

# SubliJet IQ<sup>TM</sup>

## **Getting Started Guide**

For EPSON Stylus<sup>®</sup> C120  
& EPSON Stylus C110



# **SubliJet IQ™ Getting Started Guide for the EPSON Stylus® C120 & C110**

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- For best printing results, use the ink within six months of purchase. Please refer to the individual ink bag/cartridge for the specific ink expiration date.
- Keep out of reach of children.
- Do not expose ink to temperatures above 100° F or below 40° F.
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### **How to get service:**

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Provide you with a new, or at our option, a refurbished QuickConnect unit. Alternatively, at our option, we may refund the purchase price. The exchange is under warranty for the remainder of the original products' warranty period or 90 days, whichever is longer. The replacement will be shipped to you via Ground shipment. Any rush shipments will be freight prepaid.

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# Introduction

Congratulations on your purchase of SubliJet IQ™ digital transfer inks. The SubliJet IQ™ sublimation ink cartridges are the latest advancement for the EPSON Stylus C120 or EPSON Stylus C110 from Sawgrass Technologies, Inc., a leader in the development of digitally driven color transfer technologies and related products.

With this system, your printed images can be transferred onto any product designed to accept sublimation dyes including: ceramic, metal, tiles, Mylar, polyester fabric, performance wear, UniSub®, and Hanes Soft L'Ink® T-shirts, resulting in an attractive, durable product. Your imagination is the limit for producing brilliant, near photo-quality images on caps, clipboards, clocks, mugs, mouse pads, plaques, puzzles, synthetic T-shirts, and more. SubliJet IQ™ is ideal for markets that personalize, customize or create short-run output.

In addition, your system is bundled with PowerDriver IQ™, a user-friendly color management software package that allows the user to create flawless transfers in less time. The "Fast Copies" option reduces print time by automatically spooling the file to the printer only once regardless of the number of copies. Design time is also condensed by utilizing the ColorSure Palette. The color palette contains 160 more spot colors and the custom palette gives users the ability to add, edit, import or export colors, thus streamlining the color matching process. Instructions for installation and use of this system can be found in this User's Guide.

This document contains information for using SubliJet IQ™ inks and helpful tips are also provided for getting the best results from your transfers. The information provided pertains only to the use of SubliJet IQ™ in your EPSON Stylus C120 or C110 printer. If you have questions about the operation of your EPSON printer, refer to the *EPSON Stylus C120 or Epson Stylus C110 Printer User's Guide*.

Technical support is available from your Authorized SubliJet reseller or directly from Sawgrass Technologies, Inc. See the section entitled *Technical Support* for additional information.

We at Sawgrass strive to provide you with the tools to make the sublimation process easy to learn and simple to master. We hope you will find that the tools we have developed will make your years in the sublimation business fun and profitable. Please feel free to contact us with your feedback about our products. For additional information on our other products, visit our web site at [www.sawgrassink.com](http://www.sawgrassink.com).

Thank you and enjoy your SubliJet IQ™ printing system.

## About this Document

This document contains descriptions and procedures for using SubliJet IQ inks, along with additional information for getting the best results from your transfers.

The documentation provided pertains only to the use of SubliJet IQ™ inks in your EPSON Stylus C120 or C110 ink jet printer. To assist you in the overall setup process, references are made back to the *EPSON Stylus C120/C110 Printer Basics Guide* for instructions. To help point out important information, specific instructions, and helpful tips, look for the following symbols:



**Read This**

Indicates **Must-Do** items, including warnings and important guidelines. These must be followed to prevent damage to your printer.



**Tip**

Indicates useful tips for printing and sublimation.

### Before you begin:



**Read This**

It is crucial that the OEM ink supplied with your printer is installed before you attempt to install your SubliJet IQ™ inks. This allows for two things: First, it primes the ink delivery system, ensuring that the SubliJet IQ™ ink will load more easily. Second, it familiarizes you with the basic operation of your printer. Please see the *EPSON Stylus C120 or C110 Printer User's Guide* for instructions on installation.

## Quick Connect II™ Set-up for the C120/C110

Check to ensure that you have all of the components necessary to setup your Quick Connect II™ system.

### Components

1. Bulk Ink Dampers + tubes
2. Plastic Arm with Velcro adhesive
3. 4 plastic syringes for priming
4. 3 plastic dividers
5. PowerDriver C120/C110 IQ CD
6. QuickConnect Box
7. SubliJet Ink bags (not included with QuickConnect system)
8. Printer



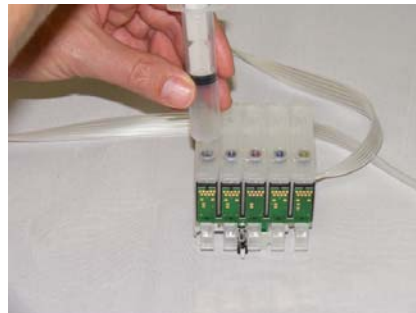
1. Remove the soft protective cap from each ink bag. Depress the metal tab on the inside of the Quick Connect box and insert the plastic ink valve into place. Release the metal tab to lock the bag into place. Insert the black plastic dividers to separate between the four ink bags.

**Note— There are 5 (five) bulk ink dampers, but only 4 ink bags. Two dampers are supplied by the Black ink bag. The Black ink bag has a “Y” tube splitter that fills both black ink dampers.**



2. Set the bulk ink dampers face down on a flat surface with the round openings facing up. Pierce the thin plastic tab that covers the opening using the tip of the syringe or a sharp object such as a ball point pen. Firmly insert the tip of the plastic syringe into the gasketed opening until the tip is completely inserted. **Note -The**

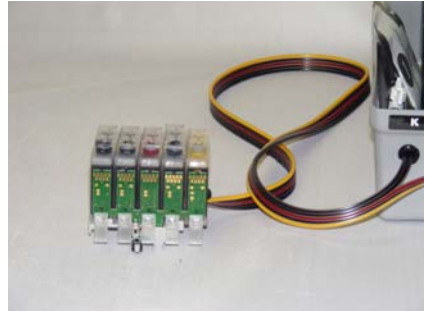
**plunger needs to be completely inserted into the syringe.**



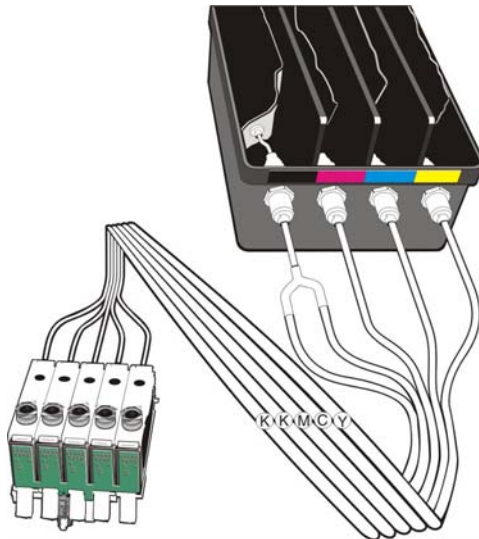
3. Slowly extract the plunger. Ink will start to flow through the tubing into the damper. Continue extracting the plunger until ink begins to flow into the tip of the syringe.

**Note: You may have to repeat this process twice to complete the priming of each ink damper.**

Repeat this process for the other three ink bags.




**Note—You may have to take the syringe out, lower the plunger and reinsert it into the damper in order to completely prime the damper cartridges.**



Once the ink bags have been connected your Quick Connect bulk ink system should look like the graphic above.

## Printer Set-up for the C120



1. Turn the printer on. Wait for the printer to complete its start-up procedure. Lift the lid, and press the ink button . The ink cartridge bay will shift into a position on the right.



2. Raise the lid of the ink cartridge bay.



3. Firmly grasp the lid and twist it sideways until it becomes dislodged. The lid will not be needed for proper functioning of the printer with either the Quick Connect system or individual ink cartridges.



4. The ink cartridge bay should look like the picture above after removing the ink cartridge cover.



5. Remove the printer cover panel by inserting a flat head screwdriver between the panel and the printer. Gently push the cover panel loose.



6. Insert the flat head screwdriver into the opposite side of the printer. Hold the cover panel with one hand, gently push the cover panel loose and remove it.



7. Place the ink dampers into the empty ink bay cartridge. The Black ink damper should be on the far left side, the yellow on the far right side.

