

# Epson\* Stylus Photo R1900

## GETTING STARTED GUIDE

Rev 2.0

**Note:** For the absolute latest Information and Updates on all Products, Materials, Processes, and/or Procedures relative to all offerings by or through Sawgrass Technologies, Inc., Please refer to our Website: [www.sawgrassink.com](http://www.sawgrassink.com).

\*EPSON and Stylus are registered trademarks of Seiko EPSON Corporation, which has not manufactured, sponsored or approved this product.



# ChromaBlast™

## Getting Started Guide for the Epson Stylus® Photo R1900

© Copyright 2009, Sawgrass Technologies, Inc., Revision: February 2009.

All rights reserved.

Printed in the United States of America.

**ChromaBlast™, ChromaBlast™ Inks, ChromaBlast Driver™, and ColorSure™** are Trademarks of **Sawgrass Technologies, Inc.** **Epson®** and **Stylus®** are Registered Trademarks of **Seiko Epson Corporation**. 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.

This process License Agreement ("PLA") is a legal agreement between you and Sawgrass Technologies, Inc. ("Sawgrass").

# 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, 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.**

# 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. 5,488,907** (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™ v1.5 media, ChromaBlast Driver™ v1.5, 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

## Agreements and Warranties

ChromaBlast™; Process Licence Agreement .....	iv
End User Licence Agreement: ChromaBlast™ Driver .....	v
Miscellaneous .....	x
Table Of Contents .....	1

## Printer Setup

Introduction .....	3
About This Document .....	4
Ink Cartridge Setup .....	5
Notes (Customer Reference) .....	8

## BULK INK SYSTEM QuickConnect® Installation Guide: R1900

BULK INK SYSTEM QuickConnect® Installation: Preparation .....	9
BULK INK SYSTEM QuickConnect® Installation: Setup .....	9
BULK INK SYSTEM QuickConnect® Installation: Tips .....	16
Heat Transfer Instructions .....	17

## Getting Started Guide: ChromaBlast Driver ~ R1900

About Your ChromaBlast Driver R1900 Software .....	19
System Requirements: ChromaBlast Driver R1900 .....	19
Product Overview: ChromaBlast Driver R1900 .....	20
Installation/Registration: ChromaBlast Driver R1900 .....	20

## Using the ChromaBlast Driver for the R1900

Quick Start Example (CorelDRAW) .....	29
Setting CB Driver R1900 Document Properties/Printing Preferences .....	31
From the Windows Desktop .....	31
From an Application .....	34
ChromaBlast Driver R1900 Properties (Registered Version): .....	36
Group 1—Configuration: ChromaBlast R1900 Driver Tab .....	37
Group 2—Color Settings: ChromaBlast R1900 Driver Tab .....	37
Group 3 – Printer Options: ChromaBlast R1900 Driver Tab .....	38

# Table of Contents (Continued)

## Appendices

Appendix A: Over-riding CorelDRAW Software Color Management .....	39
Appendix A: Over-riding Photoshop Software Color Management .....	41
Appendix B: Using ColorSure™ and Custom Palette .....	45
Supplies & Equipment.....	51
Storage.....	51
Troubleshooting .....	52
Technical Support.....	54

# Document Overview

Congratulations on your purchase of the **R1900 System** featuring **ChromaBlast Digital Transfer Inks**. The **ChromaBlast Digital System**, designed to work with the **Epson Stylus Photo R1900 Printer**, is the latest advancement from **Sawgrass Technologies, Inc.**, a leader in the development of digitally-driven color transfer technologies and related products.

The **ChromaBlast Digital System** for the **Epson Stylus Photo R1900** includes **ChromaBlast Inks**, and the **ChromaBlast R1900 Driver**. You will also need **ChromaBlast Transfer Media** to achieve soft, permanent digital images on cotton garments. This revolutionary system takes sublimation and cotton decoration to the professional level, allowing users to create perfect transfers on a wide variety of substrates with minimal effort.

With the **ChromaBlast Digital System**, you can digitally decorate any polyester, poly-coated or light-colored cotton product. Your imagination is the only limit for producing brilliant, photo quality images on caps, clipboards, clocks, mugs, mouse pads, plaques, puzzles, synthetic or cotton T-shirts... and all points in between.

The **ChromaBlast R1900 Driver** is user-friendly software that enables you to select your inset and control your color output. The **ChromaBlast R1900 Driver** bundles color management software with the **ChromaBlast** print driver, giving you a powerful combination of customized color options. By using the **ChromaBlast R1900 Driver** to print with **ChromaBlast Inks** onto **ChromaBlast Media**, your images transfer flawlessly to any white or light colored cotton product, such as t-shirts, grocery bags, caps... and more. The **ChromaBlast Digital System** for the **Epson Stylus Photo R1900 Ink-Jet Printer** is ideal for markets that specialize in short run personalized or customized products.

This document contains information for using **ChromaBlast Digital Transfer Inks**, as well as helpful tips for getting the best results from your transfers. The information provided pertains specifically to the use of **ChromaBlast Digital Transfer Inks** in your **Epson Stylus Photo R1900 Ink-jet Printer**, and is not meant as a substitute for the printer's original operation manual.

**NOTE:** If you have questions about the operation of your **EPSON Printer**, refer to the **Epson Stylus Photo R1900 Ink-jet Printer User's Guide**.

**Technical Support** is available from your **Authorized ChromaBlast Digital System** reseller, or directly from **Sawgrass Technologies, Inc.** See the section entitled **Technical Support** on **Page 66** for additional information.

We at **Sawgrass Technologies** strive to provide you with the tools to make the sublimation and cotton decorating 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 and cotton decoration business fun and profitable. Please feel free to contact us with your feedback about our products. For additional information about our other products, please visit our website at [www.sawgrassink.com](http://www.sawgrassink.com).

*Thank you and enjoy your ChromaBlast Digital System...*

## About this Document

This document contains descriptions and procedures for using **ChromaBlast™ Digital Transfer Inks**, along with additional information for getting the best results from your transfers.

The documentation provided pertains only to the use of **ChromaBlast™ Digital Transfer Inks** in your **Epson Stylus Photo R1900 Ink Jet Printer**. To assist you in the overall setup process, references are made back to the instructions contained in the **Epson Stylus Photo R1900 Quick Reference Printer Basics Guide**.

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



**Danger**

Indicates a hazard that could seriously compromise the use of the machine, and/or the physical safety of the operator.



**Warning**

Indicates “Must Do” items, significant warnings, and Important guidelines. These must be followed to prevent damage to your printer.



**Suggestion  
/Remark**

Indicates suggestions to optimize the operation of your machine, or the printing process.



**Tip**

Indicates the useful “Tips”, materials, practices, and /or observances that will have a beneficial impact on either the printing and/or the sublimation processes.

# Ink Cartridge Setup for the R1900

1. Plug the **Power Cable** into the **Printer** and the appropriate power outlet. (Figure 1.)

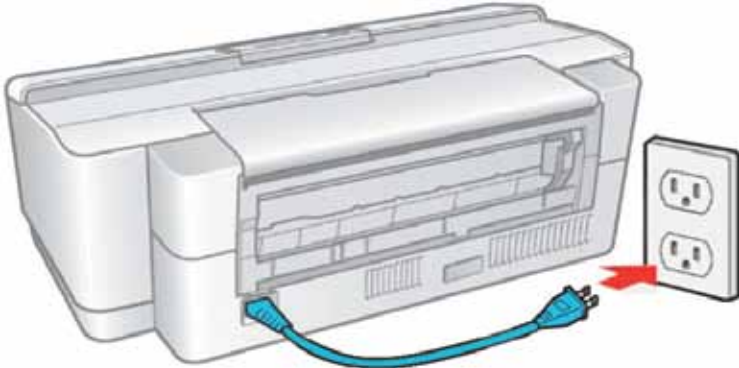


Figure 1

2. Turn **Printer** on, (Figure 2), lift lid, (Figure 3), and press **Cartridge Replacement Button**. (In Red, “Ink Button”, Figure 4).



Figure 2

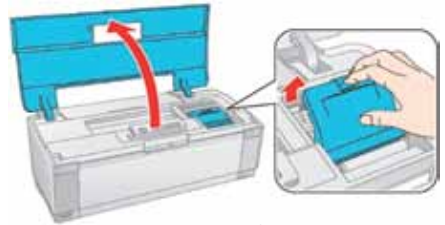


Figure 3

## Control Panel Graphic

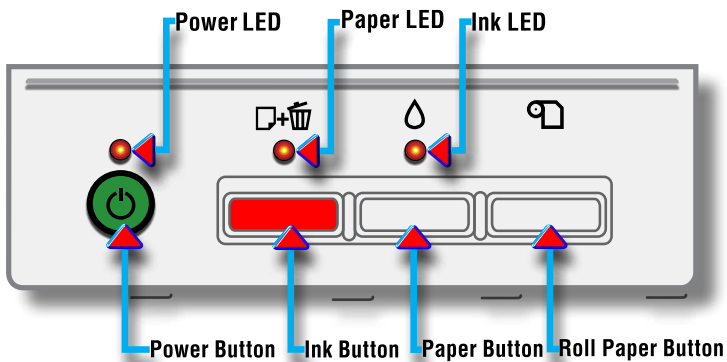


Figure 4

2. The cartridge bay will shift into the “**Remove**” position. Lift the bay lid and remove any installed cartridges. (See Inset in **Figure 3, Page 5**).
3. Insert the **ChromaBlast™** cartridges in the indicated order.

