

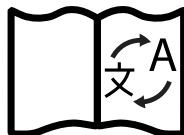
Digital-Die Flatbed Cutter/Creaser ColorCut FB9550 Pro Series

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/FB9550/> to view the manual in your preferred language.

Introduction

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 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. Machine including UV-Light should never be bypassed by operator or trained technicians. Permanent eye damage could occur.
- Only trained and authorized personnel are permitted to operate the machine. Operating responsibilities must be clearly defined and followed to ensure there is no uncertainty regarding safety-related duties.
- 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, 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 odours. 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.

Continued on next page...

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.
- 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 cutter.
- 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 cutter 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.
- Always place the unit on a stable base or use the supplied stand to prevent it from falling down.
- Disconnect from the power supply during thunderstorms; it can be damaged or destroyed by electrical surges caused by lightning.
- Prior to accessing the interior, always ensure that the cutter is turned off and disconnected from power supply.
- Do not use emergency stop button for regular operation of the Cutter. The emergency stop button is designed for immediate stop solely for emergency situations to ensure the safety of all individuals involved.

To reset the emergency stop button rotate it clockwise direction and pull it back upwards to its original position. The emergency stop button should only be reset after addressing and resolving the emergency condition that triggered its activation.



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What You Can Do With This Machine

The FB9550 Pro is a fully automated tangential creasing digital die cutter that offers unmatched speed, exceptional media handling, and advanced yet easy-to-use production features. It enables the creation of high-quality packaging, point-of-sale displays, and labels with impressive efficiency. With cutting-edge technology and patented back mark reading, the FB9550 Pro meets the speed and precision demands of today's top designers, printers, and manufacturers. The new 5 tool head allows for multiple operations in a single pass including cutting, creasing, debossing, and perforating.

The bed size supports higher productivity by allowing a single sheet of B2+ or 2 SRA3 sheets to be placed side by side, reducing the need for frequent reloading and enabling faster production, especially for high volume jobs. The Auto Feeding mechanism accommodates larger media sizes up to 530 x 740 mm, making it ideal for producing large format prints.

Leading features:

Digital process allows cutting and creasing for any shape or design from one sheet to another automatically.

PageMark registration - delivers incredible accuracy using ColorCut Pro software, supplied with the system.

5 Tool head - A 2+2+1 configuration allows for 3 concurrent operations across Passive and Active Tools.

Fully optimized feed system - advanced sheet separation processes, allow accurate and trouble free feeding for fully unattended operation.

QR driven jobs - simple to operate using QR code file retrieval for mixed or batch job production.

Sheet pre-placement - whilst cutting and creasing, the FB9550 Pro will place the next sheet ready for production. This reduces the feed time and boosts productivity making the FB9550 Pro one of the fastest systems alive.

Rear Mark scanning system - patented technology enables you to optimize creasing quality for certain jobs by cutting and creasing the back of the sheet without having to print marks or QR codes on both sides.

Vacuum hold down - Includes a powerful 750 W vacuum system with acoustic muffler that keeps cut pieces firmly in place, for fast and accurate processing, yet provides a quiet & comfortable operating environment.

2.5 kg of pressure - more pressure produces deeper, more defined creases and debossing for high quality finish.

Creasing Tools:

- Active Tangential creasing wheel with magnetic positioning assist, for easy change-over of crease tool.
- Multiple creasing tools allow for creasing and debossing in a single pass.
- Wide and narrow tools offer flexibility with materials and crease width.

Cutting blades and tools:

- Passive contour/drag knife cutting tool. Drag blade set - included with standard and circlip blades in 30°, 45° and 60° angles.
- A dedicated passive knife allows for kiss cutting and die cutting in a single pass.
- An Active Tangential knife enables thicker material to be cut.
- An optional Perforation wheel can be installed in either Tangential tool holder, providing quick perforating capability and maximising the flexibility of the machine.

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.

Hardware Requirements

1. Multicore Intel / AMD processor with 64-bit support.
2. Windows 10 Professional / Windows 11 Professional x64 bit.
3. 8 GB of RAM (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).

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 FB9550 cutter, you need to be able to design your artwork and then apply lines that you designate for cutting, creasing, scoring or perforating. Projects and artwork can be created using either Adobe Illustrator on Mac or PC, or CorelDRAW on PC.

ColorCut Pro includes 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 FB9550 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 FB9550'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 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 FB9550 also adds a new way for users to cut files - Held Mode. Held Mode allows users to wrap up all their cut settings within ColorCut Pro Production Studio and save these as a fully featured CCH (ColorCut Held file), this file can be transferred to a USB stick or saved to a network share and when inserted into the cutter, the file can be cut at any time with no PC connected.

The Held Mode is only recommended where users are repeating the same job/template multiple times and do not need to change settings such as speed or force, as these are embedded within the file. When frequently changing design, speed, or force, the use of Direct Mode to send the files directly to the cutter is recommended to avoid the need to consistently remove and replace the USB stick.

The ColorCut Pro plug-in does not currently work with any other vector imaging programs aside from those listed in the "Compatible Vector Programs" section.

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 or for the ColorCut Pro Production studio software to create Held Mode cut files for later use.

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 the machine and will directly cut designs or can be used to create 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 - in your file menu 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, Crease, Ignore, Perforate, Score, Deboss) 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 recommend 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 - Production Studio software (detailed below), either on the directly by using the same computer or a different computer and also enables the job to be cut in held mode and stored on a USB drive within the cutter itself.

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. ColorCut Pro standalone can also be used to wrap up all those settings into a *.cch file, a ColorCut Pro HELD Mode file, this file can be saved to a USB drive and cut at any time on the cutter without the need to be directly connected to ColorCut Pro.

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 is 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 Mac client feature.

NOTE: The main ColorCut Pro (Production Studio) cutting application is available only for Windows PCs. Mac users can design their artwork on the Mac, but a PC is required to connect to the cutter and run cutting jobs. Please note that HELD mode files can only be created using the Windows version of ColorCut Pro (Production Studio). Therefore, Mac users do need to be able to have access a PC, or a Windows environment running on their Mac, to perform direct cutting and to generate HELD mode files.

Mac users can design and cut files using 3 different approaches:

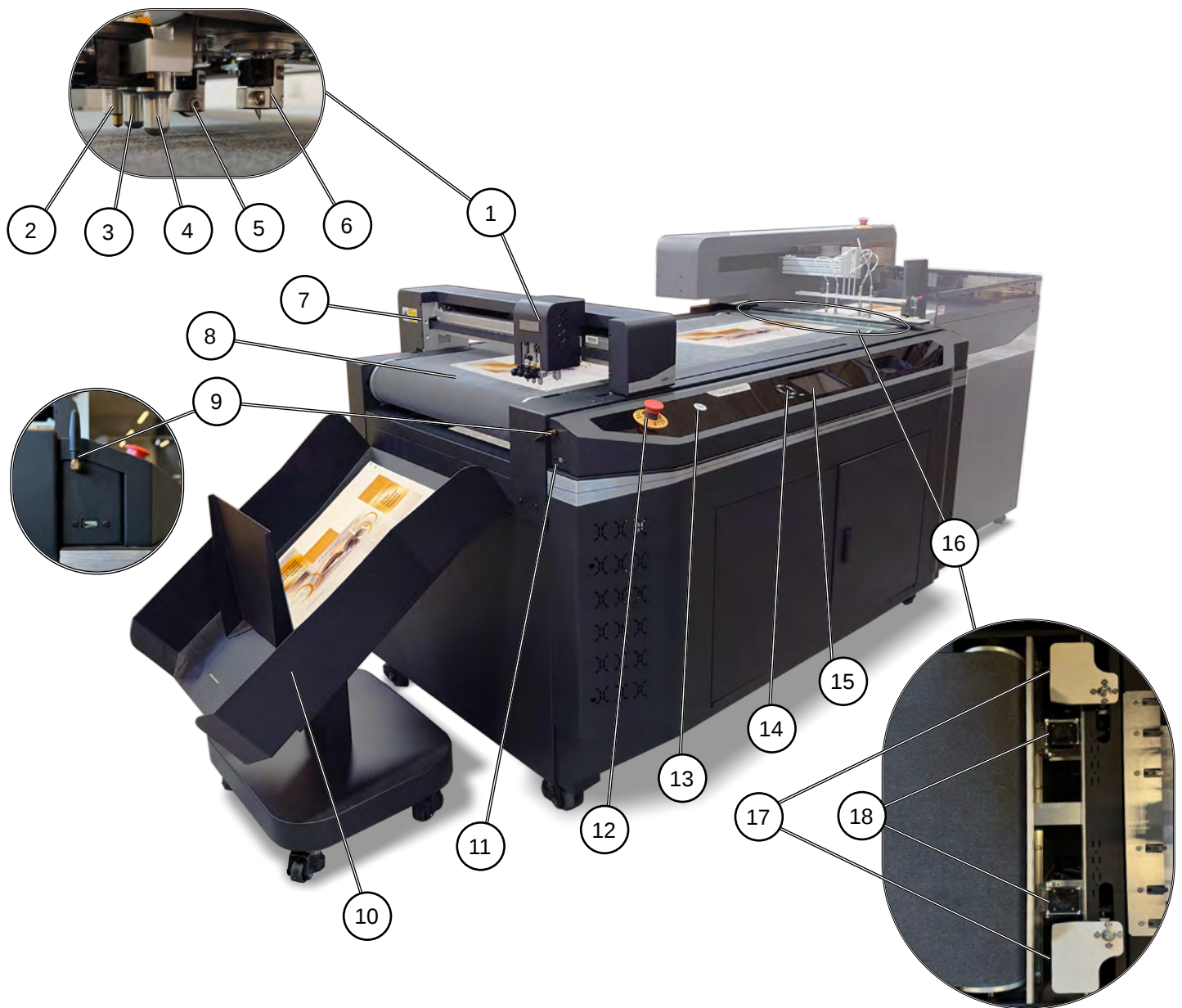
1. Connect a PC to your cutter and install ColorCut Pro - Production Studio, on the PC (on the same network as the Mac), configure the ColorCut Pro Job Library feature to act as a cut job library server for your Mac. See tutorial on ColorCut Installation for Mac - https://www.youtube.com/watch?v=ggKStuZWtv8&list=PLc55N85_LqaVrfugeGCe5RydYYYi95 or scan the QR code.
2. Using a PC, install ColorCut Pro - Production Studio (on the same network as the Mac), configure ColorCut Pro then use the ColorCut Pro Production Studio software to generate held mode cut files for saving to a USB stick for cutting when not connected to a computer – or if the cutter is in a completely different location.
3. 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.



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 File 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 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. The file is sent wherever the output is set in your preferences tab within the Mac plugin.

Guide To Components

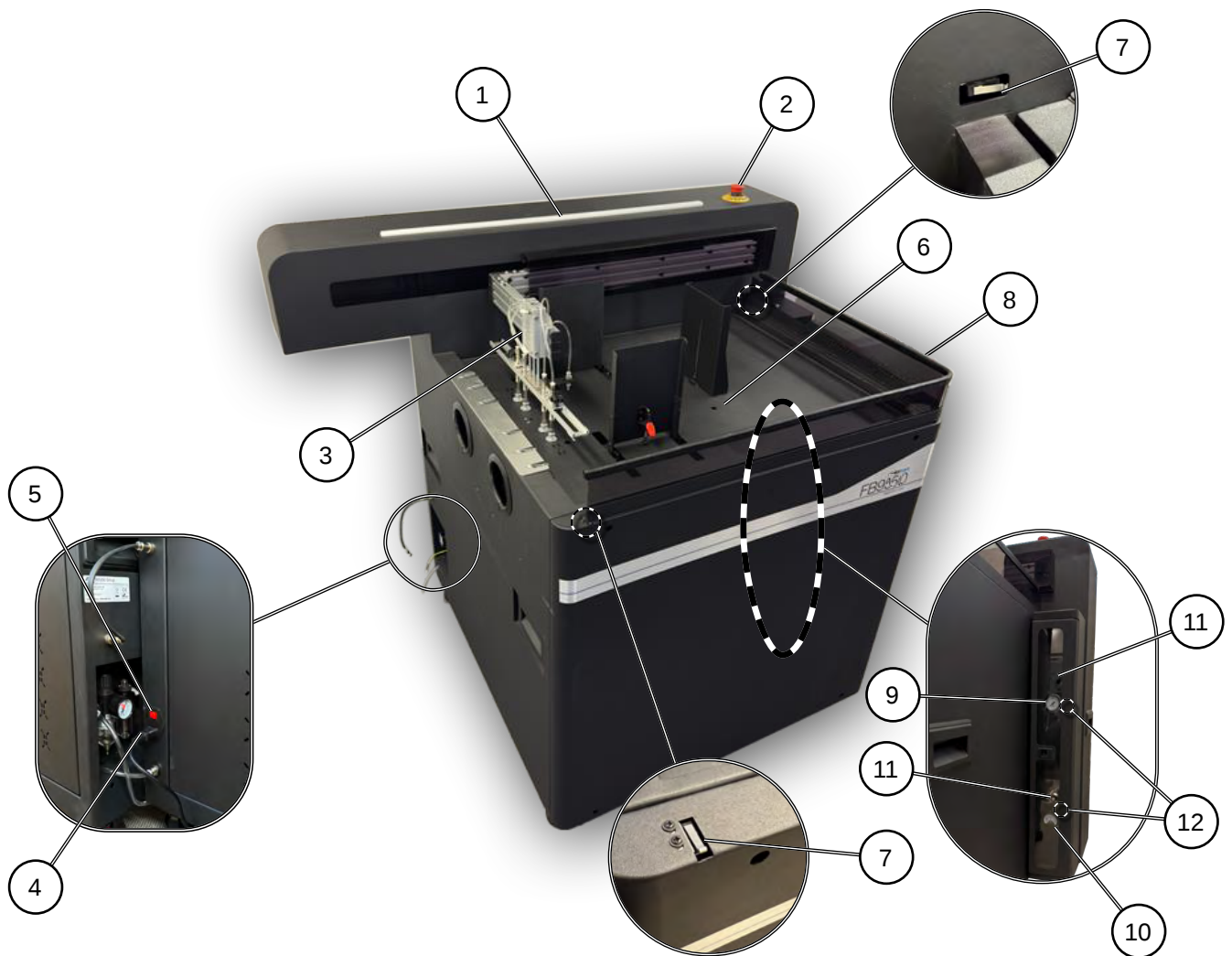
ColorCut FB9550 Cutter



- 1 Tool Carriage
- 2 Tool 1, Position 1B (Ball Creaser)
- 3 Tool 3 (Drag/Contour Knife)
- 4 Tool 2, Position 2B (Drag/Contour Knife)
- 5 Tool 1, Position 1A (Tangential Creaser)
- 6 Tool 2, Position 2A (Tangential Knife)
- 7 Tool Beam
- 8 Vacuum Bed

- 9 Wi-Fi antenna
- 10 Media catch tray
- 11 USB Stick Connector
- 12 Emergency Stop Button
- 13 Power Switch
- 14 Hard Keys
- 15 7" LCD Touch Panel
- 16 Rear Camera Scanning bar
- 17 Clamps
- 18 Rear scanning cameras

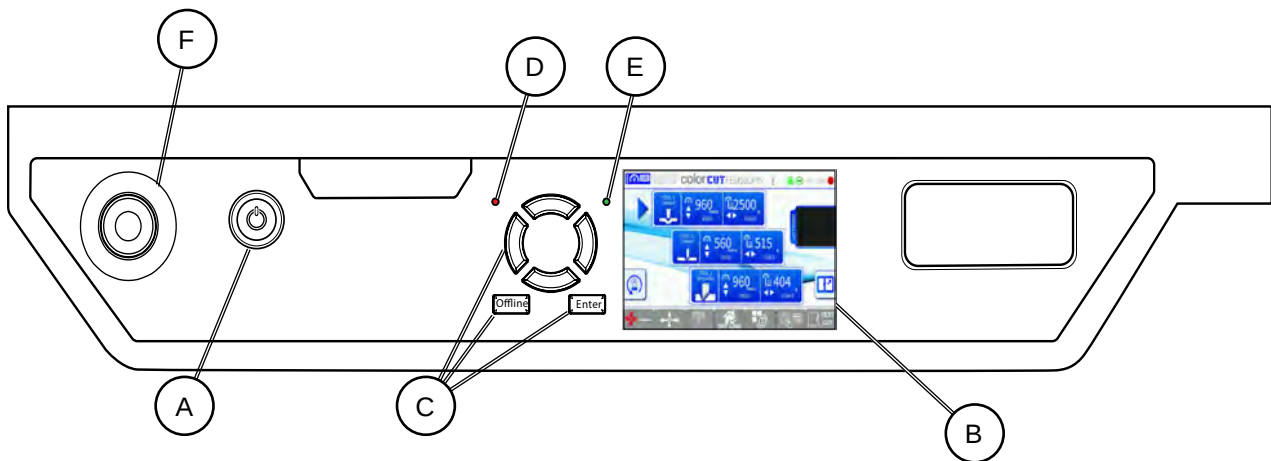
ColorCut FB9550 Feeder



- 1 LED indicator
- 2 Emergency Stop Button
- 3 Feeder arm
- 4 Power Cable
- 5 Power Switch
- 6 Auto Sheet Feeder table
- 7 Microswitch
- 8 Perspex guard
- 9 Media Pick up vacuum gauge
- 10 Amperage adjustment gauge
- 11 Adjustment knob
- 12 Test/check button



ColorCut FB9550 User Interface



On the control panel there is a power button [A], 7" Color LCD Touch LCD panel [B], with 6 hard buttons [C] to help make selections and change values to control the FB9550 cutter.

The 7" LCD display [B] is a Touch sensitive control panel, situated on the right side of the Control panel, it displays the camera feed, information about the current tool settings, and has several sub menus and options for controlling the machine which are detailed later in this section. A range of Hard buttons [C] can be found to left of the display.

NOTE: The red LED [D] indicates the unit is powered on, and green LED [E], illuminates as a key is pressed.

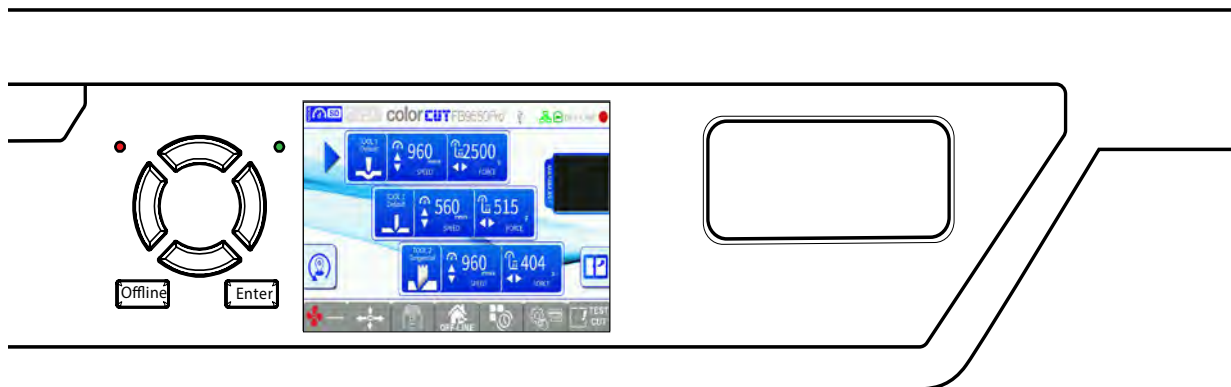


When you power on the FB9550 cutter, the message shown should be displayed on the LCD panel. This is a safety warning, that prevents the carriage moving until you press the [ENTER] key on the control panel.

Warning:

If you have powered on the FB9550 cutter using the Power switch at the back of the machine and the Power switch is illuminated, but you do not see anything on the display, and the RED LED [D] is not illuminated. Then it is likely the Emergency Stop Button (EMB) [F] (See section "Guide To Components") has been pressed. To release the EMB function - press and slightly twist the EMB button so it goes back up. Now Power will reach the display and the red LED will be illuminated and the display will be as shown above.

ColorCut FB9550 User Interface, continued



When the Home screen is displayed, the Speed and Force for the each tool on the tool carriage is displayed and can be adjusted. At the base of the touch screen is a tab control strip with several buttons and sub-menus. The tab key's control the FB9550 vacuum fan and access the move function, held mode, tools, and test functions.

The 7" LCD panel screen has a number of touch zones enabling you to control the settings, and select alternative functions.

Press the upper row to control TOOL1. An arrow shows that TOOL1 is selected. To adjust the speed and force for TOOL1 press hard buttons while the TOOL1 is activated. TOOL1 supports a press and hold on the tool image to change the type of tool installed.

Pressing the middle row will move the arrow to TOOL3, making it the active tool, you can then adjust the settings. TOOL3 is a dedicated passive tool so does not support a long press to change the tool type.

Pressing the bottom row will move the arrow to TOOL2, making it the active tool, you can then adjust the settings. TOOL2 supports a press and hold on the tool image to change the type of tool installed.

With a tool selected, please find below details of the function for each hard button.

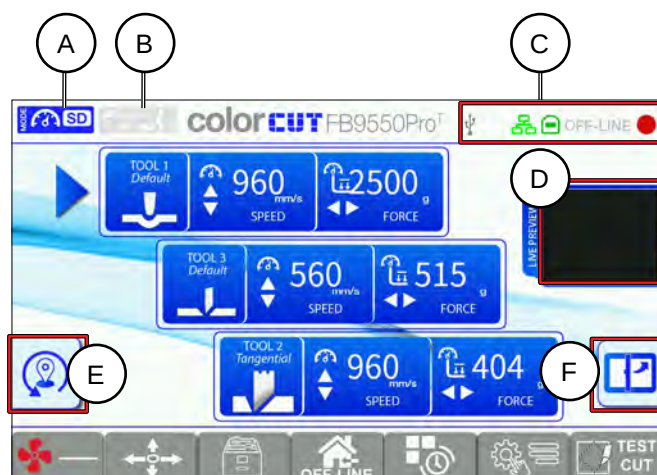
NOTE: When a hard button is pressed the green led briefly illuminates to confirm.

Up	Increases speed for the selected Tool when the Home screen is displayed.	(Range 0 - 1200 mm/s)
Down	Decreases speed for the selected Tool when the Home screen is displayed.	(Range 0 - 1200 mm/s)
Left	Reduces force for the selected Tool when the Home screen is displayed.	(Range 0 - 1300 gf TOOL3) (Range 0 - 2500 gf TOOL1 and TOOL2)
Right	Increases force for the selected Tool when the Home screen is displayed.	(Range 0 - 1300 gf TOOL3) (Range 0 - 2500 gf TOOL1 and TOOL2)
Enter	Pressing the button will accept the setting shown on the LCD panel when changing menu options.	
Off/Line	Pressing the button places the cutter offline and jobs can not be sent from ColorCut if machine is not online, jobs can be cut in Held mode with .CCH files. Pressing the button again, will take place the cutter ONLINE ready to cut jobs.	

Max speed is based on Quality mode, 1200 mm/s can only be selected in Fast mode. See section "Quality Mode" for more details.

In addition, when you scroll through the menu options, or setting the parameters. Pressing the [OFF/LINE] key leaves the menu list and returns to the default home screen.

ColorCut FB9550 User Interface, continued



Return to Origin [E]

Once the [Return to Origin] button is pressed the tool carriage (specifically the tip of Tool 1) repositions to the last saved origin point.

Sheet Placement Assistant [F]

The Sheet Placement Assistant feature moves the beam with the tool carriage to the side, allowing easy placement or removal of the sheets.

The home screen also features designated Long Press Zones that serve as convenient shortcuts, providing immediate access to frequently used settings.

Long Press Zones:

- Quality Mode [A]
- Reverse Side Options [B]
- Connection Info [C]
- Image Control [D]

NOTE: Section “Settings and Options” provides detailed explanations of these settings.

Pressing the light grey tab buttons at the bottom of the LCD panel screen allows users to access individual function screens. In each screen, the hard buttons can also be used to navigate and adjust settings.



Vacuum Fan On/Off

Pressing [Vacuum] button can be used to control the vacuum hold down function.

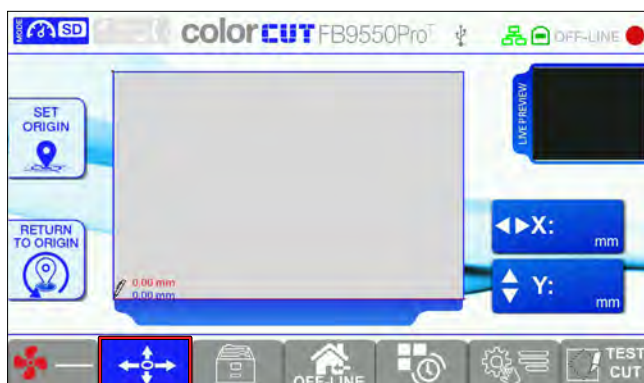
When the vacuum is activated, it passes through the vacuum table to hold the sheets flat and secure in place during the cutting process, and the button will change as shown below.



Vacuum Off



Vacuum On



Move

The Move screen allows the user to control the tool carriage over the flatbed.

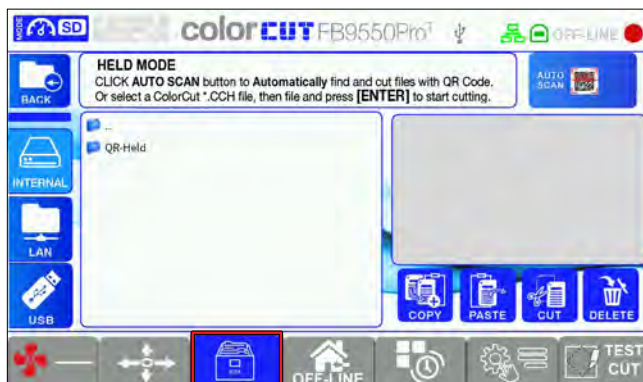
You can adjust the carriage coordinates using the hard buttons: left and right for the X direction, and up and down for the Y direction.

Pressing and holding the grey area representing the bed for 2 seconds sets a broad location, while the hard keys allow for precise adjustments.

In this screen, you can also set the origin when the carriage is positioned at the desired location. The [Return to Origin] button moves the carriage back to the last saved origin point.

Continued on next page...

ColorCut FB9550 User Interface, continued

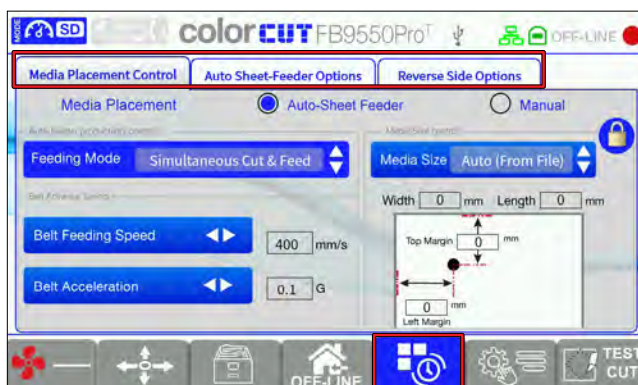


Held Mode

The Held screen, allows you to cut jobs directly on the cutter without the need for your computer to be connected.

There are 2 ways to start cutting.

1. Click the "Auto Scan" to automatically retrieve a QR code job stored in the QR-Held folder;
2. Manually select a Cutting file in the directory listing show on the screen from the USB drive or Network share by selecting the cut file name from the list (you will be able to see a preview) on the right side of the LCD panel, with the file selected then press the [ENTER] hard key to cut the job.



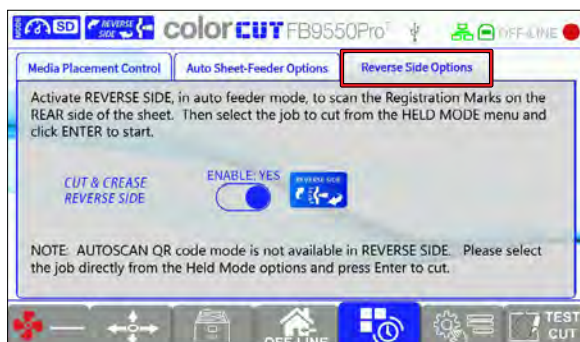
Productivity Settings

The Productivity settings allows you to activate and manage the Media related options on the cutter.

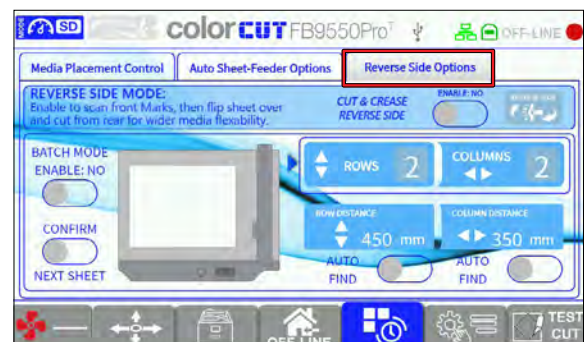
Tap the top area of the screen to activate the selection of:

- Media placement control
- Auto Sheet-Feeder options
- Reverse Side options

NOTE: The settings shown in the Reverse Side Options tab will change depending on which Media Placement Mode is selected in the Media Placement Control tab.
Instructions on how to use Reverse Side Options can be found in the following pages.



Reverse side options when **Auto-Sheet Feeder** is selected.



Reverse side options when **Manual** is selected.

Continued on next page...

ColorCut FB9550 User Interface, continued



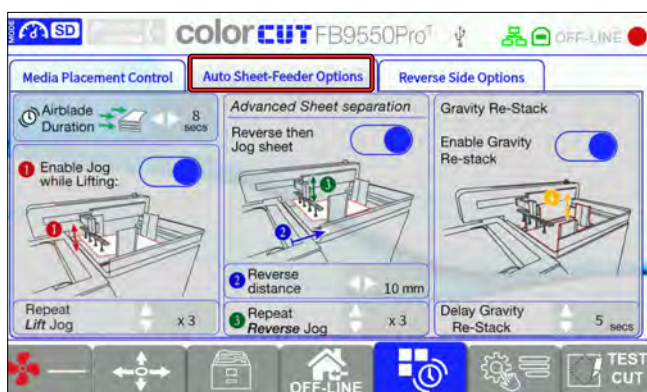
Media Placement Control

Media placement lets you switch between Auto-Sheet Feeder for full automation and Manual mode for single sheet templating. Press [ENTER] to confirm any changes.

Auto Feeder productivity lets you choose between 'simultaneous cut & feed' mode or 'single sheet feeding'. Use the hard keys on the keypad to switch between the settings.

Belt Advance Tuning lets you adjust the belt's speed and acceleration. This is useful for handling glossy media to prevent slipping on the bed.

Media Size Control allows you choose between automatic sheet size detection or manually entering sheet dimensions. You can also manually adjust the PageMark position by changing the sheet margin settings.



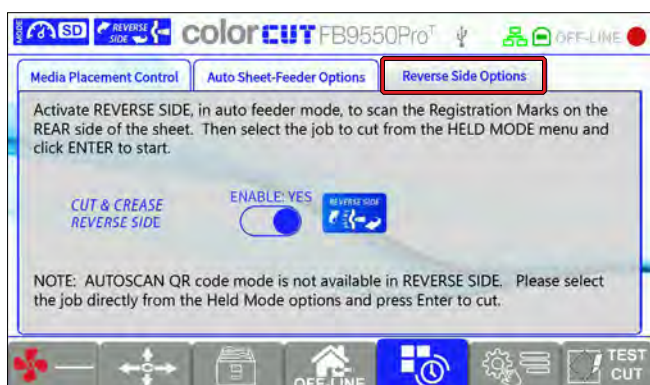
Auto Sheet-Feeder Options

The Auto-Sheet Feeder options let you adjust settings for different media types.

- **Airblade Duration** controls how long air is blown (2–12 seconds) between sheets to help separate them. Use a longer duration for thicker media.
- **Reverse Distance** and **Jog Times** can be adjusted to improve sheet separation. You can also turn the **Reverse Then Jog** function on or off if more separation is needed.
- **Gravity Re-stack** helps reposition sheets after feeding. You can enable or disable this feature, but using 3 or 5 seconds is recommended.

Recommended Settings:

AirBlade Duration - 8 seconds
 Enable Jog while Lifting - On
 Repeat Lift Jog - x 2
 Reverse then Jog sheet - On
 Reverse distance - 20 mm
 Repeat Reverse Jog - x 2
 Enable Gravity Re-Stack - On
 Delay Gravity Re-Stack - 3-5 seconds



Reverse Side Options - Auto Sheet Feeder

When Reverse Side Mode is active, the icon on the top left corner will change color to indicate it is enabled, as shown on the following page.

NOTE: QR codes cannot be used in Reverse Side Mode. Jobs must be selected manually.

ColorCut FB9550 User Interface, continued

Reverse Side Options - Manual Sheet Placement

In Manual Mode, Reverse Side Options will scan the front PageMarks as normal, then prompt the user to flip the sheet and continue with the assigned actions. This enables the user to process a wider range of materials.

NOTE: PageMarks must have a minimum margin of 8mm to the media edge and artwork for the best detection. Refer to the section “Positioning of Registration PageMarks” for further details.

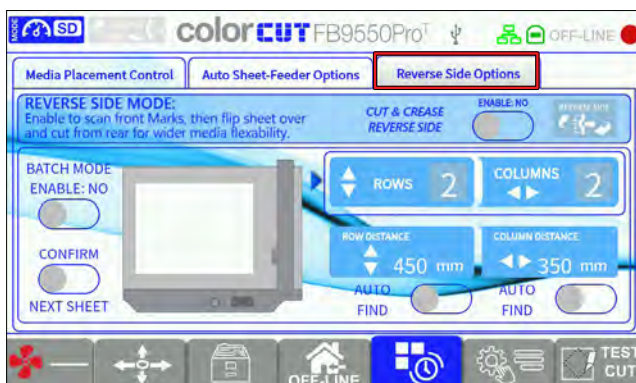
By enabling Batch Mode, users can cut multiple sheets at once by manually replacing the completed sheet while the machine operates on the next sheet.

- The Rows and Columns section lets adjust the number of rows and columns using the hard keys on the keypad. The layout preview dynamically updates to show how sheets should be arranged.
- The distance between sheets can be set manually using the hard buttons, or automatically when Auto Find is activated, ensuring precise cutting.

NOTE: QR codes cannot be used in Reverse Side Mode. Jobs must be selected manually.

To cut and crease on the reverse side:

1. Enable the “Cut & Crease Reverse Side” in the “Reverse Side Options” tab.
2. Place the sheet (with PageMarks) on the cutting table as usual.
3. Turn on the vacuum fan.
4. Manually select the job you want to cut from the Held screen.
5. Press Start. The cutter will read all PageMarks.
6. When reading is done, the beam will move aside.
7. Mark the sheet’s position before you flip it.
8. Flip the sheet over, then place it back in the same marked position.
9. Turn the vacuum fan back on.
10. Press OK to continue the cutting job.



When Reverse Side Mode is active in either Manual or Auto Sheet-Feeder Mode, the icon on the top left corner will change color to indicate it is enabled, as shown below.



