

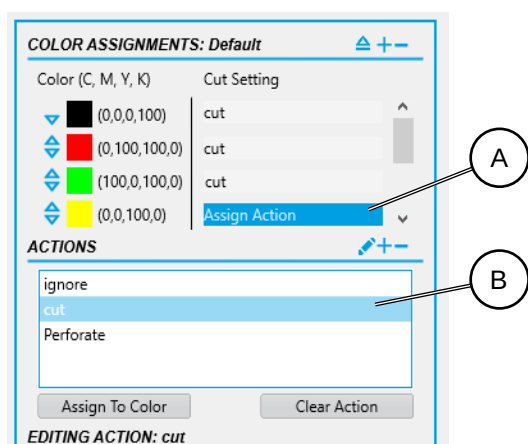
The actions window [A] shows a list of all the pre-defined settings/profiles you have created that you can use or employ. You can click the [+/-] symbol [B] to add a new Action. If you wish to rename the Action, click on Pencil symbol [C] and enter new action name, then click [OK].



After clicking the [+] symbol you will be prompted to enter the name you wish to call your Action.

Click [OK] and then follow the instructions in following sections.

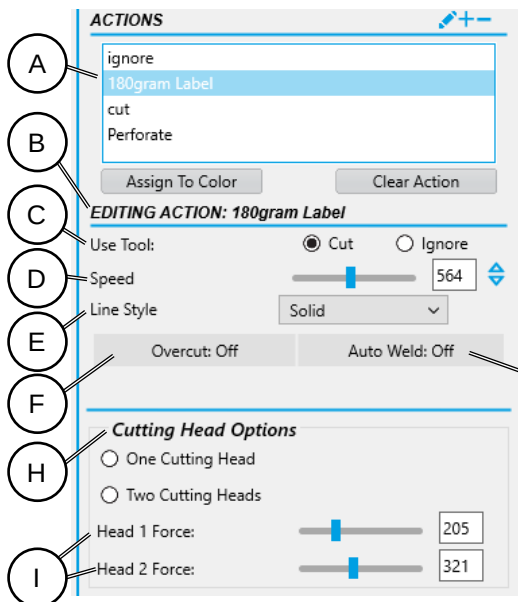
Assigning an Action to a Color (or clearing one)



1. To assign an Action to a colored line, select the Line Color you want to assign the action to in the Cut Setting Panel, in this example we will click on the Yellow color [A]. (Click on the "Assign Action", next to the Color).
2. Then select the Action you wish to be applied (in this case we selected a new action we created called 'Cut' [B]).
3. Click the [Assign To Color] button. The name of the selected action will appear next to the Line Color.
4. To change an action, follow the same steps, Click on the right side of the Color Settings (on the currently assigned action name). Then select the new Action you wish to apply and click [Assign To Color].
5. To clear an action from a cut setting, click on the right side of the Color Settings (on the currently assigned action name). And click [Clear Action].

The Editing Action Window

The Editing Action Window displays the parameters used for the Action selected. You can check, review and edit the settings to suit the action and any changes will be applied to the Action immediately on the next cut.



Each Action, includes the following adjustable settings:

- Tool Used [C]
- Speed of the tool during cutting [D]
- Line Style (Solid or dashed) [E]
- Overcut [F]
- Auto Weld [G]
- Cutting Head Options [H]
- Force/Pressure applied during cutting [I] (Head 2 Force is available only for the LCF520)

When creating a new Action, first create a new name (See section “Actions”).

To edit Action select it's name from the list in the Action Window. When a Action is highlighted (in this case you can see we have highlighted the action '180gram Label' [A]). The name of the selected Action '180gram Label' can be seen in the top of the Editing Action section [B].

All parameters displayed in the section below combine to create the profile for the Action “180gram Label”.

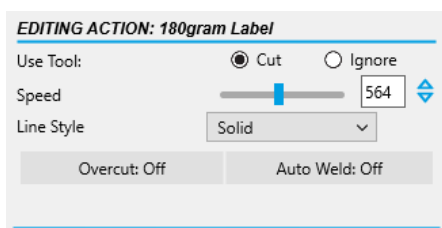
You can edit these values if required to adjust the profile to suit your requirements.

Selecting the Tool (Cutting/Ignore)

The Use Tool [A] feature allows you to select either the cutting tool to cut your material or you can choose to Ignore the line for cutting.

The Ignore feature is helpful if you notice that your cut file includes lines you did not mean to cut.(All other features such as speed or force will also be ignored if you select Ignore)

Selecting the Line Style of the Cut Tool



The parameter Line Style [F] controls the type of line that will be cut. By default this is a Solid line. However, you can change the line style to a Dashed Line for a perforated cut.

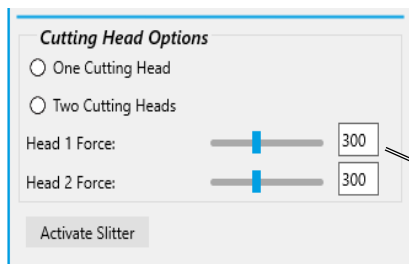
Changing the Line Style will update the preview in the Job Preview Window (if the Action is assigned to one of the Line Colors in the job preview) so you can see the change to a dashed line.

Dashed line (Adjustable) - creates cuts based on Cut Length as a priority and a gap. When the Gap is specified, the software aims to keep the Cut Length the same while also making sure the cuts align with the object. It does this by adjusting the gap so that the number of line lengths in a object line stays consistent for cutting.

Dashed line (Exact) - maintains the Cut Length and Gap as specified. This can result in some long lines appearing to have inconsistent line lengths. For example, if Cut Length is set to 50 mm and the Gap of 0.5 mm, a 230 mm line may have 4 cuts of 50 mm and one cut of 30 mm, but gaps between the cuts will be 0.5 mm.

Force of the Cut

The Force parameter [A] controls the pressure applied by the tool. It ranges from 0 to 0.75 kg. The maximum cutting force is 750 g.



- Settings above 500 g may suggest the need for extending the blade more.
- To set cutting force correctly, use the Test Cut function (Page 37).

The best cutting results are achieved by using pressure to cut, rather than extending the blade. Minimal blade exposure ensures optimal cutting quality.

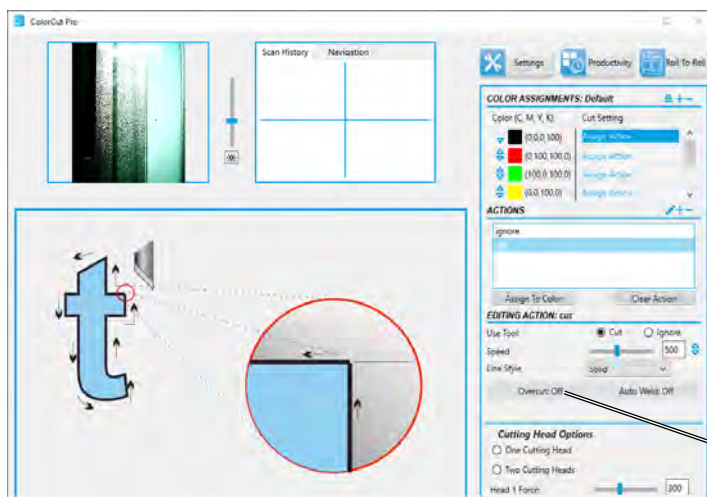
NOTE: Using too much blade reduces blade life span and causes excessive wear on the cutting strip, leading to poor corner turns.

NOTE: Head 2 Force Option is available only for the LCF520.

OverCut

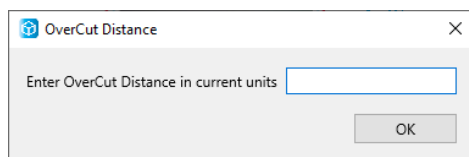
OverCut extends the cutline at the end of an object line (or curve) at the point where the blade would normally be lifted.

Due to a variety of tolerances without the OverCut function, the cut line may not be completely closed causing difficulties when weeding label media.



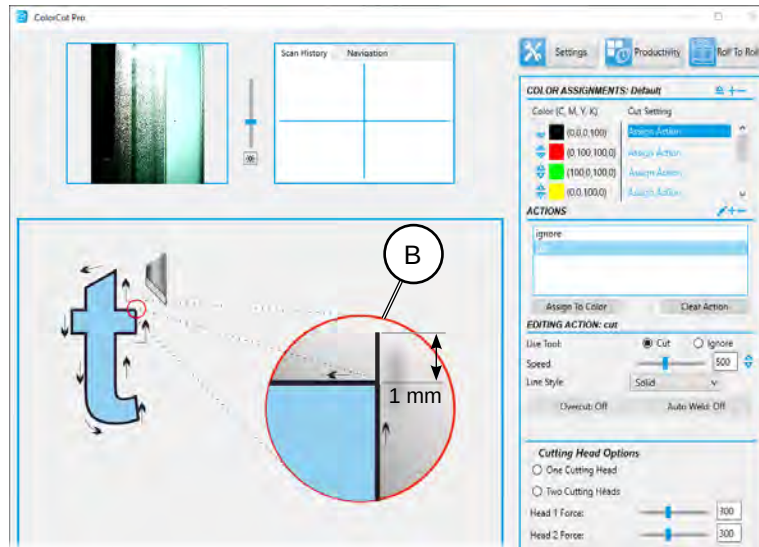
The default setting for OverCut is "Off" [A].

To Activate OverCut, click on the OverCut button and a dialogue box will appear asking you what value you wish to set OverCut to.



Set the OverCut value to approx. the width of the blade (for labels).

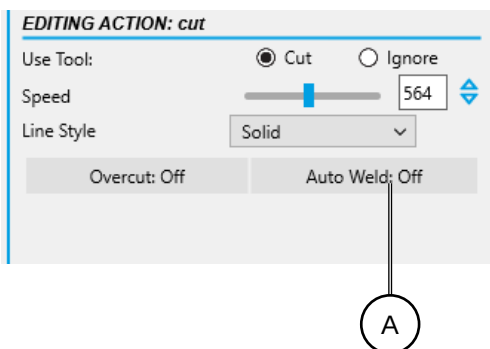
OverCut, continued



With OverCut enabled the blade will overcut the endpoint of the object prior to lifting [B].

NOTE: If cutting complete shapes and 1 mm is insufficient, it may be necessary to increase the value to 2.

Auto Weld

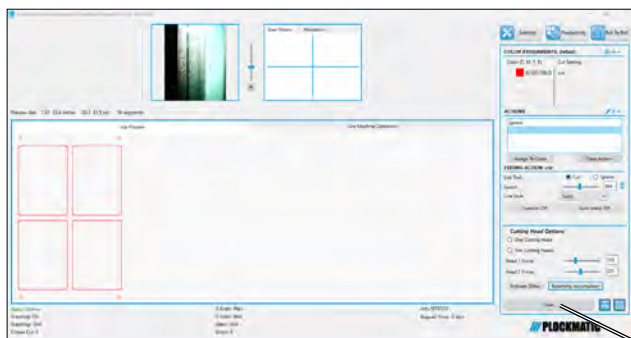


The Auto Weld [A] function serves as an indispensable tool for rectifying errors in artwork where lines are disjointed.

This function is especially useful for keeping the cutter head from rising while transitioning from the end of one line to the start of another, essentially combining these segments into a single continuous cut. By seamlessly connecting these lines, Auto Weld not only saves time but also ensures a smoother and more precise cutting process.

Start/Scan QR Code

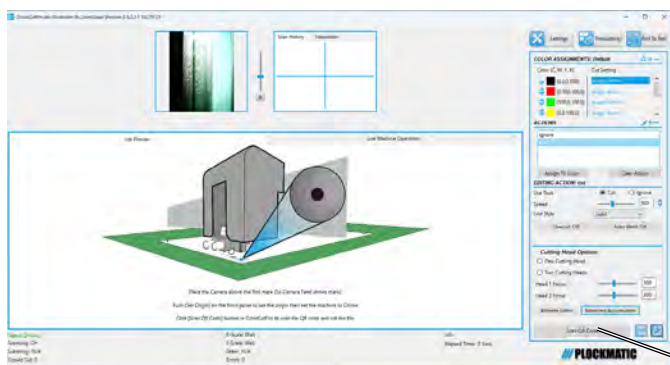
The [Start] or [Scan QR Code] control is a dynamic button which changes based upon the mode you are working in.



If you have opened the cutting file directly from your graphics application, or you have manually entered a Job ID (See section “Enter a Job number to retrieve the Cut Job file directly”) to manually load a job to be cut, the Job preview area will show the job which will be sent to the cutter, and the button will display ‘Start’ [A] enabling you to start cutting.

This is also known as Direct Cutting Mode.

A

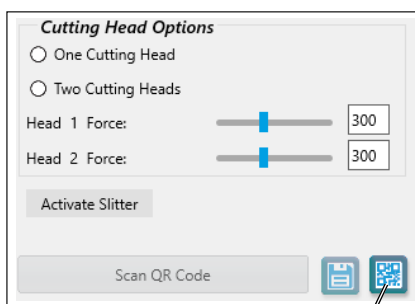


Alternatively, if you have opened ColorCut Pro Stand Alone (Job Server Mode) there will be no preview of a job in the preview area.

In Job Server mode the button will show ‘Scan QR Code’ [B], which when clicked, will load a sheet and scan the QR code to retrieve the job and load it into the cutting preview area, then start cutting as defined in the Productivity set-up.

B

Switch Modes



The QR code icon [A] enables you to change the mode of the current instance of ColorCut Pro.

Clicking the icon, when no job is shown in the preview window (When the ColorCut is in Job Server Mode), enables you to manually enter a QR code to pre-load the job.

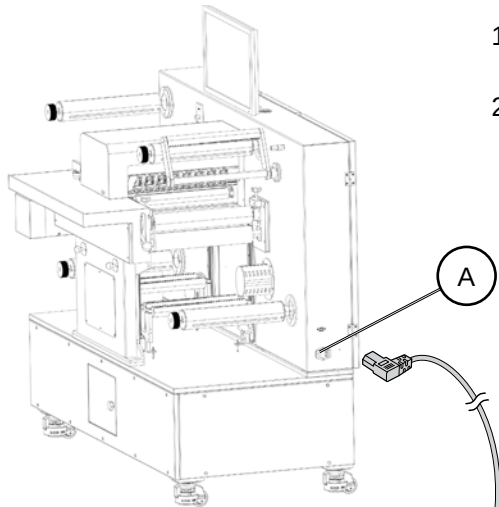
This enables you to check line/action assignments prior to large productions. See section “Retrieving Jobs from the Job Library (Job Server Mode)”.

Clicking the Icon, when a Job is loaded in the Preview Window (the cutter is in Direct Cutting Mode) switches to Job Server mode (ready to Scan a QR code).

A

1. Basics

Turning On / Off the Main Power



1. Make sure that the LCF500/LCF520 power cord is plugged into the wall outlet.
2. Set main power switch on to ON position [A].

Launching ColorCut Pro

There are two different ways to Launch ColorCut Pro Production Studio. ColorCut Pro - Production Studio is the full version of ColorCut Pro, and is used to cut your files. It can be used in two different ways, you can select the most suitable method for your working environment.

1. ColorCut Pro (Direct Plug-in) is launched Directly from your graphics application. Launching ColorCut Pro, directly from your Graphics application will transfer the currently open design file (specifically the currently selected layer) directly to ColorCut Pro for cutting. This enables you to cut the file you are working on (or open a previously saved file). This way of working is ideal for testing a design or where the cutting will be handled by the same person that makes the artwork.

NOTE: When working in ColorCut Pro (Direct) mode, as ColorCut Pro is launched directly from the graphic application it requires either Adobe Illustrator or CorelDRAW installed on the computer that will do the cutting. In addition the operator will need to locate the file to cut and to be able to use the graphics application in order to launch ColorCut Pro. For this reason we typically recommend using the stand-alone mode of ColorCut Pro - Production Studio, also known as ColorCut Pro Job Server mode.

2. ColorCut Pro (Job Server Mode) does not need a graphics application installed on the computer. It also does not require you to locate the original graphics file. In addition the simplified interface is designed to be used by any operator (typically a Print Finisher with no specific computer or Graphic Applications skills) by providing a [Start/Scan QR Code] button to start operation.

When using ColorCut Pro in Job server mode your files must already have been created and have PageMarks and a Job Number/QR Code added during the design stage. When the 'Add Job Number & QR Code' feature is carried out by the designer, the cutting lines are saved automatically for all users in the Job library folder.

When using ColorCut Pro - Production Studio (Job Server Mode), ColorCut Pro is launched on its own (stand alone) on your computer from the Windows Start Menu. The appropriate cutting file is retrieved by the operator entering the job number or can be retrieved automatically as the LCF500/LCF520 scans the QR Code.

Using ColorCut Pro - Production Studio in (Job Server) mode streamlines the cutting process and retrieves cut files for you making cutting much easier. It is the recommended way of working for busy designers so they can find the files quickly and especially in companies where the cutter operator is a different person to the graphic designer, or where a different computer will be used for the cutting such as in Mac environments.

NOTE: When working in ColorCut Pro - Production Studio (Job Server) mode, as ColorCut Pro will retrieve the cutting files from the job library for you, it is important that your files were created with a Job Number and QR Code using the 'ColorCut Pro 'Add PageMarks and QR Code' feature in the design process from your Graphics Application.

The following sections of this manual details how to launch ColorCut Pro - Production Studio to cut your files using either method.

Direct Mode

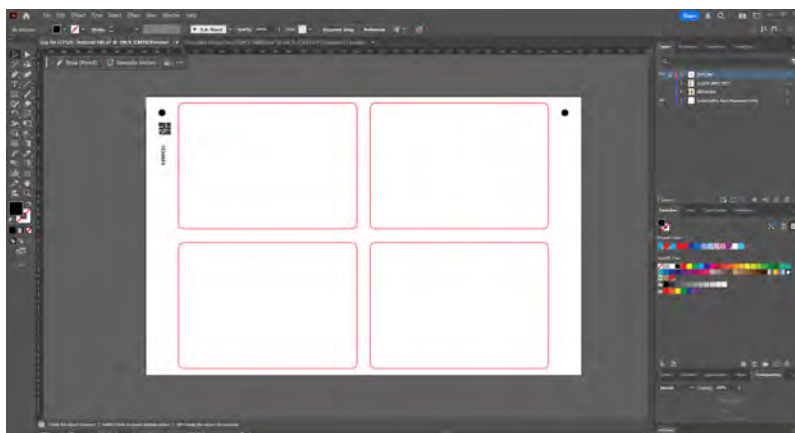
Selecting the Outline Layer

1

It is important to note that when launching ColorCut Pro - Production Studio, the software will examine the currently selected 'Layer' in your graphics application and isolate all vector lines and curves on the page.

You may see an Error Message if there are artwork elements or images on the layer selected when you launch ColorCut Pro. Therefore by drawing the cutting profile and the artwork graphic on separate layers you may simplify the process.

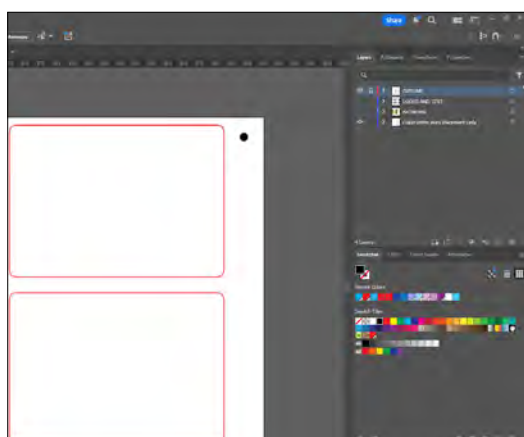
In this example the graphic layer is active; this drawing is ready for printing.



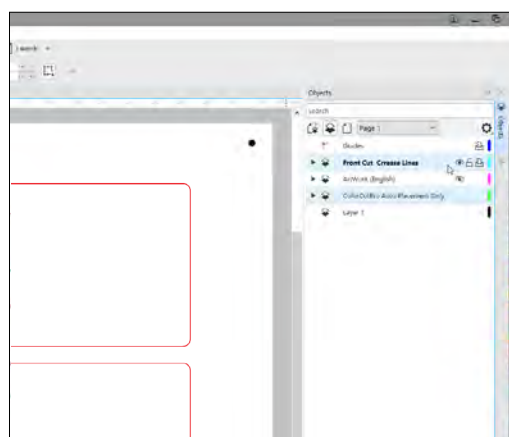
NOTE: Launching ColorCut Pro with this layer selected will generate an error as ColorCut Pro does not know how to handle graphics to a Cutter

Select the layer for the cutting

Ensure only the vector lines you wish to send to your ColorCut cutter are on the layer selected before launching ColorCut Pro. In the example below, the layer is ready for you to launch ColorCut Pro.



Adobe Illustrator



CorelDRAW

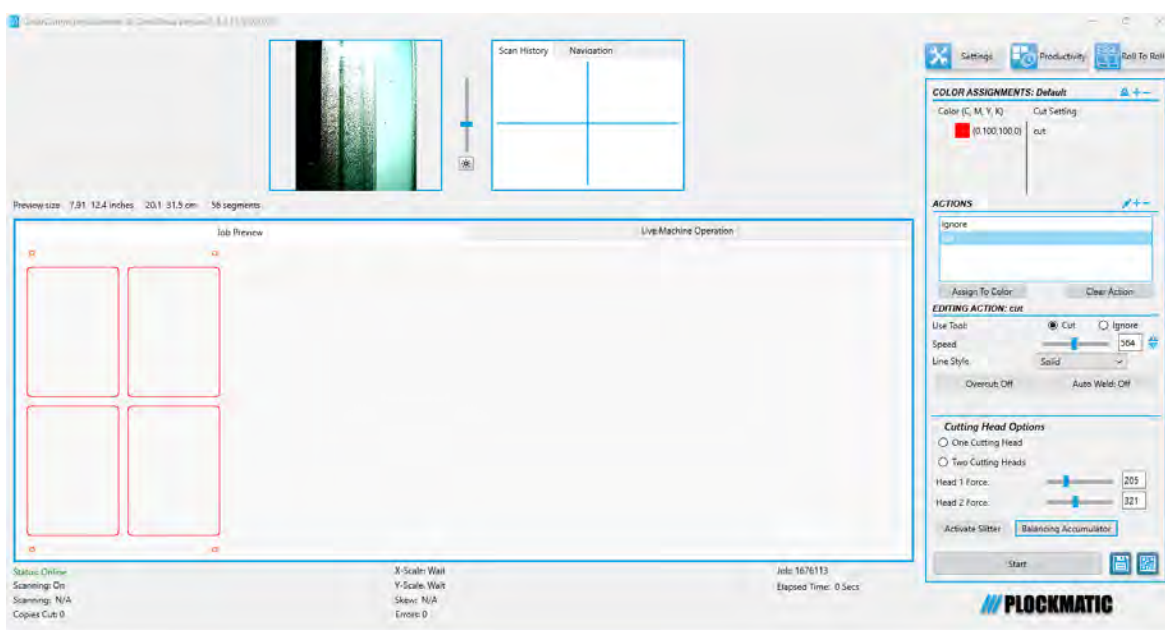
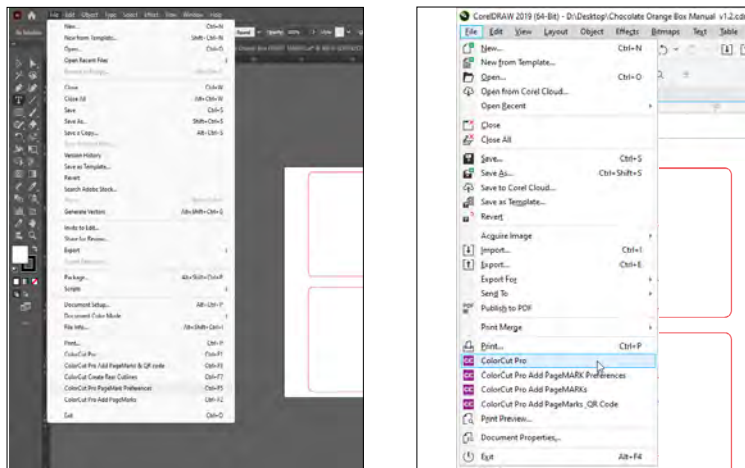
NOTE: Although most of the screen-shots shown in the manual are from Adobe Illustrator, CorelDRAW (as shown above right) uses object layers enabling you to separate the cut lines & artwork to different layers

Direct Mode, continued

Launching ColorCut Pro (Direct Mode)

After selecting the layer you wish to send to the ColorCut LCF500/LCF520 Cutter, select ColorCut Pro from the File menu. Both Adobe Illustrator and CorelDRAW can be seen below with the Coutline selected and then ColorCut Pro selected from the [File] drop-down menu.