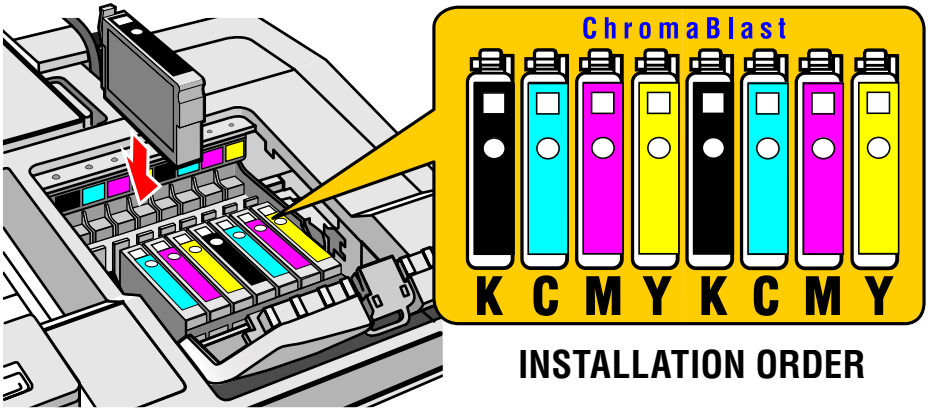


Figure 5



**CAUTION:**

**Do not shake or agitate ink carts before or after installation.**

4. Press each cartridge body until it engages securely.

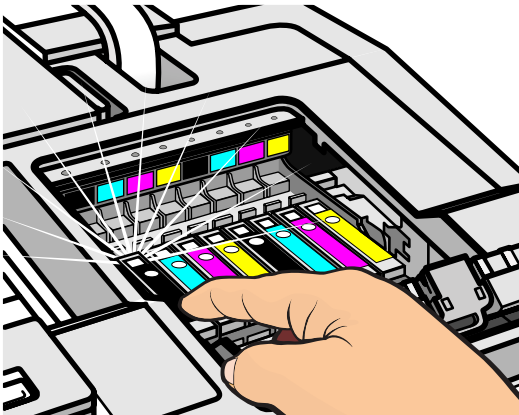


Figure 6

- Once all cartridges are in place, close the cartridge bay lid and press to engage.

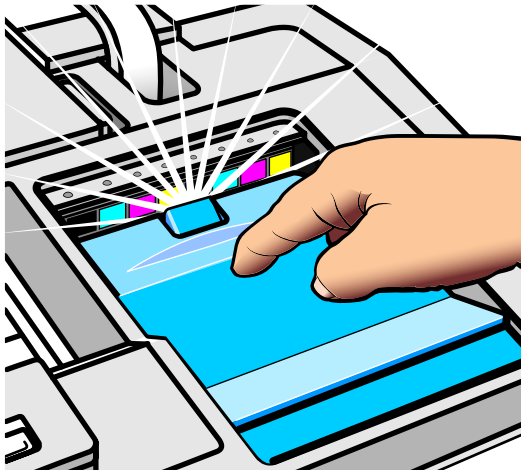


Figure 7

- Press the **Ink Button**. (Please see **Control Panel Graphic** above.) This will move the **Print Head** into its “**Parked**” position, completing the **Ink Cartridge Installation** for the **R1900 Printer**.

## Control Panel Graphic

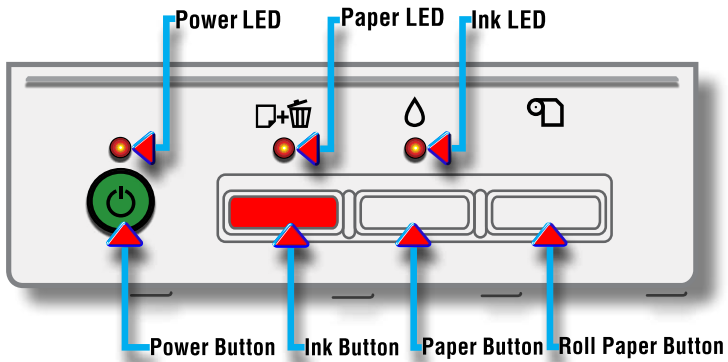


Figure 8

Next on the agenda is the loading of the software, **ChromaBlast Driver R1900**, for the **Epson Stylus® Photo R1900 Inkjet Printer**.

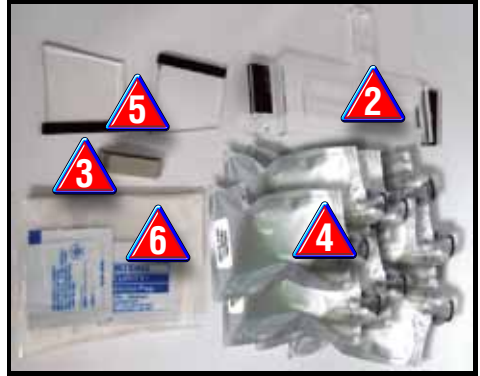
# QuickConnect® BULK INK SYSTEM Installation Guide



Please read this document thoroughly before installing the system to prevent voiding your warranty. For more detailed instructions please refer to the Epson R1900 Getting Started Guide or the Video Installation Guide on the Software CD provided.

## BULK INK SYSTEM QuickConnect® Installation: Preparation

**Check to ensure you have all components shown in both of the pictures.**



1. (1) Ink Box with Ink Multi-Cartridge & Tubes attached.
2. (1) Tube Support.
3. (1) Side Tube Support
4. (8) Individual Ink Bags.

6. Rubber Gloves.
7. (8) Syringes for Priming (Not Shown).
8. Power Driver CD (Not Shown).

## BULK INK SYSTEM QuickConnect® Installation: Setup



1. Clamp the feed tubes at the box end of each line to prevent ink from entering the line as you are clipping the ink bags onto the connectors in the box wall. Insert the ink bags into the reservoir box by slipping them into the connectors on the inside wall of the box. Each section inside of the reservoir is marked with the color ink that should be attached at each connector.



2. Use the priming syringe to prime each line. To do this, fill the syringe with the correct color ink. Squeeze all air from the syringe, then insert it into the bottom of the cartridge to begin the priming of the line and cartridge body. Do this for each color required. Pay careful attention to the order of the colors.



3. Turn the printer on and press the cartridge replacement button.



4. The cartridge bay will shift to the remove position. Remove any installed cartridges.



5. Remove the cartridge cover by using a screw driver to unclip one side.



6. Then twist, and push the other side to pull the cartridge cover completely out.



7. Press the **"Ink" Button** to release the **Cartridge Carriage Unit** from the **Docking Station**.



8. As the **Docking Station** releases the **Cartridge Carriage Unit**, push it manually toward the center of the printer.



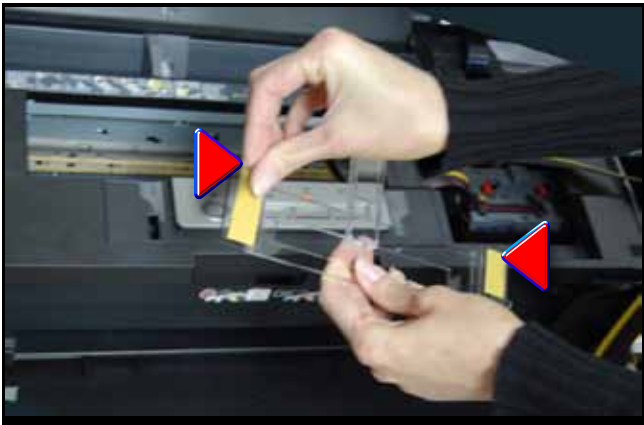
9. Insert the primed **Multi-Cartridge Unit** in place by tilting it down toward the front of the printer and sliding it into the **Cartridge Carriage Unit** at an angle as shown above.