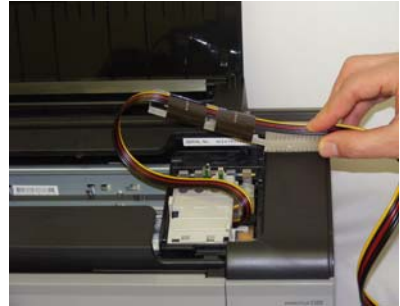


8. Firmly push down the plastic cartridge set of dampers to completely engage the ink dampers into place.

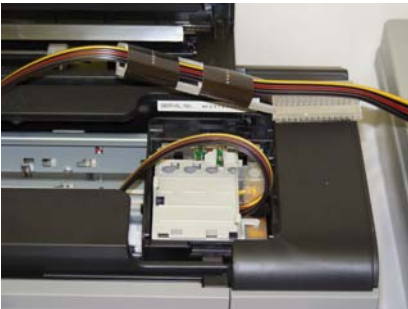
**Note: You will have to push each individual damper hinge into position until it clicks into place. The printer will not 'recognize' the ink damper until it is firmly pushed into place.**



9. Install the plastic support arm. First remove the adhesive backing on the back of the plastic arm.



10. The plastic tubing comes pre-attached to the plastic arm with two adhesive bands. Position the plastic arm on the far right side of the printer.



11. The plastic arm should be aligned so that the edge of the adhesive Velcro® is situated at the top right hand corner of the ink cartridge bay. Press the plastic arm firmly to set the adhesive Velcro® in place.



12. Press printer ink button (second button on the left side of the printer). The printer will start to prime and reset itself. The ink cartridge carriage will move in position.

Congratulations. You have installed your C120/C110 Quick Connect bulk ink system. You are now ready to install the C120/C110 PowerDriver software.

## **Tips:**

- Read the documentation on installing and using your Power Driver C120 or C110 IQ Driver.
- Perform a nozzle check from the Epson driver utility – a few cleanings may be necessary to prime the system.
- You may have a little air in your lines but this will clear after a few prints.
- If you are going to leave your system without using it for several days, you should turn the plastic valves on the ink bags to the shut/off position.
- Do not raise the ink box higher than the printer.
- If the printer's red in-out light (middle light on the front panel) stays lit, then remove the ink cartridge damper and reinstall it making sure to firmly press each ink cartridge into place.



## Chip Reset Instructions

The SubliJet QuickConnect bulk ink system for the Epson C120 or C110 printer contains a cartridge with five individual dampers that is used in place of the individual OEM (Epson) cartridges. This bulk ink system cartridge has a single chip that periodically needs to be reset so that the printer can continue to use ink from the bulk ink system. The frequency of this reset action will depend upon the number of images that are printed and the printer settings.

The following are simple instructions for resetting the bulk ink system.

1. Once the printer recognizes that the ink levels have reached a certain level, it will cease to print and the **orange** ink-out light will start to flash.



2. Press the **ink-out** button until the ink carriage moves into the far right position. The ink carriage will come to rest in the carriage bay area.



3. Press the **white reset button** at the top of the bulk ink system ink cartridge.



4. Again, press the **ink out** button on the front of the printer.



5. The printer will begin to reset and recharge. After the printer has completed the resetting activity, the **orange** light will turn off. At this point the bulk ink system has been successfully reset and the printer is again ready for use.



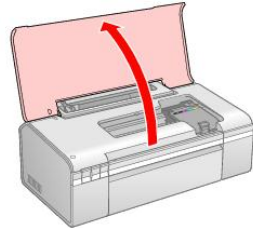
The individual SubliJet IQ ink cartridges for the Epson C120 are supplied as a 'two-pack'. Each color cartridge contains sufficient ink to print approximately 30 full page images (depending upon the print size, colors and print quality).

Sawgrass Technologies strongly suggests that the user perform a nozzle check and nozzle cleaning with the original OEM Epson ink cartridges **before** installing the SubliJet IQ Cartridges. This will reduce the amount of SubliJet IQ ink lost due to nozzle cleanings.

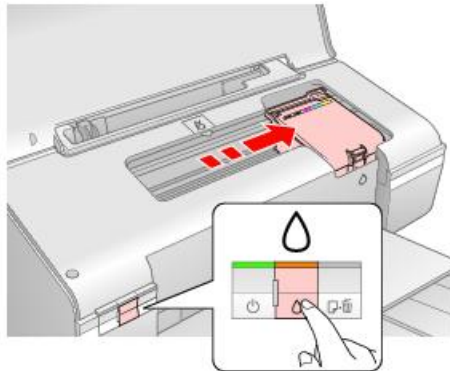
Sawgrass Technologies strongly recommends that a Quick Connect SubliJet bulk ink delivery system (as described earlier in this manual) be used for the most efficient and cost-effective manner to produce sublimation transfers using the Epson C120.

## Installing SubliJet IQ™ Cartridges (C120 only)

1. Make sure the printer is on.
2. Open the printer cover.
3. Press and release the ink button. The power and ink lights flash.



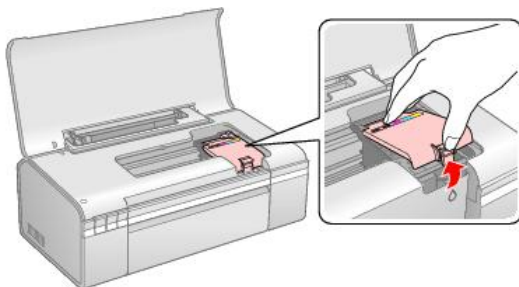
4. Press the Ink Button again for one second to move the print head into the cartridge replacement position.



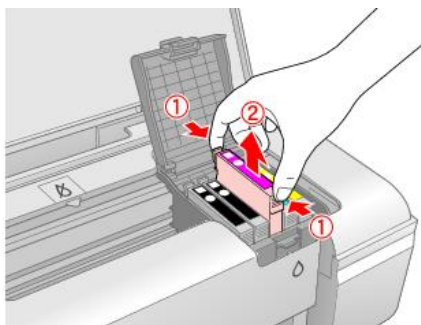
**Do not hold the Ink Button for more than 3 seconds or the printer will clean the print head.**

**Do not move the print head by hand.  
Do not open the cartridge cover when the print head is moving.**

5. Open the cartridge cover.



6. Squeeze the tab at the back of the Epson cartridge and lift it straight out. Remove all Epson cartridges from the cartridge holder.



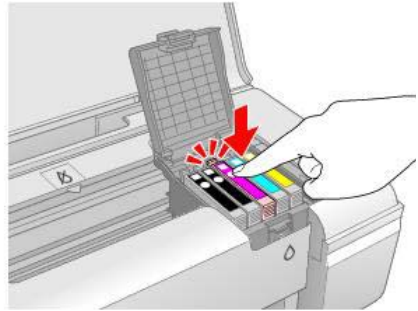
7. Before you open the new ink cartridge package, shake it four or five times. Then remove it from the package.



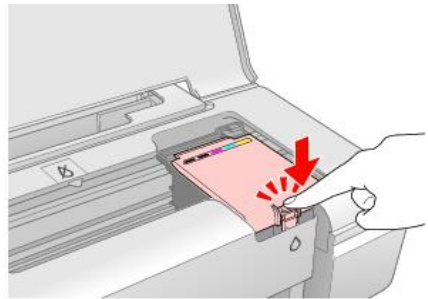
8. Remove the yellow tape from the bottom of the ink cartridge.



9. Place the new ink cartridge into the cartridge holder and push it down until it clicks into place.



10. Once the SubliJet IQ cartridges are in place, close the ink cartridge cover and press it until it clicks into place.



11. Close the printer cover.

12. Press the ink button for one second. The printer begins charging ink and the power light starts flashing. This takes about 1 ½ minutes. When it's finished, the power light stops flashing and remains on, and the ink light goes out.



**Never turn off the printer while the power light is flashing or you'll waste ink.**

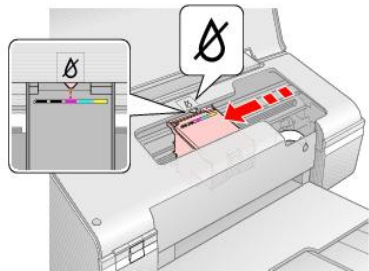
**If the ink light stays on (not flashing), the ink cartridge may not be installed correctly. Press the ink button again and reinstall the ink cartridge until it clicks into place.**

## Replacing an Empty Cartridge

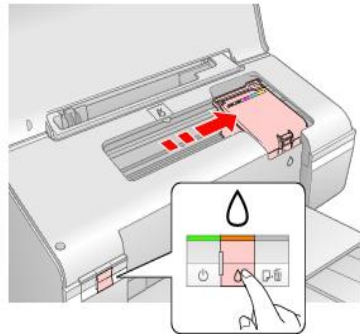
Make sure you have a new ink cartridge before you begin. Once you start replacing a cartridge, you must complete all the steps in one session.