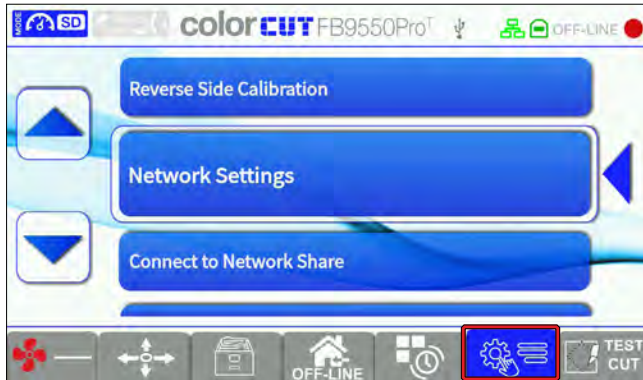
Reverse Side Mode Inactive.



Reverse Side Mode Active.

Continued on next page...

ColorCut FB9550 User Interface, continued



Menu - Settings & Options

The Settings & Options Menu screen allows to perform calibrations or check and modify settings.

Press the Menu Tab to select the Menu Settings & Options screen. In the Menu mode, the cutter status changes to [Off Line] and will no longer receive new cutting files. When you have finished changing the menu settings press the [Home / ON-LINE] key to return the cutter to the Home screen and change the FB9550 cutter status back, to Online.



Test Cut

The Test Cut function allows you to quickly check the depth/ force settings of the selected tool.

Place the test media on the flatbed, use the sheet placement assistant to make this easier.

Ensure the tool you wish to check is selected and highlighted with the arrow (in the example to the left we are checking TOOL3).

Activate the vacuum pump to hold down the sheet and move the carriage over the sheet.

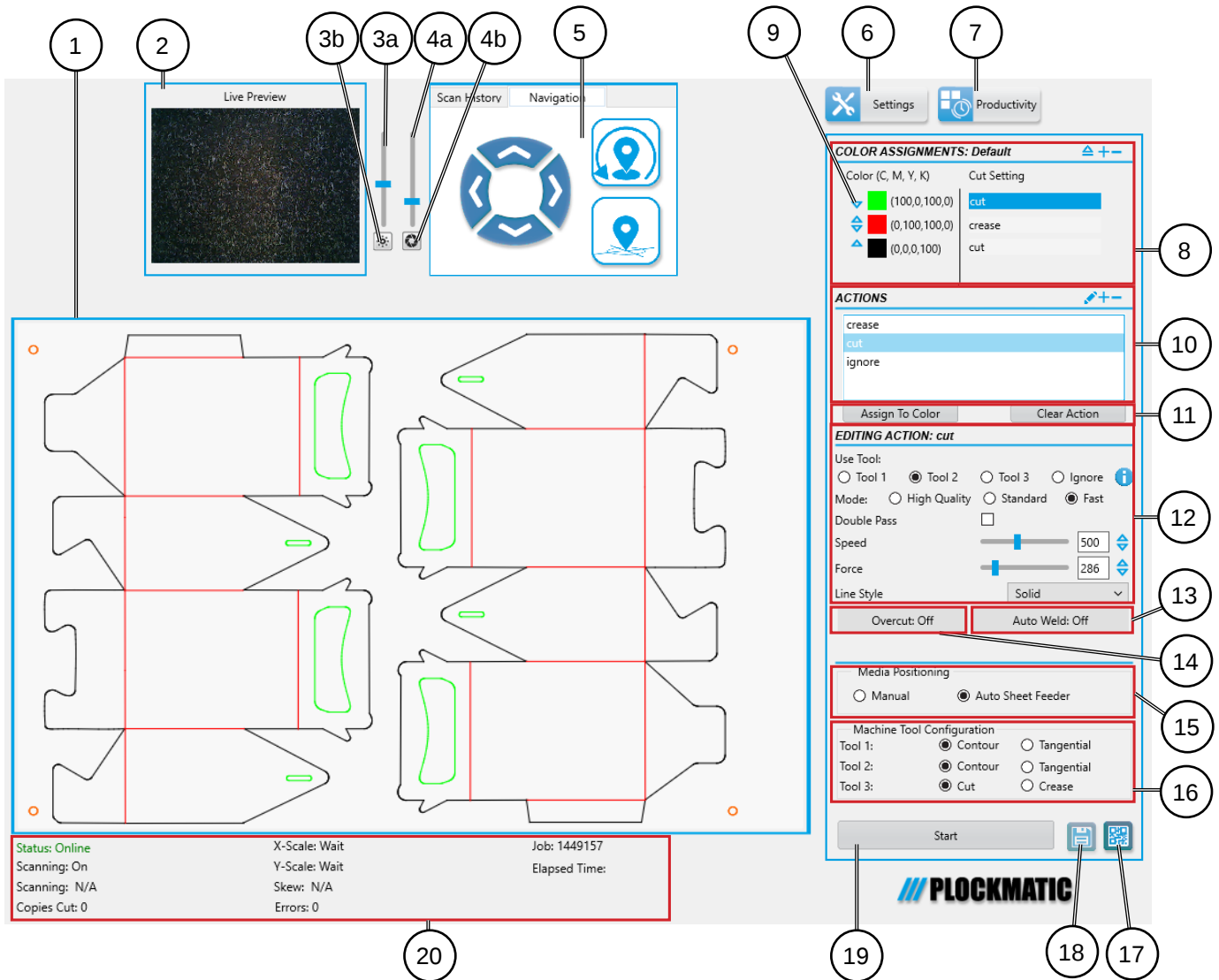
Set the force to the desired value using the left and right hard buttons.

Press the [TEST CUT] tab, to initiate the Test Cut function.

Check the output, adjust the settings if necessary and repeat the test cut; the head will move across automatically.

ColorCut Pro Main Interface

Overview of the ColorCut Pro Main Screen (Direct Mode)



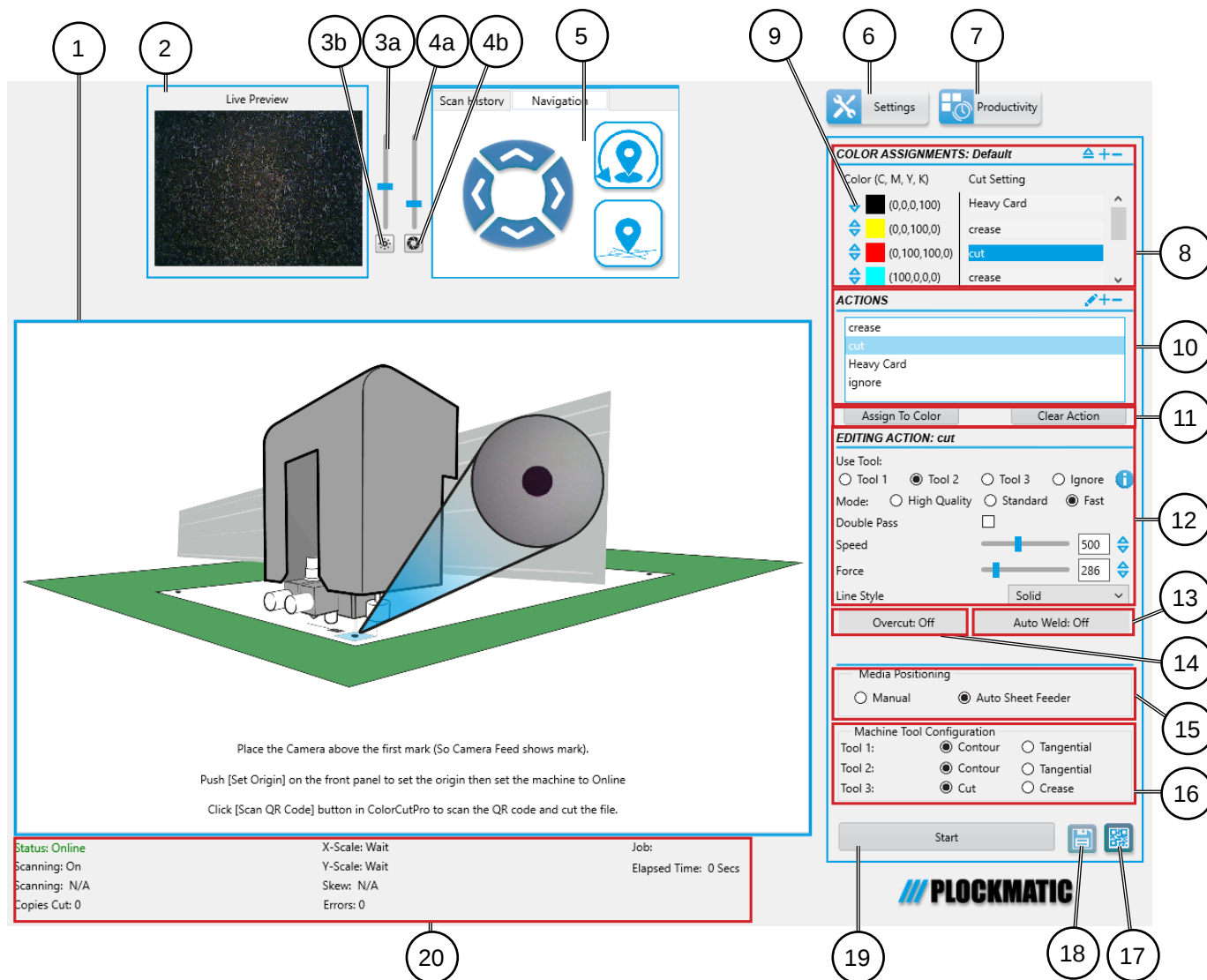
- | | | | |
|----|---|----|---|
| 1 | Preview of selected cut/crease job | 10 | Pre-Set Action |
| 2 | Vision3 Sensor video echo | 11 | Assigning an action to a color |
| 3a | Camera Illumination control | 12 | Edit Material/Action setting |
| 3b | Default Camera Illumination | 13 | Auto Weld option |
| 4a | Exposure control | 14 | OverCut option |
| 4b | Default Exposure | 15 | Media Loading & Positioning |
| 5 | PageMark registration history and carriage navigation | 16 | Machine Tool Configuration |
| 6 | Settings | 17 | Switch to Job Server mode (Access QR code mode & Job Library) |
| 7 | Productivity Options | 18 | Save cutting file |
| 8 | Colours available in job & actions | 19 | Start Cutting |
| 9 | Change Cutting order | 20 | Status bar |

Continued on next page...

ColorCut Pro Main Interface, continued

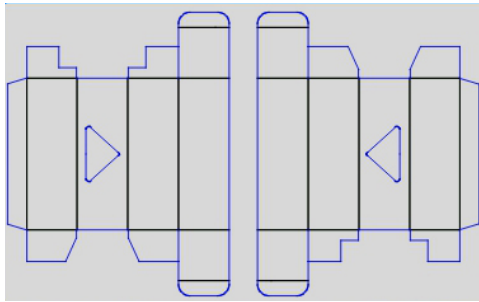
Overview of the ColorCut Pro Main Screen (Job Server Mode)

The screen options and layout are almost identical to the ColorCut Pro (Direct Mode), with the exception of items 1, 8, 17 & 19 detailed below.

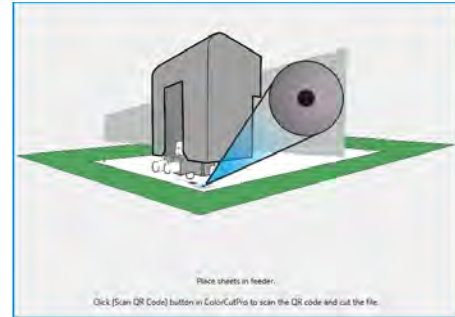


- | | | | |
|----|---|----|---|
| 1 | Preview of selected cut/crease job | 10 | Pre-Set Action |
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| 3a | Camera Illumination control | 12 | Edit Material/Action setting |
| 3b | Default Camera Illumination | 13 | Auto Weld option |
| 4a | Exposure control | 14 | OverCut option |
| 4b | Default Exposure | 15 | Media Loading & Positioning |
| 5 | PageMark registration history and carriage navigation | 16 | Machine Tool Configuration |
| 6 | Settings | 17 | Switch to Job Server mode (Access QR code mode & Job Library) |
| 7 | Productivity Options | 18 | Save cutting file |
| 8 | Colours available in job & actions | 19 | Start Cutting |
| 9 | Change Cutting order | 20 | Status bar |

Job Preview Window



ColorCut Pro Direct Mode



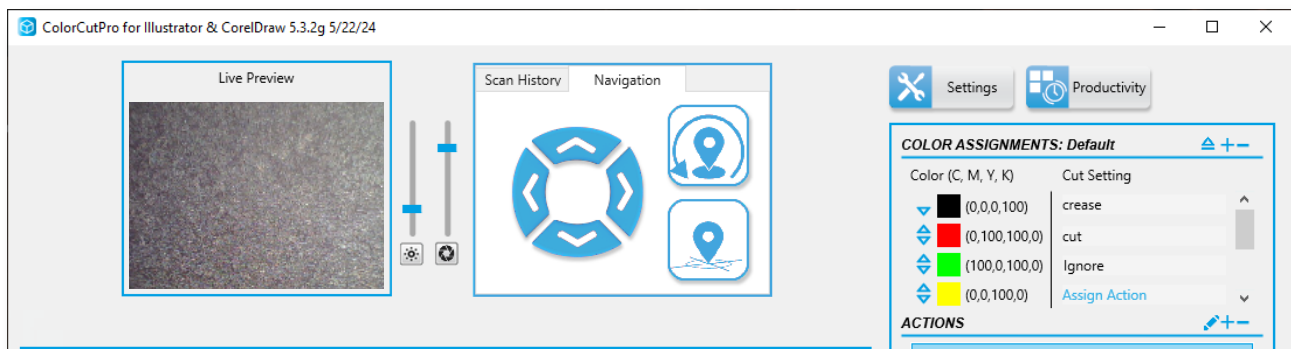
ColorCut Pro Job Server Mode

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.

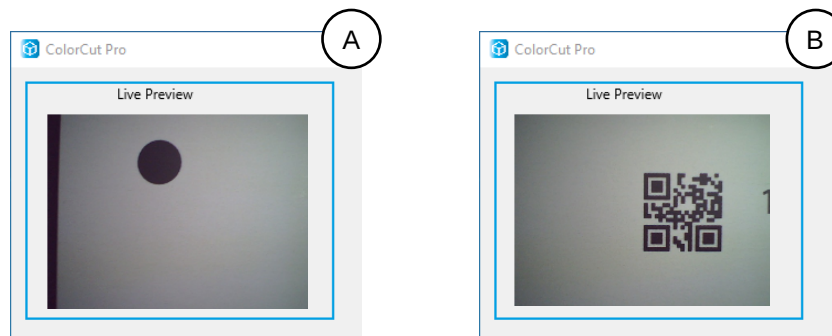
When launching ColorCut Pro in Job Server mode an information graphic will be displayed in the Job Preview Window. This will be updated with the Cut Job file preview once you have manually entered the Job number or scanned the QR Code.

Live Preview Window

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

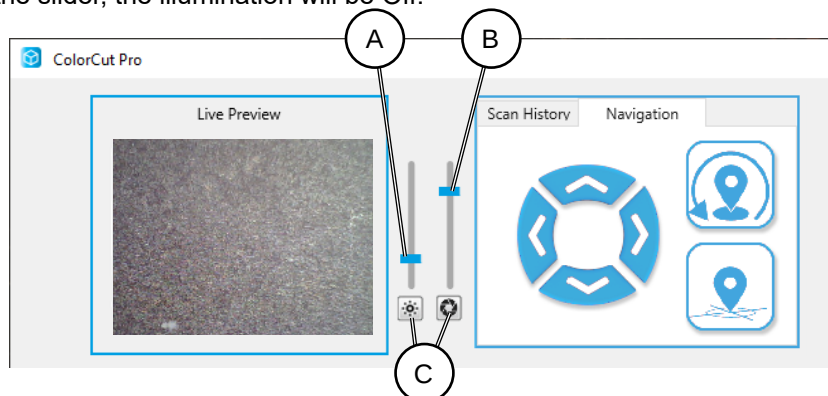


The Live Preview Window displays a real-time video of what the Vision3 CCD camera sensor captures. When starting a Cut Job, you will see the initial PageMark [A] being captured. If you are also scanning QR codes [B], you will see it being captured and then each of the other PageMarks.



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 like rice paper, or reflective/foiled materials. Adjusting the slider [A] up, will increase the brightness, while adjusting the slider down will reduce it, same applies for exposure slider [B]. When positioned right at the bottom of the slider, the illumination will be Off.

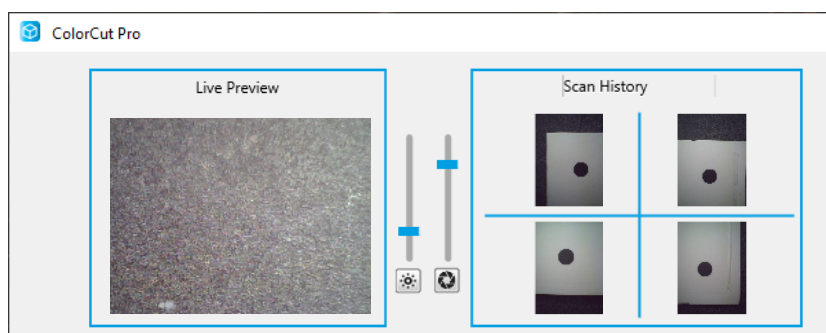


The buttons at the base of the sliders [C], will reset sliders to the default level that is recommend for daily operation.

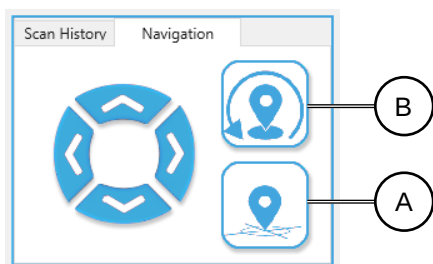
NOTE: While adjusting the slider may help for a one off, selected media (if you find you are frequently having difficulty scanning marks on a specific colour media or reflective media). You may find it better to use the Automatic: Retry Scan with Varying Light Levels feature. This will scan the marks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

Scan History & Navigation

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, when a sheet is loaded. When sheet is placed the Vision3 sensor must be moved directly over the 1st mark in navigation tab. In the live video preview the 1st Mark (Target) should appear in the center of the video preview area. If it is slightly off center the cutter will readjust for center and save the position in the Scan History window, and move on to the next mark. ColorCut will show a green check mark if the mark passes and a red cross mark if it doesn't.



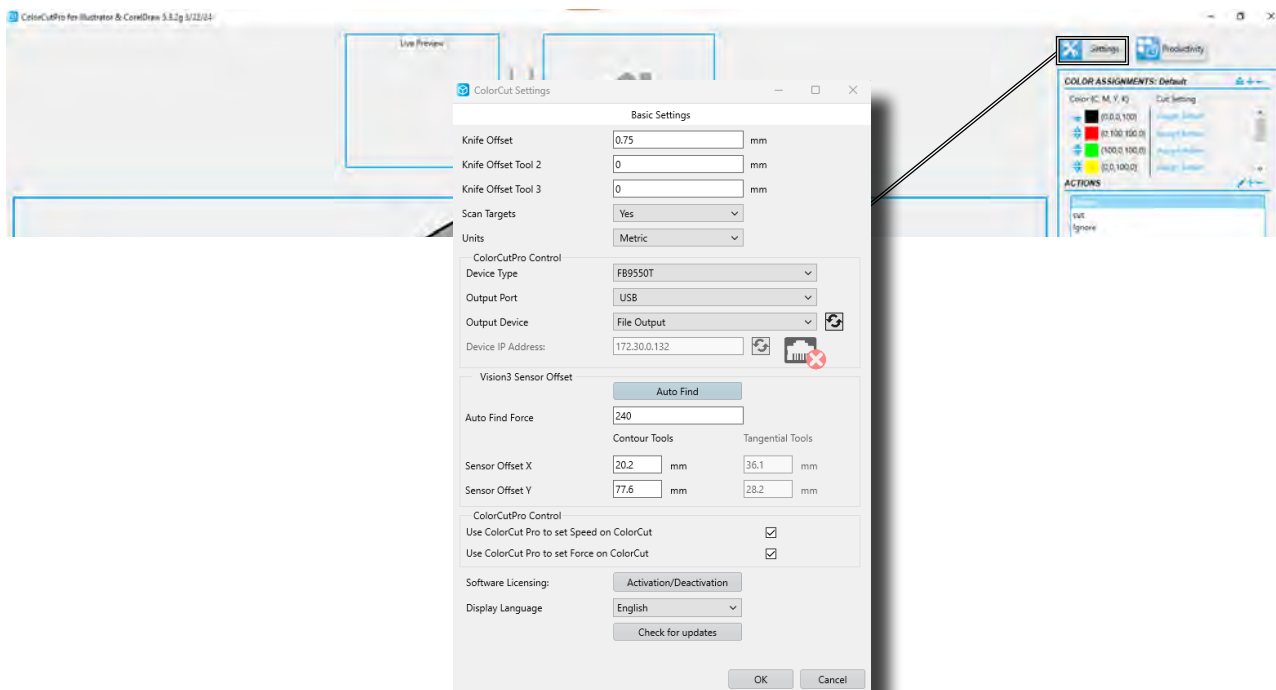
Use the arrow buttons in the Navigation tab to move the cutting head to the desired position.

To set a new origin point, position the carriage where you want and click the Set Origin button [A].

To return the carriage to the last saved origin point, click the Return to Origin button [B].

Settings

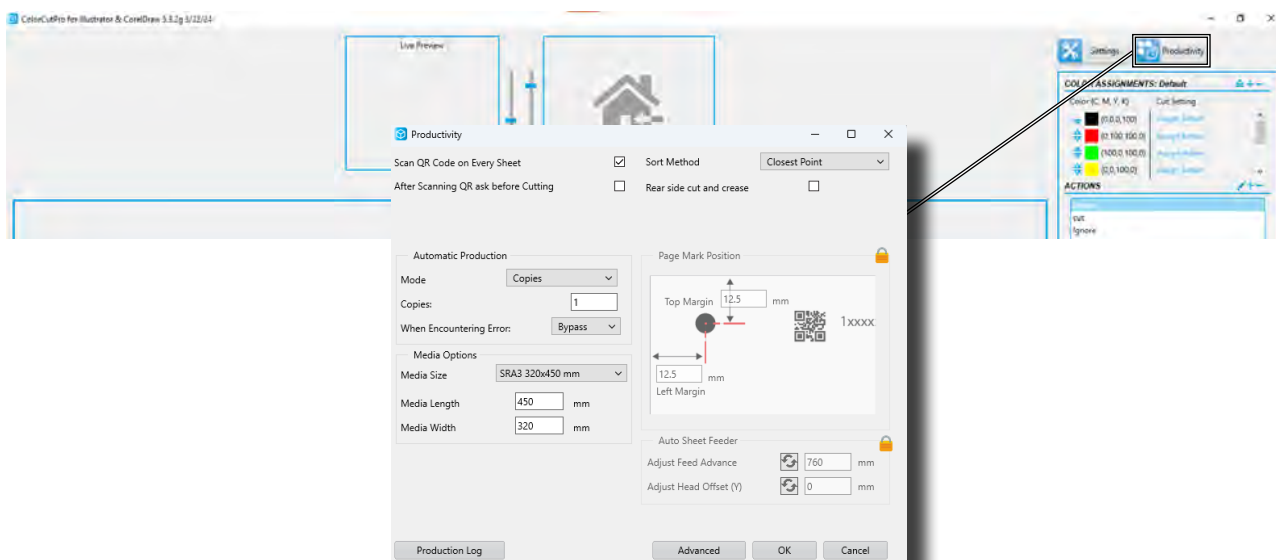
The [Settings] button will display the Settings Window as shown below, which allows you adjust general settings such as knife offset, target scanning, units, etc.



Productivity

The [Productivity] button will display the Productivity Window, required for setting your and other important settings.

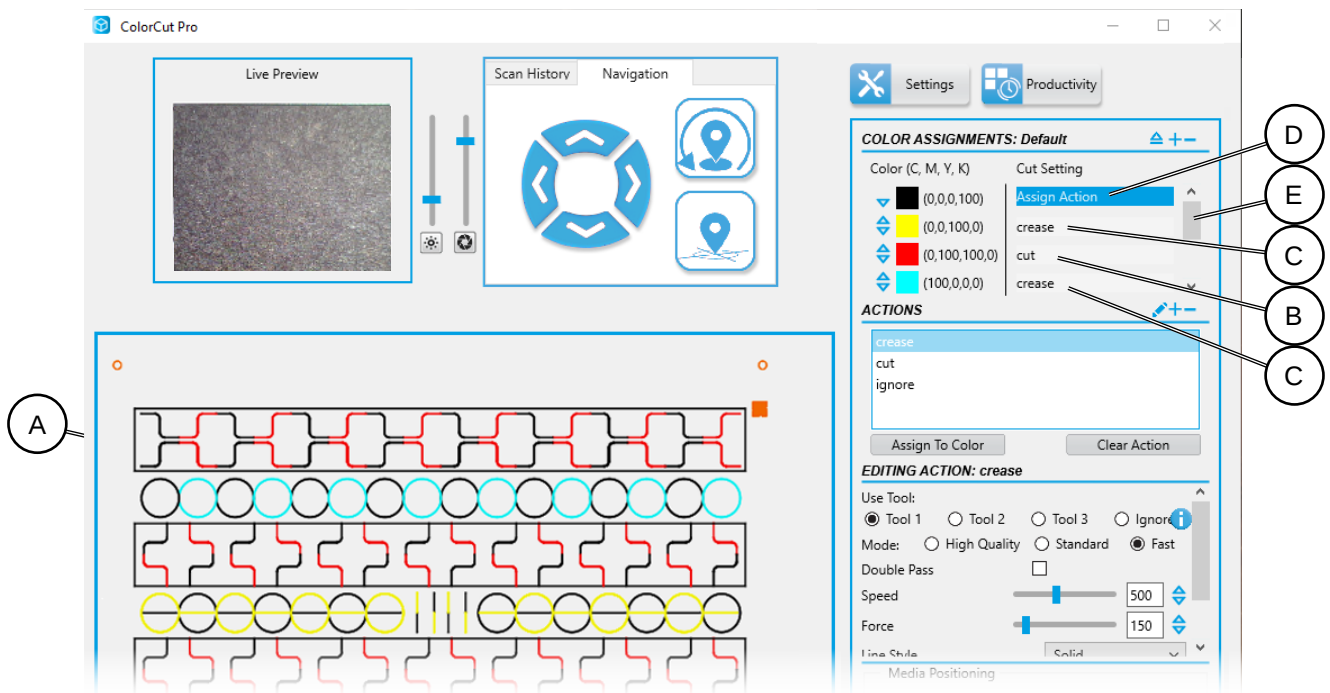
It's used for setting the page size, automatic production mode and fine tuning of feed distance.



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 recognizes (See section “Line Colors recognized 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 Setting/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 (showing a different cut profile in the Job Preview Window [A] for explanation purposes) there are multiple colored lines within the cutting profile. The Red line has the Cut Setting/Action ‘cut’ [B] next to it; Yellow & Cyan are set to ‘crease’ [C] while the Black colored lines [D] are yet to have an action assigned to them. If there are more colors than shown on the list, use the scroll bar [E] to see the additional colors.

COLOR ASSIGNMENTS: Default	
Color (C, M, Y, K)	Cut Setting
(0,0,0,100)	Assign Action
(0,0,100,0)	crease
(0,100,100,0)	cut
(100,0,0,0)	crease

Every color on a job must have an action assigned. If an action is not assigned to a color then the machine will not run the job. If a color is on the job that you do not want to cut or crease, set this color to Ignore.

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

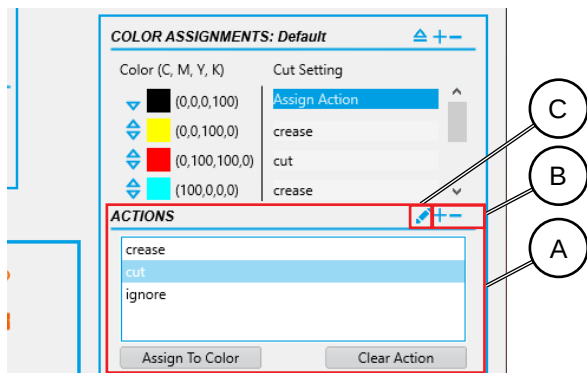
It is recommended to perform Creasing or Scoring operations before cutting your substrate. If necessary the cutting and

creasing order can be changed by using the arrow symbols next to each color. The Up arrow will move a color up the 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].

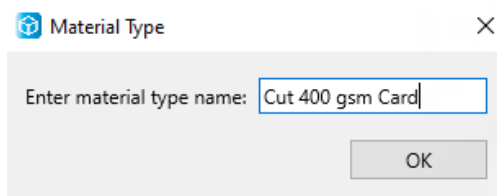


An Action is a profile consisting of the following saved settings being used:

- Cutting Tool (Cutter, Crease, or Ignore)
- Speed of Tool
- Force/Pressure applied by Tool
- Type of Line (Solid, or Dashed, or with Tags)
- If the Tool should double pass (e.g. Double Crease)

As you get used to your FB9550 and the different materials you cut, you can start to save these profiles for different cutting forces or speeds dependant on the media types.

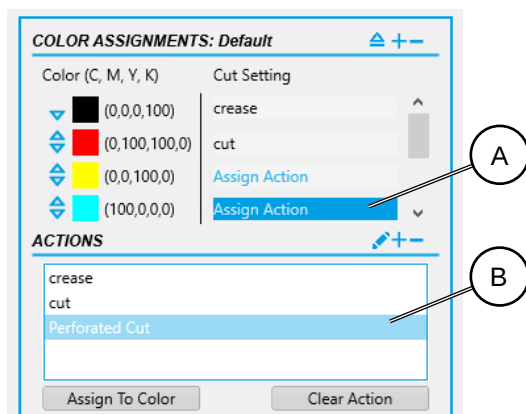
The Actions Window [A] shows a list of all the pre-defined settings/profiles you have created that you can use or employ. You can click the [+/-] symbol [B] to add a new Action. If you wish to rename the Action, click on Pencil symbol [C] and enter new action name, then click [OK].



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.

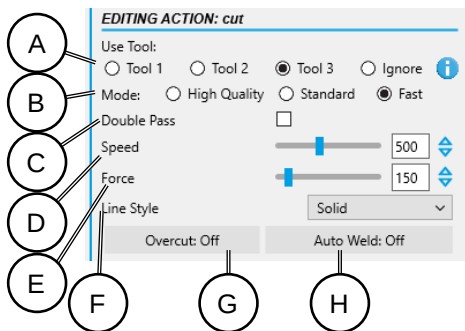
Assigning an Action to a Color (or clearing one)



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 Cyan/light Blue 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 'Perforated Cut' [B]).
3. Finally 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 a Action from a Cut setting, Click on the right side of the Color Settings (on the currently assigned action name). And click [Clear Action].

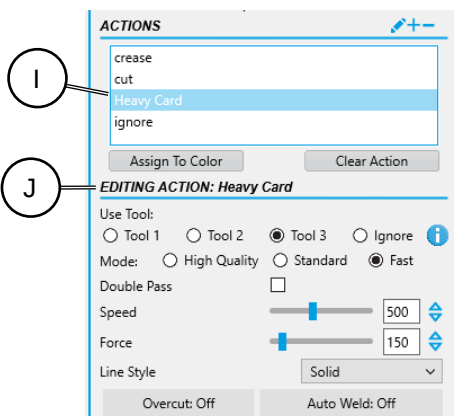
The Editing Action Window

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 [A]
- Quality Mode [B]
- Number of Passes for the tool [C]
- Speed of the tool during action [D]
- Force/Pressure applied during action [E]
- Line Style (Solid or dashed/perforated) [F]
- OverCut [G]
- Auto Weld [H]



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 'Heavy Card' [I]). The name of the selected Action 'Heavy Card' can be seen in the top of the Editing Action section [J].

All parameters displayed in the section below combine to create the profile for the Action “Heavy Card”.

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

Selecting the Tool (Cutting/Creasing/Ignore)

The “Use Tool” [A] allows you to select either the Cutting Tool or the Creasing Tool to cut or crease 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 or crease. (All other features such as speed or force will also be ignored if you select ignore).

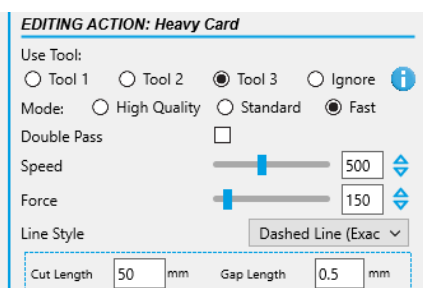
Selecting the Double Pass Feature

The “Double Pass” [C] function enables you to enhance the cut or crease function, by effectively repeating the process selected. This can be useful for creasing (when pressure can not be increased further) as Double Pass will cause the ColorCut Pro software to crease the lines twice therefore providing a stronger crease.

The “Double Pass” feature is recommended only if the media is very thick and a single pass doesn't cut all the way through.

Selecting the Line Style of the Cut or Creasing Tool

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



You can set the distance of the knife down (cut) and the knife up (gap) so this feature can also be used to create tags to hold elements in the sheet. Explained further later in this section.

Using this method for perforating is slower and we recommend using the dedicated Tangential perforation wheel included with the machine. This can be placed in either Tangential Holder and swapping to the perforating wheel setting. See the section on “Replacing Active Tangential Tools” for further explanation on how to swap tools.

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 Line change to a dashed line.

The Editing Action Window, Continued

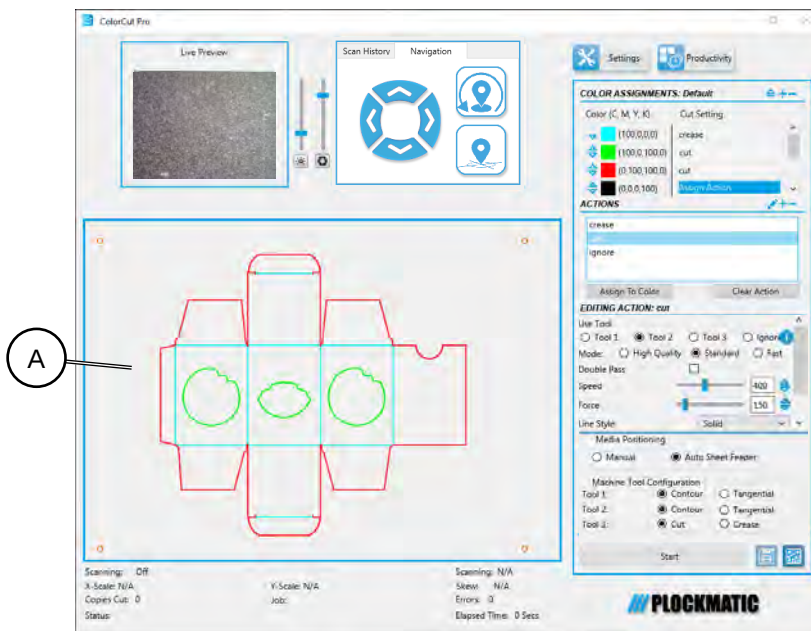
Selecting the Line Style of the Cut or Creasing Tool, Continued

Dashed line (Adjustable) - creates cuts based on Cut length as a Priority and a gap. When the Gap Length 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 (2") and Gap Length to 0.5 mm (0.02"), a 230 mm (9.1") line may have 4 cuts of 50 mm (2") and one cut of 30 mm (1.2"), but gaps between the cuts will be 0.5 mm (0.02").