10. Once the **Multi-Cartridges** are in place, push them on both sides until they “**click**” into place.



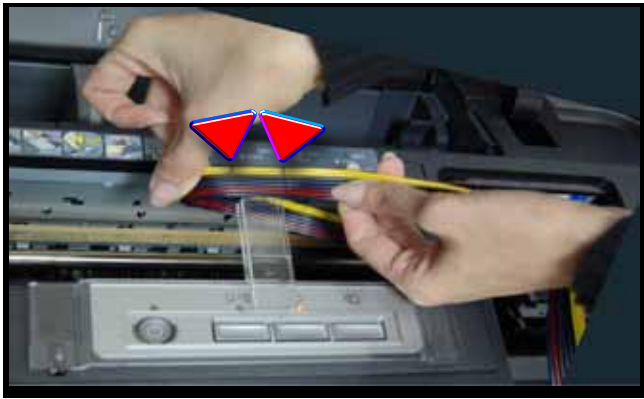
11. Manually push the **Cartridge Carriage Unit** back into the **Docking Station**.



12. Remove the backing from the Plexiglas Tube Holder.



13. Connect the Tube Holder so that it “bridges” the Printer Control Panel as shown above.



14. Insert the **Tube** into the **Tube Holder** with the black tube entering first & keeping the black lines on the tubing aligned with the edges of the **Tube Holder**.



15. Be sure to nestle the **Tube Belt** as deeply as possible into the **Holder**. Maintain a relaxed elbow as the **Tube Belt** bends around to attach to the **Cartridge Carriage**.



16. Attach the **Short Tube Holder** to the **Right Side** of the **Printer** where the **Tube Belt** hangs to enter the **Ink Box**.



17. Press the **“Ink Out” Button** again so that the printer recognizes the installed ink cartridges.



18. **Congratulations!** You have **successfully** installed the **R1900 QuickConnect® Bulk Ink System**.

## BULK INK SYSTEM QuickConnect® Installation: Tips



- Make sure you install **ChromaBlast Driver** from the **CD** you received with your **QuickConnect® Bulk Ink System**. Refer to the **ChromaBlast Driver Documentation** and the **Video Tutorial** on how to use **ChromaBlast Driver**.
- Perform a **Nozzle Check** from **ChromaBlast Driver**. A few cleaning cycles may be necessary to get a good **Nozzle Check**.
- You may want to employ the clear plastic holders to reliably prop open the printer lid so that it remains open all of the time.
- There may be small pockets of air in the lines after setup. If so, these will clear after a few prints are run.
- If the **System** is to be dormant for several days, use the **Tube Clamps** to seal the lines at the **Reservoir Box**. Maintain the **Reservoir Box** at the height of the printer, never raised above.

# ChromaBlast Printing and Heat Transfer Instructions

## RECOMMENDED APPLICATIONS

White or light colored 100% cotton fabrics.

### ChromaBlast Transfers: Step-By-Step

Once your ChromaBlast System is set up and in place, printing and transferring an image onto a white or light colored 100% cotton garment is a breeze. Just follow these simple steps, and you are on your way to creating one-of-a kind, beautiful and profitable products.

- 1.) Import an image (it could be a photograph from a digital camera) into your graphics application and manipulate it to suit your desired result. Manipulation may include sizing the graphic, setting the proper page margins and borders for printing or applying color correction if required.
- 2.) Load ChromaBlast paper into your printer. The printable side is opposite the ChromaBlast logo.
- 3.) Click Print in your application and select the ChromaBlast driver as the printing device. Ensure that the Mirror option is selected, unless you have already reversed the image in your graphics application.
- 4.) Adjust your heat press settings. See chart below for **suggested** settings.
- 5.) Place the garment on the heat press, and place the ChromaBlast paper, with the image facing down, over the garment. Close the heat press.
- 6.) After the allotted time, release the press and move the heat platen aside. While still hot, and with an even motion, peel the ChromaBlast paper off the garment (hot peel), and stretch the image area from top to bottom and side to side to reduce the hand on the fabric.

ChromaBlast / ChromaBlast-R (Suggested Press Parameters)		
	U.S.	Europe
Temperature	375°F - 400° F	190°C - 204°C
Pressure	60 psi (High)	4.22 kg/cm <sup>2</sup> ; 4.14 bar
Time	40 sec – 25 sec	40 sec – 25 sec

**IMPORTANT:** Due to variations in garments and heat presses, these settings may vary. For best results, test different **time/temperature** combinations to find one that works best with your **garment/heat press** combination. Please note, higher **temperatures** generally require less **time** to prevent scorching. An insufficient **time/temperature** combination may hinder ChromaBlast from completely curing to the cotton fibers, thus resulting in wash out.

## STORAGE INSTRUCTIONS

Store ChromaBlast Media in a cool, dry environment. Do not remove media from protective packaging until ready to use. Once packaging has been opened, store media in the plastic zip-loc bag provided.



# Getting Started Guide

For the

**EPSON Stylus® Photo R1900 Inkjet Printer**

For Distribution With

**ChromaBlast™ Ink ONLY**

**NOT FOR RESALE**

Revision 1.0

# About Your ChromaBlast R1900 Driver Software

Sawgrass Technologies, Inc.'s ChromaBlast System with ChromaBlast™ Digital Printing Inks, featuring the Epson Stylus® Photo R1900 Ink-Jet Printer, comprise a few of the key tools required to ensure high quality output each time you print. **ChromaBlast R1900 Driver Color Management Software** provides everything else needed in the way of tools.

**ChromaBlast R1900 Driver Color Management Software** is a professional grade color management program that provides ChromaBlast™ users with the necessary tools to ensure colors print right the first time. **ChromaBlast R1900 Driver** software is available for all major **Windows** based operating systems. To be sure of system compatibility, please visit us at <http://www.sawgrassink.com/v.php?pg=296>.

**ChromaBlast R1900 Driver** software and profiles are intended to give you simple, easy to use color management tools to take the guesswork out of sublimation printing. With the click of your mouse you can automatically optimize colors for virtually any cotton substrate. This is a valuable tool that saves you time, money, and limits your need for costly sampling trying to get the job right.

**ChromaBlast R1900 Driver** also comes standard with the **ColorSure Palette** matching system. The **ColorSure Palette** is absolutely the best way to achieve spot color accuracy in sublimation transfers. The palette includes more than 170 colors that, when loaded into your graphic design software, allows you to fill solid portions of artwork with a color from the palette, thus knowing how it will look once transferred. With the help of the **ColorSure Palette**, you will successfully choose the correct colors, whether you are matching colors for a custom order or selecting colors for new artwork.

**ChromaBlast R1900 Driver** is the most advanced color management software available on the market for digital transfer systems. This software was developed specifically for desktop sublimation systems; you will discover enhanced functionality as well as a new level of color output when **ChromaBlast R1900 Driver** is used. You and your customers are about to truly experience the next generation in digital color!

## SYSTEM REQUIREMENTS

### Minimum Hardware and Recommended Operating System:

- **A Pentium Dual Core, 3.0 GHz** or higher processor is recommended.
- **512 MB RAM** is the minimum recommended memory.
- **2 GB RAM** is highly recommended to process larger documents with high quality settings.
- **5 GB of Free Hard Drive** is required for proper software and file management.

# Product Overview – ChromaBlast R1900 Driver

**ChromaBlast R1900 Driver** is a color management software solution 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 automatically install the **Sawgrass ChromaBlast R1900 Driver Printer Driver** software, and **ColorSure** tools and utilities.

## Step By Step Installation – ChromaBlast R1900 Driver

1. **ChromaBlast R1900 Driver** installation will now begin with the assurance that the **Epson Printer Driver Software** is installed prior to this application.

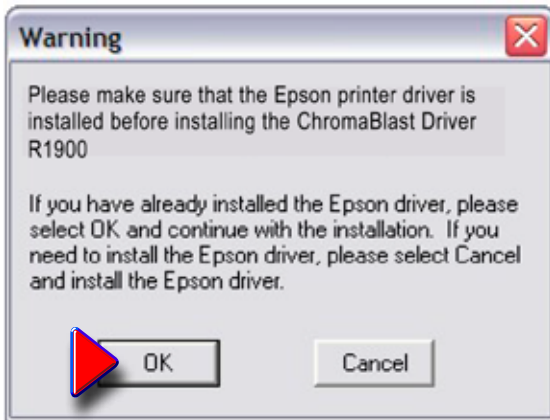


Figure 1

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

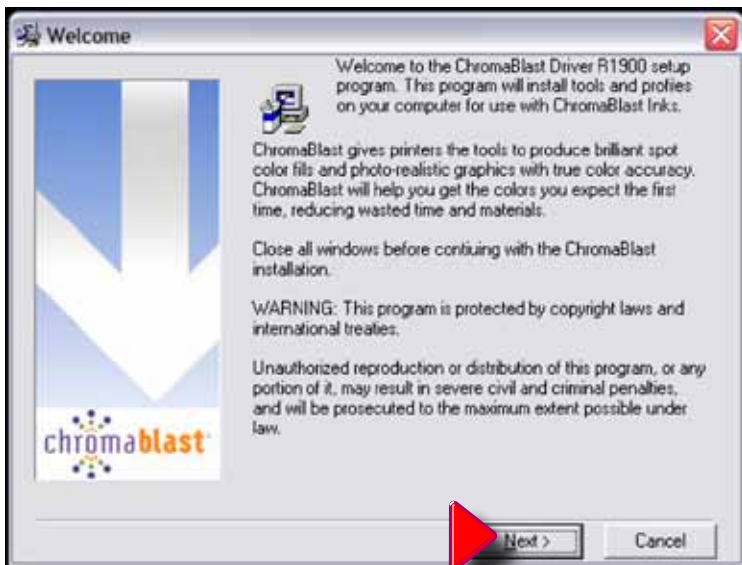


Figure 2

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



Figure 3

4. If you have not previously registered the **ChromaBlast R1900 Driver**, you will be prompted to do so. Registering is the only way to take full advantage of the advanced features in **ChromaBlast R1900 Driver**. If you choose to register later, select **Register Later** and click **Next** to proceed with the installation. (Fig. 4) You will have **five days** to use the program before registration will be required for continued usage of the software. After five days, if you attempt to print using the **PowerDriver IQ** software, you will be prompted to register. (Fig. 5)