1. Make sure the printer is on.
2. Open the printer cover.

3. Press and release the ink button. The power and ink lights flash. If one of the cartridges is low or expended, the printer moves that cartridge to the expended ink mark. If no cartridges are low or expended, the ink cartridge holder moves to the ink replacement position.



4. Press the ink button again. If another cartridge is low or expended, it moves to the expended ink mark. Once the printer identifies all of the low or expended ink cartridges, the print head moves to the ink cartridge replacement position.



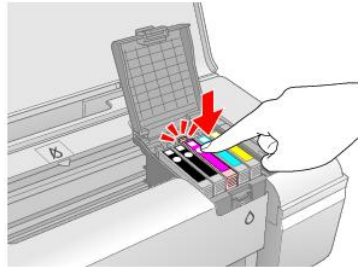
5. Open the cartridge cover.
6. Squeeze the tab at the back of the cartridge and lift it straight out. Dispose of it carefully.
7. Before you open the new ink cartridge package, shake it four or five times. Then remove it from the package.



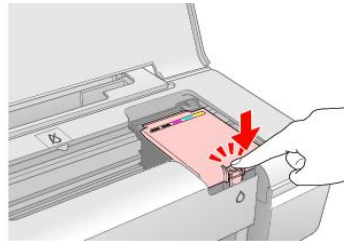
8. Remove the yellow tape from the bottom of the ink cartridge.



9. Place the new ink cartridge into the cartridge holder and push it down until it clicks into place.



10. Once you replace any other cartridges that need replacing, close the ink cartridge cover and press it until it clicks into place.



11. Close the printer cover.

12. Press the ink button. The printer begins charging ink and the power light starts flashing. This takes about 1 ½ minutes. When it's finished, the power light stops flashing and remains on, and the ink light goes out.

## Selecting Paper

For information on selecting the appropriate paper to use with your SubliJet IQ™ inks, please check our website at <http://www.sawgrassink.com/support/> or call your authorized SubliJet reseller. While the use of copy paper or other inkjet paper will not harm your printer, the transferred results may be light, splotchy, or uneven. Some papers may even stick to the surface or leave a visible residue.

## Heat Transfer Instructions

Because you can print on a variety of surfaces, you need to take all variables of the surface into account when selecting time, temperature, and pressure. Some of the variables are:

- thickness of surface,
- how fast the surface absorbs heat,
- coatings used on the material to create a receptive surface for sublimation inks (ceramics, metals, etc.),
- accuracy of heat press (time, temperature, and pressure).

The information listed below are only guidelines. Due to the differences in heat presses and the various materials you will be printing on, it is not possible to give absolute figures. You should check with your supplier for specific heat transfer instructions or experiment to find your own preferred settings.

SURFACE	TRANSFER TIME SUBLIJET	TRANSFER TIME SUBLIJET IQ	TEMP	PRESSURE	REMARKS
CERAMIC	150-210 seconds	150-210 seconds	350-400°F	40 psi	Time varies with press, use green tile mat for ceramic tile
FR PLASTIC	33 seconds	75-80 seconds	400°F	40 psi	Remove Plastic
METAL (Other) White, Silver, Gold	40 seconds	60 seconds	375°F - 400°F	40 psi	Time varies with metal manufacturer ( <i>Contact your reseller for correct time and temperature</i> ) Place absorbent sheet on bottom plate of heat press. Then place transfer paper face up on top of the absorbent. Next place the substrate face down on top of the transfer paper. <i>Remove paper from substrate immediately after transferring for best results.</i>
METAL (Universal Woods)	40 seconds	60 seconds	400°F	40 psi	Use absorbent, remove plastic.
MOUSEPADS	25 seconds	45 seconds	400°F	40 psi	
POLYESTER FABRIC & PERFORMANCE APPAREL	25 seconds	45 seconds	400°F	40 psi	
SOFT L'INK™	25 seconds	35 seconds	400°F	40 psi	Press for 5 secs to eliminate moisture, use Teflon sheet between sides of shirt to prevent "blow through"
TEC FILM	210 seconds	210 seconds	350°F	40 psi	
UNISUB™ PRODUCTS	75 seconds	75-85 seconds	400°F	40 psi	Remove Plastic



# User Guide

For Epson Stylus® C120  
& Epson Stylus C110

For distribution with SubliJet IQ® only  
**NOT FOR RESALE**

## PowerDriver Introduction

Obtaining the benefits of PowerDriver color management is now incredibly easy - simply print from your application with the PowerDriver C120 or C110 IQ® rather than the Epson printer driver. PowerDriver C120 or C110 IQ prints your image just like the Epson printer driver except for the colors. Watch how it magically makes SubliJet colors picture perfect!

PowerDriver IQ delivers both convenience and the highest quality SubliJet color management technology. The innovation demonstrated by the PowerDriver IQ software is the result of our dedication to you, our customers. At Sawgrass Technologies, we are focused on delivering the highest quality digital transfer technology available. We fully expect that you will be “wowed” by the results you obtain with SubliJet and the PowerDriver C120 or C110 IQ.

PowerDriver C120 and C110 IQ runs under Windows XP / Vista.

## System Requirements

### **Minimum Recommended Hardware:**

Pentium 4 – 3.0GHz or Athlon XP 3000+ Processor  
1 GB System Memory

## Setup Instructions – Windows XP / Vista

### Product Overview

PowerDriver C120 and C110 IQ is color management software that has been written as a Windows printer driver. It is designed to work with Epson ink-jet printers and Sawgrass sublimation ink. The installation program will install Sawgrass color management software, the Sawgrass PowerDriver C120 or C110 IQ printer driver software, and ColorSure tools and utilities.

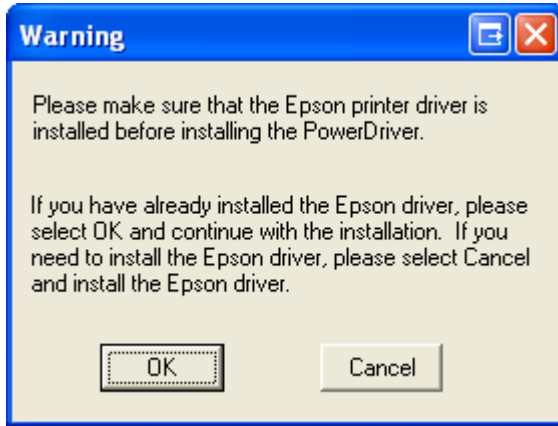
## Quick Start

1. Unpack and setup printer as described in the Epson manual.
2. Install the Epson printer driver and verify printer operation.
3. Insert the PowerDriver C120 or C110 IQ CD into the CDROM drive on the computer and install the PowerDriver C120 or C110 IQ.

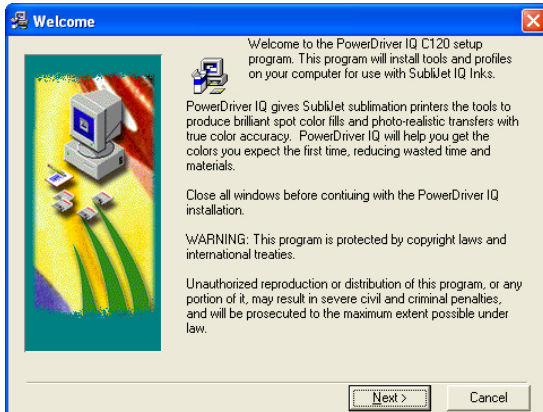
## Step By Step Installation

To get started printing as soon as possible, these are the steps Sawgrass recommends you perform while setting up your sublimation printer driver software.