Creating Smart TAGs to hold elements in Using "Line Style"

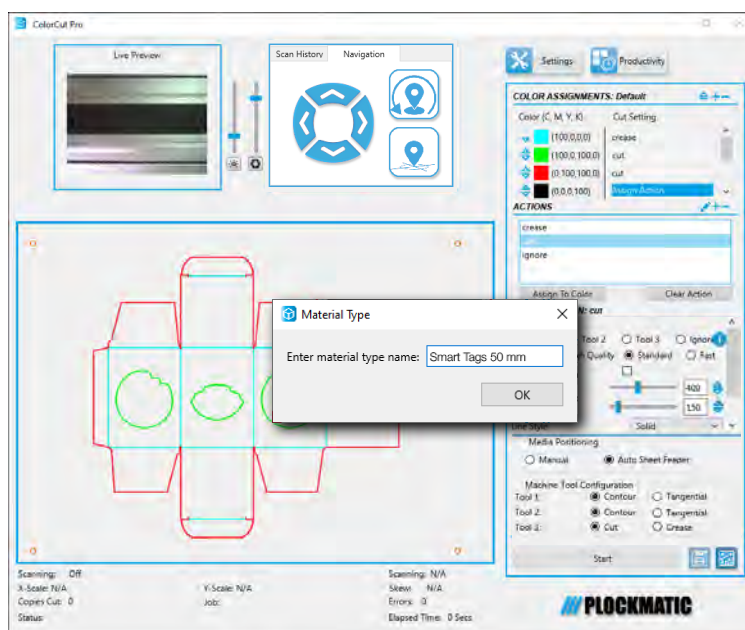
When using the FB9550 for die-cutting (full cut through) applications, only use Smart Tags if the media is falling out during the cut and causing issues. This shouldn't happen on a flatbed due to the suction. Another reason to use Smart Tags is to keep the elements inside the media, making transportation easier after cutting and reducing the mess produced.



1. In the preview window [A], the box has a cut line for windows (in green) and a cut line for the outside (in red).

Currently both green and red line colors & are assigned to cut (which is a solid cut).

The preview shows these lines as solid.

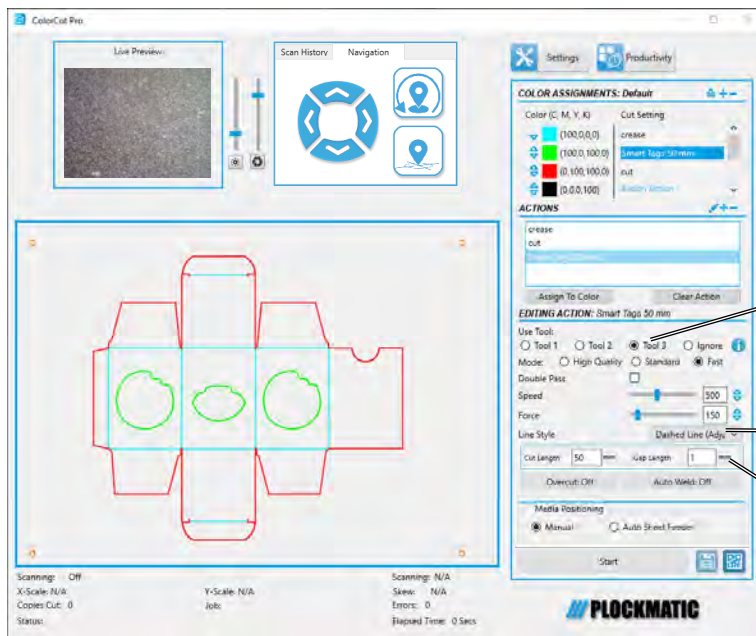


2. To automatically add Smart Tags to the cut file, first create a new Action by clicking the [+] button.

Create a name to reflect the Action your are creating e.g. "Smart Tags 50 mm (2")".

Continued on next page...

Creating Smart TAGs to hold elements in Using “Line Style”, continued



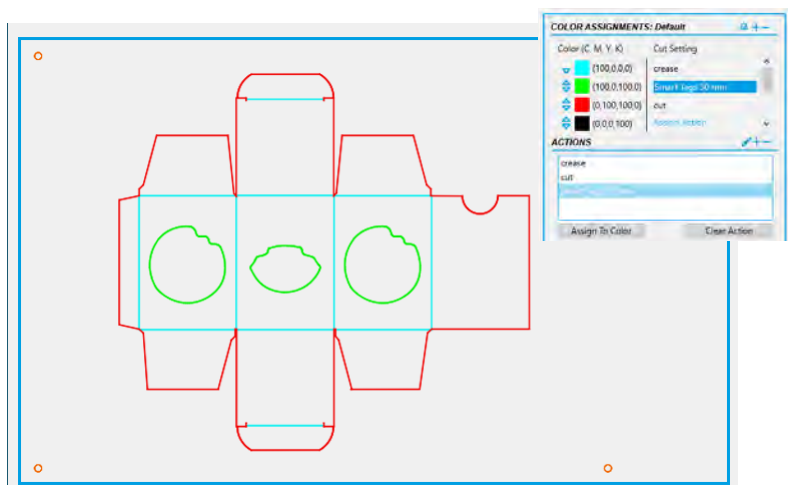
3. Select the new Media Type (“Smart Tags 50 mm (2”)”).
Ensure the “Tags 50 mm (2”)” Use Tool is set to a cutting tool head [B].
4. Set the Line Style to “Dashed Line (Adjustable)” [C].
5. Complete the Line Style profile by setting the Cut Length to 50 mm (2”) and the Gap Length to 1 mm (0.04”) [D]. Gap Length varies depending on the media thickness. This will create an Action assigned to a line color that will provide a 1 mm (0.04”) Tag every 50 mm (2”).

6. Now the action has been created, apply the action for creating tags to the line you wish to contain tags. Click on Cut Setting section, next to the Color green, then select the new “Smart Tags 50 mm (2”)” Action and assign it to the color green. The preview (above) updates to reflect the new (Smart Tags 50 mm (2”)) that you created and will show the line with gaps every 50 mm (2”).

NOTE: If your tags are small (such as 1 mm (0.04”)) you may need to make the tag slightly larger (3-5 mm (0.12”-0.2”)) to see it in the preview, then reduce it back to 1 mm (0.04”).

This will prevent the green inside elements falling out of the sheet during cutting.

You could also assign the new “Smart Tags 50 mm (2”)” Action to the color red as well.

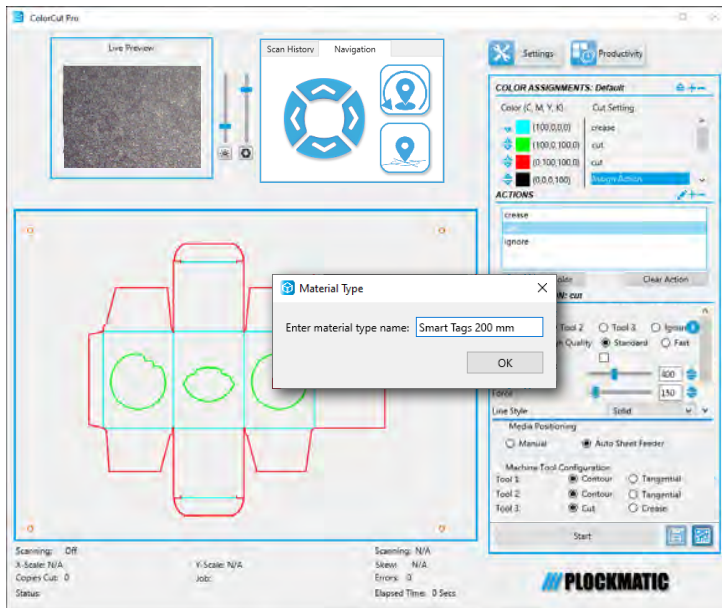


However, the perimeter cut line is usually a long cut line and a tag every 50 mm may create a lot of tags - slowing production and making the element difficult to easily pop out.

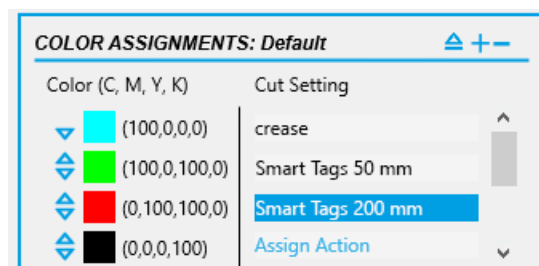
Therefore we recommend you use different colors in your design for larger and smaller elements when you design your jobs. This will then enable you to use a new with less frequent tags for longer cut lines. (Detailed following).

Creating Smart TAGs to hold elements in Using “Line Style”, continued

7. Repeat Step 2 to add another new action. In next example it is shown how add a “Smart Tag 200 mm (7.9”)” for longer lines.



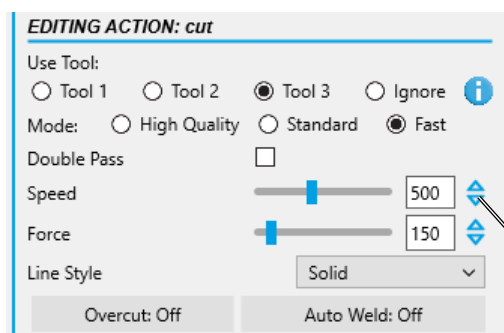
8. Use the [+] symbol under Actions to add a New Material Type and enter the name “Smart Tags 200 mm (7.9”)”. Select the “Smart Tags 200 mm (7.9”)” from the list once added and Edit the settings as detailed in steps 3 to 5 above. Set the Cut length to 200 mm (7.9”).
9. To apply for to the red line click next to the color red in Cut Setting section, then select the “Smart Tags 200 mm (7.9”)” Action and assign it to the color red.



The preview updates to reflect the new (Smart Tags 200 mm (7.9”) for the red line with “Smart Tags 50 mm (2”)” for the green line.

Speed of Cut or Creasing Tool

The parameter Speed [D] controls the speed of the carriage while cutting your design/project. The available range is 7 mm/s - 1200 mm/s.



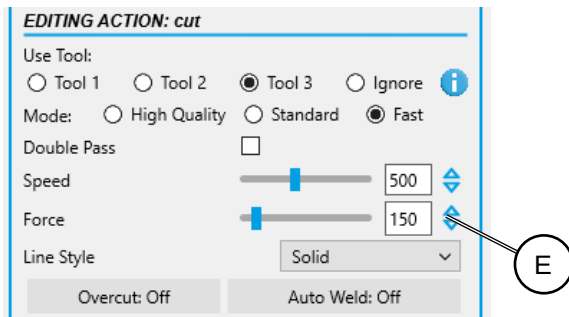
When cutting packaging projects with predominantly straight lines and sweeping curves, high speeds can be used (850 -1200 mm/s). Slower speeds are recommended for smaller, more delicate shapes.

When using the creasing tool, on some substrates a slower crease may yield superior results.

It is possible to create multiple actions with different speeds. You can then apply the different actions to various elements within your cutting design (the design will need to be created using different line colors to allow you to identify each element). This makes ColorCut Pro highly versatile as it enables you to assign multiple different speed profiles within one cut file using the different line colors.

Force of the Cut/Crease

The Force parameter [E] controls the pressure applied by the tool. It ranges from 0 to 2500 g (5.5 lb). The maximum cutting force is 1300 g (2.9 lb).



- Settings above 600 g (1.4 lb) may suggest the need for extending the blade more.
- Settings below 220 g (0.5 lb), except for cutting labels, may indicate too much blade exposure.

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 matt, leading to poor corner turns.

For creasing, a maximum force of up to 2500 g (5.5 lb) is often required. Users can select 'Double Pass' for enhanced creasing effects.

NOTE: On thinner medias the creasing tool can cut through the media if the force is too high. Start at a lower value and work your way up until you find the desired crease.

OverCut

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

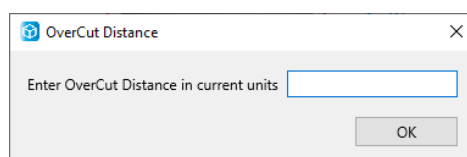
This way it makes sure that the design is completely cut through. Due to a variety of tolerances without the OverCut function, the cut line may not be completely closed causing unwanted Tags on die-cut items or difficulties when weeding label media.



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

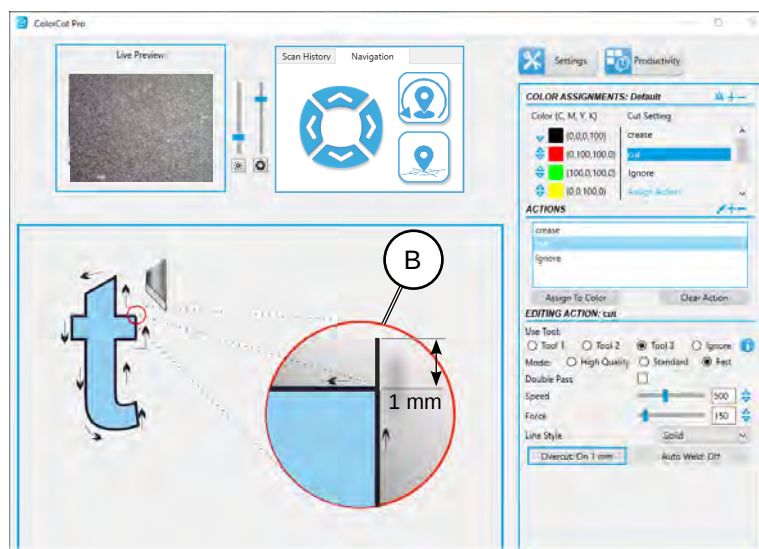
To Activate OverCut, click on the [OverCut: Off] button [A] in the "Editing Action" section.

A dialogue box will appear asking you what value you wish to set OverCut to.



Set the OverCut value to approximate width of the blade (for labels) or 1 mm (0.04") for card based projects, and click "OK".

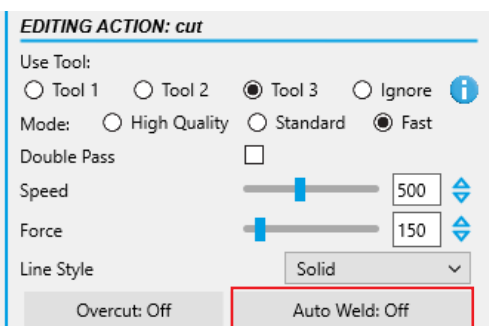
OverCut, continued



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 (0.08") or 3 mm (0.12").

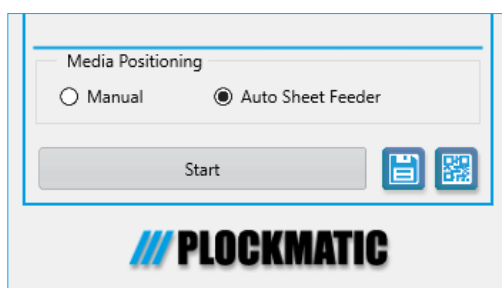
Auto Weld



The Auto Weld function serves as an indispensable tool for rectifying errors in artwork where lines are disjointed or disconnected.

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.

Media Positioning



The Media Positioning control is typically set to "AutoSheet Feeder". In this mode, each time you click [Start] or [Scan QR Code], the cutter will automatically load a sheet of media from the auto-sheet feeder using the settings you pre-set in the Productivity settings.

In most cases you will not need to alter this behavior.

When using colored material that may not be a standard size where you simply wish to cut shapes or lettering on it, you may wish to switch the cutter into the Manual mode.

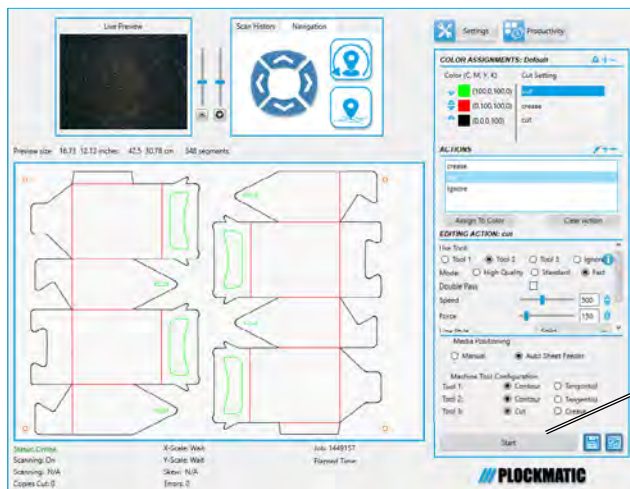
The "Manual" positioning mode allows users to place non-standard sizes of media manually on to the cutting bed. (Typically this may be used for cutting vinyl lettering, on sheets of colored vinyl).

To use the FB9550 in Manual media positioning mode:

1. Place a sheet on the cutting table.
2. Move the tool carriage to your desired starting position on the media (over the first PageMark).
3. Select "Manual" under media positioning and send your cut file for cutting. You can choose to cut your job with or without scanning the targets. For cutting without targets, See section "Cutting without using PageMarks".

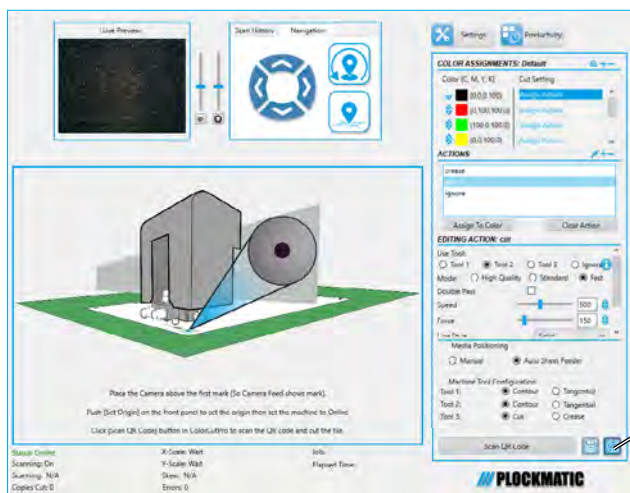
Start/Scan QR Code

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.

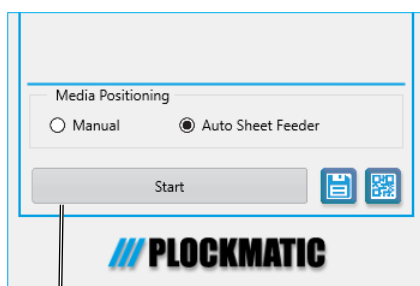
This is also known as Direct Cutting Mode.



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.

Switch Modes



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

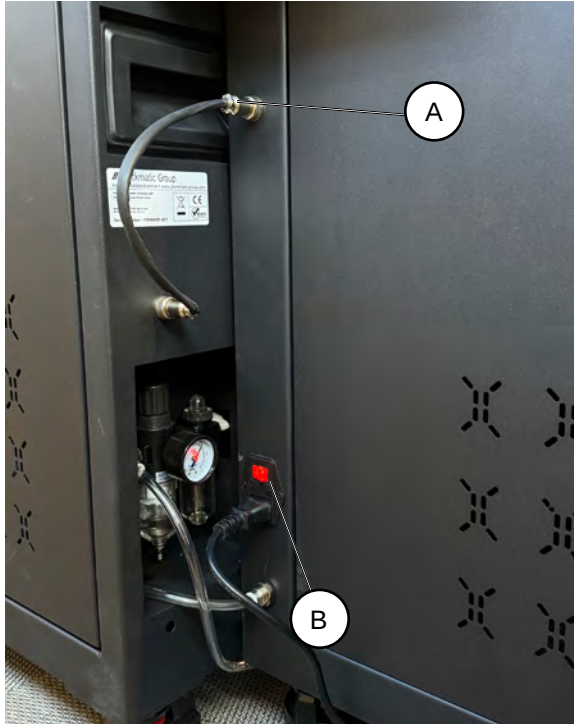
Clicking the icon when no job is shown in the preview window (when the ColorCut is in Job Server Mode), enables you to manually enter a QR code to pre-load the job.

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

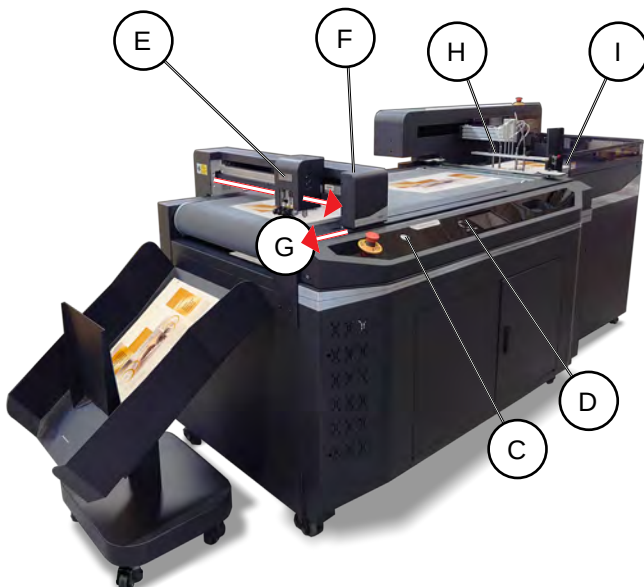
Clicking the icon when a Job is loaded in the Preview Window (the cutter is in Direct Cutting Mode) switches to Job Server Mode (ready to Scan a QR code).

1. Basics

Turning On / Off the Main Power



1. Connect the Umbilical communication cable [A] to the cutter and feeder.
2. Make sure that the FB9550 power cord is plugged into the wall outlet.
3. Set main power switch [B] to ON position.



4. Press the power button [C].
5. When the red power lamp [D] on the control panel lights up, the LCD display will illuminate and show a safety message asking you to press the [ENTER] key to continue.
6. The Tool Carriage [E] will move towards the operator side, and the beam [F] will move left towards the zero point [G]. Feeder arm [H] and Auto Sheet Feeder [I] will auto reset on startup.
7. These actions are part of the initialization process. Once the Tool Carriage reaches the front point and the beam moves to the zero point (ZERO Origin), the display will switch to the HOME screen, indicating that the cutter is ready for use. Make sure the cutter is set to ON-LINE before proceeding.

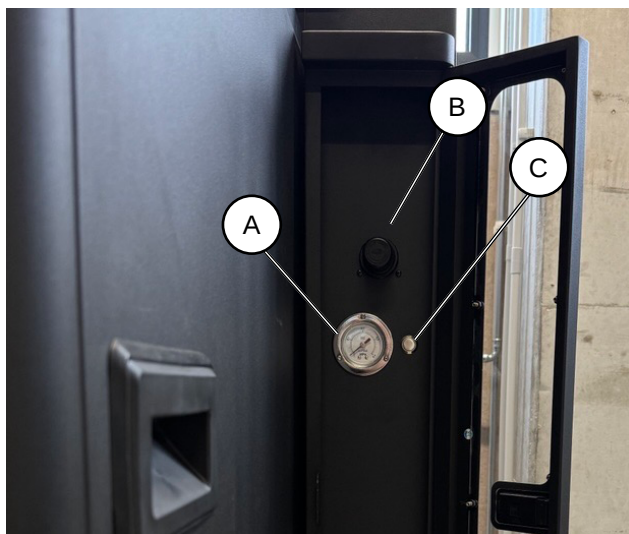
Auto Sheet Feeder Controls

1

The FB9550 Auto Sheet Feeder uses compressed air for the media pick up, sheet separation, air pulse hold down and for sheet placement. The controls to adjust these are found on the right side of the Auto Sheet Feeder, open the door to access the controls. The Pneumatic fingers which pick up the media and the pressure of the air blast used for sheet separation can be manually adjusted to improve feeding reliability for difficult media. There are two groups of controls - the upper group adjusts the vacuum for the media pick up, while the lower group of controls adjusts the air blast used by the air blade when separating the sheets.

Optimizing Media Pick up vacuum

The vacuum force is adjustable, this is to give the user the ability to handle a wide range of media. However



heavy stock, extremely glossy card, gloss laminated substrates or smooth synthetic media may require an increase in the vacuum as the media may be heavier or the smooth surface is more difficult to maintain grip as its lifted. In contrast, porous media or specialist media such as absorbent cards (used in drinks mats or air freshener applications), rice paper or icing paper material may require reduced vacuum otherwise the vacuum may pass through the top sheet and pick up additional lower sheets.

The Pressure gauge [A] has an indicator label to provide a guide for adjusting the pressure.

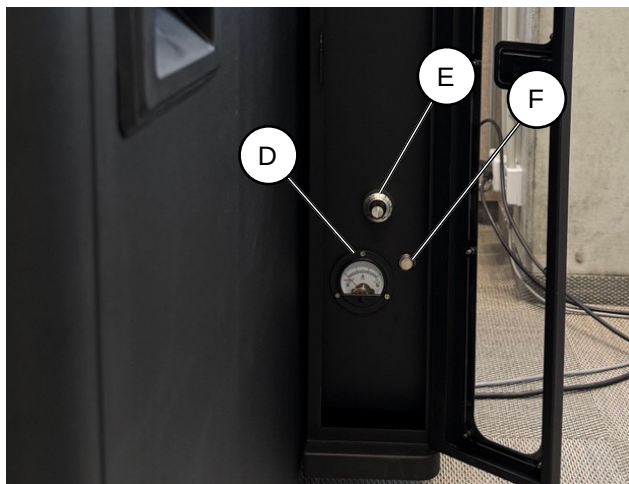
NOTE: The gauge [A] is active only during the media pick up sequence or when the test/check button [C] is pressed.

Press the Test button [C] to check the current setting. Then use the Adjustment knob [B] to increase or decrease the vacuum (pull the adjustment knob out slightly to unlock and then adjust accordingly).

Optimizing Sheet separation (Air-Blade pressure)

The controls allow you to adjust the amperage of the 2 separation fans to increase or decrease the airflow for sheet separation.

You may need to decrease the Air blade for thinner media. Laminated sheets and synthetic materials may generate significant static, needing higher airflow for effective separation during the pickup process.



The gauge [D] has an indicator label to provide a guide for adjusting the amperage.

NOTE: The gauge [D] is active only during the media pick up sequence or when the test/check button [F] is held down.

Hold down the Test button [F] to check the current setting. Then use the Adjustment knob [E] to increase or decrease the amperage.

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 (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.

1

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 FB9550 scans the QR Code.

Using ColorCut Pro - Production Studio (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.

2. 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.

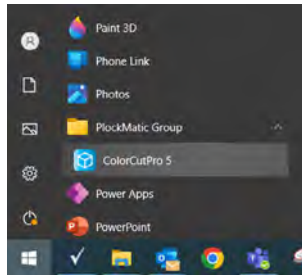
NOTE: When working in ColorCut Pro (Direct) mode, as ColorCut Pro is launched directly from the graphic application it requires either Adobe Illustrator or CorelDRAW installed on the computer that will do the cutting. In addition the operator will need to locate the file to cut and to be able to use 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.

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

Job Server Mode

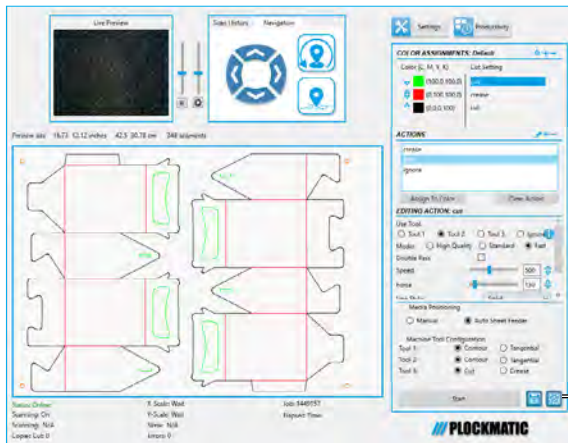
There are 2 ways to launch the ColorCut Pro (Job Server) version of ColorCut Pro.

1



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.



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.

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.

Direct Mode

Selecting the Outline Layer

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.

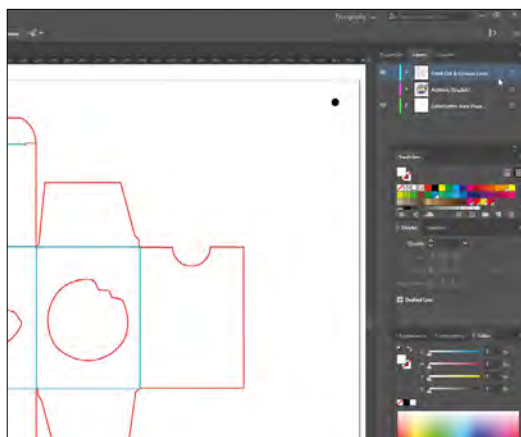
1



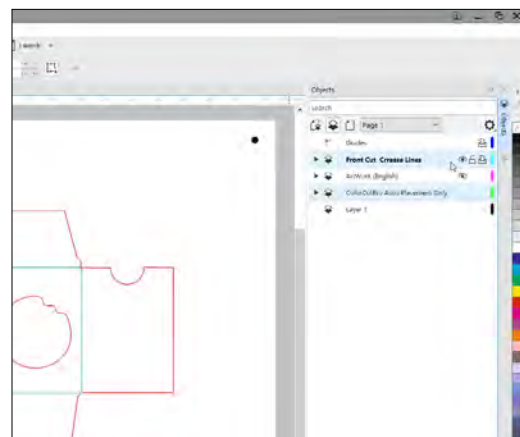
NOTE: Launching ColorCut Pro with this layer selected will generate an error as ColorCut Pro does not know how to handle graphics to a cutter.

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.

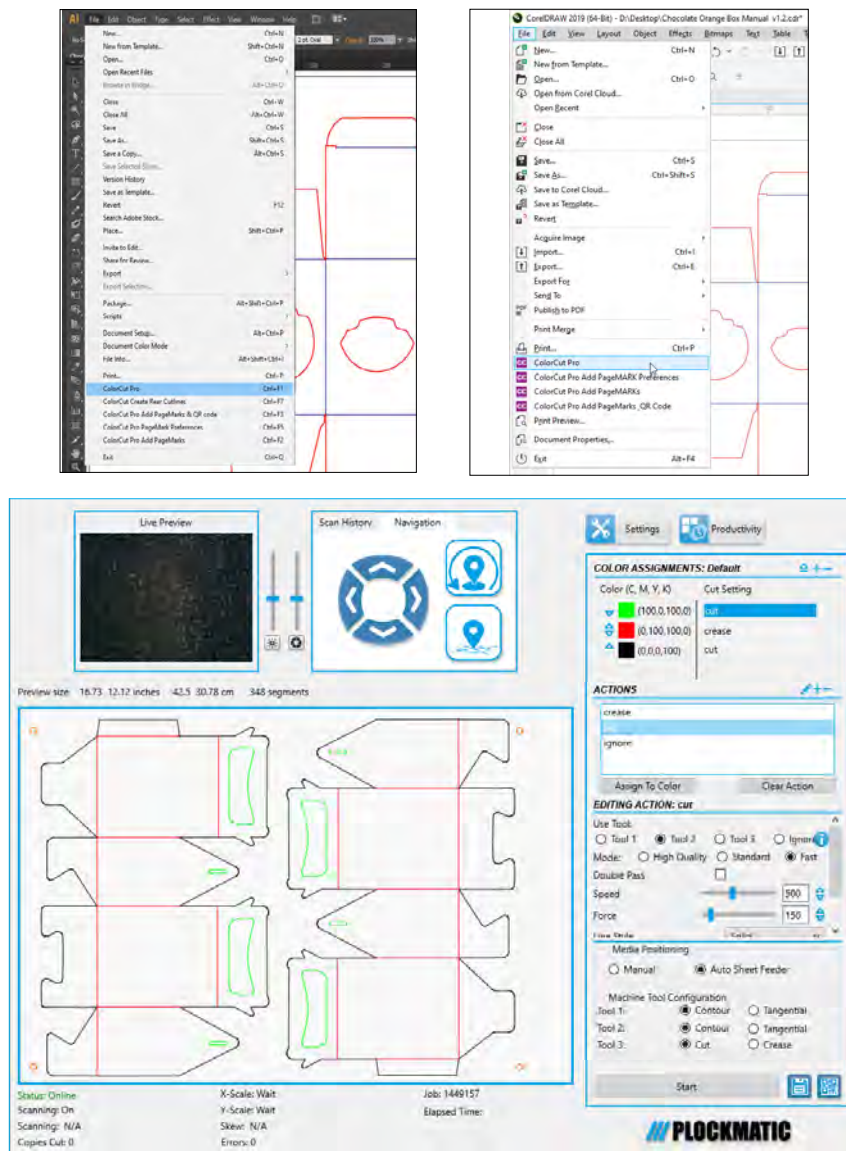
Continued on next page...

Direct Mode, continued

Launching ColorCut Pro (Direct Mode)

After selecting the layer you wish to send to the ColorCut FB9550 cutter, select ColorCut Pro from the File menu. Both Adobe Illustrator and CorelDRAW can be seen below with the Cutline 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 customized by action.

To achieve the best results from your machine's tools, further guidance on cutting parameters is provided in the following pages.

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. For detailed description See section "Sensor Offset & the Auto Find feature".

Cutter Blades (An overview of Blade types)

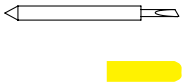
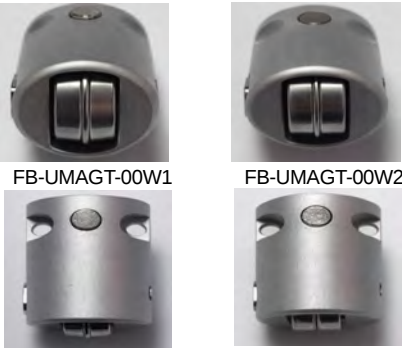
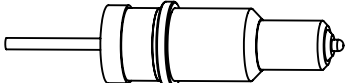
Your cutter comes with a selection of blades. The blades are packed in a foam packing material. In addition to this there is a colored rubber protective cap on the contour blades. The yellow caps indicate 30°, red caps indicate a 45° blade while the blue caps are 60° blades.