Figure 4



If you decide to register later, and continue using the driver during the initial **five day pre-registration grace period**, your system will generate the following **Pop-Up Screen**. Go to the printing preferences page of the **ChromaBlast R1900Driver** and click on **“Register.”**



Figure 5

5. If you choose **Register Now**, fill in the **radio button**, (as shown in **Fig. 6** below), and click **“Next”**.

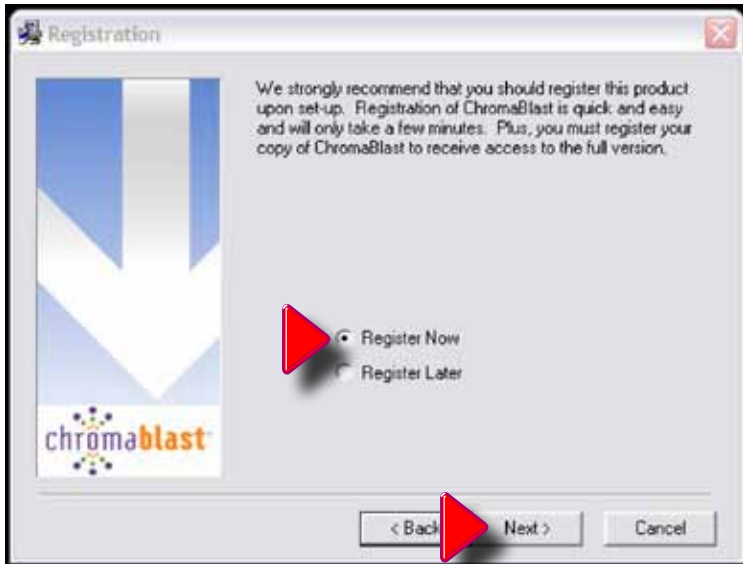


Figure 6

6. In the **ChromaBlast R1900 Registration Screen** shown next, (**Fig. 7**), you will use your **Product ID** (displayed at the bottom of **Figure 7**), to register and obtain a **Registration Code**. A **Registration Code**, (or **Codes**), may be had in any of the following ways:
- a) **Register** on-line and receive your **Registration Code** via **E-mail**.
  - b) Call **Sawgrass Technologies, Inc.** directly **(888) 253-1679** and obtain your code over the **Phone**.
  - c) Send a fax and receive your **Registration Code** by **Fax**.

You must have a separate **Registration Code** for every machine on which **ChromaBlast R1900** is installed. The swiftest procedure by far is option **a)**, by **E-mail**, in which case, in **Figure 7**, click on the button labeled “**Click here to Obtain Registration Code**”.



Figure 7

7. The **Product Registration Web Page** now opens. Complete the requested information on the web page and click **Continue**.

Figure 8

8. Once the website registration information has been completed, a **“Thank You”** message will appear.



Figure 9

9. After the online registration process is complete, apply the “**Registration Code**” you’ve received in the box labelled “**Registration Code**”, then click “**Apply Code**”.

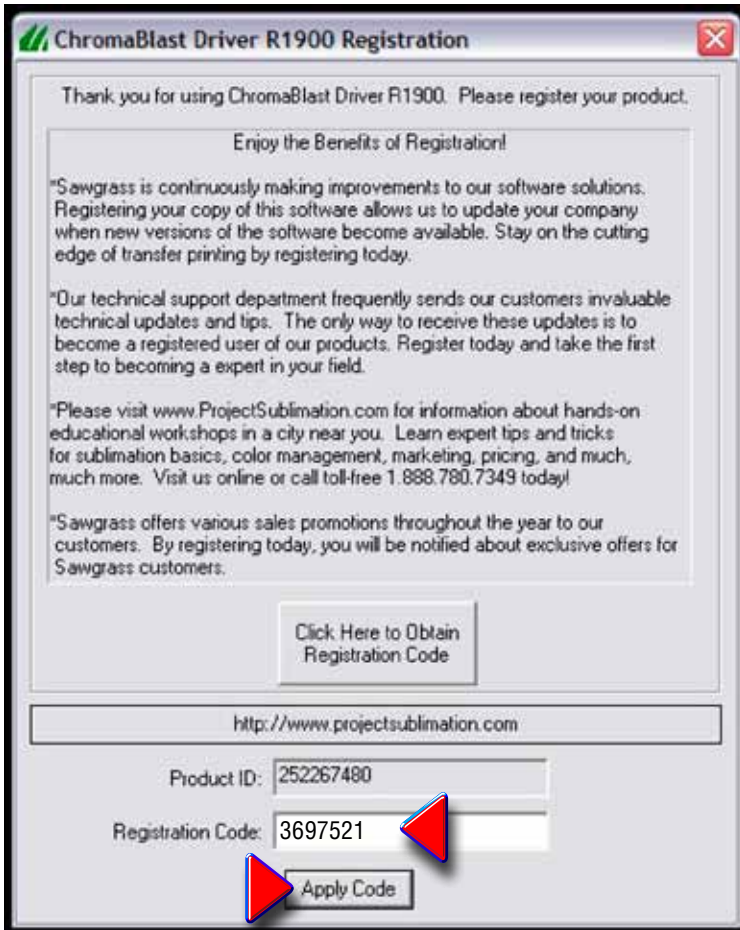


Figure 10

10. Your driver is now registered. **Installation** begins when you click “**OK**”.



Figure 11

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.

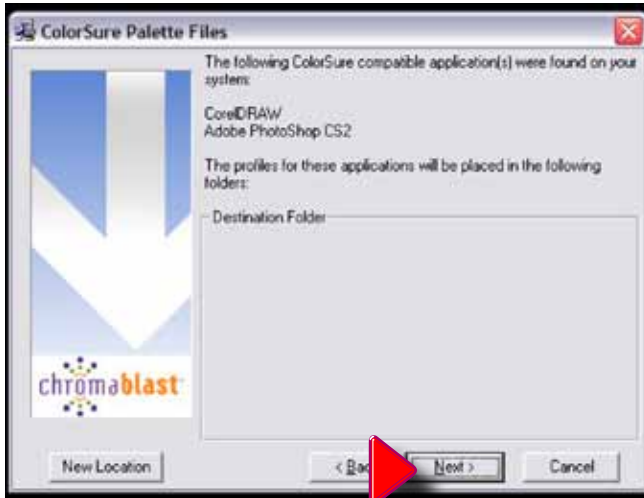


Figure 12

12. Please note that this process may take a few minutes depending on the hardware and processing power of your unit.

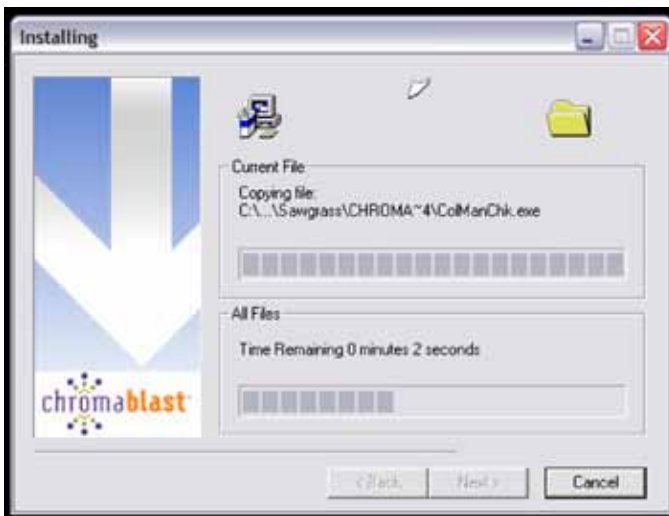
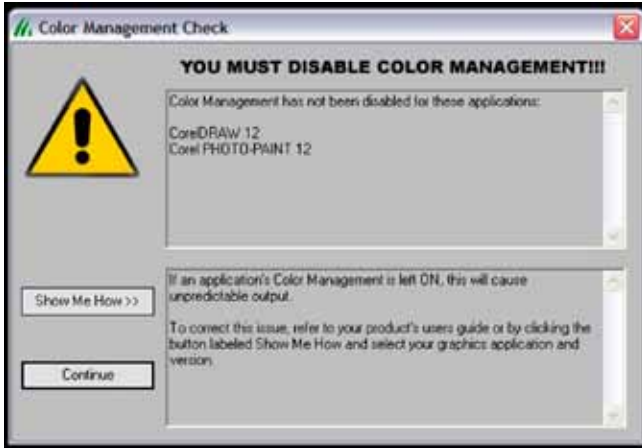


Figure 13



**Note:** In order to use **PowerDriver** as your **Color Management Software**, the color management features in either **Corel®** or **Adobe® Programs** must be **disabled**. Please see the instructions in **Appendix A, (Page 20)**, or click on the **“Show Me How” Button** on the **“Color Management Check” Screen** shown in **Item 12** below.

