

# ChromaBlast™

---

## Getting Started Guide

For EPSON Stylus® PRO 4800



Revision 7/2006



**ChromaBlast™  
Getting Started Guide  
for the  
EPSON Stylus® PRO 4800**

© Copyright 2006, Sawgrass Technologies, Inc., Revision July 2006. All rights reserved. Printed in the United States of America.

ChromaBlast™, ChromaBlast™ inks, ChromaBlast Driver™, and ColorSure™ are trademarks of Sawgrass Technologies, Inc.

Other trademarks and registered trademarks are the property of their respective owners.

No part of this manual may be reproduced or transmitted in any form by any means without the prior written consent of Sawgrass Technologies, Inc. Information in this manual is subject to change without notice and does not represent a commitment on the part of Sawgrass Technologies, Inc.

## IMPORTANT – READ CAREFULLY:

This product is for commercial use only.

This Process License Agreement ("PLA") is a legal agreement between you and Sawgrass Technologies, Inc. ("Sawgrass"). By installing the ChromaBlast™ cartridge in your printer, or otherwise using the Sawgrass ChromaBlast™ ink, you agree to be bound by the terms of this PLA. If you do not agree to the terms of this PLA, Sawgrass is unwilling to license the process of using the ChromaBlast™ ink to you. In such event, you may not use the ChromaBlast™ ink, and you should promptly contact your supplier for instructions on return of the unopened package.

The process of using ChromaBlast™ ink is protected by U.S. and foreign patents. Sawgrass will provide a complete list of the relevant patents upon request. The use of the ChromaBlast™ ink to practice the patented process is permitted by this license.

1. GRANT OF LICENSE This PLA grants you the following rights:

You may install and use the ChromaBlast™ ink packaged herewith in your EPSON printer to practice the printing process described in U.S. Patent No. 6,341,856 ("Sawgrass Process"). The use of any ink, dye or pigment to practice the Sawgrass Process, other than a ChromaBlast™ ink purchased from Sawgrass or its authorized distributor accompanied by a PLA, is not a licensed use of the Sawgrass Process. No rights to use the Sawgrass Process, except those specified herein, are granted, and no rights to use any other process, product, software or hardware developed or sold by Sawgrass are granted or implied hereby.

2. LIMITATIONS ON REVERSE ENGINEERING

You agree that you will not attempt to reverse engineer, reproduce or reformulate the ChromaBlast™ ink.

3. PATENTS AND COPYRIGHTS

Sawgrass owns multiple U.S. and foreign patents which may apply to the Sawgrass Process and/or the use of ChromaBlast™ ink. All patents in and to the method of using ChromaBlast™ ink are owned by Sawgrass Technologies, Inc. You may not copy the printed materials accompanying the ChromaBlast™ ink. All rights not specifically granted under this PLA are reserved by Sawgrass Technologies, Inc.

Sawgrass agrees to replace any defective product, or to refund the purchase price, within a reasonable time, which shall be Sawgrass' sole responsibility for errors or defects in the goods. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SAWGRASS SHALL NOT BE LIABLE FOR LOSS OF PROFIT OR OTHER ECONOMIC LOSS, OR FOR INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER SIMILAR DAMAGES.

## IMPORTANT – READ CAREFULLY:

This product is for commercial use only.

This Process License Agreement ("PLA") is a legal agreement between you and Sawgrass Technologies, Inc. ("Sawgrass"). By installing the ChromaBlast™ media in your printer, or otherwise using the Sawgrass ChromaBlast™ media, you agree to be bound by the terms of this PLA. If you do not agree to the terms of this PLA, Sawgrass is unwilling to license the process of using the ChromaBlast™ media to you. In such event, you may not use the ChromaBlast™ media, and you should promptly contact your supplier for instructions on return of the unopened package.

The process of using ChromaBlast™ media is protected by U.S. and foreign patents. Sawgrass will provide a complete list of the relevant patents upon request. The use of the ChromaBlast™ media to practice the patented process is permitted by this license.

1. GRANT OF LICENSE This PLA grants you the following rights:

You may use the ChromaBlast™ media packaged herewith with your ChromaBlast™ ink in your Epson printer to practice the printing process described in U.S. Patent No. **6,341,856** ("Sawgrass Process"). The use of any ink, dye or pigment and media combination to practice the Sawgrass Process, other than ChromaBlast™ ink and ChromaBlast™ media purchased from Sawgrass or its authorized distributor accompanied by a PLA, is not a licensed use of the Sawgrass Process. No rights to use the Sawgrass Process, except those specified herein, are granted, and no rights to use any other process, product, software or hardware developed or sold by Sawgrass are granted or implied hereby.

2. LIMITATIONS ON REVERSE ENGINEERING

You agree that you will not attempt to reverse engineer, reproduce or reformulate the ChromaBlast™ media or ink.

3. PATENTS AND COPYRIGHTS

Sawgrass owns multiple U.S. and foreign patents which may apply to the Sawgrass Transfer Media Process and/or the use of ChromaBlast™ media. All patents in and to the method of using ChromaBlast™ media are owned by Sawgrass Technologies, Inc. You may not copy the printed materials accompanying the ChromaBlast™ media. All rights not specifically granted under this PLA are reserved by Sawgrass Technologies, Inc.

## **END-USER LICENSE AGREEMENT FOR SAWGRASS SOFTWARE- ChromaBlast Driver™**

**IMPORTANT-READ CAREFULLY:** This Sawgrass Technologies Inc. End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and Sawgrass Technologies, Inc for the Sawgrass software product identified above, which includes computer software and may include associated media, printed materials, and "online" or electronic documentation ("SOFTWARE PRODUCT"). By installing, copying, or otherwise using the SOFTWARE PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, do not install or use the SOFTWARE PRODUCT.

### **Software PRODUCT LICENSE**

Copyright laws and international copyright treaties, as well as other intellectual property laws and treaties protect the SOFTWARE PRODUCT. The SOFTWARE PRODUCT is licensed, not sold. The title to, and ownership of, this SOFTWARE PRODUCT remains with Sawgrass Technologies, Inc. (Sawgrass).