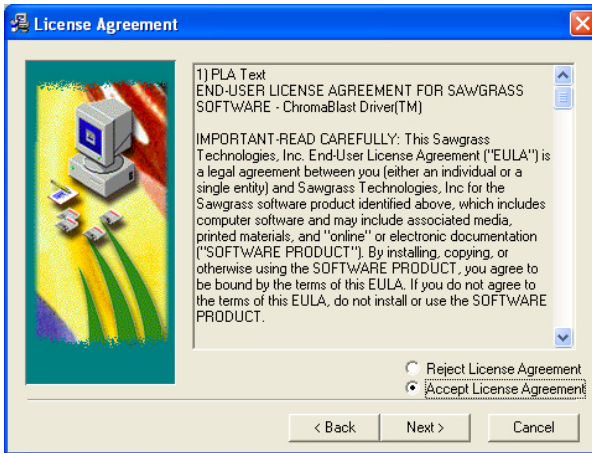
1. Setup the printer according to the Epson instructions.
2. Install Epson OEM inks.
3. Install the Epson printer driver. According to the Epson user's manual.
4. After the Epson driver is installed, check to see which port the printer is set to:
  - a. In XP you can do this by clicking on Start, Printers and Faxes. For XP with the Classic menu enabled, click Start, Settings, Printers.
  - b. Right click on the Epson printer you just installed and click on the Properties option.
  - c. Select the Ports tab and *write down the port the printer is assigned to*. You will use this later in the PowerDriver IQ software installation.
5. Insert the PowerDriver C120 or C110 IQ CD into your CD-ROM drive. The installation program should run automatically. (If the program does not automatically run, click Start, Run. Browse to your CD-ROM drive and click on Setup).
6. A reminder message will appear on the computer screen indicating that the Epson C120 or C110 OEM driver will need to be installed before proceeding with the installation of the PowerDriver software. If you have already installed this OEM driver than click Next to proceed.



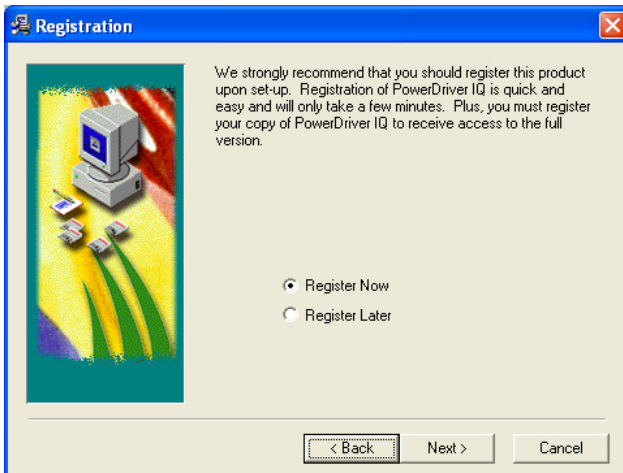
7. Welcome screen is displayed. Click Next to proceed.



8. The License Agreement is displayed next. Select the appropriate choice for acceptance of the Licensing Agreement to continue.



9. If you have not previously registered PowerDriver IQ, you will be prompted to do so. Registering is the only way to take full advantage of the features in PowerDriver IQ. If you choose to register later, select Register Later and click Next to proceed with the installation.



10. If you choose to register now, the registration screen will be displayed. To obtain your registration code you may do so in one of the following ways: Register on-line and receive your registration code via e-mail. Call Sawgrass Technologies, Inc. directly (888) 253-1679 and obtain your code over the phone. Send a fax and receive your registration code by fax.



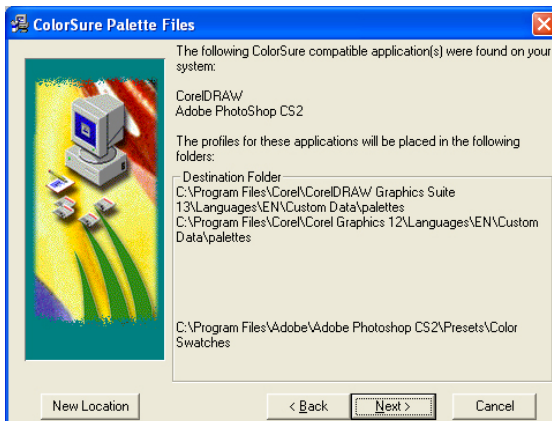
To register, you will use your Product ID (displayed on the registration screen) to obtain a Registration code. You will need separate registration code for every machine on which

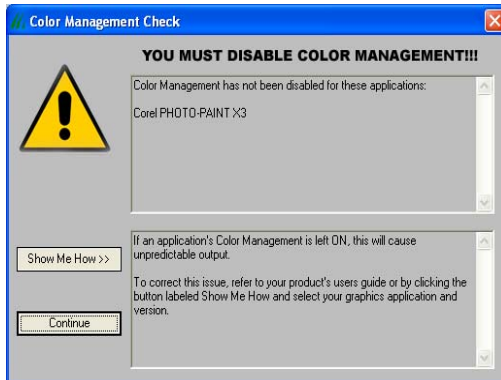
PowerDriver IQ is installed. Enter your registration code and click the Apply Code button.





11. Sawgrass Technologies, Inc. provides ColorSure color palettes for use with Corel and Adobe. (Check the ColorSure section of the manual for information on how to use ColorSure to get perfect spot colors). If Setup detects either of these applications on your system, the palette files will be placed in the appropriate folder indicated in the Destination Folder box. Click Next to proceed with the installation.





12. The PowerDriver IQ installation program will attempt to use plug-n-play to determine the port that the printer is connected to, click Next to continue. *Note: Cancel any 'Found New Hardware' wizards that may start during this process, do NOT cancel any file copy process however.*



13. Once the installation has completed, the Installation Complete screen will display. Click OK to end the installation.



## Using PowerDriver C120 or C110 IQ™ in Windows XP / Vista

The PowerDriver C120 or C110 IQ™ software is simple to use. Whenever you have SubliJet inks in your printer, you should print using PowerDriver C120 or C110 IQ™. **Do not** print to your Epson printer with the Epson printer driver; printing with the Epson driver will not give you the benefit of color management.

### Quick Start Example (Corel Draw)

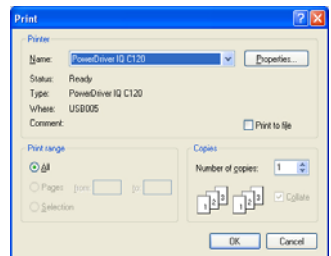
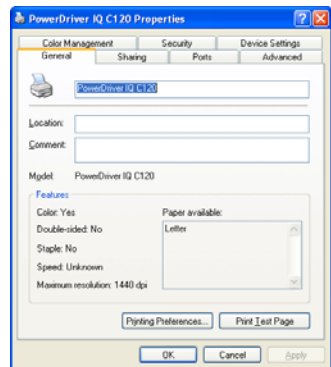
- 1) Open/Create an image in Corel Draw.
- 2) Select print from the File menu.
- 3) Select the PowerDriver IQ printer.
- 4) Use the properties button to access and set the Color, Output, Ink and Substrate, Resolution, and Advanced options.
- 5) Click Print.

### Setting PowerDriver C120 IQ™ printer properties

To configure PowerDriver C120 IQ™ for the correct substrate, you must display its printer properties. There are two ways to display the printer properties:

#### From the Windows Desktop:

1. Click on Start> Settings> Printers.
2. Right-click on your PowerDriver IQ printer.
3. Select *Properties* from the pop-up menu.
4. Select the *Printing Preferences* button.



**From an Application:**

1. Select File, Print Setup.
2. Choose the PowerDriver IQ printer from the list of printers.
3. Click the Properties button.

**PowerDriver C120 or C110 IQ™ Properties Overview**

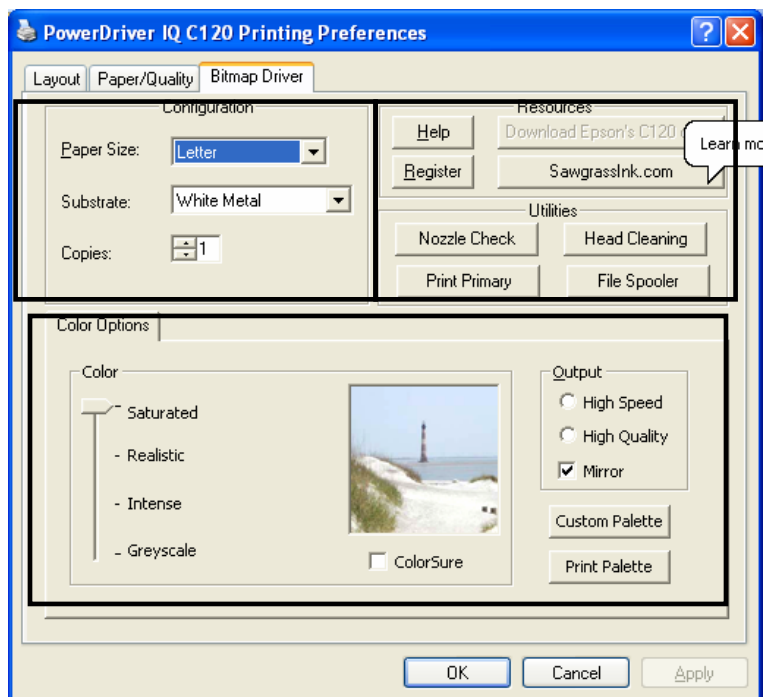
The following figure shows the printer properties for a registered version of PowerDriver C120 or C110 IQ™.