1



The ColorCut Pro splash screen will briefly appear, then the main ColorCut Pro application will be displayed. You will see a preview of the cutting profile from the Currently Selected Layer in the window.

The ColorCut Pro - Production Studio application handles all the functions for the automation of the digital cutting process. When launching ColorCut Pro in Direct Mode, ColorCut Pro transfers the currently selected layer containing contour cut lines from Adobe Illustrator or CorelDRAW directly into ColorCut Pro.

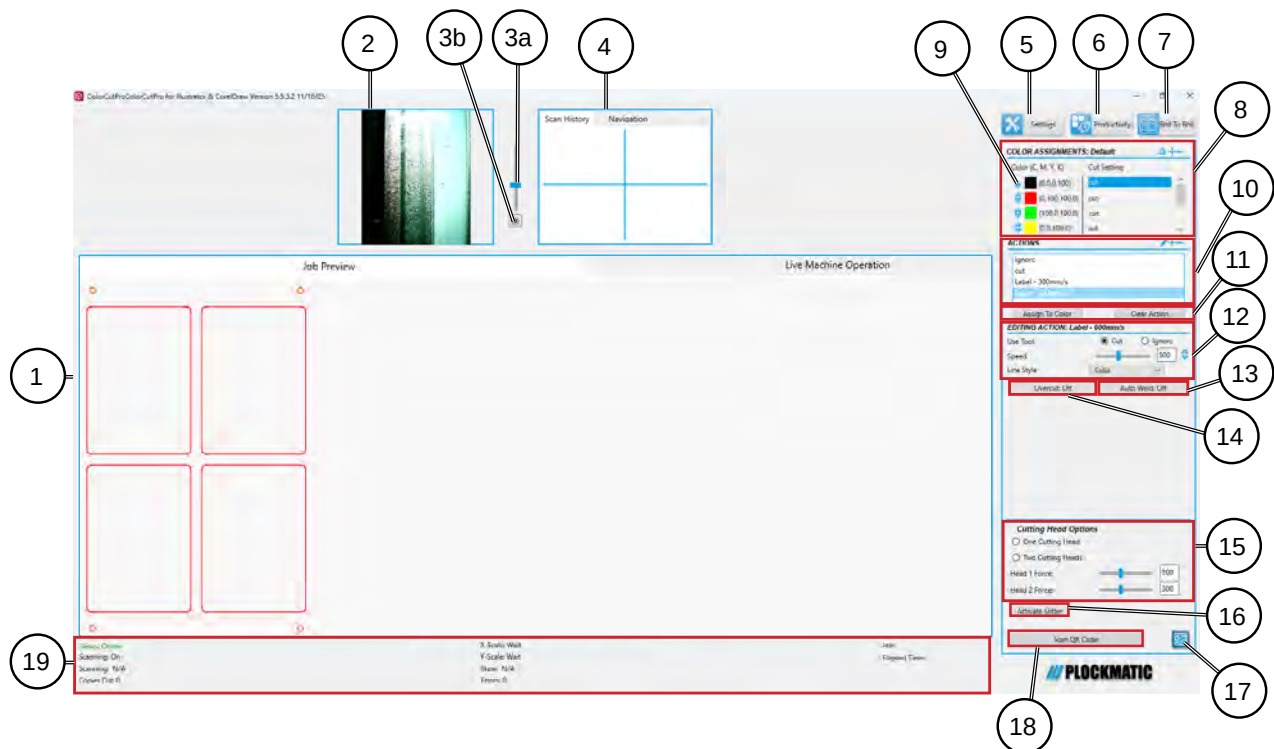
Specific parts of the software panel are dedicated to controlling how the different tools in your ColorCut are controlled and can be customised by action.

For an overview of the options available to set the proper cutting parameters, please see below:

Before cutting for the first time, ensure that you have set up your ColorCut in the [Settings] dialogue box. Prior to first use, ColorCut Pro must have the Sensor offset aligned and you must set the correct blade offset.

Direct Mode, continued

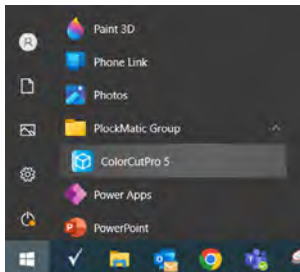
Overview of the ColorCut Pro Main Screen (Direct Mode)



- | | | | |
|----|------------------------------------|----|---|
| 1 | Preview of selected cut job | 10 | Pre-Set Action |
| 2 | Vision3 Sensor video echo | 11 | Assigning an action to a color |
| 3a | Camera Illumination control | 12 | Edit Material/Action setting |
| 3b | Default Camera Illumination | 13 | Auto Weld option |
| 4 | PageMark registration history | 14 | OverCut option |
| 5 | Settings | 15 | Cutting Head Options |
| 6 | Productivity Options | 16 | Slitter Activation Button |
| 7 | Roll To Roll Options | 17 | Switch to Job Server mode (Access QR code mode & Job Library) |
| 8 | Colours available in job & actions | 18 | Start Cutting |
| 9 | Change Cutting order | 19 | Status bar |

Job Server Mode

There are 2 ways to launch the ColorCut Pro (Job Server) version of ColorCut Pro.

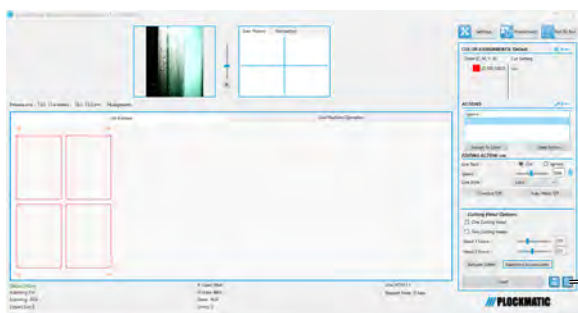


1. Open the ColorCut Pro (Job Server) from Start menu

- Open the Windows [START] menu, and select ColorCut Pro from the Programs/PlockMatic Group folder*.
- The ColorCut Pro splash screen will briefly appear then the main ColorCut Pro application will be displayed. In the preview window, an informational image will appear showing you where to position a job (if manually positioning). Once a job is retrieved by scanning a QR Code or by entering a job number, the preview of the loaded job will then be displayed.

*The folder path may alter.

1



2. If you are already running ColorCut Pro (Direct mode) then open from ColorCut Pro (Direct)

- If you already have ColorCut Pro (Direct) open, you can switch to Job Server mode, by clicking the QR Code icon [A].

Overview of the ColorCut Pro Main Screen (Job Server Mode)

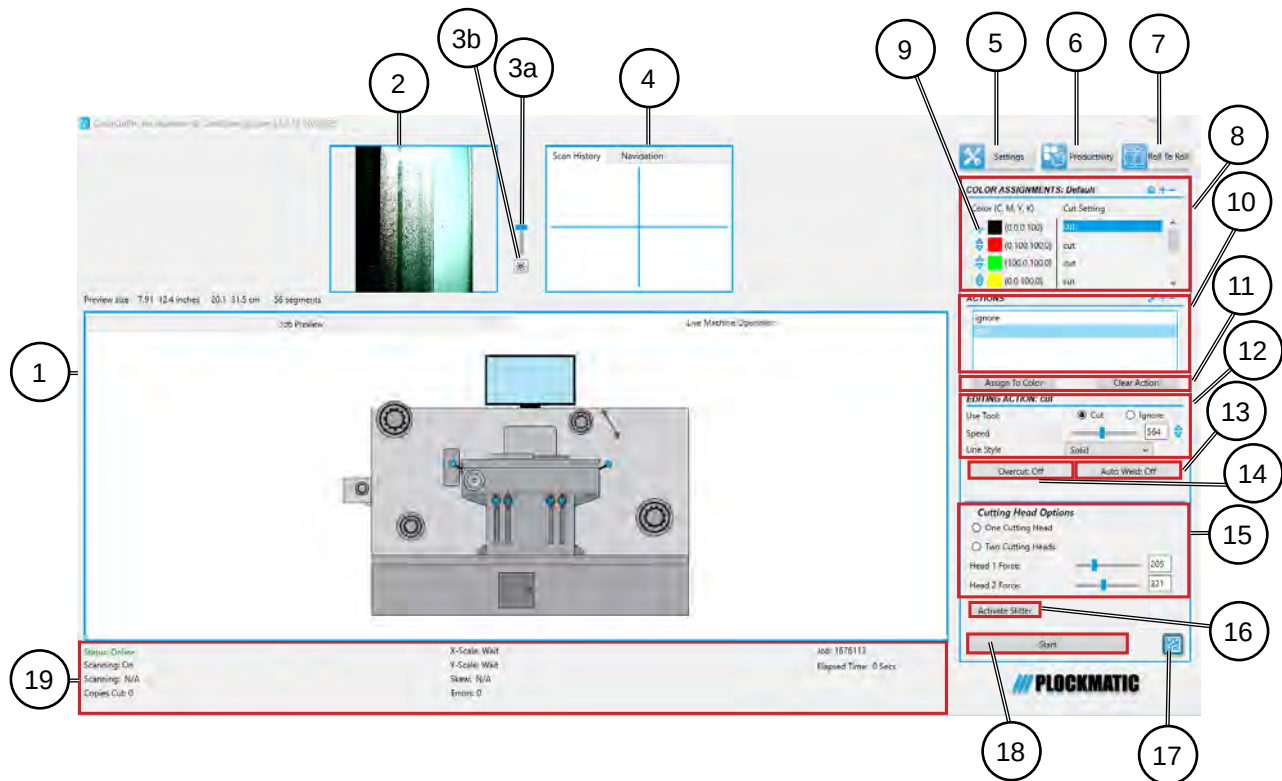
The ColorCut Pro - Production Studio application handles all the functions for the automation of the digital cutting process. When launched in Job Server Mode, ColorCut Pro will load Cut Job files from the Job Server Library by either by scanning the printed QR code on the artwork or keying in the Job number (also printed on the artwork). No additional software is required to load or open the cut files.

The screen options and layout are almost identical to the ColorCut Pro (Direct Mode), with the exception of items 2, 9, 15 & 16 detailed below. For an overview of the options available to set the proper cutting parameters, please see next page.

NOTE: Before cutting for the first time, ensure that you have set up your ColorCut in the [Settings] dialogue box. Prior to first use ColorCut Pro must have the Sensor offset aligned and set the correct Blade offset.

Job Server Mode, continued

Overview of the ColorCut Pro Main Screen (Job Server Mode), continued



- | | | | |
|----|------------------------------------|----|---|
| 1 | Preview of selected cut job | 10 | Pre-Set Action |
| 2 | Vision3 Sensor video echo | 11 | Assigning an action to a color |
| 3a | Camera Illumination control | 12 | Edit Material/Action setting |
| 3b | Default Camera Illumination | 13 | Auto Weld option |
| 4 | PageMark registration history | 14 | OverCut option |
| 5 | Settings | 15 | Cutting Head Options |
| 6 | Productivity Options | 16 | Slitter Activation Button |
| 7 | Roll To Roll Options | 17 | Switch to Job Server mode (Access QR code mode & Job Library) |
| 8 | Colours available in job & actions | 18 | Start Cutting |
| 9 | Change Cutting order | 19 | Status bar |

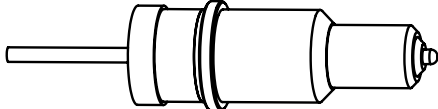
Cutter Blades (An overview of Blade types)

Your cutter comes with a selection of blades contained in plastic boxes with colored rubber protective cap. Yellow caps indicate a 30° blade and red caps indicate a 45° blade.

Caution:
Be careful when handling the blade as the cutting end is very sharp.

Blades are selected for different applications; a guide is shown below:

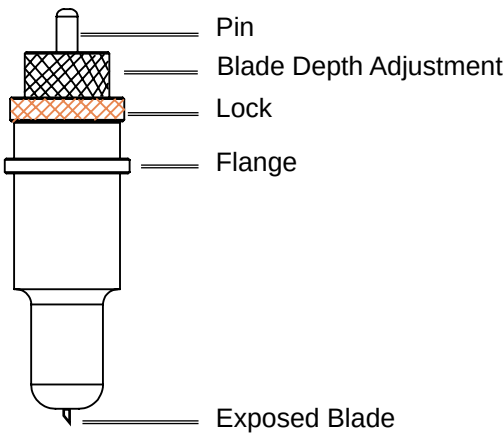
1

Name	Image	Angle	Blade Diameter	Features and Application
Blade		30°	1 mm	For film, very soft material, thin label material.
		45°	1 mm	Typically for labels, stickers.
Pen Holder				Used at setup, to calibrate the offset between the Optical Registration Mark sensor (Red light) and the centre of Tool1.

* Maximum cutting depth is defined by the machine type and pressure available rather than the blade (which is 350 microns for the LCF500/LCF520)

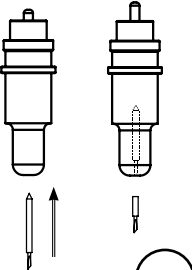
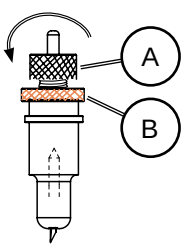
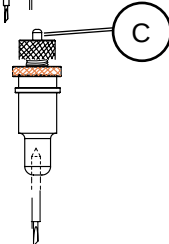
The Blade Holder

Warning:
When handling cutter blades, be careful to avoid cutting your fingers or other parts of your body.



Replacing the cutting blade

The blade is a consumable item and you'll always get the best quality cut with a newer blade. Please replace with a new blade when the cut quality reduces.

1. Push the blade into the bottom of the blade holder. 
2. Adjust the amount of exposed (visible) blade tip to a suitable length by rotating the Adjustment depth knob [A] and then tighten the lock [B]. 
3. When replacing the blade, push the pin [C] down to extend the blade. Carefully grip the extended blade and pull to remove. 

Blade Adjustment

Blade Depth is a critical factor in cut quality. Along with the force, it determines how cleanly the material cuts and how easy it can be "weeded".

Excess blade depth can cause poor cut quality and damage the cutting strip, while insufficient depth will prevent proper cutting.

NOTE: As a general rule, the blade tip should be barely visible. If the tip can be clearly seen or felt, it is likely set too deep.

To quickly test the blade depth, take the blade holder and manually drag it across a sheet of media that you wish to cut and assess the outcome against the desired performance.

Kiss Cut/Half Cut:

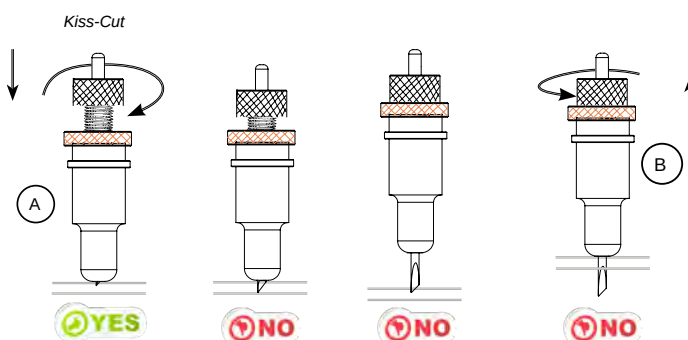
1. Lay your desired material on a hard work surface (not on a nice table in case you cut through the backing).
2. With the blade holder in your hand, press down and drag in a straight line.
3. Press down using a moderate amount of force.
4. Adjust the blade depth so that you are only cutting through the label material and the backing is left fully intact. If you are cutting/scoring the backing, you have too much blade exposed. If you are not cutting through the top layer, you do not have enough blade exposed.

Blade Force Settings

Alongside blade depth, using the correct blade force settings is crucial for optimal cutting performance. It's recommended to start at a low force setting and gradually work your way up to a value where you have achieved the desired effect.

The blade length is adjusted by turning the blade adjustment knob.

- To extend the cutter blade, turn the knob in the direction A.
- To retract the cutter blade, turn the knob in the direction B.



Test Cut

The Test Cut function allows you to check your blade depth and force settings on the ColorCut LCF500/LCF520.

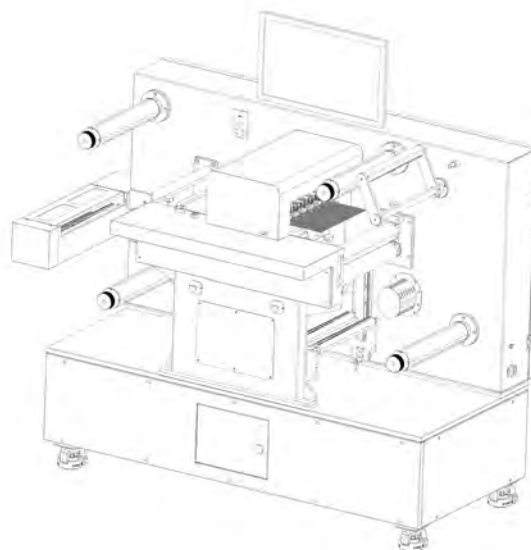
Caution:

Do not press [TEST CUT] until media is loaded and the tool carriage has been moved to a clear area of the media, away from the side of the cutter. The Test Cut function will draw a square shape at the tools' current location.

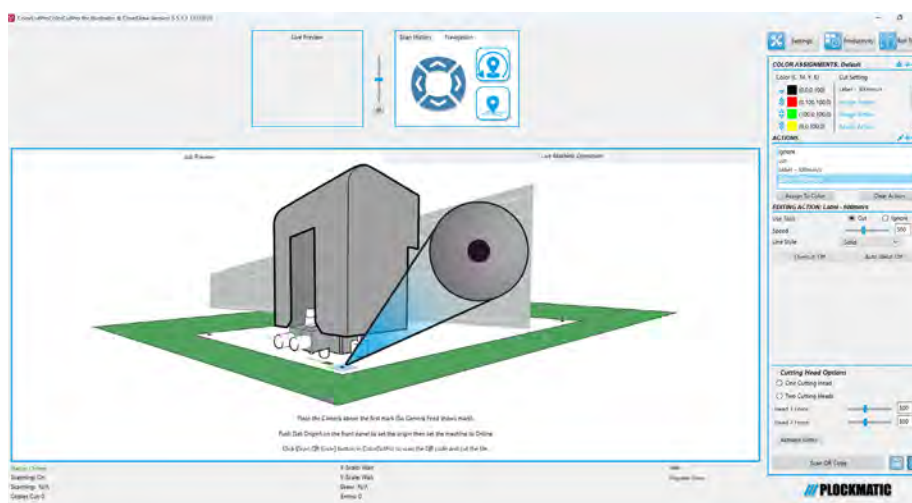
NOTE: The Test screen is very useful for checking your blade depth and the pressure/force used during cutting, prior to starting a job.

After the Blade tool has been loaded and you have manually adjusted the blade depth to a level you believe is correct. Load a sheet of your media, and perform a test cut, following the instructions below. Then adjust the blade and pressure accordingly. Checking and adjusting the settings for your specific media prior to a production saves time and eliminates waste.

Performing a Test Cut to check depth/force:



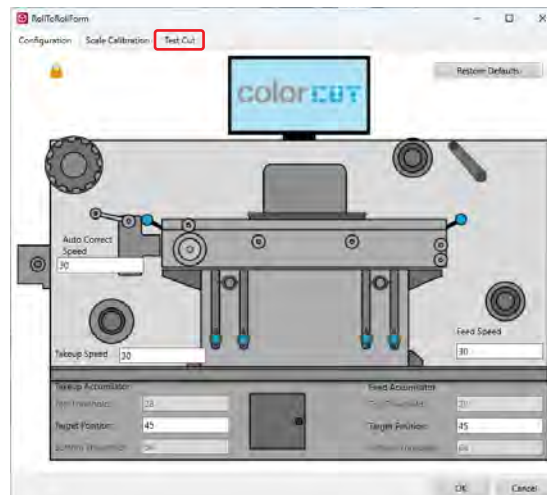
1. Place a blank sheet of label stock in the machine



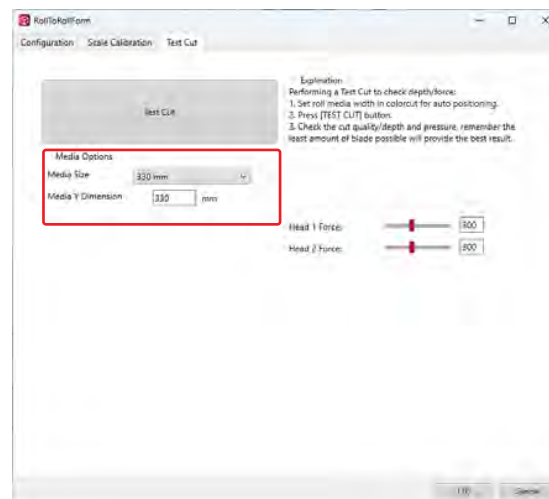
2. On the main screen press [Roll To Roll] button, that will open to a 'Configuration' screen.

Test Cut, continued

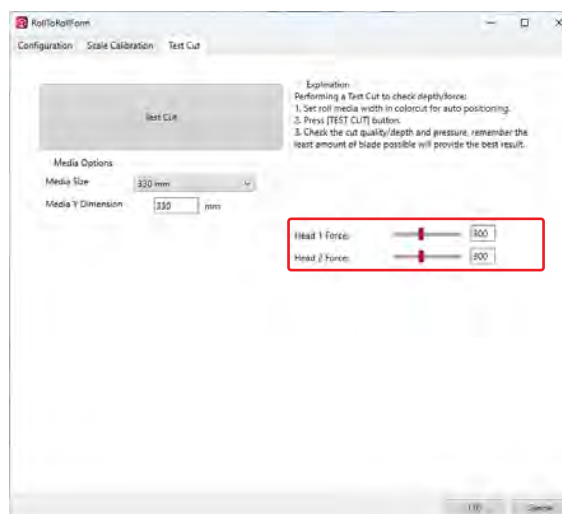
1



- Press [Test Cut] button at the top of the screen.