**GRANT OF LICENSE.** This EULA grants you the following rights:

- This license is provided to you for your use according to the terms hereof. You may install and use the SOFTWARE PRODUCT packaged herewith to practice the printing process described in U.S. Patent No. 6,341,856 (the "Sawgrass Process"). The use of any ink, dye or pigment to practice the Sawgrass Process, other than a ChromaBlast™ ink which is purchased from Sawgrass or its authorized distributor, is not a licensed use of the SOFTWARE PRODUCT. You agree not to use the SOFTWARE PRODUCT for any other purpose or in any process except as expressly permitted hereby.
- Not for Resale. You may not sell, or otherwise transfer for value, the SOFTWARE PRODUCT.
- No Reverse Engineering, Decompilation, Copying or Disassembly. You may not reverse engineer, decompile, copy or disassemble the SOFTWARE PRODUCT.
- No Rental. You may not rent, lease, or lend the SOFTWARE PRODUCT.
- Support Services. Sawgrass Technologies, Inc. may provide you with support services related to the SOFTWARE PRODUCT ("Support Services"). Use of Support Services is governed by the Sawgrass policies and programs described in the user manual, in "online" documentation, and/or in other Sawgrass-provided materials. Any supplemental software code provided to you as part of the Support Services shall be considered part of the SOFTWARE PRODUCT and subject to the terms and conditions of this EULA. With respect to technical information you provide to Sawgrass as part of the Support Services, Sawgrass may use such information for its business purposes, including for product support and development. Sawgrass will not utilize such technical information in a form that personally identifies you.
- No Assignment or Sublicense. You may not assign or sublicense the rights granted hereby.
- Termination. Without prejudice to any other rights, Sawgrass may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In the event of termination, you must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

**COPYRIGHT.** All title and copyrights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, animations, video, audio, music, text, and "applets" incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT are owned by Sawgrass Technologies Inc. or its suppliers. Copyright laws and international treaty provisions protect the SOFTWARE PRODUCT. Therefore, you must treat the SOFTWARE PRODUCT like any other copyrighted material, except that you may install the

SOFTWARE PRODUCT on a computer for the uses permitted hereby. You may not copy the printed materials accompanying the SOFTWARE PRODUCT. You may not loan, rent, lease, or otherwise transfer the other medium to another user, except as part of the permanent transfer (as provided above) of the SOFTWARE PRODUCT.

U.S. GOVERNMENT RESTRICTED RIGHTS. The SOFTWARE PRODUCT and documentation are provided with RESTRICTED RIGHTS. Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 or subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights at 48 CFR 52.227-19, as applicable.

#### MISCELLANEOUS

a. If you acquired this product in the United States, this EULA is governed by the laws of the State of South Carolina. In the event of any dispute arising under this license or from the use of the SOFTWARE PRODUCT, each party irrevocably agrees to the jurisdiction of the United States District Court for the District of South Carolina, Charleston Division.

b. If you acquired this product in Canada, this EULA is governed by the laws of the Province of Ontario, Canada. In the event of any dispute arising under this license or from the use of the SOFTWARE PRODUCT, each party irrevocably agrees to the jurisdiction of the courts of the Province of Ontario and further agrees to commence any litigation which may arise hereunder in the courts located in the Judicial District of York, Province of Ontario.

c. If this product was acquired outside the United States, then local law may apply.

LIMITED WARRANTY. Sawgrass warrants that (a) the SOFTWARE PRODUCT will perform substantially in accordance with the accompanying written materials for a period of thirty (30) days from the date of receipt, and (b) any Support Services provided by Sawgrass shall be substantially as described in applicable written materials provided to you by Sawgrass, and Sawgrass support engineers will make commercially reasonable efforts to solve any problem issues. Some states and jurisdictions do not allow limitations on duration of an implied warranty, so the above limitation may not apply to you. To the extent allowed by applicable law, implied warranties on the SOFTWARE PRODUCT, if any, are limited to thirty (30) days.

CUSTOMER REMEDIES. Sawgrass' and its suppliers' entire liability and your exclusive remedy shall be, at Sawgrass' option, either (a) return of the price paid, if any, or (b) repair or replacement of the SOFTWARE PRODUCT that does not meet Sawgrass' Limited Warranty and which is returned to Sawgrass with a copy of your receipt. This Limited Warranty is void if failure of the SOFTWARE PRODUCT has resulted from accident, abuse, or misapplication. Any replacement SOFTWARE PRODUCT will be warranted for the remainder of the original warranty period or thirty (30) days, whichever is longer. Outside the United States, neither these remedies nor any product support services offered by Sawgrass are available without proof of purchase from an authorized international source.

NO OTHER WARRANTIES. To the maximum extent permitted by applicable law, Sawgrass and its suppliers disclaim all other warranties and conditions, either express or implied, including, but not limited to, implied warranties of merchantability, fitness for a particular purpose, title, and non-infringement, with regard to the SOFTWARE PRODUCT, and the provision of or failure to provide Support Services. This limited warranty gives you specific legal rights. You may have others, which vary from state/jurisdiction to state/jurisdiction.

LIMITATION OF LIABILITY. To the maximum extent permitted by applicable law, in no event shall Sawgrass or its suppliers be liable for any special, incidental, indirect, or consequential damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information, or any other pecuniary loss) arising out of the use of or inability to use the SOFTWARE PRODUCT or the provision of or failure to provide Support Services, even if Sawgrass has been advised of the possibility of such damages. In any case, Sawgrass' entire liability under any provision of this EULA shall be limited to U.S. \$5.00. Because some states and jurisdictions do not allow the exclusion or limitation of liability, the above limitation may not apply to you.

**ChromaBlast™ ink, ChromaBlast™ media, ChromaBlast Driver™, and Color Sure™ are trademarks of Sawgrass Technologies, Inc.**

**General Notice: Other product names used herein are for identification purposes only and may be trademarks of their respective owners. Sawgrass Technologies, Inc. disclaims any and all rights in those marks.**

## Table of Contents

Introduction .....	7
About this Document .....	8
Installing ChromaBlast™ Cartridges .....	9
Printing and Heat Transfer Instructions .....	12
Printing and Heat Transfer Instructions .....	13
ChromaBlast Driver™ Introduction .....	16
System Requirements .....	16
Setup Instructions – Windows 2000 and XP .....	17
Using ChromaBlast Driver™ in Windows 2000 / XP .....	22
Appendix A: Network Printing in Windows 2000, XP .....	27
Host Machine (Server).....	27
Appendix B: Defeating Application Color Management .....	28
Appendix C: Using ColorSure™ and Custom Palette .....	33
Supplies & Equipment .....	41
Operating Conditions.....	41
Ink Storage.....	41
Media Storage.....	41
Troubleshooting .....	42
Technical Support .....	45
Project Sublimation.....	45

## Introduction

Welcome to Sawgrass Technologies, Inc. and ChromaBlast™. We are excited to offer a total cotton solution for your business. We look forward to working with you and a continued partnership in digital imaging.

The ChromaBlast™ Getting Started Guide contains information for using ChromaBlast™ inks and ChromaBlast media, along with helpful tips for getting the best printing results possible. The information provided pertains only to the use of ChromaBlast™ inks in your printer.