Caution:

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

1

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

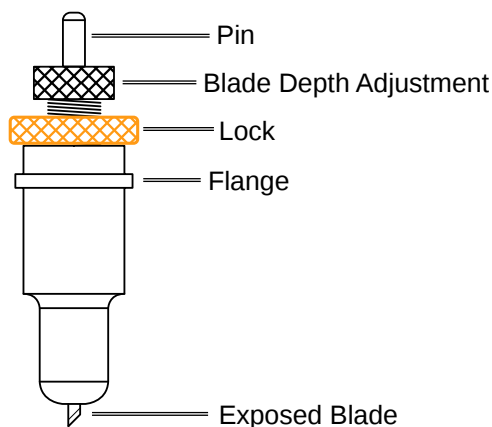
Name	Image	Angle	Blade Diameter	Features and Application
Contour Blade		30°	1 mm	For Film, very soft material, thin label material.
		45°	1 mm	Typically for labels, stickers, and very thin paper/ card.
		60°	1 mm	For hard media. The sharply angled tip provides a sharper point edge. Suitable for penetrating harder media types.
Contour Circlip Knife		45°	1.5 mm	Most packing board up to 450 micron. Circlip provides better pressure and improves blade direction changes on dense media. Suitable for cutting media from 0.25 to 0.45 mm thick.
Tangential Blade		45°	5.5 mm	Used for fluted boards ranging from N-Flute up to E-Flute. Maximum thickness of 3 mm. NOTE: Remember to run the tangential calibration once a new blade has been fitted.
Tangential Creasing Wheel				FB-UMAGT-00W1 - Tangential Creasing Wheel is designed for E/F/N Fluted Board up to 3mm thick. FB-UMAGT-00W2 - Tangential Creasing Wheel is designed for FBB /SBS/ SBB packaging Board and N fluted board. There are also these alternative wheels available. FB-UMAGT-08A - Narrow creasing wheel 0.28mm. FB-UMAGT-08B - Medium creasing wheel 0.55mm. FB-UMAGT-08C - Wide creasing wheel 0.95mm.
Tangential Perforating Wheel				Optional extra not included with cutter: FB-UMAGT-10A - Perforating Wheel - 1.68mm pitch Perforating wheel.
Contour Creasing				Bearing-based creasing ball. Suitable for media ≤350 g Cardboard, corrugated paper. FBT0007 - Passive Drag Creasing Tool - Wide. FBT0008 - Passive Drag Creasing Tool - Narrow.
Pen Holder				Used at setup, to calibrate the offset between the Optical Registration Mark sensor and the center of Tool2.

The Blade Holder

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Warning:

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



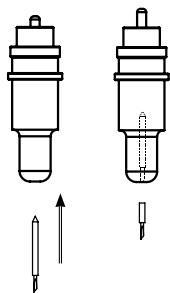
Replacing the cutting blade

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.

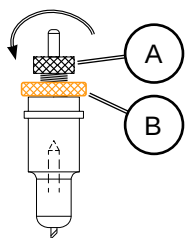
For Standard blades

(Without the circlip)

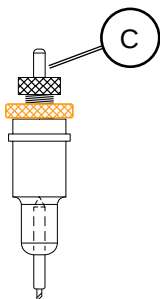
1. Push the blade into the bottom of the blade holder.



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].

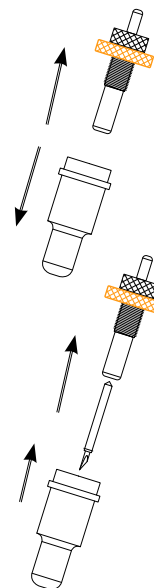


3. Press the push-pin [C] to remove the blade from the blade holder when replacing blade.

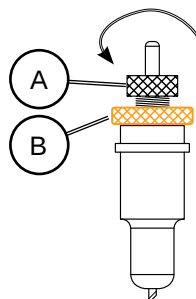


For CirClip Blades

1. Unscrew the lower (cover) part of the blade holder.



2. Insert the Circlip blade into the inner blade holder. Then replace the outer cover of the blade holder.



3. 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].

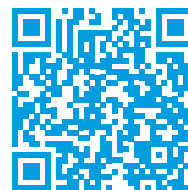
4. Replace the blade by following the steps above

NOTE: You cannot push the pin as you do with standard blades as the circlip prevents the blade being removed.

Blade Adjustment

Blade Depth is a major factor in how well the machine cuts and along with the downforce / pressure, determines how cleanly the material cuts and how easy or difficult it will be to 'weed' the material. Too much blade depth is as bad as not enough.

Scan the QR code to see the tutorial for Blade Discipline.



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NOTE: If you have enough blade sticking out to clearly see and feel the tip, it's probably too far out. Most new FB9550 cutter owners improperly install the blade with too much of it protruding from the holder. Set it so that you can barely see the tip.

Then take the blade holder and manually drag it across a sheet of card or label that you wish to cut, making a box pattern or square.

Die Cut/Through Cut:

1. Lay your desired media on a hard work surface with a sheet of media underneath, (not on a nice table in case you cut through paper underneath).
2. With the blade holder in your hand, press down and drag in a straight line. Press down using a moderate amount of force.
3. You will not be able to cut through the second sheet of media when the blade depth is set correctly. If it cuts through the second sheet, then the depth is too much, and you need to retract the blade. The ideal depth is to cut through the top sheet, and slightly graze the bottom sheet.

Kiss Cut/Half Cut:

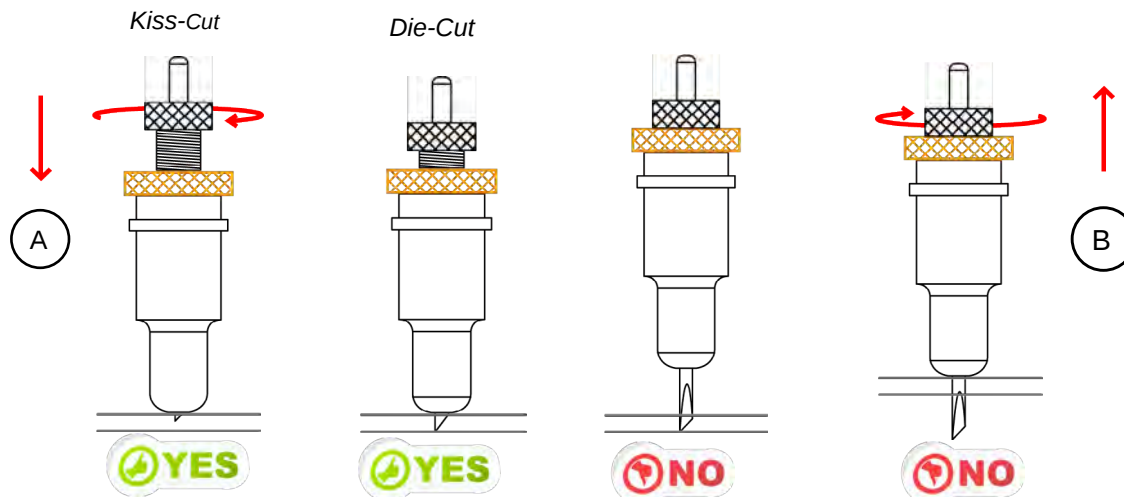
1. Lay your desired material on a hard work surface (not on a nice table in case you cut through the backing).
2. With the blade holder in your hand, press down and drag in a straight line.
3. Press down using a moderate amount of force.
4. Adjust the blade depth so that you are only cutting through 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.



For more detailed instructions on adjusting the force settings See section "Force of the Cut/Crease".

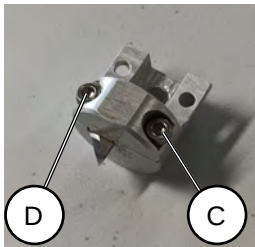
Replacing Active Tangential Tools

Replacing Active Tangential Cutting Tool

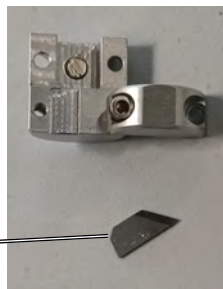
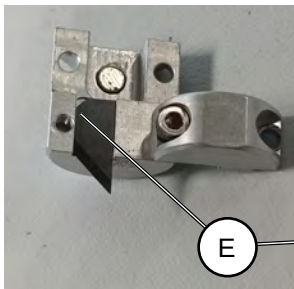
1



1. Turn off the cutter and disconnect the power cord.
2. Turn the Tangential cutting tool [B] to gain access to screws [A] (2x).
3. Loosen screws [A] (2x)
4. Remove the cutting tool [B].



5. Loosen screw [C].
6. Remove screw [D].
7. Rotate the bracket to gain access to the blade.



8. Dispose of the old blade.
9. Retrieve new blade.
10. Insert new blade into bracket. Ensure the angled side fits into the groove marked [E].



11. Make sure the blades angled side fits fully into the groove.
12. Rotate the bracket back into place and reattach screw [D]. Tighten screws [D] and [C] simultaneously to secure the bracket remains straight and even pressure is applied to the blade.



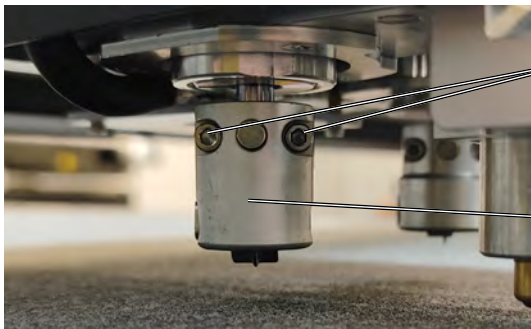
13. Place the blade holder on the tool shaft, the magnets will help it to align correctly.



14. Tighten screws [A] (2x).
15. Calibrate the tool (see section "Tangential Tool Calibration").

Replacing Active Tangential Creasing Tool

1



1. Turn off the cutter and disconnect the power cord.
2. Turn the tangential creasing tool [B] to gain access to screws [A] (2x).
3. Loosen screws [A] (2x).
4. Remove the tangential creasing wheel holder [B].



5. Retrieve new Tangential Wheel holder.



6. Place the wheel holder [B] on the tool shaft [C], the magnetic connection will assist with this.



7. While holding the crease tool, tighten screws [A].
8. Calibrate the tool (See section "Tangential Tool Calibration").

Test Cut

The Test Cut function allows you to quickly check the tool depth / force settings on ColorCut FB9550 cutter. Checking and adjusting the settings for your specific media prior to production saves time and eliminates waste.

1

Performing a Test Cut to check depth/force:



1. Place a blank sheet of paper centered on the flatbed.
2. Turn on the vacuum fan.
3. Check the carriage and ensure the correct tool to be tested is installed. If a tangential tool is being tested, ensure that a drag tool is not installed in the same carrier.
4. From the [MOVE] screen, move the tool carriage over a clear area of media with approximately 25mm (1") of space available in either direction around the test tools position.
5. If there is not enough clear space then use the hard movement buttons to move the carriage:
 - Press the Up/Down arrow buttons on the key pad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the key pad to move the beam across the media in X direction.
6. Go back to the [HOME] screen.
7. Tap the tool head to be tested, it will get highlighted with an arrow.
8. Tap and hold the tool symbol and select the type of tool being tested.
9. Use the hard directional buttons to set the force and speed to be tested.
10. Press the [TEST CUT] button. The FB9550 will cut or crease a square, depending on the tool selected.

11. Check the cut quality/depth and pressure. If you are cutting through the media (Die-Cutting), remember the least amount of blade possible will provide the best result.

NOTE: The minimum level of exposed blade will provide the best quality on sharp inverted turns and extend your cutting blade life. Too much blade, will result in the blade cutting through media and cutting into the cutting mat. This will reduce blade life, create poor quality cutting on sharp inverted turns and damage the cutting mat reducing the cutting mat life.

12. Check the test cut on sheet. If the cut depth is not sufficient or it is too excessive, select the appropriate tool (e.g. Tool2) and adjust the force using the Left and Right arrow keys on the panel until the material cuts correctly.
13. Use the following guidelines to adjust blade exposure based on the cut results:

NOTE: Cutting pressures higher than 450 g (0.99 lb) may be used for metallic materials, PET and vinyl's.

14. 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.

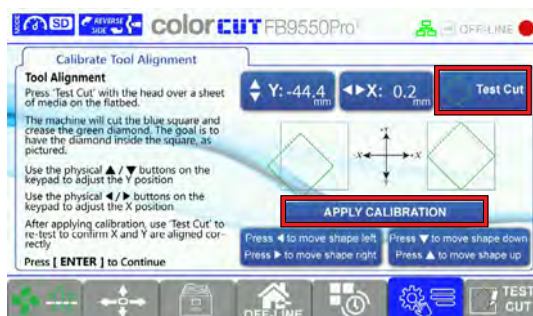
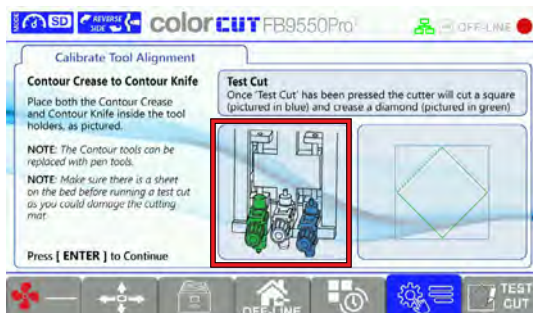
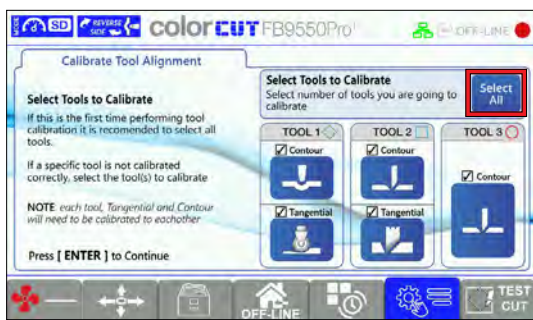
Result	Action
Cuts through card with pressure < 220 g (0.49 lb)	Too much blade exposed. Remove blade holder, reduce blade exposure, and test again.
Cannot cut through card with pressure > 450 g (0.99 lb)	Not enough blade exposed. Increase blade exposure and test again.

Calibrate Tool Alignment

Calibrate All Tools - First Calibration

NOTE: Calibrating all tools is only recommended on the first use of the machine. Afterwards, only the tools being used need to be calibrated to each other. Outlined further in this manual.

1



1. Navigate to Calibrate Tool Alignment tab
2. Place a blank sheet of paper on the flatbed.
3. Turn on the vacuum fan.
4. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
5. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
6. If this is your first calibration, tap the "Select All" button to highlight all the available tools. If this is not your first calibration you can manually choose which tools to calibrate.
7. Press [ENTER] to continue.
8. The Contour Crease (green) to Contour Knife (blue) screen will show.
9. Ensure that the Contour (Drag) tools are correctly inserted in the TOOL1 and TOOL2 tool heads.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to continue.

Calibrate All Tools - First Calibration, continued

1



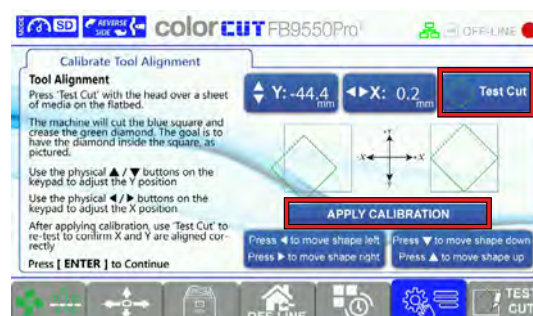
19. The Contour Crease (green) to Tangential Knife (blue) screen will show.
20. Ensure the Contour tool in the TOOL2 holder is removed before proceeding.
21. Press [ENTER] to continue.



22. The Calibrate Tool Alignment screen will show.
23. Press [Test Cut].
24. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
25. Compare the results to the image displayed on the screen.
26. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
27. Press [APPLY CALIBRATION].
28. Repeat steps 23 - 27 until the shapes are aligned.
29. Press [ENTER] to continue.



30. The Tangential Crease (green) to Contour Knife (blue) screen will show.
31. Ensure the Contour tool in TOOL1 is removed and the Contour tool for TOOL2 is inserted correctly.
32. Press [ENTER] to continue.



33. The Calibrate Tool Alignment screen will show.
34. Press [Test Cut].
35. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
36. Compare the results to the image displayed on the screen.
37. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
38. Press [APPLY CALIBRATION].
39. Repeat steps 34 - 38 until the shapes are aligned.
40. Press [ENTER] to continue.

Calibrate All Tools - First Calibration, continued



41. The Contour Knife (blue) to Contour Knife (red) screen will show.
42. Ensure the Contour tools for TOOL2 and TOOL3 are inserted into the holders correctly.
43. Press [ENTER] to continue.



44. The Calibrate Tool Alignment screen will show.
45. Press [Test Cut].
46. TOOL3 will cut a circle shape followed by TOOL2 cutting a square around it.
47. Compare the results to the image displayed on the screen.
48. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the circle to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the circle in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the circle in the X direction.
49. Press [APPLY CALIBRATION].
50. Repeat steps 45 - 49 until the shapes are aligned.
51. Press [ENTER] to continue.



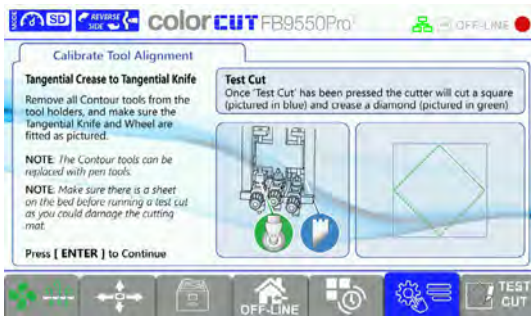
52. The Contour Knife (red) to Tangential Knife (blue) screen will show.
53. Ensure the Contour tool for TOOL3 is inserted correctly and the Contour Tool for TOOL2 is removed.
54. Press [ENTER] to continue.



55. The Calibrate Tool Alignment screen will show.
56. Press [Test Cut].
57. TOOL3 will cut a circle shape followed by TOOL2 cutting a square around it.
58. Compare the results to the image displayed on the screen.
59. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the circle to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the circle in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the circle in the X direction.
60. Press [APPLY CALIBRATION].
61. Repeat steps 56 - 60 until the shapes are aligned.
62. Press [ENTER] to continue.

Calibrate All Tools - First Calibration, continued

1



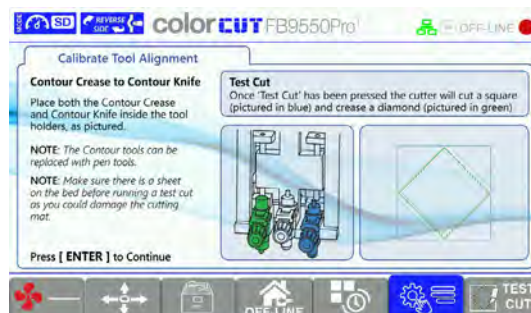
63. The Tangential Crease (green) to Tangential Knife (blue) screen will show.
64. Ensure the Contour tools for TOOL1 and TOOL2 are removed.
65. Press [ENTER] to continue.



66. The Calibrate Tool Alignment screen will show.
67. Press [Test Cut].
68. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
69. Compare the results to the image displayed on the screen.
70. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
71. Press [APPLY CALIBRATION].
72. Repeat steps 67 - 71 until the shapes are aligned.
73. Press [ENTER] to finish.

Contour Crease to Contour Crease - TOOL1 to TOOL2

1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL1 and TOOL2 Contour Tools.
7. Press [ENTER] to continue.
8. The Contour Crease to Contour Knife information screen, will show TOOL1 in green and TOOL2 in blue.
9. Ensure that the Contour (Drag) tools are correctly inserted in the TOOL1 and TOOL2 tool heads.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Contour Crease to Tangential Knife - TOOL1 to TOOL2

1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL1 Contour and TOOL2 Tangential Tools.
7. Press [ENTER] to continue.
8. The Contour Crease to Tangential Knife information screen will show TOOL1 in green and TOOL2 in blue.
9. Ensure the Contour Tool is inserted correctly in TOOL1 and removed from TOOL2.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Tangential Crease to Contour Knife - TOOL1 to TOOL2

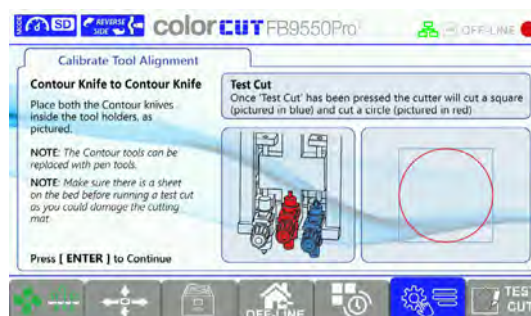
1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL1 Tangential and TOOL2 Contour Tools.
7. Press [ENTER] to continue.
8. The Tangential Crease to Contour Knife information screen will show TOOL1 in green and TOOL2 in blue.
9. Ensure the Contour tool is removed from TOOL1 and the Contour Knife tool is correctly inserted into TOOL2.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL1 will crease a diamond shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Contour Knife to Contour Knife - TOOL2 to TOOL3

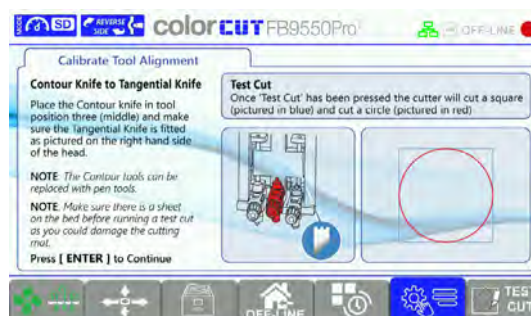
1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL2 Contour and TOOL3 Tools.
7. Press [ENTER] to continue.
8. The Contour Knife to Contour Knife information screen will show TOOL2 in blue and TOOL3 in red.
9. Ensure the Contour Tools are correctly inserted into TOOL2 and TOOL3 positions.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL3 will cut a circle shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the circle in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the circle in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Tangential Knife to Contour Knife - TOOL2 to TOOL3

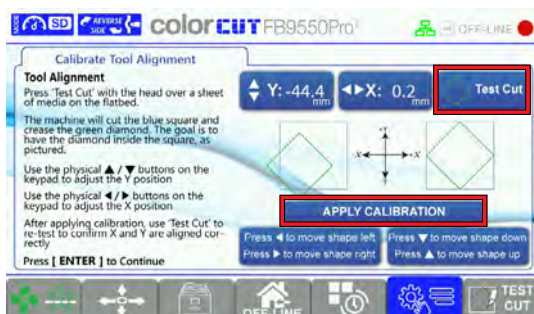
1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL2 Tangential and TOOL3 Tools.
7. Press [ENTER] to continue.
8. The Contour Crease to Contour Crease information screen will show TOOL2 in blue and TOOL3 in red.
9. Ensure the Contour Tool is correctly inserted in TOOL3 and removed from TOOL2.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL3 will cut a circle shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the circle in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the circle in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Tangential Crease to Tangential Knife - TOOL1 to TOOL2

1



1. Place a blank sheet of paper on the flatbed.
2. Turn on the vacuum fan.
3. Make sure the carriage is positioned over a clear area of the media with approximately 25mm of space (1") available around the cutting head.
4. If there is not enough clear space then, press the [MOVE] tab button on the display:
 - Press the Up/Down arrow buttons on the keypad to move tools carriage across the media in Y direction.
 - Press the Left/Right arrow buttons on the keypad to move tools carriage across the media in X direction.
5. Navigate to Calibrate Tool Alignment tab.
6. Select the TOOL1 and TOOL 2 Tangential tools.
7. Press [ENTER] to continue.
8. The Contour Crease to Contour Crease information screen will show TOOL1 in green and TOOL2 in blue.
9. Ensure the Contour Tools are removed from TOOL1 and TOOL2.
10. Press [ENTER] to continue.
11. The Calibrate Tool Alignment screen will show.
12. Press [Test Cut].
13. TOOL3 will cut a circle shape followed by TOOL2 cutting a square around it.
14. Compare the results to the image displayed on the screen.
15. If the shapes are not aligned then you can adjust using the directional buttons, you are moving the diamond to be aligned inside the square.
 - Press the Up/Down arrow buttons on the keypad to move the diamond in the Y direction.
 - Press the Left/Right arrow buttons on the keypad to move the diamond in the X direction.
16. Press [APPLY CALIBRATION].
17. Repeat steps 12 - 16 until the shapes are aligned.
18. Press [ENTER] to finish.

Tangential Tool Calibration

Tangential Tool Calibration allows you to verify the rotation of Tangential tools and calibrate the tool after replacement to compensate for alignment issues.

NOTE: Each run of the Tangential Tool Calibration uses an area of 200 x 140 mm (7.8 x 5.5"), ensure there is enough space on the media to carry out the calibration.

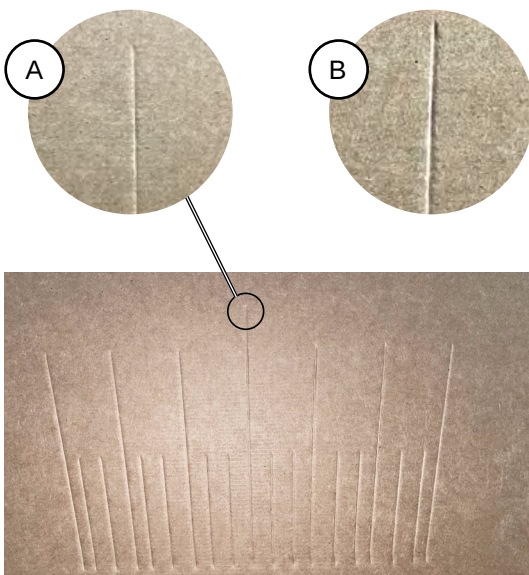
1



1. Place a blank sheet of media on the cutting table.
2. Turn on the vacuum table.
3. Go to the [MOVE] screen.
4. Move the carriage over media.
5. Press "Set Origin" on the move screen.



6. Enter the settings menu and navigate to Tangential Tool Calibration.
7. Tap the arrows by the tool to select which tool to calibrate.
8. Press the [RUN] button.
The cutter will crease or cut lines depending on the selected tool.



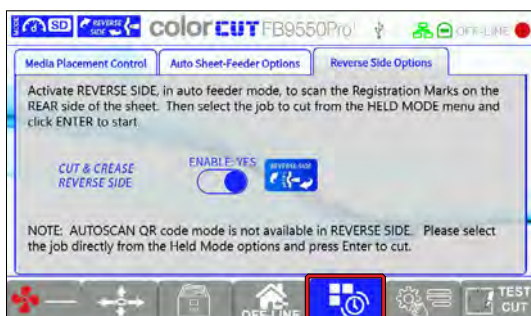
9. Look at the tip of each line [A]. The center line should be an even point, not offset to either side.
10. If the middle line appears without any tearing [A], then the cutting blade or creasing wheel is calibrated correctly.
11. If tearing is visible on the middle line [B], search for the line with the least deformities among all drawn lines.
12. Adjust the value using the keypad's left and right arrows so it is according to the line with least deformities.
13. Press [Apply Calibration] and rerun the test by pressing [RUN].
14. Perform steps 8 to 13 until satisfied with the performance.

Reverse Side Mark Calibration

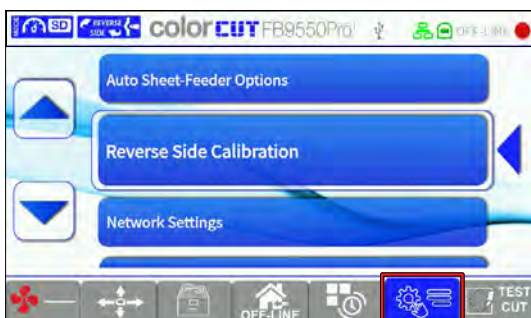
The Reverse Side Mark System enables optimal quality for certain jobs by cutting and creasing from the back of the sheet without having PageMarks or QR codes on both sides. Calibration should be completed prior to setting up new media.

1

NOTE: On the FB9550 control panel check that the Reverse Side Scanning feature is enabled. Otherwise, press [Productivity] button, navigate to Reverse Side Scan feature and enable it. If Reverse Side Scanning feature is active, an icon indication will be visible on the LCD Panel.



1. Click on the feed settings on the bottom bar, then select "Reverse Side Options". Enable "Cut & Crease Reverse Side".



2. Open your settings tab and scroll down to "Reverse Side Calibration". Press [ENTER].



3. Search the LAN, USB, or Internal folders for your .CCH file. The file must have PageMark margins of 10 mm or below for reverse side cutting and creasing.

Minimum PageMark margins for reverse side cutting and creasing is 8mm, with a recommended 10mm on the leading edge.

Select your job and press [ENTER]. This will start the calibration process.

Reverse Side Mark Calibration, continued

4. Once the sheet has been fed and the clamps are holding the sheet down, you can calibrate the feed arm and camera positioning. Start by using the left and right physical buttons to adjust the feed advance of the arm.



You want the front edge of the sheet to line up with the highlighted green bar.

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Once satisfied with the 1st Mark calibration, tap on the green bar under the FRONT 2nd Mark. This will load the camera preview into the window.

Repeat the process of using the left and right physical buttons to adjust the feed advance of the arm.

The goal is to have the front edge of the sheet in the green highlighted area in both camera previews. You can tap each camera preview to switch between the two previews.

NOTE: To preview the FRONT or BACK 2nd Marks, double click the 2nd Mark camera preview window [A]. Ensure that both the corner and the PageMark are contained within the green square.

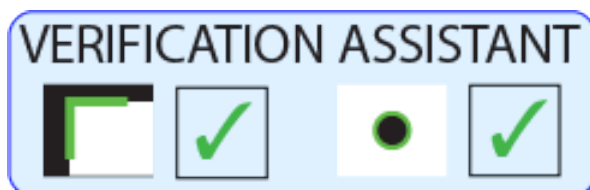
5. Now use the up and down arrows on the physical keypad to adjust the position of the cameras. The goal is to have both the PageMark and the front corner of the sheet visible within the camera preview. Repeat the process with both camera previews.

NOTE: Moving the calibration on Camera 1 will also change the position of Camera 2 as both cameras are driven by a single belt.

6. Once happy with the positions of the camera, click on the magnifying glass icon to start scanning the PageMarks and the corners of the sheet. If the positioning of the media is correct, the crosses in the Verification Assistant will switch to ticks as pictures below:



Will change to



Reverse Side Mark Calibration, continued

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7. Once you have ticks in all four boxes of the Verification Assistant for both camera previews. You will be able to press [ENTER], which will progress to the rear PageMark Calibration process.



8. Repeat Steps 4 to 6 to calibrate the Rear cameras.
9. Once you press [ENTER] this will feed the sheet forward onto the bed. Rear calibration is complete.

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.

These are:

Knife Offset: A range of blades fit FB9550 cutter and different blades may alter the way corners and shapes are cut. It is important that each time the blade is changed you set the correct Blade offset for the new blade fitted. This is because different sized blades turn on a different axis. Further information on Knife Offset can be found further on in this section of the manual. Nominally this value should be 0.25 for standard (Label) blades or 0.75 for Circlip (Card-die cut) blades.

Scan Targets: This tells the ColorCut Pro software that it should look for the registration PageMarks and adjust the position and compensate the cutting lines for scale and skew errors on the printed sheet. This provides very accurate cutting in conjunction with images or artwork on the sheet. Default setting: Yes

NOTE: 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 such as hearts from red card on Valentines Day, or Face Shields/Visors from clear polyester material.

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 the ColorCut Pro application's appearance and screens to match your cutter model. Ensure this is set to the appropriate model for your cutter.

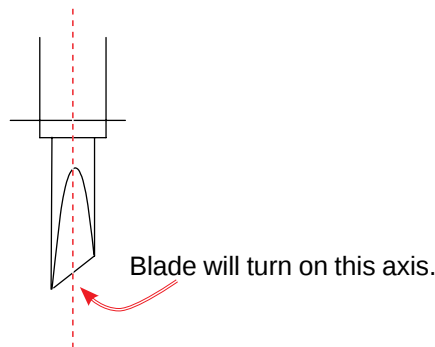
Output Device: This shows where your Cut file will be sent to. When the FB9550 cutter is detected on the USB port this should show USB Device. If it shows File Output then the Cutter can not be seen, check your connection and that the cutter is ON-LINE and ready.

Vision Sensor Offset: The Cutter is fitted with a Vision 3 registration sensor to detect PageMarks but this is in a different position to the center 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 set it. It is important to have these values set for FB9550 cutter otherwise you will not cut accurately. It is also detailed in the following pages for your reference.

Blade Adjustment

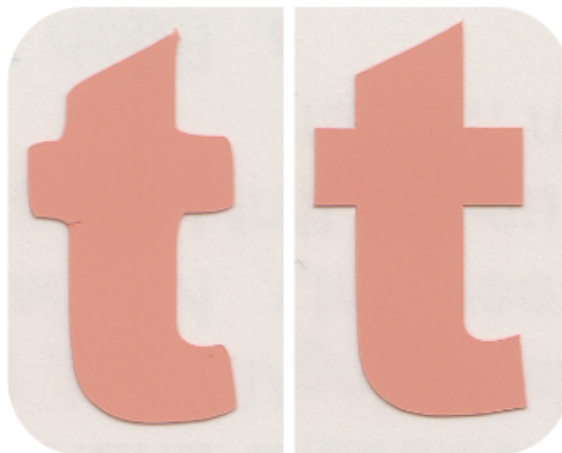
The ColorCut series of cutters use a contour-cutting blade (sometimes referred to as a 'drag knife') to accurately cut shapes. The blade revolves/rotates around its center as the carriage moves following the cutting path and as the Tool Carriage changes direction.

1



When the blade reaches a corner its axial center (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.



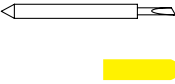
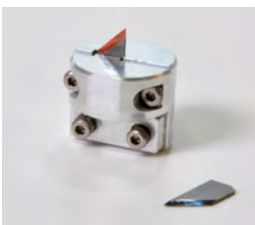
Knife Offset compensation applied.

ColorCut Digital cut engines have a built in routine to manoeuvre the blade in a way that compensates for this, it is known as Knife Offset.

Setting this correctly and checking it each time you change blades is important because supplies a range of blades to enable the cutting of different media and various thickness's. Some blades have a thicker shaft than others. This means the distance from the blade's center to the cutting point (the Knife Offset) will be different depending upon the blade. 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.

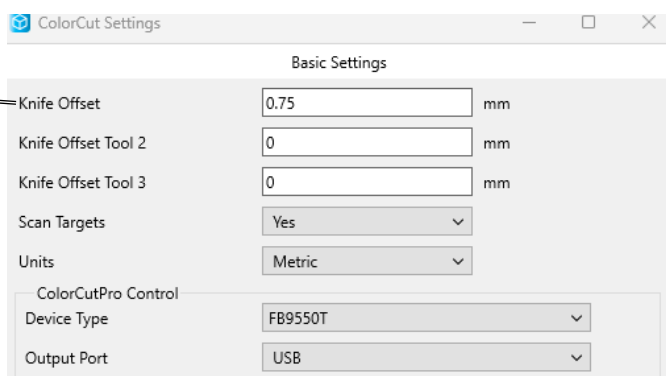
Choosing the Correct Blade for the Job

Each packet of Blades shows the Knife Offset on the front of the packet. Nominally the standard Yellow, Red and Blue blades that are 1 mm (0.04"), use a 0.25 mm (0.01") Knife Offset, while the 1.5 mm (0.06") larger Circlip blades use a 0.75 mm (0.03") Knife Offset.