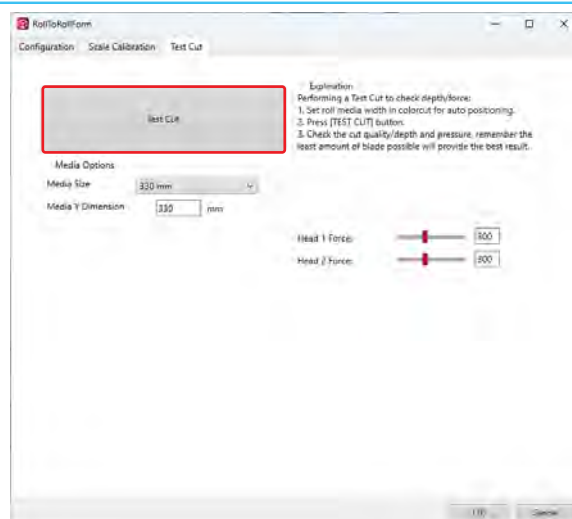


- Set up the [Media Size] inside the [Media Options] box.



- Set the force for the cutting head(s).

NOTE: 'Head 2 Force' option is available only for the LCF520 model.



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6. Press [Test Cut].

NOTE: The head(s) will move to the correct position based on the media size options and cut a 20x20mm square onto the media.

7. Check the test cut on the ejected section of roll. If the cut depth is not sufficient or is too excessive, enter the test cut menu and adjust the force either by using the slider or by typing the force in.
8. Use the following guidelines to adjust blade exposure based on the cut results:



9. When new settings are applied, repeat the test cut until the desired cut is achieved. There is no need to move the carriage while performing a new test cut since the carriage will shift to the left side each time a new test cut is performed.

Result	Action
Cuts through label and backing	Too much blade exposed. Remove blade holder, reduce blade exposure, and test again.
Cannot cut through label	Not enough blade exposed. Increase blade exposure and test again.

Configuring ColorCut Pro

In addition to setting the cutter model upon first use, it is important to set/check the configuration settings for the software. Among the settings there are several that are important to understand to get the best results from your ColorCut cutter.

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These are:

Knife Offset: A range of blades fit LCF500/LCF520 cutter and different blades may alter the way corners and shapes are cut. Further information on Knife Offset can be found further on in this section of the manual.

Offset Value: 0.25mm (0.01").

Scan Targets: This setting instructs ColorCut Pro to detect the registration PageMarks and automatically adjust the cutting position, compensating for scale and skew variations on the printed sheet. This ensures highly accurate alignment between the cut paths and the printed artwork.

Default Setting: Yes.

NOTE: Alternatively it is also possible to cut sheets that are blank or do not contain PageMarks. This can be useful when it is not necessary to register the cut line to a specific place on the media i.e. when cutting shapes out of blank media.

When cutting without marks, the origin is manually set by the user on the cutter and it does not take into account skew, scale or mis-positioning of the sheet. (Not recommended if artwork is on the media). For this reason we normally recommend that a user should use 'Scan Targets', in conjunction with PageMarks on their artwork.

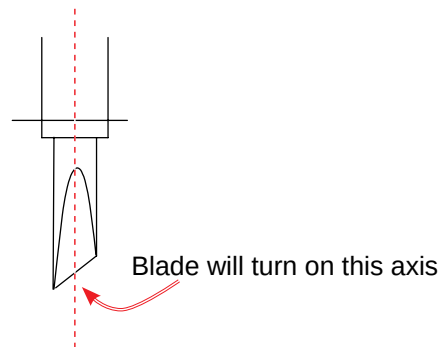
Device Type: This adjusts ColorCut Pro's appearance and screens to match your cutter model. Ensure this is set to the appropriate model for your cutter.

Output Device: This shows where your Cut file will be sent to. When the LCF500/LCF520 cutter is detected on the Ethernet port this should show Ethernet Device. If it shows File Output then the Cutter can not be seen, check your connection and that the cutter is ON-LINE and ready.

Vision Sensor Offset: Cutter is fitted with a Vison3 registration sensor to detect PageMarks but this is in a different position to the centre of the blade. Therefore it is important to tell the software the 'offset' between the blade and the sensor itself. This can be manually set however to make life easier, the Auto Find feature will automatically it. It is important to have these values set for LCF500/LCF520 cutter otherwise you will not cut accurately. It is also detailed in the following pages for your reference.

Blade Adjustment

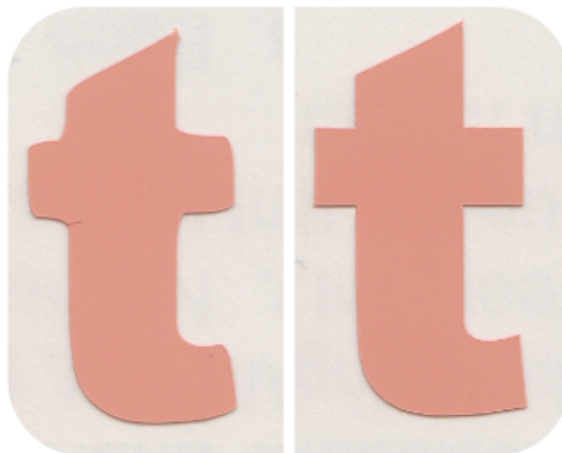
The ColorCut series of cutters use a contour-cutting blade (sometimes referred to as a 'drag knife') to accurately cut shapes. The blade revolves/rotates around its centre as the carriage moves following the cutting path and as the tool carriage changes direction.



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When the blade reaches a corner its axial centre (the point around which it rotates) arrives before the cutting point and unless there is some means of causing it to do so, the cutting part of the blade would never reach the corner and would start to turn as the cutter changed direction thus creating a radius instead of a sharp corner.

No Blade offset compensation



Knife Offset compensation applied

ColorCut Digital machines have a built in routine to manoeuvre the blade in a way that compensates for this known as Knife Offset. The Knife Offset value is used by the software to compensate for the distance from the point at which a blade cuts to the point around which it rotates.

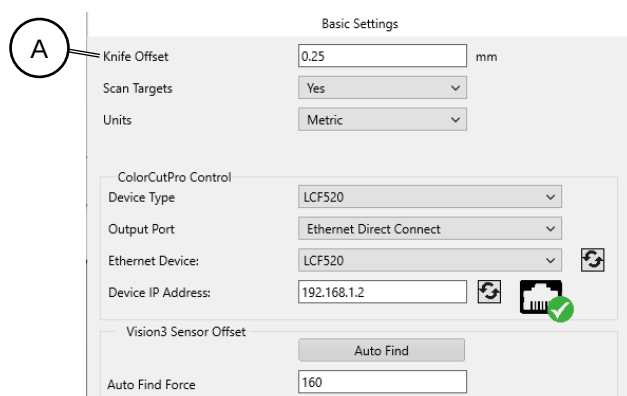
Choosing the Correct Blade for the Job

Each packet of Blades shows the Knife Offset on the front of the packet. The standard Yellow and Red blades are 1 mm in diameter so require a 0.25 mm (0.01") Knife Offset.

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Name	Image	Angle	Blade Diameter	Knife Offset	Features and Application
Blade		30°	1 mm	0.25 mm	For film, very soft material, thin label material.
		45°	1 mm	0.25 mm	Typically for labels, stickers.

NOTE: Remember to check and set the Knife Offset when changing blades.



The screenshot shows the 'Basic Settings' dialog box for ColorCut Pro. The 'Knife Offset' field is highlighted with a circled 'A' and contains the value '0.25 mm'. Other settings include 'Scan Targets' set to 'Yes', 'Units' set to 'Metric', 'Device Type' set to 'LCF520', 'Output Port' set to 'Ethernet Direct Connect', 'Ethernet Device' set to 'LCF520', and 'Device IP Address' set to '192.168.1.2'. The 'Vision3 Sensor Offset' section has an 'Auto Find' button and a value of '160'.

1. Click the [Settings] button on the main ColorCut Pro screen to display the ColorCut Settings Dialogue box.
2. Enter the value in "Knife Offset" text field [A].
3. Click [OK] to save the settings.

Scan Targets

During the printing process, the image may not be consistently positioned or have been slightly distorted which will affect the cutting accuracy.

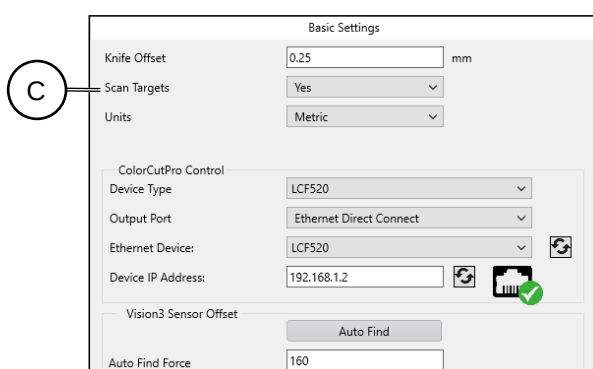
To compensate for these variations ColorCut pro can read PageMarks added to the printed roll. These marks allow the software to accurately locate the artwork and automatically adjust the cutting position.

Using PageMarks, ColorCut Pro can compensate for:

- Position shifts between printed elements.
- Scaling variations of up to 3mm.
- Rotation errors of up to 5mm.

When cutting shapes that do not need alignment (such as blank media), the cutter can be set to disable the scanning of registration targets.

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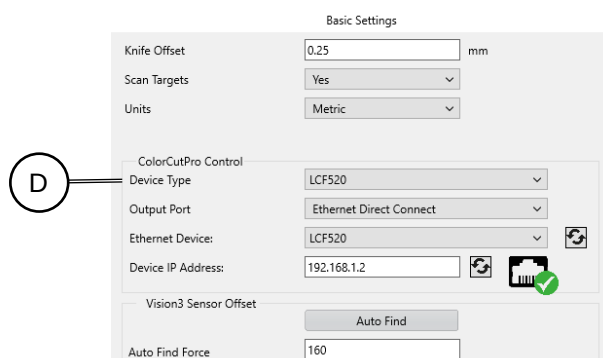
1. Set Scan Targets [C] to “Yes” to ensure the PageMarks are scanned and any positioning or printing errors are corrected (this is the recommended mode).
2. Set Scan Targets [C] to “No” for the alternative mode of operation where PageMarks are not scanned. This option is used for cutting blank sheets where registration or alignment of the cut to the image on the sheet is not important.

NOTE: Positional accuracy cannot be guaranteed if PageMark scanning is disabled.

The graphics should be designed in accordance with the guide in this manual on PageMark creation (See section “Registration PageMarks”). Only the specific PageMarks detailed will provide origin reference, scale, skew and rotation references for the ColorCut software so it can adjust your cutting line appropriately for accurate cutting.

Device Type

This setting shows the current output type of cutter connected. The main screen and controls for ColorCut Pro will change based upon the Device Type [D] selected and not all features will be available as detailed in this manual unless you have selected the cutter type to match your model.



For the LCF500/LCF520 roll-to-roll label cutter, set the Device Type to “LCF500” or “LCF520”.

Output Device

This setting shows the current Output Device [E] connected. When the ColorCut LCF500/LCF520 is connected and ON-LINE this should read 'Ethernet Direct Connect'.

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Basic Settings

Knife Offset: 0.25 mm

Scan Targets: Yes

Units: Metric

ColorCutPro Control

Device Type: LCF520

Output Port: Ethernet Direct Connect

Ethernet Device: LCF520

Device IP Address: 192.168.1.2

E

If the ColorCut Pro software cannot sense the LCF500/LCF520 cutter on the connection of your computer, then this will show: "File Output".

In such circumstances, check your connection to your computer and power cycle LCF500/LCF520 cutter. (Ensure it is off for 45 seconds to enable the cache to flush.)

Sensor Offset & the Auto Find feature

Sensor Offset is critical for accurate cutting. It tells the ColorCut Pro software the difference in position between the actual Blade on the cutter and the Vision sensor that reads the PageMark positions. This only needs to be set once and once set it does not change but it is very important that this is set prior to cutting any jobs.

Basic Settings

Knife Offset: 0.25 mm

Scan Targets: Yes

Units: Metric

ColorCutPro Control

Device Type: LCF520

Output Port: Ethernet Direct Connect

Ethernet Device: LCF520

Device IP Address: 192.168.1.2

F

Vision3 Sensor Offset

Auto Find

Auto Find Force: 240

G

Sensor Offset X: -3 mm

H

Sensor Offset Y: 30.4 mm

Contour Tools

Cutting head offsets

2nd: 90 mm

- The Sensor Offset can be set automatically by using the Auto Find [F] feature (detailed in the next section)
- It can be manually entered or adjusted by editing the Sensor Offset X [G] text field (looking from the control panel - left to right across the bed) or the Sensor Offset Y [H] text field (Back to front).

Auto Find - Setting the Sensor Offset to the Blade

NOTE: This section is only for reference; this procedure is already completed during installation (Section 1.7.2. in Installation Manual)

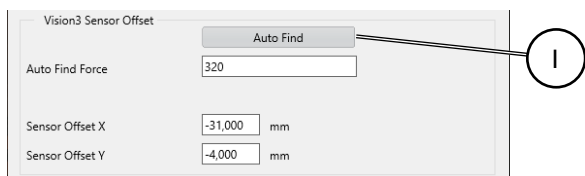
The ColorCut Flatbed cutter includes a Vision3 ARMS system (Automatic Registration Mark Sensor). The Vision3 ARMS sensor uses an high quality CCD camera to automatically detect Registration Marks (PageMarks), enabling accurate cutting using ColorCut Pro. Being able to automatically detect the PageMarks enables ColorCut Pro's sophisticated algorithms to compensate for any scale or skew errors during printing or any positional errors, adapting the cutting lines accordingly. In addition to reading PageMarks the Vision3 camera can read job QR codes and provide live video echo to show progress during cutting.

Auto Find - Setting the Sensor Offset to the Blade, continued

The Vision 3 ARMS sensor is mounted next to the cutting blade holder and the distance between the centre of the blade, and the centre of the Vision3 camera sensor (known as the sensor offset) must be compensated for to ensure accurate cutting.

Before you use the ColorCut Pro software for the first time you will need to calibrate the Sensor Offset so your software knows how to adjust the difference between the cutting blade and the actual optical sensor.

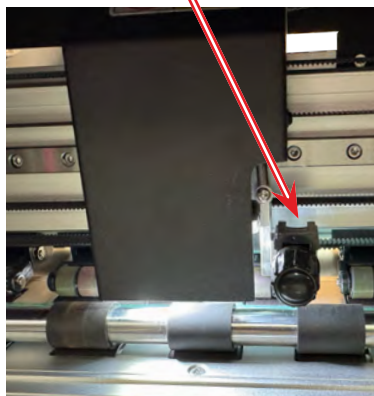
1



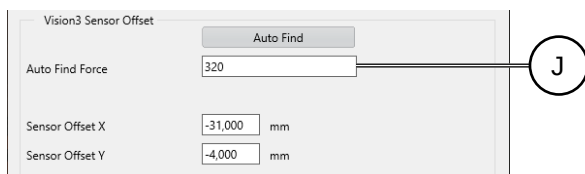
The Auto Find [I] feature calibrates the offset automatically. This is achieved by using the Pen Calibration Tool. The pen tool is used to draw a circle shape, the Vision3 ARMS sensor then moves over the shape, scans to locate the shape and determine the exact centre point of the circle shape. The ColorCut Pro software then calculates the distance the Vision3 sensor is offset from the centre of the cutting tool automatically.



Calibration pen



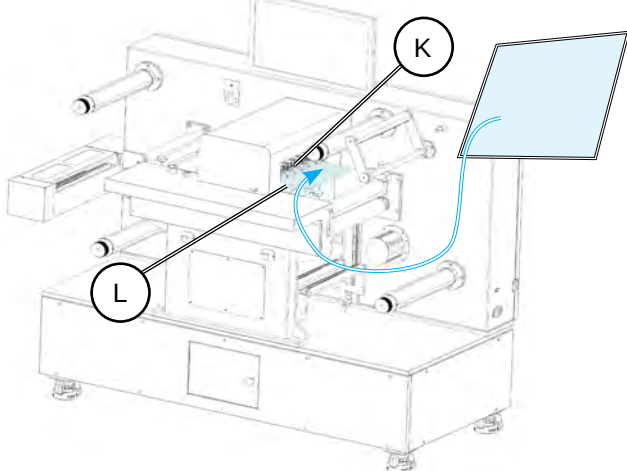
1. Place the Calibration Pen Tool in Tool Holder.



2. Set/Check the appropriate pressure for the Calibration Pen Tool. (Not too much pressure or you may break the pen).

Check the AutoFind Force [J] pressure is set to between 200 - 320 gms of pressure.

Recommended pressure is 220 gms. For very thin label stock it should be reduced.

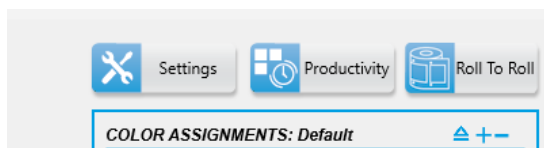


NOTE: Too little pressure and the pen will not write.

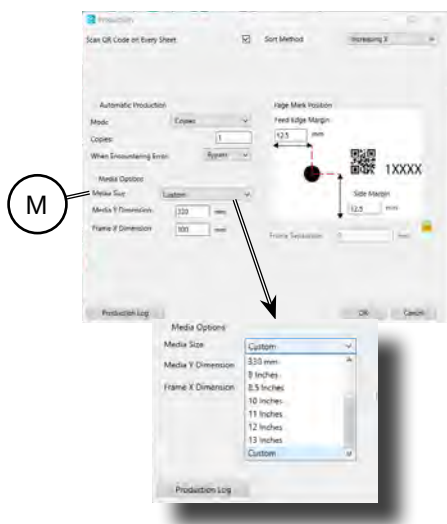
3. Load a blank paper sheet into the rollers by lifting guiding rollers [K]. Adjust blank paper sheet using measuring tool on the roller [L].
4. Connect cutter to network using Ethernet Cable.
5. Launch the ColorCut Pro application from your computer.

Auto Find - Setting the Sensor Offset to the Blade, continued

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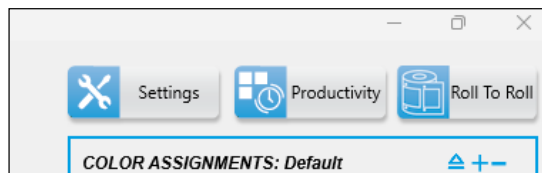
6. Set/check the media size in the LCF500/LCF520 Productivity tab, and ensure it matches the media you have loaded, click on the [Productivity] button at the top of the ColorCut Pro window.



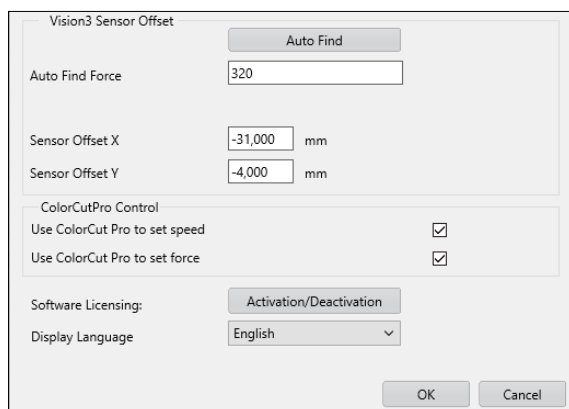
7. From the Media Options [M] click on the media size, and select the size that will be loaded into the machine.

Recommend paper size to carry out calibration procedure is SRA3 (EU/ROW) or Tabloid (USA).

If selecting A4 or US Letter, ensure you set SEF (Short Edge Feed) orientation. Then click [OK].

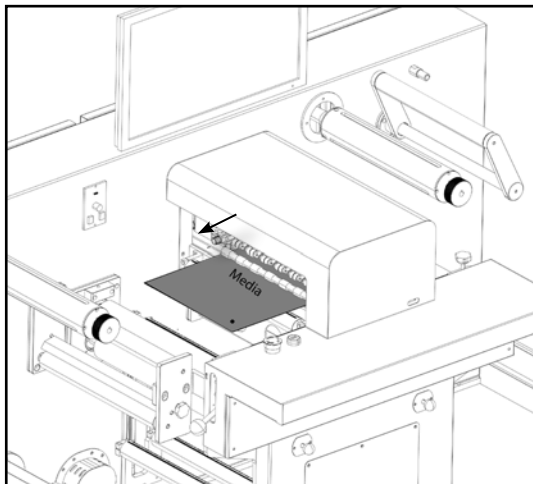


8. In the main ColorCut Pro application screen, click on the [Settings] button.



9. The ColorCut Settings dialogue box will appear. Here you can manually enter the Sensor offset or automatically set it by clicking the [Auto Find] button. (The force used can be manually set in the "Auto Find Force" text field. A value between 200-320 g should not need to be changed)

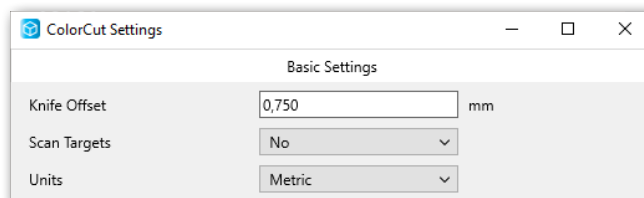
Auto Find - Setting the Sensor Offset to the Blade, continued



10. Click the [Auto Find] button, a message will appear asking if you have placed the pen tool into the holder, and click [OK]. The ColorCut LCF500/LCF520 will use the Pen Calibration Tool to draw a spiral pattern that simulates a PageMark. It will then move the Vision3 sensor over to find the mark and automatically enter the values into your Sensor Offset X and Y settings. Once completed you will see a confirmation message.
11. You can now close this window, the calibration for ColorCut Pro is now complete.

NOTE: If you do not set the X and Y Sensor offset values (either using the Auto Find function - or manually) then the cutter will not cut accurately. Please ensure you have done this. However once done, this should not need to be repeated.

Units of Measurement



ColorCut Pro can be operated in Metric (mm) or Inches (Imperial). Use the Units control to set the measurement units to your preference.

Activation/Deactivating ColorCut Pro License

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Enter Response Number

Activate Thru Internet Manual Activation

License Code: CC5c76b54eeb8d0

Activated: yes

Activated on this Computer: yes

Company Name *: Plockmatic

First Name *: John

Last Name *: Doe

Email Address *: John.Doe@themorgeprintingco.com

Phone Number:

Check Activate **Deactivate**

ColorCutPro

Deactivation successful.

OK

ColorCut Pro is activated and licensed through an online license server. Each license includes two activations.

- One for your design (Artwork) PC.
- One for a separate cutting workstation, if required.

This allows cutting tasks to be performed independently of the design system.

The Mac client does not consume one of the two activations; however, it must verify that a valid license is available during installation.

Use the license that was used to activate on your PC to enable installation on a Mac.

To move ColorCut Pro to a different computer, you must first deactivate it on your current computer before installing it on the new one.

NOTE: If a ColorCut Pro license is not deactivated, the activation limit may be reached, preventing use on a new computer. To resolve this, deactivate the previous installation or purchase an additional license.

Deactivating ColorCut Pro

After clicking the [Activation/Deactivation] button, the license activation screen will appear. To deactivate your license, click the [Deactivate] button. This will connect to the online license server, deactivate the license on your computer, and free up a license code for reactivation on the same or another computer.

NOTE: Deactivation requires an internet connection.

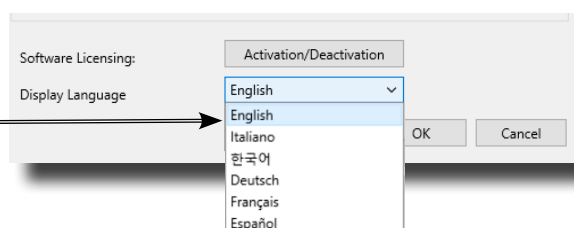
NOTE: Antivirus software may also block ColorCut from communicating with the license server. Make sure ColorCut is allowed in your firewall settings.