ChromaBlast Driver is included with the ChromaBlast™ system. Developed by Sawgrass Technologies, the ChromaBlast Driver™ is user-friendly software that enables you to maximize output quality and quantity. Please refer to the detailed instructions provided in this manual or on your ChromaBlast Driver™ CD to customize each print.

Technical support is available from your Authorized ChromaBlast™ reseller or directly from Sawgrass Technologies, Inc. See the section entitled *Technical Support* for additional information. Please feel free to contact us with your feedback about our products. For additional information on ChromaBlast™ inks, ChromaBlast™ media, or our other products, visit our web site at [www.sawgrassink.com](http://www.sawgrassink.com). Thank you and enjoy ChromaBlast™.

## About this Document

This document contains descriptions and procedures for using ChromaBlast™ inks, along with additional information on setting up your EPSON Stylus PRO 4800 printer and for getting the best results from use of this system.

The documentation provided pertains only to the use of ChromaBlast™ inks in your EPSON Stylus C88 ink jet printer. To assist you in the overall setup process, references are made back to the *EPSON Stylus PRO 4800 Printer Basics Guide* for instructions.

To help point out important information, specific instructions, and helpful tips look for the following symbols:



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



Indicates useful tips for printing and sublimation.

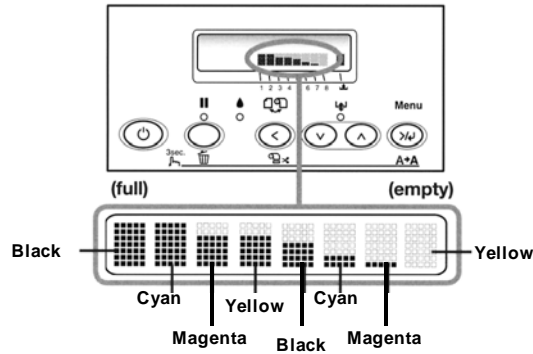
## Installing ChromaBlast™ Cartridges



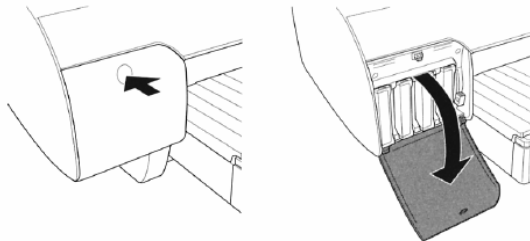
**Do not install the Epson Inks provided with the printer. Please call Sawgrass Technical Support if you need assistance installing the ChromaBlast™ inks.**

If you are replacing existing cartridges because they are empty or low, please see the following instructions. If not, go directly to step #1

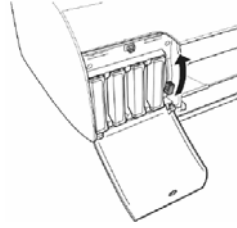
When a cartridge is empty or low, INK LOW or INK OUT will display on the LCD panel. The ink indicator - 8 bars which represent the 8 cartridges on the LCD Panel - will flash indicating which cartridge is low or empty. Ensure you have the correct color cartridge for replacement.



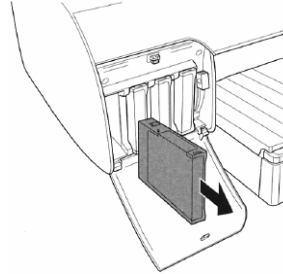
1. Ensure the printer power is on. Press the ink compartment cover to release the latch and open the cover.



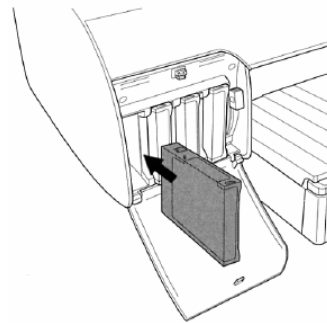
2. Raise the ink lever to the unlocked position. The ink lever is located to the right of each ink compartment.



3. Remove the empty ink cartridge from the printer.



4. Remove the replacement ink cartridge from its packaging and insert it into the slot with the label facing left. Start with the black cartridge on the left and attach the cartridges in the order below, matching the corresponding ChromaBlast™ color to the appropriate OEM channel: Do not force the cartridge into the slot.



	Channel							
Configuration	1	2	3	4	5	6	7	8
OEM	Matte K	C	M	Y	LK	Lc	Lm	LLk
ChromaBlast™	K	C	M	Y	K	C	M	Y



10

**Read This**

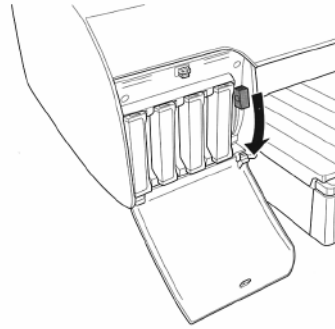
If the cartridge does not insert smoothly into the slot, double check to make sure you have the correct cartridge installed in the correct slot. If the ink light remains on after installing the cartridge, remove the cartridge and reinsert to ensure it was fully placed in the slot.

5. Lower the ink lever in to the locked position.

6. Close the ink compartment cover if you have standard size ink cartridges installed. If you have extended cartridges installed in the printer, you will need to leave the cover open.

7. Once the cartridge is installed the printer will return to its READY state.

8. This completes your install.



**Tips:**

- Perform a nozzle check from The ChromaBlast Driver™. A few cleanings may be necessary to get a good nozzle check.



## Printing and Heat Transfer Instructions

### Recommended Applications

White or light colored fabrics in 100% cotton.

### PRINTING

Print using the supplied ChromaBlast Driver program only.

The print side of ChromaBlast media is opposite the ChromaBlast logo.

- For the Epson 4800, place print side face down in the printer tray.

Mirror Image: Check this box in the ChromaBlast Driver to ensure the image prints in reverse and that text appears correctly when image is transferred. If your image is already reversed in your graphic program, leave this box unchecked.

### TRANSFERRING THE IMAGE USING A COMMERCIAL HEAT PRESS

1. If desired, you may trim the non-printed area before transferring, leaving .25 in. margin around the printed area.
2. Place garment on the heat press. Cover with ChromaBlast paper with image face down.
3. Press image according to proper pressure, heat, and time settings.
4. Peel the paper off the shirt while the shirt is still hot using an even motion.
5. Stretch the image area while the shirt is hot from both left to right and top to bottom to reduce the hand.

### HEAT PRESS SETTINGS

- **Pressure:** Heavy. If using a pneumatic press, set the pressure to 60 psi.
- **Temperature and Time:** 350°F (176°C) for 45-60 seconds

Due to variations in cotton garments and in heat presses, time and temperature can be adjusted for preferred performance up to 400°F for 25 seconds. Some scorching may occur, but will wash out.