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, and very thin paper/card.
		60°	1 mm	0.25 mm	For hard media. The sharply angled tip provides a sharper point edge. Suitable for penetrating harder media types.
Circlip Knife		45°	1.5 mm	0.65 - 0.75 mm	Most packing board up to 400 micron. Circlip provides better pressure and improves blade direction changes on dense media. Suitable for cutting media from 0.25 to 0.4 mm thick
Tangential Blade			5.5 mm	N/A	Used for fluted boards ranging from N-Flute up to E-Flute. Maximum thickness of 3 mm NOTE: Remember to run the tangential calibration once a new blade has been fitted. You do not need to adjust the knife offset for the tangential blade, if the tangential tool is selected it will automatically adjust the knife offset (this will not be a visible change in your settings tab)

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



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

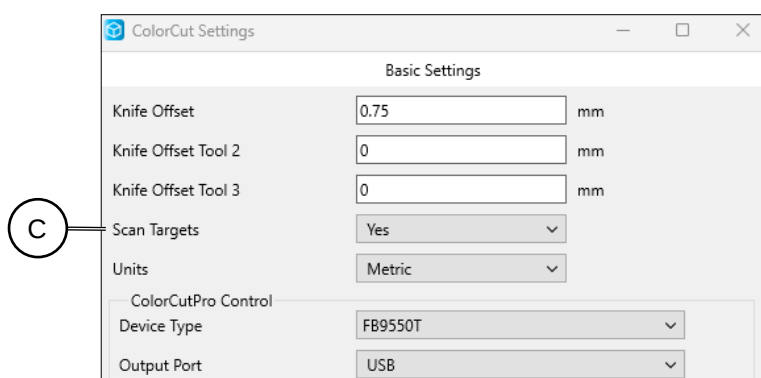
When printing sheets, the image may not always start in the same position on each sheet. Some printers may also scale or distort the image. Additionally, if you do not place your sheets perfectly square on the cutting table, accuracy issues can occur.

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If the image starts in different positions on various sheets or is distorted by printer, the cutter may not cut according to the printed design.

To fix these issues and help position sheets quickly on the cutting bed, the ColorCut Pro software can read PageMarks added to printed sheet. This allows it to precisely locate the starting point of your artwork. The software uses the positioning data from the PageMarks to correct any scaling or skewing of up to 3 mm (0.12") from printer, or up to 5 mm (0.2") rotation from sheet placement. ColorCut Pro then automatically adjusts the cut lines to compensate, ensuring precise and accurate cutting for all jobs.

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



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 the origin is set manually using the cutter control panel and the 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).

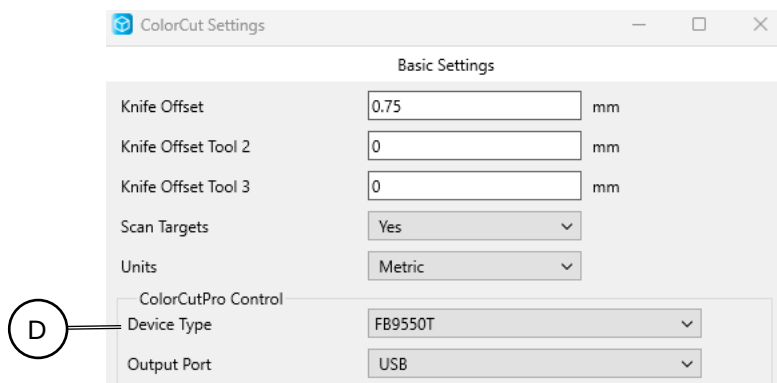
NOTE: Positional accuracy cannot be assured if you set the cutter to not scan for PageMarks.

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

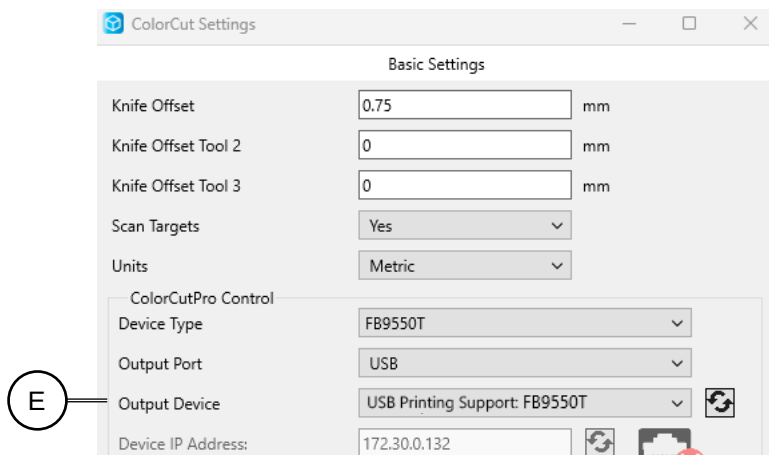
This setting shows the current output type of Cutter connected. The main screen and controls for ColorCut Pro will change based upon the Device Type [D] selected and not all features will be available as detailed in this manual unless you have selected the cutter type to match your model.

For the FB9550 Y-Axis sheet cutter with an auto-feeder, set the Device Type to 'FB9550T'.



Output Device

This setting shows the current Output Device [E] connected. When the ColorCut FB9550 is connected this should read 'USB Printing Support: x', where 'x' is your cutter type, or 'Ethernet Direct connect' (If it is ON-LINE).



If the ColorCut Pro software cannot sense the FB9550 cutter on the connection of your computer, then this will show: "File Output".

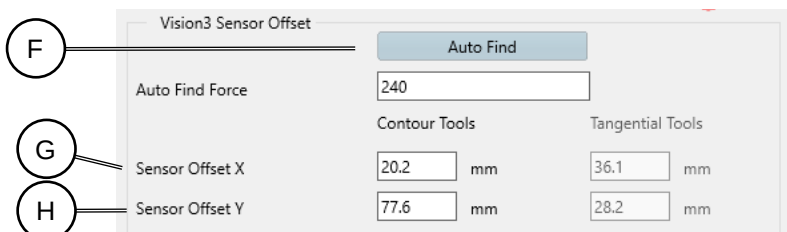
In such circumstances, check your connection to your computer and power cycle FB9550 cutter. (Ensure it is off for 45 seconds to enable the cache to flush).

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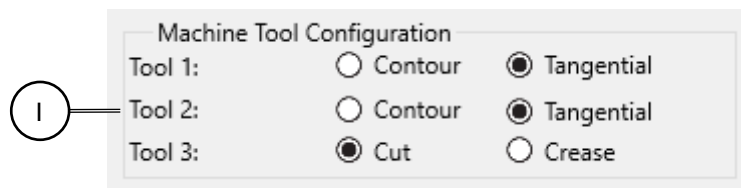
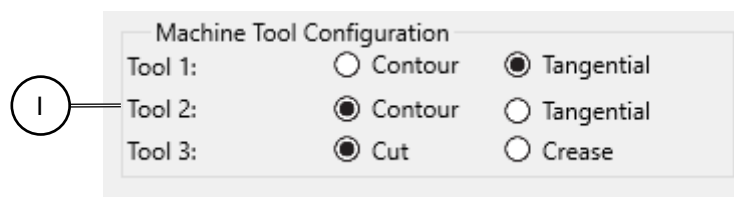
Sensor Offset & the Auto Find feature

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.

NOTE: If you change the PC that controls the Cutter, this calibration needs to be re-done.



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



- The editable offset fields ([G] and [H]) are controlled by the selected tool under "Tool 2" [I] of "Machine Tool Configuration" on the main screen of ColorCut. E.G. If Tool 2 is set to Contour then the Contour Tools Sensor Offset will be editable.
- Open "Settings", enter the value desired and click "OK".
- Swap the active Tool 2, reopen "settings" and add the other values into the editable text fields.

Auto Find - Setting the Sensor Offset to the Blade

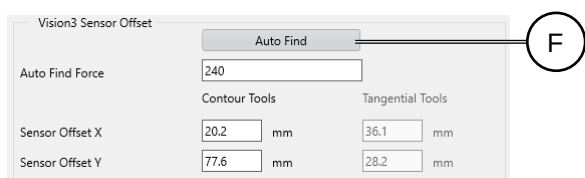
NOTE: This section is only for reference; this procedure is already completed during installation (Section 1.7.3. in Installation Manual).

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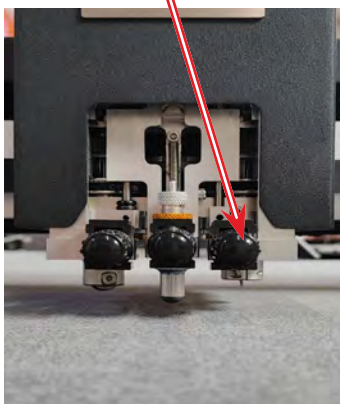
The ColorCut Flatbed cutter includes a Vision3 ARMS system (Automatic Registration Mark Sensor). The Vision3 ARMS sensor uses an high quality CCD camera to automatically detect Registration Marks (PageMarks), enabling accurate cutting using ColorCut Pro. Being able to automatically detect the PageMarks 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.

The Vision 3 ARMS sensor is mounted next to the cutting blade holder and the distance between the center of the blade, and the center 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.

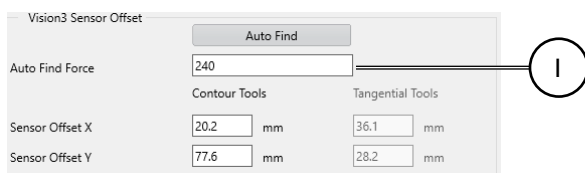


Calibration pen



The Auto Find [F] 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 center point of the circle shape. The ColorCut Pro software then calculates the distance the Vision3 sensor is offset from the center of the cutting tool automatically.

1. Place the Calibration Pen Tool in Tool Holder 2.



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

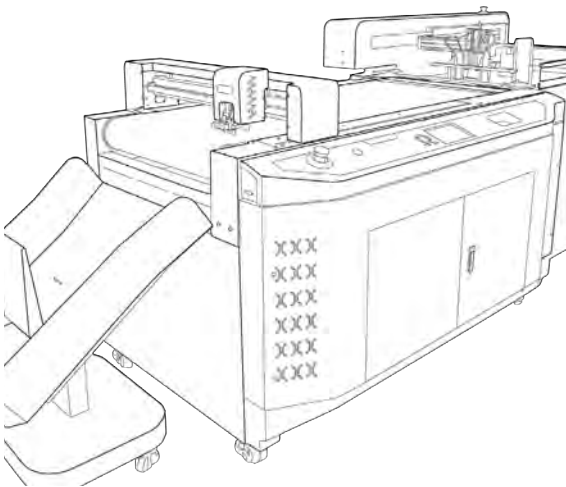
Check the AutoFind Force [I] pressure is set to between 200 - 320 gms of pressure.

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

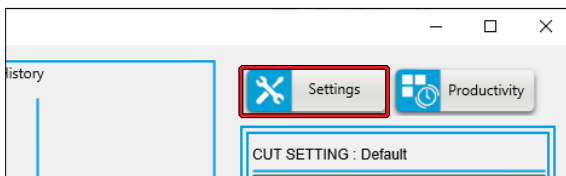
NOTE: Too little pressure and the pen will not write.

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

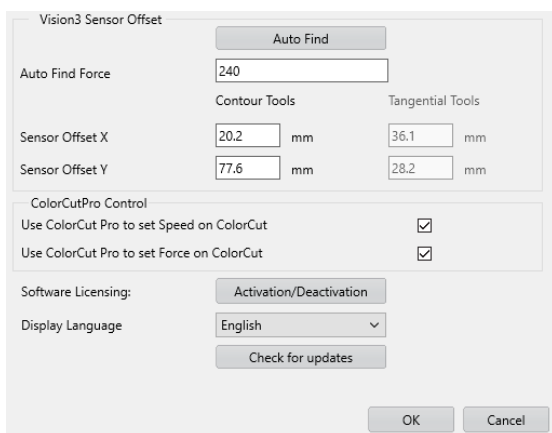
1



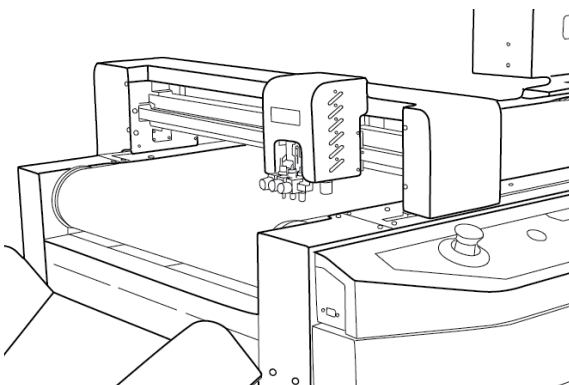
3. Place a blank sheet of paper on the cutting table. Use sheet placement assistant for easier access.
4. Connect cutter to network using either Wi-Fi, Ethernet or USB.
5. Launch the ColorCut Pro application from your computer.



6. In the main ColorCut Pro application screen, click on the [Settings] button. The settings dialogue box will appear.



7. Click the [Auto Find] button, a message will appear asking to place a sheet of media on the cutting table, click [OK].



8. The cutter will use the Pen Calibration Tool, to repeatedly draw a spiral pattern to simulate a registration mark. 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.
9. 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

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The screenshot shows a control panel with the following settings:

- Knife Offset: 0.75 mm
- Knife Offset Tool 2: 0 mm
- Knife Offset Tool 3: 0 mm
- Scan Targets: Yes (dropdown menu)
- Units: Metric (dropdown menu)
- ColorCutPro Control: (checkbox, checked)
- Device Type: FB9550T (dropdown menu)

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

Choosing where to set Speed and Force

ColorCut Pro allows you to define Speed and Force Settings for each Action, which is important when using different cutting behaviors within a single job (i.e. a higher force can be used to cut through material, while a lower force can be used to apply a score).

The screenshot shows the 'ColorCutPro Control' section with two checkboxes:

- Use ColorCut Pro to set speed: ☒
- Use ColorCut Pro to set force: ☒

Similarly, large sweeping curves may be cut at higher speeds while complex or delicate shapes may require slower speeds.

By assigning different colors to line elements in your design, you

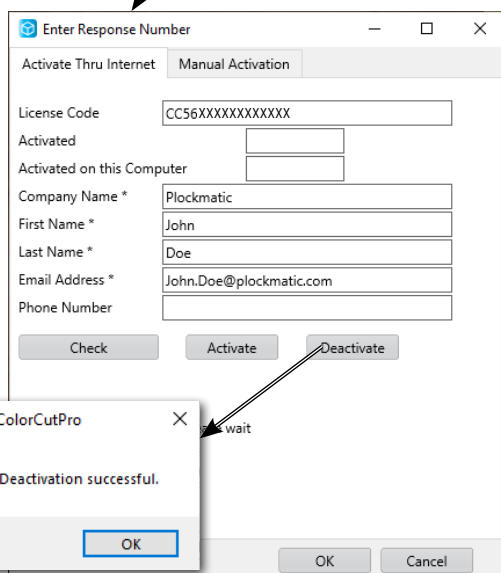
can apply different speed and force settings to each line type. To enable this functionality, the speed and force settings must be controlled by ColorCut Pro.

To ensure the settings are passed from ColorCut Pro to the cutter, verify that the “ColorCut Pro Control” checkboxes are checked under Settings.

NOTE: If you wish to ignore the speed and force settings set under ColorCut Pro’s options, unchecking these boxes will stop the speed and force settings being sent to your cutter. When these options are not checked all artwork lines being cut or creased will be controlled by the settings shown on the LCD panel of the cutter itself. You can change the values by selecting the tool directly on the LCD panel and using the Hard keys to adjust speed or force as shown on the panel.

Activating / Deactivating ColorCut Pro License

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ColorCut Pro is activated and licensed through an online license server. You receive a license capable of 2 activations. One is for your ArtWork PC, one is a remote cutting computer (in case you do not wish to use your design PC, or the same person) to perform your cutting tasks. The Mac client does not use one of your two activations. It does however need to confirm you have a valid license during the installation process.

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 you do not deactivate your ColorCut Pro license, the online activation server will reach its activation limit for your license code, preventing you from licensing a new computer. As a result, ColorCut Pro won't run. To resolve this, either deactivate the previous installation or purchase an additional license.

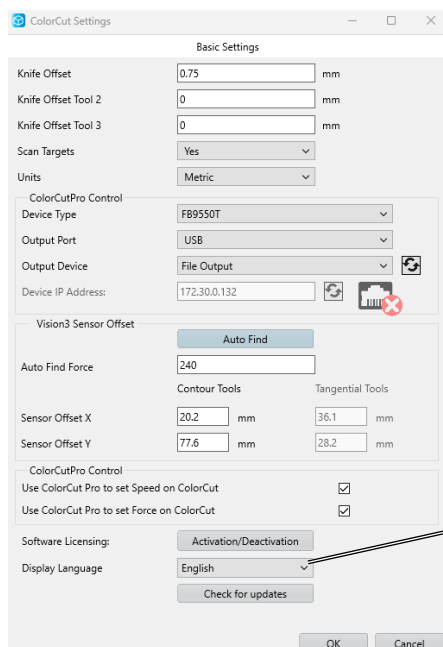
Deactivating ColorCut Pro

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.

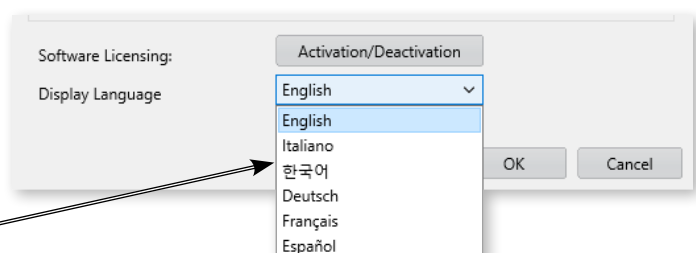
NOTE: If an internet connection is unavailable, you will not be able to deactivate your license until an online connection is restored.

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

Display Language



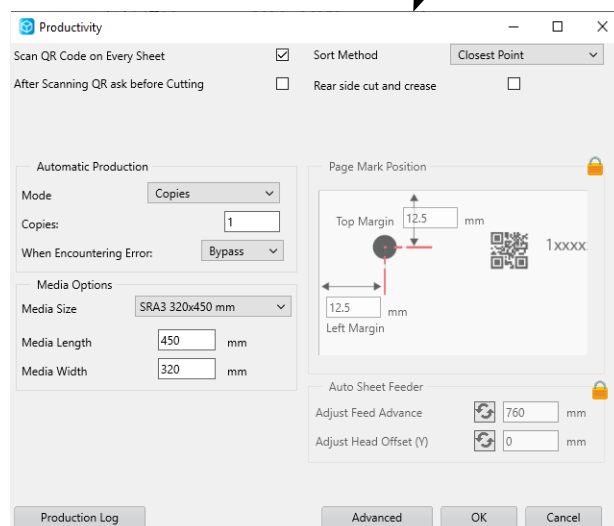
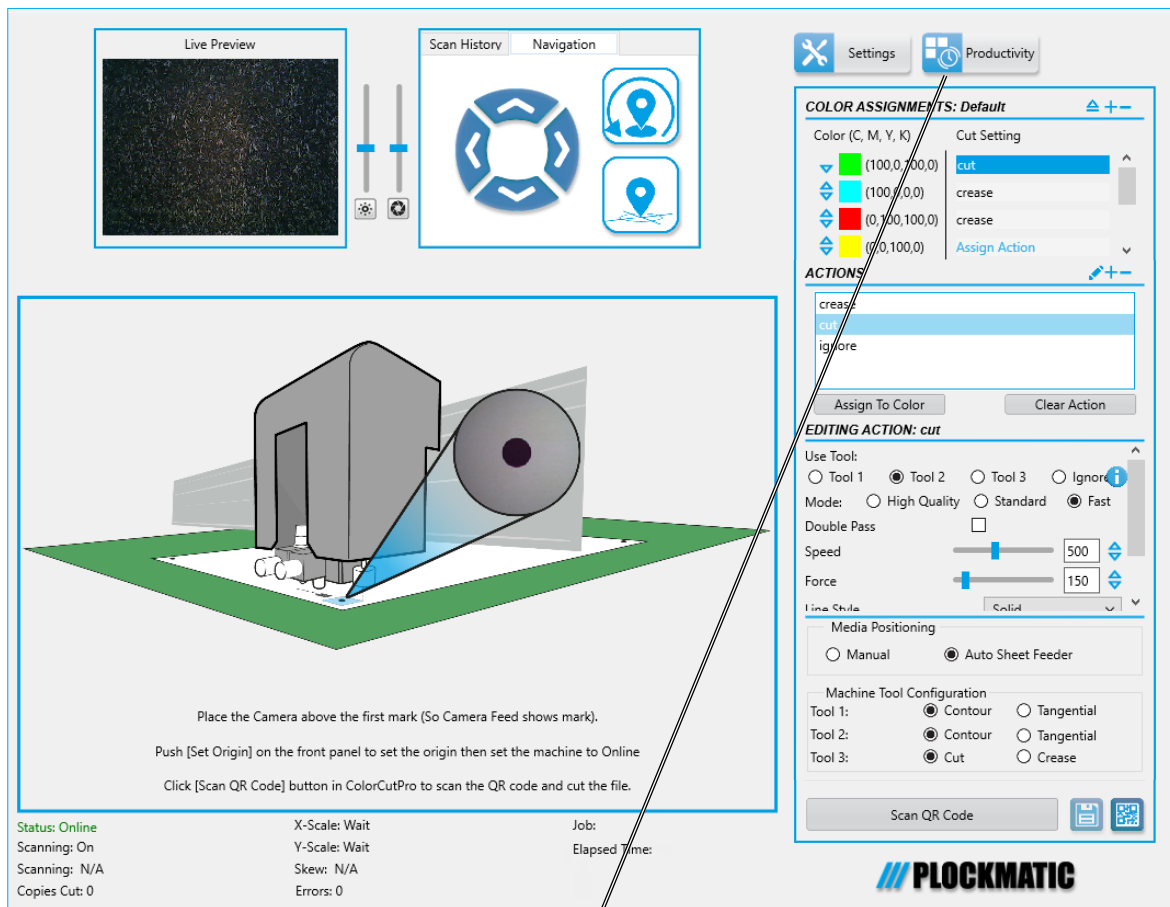
ColorCut Pro is set to English by default. To change the language, go to the settings screen and select your preferred language from the drop-down menu at the bottom.



Productivity Options

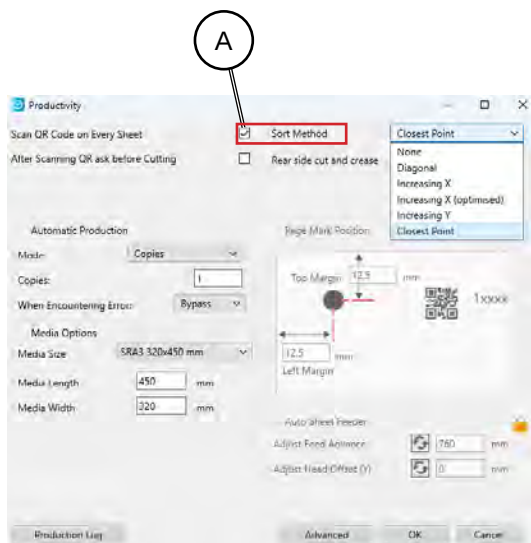
In addition to the configuration settings there are additional settings that can influence your productivity and furthermore enable automated production. These settings are all grouped under the [Productivity] menu.

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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:

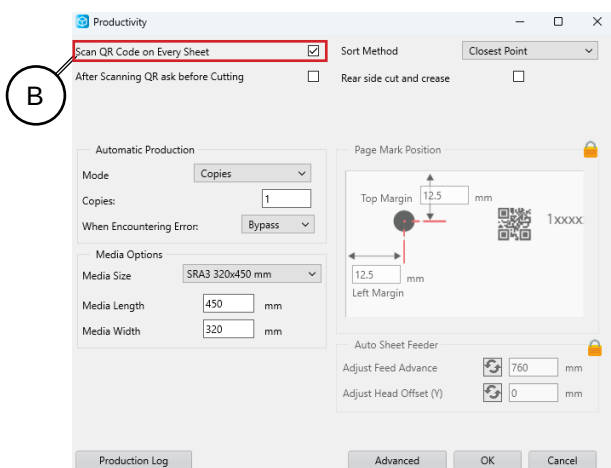
1. **None:** No sort to the cutting is employed and the software will cut in the order it read the lines into the application.
2. **Diagonal:** Aimed to reduce cut times based on the principle that while moving between cuts, both the X, Y motors may be used. If both motors are used the travel speed is 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 X (optimised):** A combination of Increasing X and Closest point sort methods. It will check the closest 4 objects for the most efficient start position then honors increasing X.
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 on flatbeds the recommended setting is Closest Point.

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

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 sheet.

When 'Scan Qr Code on every sheet' box is checked [B]; after cutting the first job the FB9550 will automatically eject your sheet and ColorCut Pro will clear the job in the preview screen then load the next sheet of media in the auto-sheet feeder and scan the QR code to check which cutting file should be used.

Scan for QR Code on every sheet, continued

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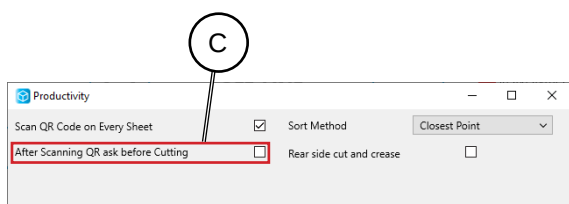
In **Job Library Mode** this function is recommended and can very useful when different/mixed jobs are placed in the auto-sheet feeder, as each cut file will be retrieved automatically. In addition by scanning each QR Code, ColorCut Pro, will detect if a sheet has been accidentally loaded in the wrong orientation, or rotated around 180 degrees, and automatically rotate your cutting file to match the way you loaded the sheet. This ensures each sheet is cut correctly, even if different jobs have been mixed in the auto-feeder, or if you loaded the sheets the wrong way around. (This only works if you use QR codes on the sheets).

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 on the next sheet loaded by the auto-sheet feeder. Otherwise you may need to return to your graphics application and resend the file from the graphics application.

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) - ColorCut Pro will no longer recognize if mixed jobs are loaded into the feeder (or if a job is accidentally placed in the wrong orientation).

NOTE: If you enable 'Scan QR Code on every sheet' [B] and the sheets do not contain QR Codes, the FB9550 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.

After scanning QR Code ask before cutting



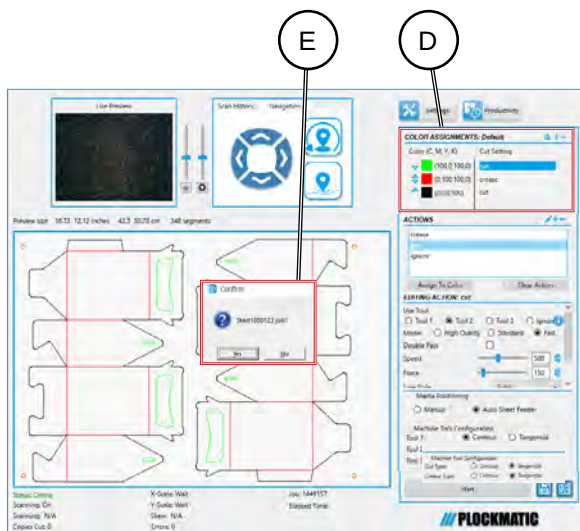
ColorCut Pro performs the actions (i.e. cut, crease, ignore, perforate) according to the line colors which you specify.

It will remember the previously used assignment of line colors in relation to an action i.e. if the last job you cut you

had previously set Red to Cut and Blue to Crease, then when the next file is opened using Red or Blue, ColorCut will assume you wish to continue to use that Color/Action assignment unless you change it.

When 'After scanning QR code ask before cutting' [C] is enabled then after scanning a QR Code, ColorCut Pro will read the Colors used within your cut file design and automatically assign each color to the last action (i.e. cut or crease) it used for that color (Or set it to none, if that color has not been used before) then wait for you to confirm the assignment is okay before cutting the job [D].

When loading a job for the first time, this may be useful as you may not have correctly assigned the right action for each line color [E].

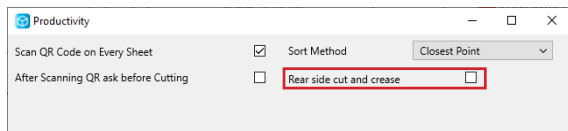


However, if you have previously cut a job (i.e. a long production) or you typically use the same action for each color in all your jobs then you may not wish to see this dialogue box.

To prevent this message appearing after each sheet is loaded and scanned, uncheck the tick box next to 'After scanning QR Code ask before cutting' [C].

NOTE: It is recommended to do a single manual test cut prior to an production run. For simplicity and optimum efficiency, you should try to design your jobs using the same line colors. If you have performed a test cut and previously defined the action for each colored line, or consistently use the same action for each colored line (i.e. Red = Cut, Blue = Crease), you can disable this warning to ensure uninterrupted cutting of your production jobs.

Reverse side cut and crease



This function enables the cutter to process the job from the opposite side of the sheet, as required by the design. Although the design and registration marks are printed on one side, the cutting and creasing operations are performed on the reverse side. This is particularly useful when the final

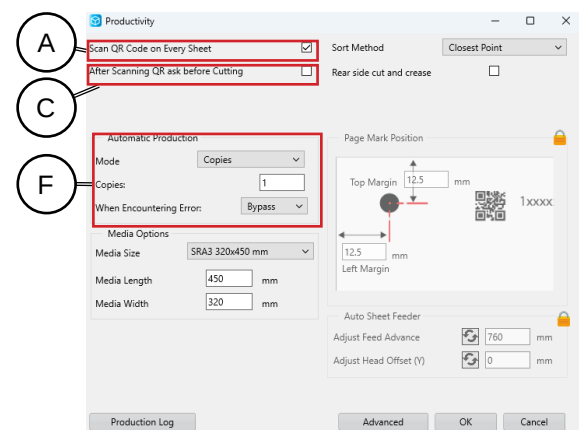
product requires clean folds or cuts without visible marks on the finished side, or when the material's structure demands it for optimal results.

For reverse side operations, the job must have the PageMarks correctly set up; with a minimum margin of 8mm (10mm recommended on the leading edge) from the page and artwork edges. Refer to "Positioning of Registration PageMarks" for further details.

To perform reverse side cut or crease while in manual mode (Media Placement) place a sheet with PageMarks on the cutting table as usual, turn on the fan. Select the job you wish to cut and start the process. The cutter will begin by reading all the PageMarks, then it will move the beam aside to allow you to flip the sheet. Be sure to mark the original position where the sheet was placed. After flipping the sheet, turn the fan back on and press "OK" on the screen to proceed.

Automatic Production

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



You can choose between three settings:

Continuous Mode

This allows you to cut until all sheets in the Auto Sheet Feeder have been cut.

Copies Mode

Allows to select how many copies of the sheets need to be cut.

Single Mode

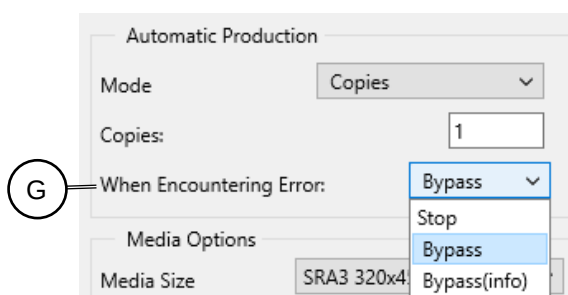
Allows to cut only one copy of each sheet.

Error handling

Another important item to consider is what should happen if an error is encountered. Error can occur if the 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' [G]. The recommended action is to Bypass info. When this is set and 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 FB9550. You will need to remove the sheet and then start production again after resolving the error.



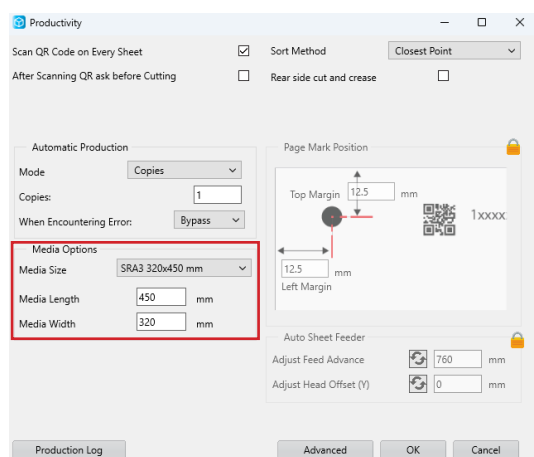
For the most efficient and easiest production, use a combination of the options in the Production dialogue box. i.e.:

- Enable the Scan QR code on every sheet [A];
- Disable the After Scanning Ask before cutting [C];
- Set When Encountering an Error to Bypass [G].

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

Media Options

1

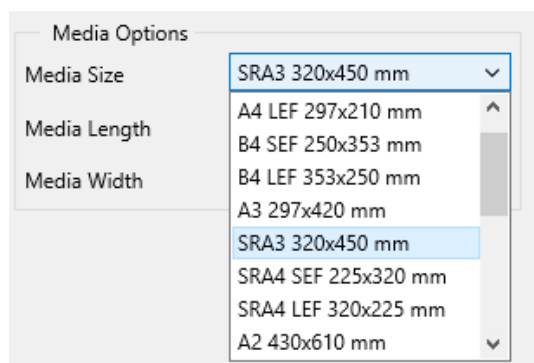


The Auto-Sheet feeder, uses self centering media guides, this means the edge of the media will be located in different positions depending on the media size you have loaded.

Therefore, 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).

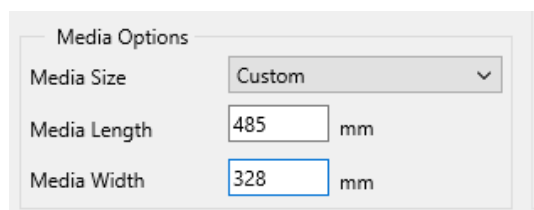
NOTE: As different media sizes will result in the edge of the media being in a different (and therefore your registration PageMark) location, it is very important to ensure you set the Media Options correctly to match the media size loaded in the Auto-Sheet Feeder.

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 Length and Width fields for your media.



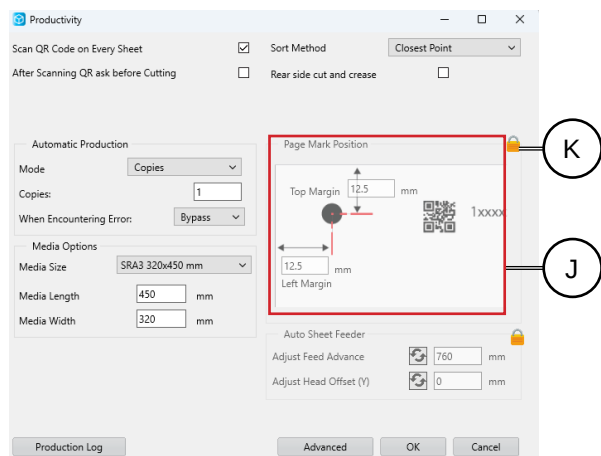
However, your media size is not listed in the Media Size list scroll to the base of the list and select 'Custom'. Now enter:

Media Length (the distance from the front of the media to the position of the backstop in the media feeder).

Media Width (the left to right distance across).

Media Positioning

The PageMark Positioning [J] control sets location that the FB9550 should move to, when scanning for the 1st PageMark. The Top Margin and the Left Margin settings should reflect the margins set under the ColorCut Pro PageMark Preferences in your Graphics Application.