- 13.** The **Color Management Check** screen will appear. Click the **“Continue”** Button on the left side of the screen after you have disabled the **Color Management** feature of the **Corel** or **Adobe** Graphic software. Click **“Show Me How”** if you need instructions on how to accomplish this.



**Figure 14**

- 14.** With this Screen, **Installation** of the **ChromaBlast R1900 Driver** will begin. Click **“Next”** to continue.



**Figure 15**

15. If you see the “**Hardware Installation**” Screen below, click “**Continue Anyway**” to proceed with the Installation.



Figure 16

16. The installation will continue for some time, depending on the characteristics of your hardware.

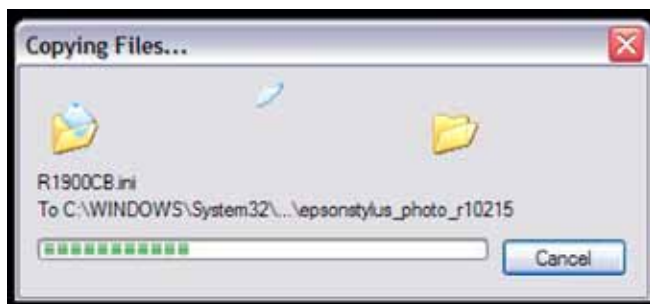


Figure 17

17. “**ChromaBlast R1900 Driver**” Installation is done. Click “**OK**” to continue.



Figure 18

# Using the ChromaBlast Driver for the R1900

**ChromaBlast R1900** is simple to use. Whenever you have **ChromaBlast** inks in your printer, you should print using the **ChromaBlast Driver for the R1900**. 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**. Select **“Print”** from the **File Menu**.



Figure 1



**Note:** Please see **“Group 2 - Color Options”** on page **35** for more in-depth information on color options available within the **ChromaBlast R1900 Driver**.

- 2) Select the **ChromaBlast R1900 Driver**. Use the **“Properties” Button** (Fig. 2) to access **“ChromaBlast R1900 Driver Properties”**. (Fig. 3, Page 32)

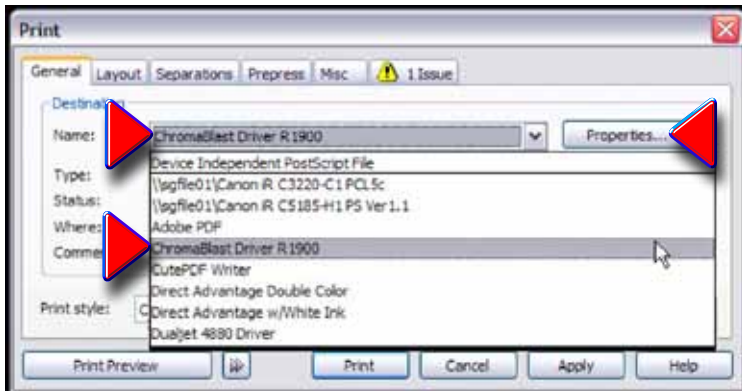
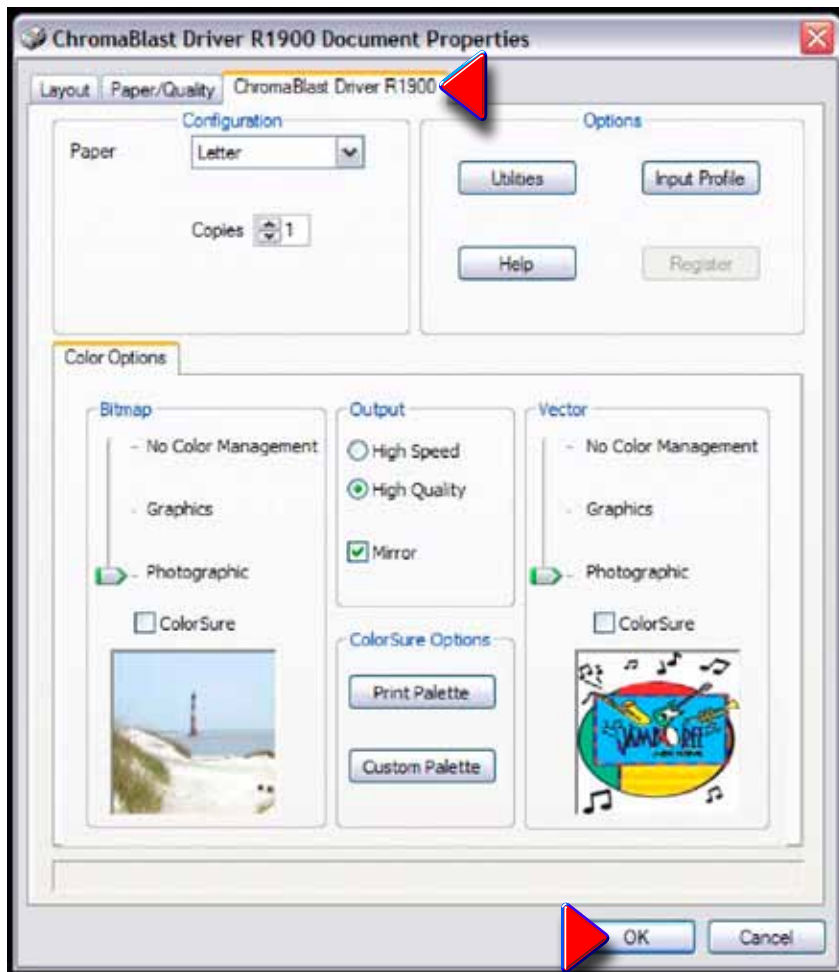


Figure 2

- 3) In **Figure 3**, you must set preferences according to the printing you require, either **Bitmap** or **Vector Artwork**, or **“No Color Management”**. You need also choose **“Photographic”** or **“Graphics”**, **Paper Size**, **Number of Copies**, **“High Speed”** or **“High Quality”**, **“Mirror”** or not, and **“ColorSure”** Involvement, if any. Once this is done, click **“OK”** to return to the **“Print” Window (Fig. 2)**. Here, click on **“Apply”**, and then **“Print”**.



**Figure 3**

# Setting ChromaBlast R1900 Document Properties /Printing Preferences

To configure **ChromaBlast R1900 Driver** for the correct substrate, you must display its **Document Properties/Printing Preferences**. There are two ways to display the **Document Properties/Printing Preferences**:

## From the Windows Desktop:

1. Click on **Start > Printers and Faxes**.



Figure 1

2. Right-click on your **ChromaBlast R1900 Driver Printer**. (Point 1) Scroll the Drop-Down Menu and click on **“Properties”**. (Point 2) This leads to the **ChromaBlast R1900 Driver Properties Window**. (Fig. 3, Page 32)