There are three main property groups;

**Configuration** – Set Paper, Transfer Substrate, and Copy Count

**Color Options** – Color management control options. (The Color Options group comes in two modes; Easy and Advanced) Both are described below.

**Printer Resources** – Utilities for printer maintenance, online help, product registration, and setting input profiles



*PowerDriver C120 IQ Printing Preferences Property Page*

## Group 1 – Configuration

**Paper Size** – From the drop down list, select the paper size you wish to use.

**Substrate** – From the drop down list, select the type of material to which you will be transferring your printed image. It is important to choose the correct substrate. PowerDriver C120 or C110 IQ's color management is optimized for each different substrate.

**Copies** – Sets the copy count for the number of prints to be made.

## Group 2 - Color Options

### Overview

This group of tabs gives you access to all of the color management controls available in the PowerDriver C 120 or C110 IQ™. Utilizing the power of the Epson C120 or C110 driver technology, the PowerDriver C120 or C110 IQ interprets bitmap and vector elements in a similar fashion.

### Vector and Bitmap Explanation

Bitmaps are a grid of pixels. Bitmaps come from digital cameras, scanners, and photo CDs. Bitmaps can also be created in applications like Corel PhotoPaint or Adobe PhotoShop. Bitmaps have file extensions like GIF, JPG, BMP, and TIF. Vector components consist of shapes, curves, lines, and text. They are created in programs such as CorelDraw and Adobe Illustrator. Higher end programs like CorelDraw can combine Vector and Bitmaps into a single image. The PowerDriver C120 or C110 IQ will color correct all bitmap files and vector components as bitmap images.

### Color Correction Settings

**Realistic** - This setting is most suitable for reproducing skin tones in scanned photographs.

**Saturated** - The Saturated setting will make the colors in your image more intense. Saturated output tries to remain color accurate with a slight bump in intensity.

**Intense** – This kicks the color intensity and saturation to the extreme. This setting does not try to keep color accurate; its main goal is to produce deep dark colors. Artwork, graphics, logos, and text are good candidates for this setting. Some photographs will look good but typically, this setting is too intense to be used with photographs. This can be set for either Bitmap or Vector images.

**GrayScale** – This setting is most suitable for monochromatic black and white photographic images.

### **ColorSure Options**

The ColorSure enhancement is used to replace specific colors in your image with a spot color chosen from the ColorSure palette. This resulting spot color enhancement is not affected by color setting. A ColorSure spot color will ALWAYS print the same. See Appendix C for an overview of ColorSure.

**Print Palette Button** – Prints the ColorSure palette for the selected substrate. ColorSure is a method for reproducing exact spot colors. The two main components are; 1) the transferred palette and 2) the CorelDraw, Corel PhotoPaint, and Adobe swatches. For a complete description on how to use ColorSure to get perfect spot colors, see appendix C.

**Custom Palette Button** – The Custom Palette utility enables you to add, edit, import and export custom colors to the ColorSure palette. If you need to precisely match a specific color, the Color Finder tool makes this a breeze. For a complete description on how to use the Custom Palette, refer to Appendix C.

### **Output Options**

**Mirror** – When you transfer an image, the result will be “flipped” when compared to the printed image. In order for your transfers to come out correctly, you must flip the image before transferring. Select this option to do the flipping for you. If you are doing this yourself in your editing application, make sure this option is turned off.

**High Speed** – If the printer supports multiple resolutions, choose the most appropriate setting. For soft substrates, the High Speed option works well.

**High Quality** – If the printer supports multiple resolutions, choose the most appropriate setting. For hard substrates, choose the High Quality option.

## Group 3 – Printer Options

**Utilities** The utilities options allow you to print a nozzle check pattern, run a print head cleaning cycle, spool a PowerDriver C120 or C110 IQ™ print file to the printer, and print a page of primary ink colors.

**Nozzle Check** – Click this button to print a nozzle check pattern. If any of the nozzle check patterns are incomplete, then perform a Print Head cleaning.

**Head Cleaning** - Performs a Print Head cleaning, after which a Nozzle Check should be performed to verify that the print heads are completely cleaned. Repeat the Head Cleaning until a complete nozzle check pattern is produced.

**Print Primary** – Use this function to print a page of the primary IQ ink colors (Cyan, Magenta, Yellow, Black)

**File Spooler** – Use this function to spool multiple print files to the printer.

## Resources

**Help** – This will display a help dialog box for an easy overview of the PowerDriver C120 or C110 IQ driver functions and settings. It also contains a link to the Sawgrass Technologies website.

**Register** – If the PowerDriver C120 or C110 IQ product has not been registered, click this button for instructions on how to register the product and unlock all the features.

**SawgrassInk.com** – This button links you directly to the Sawgrass Technologies website where you can access additional resources such as driver upgrades, documentation and other information regarding sublimation technology.

## **Appendix A: Network Printing in Windows XP / Vista**

Network printing with PowerDriver C120 or C110 IQ™ in Windows 2000 and Windows XP is simple. Before a network printer can be used it must be installed on the network and shared.

### **Host Machine (Server)**

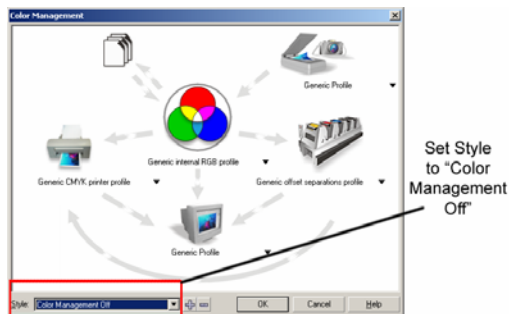
The server machine must have installed the printer and have the printer shared. To install the networked printer, run Start | Setting | Printer | Add Printer. The Wizard will guide you through setting up the printer. When prompted, choose “Network Printer” and browse to the server machine to locate PowerDriver C120 or C110 IQ™.

## Appendix B: Over-Riding Design Software Color Management

The PowerDriver C120 or C110 IQ™ provides a complete color management solution for your SubliJet printing. ***It is extremely important that you turn off any color matching features associated with your design software.*** An explanation of how to disable print-time color management in several popular design packages follows:

### CorelDraw™ version 10, 11 and 12

1. Create a new graphic.
2. From the main menu choose Tools, Color Management. In the Color Management window (see figure below), set the Style option to Color Management Off.



### CorelDraw™ version X3:

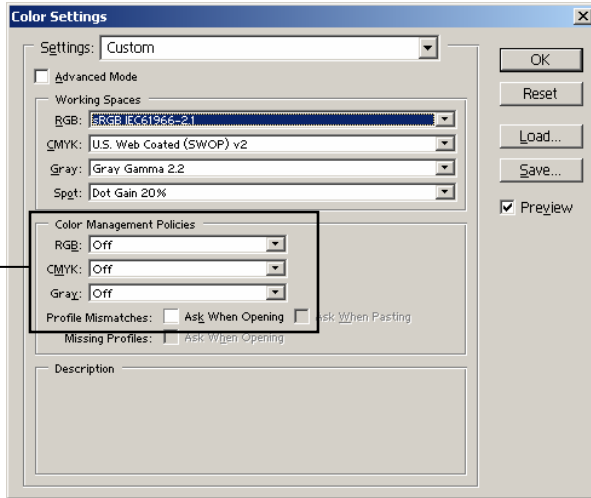


## Adobe Photoshop™ 7, CS, and CS2

### Color Setup

From the main menu choose Edit, Color Settings. On the Color Settings dialog box, turn all Color Management Policies off. Turn off Profile Mismatches.