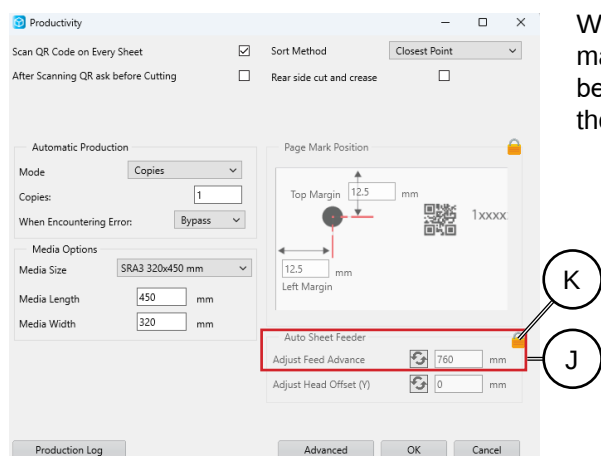


Once set, it should not need to be changed again (assuming you do not frequently change the PageMark margins).

To prevent accidental changes, the control is locked by default. If you need to adjust the values (normally only first time to match your design positions), click the Padlock [K] to edit the values.

1

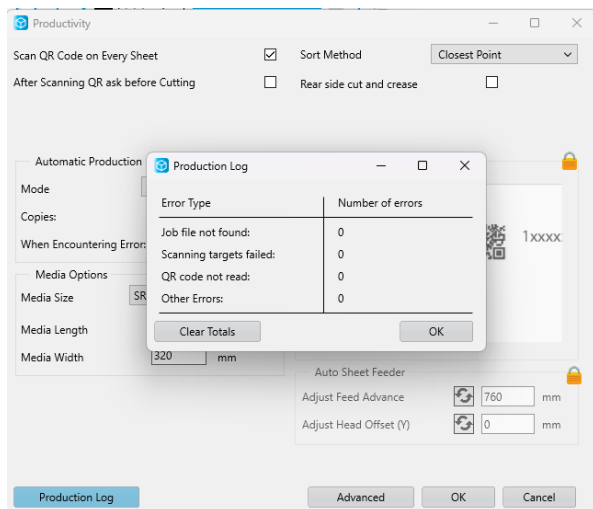
Auto Sheet Feeder



With feed advance settings you can adjust how far the machine feeds each sheet before processing. This value can be changed to match different media or job requirements. Press the padlock icon to unlock and modify the setting.

Production Log

The FB9550 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.

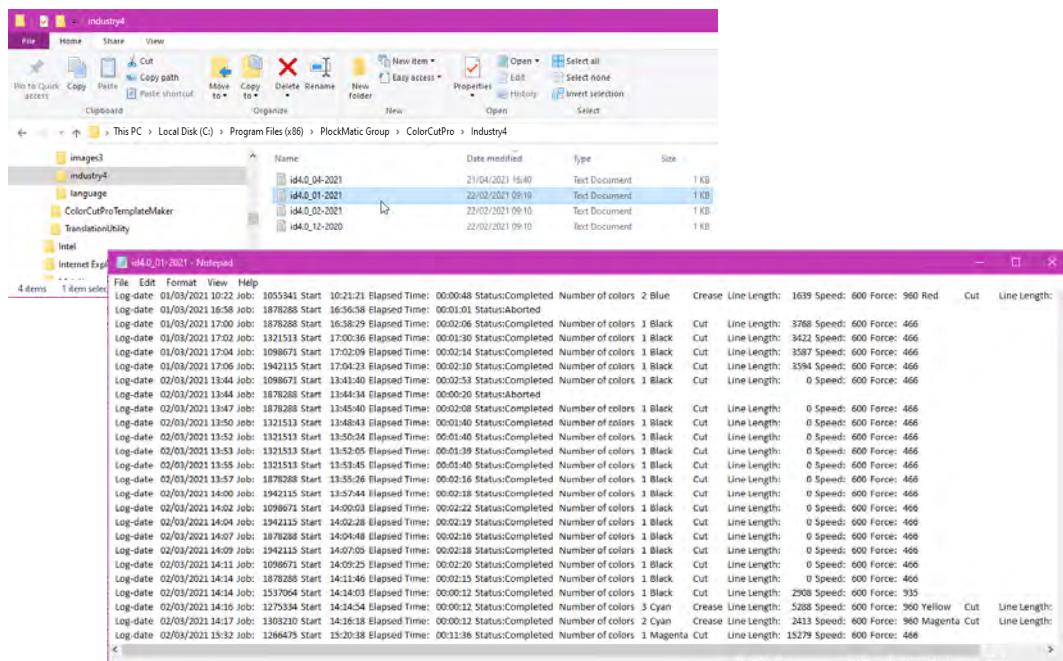
A more advanced log can be generated by enabling the Generate Industry 4.0 Log file check box.

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:

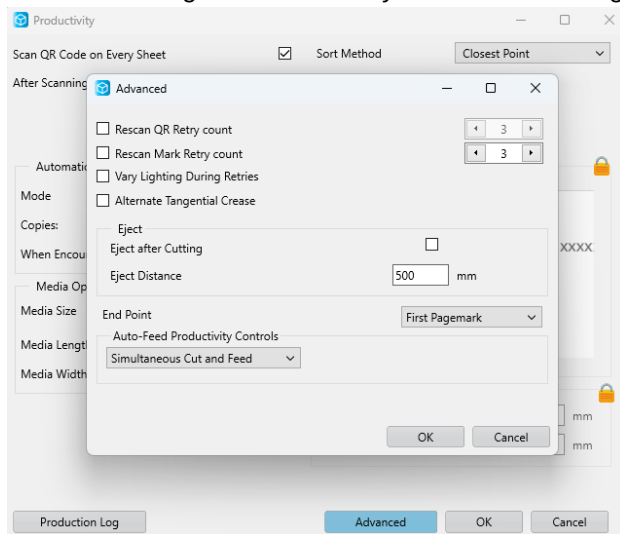
C:\Program Files (x86)\Plockmatic Group\ColorCutPro 5\industry4

The file path may alter.



Advanced Productivity options

The FB9550 uses a sophisticated image processing system to identify the PageMark registration targets (and QR codes). Designed primarily to read Black PageMarks on White media, the advanced Vision3 sensor will auto invert images to additionally enable the reading of White PageMarks on Black Sheets.



The Vision3 image scanning system is designed to determine the DMIN vs DMAX of the Mark versus the background area (Using edge detection based on maximum dynamic range contrast point and determining the center point).

You can widen the range of media that can be scanned by adjusting the back lighting system (See section "Brightness/Illumination Control") on ColorCut Pro's main interface panel.

However, the [Advanced] button within the Productivity Dialogue box provides the user with some extended options and automated options to assist scanning of registration PageMarks and QR codes that increases the scanning tolerance and helps scan a wider range of media.

1

Click the [Advanced] button to display the Advanced scanning options.

Checking the ReScan QR Retry Count check box, will instruct the FB9550, to ReScan both Registration PageMarks and QR codes as set (the applicable range is 1 - 5 times). This can be useful on some colored media, metallic or foiled media and porous media such as Inkjet Printed rice paper. However note, this may fractionally reduce productivity as the Scanning of each PageMark will take fractionally longer (approx 1.5 sec more per target).

Checking the Vary Lighting During Retries check box, is very useful, as this will pulse the background lighting from low to high during the mark scanning (then returning it to the previous setting). This avoids the need for the user to adjust the Back lighting control on the main ColorCut Interface, and enables automation of a range of lighting conditions during the PageMark scanning and QR code scanning.

While both of these functions can widen the tolerance for different media that can be scanned and read, it should be noted that each additional step will extend the time required for scanning and reduce productivity. Thus, for the optimum productivity when using standard media or paper/card/label stocks it is not necessary to activate these features.

NOTE: For very glossy or shiny surfaces it is sometimes better to manually set the light values yourself as these materials can be quite difficult to find the correct lighting values for.

Page Intentionally Blank

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 organized 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 different (3rd) layer.

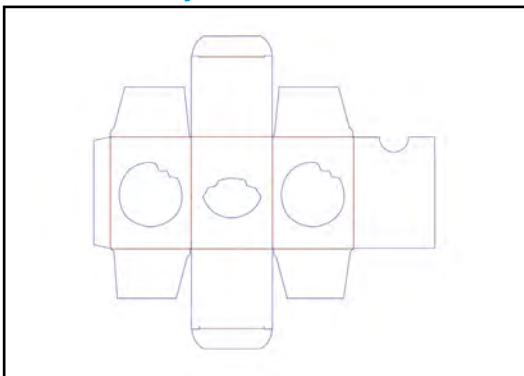
Graphics/Artwork layer



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 to 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

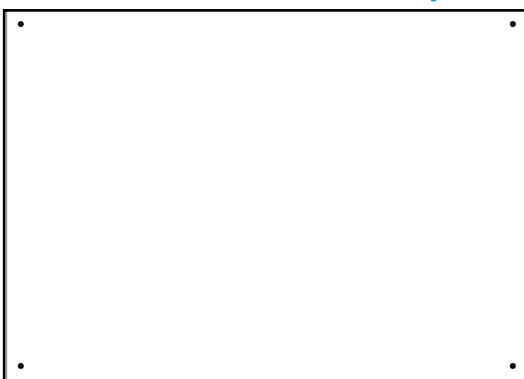


Similar commands are available in Adobe Illustrator and CorelDRAW to enable and disable the layers.

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.



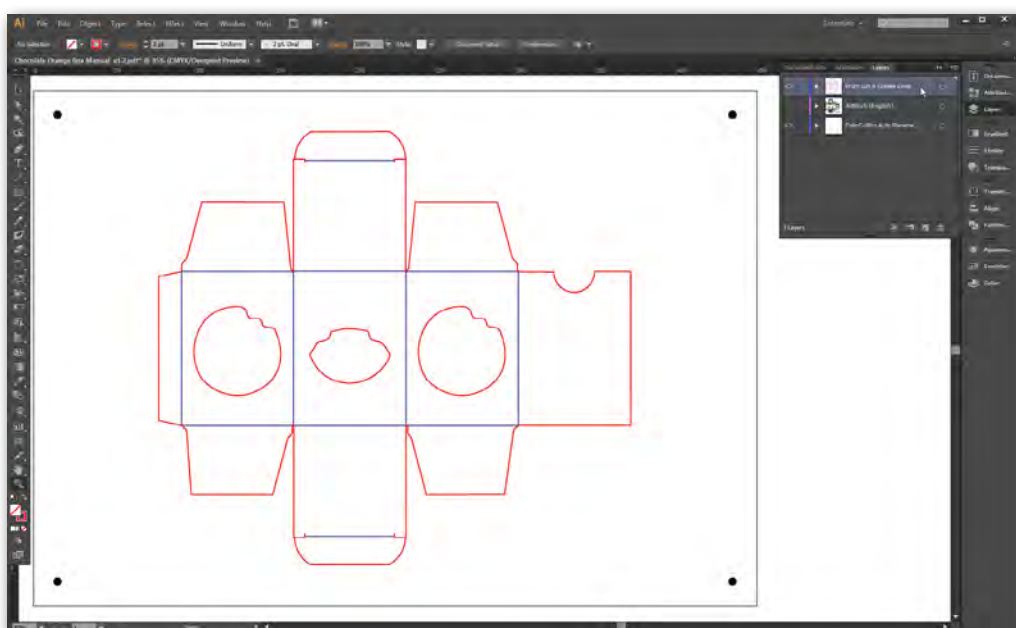
Drawing is ready for printing.

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, Perforated or Crease Lines

The ColorCut has 2 tools.

A Blade Tool, which can be used to:	A Creaser Tool which can be used for:
Contour-Cut shapes	Wide Crease lines
Score lines	Narrow Crease lines
Perforate Lines	Deboss lines
Kiss-Cut shapes	

2

When creating projects you may wish to perform 2 or more actions with cutter. For example cutting a box and creasing the folds.

The easiest way to do this in artwork is to use a different colored line in your design for the Crease line to the Cutting line. ColorCut Pro can recognize 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 5 colored lines (For example; RED, YELLOW, BLUE, VIOLET, GREEN) in the ColorCut software you could set the actions as follows:

RED to Cut, using the Blade with full pressure.

YELLOW to Score, using the Blade with half pressure.

BLUE to Crease, using the Creasing Tool, with full pressure.

VIOLET to Deboss, using the Ball Creasing Tool, with full pressure.

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

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

Line Colors recognized by ColorCut Pro

ColorCut Pro uses 8 standard colors, which when used on the cutting layer are recognized 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.

	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]

ColorCut Pro will recognize 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.

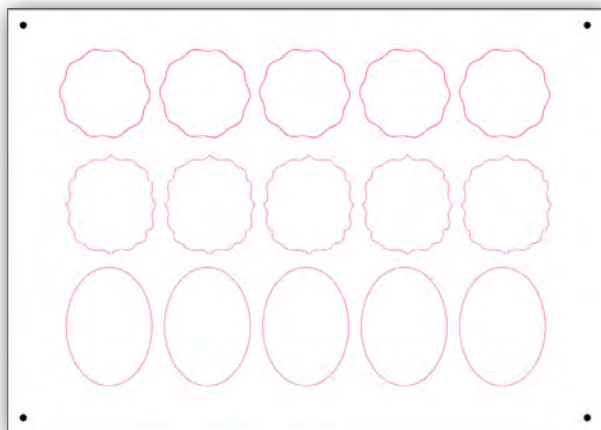
NOTE: If you design in spot color or with global ticked, the lines will be generated as black. It must be a process color with global unticked.

Registration PageMarks

Before you design your page you need to consider that for accurate cutting each job requires 4 Registration PageMarks. The PageMarks are automatically placed on your artwork by ColorCut Pro's Add PageMarks option. They are placed on all 4 corners of a rectangle that is typically 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.

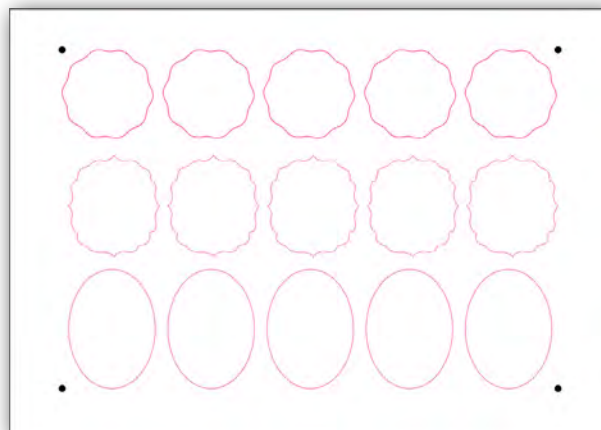
2



PageMarks based on **page size**.

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

(Recommended for easier sheet replacement)



PageMarks based on **design size**.

Marks around artwork.

(Alternative to page size)

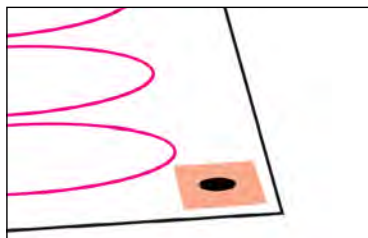
The first Registration PageMark provides the origin of the job and is positioned at the bottom left edge of the sheet. The second which provides scale (Y) and skew parameters is positioned top left in the drawing shown. The third mark provides skew and rotation information and is positioned at the top right in the drawing shown and the final fourth mark provides scale (X), skew and error checking is bottom right.

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

Although you can manually draw the Registration PageMarks on to your design, PageMarks do not need to be manually drawn on; ColorCut Pro simplifies this, and will automatically add them.

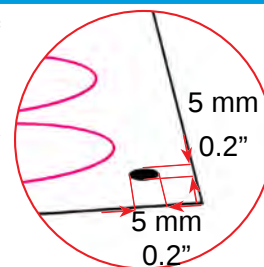
Positioning of Registration PageMarks

To maximise cutting area you can choose to place the cut marks close to the edge of the media. Be aware that there is a 8 mm scanning zone around the cut mark, (shown in red) so do not to place artwork too near the mark as this may be read by the sensor and cause an error or reduce the accuracy of PageMark scanning.



The Vision Sensor needs 8 mm (0.32") around the mark to read correctly.

Remember that digital printers often have a non-printable margin so ensure your cut marks are clear of this margin to avoid clipping.



The absolute minimum margin is 8 mm (0.32") from the page edge or artwork, but for best results, we recommend a 10 mm (0.4") margin on the leading edge and sides for normal production and 8mm margins for Reverse side scanning.

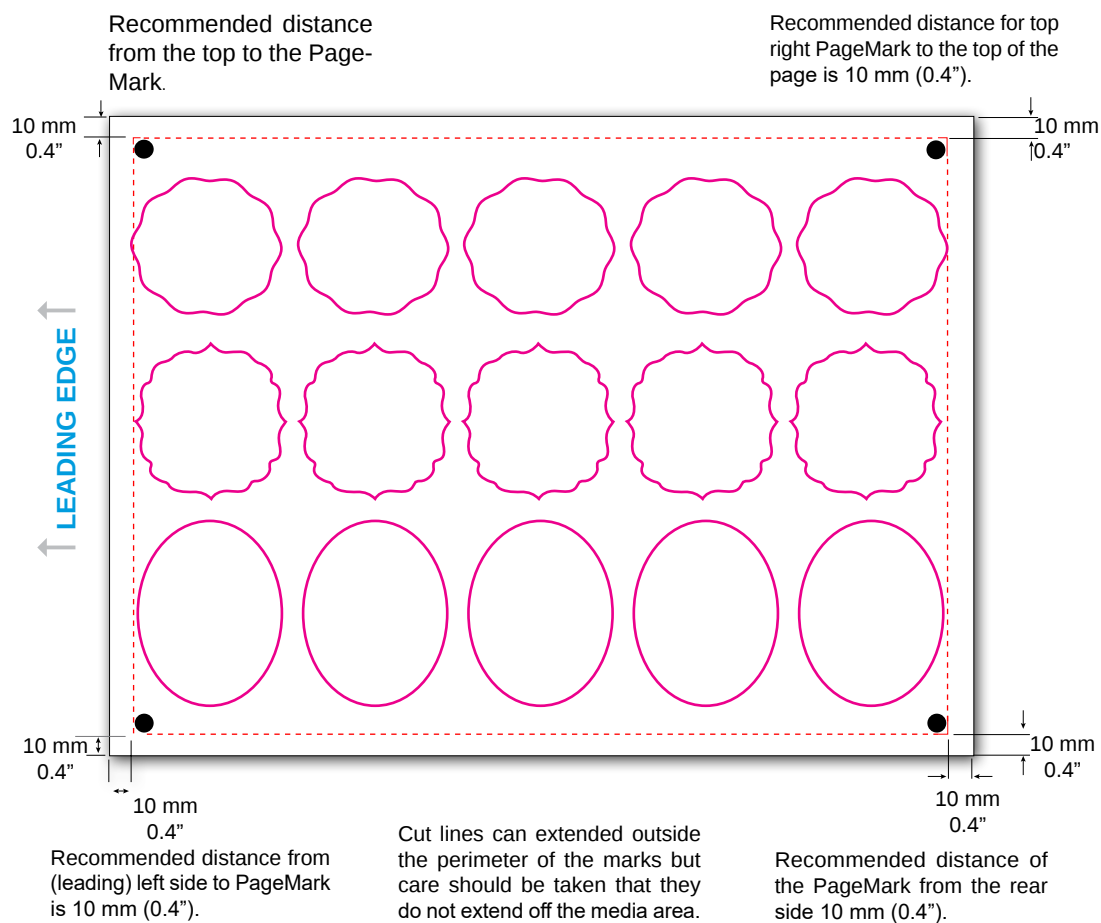
NOTE: The ColorCut Plug-in that applies PageMarks automatically includes a preferences option that enables you to define the margin you wish to use. The value you enter here in this option/setting, is the distance to the center of the PageMark. The PageMark is a 5 mm (0.49") diameter circle, so you should set a 12.5 mm margin in PageMarks preferences to achieve the recommended 10 mm (0.4") margin from the edge of your media to the edge of the PageMark.

Positioning of Registration PageMarks, continued

You can cut beyond the PageMark position, so it is possible to right to the edge of the sheet but in most cases you will need some media/matrix left on the label sheet to make removing the waste matrix on your labels easier. Also, cutting off of the sheet is not recommended as the blade may snag the side of the sheet as it turns to come back onto the sheet area.

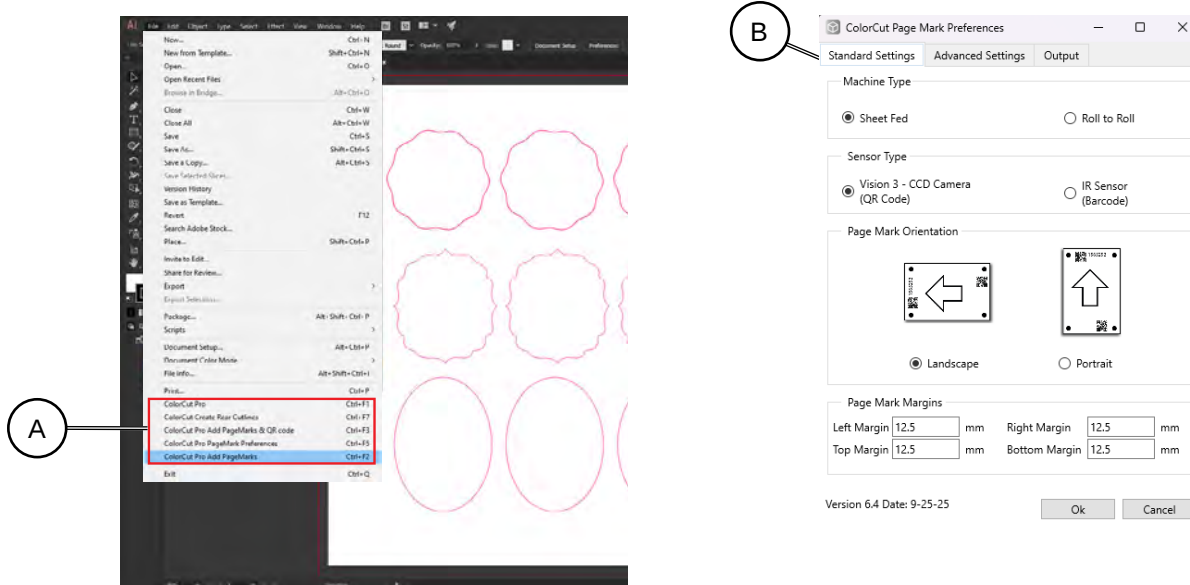
It is recommended you observe the 10 mm (0.4") margin on all sides, this will eliminate the risk of your cut lines exceeding the media size and allow enough waste material on the sides of your media to ensure the waste matrix can easily be removed.

The recommended margins are shown below.



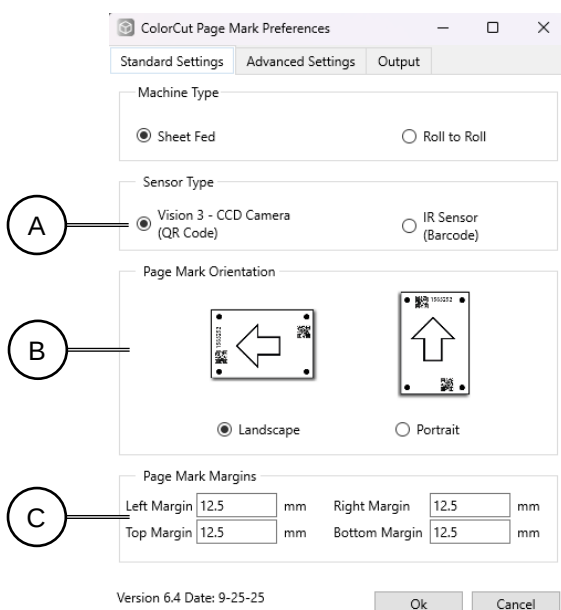
Automatically Adding Registration PageMarks

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.



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.) The default figures shown above are recommended for highest cut accuracy.
2. The ColorCut Pro PageMarks Preference dialogue box [B] will appear. Use this to set where the cutting registration marks (PageMarks) will appear on the sheet.
3. Choose Printing Position of PageMarks.
4. Define the margins based on chosen print position:
 - Distance from the page edge to the center of the PageMark for Page Size position.
 - Distance from the design edge to the center of the PageMark for Design Size position.

Configuring Automatic PageMarks



1. Sensor Type [A] - The FB9550 uses an advanced Vision 3 CCD camera sensor which reads round registration marks and 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. To ensure that ColorCut Pro adds round marks, verify that the 'Sensor Type' is set to "Vision3 CCD Camera (QR Code)" in this dialogue box.
2. Select the orientation of your design in the "PageMark Orientation" section [B]. Ensure the PageMarks are orientated so the 1st mark and the QR Code is placed on the lead edge of your media when placed on the table. ColorCut Pro scans the origin mark and then moves the appropriate distance (based on your design) to locate the second/next mark (across the lead/feed edge of the media).

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).

Configuring Automatic PageMarks, continued

2

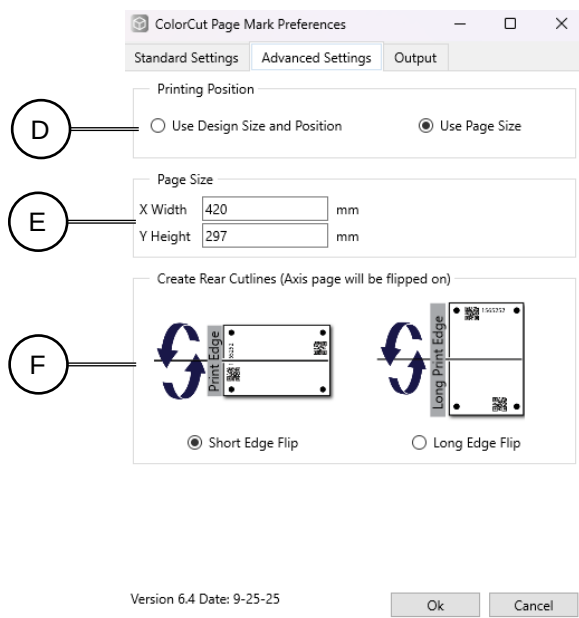
NOTE: The terms Landscape or Portrait in the ColorCut Pro PageMarks preferences, relate to the positioning of the marks on the sheet based on the thumbnail shown (i.e. Landscape places them on the left of the design and so if your design is already Landscape then choosing landscape in the ColorCut Pro preferences will effectively rotate the mark position and add your marks to the left edge as you design on screen. Thus, ColorCut Pro will add marks 1 & 2 (& QR code if appropriate) on the left edge - this is now the lead edge when placed into the Auto-sheet feeder which will be correct for FB9550 users. Note however applying the marks using the Portrait option - will add PageMarks to the top of the sheet (the wide edge) this will not be correct as it is not possible to place the wide edge of the sheet as the leading edge in the auto sheet feeder.

With the FB9550, if your design is Portrait, then choose to add the PageMarks in a Portrait Orientation. Adding marks 1 & 2 (and QR code if appropriate) to the top edge. Please consider the orientation you need the marks to ensure the PageMarks are added to the lead edge of your sheet when it is placed in the Auto-Sheet feeder.

3. 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 center of the 5 x 5 mm (0.2" x 0.2") Circle registration PageMark. When adding PageMarks, consider therefore to use a 12.5 mm (4.9") margin for the Left & Right Margins (Portrait) and 20 mm - 22 mm (0.79" - 0.87") margin to the Lead edge (top) and tail edge (bottom) boundaries to give recommended margin to the page edge.
4. Select the "Advanced Settings" tab at the top of the preferences dialogue box.
5. Under "Printing Position" [D], select "Use Page Size".

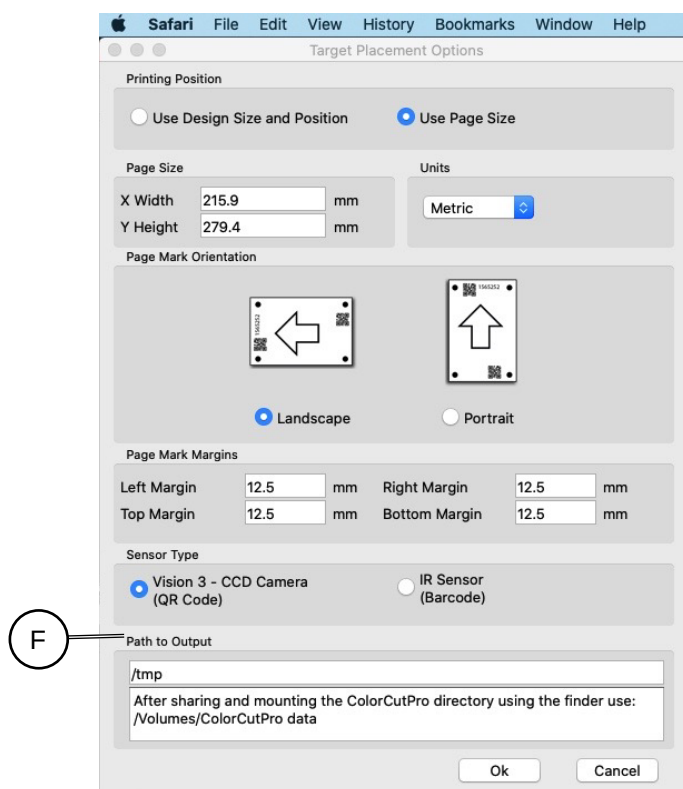
NOTE: Page size is updated from your Artboard size in Illustrator, so you do not need to adjust the page size setting [E] here, it will automatically adjust when the PageMarks are added.

6. Select the Short Edge Flip or Long Edge Flip [F] to produce cut lines on the back side of your page. This option is very useful when printing designs that necessitate precise and accurate trimming, such as those printed on both sides. By selecting this option, you may verify that printed pages are accurately aligned and cut to their exact final size.



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.

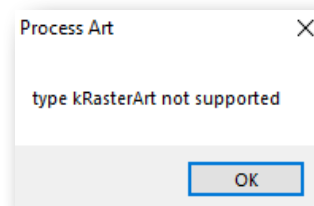
You may see an Error Message if there are artwork elements or images on the layer selected when you launch ColorCut Pro. You can avoid this by drawing the cutting profile and the artwork graphic on separate layers.

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



Warning:

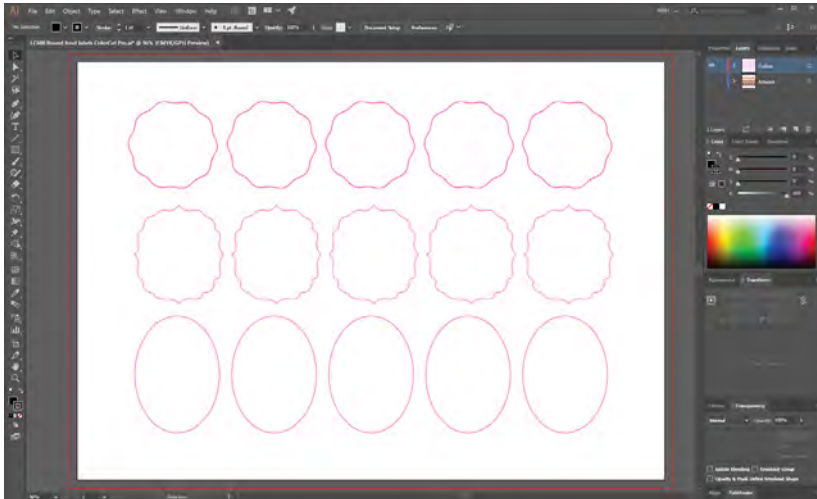
Launching ColorCut Pro Add PageMarks with the artwork layer selected will generate an error:



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 Cutline is selected (The artwork layer is not selected) and the layer is ready for you to 'Add PageMarks'.

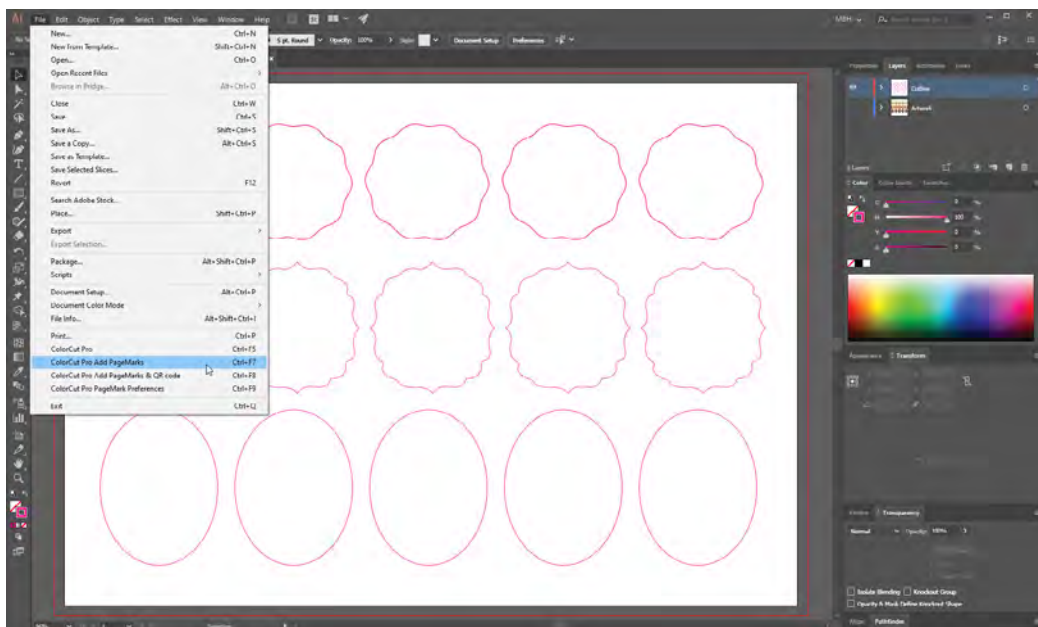


NOTE: The artwork layer is hidden in this example, however you do not need to hide the artwork layer.

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.

2

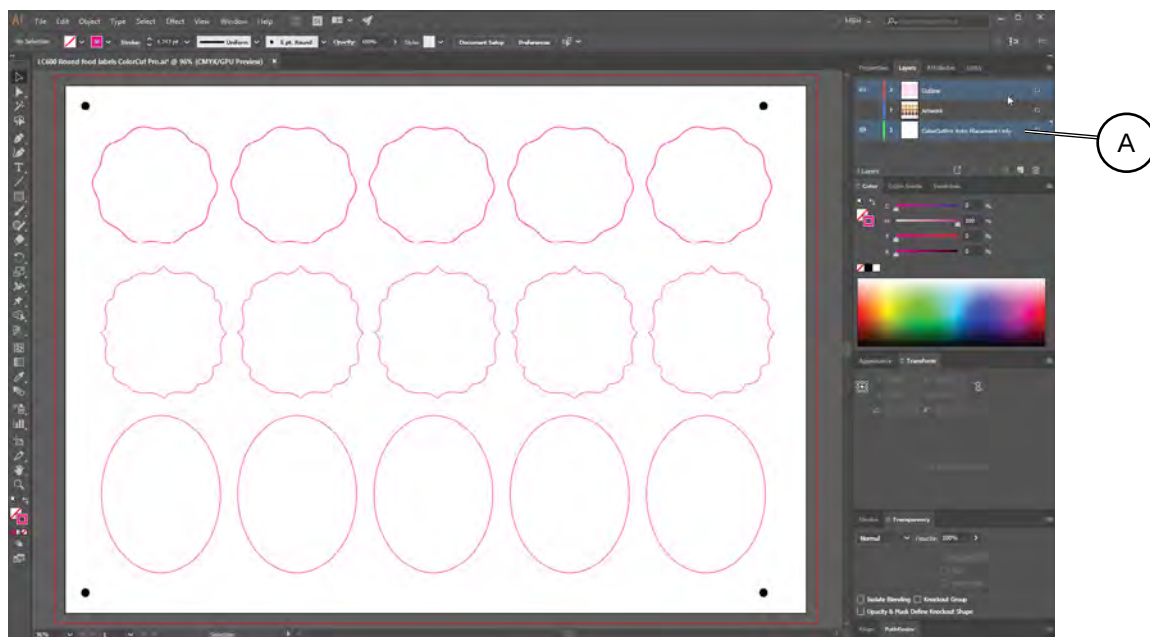
Automatically Adding PageMarks



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, QR Codes 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.