Regional Language Options



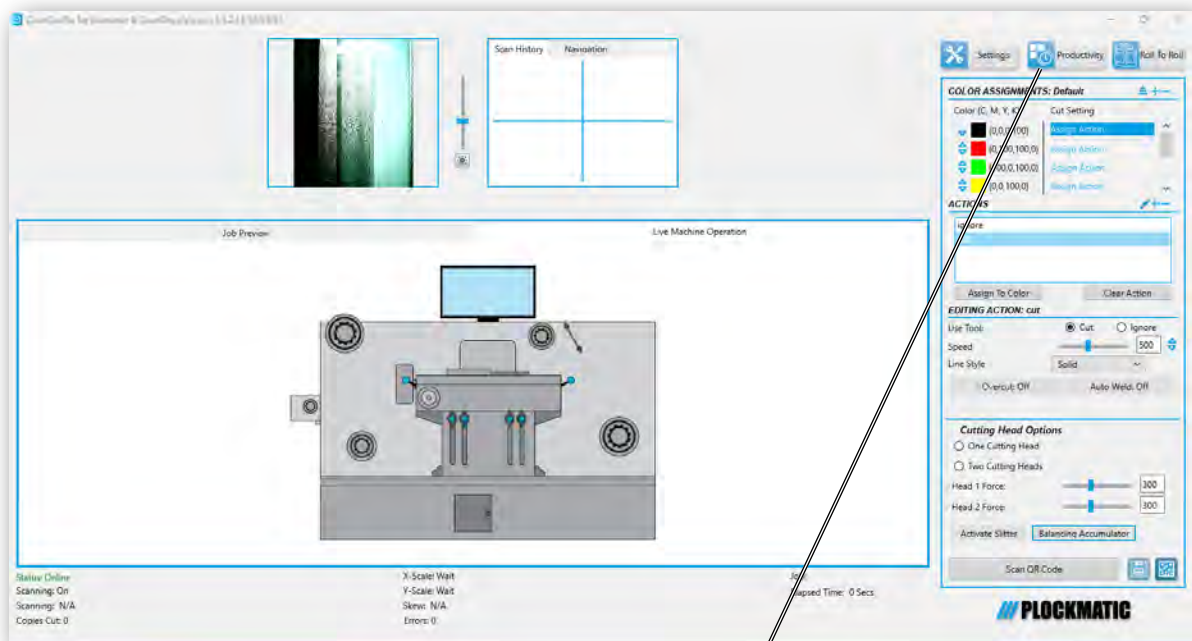
ColorCut Pro is set to English by default. To change the language, go to the settings screen and select your preferred language from the drop-down menu at the bottom.

After changing the language, restart ColorCut Pro to enable all fields to be updated correctly.



Productivity Options

In addition to the configuration settings there are additional settings that can influence your productivity and furthermore enable automated batch production. These settings are all grouped under the [Productivity] menu.



The 'Sort Method', 'Scan For QR Code on every sheet', Automatic Production control: 'Mode', 'Copies' and 'Media Size' Control options are available at any time and apply to all jobs when the cutter is set to Media Positioning.

Frame Separation [A] is used to set the gap applied between each frame by the printer driver. If this value is not set correctly then your cut position in the X direction could be incorrect.

Sort Method

The Sort Method setting [A] changes how the cutter moves from the end of one cut to the beginning of the next.

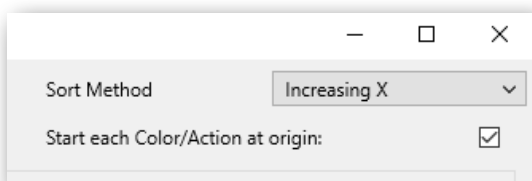
The ColorCut Pro software can operate in 6 modes:

1. **None:** No sort to the cutting is employed and the software will cut in the order it read the lines into the application.
2. **Diagonal:** Aimed to reduce cut times based on the principle that while moving between cuts, both the X, Y motors may be used. If both motors are used the travel speed is higher. Diagonal sort gives weighting to close movements that engage both motors. (Sometimes but not always producing diagonal travel paths).
3. **Increasing Y:** Cuts all lines starting from the top of the sheet, working down the sheet (along the Y axis only).
4. **Increasing Y (optimised):** A combination of Increasing Y and Closest point sort methods. It will check the closest 4 objects for the most efficient start position then honours increasing Y.
5. **Increasing X:** Cuts the longest straight cut first on the X axis only. A predictable cutting sort method but not always the fastest.

6. **Closest point:** The order of the cutting is sorted such that the ColorCut will cut closest to 4th PageMark first. At the end of each cut, ColorCut will continue cutting from the next closest point trying to avoid long circuitous travel paths.

There is no wrong setting; however Increasing X is best for most profiles, as the cutter continues to work down the sheet.

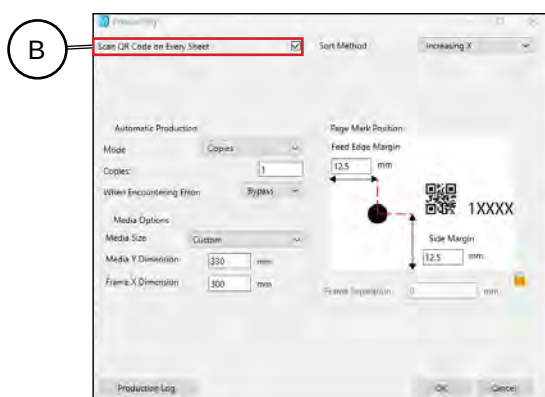
However if you are experiencing a peculiar cutting problem, changing between the options can change the direction of the blade and may help eliminate issues.



NOTE: Typically it is recommended to use the sort method "Increasing X" for optimum output path.

When using Increasing Y, it is recommended to ensure 'Start Each Color at Origin' is checked. If more than 1 color/action is used (such as first Creasing), this will ensure ColorCut Pro to start the cut sequence at the top of the sheet.

Scan for QR Code on every sheet



This is a useful feature which allows users to choose if the ColorCut Pro software should scan for a QR Code on every frame.

ColorCut will load the job to cut as follows:

- In Direct mode, by using the selected/open file in Illustrator or CorelDRAW
- In Job Server mode - from scanning the QR Code or from the job number keyed.

When 'Scan Qr Code on every sheet' box is checked [B]; after cutting the first frame the LCF500/LCF520 will scan the QR code to check which cutting file should be used.

Scan for QR Code on every sheet, continued

In **Job Library mode** this function is recommended and can very useful when different/mixed jobs are in a roll on the Roll Feeder, as each cut file will be retrieved automatically. In addition by scanning each QR Code,

When operating in **Direct Mode** (cutting directly from the application without QR codes on the printed sheet). You should disable 'Scan QR Code on every sheet' [B] then after cutting the currently loaded job ColorCut will keep the current cut file loaded and cut the same file again one subsequent frames.

You can also retrieve jobs by manually keying in the job number (printed at the end of the sheet), If you plan to cut multiple sheets of the same job, you may wish to manually enter the job number and remove the step of scanning the QR Code (which can save a small amount of time. However, if you skip reading the QR Code on each sheet, while cutting time is reduced by approx. 1/2 sec per sheet (which is the length of time required to scan the QR Code).

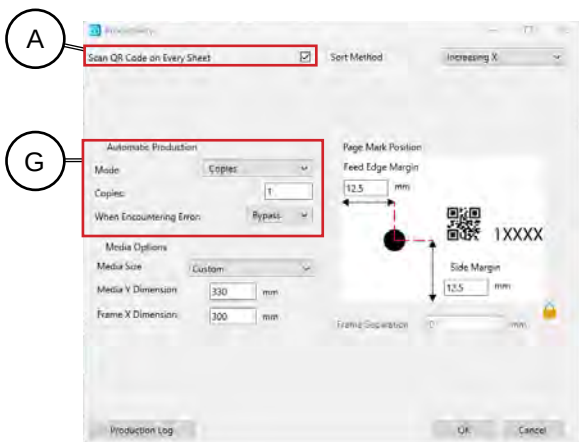
NOTE: If you enable 'Scan QR Code on every sheet' [B] and the sheets do not contain QR Codes, the LCF500/ LCF520 will error and the cutter will stop. Therefore it is only recommended to enable the scanning of QR Codes if you have placed QR Codes on each sheet.

Automatic Production Options

The Automatic Production [G] section in the Productivity dialogue box enables you to change between production modes.

The options are:

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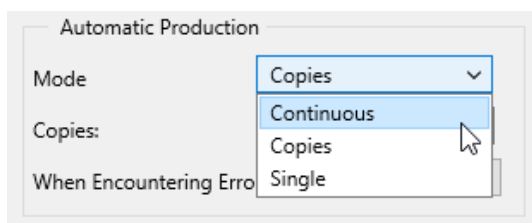


Copies Mode

Displays a new dialogue box in the area, allowing you to enter the number of copies to cut.

Single Mode

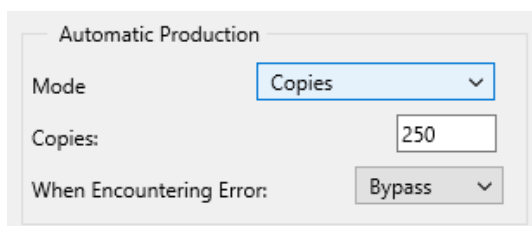
The LCF500/LCF520 will cut a single frame. (Will hide the "Copies" text field.)



Continuous Mode

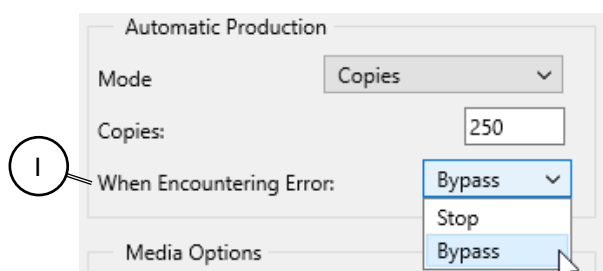
Continues to cut all printed frames.

Clicking on the drop down selection next to 'Mode' will allow you to select the production option.



Copies Entry

When the Production 'Mode' is set to Copies, enter the number of copies you would like to cut into the Copies Text Field.



Error handling

Another important item to consider is what should happen if an error is encountered. This can be a target was not read, an error reading a QR code, or a blank sheet mixed in with your cut jobs.

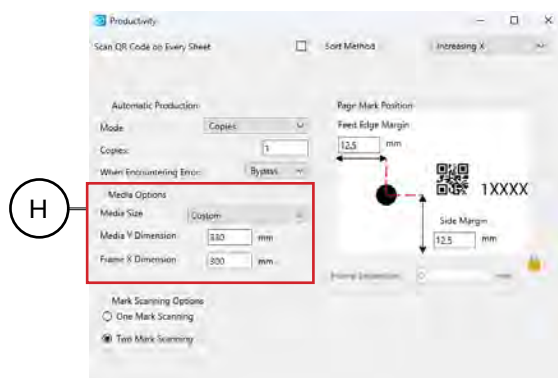
The error handling is set within the option 'When encountering an Error' [I]. The recommended action is to Bypass the error. When this is set and after an error is encountered, there is a short pause then the sheet will be ejected and the production process will continue.

The alternative option is to Stop which will halt production and leave the sheet in the LCF500/LCF520. You will start production again after resolving the error. For the most efficient and easiest production, use a combination of the options in the Production dialogue box. i.e.:

- Enable the Scan QR code on every sheet [A];
- Set Productivity mode to Copies or Continuous;
- Set When Encountering an Error to Bypass [I].

This will cut the number of jobs you require without requiring user intervention or stopping and will reject/bypass any failed sheets.

Media Options



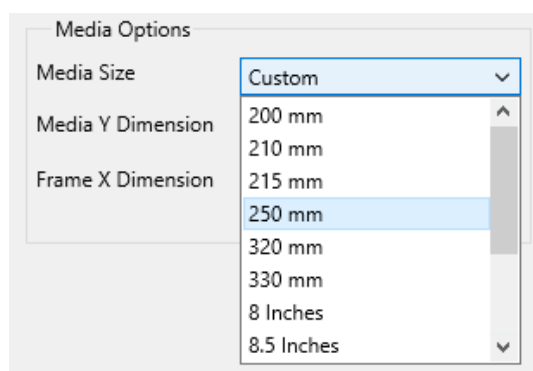
Media options is one of the most important areas to set within the Productivity settings screen.

ColorCut Pro uses the media size set here to correctly calculate the position for the Vision3 sensor to scan for the registration PageMark (and QR code - if applicable).

NOTE: As different media sizes will result in the edge of the media (and therefore the PageMarks) being in a different location, it is very important to ensure you set the Media Options correctly to match the media size loaded on the Roll Feeder.

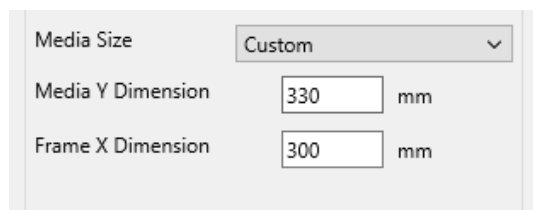
1

Media Size



The most popular media sizes are listed under the Media Size drop down menu.

Typically, you only need to select your media size here. Selecting a media size within this menu, will automatically populate the "Media Y" and "Frame X" fields for your media.

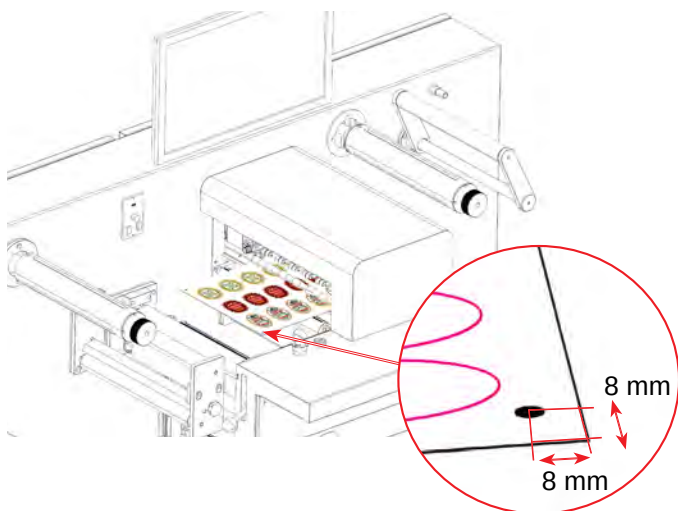


If your media size is not listed, scroll to the bottom of the list and select 'Custom'. Now enter :

Media Y Dimension (the distance across the cutting carriage that your media occupies (front to back of the machine).)

Frame X Dimension (the distance between the lead PageMarks of one section and the lead PageMarks of the next (going along the loaded roll).)

Position of PageMarks on Media



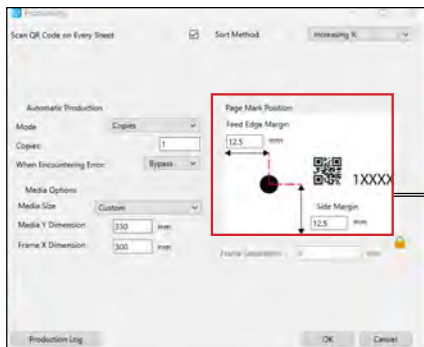
PageMarks are applied during the design stage, in your Graphics Application.

It is important that you followed the recommendation to set ColorCut Pro to place PageMarks relative to the Page Size (See section "Registration PageMarks") which keeps PageMark positioning consistent across all of your designs. It is also recommend you use the same margins, to avoid having to frequently change settings.

The 1st PageMark is located on the lead edge of the sheet at the margin you specified when applying the PageMarks (See section "Registration PageMarks" and "Automatically Adding Registration PageMarks")

Media Positioning

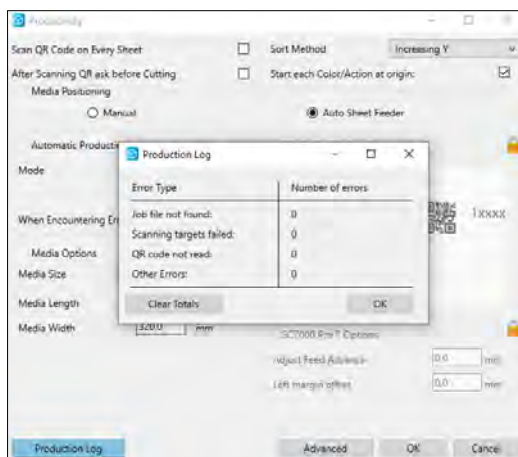
The Media Positioning [J] control sets location that the LCF500/LCF520 should move to, when scanning for the 2nd, 3rd, and 4th PageMarks`. The Top Margin and the Left Margin settings should reflect the margins set under the ColorCut Pro PageMark Preferences in your graphics application.



Once set, it should not need to be changed again (assuming you do not frequently change the PageMark margins).

Production Log

The LCF500/LCF520 has two different log's that provide feedback on your cutting.



To view the basic log, click the [Production Log] button at the bottom left of the Production screen.

Here you will be able to view a summary of any errors during cutting. i.e. Jobs not found, QR codes not read and Target Scanning errors.

The summary totals can be cleared, by clicking the [Clear Totals] button.

A more advanced log can be generated by enabling the Generate Industry 4.0 Log file check box.

The Industry 4.0 log is an external log file (Tab delimited) that is generated as each job is output, including identification of the Job ID, the time released, the status of the job, number of colors within the job, along with the color used, tool applied and length cut for the specified tool (example shown).

The Industry 4.0 Log may be required by EPOS systems and certain JDF systems. To find the location of the output data file, for your EPOS, JDF system (or third party application) navigate to:

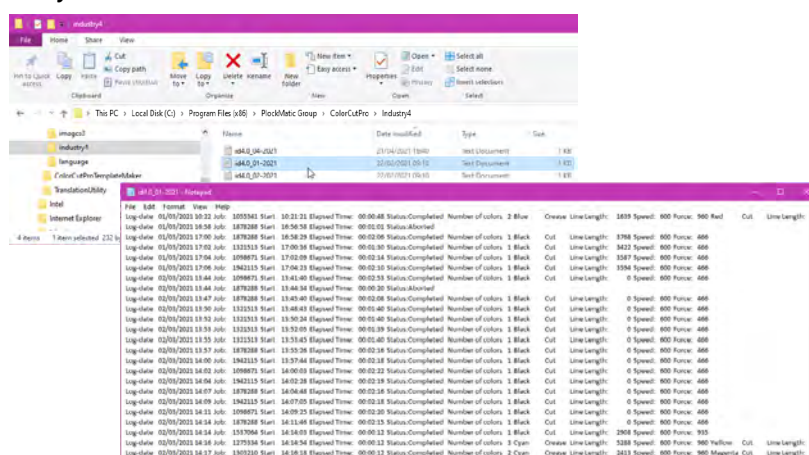
(ColorCutPro Version 5.5.10 or below)

C:\Program Files (x86)\PlockMatic Group\ColorCutPro 5\industry4

(ColorCutPro Versions after 5.5.10)

C:\Program Files\PlockMatic Group\ColorCutPro 5\industry4

The file path may alter.



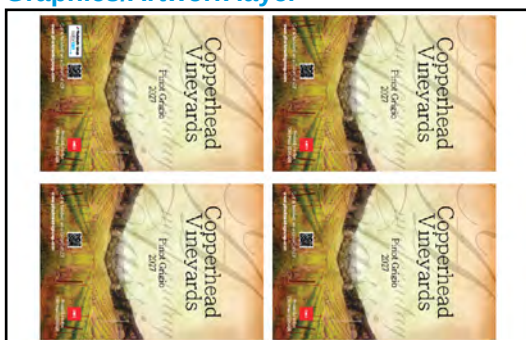
2. Setting Up a Job

Graphics File Design - Creating Your Artwork

The ColorCut Pro Plug-in works directly from Adobe Illustrator or CorelDRAW. It requires the lines for cutting, perforating and creasing to be organised on a single layer. Therefore when designing with graphics you should organize the graphic design in different layers:

- One or more layers for the main graphics (the printed artwork).
- One layer for the contour (the lines to be cut).
- PageMarks, the marks that are used for Page Registration are automatically placed for you on a new layer.

Graphics/Artwork layer



When printing you don't want to print the cutting lines or folding lines on your artwork. Equally, when sending cutting lines to the cutter, you don't want to confuse the cutter with lines that may be in your printed design. The layers feature enables you turn layers on or off as required. But in both cases, you need to have the registration marks available.

NOTE: The most common mistake people make is to print all the layers including the contour layer (the cut lines) that make the prints unusable in most cases.

Cut contour layer

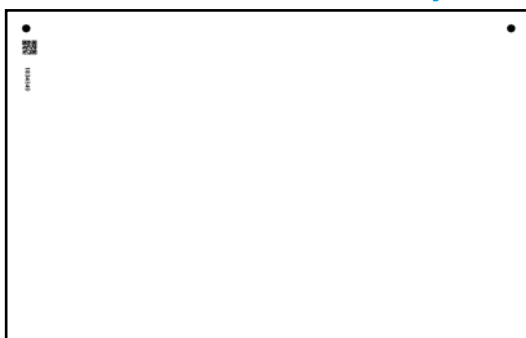


Similar commands are available in Adobe Illustrator and CorelDRAW to enable and disable the layers.

In the pictures shown on this page there is an external frame to indicate the border of the sheet making it easier for you to see the page.

NOTE: This is for illustration purposes only.

Automatic ColorCut Pro Marks Layer

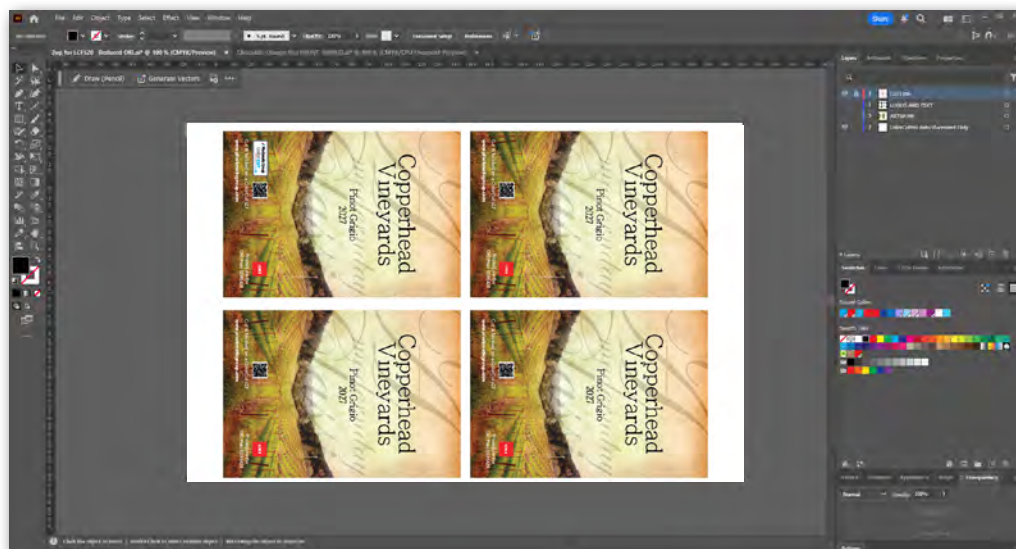


When opening some PDF format files directly in Adobe Illustrator or CorelDRAW, very often you may also find an external frame on the graphics. You will need to delete the external frame if it exists for the file to operate correctly with the ColorCut Pro software.

Layers

Layers for Printing

In this example, the main graphics layer is visible and active. The ColorCut auto-generated 3rd layer with Alignment PageMarks is also visible. (Detailed later). The cut contour layer is disabled.