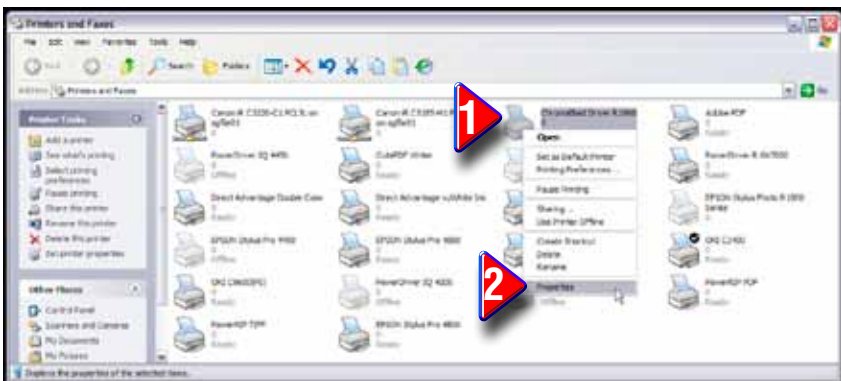
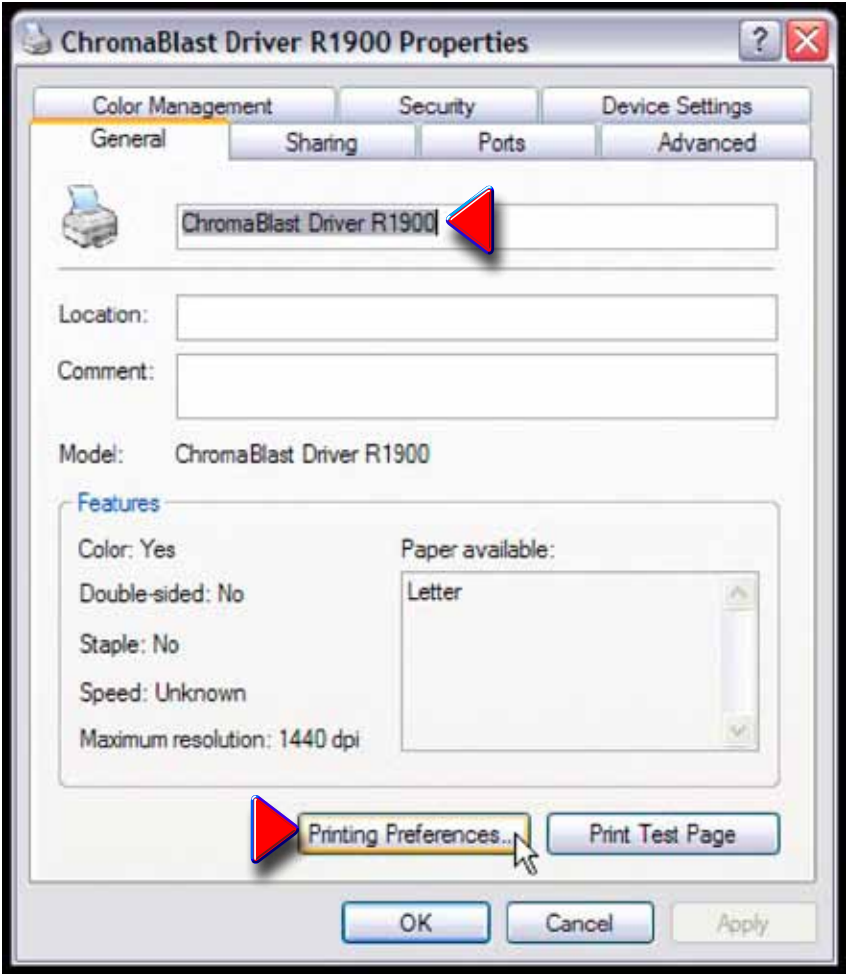


Figure 2

3. In the “**ChromaBlast R1900 Properties**” Window, click on the “**Printing Preferences**” Button near the bottom of the screen in **Fig. 3**.



**Figure 3**

- 3) In **Figure 3**, you must set preferences according to the printing you require, either **Bitmap** or **Vector** Artwork, or **“No Color Management”**. You need also choose **“Photographic”** or **“Graphics”**, **Paper Size**, **Number of Copies**, **“High Speed”** or **“High Quality”**, **“Mirror”** or not, and **“ColorSure”** Involvement, if any. Once this is done, click on **“Apply”**, then click **“OK”** to return to the **“Print” Window (Fig. 2)**. Here, click on **“Apply”**, and then **“Print”**.

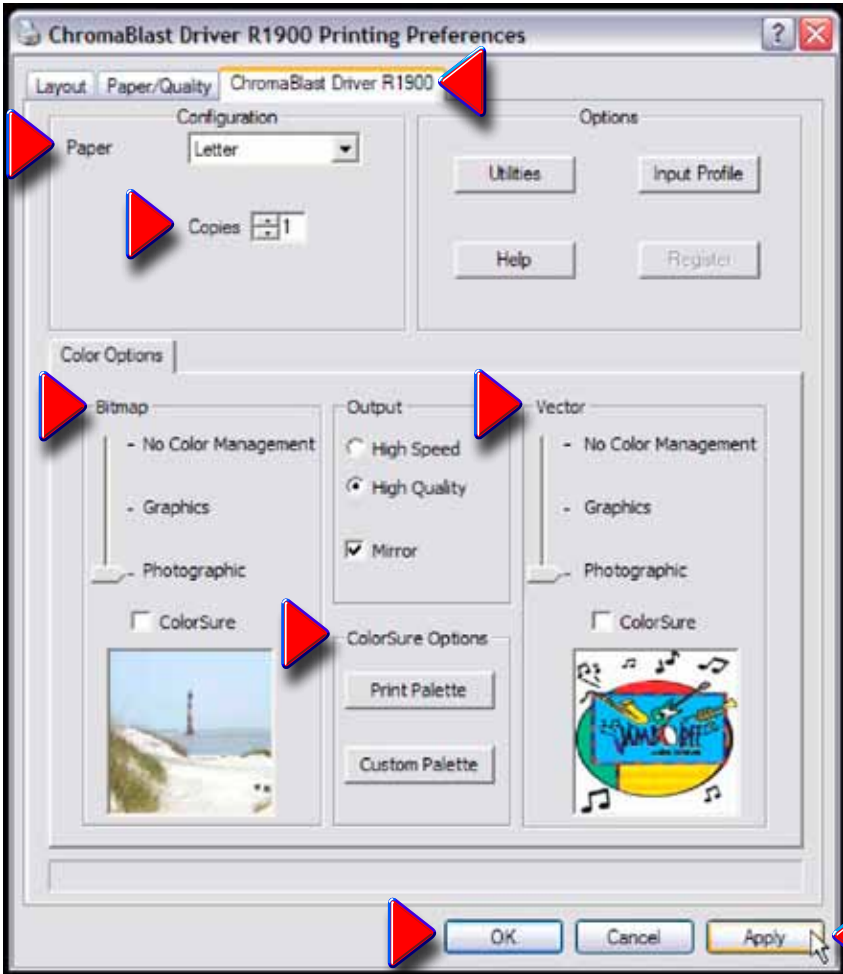


Figure 4

# From an Application:

1. Select **File > Print Setup**. Click to reveal “**Print Setup**”. (Fig. 2)



Figure 1

2. Choose the **ChromaBlast R1900 Printer** from the list of printers. Click the **Properties Button** to access the **ChromaBlast R1900 Document Properties**.

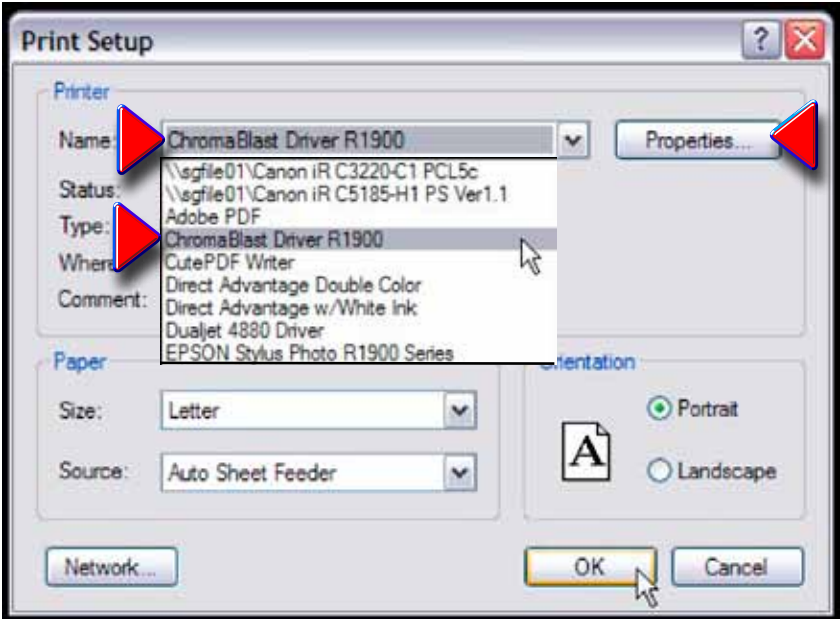


Figure 2

- 3) In **Figure 3**, you must set preferences according to the printing you require, either **Bitmap** or **Vector** Artwork, or **“No Color Management”**. You need also choose **“Photographic”** or **“Graphics”**, **Paper Size**, **Number of Copies**, **“High Speed”** or **“High Quality”**, **“Mirror”** or not, and **“ColorSure”** Involvement, if any. Once this is done, click **“OK”** to return to the **“Print” Window (Fig. 2)**. Here, click on **“Apply”**, and then **“Print”**.