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.

2

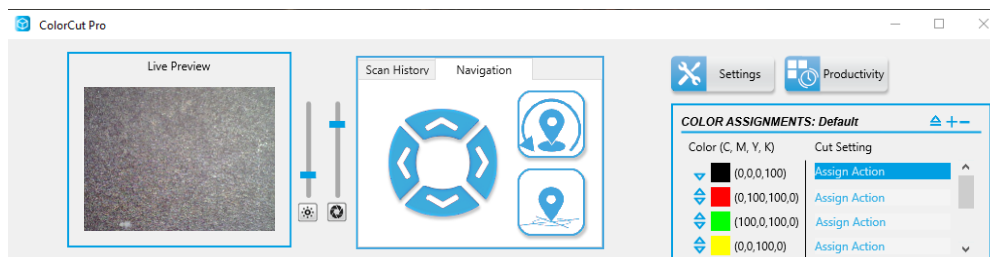
Cutting without using PageMarks

It is recommended that normally you use PageMarks, ColorCut Pro will scan the PageMarks on your sheet to calculate where your sheet is (the origin) and compensate for any positional errors, scale or skew therefore accurately aligning your cut with a print or position on the sheet. However, in some cases, e.g.:

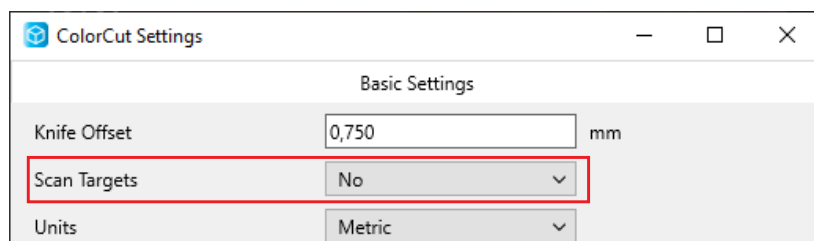
- On a sheet that is unprinted/blank, such as a clear sheet of Polyester to be used as a face shield. You only need to cut a visor shape and have no print, and no PageMarks on the sheet.
- On clear material for mobile phone screen covers. Again, no PageMarks and the sheet is blank, you are not aligning to an element.
- Blank red card at Valentines day, to cut multiple red heart shapes. The hearts will be blank and not aligned to the sheet.
- A difficult media which has been foiled and the PageMarks can not be read using the normal process (This may have print to align to, but the accuracy of alignment has a high degree of tolerance).

Cutting without PageMarks is simple and often quicker as the process of scanning the PageMarks is skipped, however the downside of skipping the registration PageMarks 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.

Disabling Scan Targets



1. To cut sheets without PageMarks, open the [Settings] window.



2. Set the Scan Targets option from to [NO]. This setting applies to all sheets until the setting is changed back to [YES]. Click [OK] to save the settings and close the window.

The cutting accuracy in respect to where the origin of your cut starts on the sheet or in respect to alignment of the cut to printed elements varies according to the media size you set, the feed and feed advance and left offset values (under the [Productivity] button) and the first cutting element on your design.

NOTE: Setting "Scan Targets" to [NO] also disables scanning of QR codes, so if you have a stack of sheets in the Auto Sheet Feeder, some without PageMarks and some with. It will no longer detect any PageMarks.

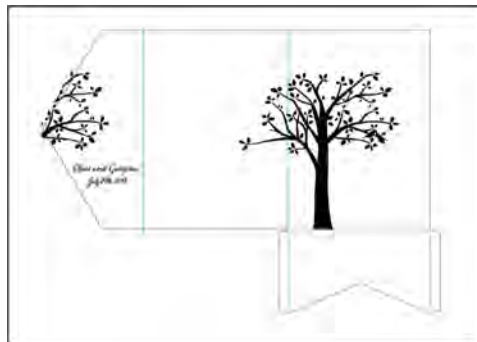
Design requirements when cutting without PageMarks

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.

2

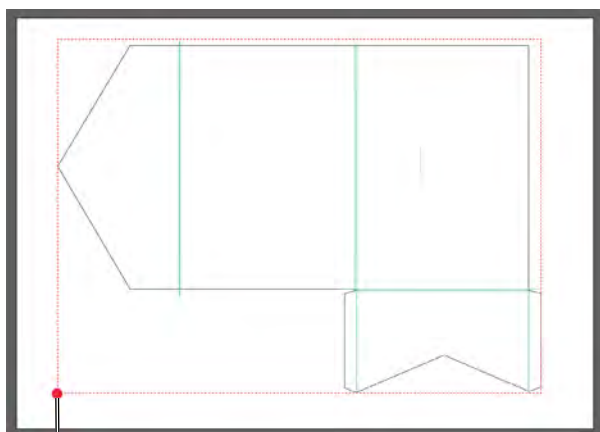


Desired result



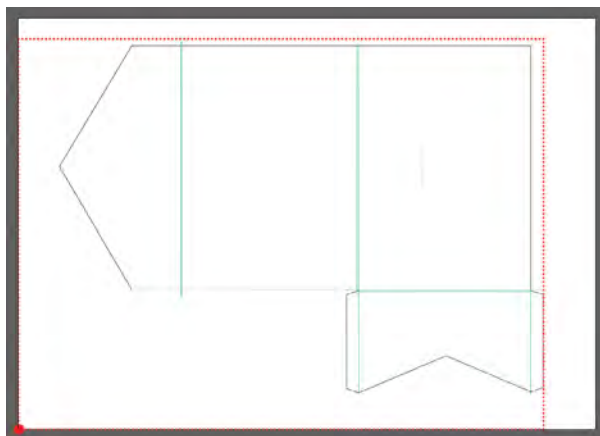
Artwork (before modification)

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



A

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.

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.

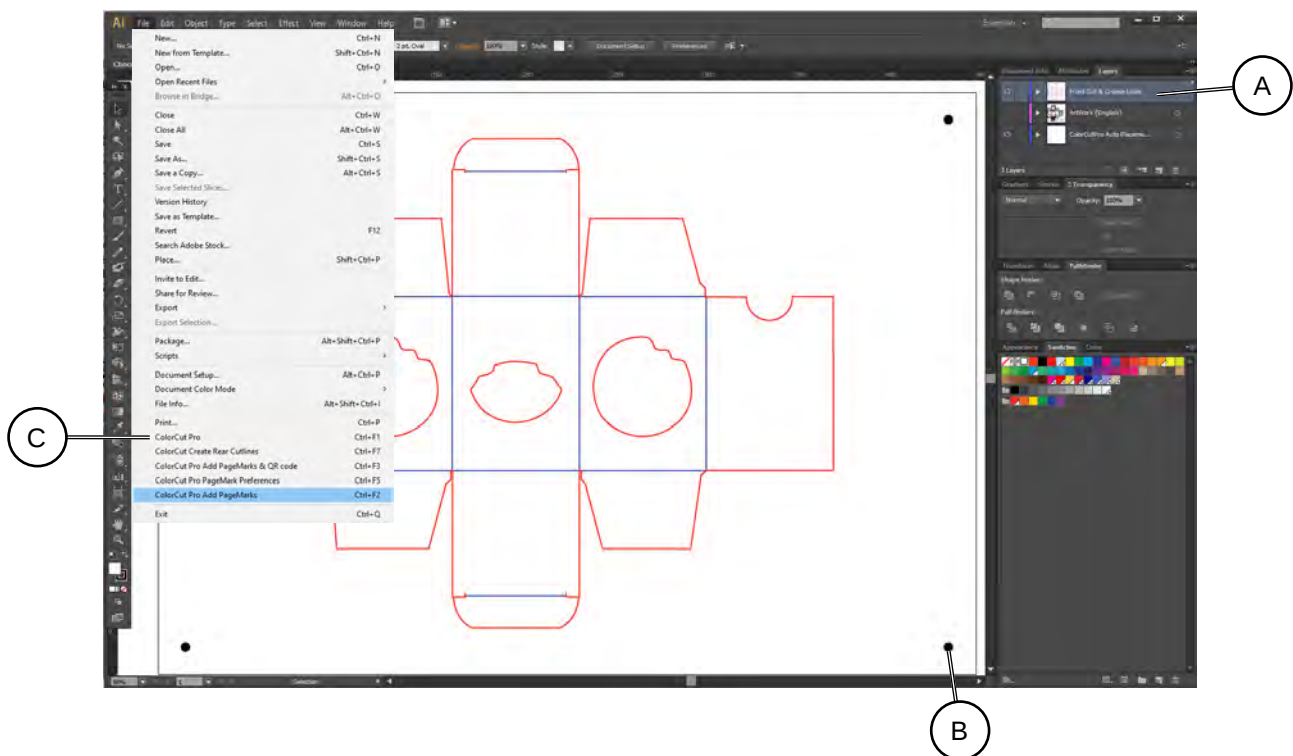
When using ColorCut Pro - Production Studio Job Server Mode, ColorCut Pro is launched on its own (stand alone) on your computer from the Windows Start Menu. The appropriate cutting file is retrieved by the operator entering the job number or can be retrieved automatically as the FB9550 scans the QR Code.

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.

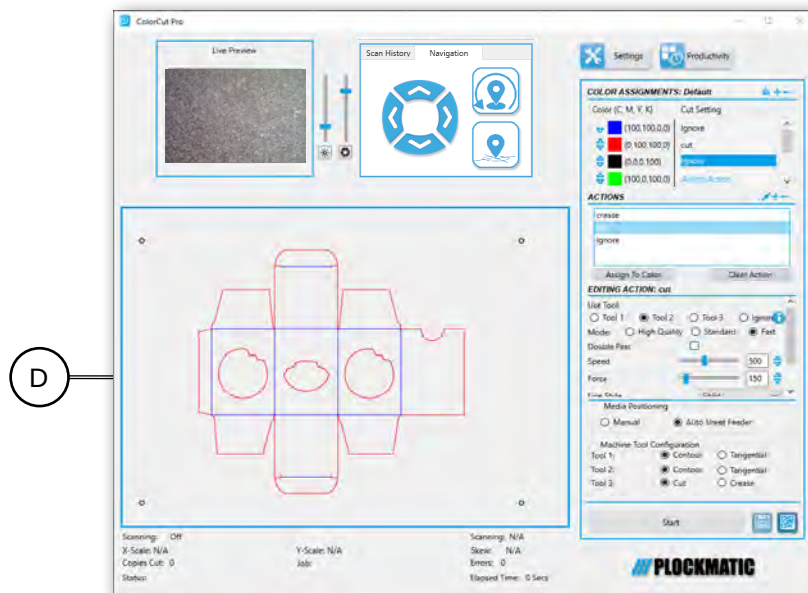
NOTE: When working in ColorCut Pro - Production Studio Job Server Mode, as ColorCut Pro will retrieve the cutting files from the job library for you, it is important that your files were created with a Job Number and QR Code using the 'ColorCut Pro 'Add PageMarks and QR Code' feature in the design process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



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.

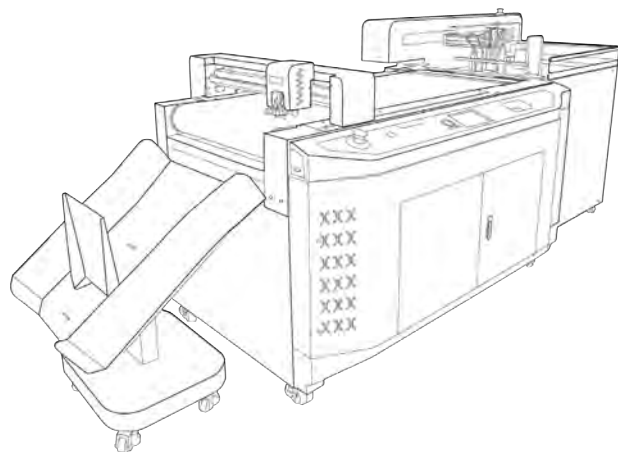
Creating Cut Job files using Job Numbers means you can assign a Cut Job number to a specific customer or assign a specific 'Design Template'/ Style to a Cut Job Number.

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



1. Place your sheet to cut on the Auto Sheet Feeder media stack. Ensure the end with the Job Number is on the leading edge.



2. On the FB9550 control panel check that the LCD panel shows cutter is ON-LINE and ready to receive jobs (The Home screen). The LCD display should show the status of each Tool and show the ON-Line icon.
3. If 'ON-LINE' is not shown on the FB9550 Control Panel, then press the [Home] button to place the cutter On-Line and to display the Home Screen as shown.

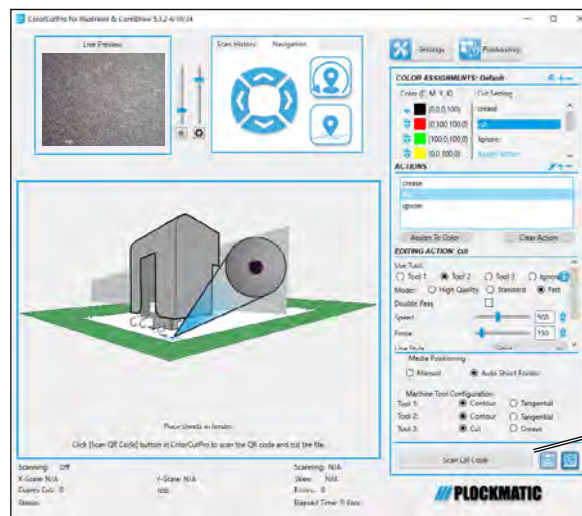
Continued on next page...

Retrieving Jobs with QR codes printed on them, continued

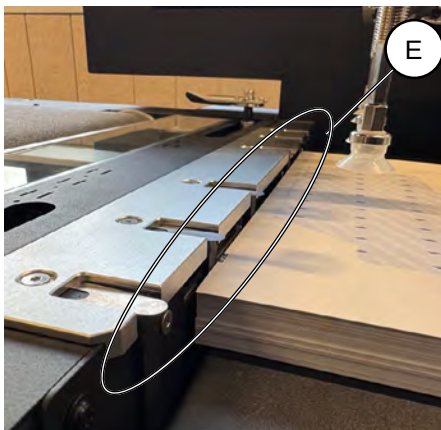
2



Before proceeding to the next step, if needed, adjust the distance of the outer vacuum finger, loosen the knobs and move the vacuum finger assembly forward or backward. Measure the distance from the side of the media up to the edge of the suction cup. The distance should be at least 3 cm to avoid damaging the clamps or vacuum fingers.



4. Using ColorCut Pro, Click on the [Scan QR Code] button [D] on the main application to scan the QR Code



The AirBlade sheet separation system [E] (at the front of the Auto Sheet Feeder) will fire a high powered stream of compressed air into the stack from the front of the feeder to aid separation. Then the vacuum fingers will drop to collect the top sheet of media in the Auto Sheet Feeder media stack.

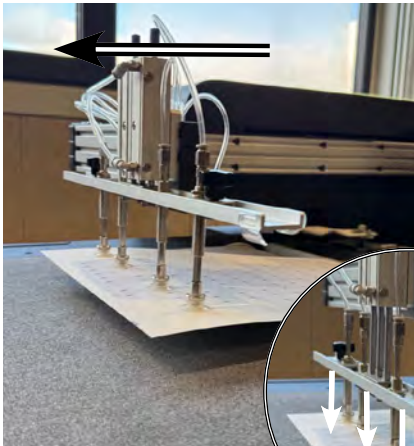
Retrieving Jobs with QR codes printed on them, continued



The sheet of media will be lifted from the stack using the vacuum fingers (any media that clings to the bottom of the sheet being picked up will be dislodged either by the high pressured air stream or the metal retaining fingers on the lead edge of the feeder).

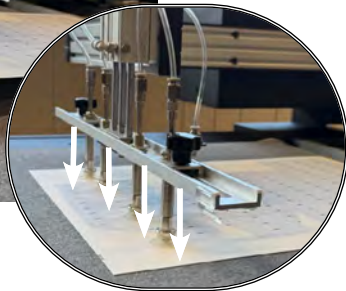
The pressure of the air from the AirBlade sheet separation system can be adjusted using the control on the side of the feeder (See section "Auto Sheet-Feeder Options").

2



The Feeder will then advance the sheet forwards onto the vacuum bed.

As the feeder arm lowers the media onto the cutting table the 'Air-Pulse Hold Down' system will fire a burst of intense air to ensure the sheet is dislodged from the vacuum fingers and transferred to the cutting table. The Air-pulse continues to fire an air stream as the feeder arm returns to the home position.

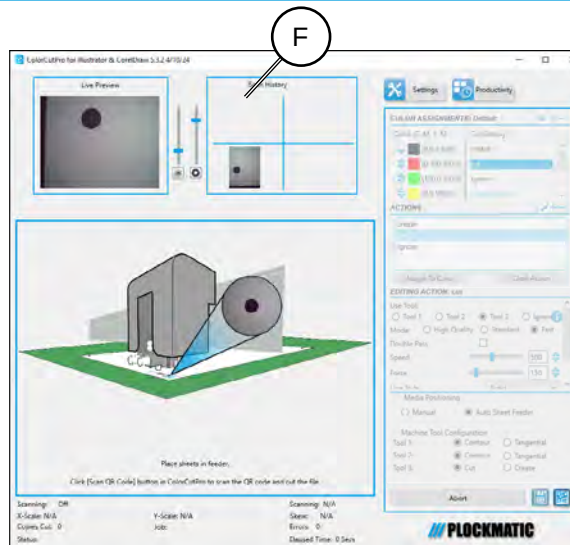


As the feeder arm retracts, the FB9550 cutting table/belt advances the media forwards the distance that is set in the Productivity tab for "Feed Advance".

The Tool Carriage (including the Vision3 sensor) will then move over the first PageMark. The distance moved is based upon the Vertical Distance Between Marks set under the Productivity.

Retrieving Jobs with QR codes printed on them, continued

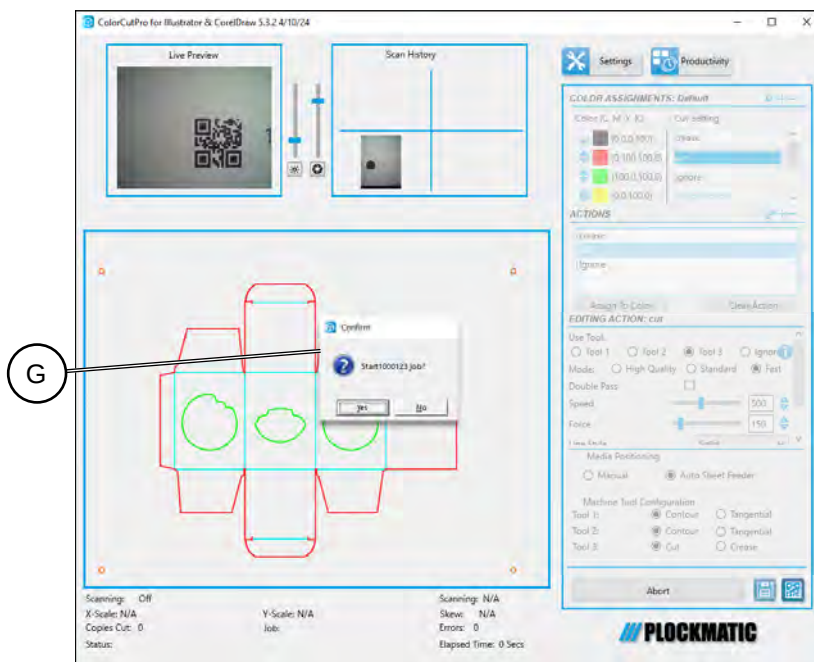
2



In the 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 [F].

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 cut job file for you.

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



NOTE: When you first start using the FB9550 it is recommended that you enable 'After scanning QR ask before cutting' in the Productivity menu. This will pause the FB9550 cutter after loading the cut job and display the message [G] asking if you wish to start the job (See section "After scanning QR Code ask before cutting").

This is useful when first using the cutter, as it provides the opportunity to set up the actions, cutting force and speed and helps you understand how to assign actions to each of the colored lines.

After you are confident with your cutter and the selection of actions in respect to colors, you should disable this setting, so fully automated operation can be achieved.

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 FB9550 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 contains lines that do not follow your normal (assigned) convention (e.g. the red color was designed by another use and is intended for crease in this job and green for cut), 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 sheet.

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.

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.

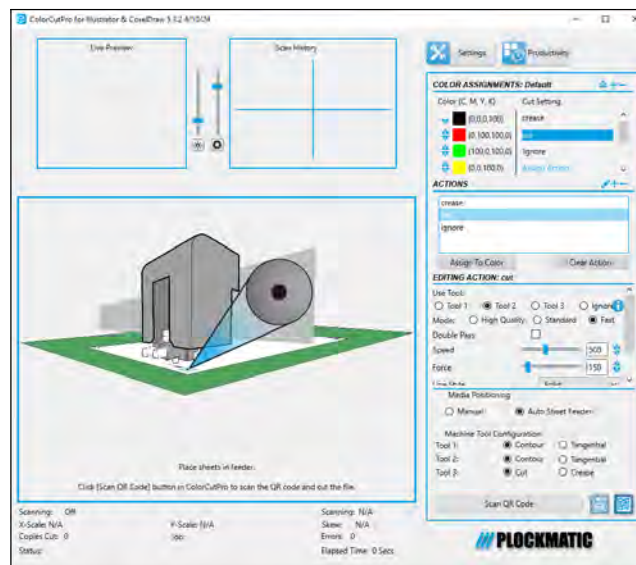
I.E. when cutting artwork which contains some graphics or elements that would obscure the QR code (such as a solid bleed color) or when the Graphic Designer needs to maximise sheet area used for cutting but in doing so the QR code may appear within the finished product

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.

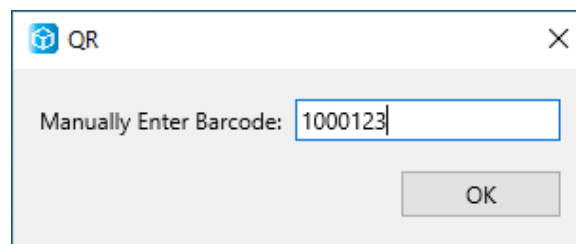
Jobs that have been created with a QR Code and Job Number (but then have, had the QR code removed), can be recalled from the Job Library by simply entering the Job Number (normally) printed at the top of the sheet.

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

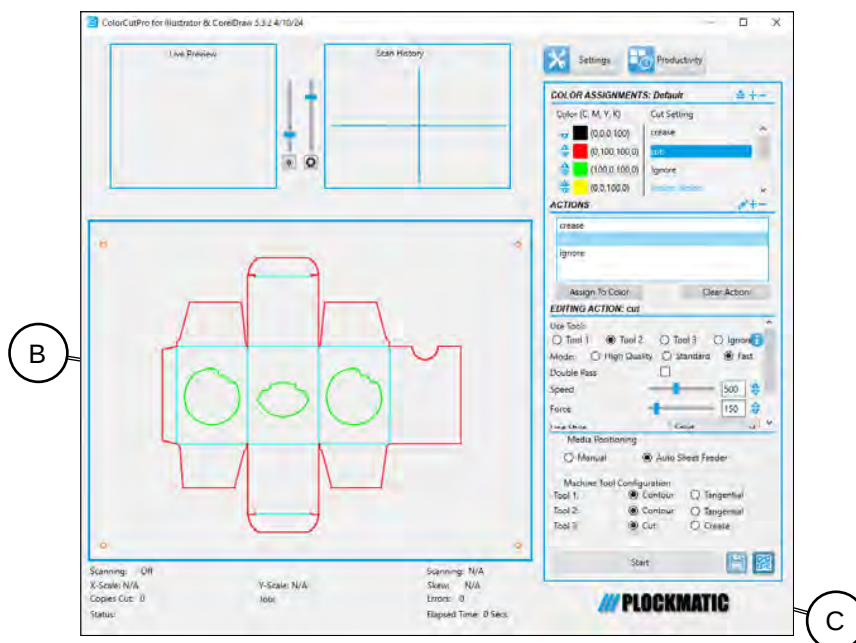
2



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].



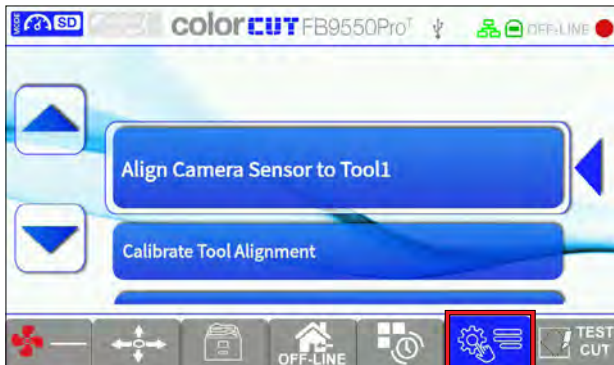
You will notice the [Scan QR Code] button has now changed to [Start] [C].

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

3. Settings and Options

This section outlines ColorCut Pro settings that you can change directly on the cutter. If you want to use the cutter in standalone mode and import files via USB, you don't need to change settings in ColorCut Pro; instead, you can adjust them directly on the cutter's user interface.

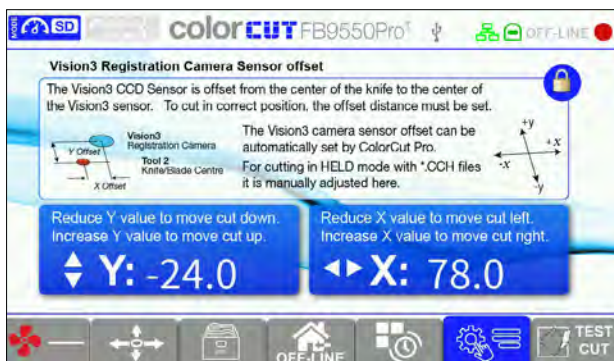
The Settings and Options screen



Press the [Settings and Options] Tab to get to the Tools screen. Select the setting you want to change by moving up/down with arrow keys and once select pressing [ENTER].

After changing setting in the sub screen, press the [ENTER] button to save your changes and return to the Settings and Options screen.

Align Camera Sensor to Tool1



NOTE: Camera Sensor offset is already set at the factory, but it's a good practice to know what it is and confirm the calibration.

The Align camera sensor to Tool1 in the settings tab is factory calibrated on the cutter for running .CCH files.

Offset is manually adjusted by editing the Sensor Offset X and Y values. To change the X and Y values, press and hold the padlock icon to unlock and adjust the values.

The calibration needs to be done in ColorCut Pro when running .ill files. For detailed description See section "Sensor Offset & the Auto Find feature".

Calibrate Tool Alignment



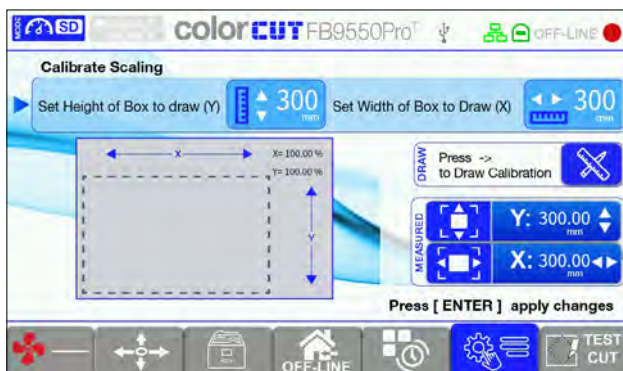
NOTE: Tool alignment is already set at the factory, but it's a good practice to know what it is and confirm it.

Perform a calibration to determine the precise alignment between TOOL1, TOOL2, and TOOL3; thereby ensuring the accuracy when changing between tools.

To achieve this alignment, use the Pen Tool available in the accessory box. Perform a test cut (See section "Test Cut"), and carefully assess whether the shapes of the selected tools align with each other.

If adjustments are needed, adjust the Y and/or X values and repeat the procedure until the desired alignment is achieved.

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.

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

NOTE: This is an engineer function. Do not touch this setting unless advised by service technician.

Quality Mode



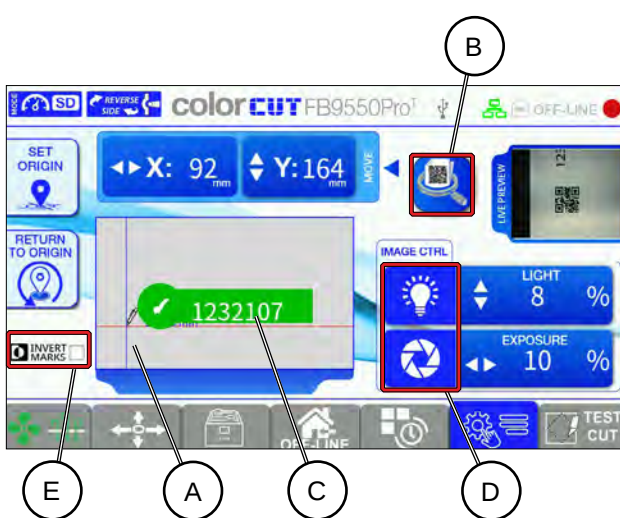
Three cutting modes are available for selection, each of which enables a modification in cutting speed by adjusting the mode of the cutter.

When handling cutting and creasing tasks of relatively straightforward complexity, it is advisable to employ the Fast Quality mode.

For projects involving thicker media or intricate designs with finer details, such as demanding perforations, the HD Quality mode is recommended due to performance and precision.

For tasks that don't specifically necessitate the use of either the Fast or HD Quality modes, opting for the Standard Quality mode is recommended for achieving consistent and balanced results.

Image Control



The Image Control lets you adjust the video camera's image settings, such as lighting and exposure levels. This helps to ensure QR codes and PageMarks are readable by the cutter.

To check QR code or PageMark readability:

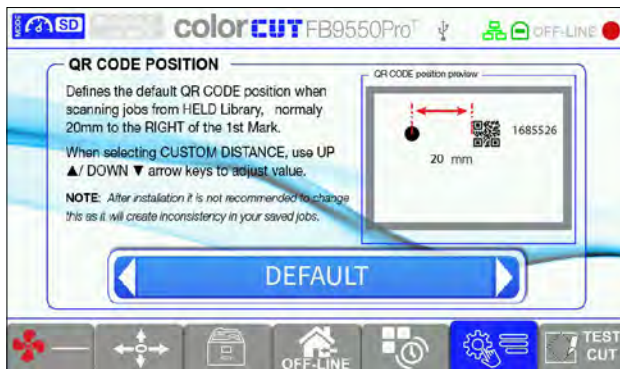
1. Go to the [Image Control] option in the [Settings Menu].
2. Place a piece of media with PageMarks and/or a QR Code on the bed and activate the vacuum fan to keep it in place.
3. Touch and hold on the grey bed on the screen to move the tool head over the media [A]. Use the hard directional buttons to fine tune and move the camera over the mark you want to check. Click on the magnifying glass to switch between checking the PageMarks and QR code [B].

If readable, a green check mark [C] will appear on the screen with the Job Number found (double check this to ensure it is correct).

If its not readable, adjust the lighting with the up and down hard key arrows and the exposure with the left and right hard key arrows. Pressing the light bulb or lens icons [D] will reset the settings to default.

If the PageMarks or QR codes are white on black media, tap [INVERT MARKS] [E] to assist in detection.

QR Code Positioning



Within the QR code position menu, users have the flexibility to select from five distinct positioning options.

This feature proves particularly valuable in scenarios where the design elements intersect with the QR code's intended location, necessitating an adjustment for optimal placement.

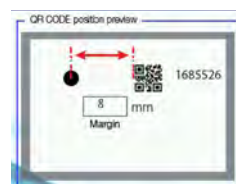
3



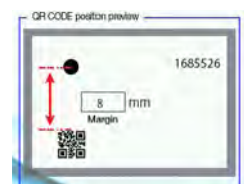
Next to 1st Mark
(Right)



Next to 1st Mark
(Below)



Custom (Right of
1st Mark)



Custom (Below 1st
Mark)

Advanced Productivity Configuration



Retry Mark Scanning function enhances mark reading success and cutting accuracy. When set above the default value (OFF), the cutter retries scanning the mark if it fails, up to the specified number of times.

If the same mark position is detected twice consecutively with a rescan level >2, it proceeds to the next task.

Ramp Down Tool Force is used to prevent excessive damage when using creasing or cutting tools, the Ramp Down Force reduces initial force by 30-100% below the set force. After delay, the force increases to the level defined in the LCD panel or cutting file.

This feature minimizes entry point damage caused by the initial solenoid strike on high pressures. Note that setting Ramp to 100% disables this feature.

Vary Light During Retries feature adjusts lighting conditions during mark scanning retries to improve accuracy. When Retry Mark Scanning is set to 2, it cycles light levels from low to medium to high on successive retries. For Retry Mark Scanning >2, the light range adapts accordingly for each mark scan. This feature helps when scanning media is challenging, allowing the cutter to move to the next process upon detecting any valid position.

Network Settings

3



The network settings screen allows to connect the cutter to either Wi-Fi or Ethernet.

When static settings are enabled, it is possible to manually configure the connection settings, while with DHCP turned on, the settings are automatically assigned by default.

The default settings after factory reset is Ethernet - DHCP.

NOTE: It is not recommend running the cutter over Wi-Fi. This feature is for connecting to a network share only and not running the cutter through ColorCut.



When the connection type is changed to Wi-Fi, the Wi-Fi settings are displayed.

NOTE: Wi-Fi is deactivated after a factory reset or the first time the machine connects.

When switched on, the cutter remembers the last set settings. (Wi-Fi will be activated, and any previously selected connections will be reconnected.)



When Wi-Fi is enabled but not selected, a list of accessible networks is displayed.

The Refresh button [A] refreshes the network list.



When clicking on a network, the keyboard appears to enter SSID password.

When Wi-Fi network is connected, it appears at the top in separate box, labelled "Current Network".

Holding the name of the linked Wi-Fi allows you to forget (clear the password) for the connected network.

Network Share



Connecting to a network share simplifies accessing .CCH files on a workstation.

To start, enter the Server IP address and the Share Name "ColorCut_Held." The cutter will recognize and connect to this folder.