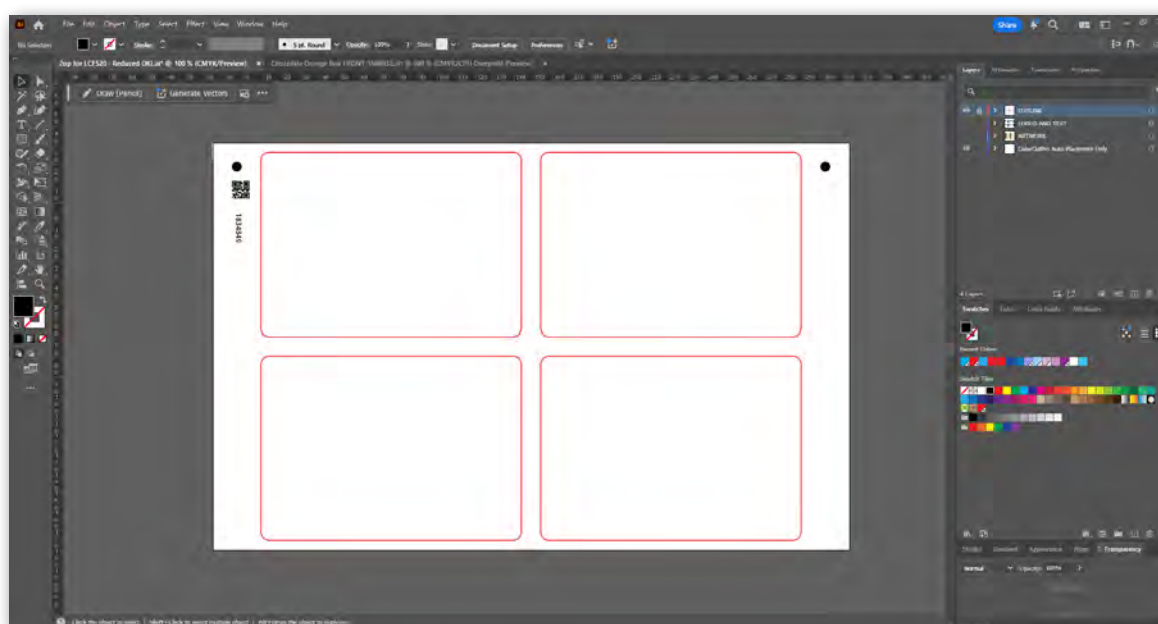
Drawing is ready for printing.

Layers for cutting

In this example, the main graphics layer is disabled. The ColorCut auto-generated 3rd layer with Alignment PageMarks is still visible. (Detailed later).

The cut contour layer is active. This drawing is ready for cutting.

If you used guidelines then it is not necessary to hide or remove them before saving.



Drawing Cut or Perforation lines

The LCF500/520 has 1 tool.

A Blade Tool, which can be used to:

Kiss-Cut shapes

Perforate lines

2

When creating projects you may wish to perform 2 or more actions with cutter.

ColorCut Pro can recognise up to 8 pre-defined colored lines (detailed below) making it easier for you to design and assign actions for each line.

If you created a job with 2 colored lines (For example; RED and GREEN) in the ColorCut software you could set the actions as follows :

RED to Cut, using the Blade with full pressure.

GREEN to Perforate, using a dashed line and the Blade with full pressure.

NOTE: The actions assigned to a Line Color can be changed at any time, and the order in which they are performed can be easily adjusted. (See following pages).

Line Colors recognised by ColorCut Pro

ColorCut Pro uses 8 standard colors, which when used on the cutting layer are recognised by ColorCut Pro. Even if your cut lines are not drawn in these specific colors, the ColorCut Pro software will intelligently Color match up to 256 variations of these each of these colors and assign your colored line to the closest match with one of the below colors.

ColorCut Pro will recognise the named colors in either RGB or CMYK.

If you have designed your cut lines using a Pantone or other color spaces you must use the Illustrator or CorelDRAW color commands to convert to (or remap) the color to one of the above RGB or CMYK line colors.

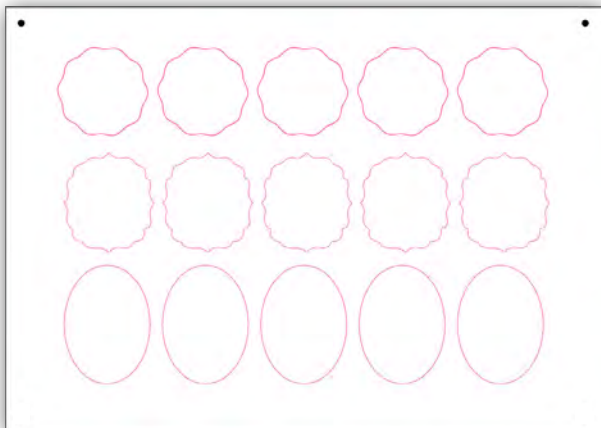
	Black	Red	Green	Yellow
				
RGB No:	(0,0,0)	(255,0,0)	(0,255,0)	(255,255,0)
CMYK No:	[75,68,67,90]	[2,98,95,0]	[76,0,100,0]	[4,2,98,0]
	Blue	Magenta	Cyan	Violet
				
RGB No:	(0,0,255)	(255,0,255)	(0,255,255)	(115,0,204)
CMYK No:	[91,80,1,0]	[0,100,0,0]	[100,0,0,0]	[70,87,0,0]

Registration PageMarks

Before you design your page you need to consider that for accurate cutting each job requires 2 Registration PageMarks. The PageMarks are automatically placed on your artwork by ColorCut Pro's Add PageMarks option. They are placed on the front 2 corners of the page, depending on page orientation in the ColorCut preferences screen, surrounding the cut lines.

The PageMarks can be placed at a fixed position on the Page, or anywhere on the page as long as it surrounds your design. Either example below can be used.

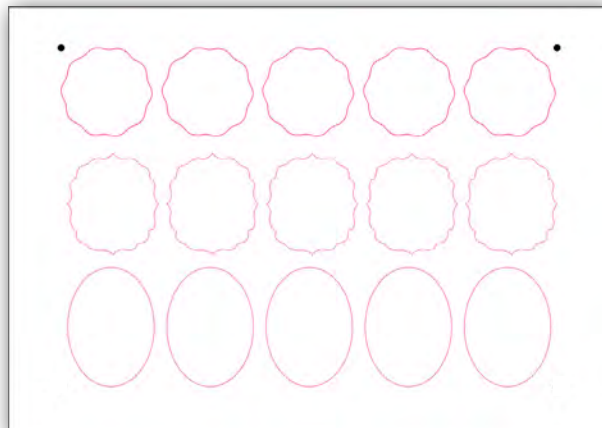
2



PageMark's based on **PageSize**.

Fixed position of targets (PageMarks) near page edges to maximise cutting area.

(Recommended for easier roll replacement)



PageMark's based on **Design size**.

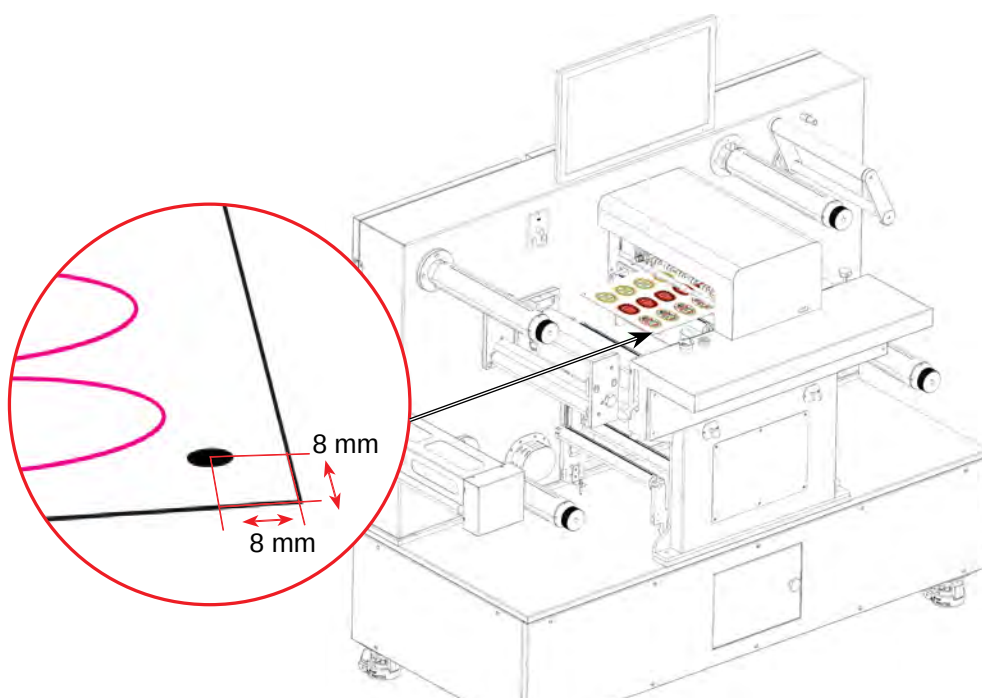
Marks around artwork.

(Alternative to PageSize)

The first PageMark provides the origin of the job and is positioned at the bottom left edge of the sheet. The second which provides scale (Y) and skew parameters is positioned top left in the drawing shown. The cutter will then use the first and second marks on the next frame to continue adjustment.

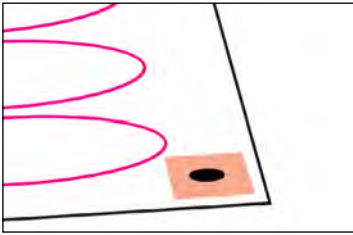
Each PageMark is a 5 x 5 mm (0.2 x 0.2") circle and 100% K black with no outline.

Although you can manually draw the PageMarks on to your design, ColorCut Pro can automatically add them for you.



Positioning of Registration PageMarks

To maximise usable cutting area, PageMarks may be positioned close to the edge of the media. However, an 8 mm scanning zone (shown in red) surrounds each PageMark. Ensure artwork is kept clear of this area as nearby graphics may be detected by the sensor, causing errors or reducing PageMark detection accuracy.



The Vision Sensor needs 8 mm from the centre of the mark to read correctly.

In addition, be aware that digital printers may have a non-printable margin around the edge of the sheet. Take care to observe your printer's non-printable margin when printing near the edges of a page so as not to 'clip' the PageMark.

The absolute minimum margin (due to the scanning zone) is 8 mm from the page edge or artwork elements. For best performance it is recommended to leave a greater margin between the PageMark and the artwork. PageMark margins can be adjusted from the ColorCut Plugin for Illustrator or CorelDraw.

2

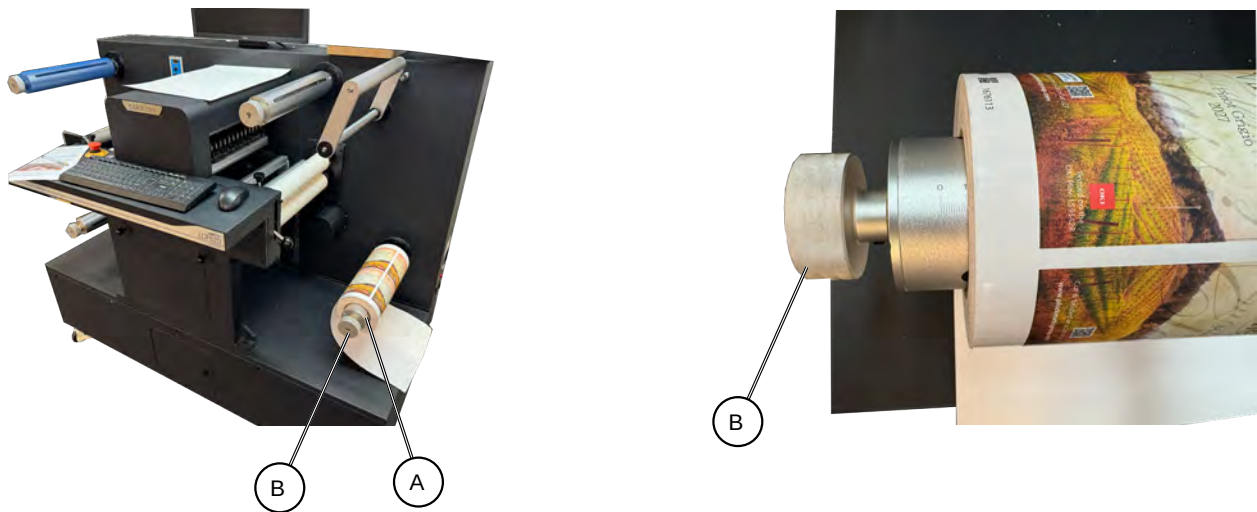
Considerations for rear PageMark placement

The LCF500/LCF520 does not hold the sheet static while cutting, instead it uses an X-axis cutting system, (this is commonly the type of cutting system most vinyl cutters use), meaning the main feed rollers grip and move the sheet along the X-axis during cutting.



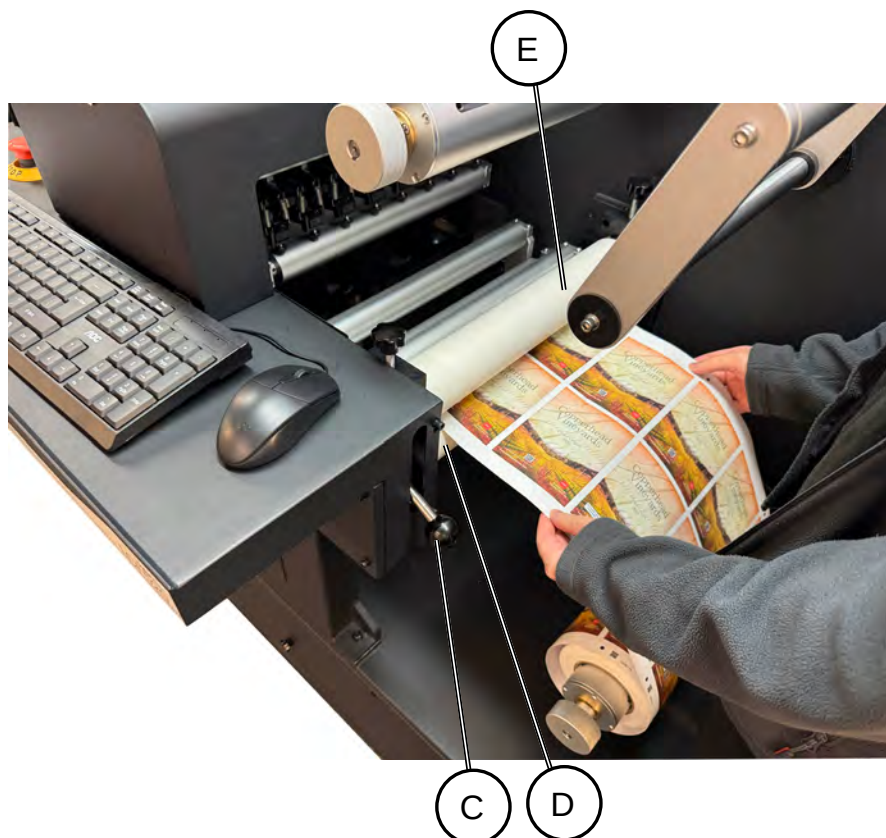
Positioning of Printed Label Roll

2



1. Insert Printed label roll on the Main Feed Roller [A]. To tighten label roll in place, spin the Roller Head [B] in clockwise direction.

NOTE: Check the offset throughout whole paper in feed process. It is recommended to have 10 mm offset.



2. Pull down the Tension Lever [C] and push printed label roll end between two Grip Rollers [D] and [E].



2

3. Push Printed label through the accumulator rollers.

NOTE: Check the offset on these rollers.



4. Push Printed label roller inside the High-speed tool head, and pull it out at the other side of the High-speed tool head.



F

5. Push the printed label through the accumulator rollers and then between the 2 grip rollers.

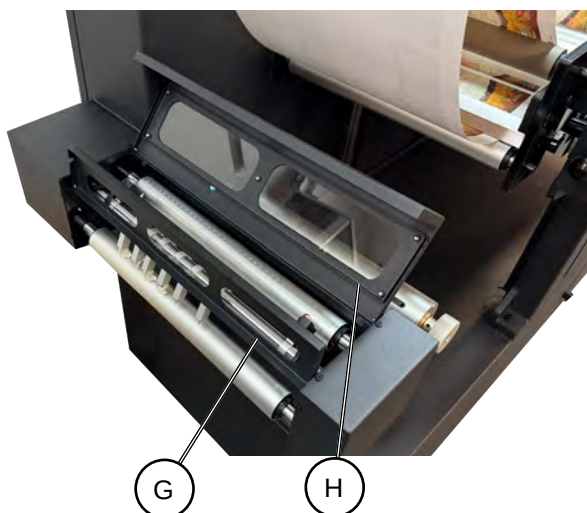
NOTE: Check the offset after all operations. The offset should stay the same throughout the whole process and Tension Lever [F] should be pulled up.

2



6. Pull Printed label roller over the last roller and under the guide plate.

NOTE: Check the offset on this roller.



7. Open the slitting knife station covers [G] and [H].

8. Pull Printed label roller through the Slitting knife station.

NOTE: Be aware of the sharp blades inside the Slitting knife station. Check the offset on this roller.



9. Insert an empty core on the Final Product Roller.

10. Tear a strip from the Printed label and stick it to the empty roll.



I

11. Pull the tension regulator [I] at the right side of the machine to release the in-feed accumulator.

12. Pull printed labels to drop accumulator.



2



J

13. Pull the tension regulator [J] at the left side of the machine to release exit accumulator.

14. Gently push the accumulator down.



NOTE: Steps 11-14 might be repeated multiple times. The goal is to approximately level in feed and exit metal rollers.



K

L

15. Open front door [K], and press Power Button on the PC [L].

16. Press Machine Power Button [M].

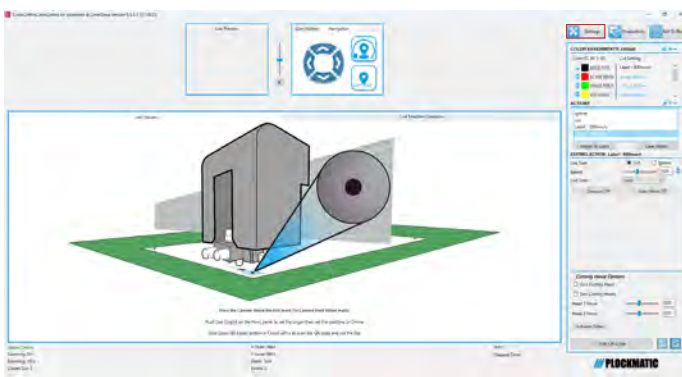


M

2



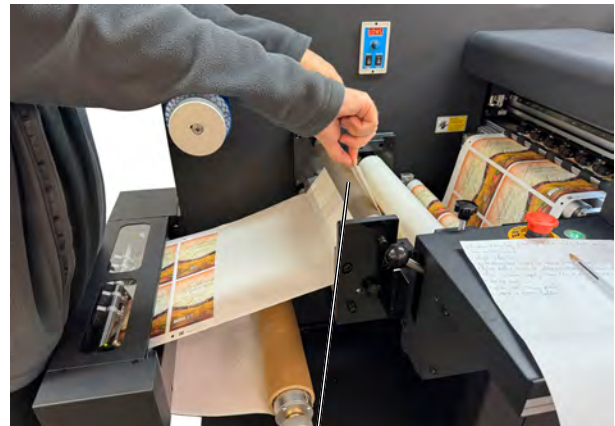
17. Press Power Button on the monitor [N] and wait for some time for PC to turn on.
18. After PC is on, open ColorCut. ColorCut can be found in the bottom right corner, in taskbar options [O].



19. Press 'Settings' to check connection of the machine to Ethernet. Connection might take some time. If the device can not connect, it is recommended to reboot the machine.



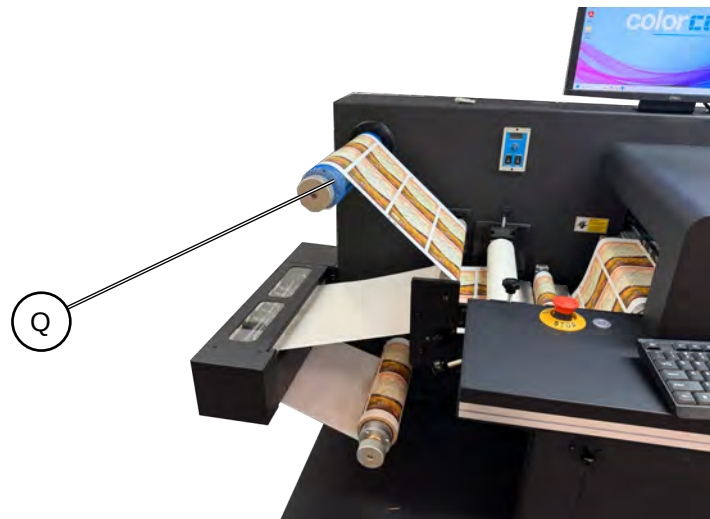
20. After machine is connected, 'Safety Warning' check is going to pop up. Press 'Commence Safety Check' to proceed with the safety check.
21. Do the test cut to make sure the machine is operating correctly. (For more detailed instructions, refer to the "Test Cut" section on page 37)



2

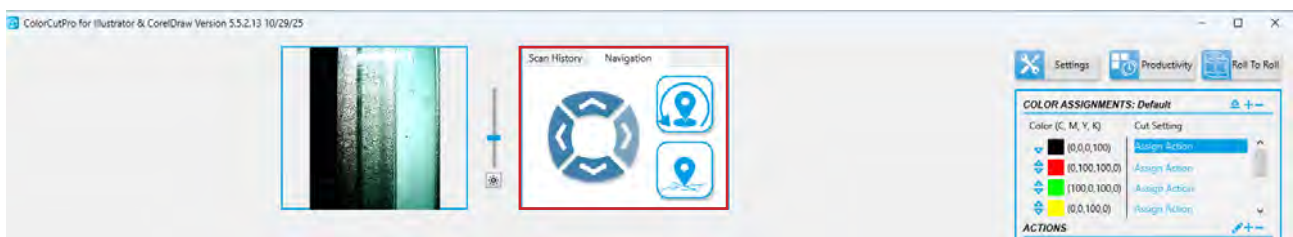
P

22. Cut the top layer of the printed label and roll it under the roller [P].



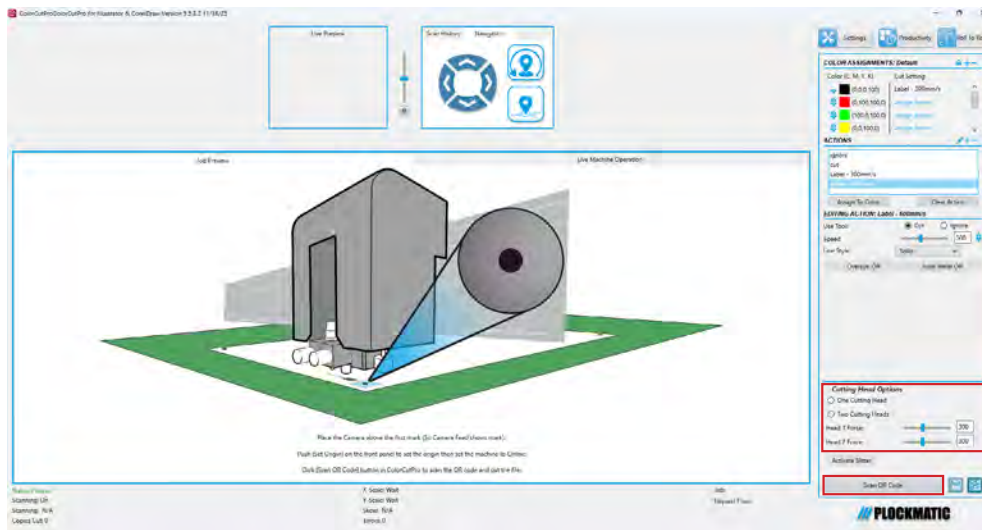
Q

23. Stick printed label to the Matrix Removal roller [Q].

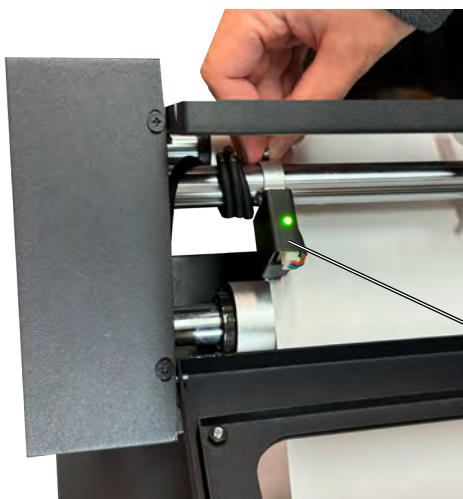


24. Using the Navigation buttons in ColorCut move the head so it is over the first page mark.

2



25. Adjust Cutting Head Force and the amount of Cutting Heads in 'Cutting Head Options'.

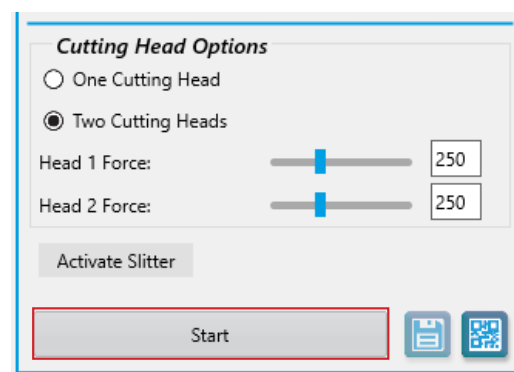


S



26. Adjust Paper Sensors [R] and [S] inside the knife station.

NOTE: When the indicator is glowing means sensor is over the paper. The recommended position of the sensor is on the edge of the label.