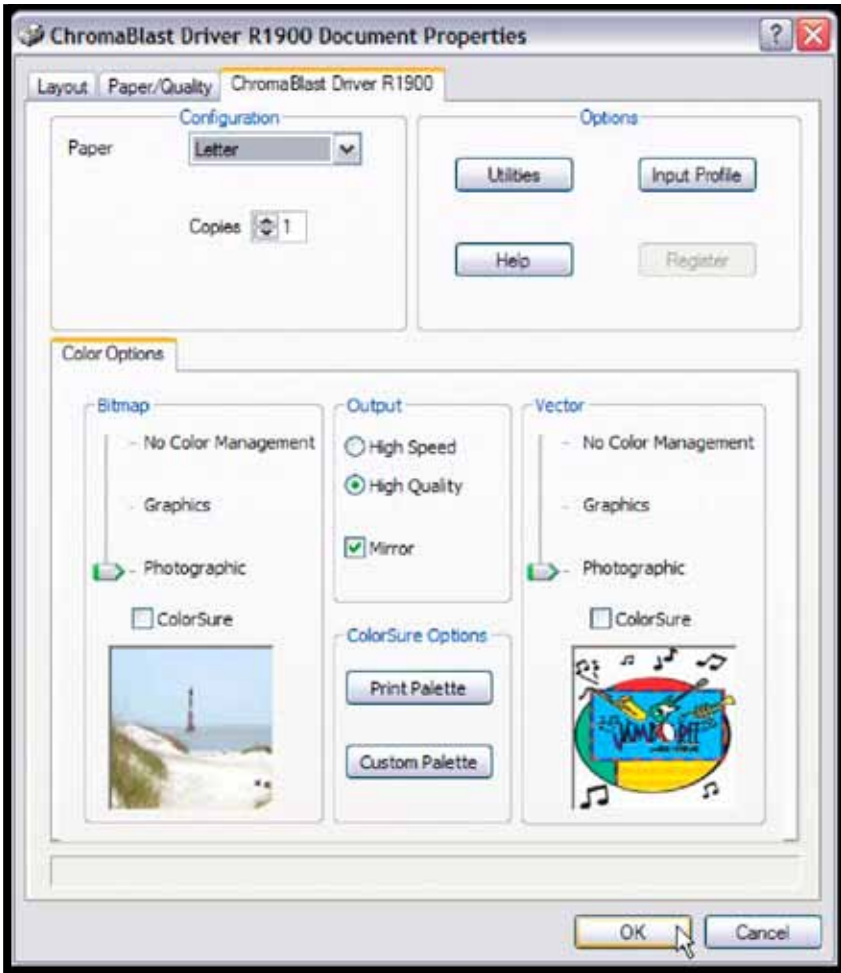


Figure 3

# ChromaBlast R1900 Driver Properties

The Figures below show the Document Properties/Printing Preferences for a registered version of ChromaBlast R1900 Driver.

There are three main property groups (see the color-coded boxes in the screen shot, Fig. 1, Page 38):

- Group (1): Configuration** — Set Paper Size and Copy Count.
- Group (2): Color Settings** — Color Management Control Options.
- Group (3): Options** — Utilities for Printer Maintenance, Online Help, Product Registration, and Setting Input Profiles.

## ChromaBlast R1900 Driver

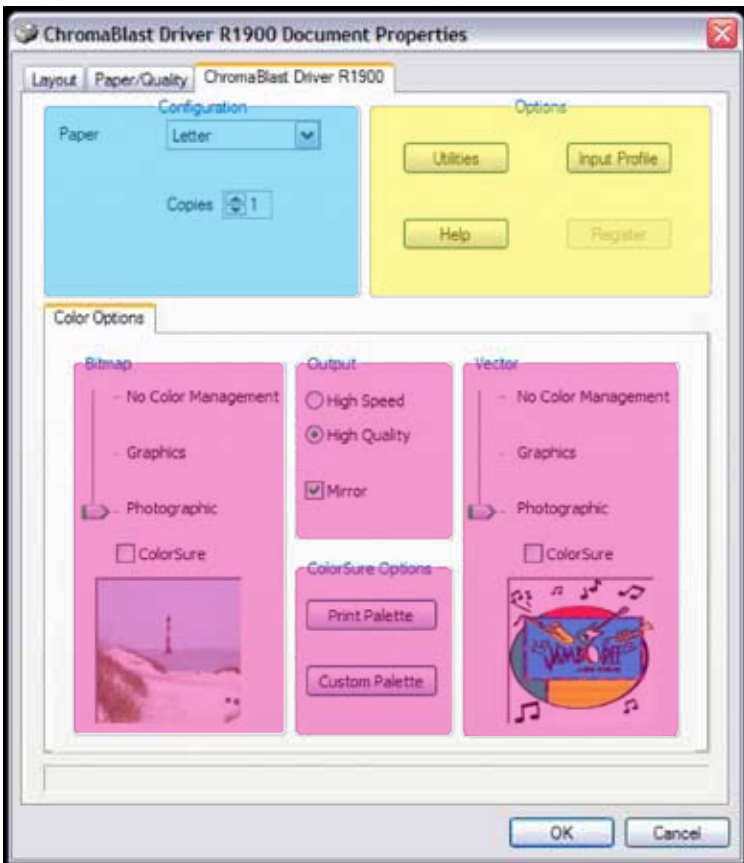


Figure 1

## Group 1—Configuration: ChromaBlast R1900 Driver

**Paper Size** – From the drop down list, select the paper size you wish to use. (Fig. 2)

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

## Group 2—Color Settings: ChromaBlast R1900 Driver

This tab gives you access to all of the color management controls available in **ChromaBlast R1900 Driver Tab**. Color correction allows you to create transfers from all kinds of images, from photorealistic images to spot color logos. For maximum flexibility, **ChromaBlast R1900 Driver Tab** 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, **ChromaBlast R1900 Driver Tab** will use the color management settings that have been selected for Bitmap. If you then add text on top of the bitmap image, **ChromaBlast R1900 Driver Tab** 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 consist of 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 R1900 Driver Tab** settings. All other image types will be color corrected based on the **ChromaBlast R1900 Driver Tab** Bitmap setting.

### Bitmap & Vector Options

- **No Color Management** - All color management will be accomplished using the **Graphic Design Software**.
- **Graphics** - This setting is most suitable for reproducing life-like clipart.
- **Photographic** - This setting is most suitable for reproducing skin tones in scanned photographs.
- **ColorSure Checkbox - ColorSure** 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, Page 51.

## ColorSure Options

- **Print Palette Button** – Prints the **ChromaBlast 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 **CoreIDraw**, and **Adobe Swatches**. For a complete description on how to use **ChromaBlast ColorSure** to get perfect spot colors, see **Appendix C**.
- **Custom Palette Button** – This button launches the **Custom Palette Utility**, which 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**, see **Appendix C**.

## Output Options

- **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.
- **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.

## Group 3 – Printer Options: ChromaBlast R1900 Driver

- **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 R1900 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 R1900 Driver™** driver functions and settings. Also contains a link to the **Sawgrass Technologies Website**.
- **Register** – If the **ChromaBlast R1900 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**. (**ChromaBlast R1900 Driver** supports both **ICC** and **ICM** profiletypes). Right click on the profile file name and select “Install”.

## Appendix A:

### Over-Riding Design Software Color Management

The **ChromaBlast R1900 Driver** provides a complete color management solution for your **ChromaBlast Digital Transfer Inks** 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 X-4, X-3, 12, 11, and 10

- In **CorelDRAW**, open an existing, or create a new graphic.



Figure 1

- From the **Main Menu** choose **Tools > Color Management**.