Set all Color Management Policies to "off"

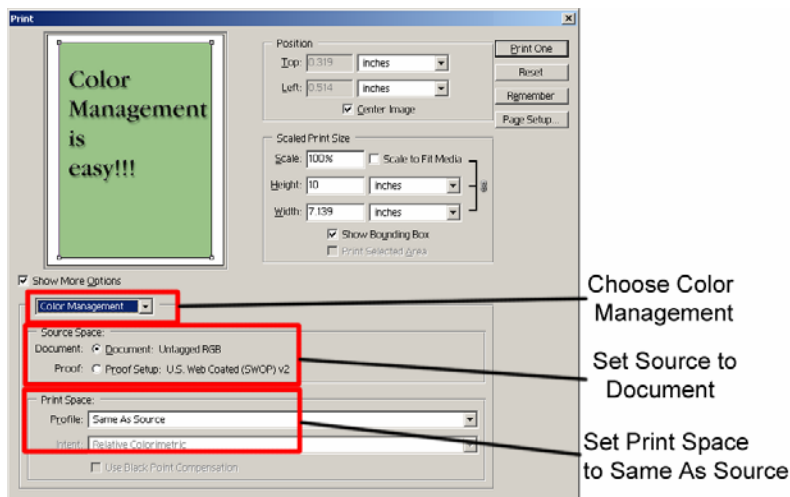


### To Print from Photoshop 7 and CS:

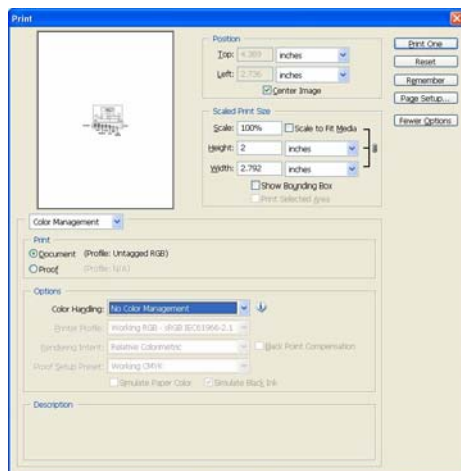
**Always select File, Print with Preview.** On the print dialog page, set the options as described below:

- Check Show More Options
- Choose Color Management
- Choose Document as Source Space
- Choose Same as Source for Print Space

From the Color Management drop option list, make sure that Source is set to "Document" and Print Space is set to "Same As Source".



## To Print from Photoshop CS2:



# Appendix C: Using ColorSure™ and Custom Palette

## I. Introduction

ColorSure is a method for reproducing exact spot colors. There are four main components of the ColorSure System: 1.) the transferred palette; 2.) Color Finder; 3.) Custom Palette; and 4.) the CorelDraw and Adobe application palettes / swatches.

1. **ColorSure Palette:** This is your main color palette that includes an extensive selection of 190 commonly used colors.
2. **Color Finder:** If a color you need is not on the ColorSure palette, the Color Finder tool allows you to locate the exact custom color you are looking for.
3. **Custom Palette:** With the Custom Palette feature, you can add new custom colors to the existing ColorSure Palette mentioned in step 1.
4. **Application Palettes:** You can add your Color Finder colors to an existing application palette, or you can add multiple custom colors to new, custom palette files (\*.cpl, \*.acl, etc.).

## II. Printing the ColorSure Palette

The first step you will want to take is to print and transfer your ColorSure palette to the various substrates you will be using. Most likely you will have customers who desire precise colors. Having your ColorSure palette available allows the customer to choose the color from the palette that is the closest match to what they want, and this gives you a starting point for finding the exact custom color that will match your customer's needs.

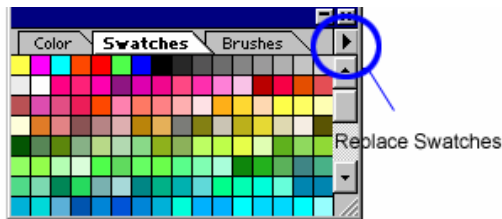
### ***To print the ColorSure palette, follow the steps below:***

- Click 'Start' and navigate to the 'Printers and Faxes' folder. Right-click on your PowerDriver printer and select 'Printing Preferences' from the menu. You may also open PowerDriver from within an Adobe or Corel program by going to File, Print, and choosing the PowerDriver printer from the pull-down menu. Click Properties to open PowerDriver.
- Choose the paper size you will be printing the palette to (Letter, Legal, etc)
- Choose the substrate that you will be transferring the palette to.
- Select the speed / resolution of the palette – High Speed or High Quality.
- Be sure to check the box to mirror your print, click 'Print Palette,' and then transfer the palette to the previously selected substrate.
- You now have a visual representation of how the ColorSure palette colors will appear on that particular substrate.

### III. Designing Your Artwork

By picking colors from the ColorSure palette, you will be able to consistently reproduce colors in a reliable manner. To assist you in designing your artwork, PowerDriver installs three palettes: two for Adobe products and one for Corel products. These colors match the palette that is printed from within PowerDriver.

- To open the ColorSure Palette in Corel 10, 11, and 12, choose Window | Color Palettes | Open Palette. Select the file “ColorSure Palette IQ&CB CMYK.cpl”
- To open the ColorSure Palette in Illustrator, choose Window | Swatch Libraries | Other Library. Navigate to where it was installed to when you installed PowerDriver: C:\Program Files\Sawgrass\PowerDriver\Adobe Illustrator and hit Open. The file name is ColorSure Palette IQ&CB CMYK.ai. *For easier access to the Palette file copy it from this [above] path to Illustrator10\Presets\Swatches and it will show up in your pull-down list directly under the Swatch Libraries menu. Other versions of Illustrator will have similar steps.*
- To open the ColorSure Palette in Adobe PhotoShop, choose the Swatches Palette, click the option arrow on the palette, choose *Replace Swatches* and pick the “ColorSure Palette IQ&CB CMYK.aco” file.



#### **HINT**

After you have the ColorSure palette loaded into CorelDraw, move the cursor over each color. As the cursor hovers over each different color, the ColorSure name is displayed in the status area at the bottom of the screen.

### IV. Using Custom Palette

The Custom Palette Utility is a useful tool that was developed to assist you in editing, importing and exporting custom colors and color palettes. Please read the following short set of instructions to learn how to use this simple, yet valuable application.

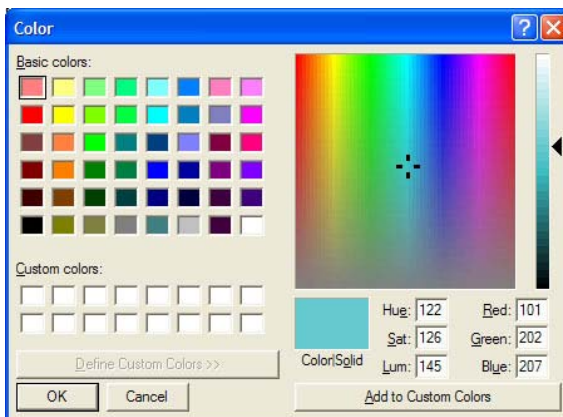
## Using Color Finder

There will be times when the color you need is not included in the ColorSure Palette. The Custom Palette Utility was developed to provide a solution for this.

The Color Finder tool allows you to start with a specific color (e.g. navy blue) and find similar colors in the same family by adding and subtracting up to three colors called 'Step Colors'. For example, starting with navy blue with a CMYK value of 60,60,0,40 and choosing two step colors (e.g. cyan and magenta) would expand the original navy blue in four directions (more cyan, less cyan, more magenta, and less magenta). This expanded color chart – specific to a particular substrate and printing speed – is outputted directly to your printer.

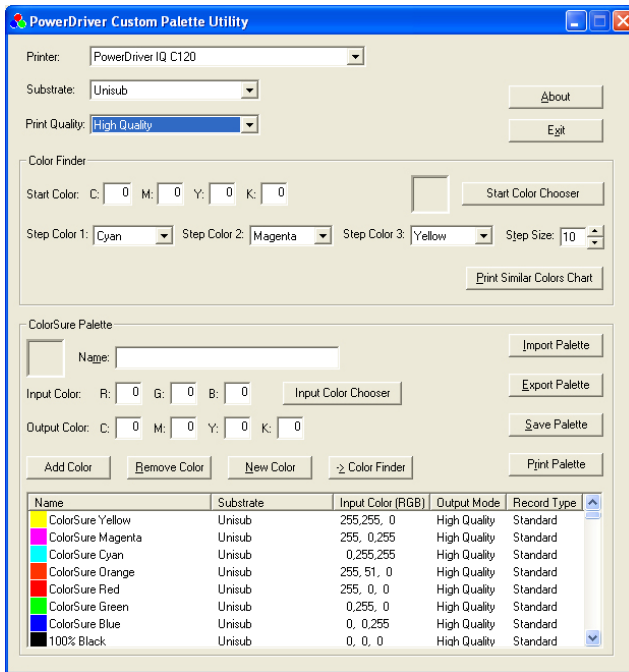
### How to use Color Finder:

- At the top of the window you will select the printer, substrate, and print quality that you want to use.
- Next, you will choose your desired start color. You may either enter the CMYK values manually in each designated box, or click on the **Start Color Chooser** button. This will open a new window from which to visually choose your start color.