### **STORAGE INSTRUCTIONS**

Store ChromaBlast media in a cool, dry area within the provided plastic storage bag. Do not remove from carton until ready to use.

# ChromaBlast Driver™

## User Guide

For Epson Stylus® PRO 4800

For distribution with ChromaBlast™ only  
**NOT FOR RESALE**

Rev 1.0.0

## ChromaBlast Driver™ Introduction

Obtaining the benefits of the ChromaBlast Driver™ color management is now incredibly easy - simply print from your application with the ChromaBlast Driver™ rather than the Epson printer driver. The ChromaBlast Driver™ prints your image just like the Epson printer driver except for the colors. Watch how it magically makes ChromaBlast™ ink colors picture perfect!

The ChromaBlast Driver™ delivers both convenience and the highest quality ChromaBlast™ color management technology. The innovation demonstrated by the ChromaBlast Driver™ 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 ChromaBlast™ ink and the ChromaBlast Driver™.

The ChromaBlast Driver™ runs under Windows 2000/XP.

## System Requirements

### **Minimum Hardware:**

Pentium 4 – 2.0GHz or Athlon XP 2000+ Processor  
512 MB System Memory

### **Recommended Hardware:**

Pentium 4 – 3.0GHz or Athlon XP 2500+ Processor  
1 GB System Memory

## Setup Instructions – Windows 2000 and XP

### Product Overview

The ChromaBlast Driver™ 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 ChromaBlast™ ink. The installation program will install Sawgrass color management software, the Sawgrass ChromaBlast™ printer driver software, and ColorSure tools and utilities.

### Quick Start

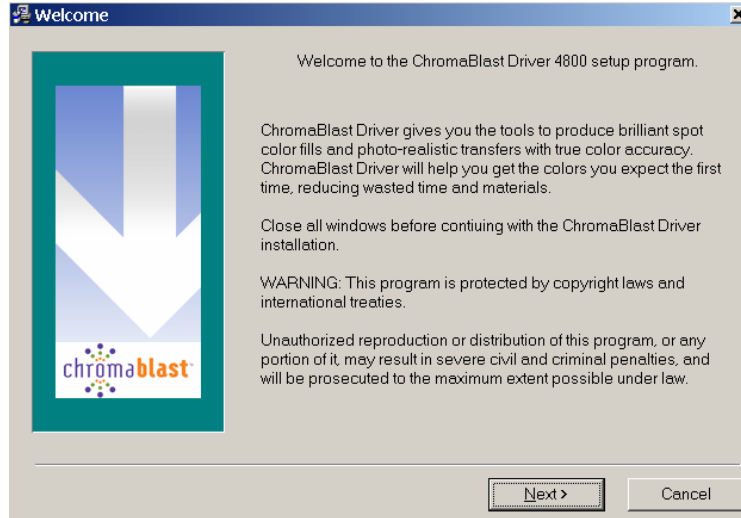
1. Unpack and setup printer as described in the Epson manual.
2. Install the Epson printer driver and verify printer operation.
3. Insert the ChromaBlast Driver™ CD into the CDROM drive on the computer and install the ChromaBlast Driver™.

### Step By Step Installation

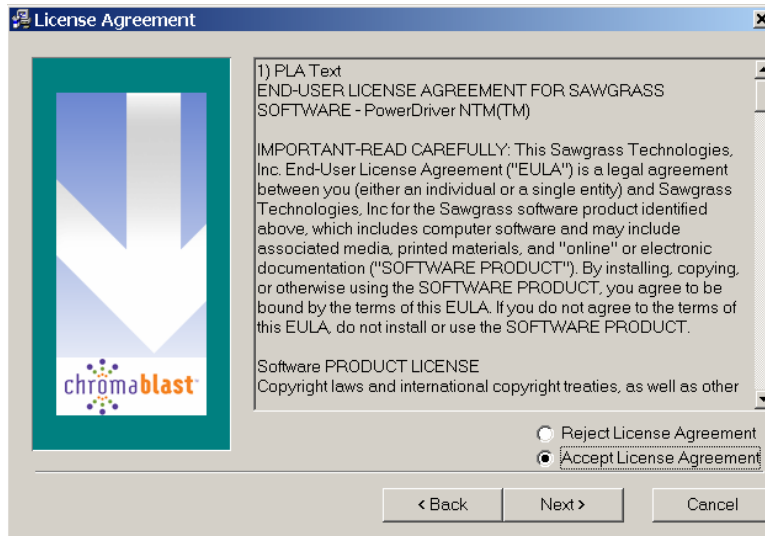
To get started printing as soon as possible, these are the steps Sawgrass recommends you perform while setting up your sublimation printer driver software.

1. Setup the printer according to the Epson instructions.
2. Install the ChromaBlast 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 or Windows 2000, 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 ChromaBlast Driver™ software installation.
5. Insert the ChromaBlast Driver™ CD into your CDROM drive. Click Start, Run. Browse to your CDROM drive and click on PDNTM4800.exe.

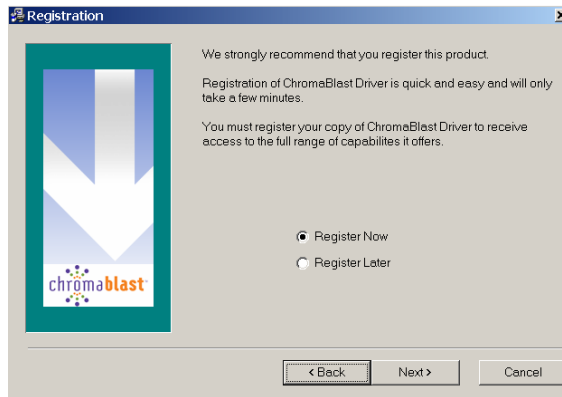
6. The Welcome screen is displayed. Click Next to proceed.



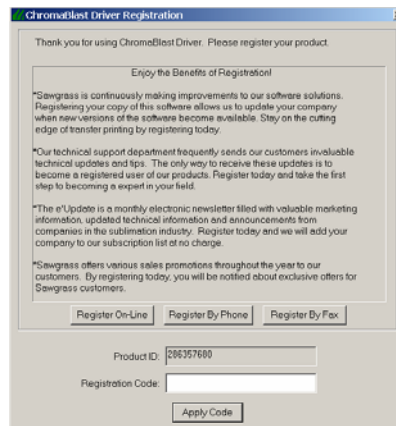
7. The License Agreement is displayed next. Select the appropriate choice for acceptance of the Licensing Agreement to continue.