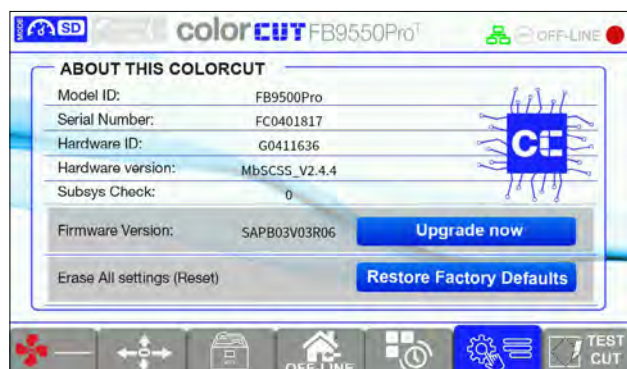
Provide valid network credentials, like a user name and password and press [Connect].

3



When the correct credentials are entered, the status indicator will change from 'Unavailable' to 'Share Available', indicating a successful connection. The unit can then access files over the LAN (Local Area Network) when in Held mode (Section "4.Held Mode").

Firmware



The firmware menu shows detailed information about the cutter, including the model ID and serial number. The hardware ID identifies the main PCB, and the version number shows the specific revision of the PCB.

The firmware version is displayed and can be updated from this menu.

All settings can be reset to their default values if needed.



When [Upgrade now] is pressed Upgrade Firmware screen opens and the new firmware can be imported from a USB drive.

Page Intentionally Blank

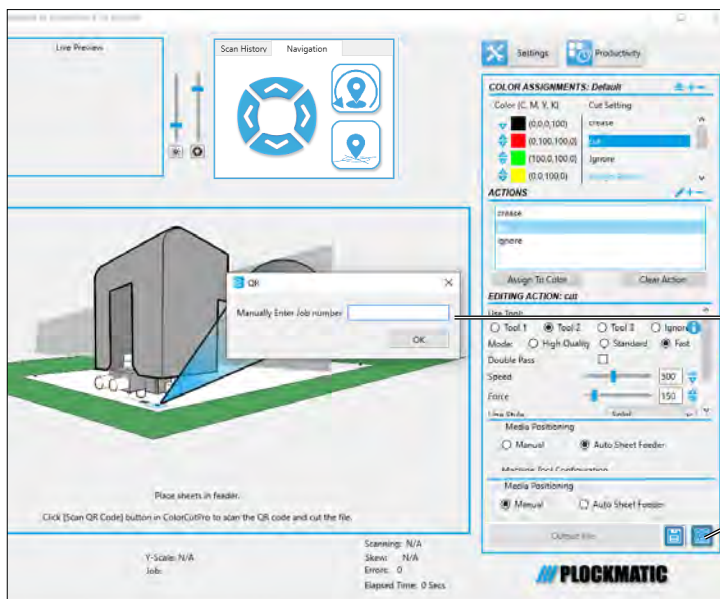
4. Held Mode

Held mode allows the machine to operate directly using files stored on a USB drive or from a network share. This is useful for repetitive high-volume production tasks, as it eliminates the need for a constant connection to a computer or server.

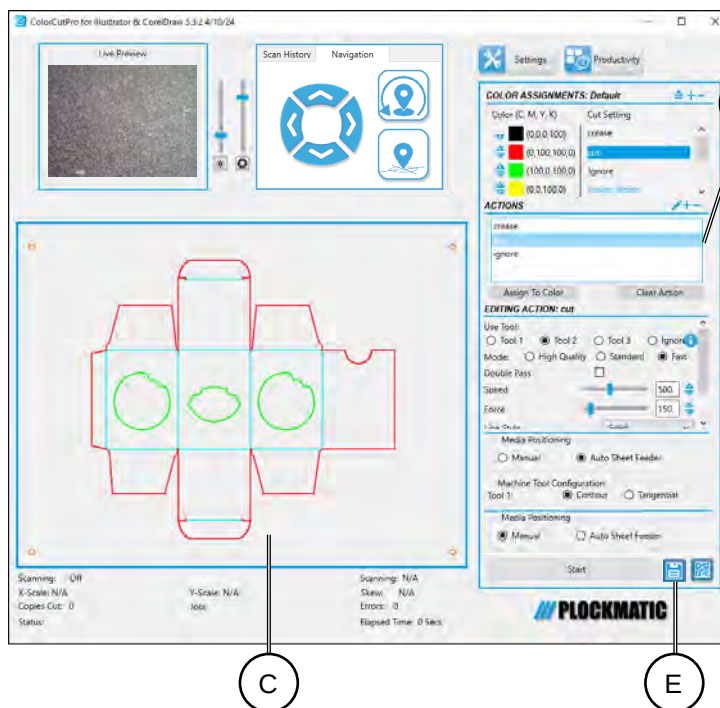
Note that the cutter has limited storage capacity so it is recommended to keep job files stored in the USB or network share.

On the LCD screen, press the [Held Mode] button to be able to load, change or delete jobs.

How to create cut files (.cch files for held mode)



1. Launch Color Cut Pro.
2. Locate the QR code icon [A] and click on it.
3. Enter the QR code of the design [B] to be converted to a .cch file and press [OK].



4. The design will appear in the Preview section [C]. Actions can be assigned, and speed and force settings for each action can be input [D].

NOTE: Once the .cch file is created, settings cannot be changed.

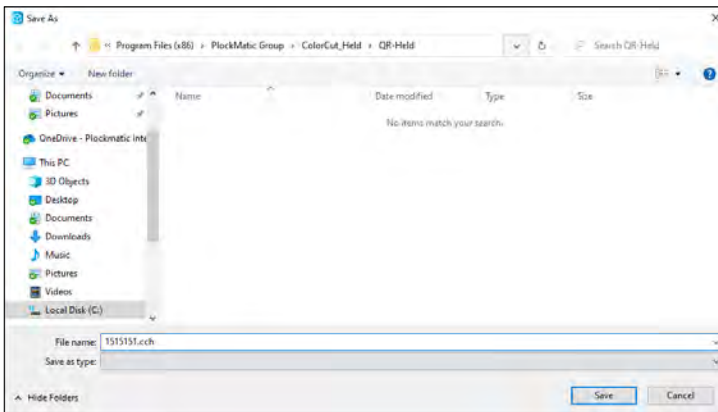
Check for Settings that are saved to .CCH before generating:

- Knife Offset
- Scan Targets
- Use ColorCut Pro to set Speed/Force
- Speed/Force and Actions
- Sort Method
- Media Size
- Media Positioning

5. When satisfied with the settings, click the Save icon [E].

NOTE: It is recommended creating .cch files after running test sheets through ColorCut to make sure all settings are correct.

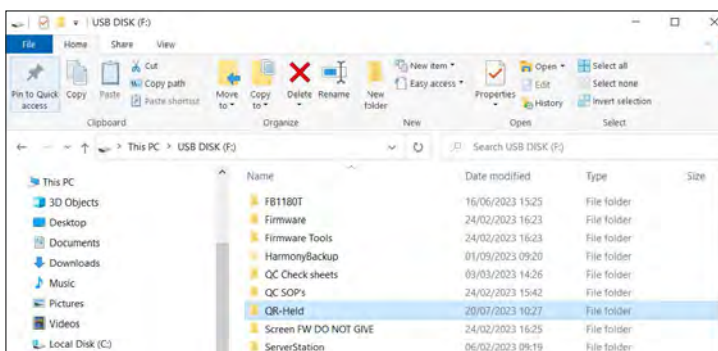
How to create cut files (.cch files for held mode), continued



6. The default save location is:
C:\Program Files (x86)\PlockMatic Group\ColorCut_Held\QR-Held

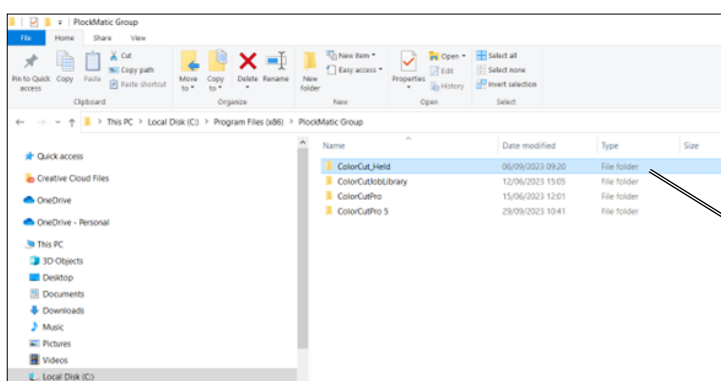
Click [Save] to create the .cch file for Held Mode on the cutter.

7. To run the .cch file to the cutter, there are two options:
- a. Share the ColorCut_Held folder over the network.
 - b. Plug a USB stick into the cutter, then click on the Folder Icon and the USB Icon.
8. If using a USB stick, ensure the .cch file is in a root folder named 'QR-Held' for the cutter to find.



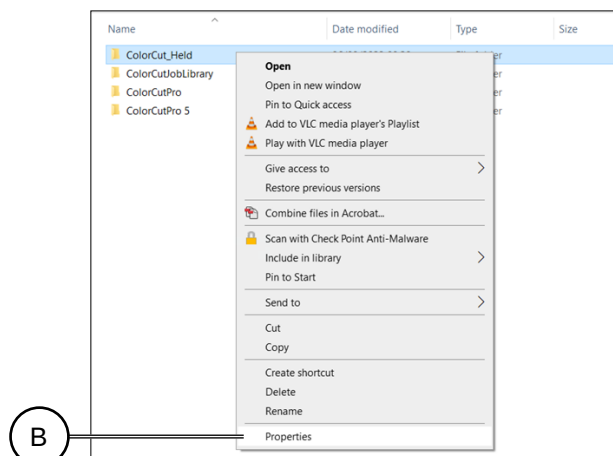
Sharing ColorCut_Held Folder on FB9550 Network

In order to make the ColorCut_Held folder accessible for Network Share on the FB9550, it must be shared on your PC. Without sharing it, the folder will not be available for network sharing.

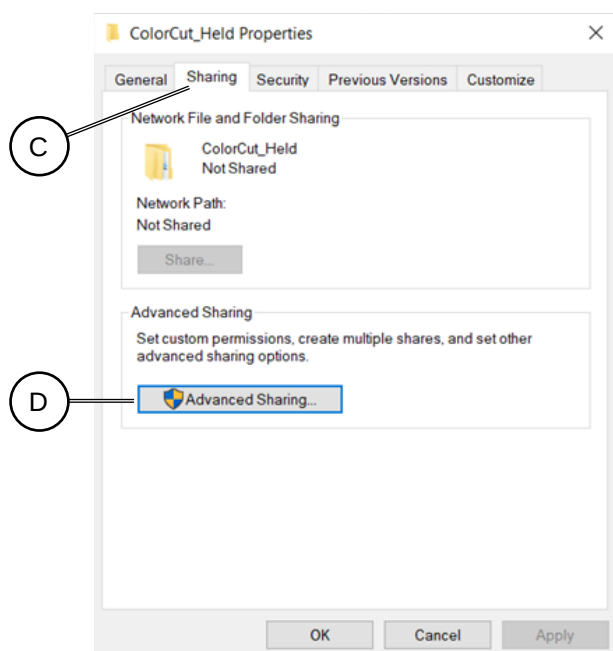


1. Navigate to:
C:\Program Files (x86)\PlockMatic Group
2. Select the ColorCut_Held folder [A].

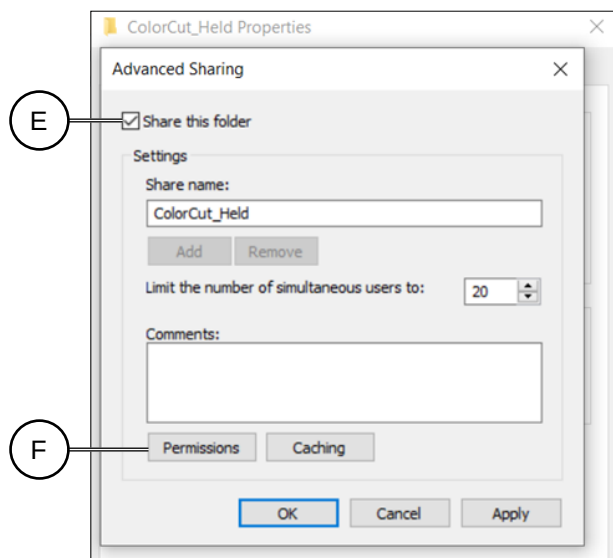
Sharing ColorCut_Held Folder on FB9550 Network, continued



3. Right click on the ColorCut_Held folder and select Properties [B].



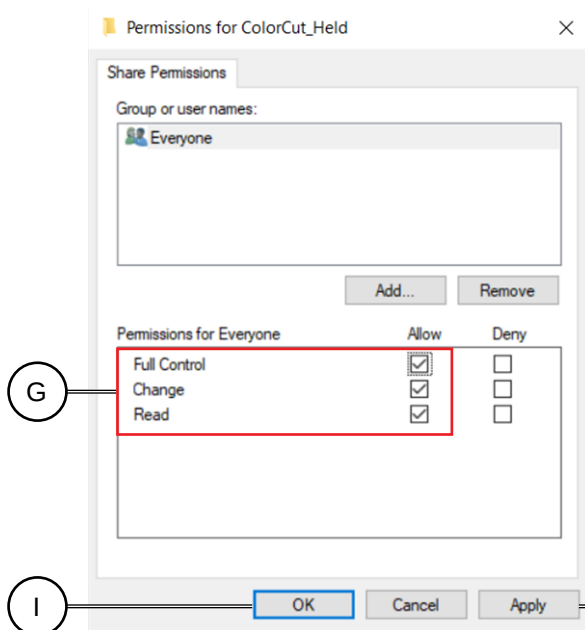
4. Click on the Sharing tab [C] and then click on Advanced Sharing [D].



5. Select the check box 'Share this folder' [E].
6. Click on Permissions [F].

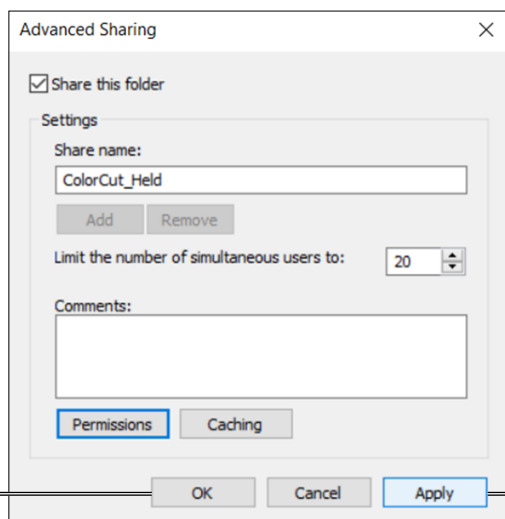
4

Sharing ColorCut_Held Folder on FB9550 Network, continued



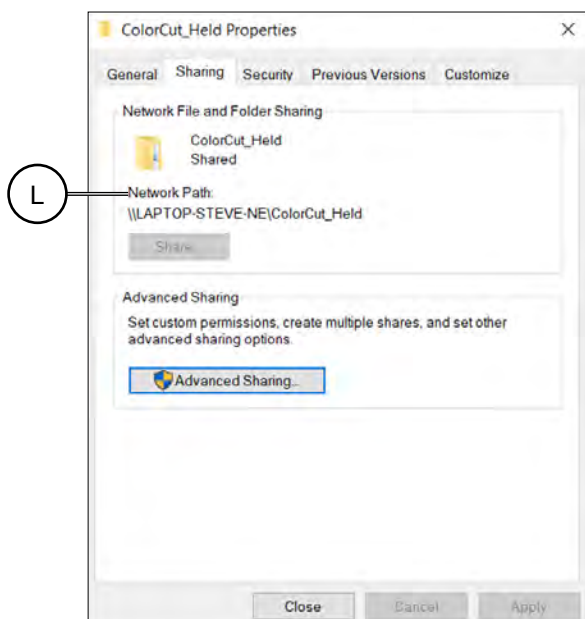
7. Select the 'Allow' check boxes for Full Control, Change, and Read [G] under the 'Permissions for Everyone' section.

8. Clicking Apply [H] and then OK [I].



9. It then takes you back to the Advanced Sharing window.

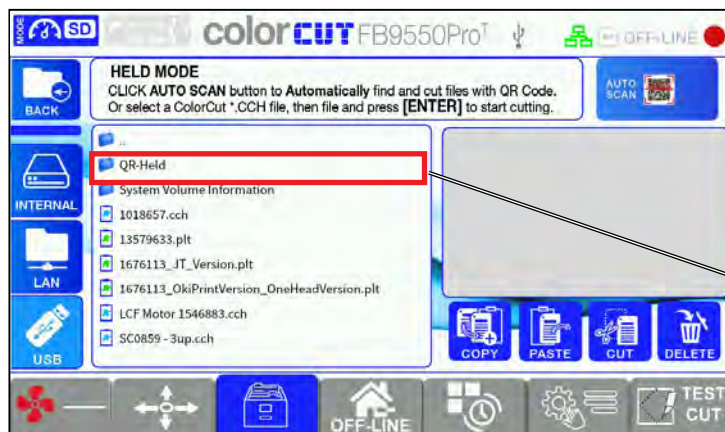
10. Click Apply [J] and then click OK [K].



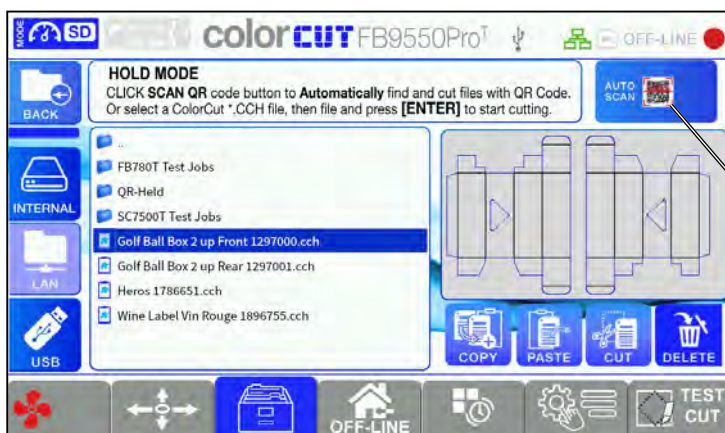
11. It then takes you back to the ColorCut_Held Properties window.

12. The Network Path has now been changed to reflect the Share [L].

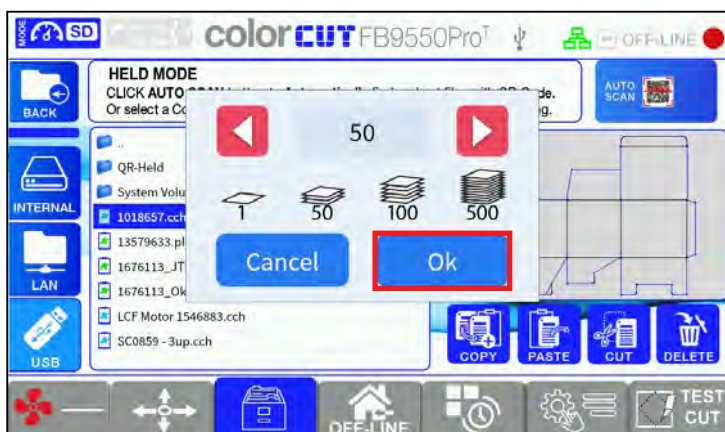
How to run job with USB stick



1. Insert the USB stick into USB port on the machine.
2. Enter Held Mode and choose USB.
3. The cutter will display the available folders on the USB. Locate and select the 'QR-Held' Folder [A].



4. Inside the QR-Held folder, the .cch files that can be run directly from the cutter are found.
5. To start cutting, either select the desired design or, for mixed batches, click on the "Auto Scan" icon [B].



6. Specify the number of copies to run and select [OK] to start cutting.



7. When the cutting job is finished eject the USB properly before removing it from the cutter.
To eject the USB access the Connection Info screen by holding 'On-Line/Off-Line' in the top right corner [C] of the LCD screen, then tap [EJECT] and remove the USB stick from the cutter.

How to run cut files via LAN

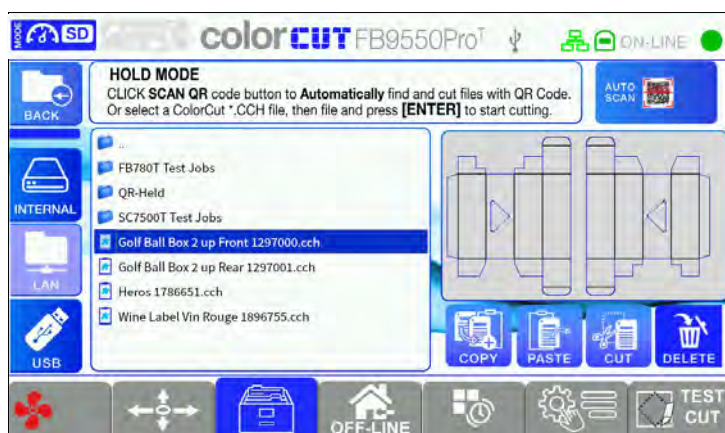


1. Open Network Share screen.
2. Provide the Server IP address and the Share Name "ColorCut_Held" as the cutter system will recognize and connect to this folder address.
3. Enter network credentials: User Name and Password.

4



4. Upon successful entry of the correct credentials, the status indicator labelled 'Unavailable' will transition to 'Share Available,' signifying a successful connection.
5. Following that, the unit is able to access files over the LAN (Local Area Network).



6. Enter Held Mode and choose LAN.
7. The cutter will display the 'QR-Held' folder that is being shared from the "ColorCut_Held" folder.
8. Select the 'QR-Held' folder to view and select the desired job by highlighting it on the screen.
9. Press [Enter] on the Keypad or press the Auto Scan icon on the LCD screen.



10. Specify the number of copies to run and select [OK] to start cutting.

5. 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 (393.7") 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 sit or step on the media catch tray, it will break or the machine will tilt over. The maximum load for the media catch tray is 15 kg (33.1 lb).

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

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

Cleaning of TOOL2

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

Caution:

Take caution with the blade to avoid cutting your hands!



Outer cover



Blade with circlip

Inner blade holder

3. Take the blade out of the holder, wipe off any paper dust.
4. Lubricate the stud of the blade with bearing grease and put it back in the inner blade holder, screw back the outer cover.

Cutting head rail

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



Rear Camera Scanning Bar

Make sure to clean the Rear Camera Scanning bar daily using a microfiber cloth. Turn off the machine and disconnect the power cord before performing any procedures.

Rear Camera
Scanning Bar



5

Compressor Drainage

Drain the compressor daily by identifying the drain valve to avoid excess moisture buildup and keep the compressor functioning optimally. Ensure the compressor is turned off and cooled down before draining. Be cautious of hot components and pressurized systems. Use a suitable container to collect the drained fluid, ensuring it is large enough to hold the fluid and made of a material compatible with the drained substance. Use the drain port on the bottom of the compressor to drain any moisture out of the system. Do once with compressor fully compressed and once from empty. Repeat until no moisture is left in the compressor. After draining, inspect the system for any leaks or issues that may need attention before starting the compressor.

Compressor



Valve for drainage

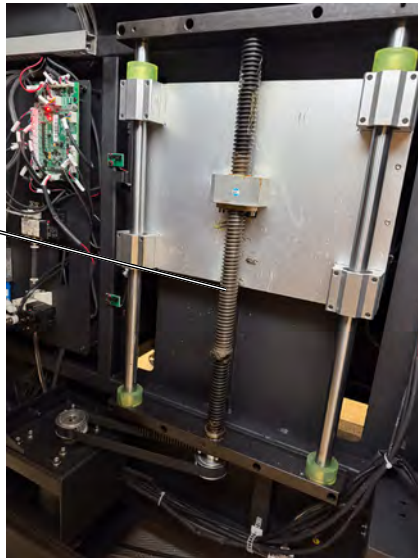
Lubrication of Feeder Threaded Rod

Turn off the machine and disconnect the power cord before performing any procedures.

Open the back cover of the feeder to access the threaded rod.

Weekly, clean the Threaded rod with an engineer's wipe and lubricate it with white lithium or multipurpose grease.

Threaded rod

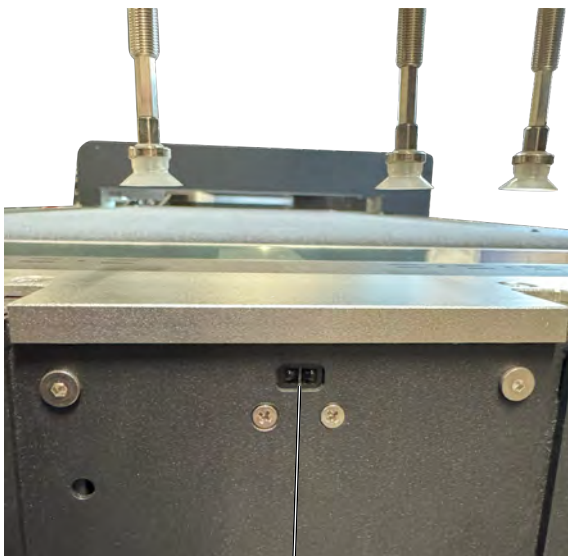


5

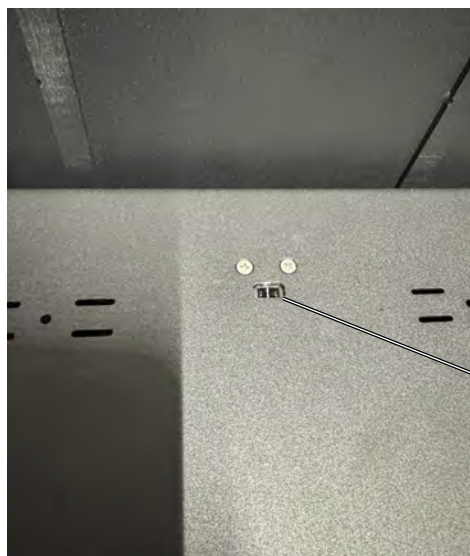
Cleaning of Auto-Feeder sensors

Turn off the machine and disconnect the power cord before performing any procedures.

Daily, use a microfiber cloth, compressed air or soft bristled brush to clean the Platform and Paper Sensors. This may need to be done more frequently depending on the media type.



Platform Sensor



Paper Sensor

NOTE: The Sensors are visible when the Auto-Feeder platform is lowered and paper is removed.

FB9550 Best Practices

- For best practice, we recommend users consider testing media with rear cutlines and processing their jobs from the rear, as this can widen the media range users can use, improve foldability, reduce the risk of cracking and increase user satisfaction.
 - While many customers cut & crease from the front, more established and experienced users understand the advantage rear cutting and creasing has. They tend to alternate depending on design between cutting from the front on good media and creasing from the backside of the sheet on thicker or less suitable medias. We provide a range of test files that have marks on BOTH sides, enabling you to demonstrate the effectiveness of both (and provide an insight into the advantages of rear cutting and creasing).
- The ColorCut FB9550Pro is designed to handle mechanically flat sheets (as most printing systems are also designed to handle). The use of sheets with moderate curl is possible, however, sheets with curl will cause more frequent misfeeds and lead to greater inaccuracy during cutting. Be sure to use your printers de-curl function if possible. Otherwise, follow instructions in the user manual to modify feeder settings.
- Set design rules within your organization to keep consistent PageMark and QR code locations. That will lead to minimal set up changes when cutting.
- Set design rules with regards to what color is used for crease and cut. Generally, red is the most common cut color and blue is the most common crease color.
- For the best accuracy and highest quality end product, be sure to change your knife blade frequently.

5

FB9550 Limitations

- GSM lower than specification (140 gsm) may cut perfectly fine but is more dependent on curl and paper properties. (The paper may bend and the marks will be difficult to read resulting in a less accurate cut).

Material Limitations

- Magnetic paper can be cut by manually placing the sheet on the cutting mat.
 - In order to feed magnetic paper, you may need to load masking sheets between each magnetic sheets (so they aren't stuck together magnetically).
- Metallic effect media (paper OR polyester) may be cut, but it depends on the composition.

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6. Specifications

FB9550 Technical Specifications		
Cut Area	Auto Sheet Feed	Manual placement
Maximum media area	530 mm x 740 mm (20.8" x 29.1").	550 mm x 850 mm (21.7" x 33.5").
Effective contour cutting area	483 mm x 700 mm (19.1" x 27.6").	495 mm x 735 mm (19.5" x 29") (no mark scanning).
Media placement	Automatic sheet feeder or manual placement.	
Media hold-down method	2 zone vacuum cutting underlay (high speed 750 W vacuum pump included as standard).	
Cutting mat	Superior felt cutting underlay (one piece user replaceable) continuous belt.	
Registration system	High speed CCD Camera.	
Job recognition	Advanced QR code technology for instant file recognition and registration.	
Cutting Control		
Cutting Carriage	5-Tool configuration (3 passive (drag) and 2 active (Tangential) tool positions). Note: This is a 2 + 2 + 1 system, so 3 tools are active at one time.	
Cutting Force 3 tools active at one time from selection of 5	Tool 1; Position 1A: Tangential crease or perforation. Position 1B: Passive ball crease. Max force: 2500gf (2.5kg (5.5lb)) (only 1 tool active at a time). Tool 2; Position 2A: Tangential cut or perforation. Position 2B: Passive drag knife. Max force: 2500gf (2.5kg (5.5lb)) (only 1 tool active at a time). Tool 3; Passive drag knife only. Max force: 1300gf (1.3kg (2.9lb)).	
Mountable tools		
Recommended media thickness/types	Paper/card up to 800 micron. Max. depth: 1000 micron (low density substrate i.e., rice paper / softboard). Active Tangential Blade: 3mm / 1.8" (E/F/G/N Fluted Board).	
Speed - Three speed modes:	Fast mode 1,200 mm/s; SD Standard mode 960 mm/s; HD High quality mode 750 mm/s	
Blades for label kiss cutting*:	FBBL30 - 1 x Yellow - 1 mm (0.04") 30° cemented carbide blade - for thin film and very soft material. FBBL45 - 1 x Red - 1 mm (0.04") 45° cemented carbide blade - for adhesive stickers, thin card under 0,25 mm. FBBL60 - 1 x Blue - 1 mm (0.04") 60° cemented carbide blade - for rigid media, (polyester sheets).	
Blades for card cutting:	FBBLC45 - 3 x Red circlip - Industrial 1.4 mm (0.6") 45° circlip cemented carbide blade - default blade for cutting card stock and folding box board from 0,25 (0.01") to 0,6 (0.03") mm thick. FBBLC60 - 3 x Blue circlip - Industrial 1.4 mm (0.6") 60° circlip cemented carbide blade - use with high-intensity reflective film or magnetic media - suitable for cutting media from 0.5 (0.02") to 1.2 (0.05") mm thick (restricted to max limit of flatbed).	
Passive drag creasing tool	Supplied as standard: FBT0007 - Passive drag creasing tool - Wide. FBT0008 - Passive drag creasing tool - Narrow.	
Tangential Cutting Knife	Supplied as Standard: FB-UMAGT-03A - Cutting knife holder. FBBLT45 - Cutting knife blades (Pack of 3). Also available: FBBLT45-K15 Cutting knife blades (Pack of 15).	

* Included with the machine as a mixed set containing 1 blade of each type, replacements are sold as a single type in a pack of 3.

FB9550 Technical Specifications	
Tangential Creasing tool	Supplied as standard: FB-UMAGT-00W1 - Tangential Creasing Wheel is designed for E/F fluted board. FB-UMAGT-00W2 - Tangential Creasing Wheel is designed for FBB /SBS/ SBB packaging Board and N fluted board. Optional Creasing Wheels**: FB-UMAGT-08A - Narrow creasing wheel - 0.28mm. FB-UMAGT-08B - Medium creasing wheel - 0.55mm. FB-UMAGT-08C - Wide creasing wheel - 0.95mm.
Tangential Perforating Wheel	Optional Perforating Wheel**: FB-UMAGT-10A - Perforating wheel - 1.68mm pitch.
Pen holder:	Pen, plotting pen, also used for calibration sensor.
Output tray	Modular, movable media collection tray.
Compatibility mode PC & Mac	
ColorCut Pro - Plugin (PC)*	ColorCut Pro 5 plug-in (all features available). ColorCut Pro sends projects designed in Adobe® Illustrator® or CorelDRAW® directly to 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 - Plugin (Mac Client)*	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 Standalone (PC)*	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.
Specification	Windows 10/11 Pro x64 bit. 4GB of RAM (8GB recommended). Recommended display resolution:1280×960.
Auto Sheet Feeder	
Maximum media size	530 mm x 740 mm (20.8" x 29.1")
Minimum media size	196.85 mm x 284.98 mm (7.8" x 11.3")
Maximum media weight / stack height	25 kg (55.12 lb) or 210 mm (8.6"). 2,100 sheets of 80gsm.
Media pick up method	Quad (4) vacuum suction pads. Adjustable for portrait/landscape feeding.
Sheet separation features	Sheet jog with forward facing air blade separation with additional stainless steel sheet fingers and air pulse knock down jet
Reverse side registration system	Patented additional 2 CCD camera systems to read sheet registration marks (PageMarks) from rear side
Productivity indicator	4 Light bar indicator
Power Requirements - If Serial Number Label is for 220-240 V	
Power requirements - Cutter	220-240 V / 6.8 A / 700 W
Power requirements - Vacuum pump	200-240 V / 6.2 A (50Hz) 8.6 A (60Hz) / 1.1Kw (50Hz) - 1.3Kw (60Hz)
Power requirements - ASF	Auto Sheet Feeder (supplied by cutter)
Power requirements - Compressor	220 V / 3.6 A / 780 W (supplied with cutter)
Power Requirements - If Serial Number Label is for 100-120V	
Power requirements - Cutter	100-120 V / 13.6 A / 700 W
Power requirements - Vacuum pump	110 V / 15.2 A (50Hz) 16.5 A (60Hz) / 1.1Kw (50Hz) - 1.3Kw (60Hz)
Power requirements - ASF	Auto Sheet Feeder (supplied by cutter)
Power requirements - Compressor	110 V / 7.5 A / 800 W (supplied with cutter)

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

** Not supplied with machine, available for purchase separately through your local sales representative.

FB9550 Technical Specifications		
Media Collection Tray	Packed	Unpacked
Weight:	Included with the Cutter	18.5 kg (40.8 lb)
Length:	Included with the Cutter	743 mm (29.3")
Width:	Included with the Cutter	663 mm (26.1")
Height:	Included with the Cutter	758 mm (29.8")
Cutter	Packed	Unpacked
Weight:	420 kg (881.8 lb)	270 kg (595.2 lb)
Length:	1760 mm (69.3")	1607.5 mm (63.2")
Width:	1230 mm (48.5")	1091 mm (43")
Height:	1320 mm (51.2")	1089 mm (42.8")
Auto Sheet Feeder	Packed	Unpacked
Weight:	265 kg (650.4 lb)	180 kg (396.8 lb)
Length:	1580 mm (61.3")	1331 mm (52.4")
Width:	1060 mm (41")	922 mm (36")
Height:	1400 mm (55.2")	1207 mm (47.5")

* Maximum dimensions relate to assembled machines and reflect full extremities of each device to allow for aspects such as tool beam and vacuum hose.