27. Press 'Start' button.

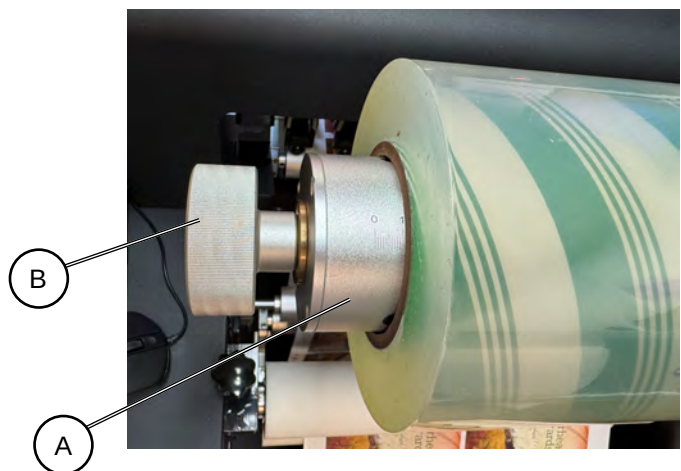


2

28. Adjust the knives according to the task

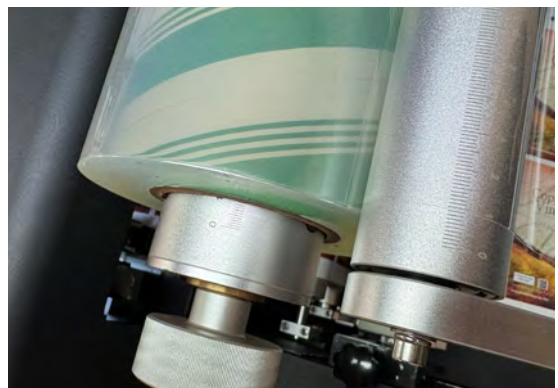
NOTE: Unused knives can be lifted up or pushed to the side. Make sure that used knives are cutting through the label.

Positioning of the lamination



1. Place laminate roll on the Lamination Roller [A]. To tighten label roll in place, spin the Roller Head [B] in clockwise direction.

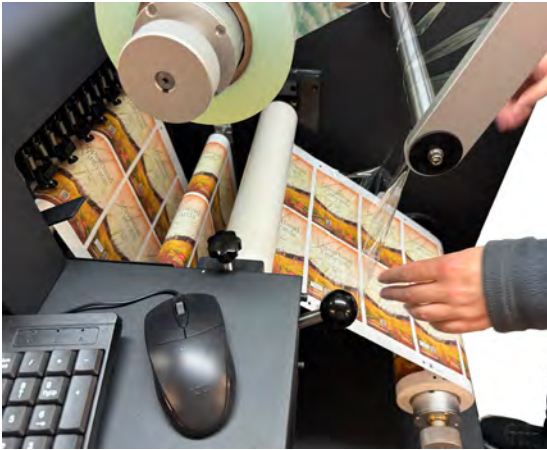
NOTE: Check the offset throughout whole laminate in feed process. It is recommended to have 10 mm offset.



2. Pull the through the Acoustic muffler [C]. Sticky side of the laminate must be aimed upwards

NOTE: Check the offset.

2



3. Stick laminate to the printed label roll in front of the Grip Rollers.

NOTE: Make sure that lamination foil is stretched and smoothened before gluing.

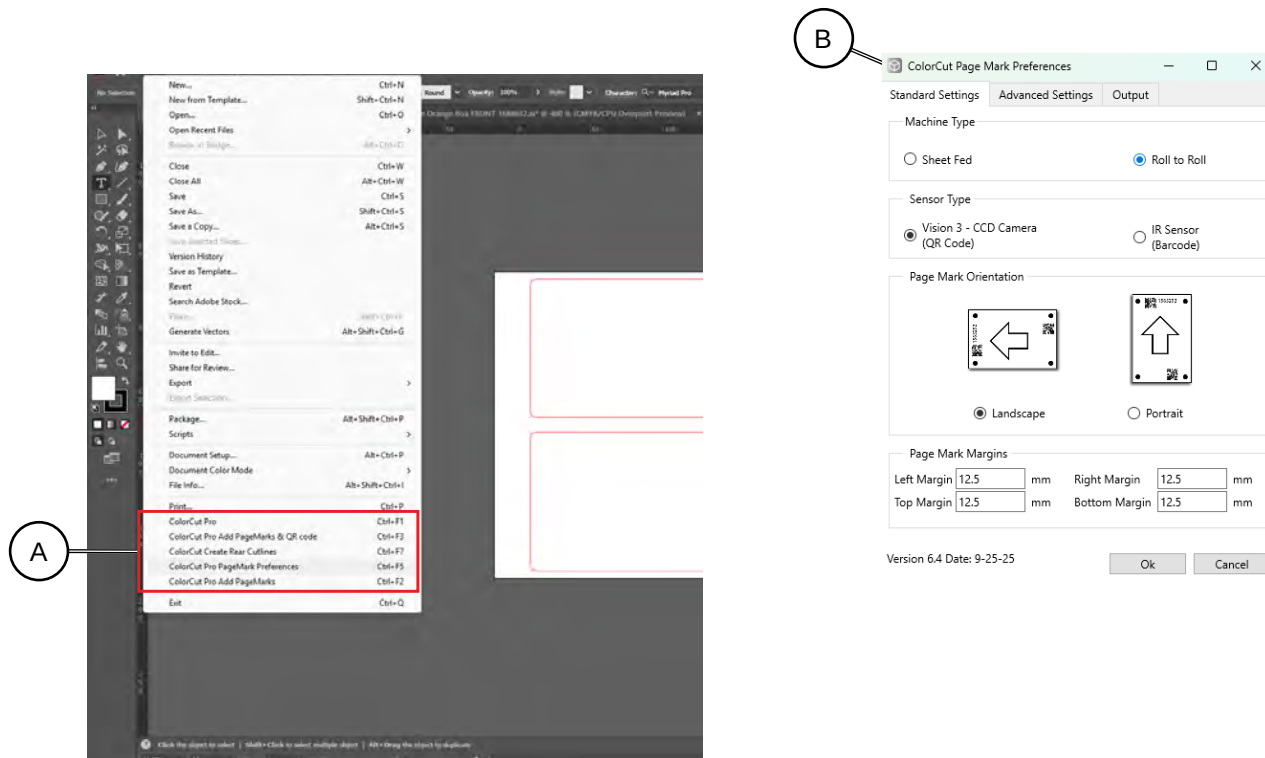
Printed Label Roll Replacement



1. Spin the Roller Head [A] in counterclockwise direction to release an empty Roll.
2. Remove the Roll and replace it with new Printed Label Roll.

Automatically Adding Registration PageMarks

You do not need to manually draw your PageMarks on to your designs. ColorCut Pro will automatically add the marks for you. After installing ColorCut Pro and launching Illustrator (or CorelDRAW), you will find a new set of options [A] under the Print command in the File drop-down menu.

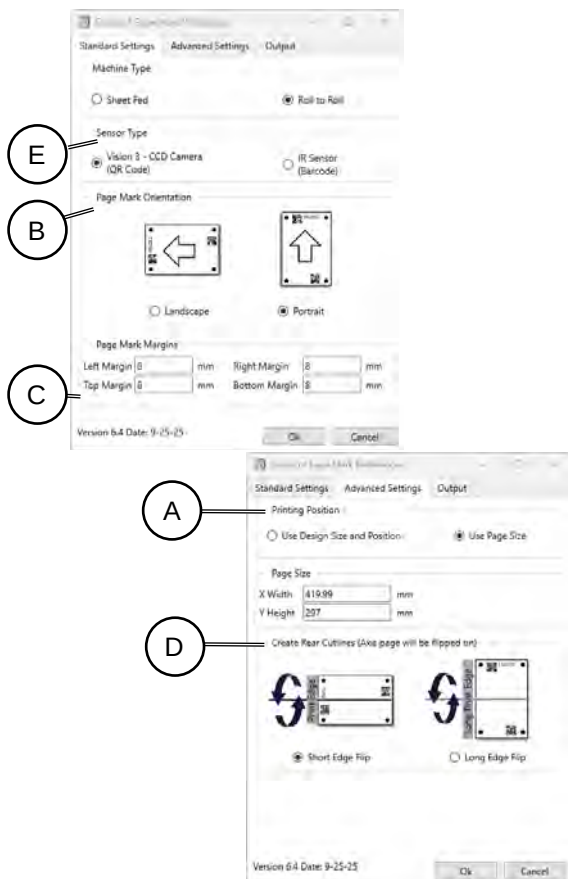


2

1. Launch Illustrator (or CorelDRAW). In the File drop-down menu under the Print command click the [ColorCut Pro PageMark preferences].
(You only need to do this on initial use.) Therefore, the recommended margins for the highest cut accuracy are shown in picture.
2. The ColorCut Pro PageMarks Preference dialogue box [B] will appear. You can use this control to set where the cutting registration marks (PageMarks) will appear on the sheet.
3. Ensure Machine Type is set to “Roll to Roll”.
4. Choose Printing Position of PageMarks.
5. Define the margins based on chosen print position:
 - Distance from the page edge to the centre of the PageMark for Page Size position
 - Distance from the design edge to the centre of the PageMark for Design Size position

NOTE: With the LCF500/LCF520 series of auto-feed sheet cutters, it is recommended that you place the PageMarks based on “Use Page Size” (as opposed to based on “Use Design size and Position”). We also recommend you keep the PageMark position margins consistent across your jobs. This is because your LCF500/LCF520 will load the roll and move a pre-set distance in from the edge of your sheet to scan the PageMark. If your PageMark position changes on subsequent sheets you will need to adjust the location setting in your software before starting each cut job to enable your sheet's marks to be located. Therefore placing marks based on design size is not recommended when using the roll feeder.

Configuring Automatic PageMarks



1. In ColorCut Pro PageMark preferences window in Advanced Settings section under Printing Position section [A] select 'Use Page Size'.

NOTE: Page size is updated from your Artboard size in Illustrator, so you do not need to adjust the page size setting here it will automatically adjust when the PageMarks are added.

2. In Standard Setting section locate the Page Mark Orientation section [B] and select the orientation for your design.
3. Ensure the PageMarks are orientated so the 1st mark and the QR Code are placed on the lead edge of your media when placed on the table.
4. ColorCut Pro identifies the origin mark and moves the appropriate distance (based on your design) to locate the second/next mark (across the lead/feed edge of the media). When designing jobs on to be cut on the LCF500/LCF520, ensure the 1st mark is placed on the lead edge of the roll. So it is important you add your marks using the correct orientation.

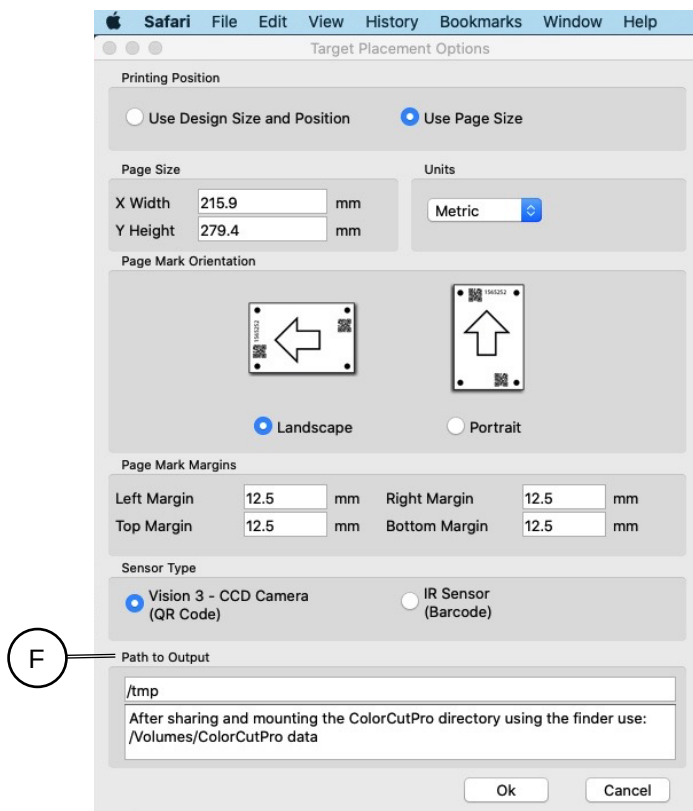
Failure to choose the correct orientation can mean your cutter will try to scan a mark that is located at a different position and fail (i.e. a distance equivalent to the length of your sheet rather than the width).

NOTE: The terms Landscape or Portrait in the ColorCut Pro PageMarks preferences relate to the positioning of the PageMarks (and QR code if applicable) on the sheet based on the thumbnail shown. Landscape places them on the left of the design while portrait places them at the top, making that the leading edge for feeding. Ensure the orientation selected matches the orientation of the file and the width limits of the LCF cutter.

5. In Standard Settings section locate the PageMark Margins section [C] and enter the margin you would like. It is also important to note that the measurements are to the centre of the 5 x 5 mm Circle registration PageMark. When adding PageMarks, consider therefore to use 8 mm for all margins.
6. In Standard Setting section sensor Type [E] - The LCF500/LCF520 uses an advanced Vision 3 CCD camera sensor which reads round registration marks and will recognise QR codes. However the ColorCut Pro application supports a number of different cutters, some with standard IR sensors that use traditional square marks and barcodes. Therefore to ensure that ColorCut Pro adds Round marks, please ensure that the 'Sensor Type' is set to "Vision3 CCD Camera (QR Code)" in this dialogue box.

Additional Configuration for Mac users

2



Adding PageMarks is exactly the same for Mac users, however Mac users will typically use ColorCut Pro's Job Library feature to assign a job number (and QR code where applicable) to their jobs - enabling them to be cut efficiently in a production environment.

Mac users wishing to use the Job Library and QR code feature must ensure that they configure the connection to the Job Library correctly, otherwise Job Numbers and QR codes can not be generated and added to jobs.

You will need to configure the PC which is hosting ColorCut Pro and connected to the cutter, to broadcast/share the ColorCut Pro Job Library folder.

Once you have enabled the PC to share the Job Library folder (ColorCut Pro Data), then you will need to mount this share on your Mac, and enter the path to it in the Path to Output section [F] in the ColorCut Pro Add PageMarks preference screen.

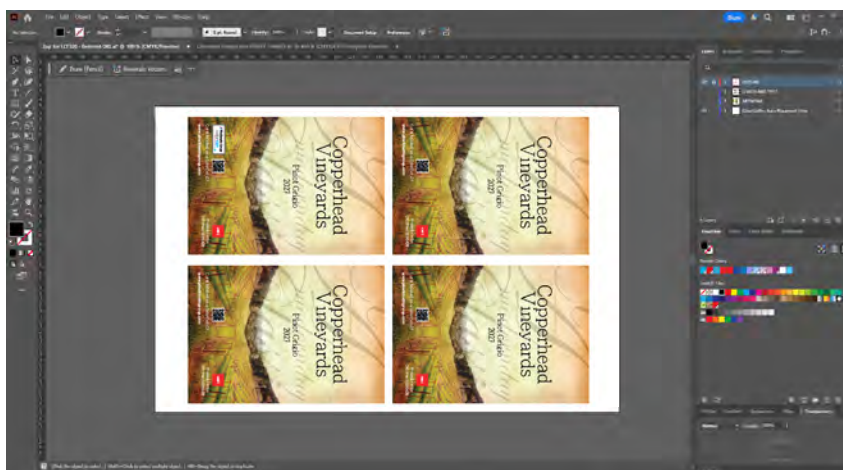
To confirm the path to be entered, please follow the video guide highlighted above or read the section 'Mac users - Connecting to the ColorCut Pro Job Library' in the separate 'Setup & Installation guide'.

Using 'ColorCut Pro Add PageMarks'

It is important to note, that when you activate the 'Add PageMarks' feature from the [File] menu, the ColorCut Pro software will examine the currently selected 'Layer' in your graphics application and isolate all vector lines and curves on the page.

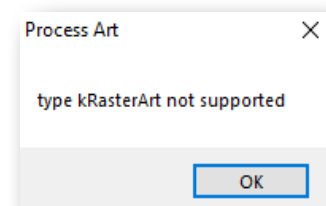
You may see an Error Message if there are artwork elements or images on the layer selected when you launch ColorCut Pro. You can avoid this by drawing the cutting profile and the artwork graphic on separate layers.

In this example the graphic layer is active; this drawing is ready for printing.



Warning:

Launching ColorCut Pro Add PageMarks with the artwork layer selected will generate an error:

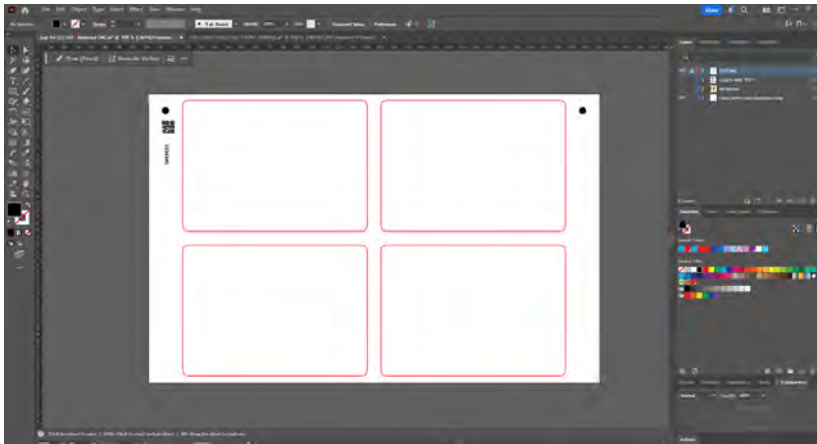


*kRasterArt not supported
ColorCut Pro does not know how to interpret the Graphics as cutting lines.*

Selecting the Layer to Add PageMarks

Ensure only the vector lines you wish to cut and send to your ColorCut are on the layer selected before adding the PageMarks using 'ColorCut Pro Add PageMarks'. (You do not need to delete your artwork. It simply must be on a separate layer.) In the example below the Outline is selected (The artwork layer is not selected) and the layer is ready for you to 'Add PageMarks'.

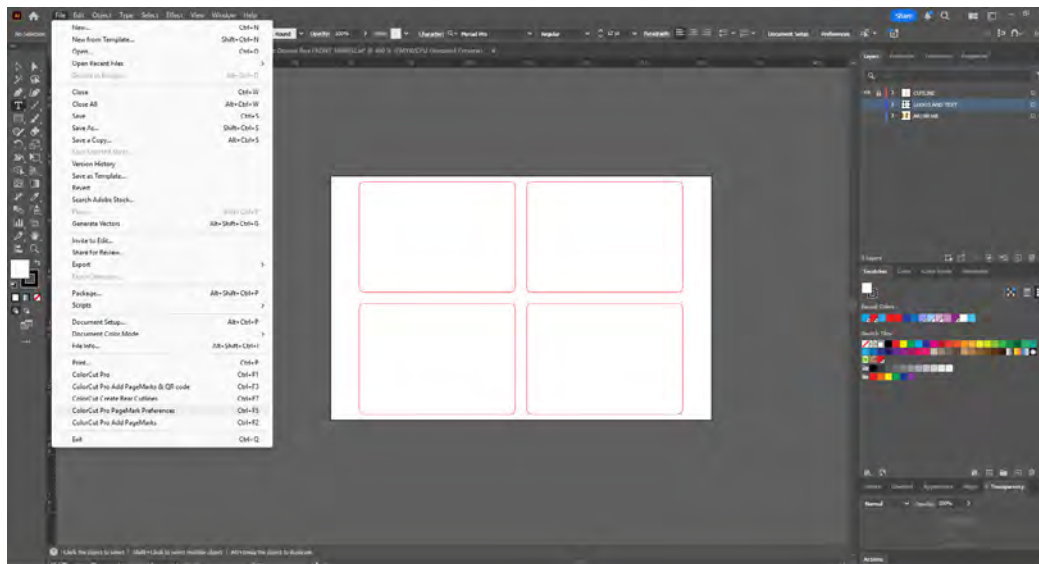
2



NOTE: The Artwork layer is hidden in this example, however you do not need to hide the artwork layer.