*Start Color Chooser Tool*

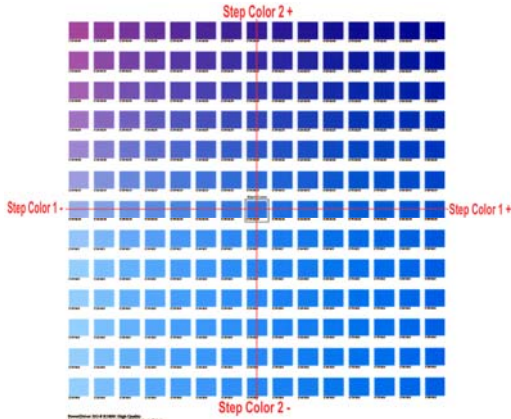
- Using **Start Color Chooser** allows you to quickly choose a color from the basic color selection on the left or from the numerous possibilities of the color matrix on the right. To define a custom color, click anywhere in the matrix. Use the slider at the right of the matrix to adjust luminosity. Clicking 'OK' will automatically fill the CMYK boxes with the corresponding values.
- For advanced users, CMYK values can be determined by printing out a Custom Palette, which is outlined in the next section.



*Custom Palette Utility*

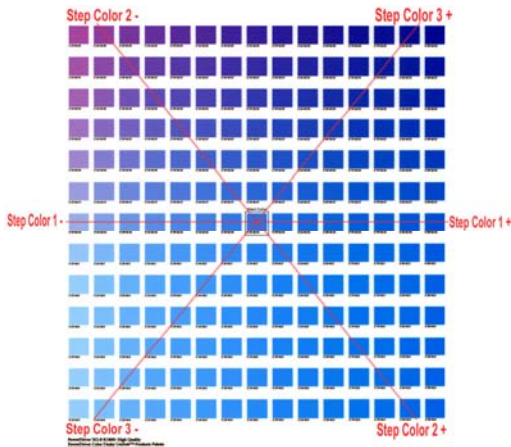
- You may alter the chosen color's CMYK value by selecting two or three **Step Colors**. Using multiple step colors will present you with a greater range and variety of colors to choose from.

- For instance, if you choose to modify your Start Color with two steps, then Step Color 1 will change its values on the X (horizontal) axis and Step Color 2 will change its values on the Y (vertical) axis.



Color Finder Palette with two Step Colors

- If you modify your Start Color with three steps, Step Color 1 will remain the same. However Step Color 2 and Step Color 3 will form an imaginary 'X' and their values will change on opposing diagonal Y axes.



Color Finder Palette with three Step Colors

- Next, determine what **Step Size** you want to apply to the Color Finder palette. This is simply a question of how much you want your Start Color to fluctuate. If your Start Color is close to the color you are looking for, use a low Step Size (i.e. 5 or less). However, if your start color is not close to what you are looking for, use a higher Step Size. You can enter any Step Size value between 1 and 40.
  - As an example, let's say your Start Color is C:20, M:100, Y:150, K:0 and you select Cyan and Magenta to be your Step Colors. You also enter a Step Size of 10. When you click the 'Print Colors' button, your Start Color will be in the middle of the Color Finder palette and from there each color will vary the Cyan and Magenta values by 10.
- When you are finished selecting the Start Color, Step Colors, and the Step Size, click on the **Print Colors** button. This will print your custom Color Finder palette directly to your printer.
- After printing the Color Finder palette, transfer it to your selected substrate and then try to match your desired color to one that is on the palette. If you find a suitable match, you are finished using the Color Finder tool. Move on to the next section - **The Custom Palette**.
- If you couldn't find an accurate match on the first printed Color Finder palette, don't worry. Follow the easy steps below, and you can find a more suitable custom color.
  1. First, try to locate a new Start Color from the palette that is closer than the original color.
  2. Now write down that color's CMYK value. Here is how to obtain this value. There are numbers under each color that are dependant upon which Step Colors you chose. For example, it might say C:70 M:120. Take note of these values. Then, at the bottom left of the Color Finder palette you will see a full set of CMYK values. The new Start Color's CMYK value would be C:70, M:120 and whatever the YK values are from the full set.
  3. Lastly, plug the CMYK values for the new Start Color into the boxes in Color Finder, choose your Step Size, and click on Print Colors once again. Continue with steps 1-3 until you find your desired color.

## The Custom Palette

Let us assume that you have found the exact color you need using the Color Finder tool. What you need to do next is apply these custom color values to either an existing palette, or to create a new custom palette altogether. This will allow you access to this color again should the same job arise.

### **How to use Custom Palette:**

- First, you need to assign the CMYK values of the matched color from the Color Finder palette to the **Output Color** CMYK fields in the Custom Palette section.
- Give your new custom color a descriptive **Name** in its designated field (e.g. IBM Blue).
- Next, assign an RGB **Input Color** value. There are two methods to establish this value.
  1. If you have the original file, sample the color that was matched in your graphic design application with the eye dropper tool. This will give you the RGB value of that color. Input this value into the RGB Input Color fields of the Custom Palette section.
  2. If you do not have the original file, or the artwork has not yet been designed, simply click on the 'Input Color Chooser' button, and then click on "Define Custom Colors". From the color matrix, find a color that closely resembles the color that you are adding to the custom palette. At the bottom-right of the color matrix window are the RGB values. Simply click 'OK' and the RGB Input Color values will be automatically entered. Please take note of these RGB values for later use in your design applications.
- Click the **Add Color** button. A window will pop up asking you whether you want to add the color to the palette for all substrates, or just the current substrate. Click 'YES' here unless you have the same custom color saved on palettes for other substrates. Another window will then ask you if you want to save the custom color for all resolutions or just the current one. Click 'YES' here unless you have the same custom color saved on palettes for other resolutions.
- Lastly, click the **Save Palette** button. When finished, simply Exit out of the window.

*\* The 'Import Palette' and 'Export Palette' buttons are convenient to have in the event you need to transfer palettes to and from different computers.*

**Adding Swatches to your Application Palette:**

It is possible to add your custom color(s) swatch to an application palette as well. You will need to take note of the Input Color RGB value that you assigned in the previous step in order to create the new swatch. Refer to your specific design application software's manual for instructions on this.

# Tips for Successful Sublimation



**Tip**

## POLYESTER FABRIC

### Maintain appropriate heat press times.

- Shortened pressing times will result in good surface color but the sublimation dyes will not completely penetrate the polyester fibers. This leaves the dyes more susceptible to wash out.
- Longer pressing times will cause the dye molecules to penetrate deeper into the fiber, creating a washed out look. For guidelines on transfer times, see the section entitled *Heat Transfer Instructions*.

### Maintain appropriate heat press temperatures & pressure

- The correct temperature setting is vital for achieving desired results. Higher temperatures can damage the polyester fibers to the point that they cannot properly “hold” the dyes. For guidelines on transfer temperatures, see the section entitled *Heat Transfer Instructions*.
- Too much pressure on the heat press may cause the dyes to penetrate too deeply into the fabric causing a washed out look. For guidelines on transfer pressure see the section entitled *Heat Transfer Instructions*.

## METAL

To obtain the best results when printing onto metal, place the transfer between the metal and an absorbent cloth or fresh, non-textured paper towel. This will absorb any dyes that pass back through the paper and any moisture released during the transfer process. If you have problems with inconsistently filled areas, this may alleviate the problem.

## CERAMIC TILES & MUGS

When transferring onto ceramic tiles and mugs, immediately peel the paper off of the ceramic after removing it from the heat press. Once the paper has been removed, cool the ceramic by submerging it in cool water, or run water over it from a faucet. If paper residue remains on the surface of the ceramic, clean with citrus cleaner. If you experience a significant paper-sticking problem, call your SubliJet reseller for assistance.