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

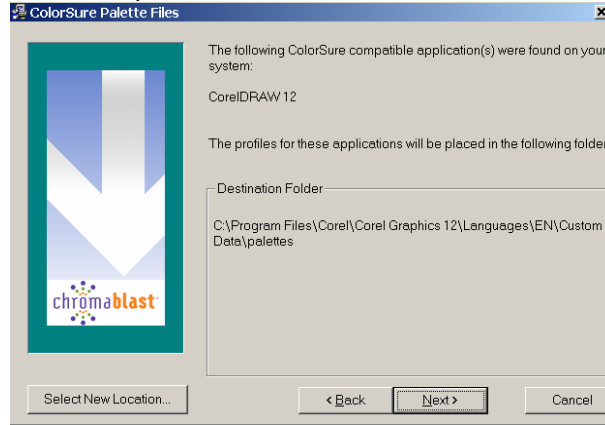


9. If you choose to register now, the registration screen will be displayed. To obtain your registration code you may do so in one of the following ways: Register on-line and receive your registration code via e-mail. Call Sawgrass Technologies, Inc. directly (843) 884-1575 and obtain your code over the phone. Send a fax and receive your registration code by fax.

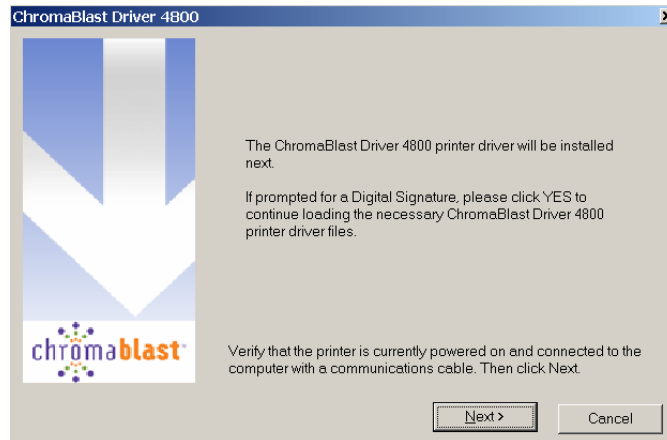


To register, you will use your Product ID (displayed on the registration screen) to obtain a Registration code. You will need separate registration code for every machine on which The ChromaBlast Driver™ is installed. Enter your registration code and click the Apply Code button.

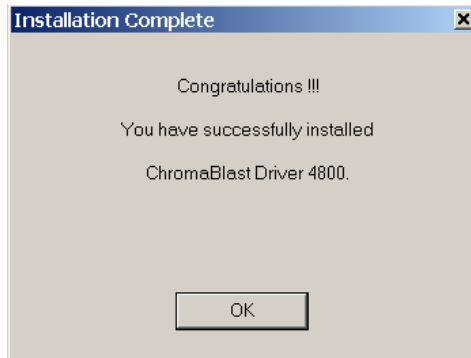
10. Sawgrass Technologies, Inc. provides ColorSure color palettes for use with Corel and Adobe. (Check the ColorSure section of the manual for information on how to use ColorSure to get perfect spot colors). If Setup detects either of these applications on your system, the palette files will be placed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



11. The ChromaBlast Driver™ 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.*



12. If the installation cannot find the printer port then you will be given the opportunity to choose the port you want to use for the product you are installing. Use the value that was recorded in step 4 above.
13. Once the installation has completed, the Installation Complete screen will display. Click OK to end the installation.



## Using ChromaBlast Driver™ in Windows 2000 / XP

The ChromaBlast Driver™ is simple to use. Whenever you have ChromaBlast™ inks in your printer, you should print using the ChromaBlast Driver™. **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 ChromaBlast Driver™ printer.
- 4) Use the properties button to access and set the Color, Output, Ink and Substrate, Resolution, and Advanced options.
- 5) Click Print.

### Setting ChromaBlast Driver™ printer properties

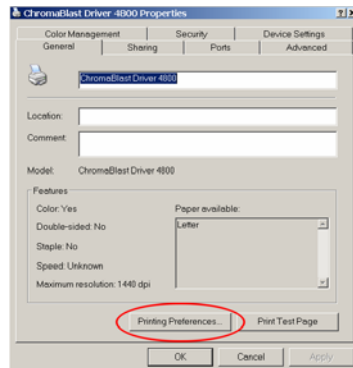
To configure the ChromaBlast Driver™ for the correct substrate, you must display its printer properties. There are two ways to display the printer properties:

#### From the Windows Desktop:

1. Click on Start> Settings> Printers.
2. Right-click on your ChromaBlast Driver™ 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 ChromaBlast Driver™ printer from the list of printers.
3. Click the Properties button.



## ChromaBlast Driver™ Properties Overview

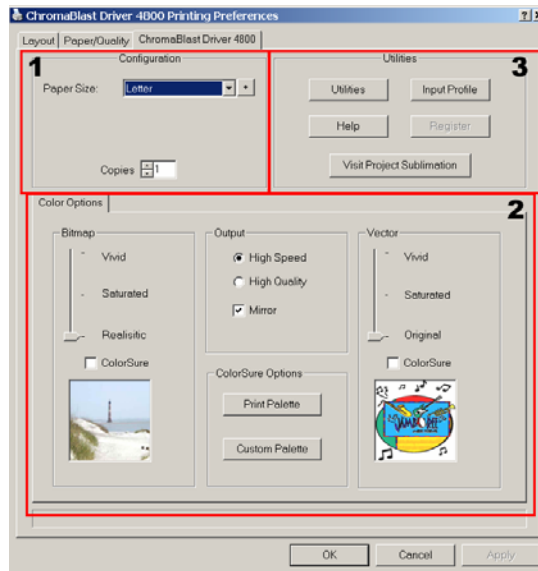
The following figure shows the printer properties for a registered version of the ChromaBlast Driver™. The Advanced Color Options tab and the Print Palette functions will not be available if the product has not been registered.

There are three main property groups;


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

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

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



### Group 1 – Configuration

**Paper Size** – From the drop down list, select the paper size you wish to use. To add custom paper sizes click the  button to the right of the paper size drop down list. *Note: After adding a custom paper size, the printing preferences dialog must be closed and re-opened before the new paper size will show in the paper size drop down list.*

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

## Group 2 - Color Settings

### Overview

This tab gives you access to all of the color management controls available in the ChromaBlast Driver™. Color correction allows you to create transfers from all kinds of images, from photorealistic images to spot color logos. For maximum flexibility, the ChromaBlast Driver™ lets you color correct bitmap and vector elements differently, even if they are in the same graphics file. For example, if you scan a photograph and import it into CorelDraw, the ChromaBlast Driver™ will use the color management settings that have been selected for Bitmap. If you then add text on top of the bitmap image, the ChromaBlast Driver™ will use the color management settings that have been selected for Vector. The photograph and the text will be color corrected differently! Why? You can now sublimate images with realistic photographic backgrounds that have vivid spot color text.