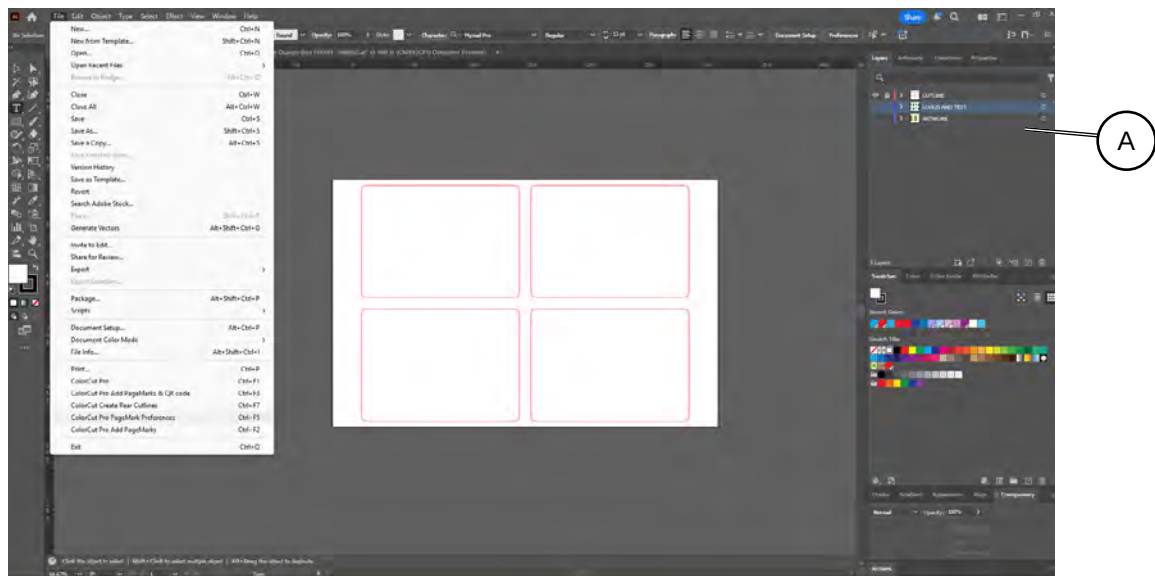
The only requirement is that you must select the vector/cut line layer and there should be no artwork/printed elements on the layer you wish to cut or 'Add PageMarks' to.

Automatically Adding PageMarks



From the File menu in Illustrator or CorelDRAW, select the menu item 'ColorCut Pro Add PageMarks'.

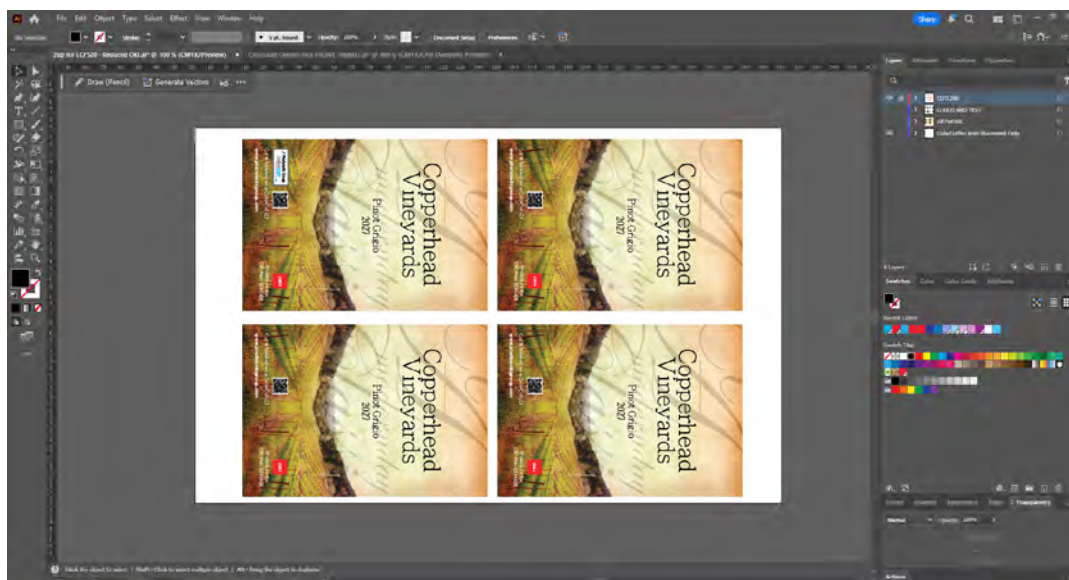
Automatically Adding PageMarks, continued



2

From the File drop-down menu in Illustrator or CorelDRAW, select the menu item 'ColorCut Pro Add PageMarks'. PageMarks will be automatically added to your job and you will see a New Layer ColorCutPro Auto Placement Only [A] added in your Layers palette.

When printing your artwork you will want to hide the cut lines as you do not want these to print. Generating the PageMarks on a separate layer means that you don't hide your PageMarks when hiding your cut lines and enables you to leave the PageMarks layer visible alongside your artwork layer (while still enabling you to hide your cut lines).



In example above the file is prepared for Printing (or saving as a PDF for digital printing systems). The cut line layer is hidden and not visible however the New Layer which includes the alignment PageMarks ('ColorCutPro Auto Placement Only') is visible alongside the layer including your artwork, enabling your job to print with your artwork and the PageMarks visible on your document.

Job Numbers, Barcodes and the Job Library

The standard way of adding PageMarks (detailed above) provides accurate cutting of your files directly from Illustrator or CorelDRAW. However in many cases the graphic designer who generates the designs may not be the operator who is responsible for also cutting the jobs.

Files including PageMarks must be cut from Illustrator or CorelDRAW, so this means that the operator responsible for cutting the jobs must also use Illustrator or CorelDRAW. Even when the same operator is cutting the files, it may be some time later when the printed job needs to be cut and this would require the operator to find and open the original file again.

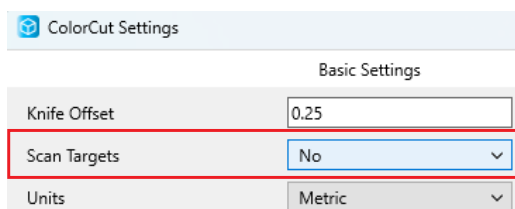
2

The ColorCut Pro Job Library feature assigns Job Numbers for your cut jobs and makes cut file retrieval simpler, faster and more efficient while also making cutting much easier.

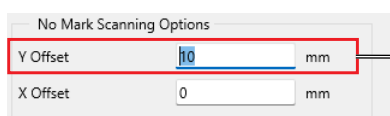
Cutting without using PageMarks (No Mark Scanning)

Using PageMarks is recommend as standard practice. ColorCut Pro scans the PageMarks to determine sheet position (origin) and compensate for any positional errors, scale or skew.

However, in some cases PageMarks are not required.



To setup no mark scanning go to ColorCut settings, set “scan targets” [A] to ‘No’ and confirm by clicking ‘OK’.



Navigate to the “No Mark Scanning” settings box [B] within the ‘Productivity’ menu and set the ‘Y Offset’ value.



The ‘Y Offset’ is measured from the edge of the media to the tool position of Tool1. Due to the difficulty of getting this measurement, it is recommended to start with the same offset as the media is fed through the cutting area. This can be found by looking at the measure engraved on the exit roller [C]. E.G. If the media is fed with a 10mm gap on the roller, start with a 10mm Y offset and adjust accordingly.

Click OK to confirm the offset anytime you adjust it.

NOTE: If selecting 2 tool operation (LCF520 only), Tool2 will self align next to Tool1.

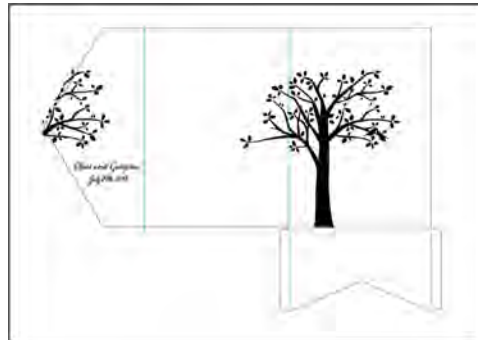
Cutting without PageMarks is simple and often quicker as the process of scanning the PageMarks is skipped, however the downside this is that there is no process to register the position of the sheet accurately and no ability to adapt your cutting lines for printing scale, skew or rotation errors. It is recommended to use PageMarks whenever cutting printed media.

Design requirements when cutting without PageMarks

ColorCut Pro does not use your document page size, normally cutting starts relative to the first PageMark. Therefore if you disable 'scan targets', cutting will start at the furthest left and upper point of the perimeter around your elements for cutting. It is therefore recommended you consider this in the design.



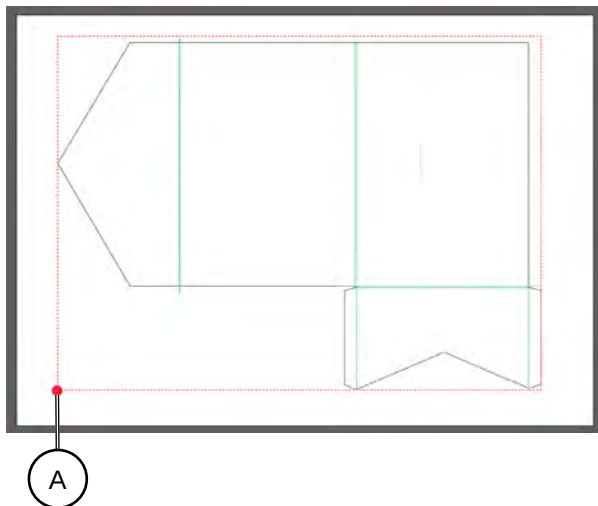
Desired result



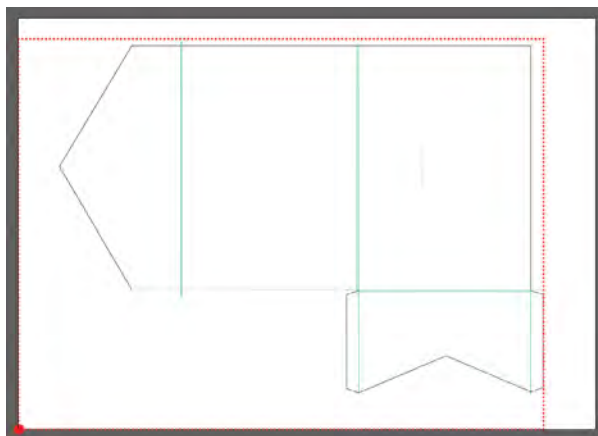
Artwork (before modification)

2

In given example, the used media was foiled, in addition the surface of the media contained glitter, which rendered the foiled PageMark's unreadable. As the artwork is such that a small degree of movement would not be noticeable, this job was cut with Scan Targets disabled.



The frame on the artwork design represents the media size the job was printed on. However, ColorCut Pro files only contain the cut line and position data relative to each element (the elements inside the red dotted line), not your design in relation to the media size. Therefore to cut accurately we would need to manually adjust the start/origin point [A] of the cutting to the position.



As ColorCut Pro, works from the First element on your page it is much easier and simpler to set ColorCut Pro to use the leading corner of the sheet as the origin. This can be easily achieved by adding a small dot or 0.1 mm circle on the corner of your Page.

The perimeter of your cut lines/elements now relate to the corner of your media. If the Productivity settings for feed advance and left margin offset are correct then this will now cut relatively accurately.

Use a different color for this dot, then you can set a specific action for this color to lightly tap the creasing tool there before cutting the rest of your design as desired.

How To Cut Files Using ColorCut Pro

There are two different ways to Launch ColorCut Pro Production Studio.

ColorCut Pro - Production Studio is the full version of ColorCut Pro, and is used to cut your files. It can be used in two different ways, you can select the most suitable method for your working environment.

2

1. ColorCut Pro (Direct Plug-in) is launched Directly from your graphics application. Launching ColorCut Pro, directly from your Graphics application will transfer the currently open design file (specifically the currently selected layer) directly to ColorCut Pro for cutting. This enables you to cut the file you are working on (or open a previously saved file). This way of working is ideal for testing a design or where the cutting will be handled by the same person that makes the artwork.

NOTE: When working in ColorCut Pro (Direct) mode, as ColorCut Pro is launched directly from the graphic application it requires either Adobe Illustrator or Corel Draw installed on the computer that will do the cutting. In addition the operator will need to locate the file to cut and to be able to use the graphics application in order to launch ColorCut Pro. For this reason we typically recommend using the stand-alone mode of ColorCut Pro - Production Studio, also known as ColorCut Pro Job Server mode.

2. ColorCut Pro (Job Server Mode) does not need a graphics application installed on the computer. It also does not require you to locate the original graphics file. In addition the simplified interface is designed to be used by any operator (typically a Print Finisher with no specific computer or Graphic Applications skills) by providing a [Start/Scan QR Code] button to start operation.

When using ColorCut Pro in Job server mode your files must already have been created and had PageMarks and a Job Number/QR Code added during the design stage. When the 'Add Job Number & QR Code' feature is carried out by the designer, the cutting lines are saved automatically for all users in the Job library folder.

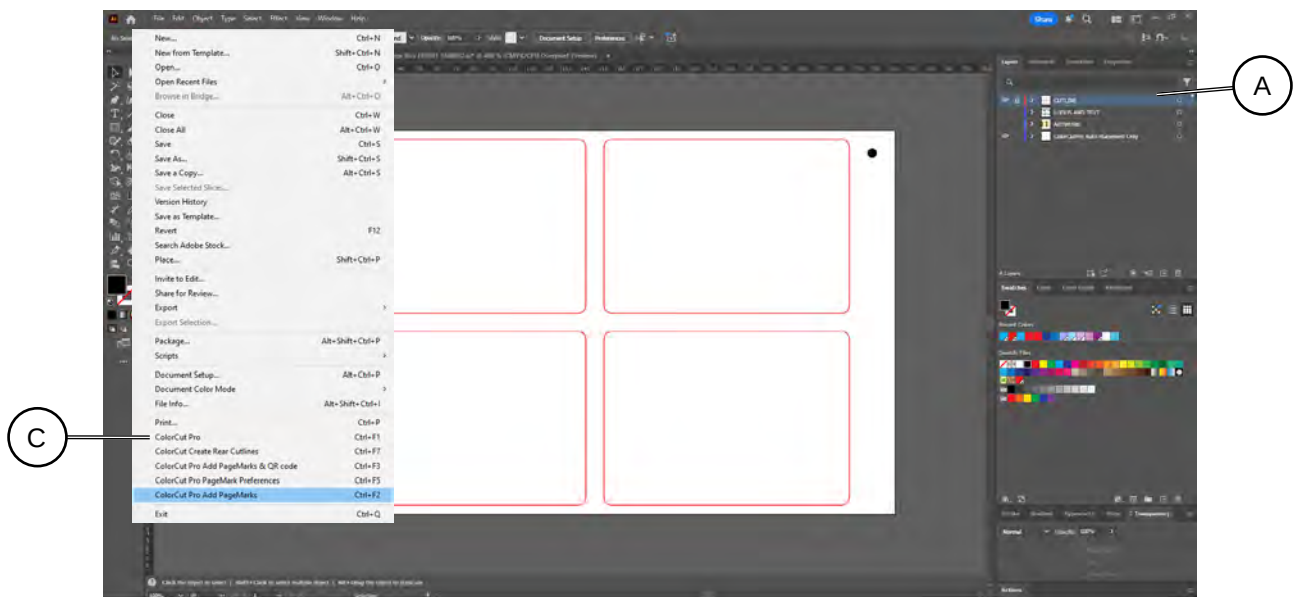
When using ColorCut Pro - Production Studio (Job Server Mode), ColorCut Pro is launched on its own (stand alone) on your computer from the Windows Start Menu. The appropriate cutting file is retrieved by the operator entering the job number or can be retrieved automatically as the LCF500/LCF520 scans the QR Code.

Using ColorCut Pro - Production Studio in (Job Server) mode streamlines the cutting process and retrieves cut files for you making cutting much easier. It is the recommended way of working for busy designers so they can find the files quickly and especially in companies where the cutter operator is a different person to the graphic designer, or where a different computer will be used for the cutting such as in Mac environments.

NOTE: When working in ColorCut Pro - Production Studio (Job Server) mode, as ColorCut Pro will retrieve the cutting files from the job library for you, it is important that your files were created with a Job Number and QR Code using the 'ColorCut Pro 'Add PageMarks and QR Code' feature in the design process from your Graphics Application.

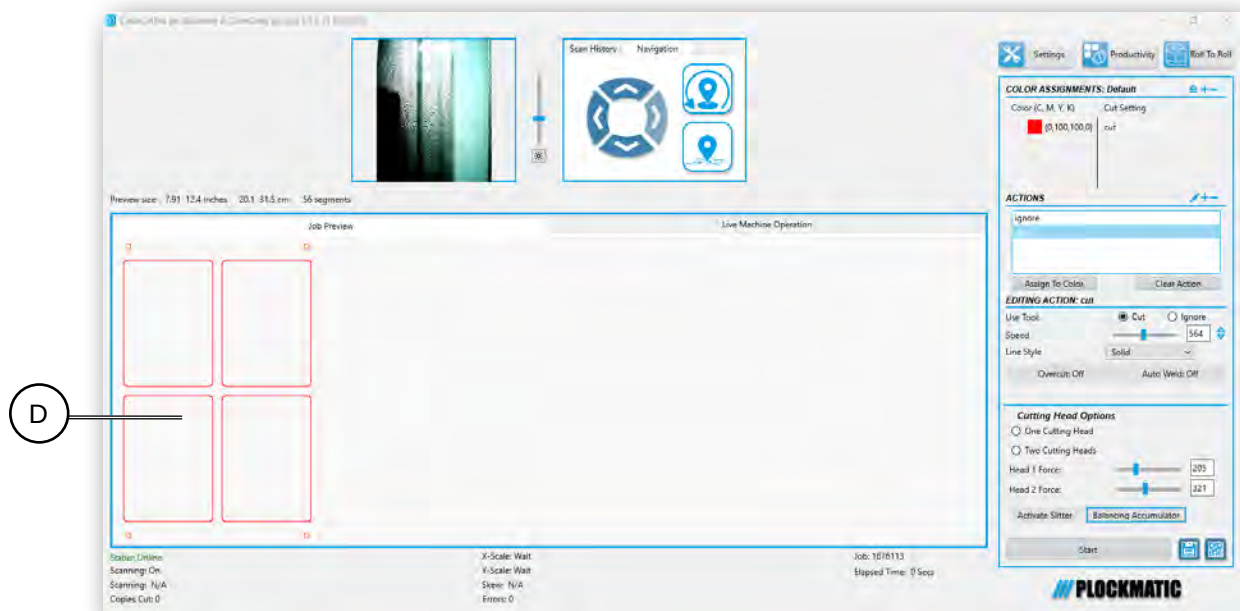
The following section of this manual details how to launch ColorCut Pro - Production Studio to cut your files using either method.

Cutting Jobs Directly from Graphics Application (Direct Mode)



2

1. In Adobe Illustrator or CorelDRAW, open the file you wish to cut.
2. Ensure you have selected the layer with the Cutting lines [A] you wish to cut.
3. Ensure you have already added PageMarks [B] using the ColorCut Pro add PageMarks feature.
4. With the Layer which you wish to cut selected, choose the [File] Menu in Illustrator or CorelDRAW.
5. Now select 'ColorCut Pro' [C] from just under the Print command in the File menu.



6. The ColorCut Pro will launch, and Cut lines will appear in the preview window [D]. Please review the section in this manual for ColorCut Pro main interface functions to understand how to create and save Material/Actions, and how to assign Line Colors to the material/actions.

Retrieving Jobs from the Job Library (Job Server Mode)

Retrieving Jobs from the Job Library

Job Server mode enables you to open files previously saved during the design process, to the ColorCut Pro Job Library. This can streamline your production and make your design process easier.

Creating Cut Job files using Job Numbers means you can assign a Cut Job number to a specific customer or assign a specific 'Design Template'/ Style to a Cut Job number.

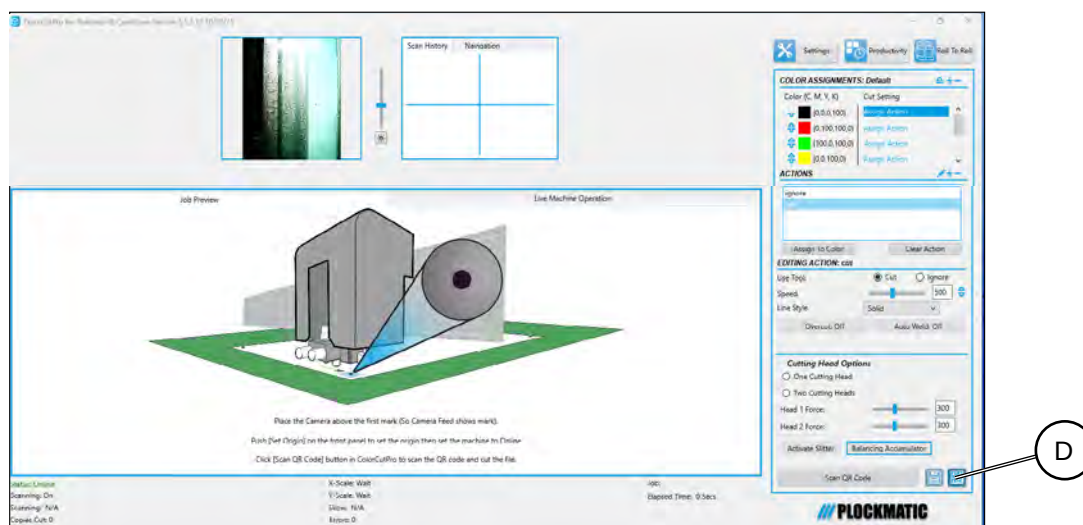
2

Your Cut files are saved to the Job Library when you generate the Job number & QR code for the cut line. The Job Library can be accessed at any time without Illustrator or CorelDRAW on the PC hosting the Job Library. To launch ColorCut Pro - Production Studio (Job Server Mode), simply launch the ColorCut Pro software from the Start menu (or desktop shortcut if you created one) on your computer.

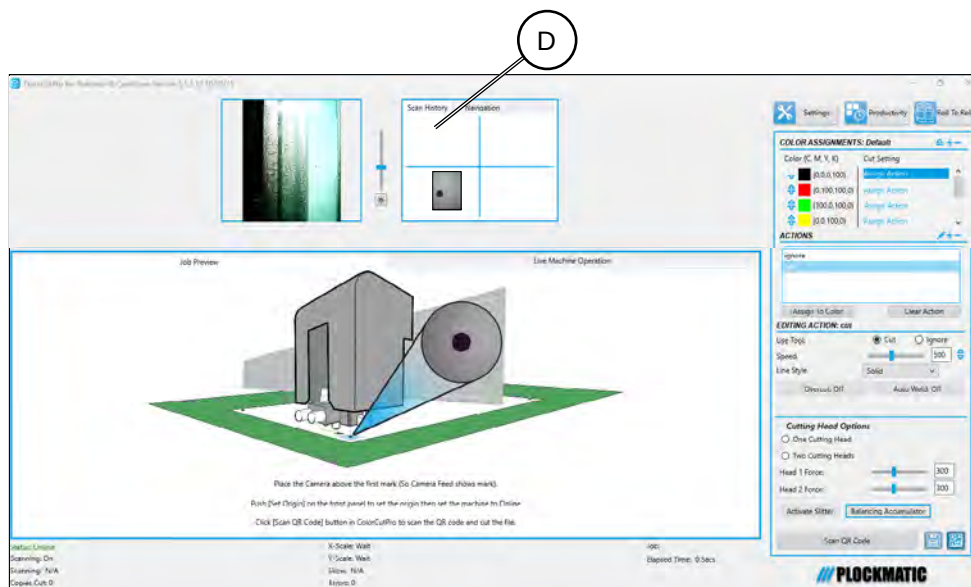
There are two ways to retrieve Jobs from the Job Library.

1. To 'Scan QR Code'
2. To manually enter the Job Number.

Retrieving Jobs with QR codes printed on them



- Using ColorCut Pro, Click on the [Scan QR Code] button [D] on the main application to load the media from the Feed Roller and scan the QR Code



In Live Preview Window you will be able to see an 'echo' of what the Vision3 registration sensor is seeing.

The first PageMark scanned will appear in the Live preview Window, as the position is captured the Scan History of the location will be shown [E].