## **UNISUB**

- Prepare the Substrate by peeling the transparent protective film off the surface of the substrate (if applicable) and be sure you are working with a clean, lint-free surface. To aid in the film removal process, touch laminated edge of blank product to corner of heated platen on your heat press for about 5 seconds. Plastic will shrink, allowing you to peel away more easily and reduce chipping the coating.
- The starting dwell time for all UniSub products (metals, plastics, MDF) is 60 seconds under 400 degrees F (200 degrees C) with medium pressure. When doing bulk items in a single pressing, you may need to increase overall dwell time 10-15 seconds to counter loss of heat. Transfer is arranged image side down to blank, white surface (after removing protective laminate film). Consider taping transfer to back of product only as some products (e.g. standard plaques) have foiled edges. Use only heat resistant tape.
- When storing or packaging finished sublimated products, do not stack finished items, either when hot or cold, face-to-face. Do not wrap finished pieces in shrink wrap or place them in a plastic bag for shipping.
- Visit [www.unisub.com](http://www.unisub.com) for additional information about sublimatable blanks and for templates to assist you in selecting optimal sizes and materials.

## **Hanes Soft L'Ink® Shirts**

- The presence of moisture in your fabric can lead to bleeding of the image. Remove moisture by pre-pressing your shirt for 10 seconds. Use Teflon sheets between the front and back of the shirt to prevent the inks from penetrating to the other side of the shirt. If dye residue from your heat press is being deposited on your shirts at any time, heat press a paper towel or similar absorbent material to remove it.
- Using a lint brush before pressing can greatly reduce lint or debris on the shirt.

## **MOISTURE & HUMIDITY PROBLEMS**

The addition of moisture to the sublimation process can cause unwanted results. Under normal circumstances, the small amount of moisture that can accumulate in your paper is absorbed directly into the transfer substrate; however hard substrates like metal and ceramic are unable to absorb excess moisture. Some of the problems that are attributed to moisture include: color shifting (colors lose accuracy), bleeding of the image, and uneven transfer of solid filled areas

### **To avoid these problems:**

- Keep your paper in a dry place.
- If you suspect moisture, set the paper on your press for a few seconds. Do not press it. Just expose it to the warmth. The heat radiating from the press should help evaporate most of the moisture.
- To eliminate moisture in fabric, press the fabric for 10 seconds before doing the heat transfer.
- Use an absorbent cloth or fresh, non-textured paper towel behind the transfer sheet to absorb the moisture.

## Supplies & Equipment

Contact your reseller to purchase sublimation supplies and equipment. For more information, see the Sublimation Supplies Directory on our website at [www.sawgrassink.com](http://www.sawgrassink.com).

## Operating Conditions

Certain environmental conditions should be taken into account for the operation of SubliJet IQ™ inks, including temperature and relative humidity.

- Supported Operating Conditions are 65° – 80° F with 40 – 60% relative humidity
- Optimum Operating Conditions are 68° – 75° F with 40 – 60% relative humidity

## Storage

- Care should be taken to prevent storing SubliJet below freezing temperatures (32°F, 0°C). Do not expose SubliJet to extreme heat (temperatures over 104°F, 40°C). If SubliJet has been in storage, you should allow it to reach room temperature before using it.
- Do not expose SubliJet cartridges directly to light, especially sunlight, for extended periods.
- For best results, install your SubliJet cartridges by the date on the cartridge. Please refer to the individual ink bag/cartridge for the specific ink expiration date.

## Troubleshooting

The tips found in this section relate mainly to problems that can be seen in transferred SubliJet images. If you are having problems related to the performance of your printer, please refer to the *Problem Solving* section found in the *EPSON Stylus C120 Printer User's Guide*.

### **The colors in my transferred image are incorrect**

- The image may need color adjustment. Use PowerDriver color matching software. For more information, please see the section entitled *PowerDriver User's Guide*.
- Ensure you used the right printer driver and driver settings. Please see the section entitled *PowerDriver User's Guide*.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines see the section entitled *Heat Transfer Instructions*.
- Verify all colors print correctly. Run the Nozzle Check utility and clean the print heads as required.

### **My printout is really light on paper**

SubliJet IQ ink naturally looks muted before the heat transferring of the image. After transferring is complete, SubliJet's unique inks will produce a brilliant and durable final product.

### **My printout gets cut off on the bottom or side**

- Verify the printer driver is setup for the correct paper size. Your printer driver setting needs to match the paper size that is loaded in your printer.
- Ensure the right paper guide is in the proper position. When setting up the printer, slide the right paper guide to the left until it clicks into position.

### **My image looks good but it washes out**

- Ensure you pressed the garment with the proper time, temperature, and pressure. If so, try pressing longer to ensure that the dyes are penetrating the fibers sufficiently. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Ensure you used a recommended paper. See the section entitled *Selecting Paper*.
- Ensure your substrate is designed to accept sublimation transfers. Garments made from natural fibers, such as cotton, are not compatible with the sublimation process.

## Colors are light and splotchy

- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Verify your printer driver settings are correct. Please see the section entitled PowerDriver *User's Guide* for additional information.
- Ensure you do not have a moisture problem. For more information, see the section entitled *Moisture and Humidity* on the *Tips for successful Sublimation* page.
- Ensure your substrate is designed to accept a sublimation transfer. Garments made from natural fibers such as Cotton are not compatible with the sublimation process.

## My image looks blurred

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Heat Transfer Instructions*.
- Ensure you used a recommended paper. For more information, see the section entitled *Selecting Paper*.
- Ensure you printed on the correct side of the paper. The print side is the bright white side of the paper.
- Ensure you do not have a moisture problem. Try drying the paper on the press or putting a paper towel behind the transfer when you heat press it. Read the section entitled *Moisture and Humidity* on the *Tips for Successful Sublimation* page.
- Verify that the printer's print heads are properly aligned. For further instructions, see the *EPSON Stylus C120 or C110 Printer User's Guide*.

**My image has gaps or bands present**

- Ensure that all of the printer's nozzles are firing properly. Perform a Nozzle Check from the *Utility* tab of your printer driver. For further instructions, see the *EPSON Stylus C120 or C110 Printer User's Guide*
- If one or more of the nozzles fail to print, perform a Print Head Cleaning. For further instructions, see the *EPSON Stylus C120 or C110 Printer User's Guide*.

## Technical Support

If you are having difficulties achieving good results from your SubliJet IQ™ inks, you have several support options:

1. **Telephone:** You may contact your authorized SubliJet reseller during their normal hours of operation for assistance. A full listing of authorized SubliJet Resellers is available on our Web site at [www.sawgrassink.com](http://www.sawgrassink.com). In addition, you may also contact Sawgrass Technical Support at (888) 253-1679 between the hours of 8:30 AM and 5:30 PM Eastern Standard Time.
2. **Internet:** Visit the *Technical Support* area of the Sawgrass Technologies, Inc. website at [www.sawgrassink.com](http://www.sawgrassink.com). The troubleshooting utility found here will provide you with solutions to some of the most common problems. You may submit a detailed description of your problem if you need further assistance.
3. **E-mail:** You may e-mail Sawgrass Technical Support with a detailed description of your problem at [support@sawgrassink.com](mailto:support@sawgrassink.com).
4. **Fax:** You may fax a detailed description of your problem to Sawgrass Technical Support at (843) 849-3847.

## Project Sublimation

Whether you are a current business owner adding sublimation to your line-up, a novice/intermediate sublimation user who would like to learn more, or an entrepreneur exploring the dye-sub industry, Project Sublimation is the industry's choice for practical, hands-on instruction. From equipment and product overview to marketing and pricing your products; from the science of sublimation to color management, our two-day, interactive workshop series will give you the background and know-how needed to run a full-service sublimation business.

At Project Sublimation workshop events, you will also have the opportunity to network with fellow sublimation users across the US and Canada. The new, enhanced Project Sublimation web site gives attendees access to the full business assets and forums, an invaluable resource for growing your sublimation business.

*Isn't it time you took your business to the next level?*

Project Sublimation travels to cities throughout the United States and Canada. Join us in a city near you for this dynamic, full-service workshop. Spend two days with one of our experts and get a leg up on your competition.

Please visit us on the web at [www.ProjectSublimation.com](http://www.ProjectSublimation.com) or phone us toll free at 1.888.780.7349