### 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. As a rule of thumb, if the object in your image is made of curves, text, shapes, or fills, it will be color corrected using the ChromaBlast Driver™ Vector settings. All other image types will be color corrected based on the ChromaBlast Driver™ Bitmap setting.

### Color Correction Settings

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

**Original (Vector ONLY)** - This setting is most suitable for reproducing life-like clipart.

**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.

**Vivid** – This setting is most suitable for images where it is important that the colors are vivid and contrast well with each other. Artwork, graphics, logos, and text, as well as photographs of landscapes or

still life are good candidates for the Vivid setting. This can be set for either Bitmap or Vector images.

**ColorSure Enhancement** - 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.

**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** – Click this button to display a utilities screen. From the utilities screen you can print a nozzle check pattern, run a print head cleaning cycle, align the printer’s print head, spool a ChromaBlast Driver™ print file to the printer, and print a page of primary ink colors.

**Help** – This will display a help dialog box for an easy overview of the ChromaBlast Driver™ functions and settings. It also contains a link to the Sawgrass Technologies website.

**Register** – If the ChromaBlast Driver™ product has not been registered, click this button for instructions on how to register the product and unlock all the features.

**Input Profile** – This option allows you to specify an input profile that the driver will use when color correcting your image. If you are printing scanned artwork and your scanner manufacturer provided ICC profiles for your scanner model, select the profile here. In order to select a profile IT MUST BE INSTALLED ON YOUR MACHINE. To install a profile on your machine, locate the profile on your machine using Windows Explorer. (The ChromaBlast Driver™ supports both ICC and ICM profile types). Right click on the profile file name and select "Install".

## Appendix A: Network Printing in Windows 2000, XP

Network printing with the ChromaBlast Driver™ 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)

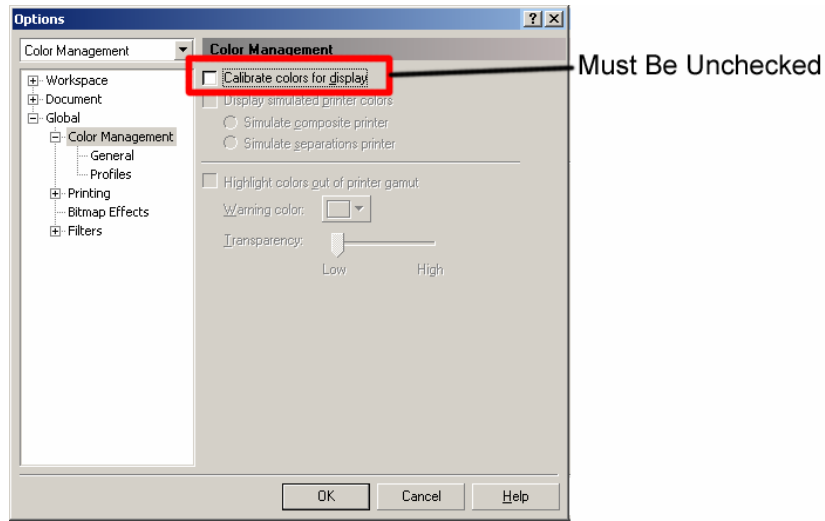
The server machine must have installed the printer and have the printer shared. To install the networked printer, run Start | Setting | Printer | Add Printer. The Wizard will guide you through setting up the printer. When prompted, choose “Network Printer” and browse to the server machine to locate the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

## Appendix B: Defeating Application Color Management

The ChromaBlast Driver™ provides a complete color management solution for your ChromaBlast™ media 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:

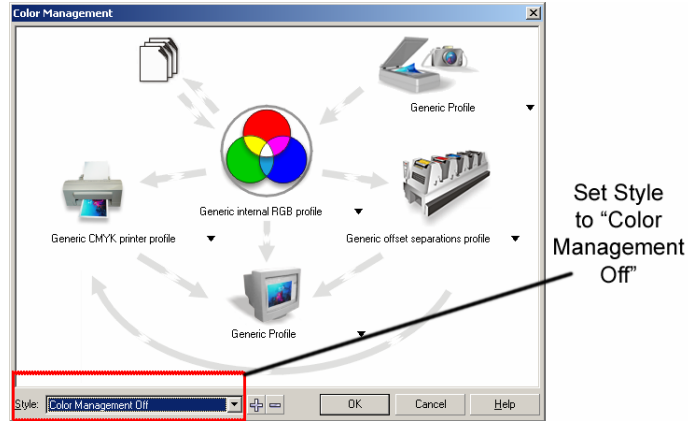
### CorelDraw™ version 9

1. Create a new graphic.
2. From the main menu choose Tools, Color Management. The Color Management dialog box is displayed.
3. In the Color Management window (see figure below), UNCHECK the Calibrate colors for display box.



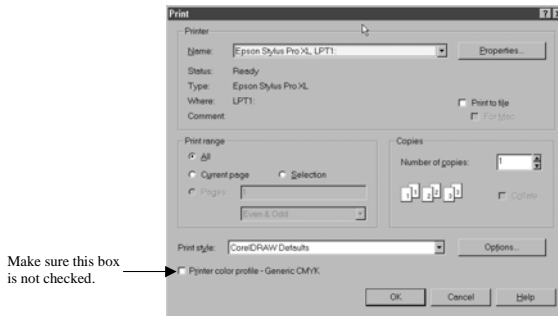
## CoreDraw™ version 10, 11 and 12

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.



## CoreDraw™ (version 5, 6, or 7)

If you are using **version 5, 6, or 7** of **CoreIDRAW**, ensure that you have the *Printer Color Profile* check box unchecked. This setting is found in the lower left of the Print dialog window. See figure below.



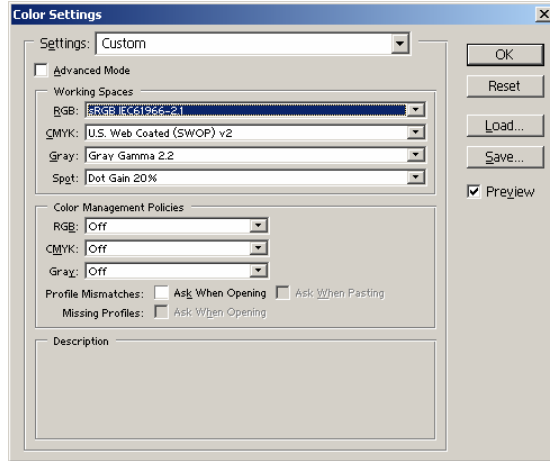
CoreIDRAW 5, 6, and 7 print dialog

## Adobe Photoshop™ 6

### Color Setup

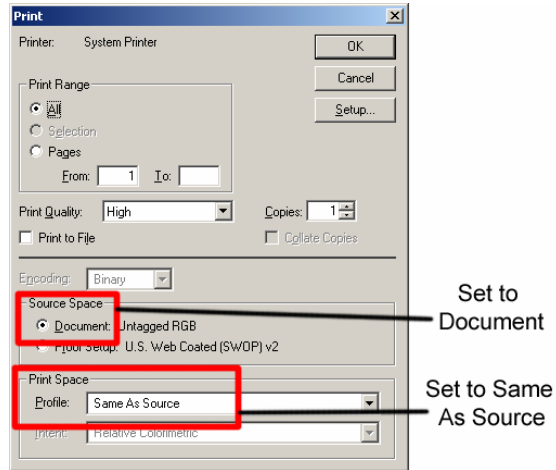
From the main menu choose Edit, Color Settings. On the Color Settings dialog box:

1. Set all Color Management Policies to Off
2. Uncheck Profile Mismatches
3. Uncheck Ask When Opening.



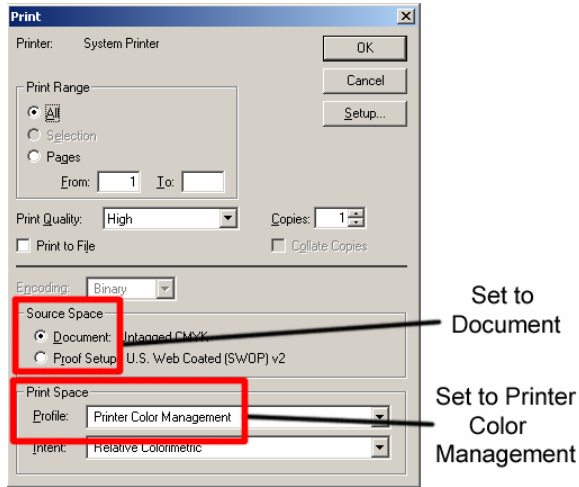
### To Print RGB Graphics

Choose File, Print, and set the options as described below:



## To Print CMYK Graphics

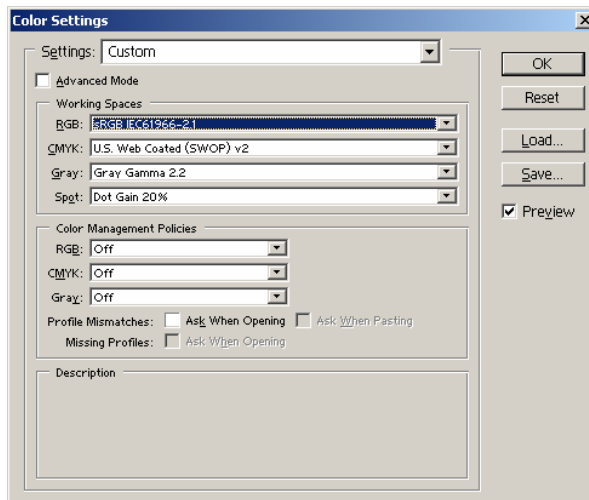
Choose File, Print, and set the options as described below:



## Adobe Photoshop™ 7 and CS

### 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.

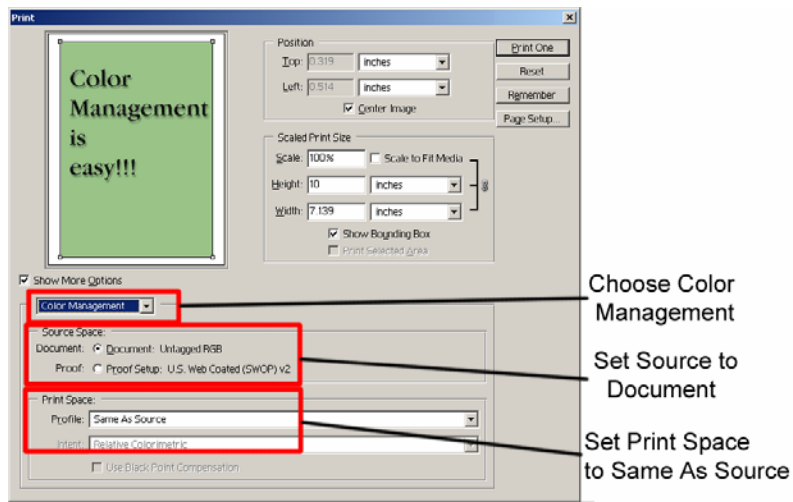


**To Print:**

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

- a. Check Show More Options
- b. Choose Color Management
- c. Choose Document as Source Space
- d. 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”.



## 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 printed 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 a wide variety of 152 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 thing you will want to do is to print your ColorSure palette to the shirt 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 ChromaBlast Driver™ printer and select 'Printing Preferences' from the menu. You may also open the ChromaBlast Driver™ from within an Adobe or Corel program by going to File, Print, and choosing the ChromaBlast Driver™ printer from the pull-down menu. Click Properties to open the ChromaBlast Driver™.

- Select the color settings and the output (high speed, high quality) that you wish to print the palette, and click the box 'Print Palette'.
- You now have a visual representation of how the ColorSure palette colors will appear on your t-shirt.

### 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, the ChromaBlast Driver™ installs three palettes: two for Adobe products and one for Corel products. These colors match the palette that is printed from within the ChromaBlast Driver™.

- To open the ColorSure Palette in Corel 10, 11, and 12, choose Window | Color Palettes | Open Palette. Select the file "ChromaBlast\_Rut.cpl, ChromaBlast\_Uni.cpl, or ChromaBlast\_Wil.cpl depending on which palette you wish to load."
- 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. *For easier access to the Palette file copy it from this [above] path to Illustrator10\Presets\Swatches and the palettes 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 "ChromaBlast\_Rut.aco, ChromaBlast\_Uni.aco, or ChromaBlast\_Wil.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 Color Finder

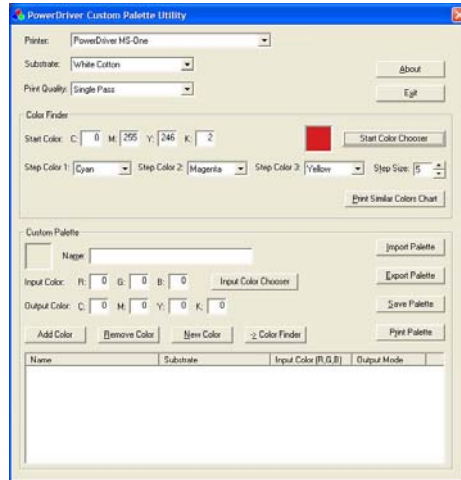
After printing the ColorSure Palette, you see that you have an array of colors to work with. There will be times, however, when the color you need is not included in the ColorSure Palette. This is a common example of when you will launch the ChromaBlast Driver™ Custom Palette Utility.