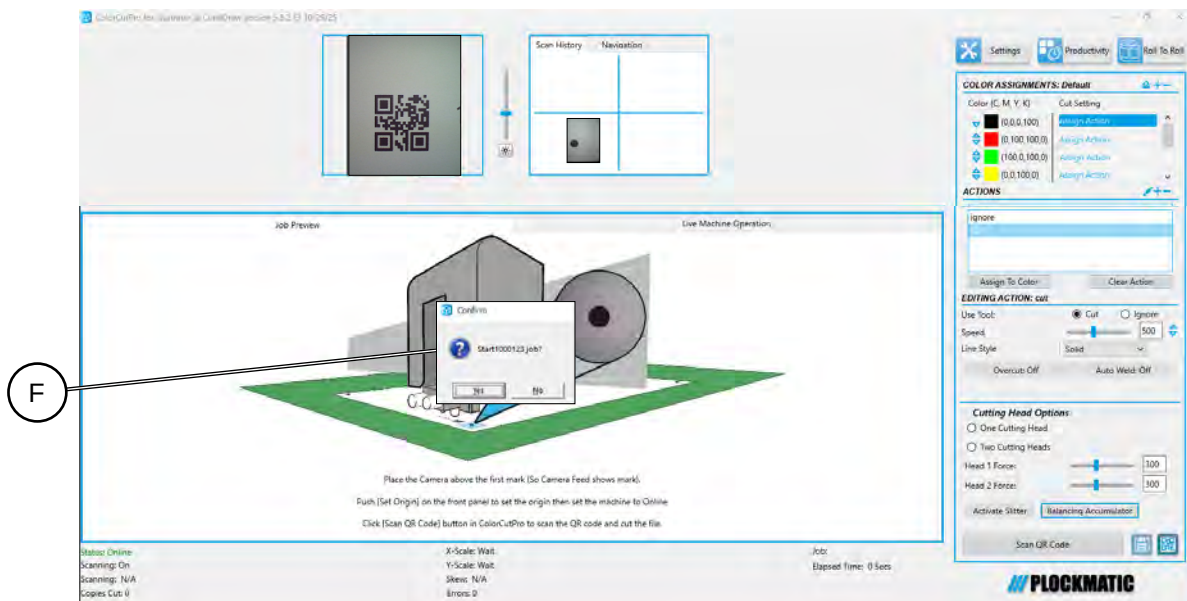
NOTE: If the PageMark is not in the centre of the Live Preview when it is scanned, then check your margins on the printed sheet match your setting in Productivity settings, for both the Top Margin, and the Left Margin (See section "Media Positioning").

The PageMark position setting under the Productivity window is only important for the 1st PageMark (the location and margins for the others is taken from the cutting file).

Jobs are saved to the Job Library during the design process. Each job is stored with the designated Job Number. The QR code carries the Job number and retrieves the Job cut file for you.

As soon as the QR code is recognised, a preview of the job to cut will appear in the Job Preview Window.

Retrieving Jobs with QR codes printed on them, continued



Enter a Job number to retrieve the Cut Job file directly

In addition to scanning a QR code to retrieve a cut file, from the Job Library you can also manually enter the job number to load the cut file. There are several reasons why it is useful to enter the Job number directly rather than scanning the QR code:

Manually entering the Job Number can enable you to pre-load line color assignments

In Production menu, you would normally have the option 'After scanning QR Code ask before cutting' set to no. This enables automatic production so that after scanning a QR code the ColorCut LCF500/LCF520 will automatically start cutting your job using your currently assigned material actions / line colors. However in some circumstances this may not be desired, e.g. if the artwork/job contain lines that do not follow your normal (assigned) convention, so to automatically start cutting will assign the wrong actions and this may not be ideal.

To solve this you could set the 'After scanning QR Code ask before cutting' to Yes, but this would stop at every sheet. So, to avoid the need to enable and disable the 'After scanning ask before cutting' control you can simply load your sheets and manually enter the Job number, of your first frame.

This will load the Cut Job file and enable you to check/assign cut actions and line colors - giving you the option to start the cutting only after you have set the line color actions and when you are ready.

Enter a Job number to retrieve the Cut Job file directly, continued

Manually entering the Job Number can enable Jobs without QR codes to be retrieved without the original graphics file

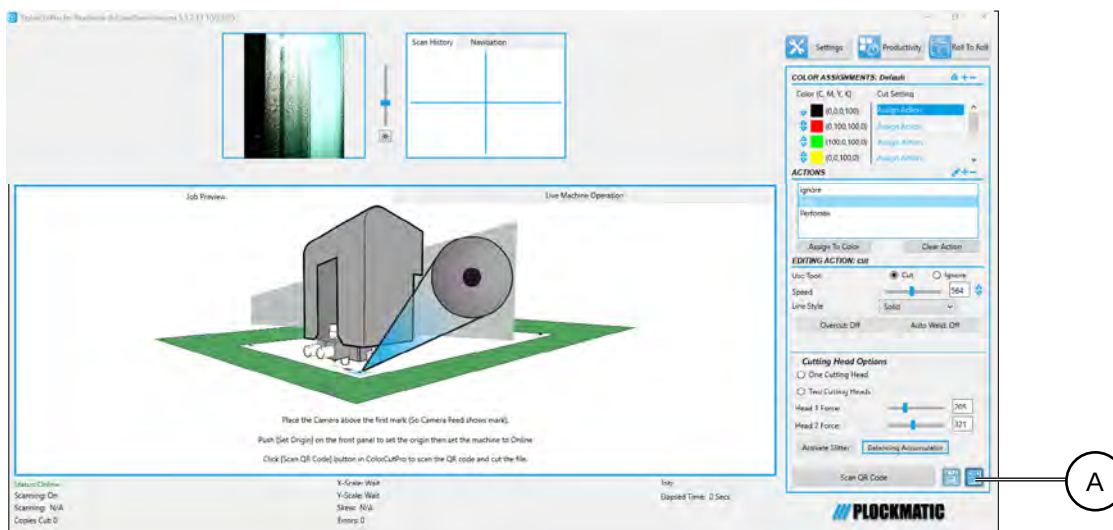
Adding your Jobs to the ColorCut Pro Job Library is useful as this enables the job to be retrieved at a later stage or another user to cut the file without needing the original file, or the graphics application that created the design.

In the design stage, Jobs can be added to the Job Library by selecting “Add PageMarks and QR Code” from the Graphics application’s main menu. However, there are occasions where it may be necessary to Add the Job to the ColorCut Pro Job Library, without the QR code on the printed sheet.

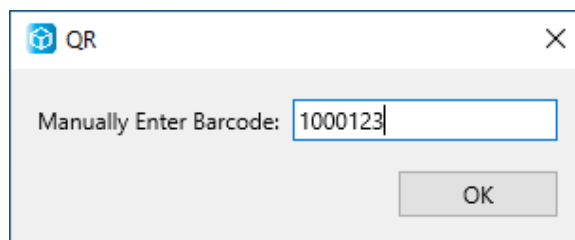
i.e. when cutting artwork which contains some graphics or elements that would obscure the QR code (such as a solid bleed color) or when the designer needs to maximise sheet area used for cutting but in doing so may cause the QR code to appear within the finished product.

In the above instance, the graphic designer, “Add PageMarks and QR Code” as normal, to assign the Job to the ColorCut pro Job Library, but then delete the QR code from the artwork after they have assigned a job number to the design.

Jobs that have been created with a QR Code and Job number (but then have, had the QR code removed), can be recalled from the Job Library by simply entering the job number (normally) printed at the top of the sheet.

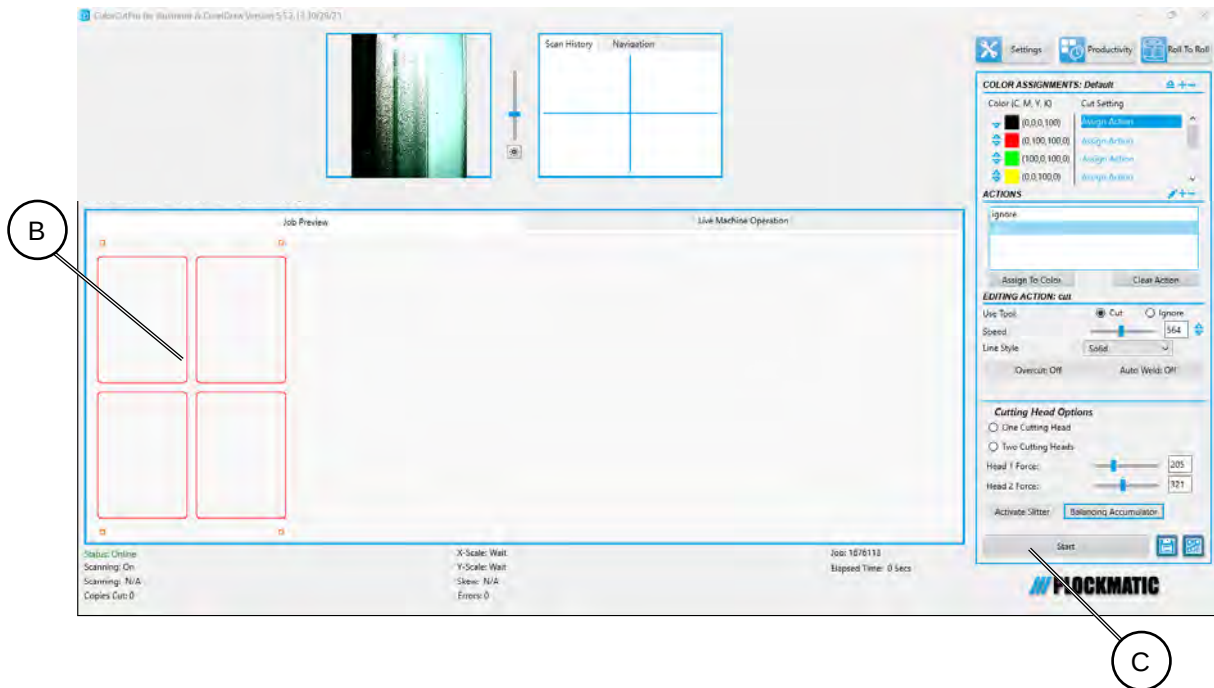


1. To load a Job file from the Job Library using the Job Number click on the QR Code Icon [A]. This will display a dialogue box asking you to enter the Job Number manually.



2. Enter the Job Number (found at the end of the printed sheet) and click the [OK] button to accept. Your Cut Job File will be loaded directly into the Job Preview window [B].

Enter a Job number to retrieve the Cut Job file directly, continued



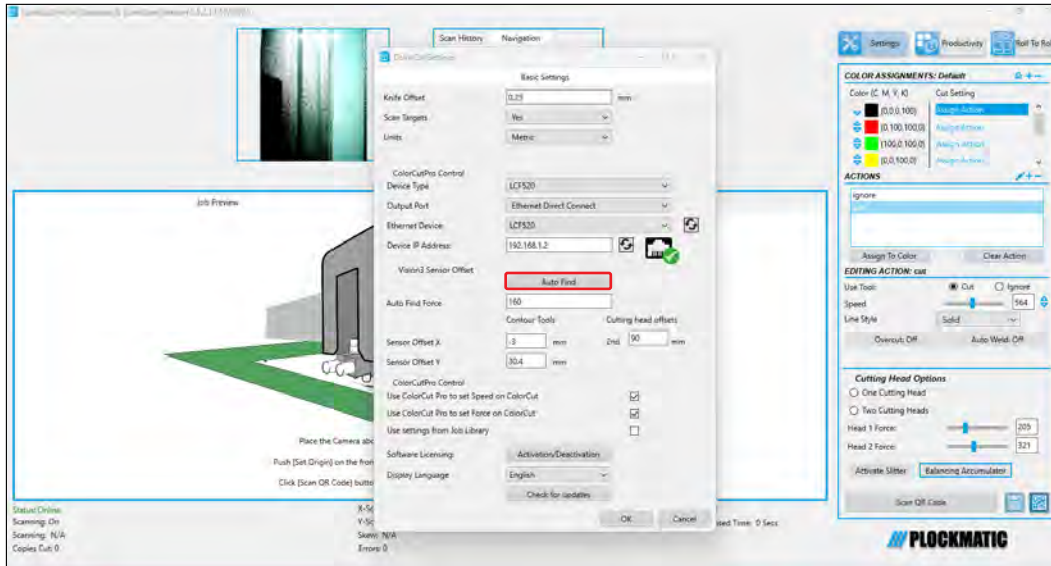
You will notice the [Scan QR Code] button has now changed to [Start] [C].

3. Assign actions to each Color.
4. Set the number of copies you want to cut after assigning actions to colors and making any other necessary changes, and then click the [Start] button.

3. Settings and Options

This section outlines the machine settings that are defined within ColorCut Pro.

Align Camera Sensor to Tool

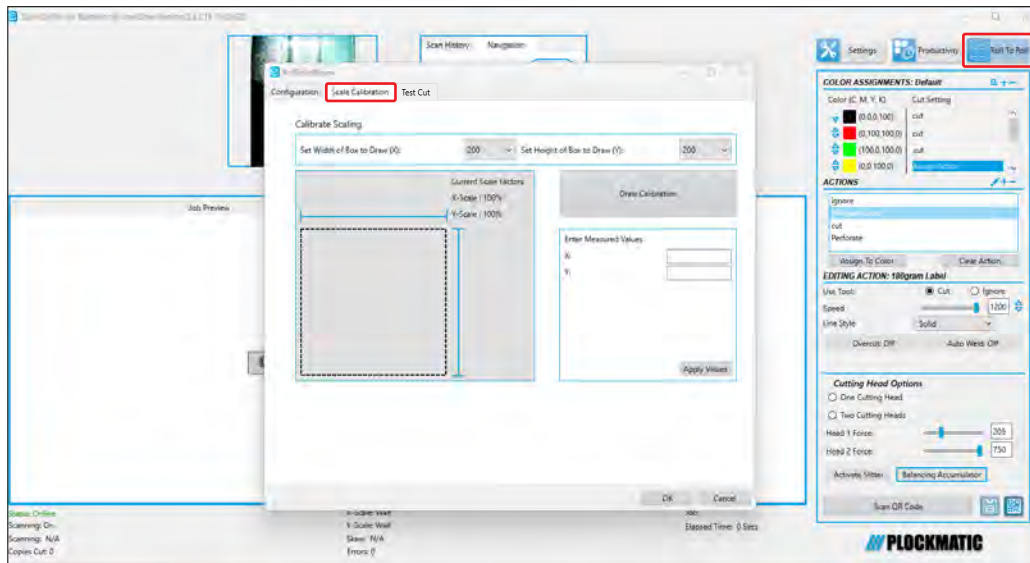


NOTE: The sensor offset will be factory calibrated, make sure you are using the PC provided with the cutter.

The Sensor Offset (also called the Vision 3 registration camera sensor in the manual) measures the difference in position between the actual blade on the cutter and the Vision sensor that detects the PageMark positions. You need to set the Sensor Offset once, and it won't change after that. It is very important to set it before starting any cutting jobs.

Offset is manually adjustable by editing the Sensor Offset X and Y values. To change X and Y values, press 'Settings'. Then 'Sensor Offset X' and 'Sensor Offset Y' setting options can be found in 'Vision 3 Sensor Offset'. For detailed description See section "Sensor Offset & the Auto Find feature".

Scale Calibration



To ensure accuracy and precision in the cutter's cutting process the scale calibration is performed.

Scale Calibration involves creating a box shape with predefined measurements and comparing it to the actual dimensions. If there's a difference, the measurements are adjusted until they match, guaranteeing precise cutting.

To find 'Scale Calibration' function, open 'Roll To Roll' options and press 'Scale Calibration' in the upper left corner.

Caution:

If you think your scale calibration is wrong, contact your dealer before changing any scaling settings.

4. Remarks

Do's and Don'ts

- Always follow all warnings marked on, or supplied with, the equipment.
- Always exercise care in moving or relocating the equipment.

Caution:

Unplug the power cord from the wall outlet and machine before you move or relocate the equipment.

- Do not remove the covers or guards that are fastened with screws.
- Do not override or bypass electrical or mechanical interlock devices.
- Do not operate the equipment if you notice unusual noises or odours. Disconnect the power cord from the power source and call your authorized technician to correct the problem.

Warning:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

NOTE: The domestic environment is an environment where the use of broadcast radio and television receivers may be expected within a distance of 10 m of the apparatus concerned.

- Do not switch off the power while the machine is running. Make sure the machine cycle has ended.
- Do not open covers while the machine is running.
- Do not move machine while the machine is running.
- Do not make arbitrary changes to the machine.
- Do not place hands on rotating rollers.

Where to put Your Machine

Machine Environment

- Always locate the equipment on a solid support surface with adequate strength for the weight of the machine
- Always keep magnets and all devices with strong magnetic fields away from the machine

If the place of installation is air-conditioned or heated, do not place the machine where it will be:

- Subjected to sudden temperature changes
- Directly exposed to cool air from an air-conditioner
- Directly exposed to heat from a heater

Power Connection

- **Always** connect the equipment to a properly grounded power source. If in doubt, have the power source checked by a qualified electrician.

Warning:

Improper grounding of the equipment can result in electrical shock

- **Never** connect the machine to a power source that lacks a ground connection terminal. A missing ground will cause damage to electronics and cause machine malfunctions.

Maintaining Your Machine

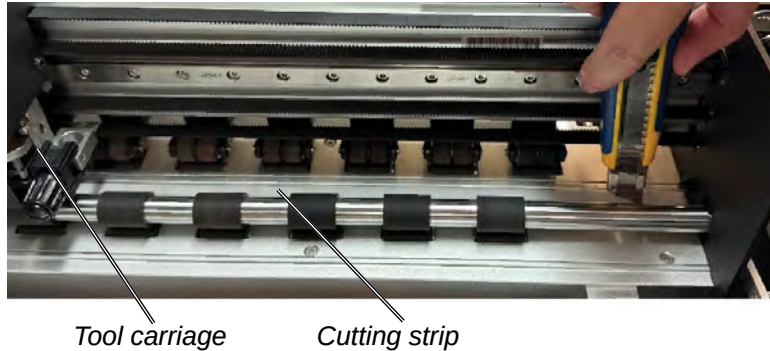
Caution:

Never attempt any maintenance function that is not specifically described in this documentation.

Cutting strip

The cutting strip should be checked for signs of wear daily, if the strip is damaged or worn it should be replaced.

The longevity of the cutting strip's effectiveness depends on the material being cut and the operator's skills in adjusting the blade depth. It is recommended to replace the cutting strip on a monthly basis.



Cutting strip replacement

1. Turn off the machine and disconnect the power cord.
2. Move both carriages to one side.

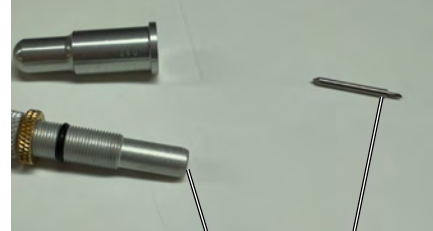


3. Peel the cutting strip and tape from one corner to the middle.
4. Move the Tool Carriages [A] to the opposite side.
5. Finish removing cutting strip.
6. Use the old strip as a guide to cut down the replacement strip.
7. Clean the gully of the glue residue with label cleaner. The gully must be residue free to ensure a flat surface for the new cutting strip. Leave it to dry or dry it with cloth.
8. Stick the new strip down in the gully and dispose of the old strip.

Cleaning of cutting tool

The tools should be checked and cleaned of paper dust weekly to ensure the blade rotates freely in the holder.

1. Turn off the machine and disconnect the power cord.



Outer cover

Inner blade holder

Blade

2. Unscrew the outer cover, clean it with small brush or compressed air.

Caution:

Take caution with the blade to avoid cutting your hands!

3. Take the blade out of the holder, clean from paper dust.
4. Lubricate the stud of the blade with bearing grease and put it back in the inner blade holder.
5. Screw the outer cover back on.

4

Paper Path

The paper path from feed to collection rollers, included the cutting area, should be cleaned from paper dust daily using compressed air, engineers wipe or brushes. Turn off the machine and disconnect the power cord before performing any procedures.



In feed Grip Rollers



Tool Head



Exit Grip Rollers

Cutting head rail

Weekly clean the cutting head rail with engineers wipe and lightly lubricate top rail with PTFE lubricant spray. Turn off the machine and disconnect the power cord before performing any procedures.

Cutting head rail



4

LCF500/LCF520 Best Practices

- Set design rules within your organization to keep consistent smart mark and QR code locations. That will lead to minimal set up changes when cutting on the LCF500/LCF520.
- Set design rules with regards to what color is used for cut. Generally, red is the most common cut color.

LCF500/LCF520 Limitations

- Magnetic paper cannot be cut on the LCF500/LCF520 due to steel construction
- Metallic effect media (paper OR polyester) may be cut, but it depends on the composition

5. Specifications

Machine Specifications

General Specification - LCF500 and LCF520

General	
Dimensions W, D, H	1720mm x 930mm x 1330mm (67.7" x 36.6" x 52.4")
Weight (unpacked)	397kg (875.2lbs)
Maximum label frame length	420mm (16.53")
Mandrel core diameter	76mm (3")
Maximum input & output roll diameter	300mm (11.81")
Max speed/Max force	10 - 1200mm sec / 750 gf
Material web width	150 - 320mm (5.9 -12.6")
Label sizes	Max width: 330mm (13"). Max length: 280mm (11"). Min length: 20mm.(0.8")
Registration system	Zero, 1 or 2 marks with Vision3 - High resolution CCD vision ARMS 9
Job retrieval	Direct from PC.
Contour cutting	Full HPGL vector cutting compatible with PageMark CCD sensor.
Mountable tools	Single tool holder supports cutting blades (30°, 45° & 60°) and pen calibration tool for auto-calibration
Cut position accuracy	+/- 100 micron
Slitting	7 Rolls, using up to 6 blade slitters - supplied
Lamination	Inline lamination when required
Rewind mandrels	One - matrix removal
Power Supply	100-240V AC, 50/60 Hz, 350W, 3.4A
Software & Connectivity	
ColorCut Pro 5 - Plugin (PC)	ColorCut Pro 5 plug-in (all features available). ColorCut Pro sends projects designed in Adobe® Illustrator® or CorelDRAW® directly to Intec ColorCut cutter with no need to convert them to a different format. Requires: PC. Adobe® Illustrator® CS6, CC2018 - CC2026, or CorelDRAW® X8, 2018 - 2026 Graphics Suite
ColorCut Pro 5- Plugin (Mac)	ColorCut Pro 5 Plugin for Mac enables the ColorCut Pro Job Library Client. Mac users add cut marks automatically to Illustrator files and assign QR codes and job numbers. The jobs are sent to the remote ColorCut Pro Job Library on a PC for cutting. Requires: Illustrator CC2020 - 2026
ColorCut Pro 5 - PC Standalone	ColorCut Pro – Job Server version of ColorCut Pro is PC only and enables jobs created by the ColorCut Pro plugin (above) to be cut at any time, without requiring Adobe® Illustrator® or CorelDRAW® and without having to re-open the original file
PC minimum specification	Windows 10/11 Pro x64 bit. 4GB of RAM (8GB recommended). Recommended display resolution: 1280x960.
Connectivity	Ethernet
Registration Control & Job Management	
Registration system	Vision3 - High resolution CCD vision system reads registration marks on media, automatically adjusting cut lines to correct for scale or skew.
Cut position accuracy	+/- 100 micron*
Auto job recognition	Yes: Cut file retrieval, supported through QR code (requires ColorCut Pro)
Mixed job recognition	Yes