The Custom Palette Utility is a small program that coincides with the ChromaBlast Driver™ to assist you in finding custom colors and making custom palettes.

Within the Custom Palette Utility is the Color Finder tool. This 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 (CMYK) 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 is outputted directly to your printer.

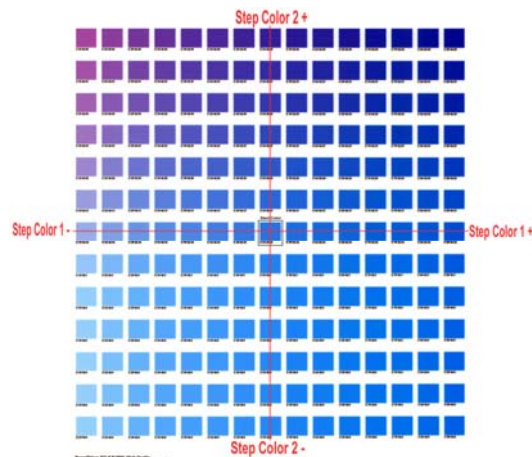
### ***How to use Color Finder:***

- First, open the Printing Preferences window.
- At the bottom of the window, click the **Palette Utility** button; this will open the **Custom Palette Utility** window.
- Select the appropriate settings for Printer, Substrate, and Print Quality. Then click the **Start Color Chooser** button and select your desired starting color from the basic colors or the color matrix. To use the color matrix, click anywhere in the matrix window. You can use the slider at the right of the matrix to adjust luminosity. Clicking 'OK' will automatically fill the CMYK boxes with the corresponding values. If you do not wish to use Color Chooser, you also have the option to manually enter the **Start Color** values in the CMYK boxes.
  - For advanced users, CMYK values can be determined by printing out a Custom Palette, which is outlined in the next section.



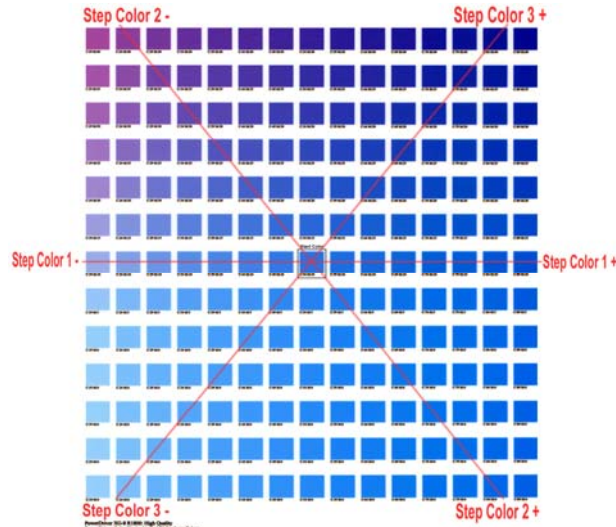
### Custom Palette Utility

- You may alter the chosen start 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. 5-10). 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 the 'Print Similar Colors Chart' button is clicked, your Start Color will be in the middle of the Similar Colors Chart 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 Similar Colors Chart** button. This will print your custom Similar Colors Chart directly to the printer.
- After printing the Color Chart, 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 **Section V. The Custom Palette**.
- If you couldn't find an accurate match on the first printed Similar Colors Chart, don't worry. Follow the easy steps below, and you will find a more suitable custom color.
  1. First, try to locate a new Start Color from the chart that is closer than the original color.
  2. Next, after finding a more suitable Start Color, 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 Similar Colors once again. Continue with steps 1-3 until you find your desired color.

## V. The Custom Palette

Let us assume that you have found the exact color you need using the Color Finder tool. What you will want to do next is apply these custom color values to either an existing palette, or to create a new custom palette altogether. This allows 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 Similar Colors Chart 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.*

## **VI. 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.

## Supplies & Equipment

ChromaBlast™ ink and media are sold through a network of Authorized ChromaBlast™ Channel Partners. A full listing of authorized resellers is available on our Web site at [www.sawgrassink.com](http://www.sawgrassink.com).

## Operating Conditions

Certain environmental conditions should be taken into account for the operation of ChromaBlast™ ink including temperature and relative humidity.

- Operating conditions are 65 ~ 80 °F with 35~60% relative humidity.
- Optimum operating conditions are 70 ~ 75 °F with 40~50% relative humidity.

## Ink Storage

- ChromaBlast™ product should be stored in an environmental controlled room with a temperature range of 50 °F ~ 75 °F.
- Do not expose ChromaBlast™ cartridges directly to light, especially sunlight, for extended periods.
- For best results, install your ChromaBlast™ cartridges by the date on the cartridge. Please refer to the individual cartridge for the specific ink expiration date.

## Media Storage

- Store the ChromaBlast™ media in a cool, dry area within the provided plastic storage bag. Do not remove from carton until ready to use.

## Troubleshooting

The troubleshooting tips found in this section relate mainly to problems that can be seen in transferred ChromaBlast™ 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 C88 Printer User's Guide*.

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

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

### **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 media size that is loaded in your printer.
- Ensure the right paper guide is in the proper position on the printer. 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. For guidelines, see the section entitled *Printing and Heat Transfer Instructions*.
- Ensure you used the recommended ChromaBlast™ media and inks.

### **Colors are light and splotchy**

- Ensure you printed on the correct side of the media. For the Epson C88 place print side face up in the printer tray so that the missing corner is in the top right hand side when facing the printer.
- Ensure you used the recommended ChromaBlast™ media and inks.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Printing and Heat Transfer Instructions*.
- Verify your printer driver settings are correct. Please see the section entitled *ChromaBlast Driver™ User's Guide* for additional information.

### **My image looks blurred**

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled *Printing and Heat Transfer Instructions*.
- Ensure you used the recommended ChromaBlast™ media and inks.
- Ensure you printed on the correct side of the media. For the Epson C88 place print side face up in the printer tray so that the missing corner is in the top right hand side when facing the printer.
- Verify that the printer's print heads are properly aligned. For further instructions, see the *EPSON Stylus C88 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 C88 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 C88 Printer User's Guide*.

## Technical Support

If you are having difficulties achieving good results from your ChromaBlast™ inks or media, 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.sublimation.com](http://www.sublimation.com). In addition, you may also contact Sawgrass Technical Support at (843) 884-1575 between the hours of 8:00 AM and 5:30 PM Eastern Standard Time.
2. **Internet:** Visit the *Technical Support* area of the Sawgrass Technologies, Inc. website at [www.sublimation.com](http://www.sublimation.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@sublimation.com](mailto:support@sublimation.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