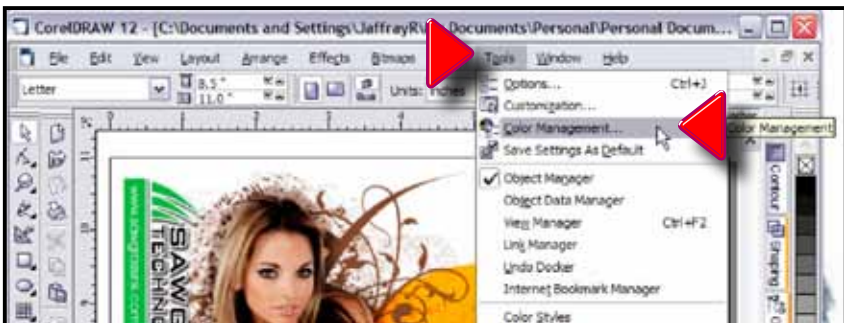
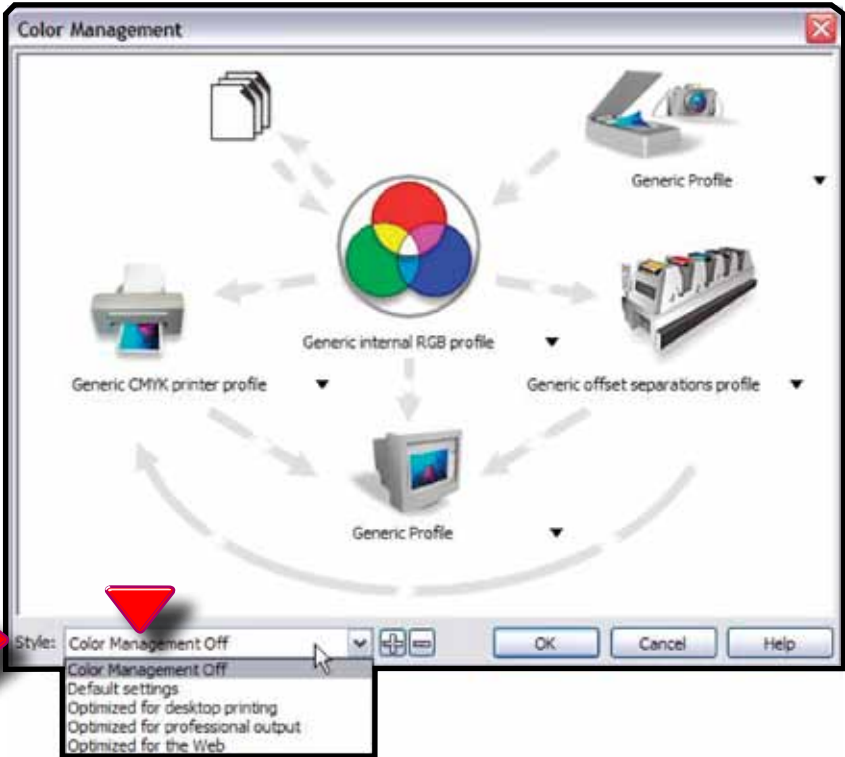


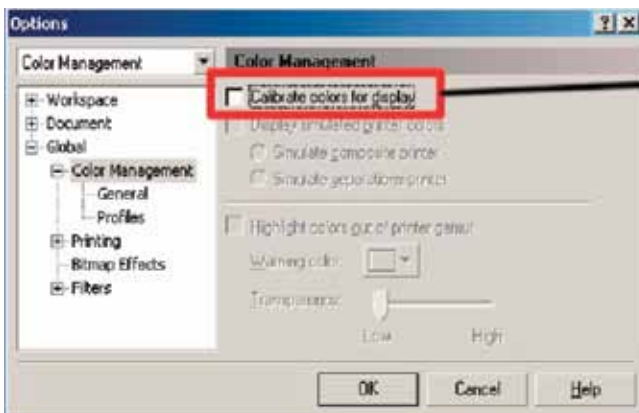
Figure 2

- In the **Color Management Window**, set the **Style** option to **Color Management Off**.



## CorelDraw™ version 9

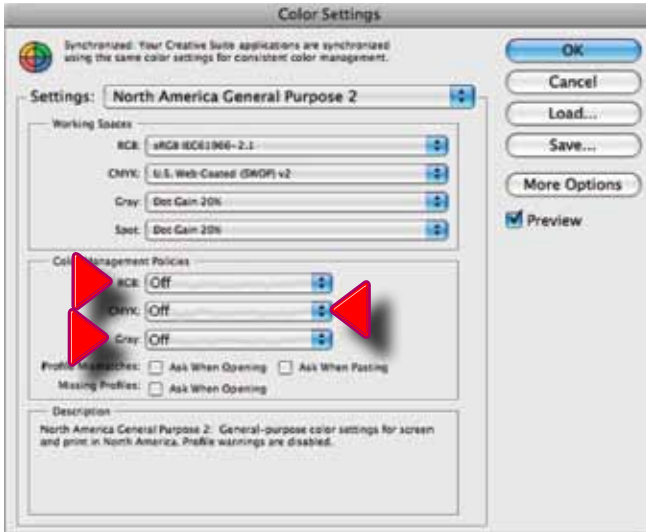
- Create a new graphic.
- From the **Main Menu** choose **Tools > Color Management**. The **Color Management Dialog Box** is displayed.
- In the **Color Management Window** (see figure below), **UNCHECK** the Calibrate colors for display box.



**Must Be Unchecked**

# Adobe Photoshop CS3, CS2, CS, Photoshop 7 & 6: *Color Setup*

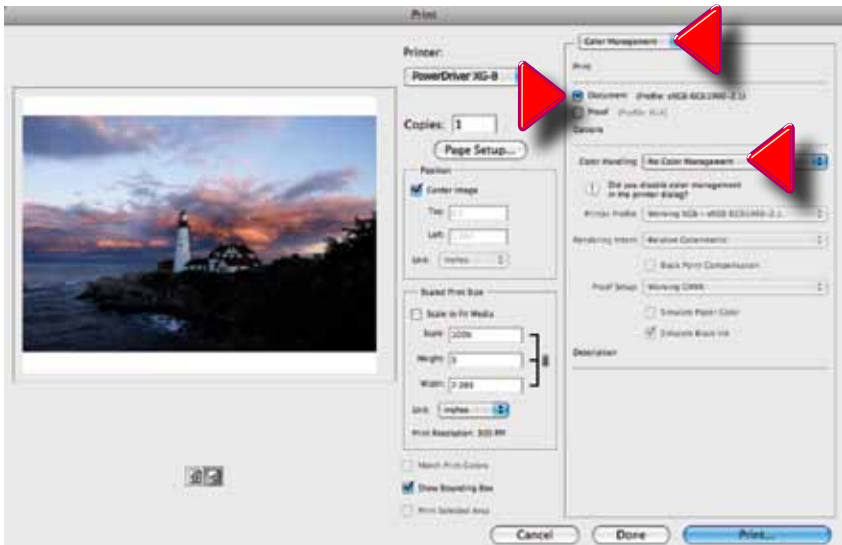
From the **Main Menu**, choose **Edit**, > **Color Settings**. In the **Color Settings Dialog Box**, turn all **Color Management Policies** to “Off”. (See below.) Mark the box “**Ask When Opening**” next to “**Profile Mismatches**”.



## To Print; Adobe CS3:

Select **File**, > **Print**. On the print dialog page, set the options as follows:

- Upper Right Hand **Menu** to “**Color Management**”
- Choose “**Document**” by clicking the radio button.
- Under “**Color Handling**”, choose “**No Color Management**”



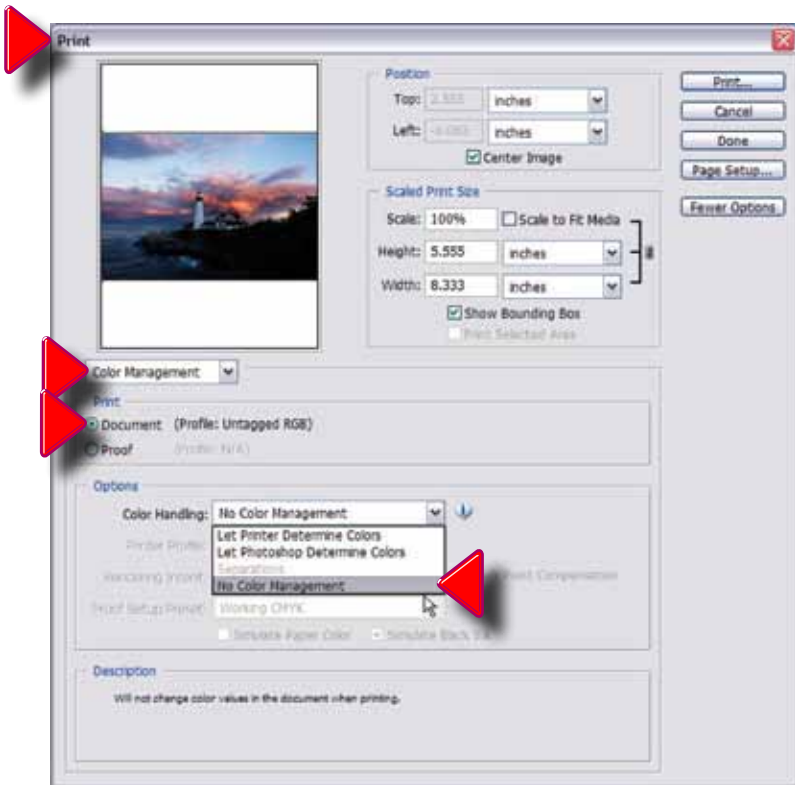
## To Print; Adobe CS2,

Always select **File**, > **Print with Preview**. On the print dialog page, set the options as described in the following a thru d:

- a. Click on “**More Options**”.



- b. Choose **Color Management** in the drop-down menu.  
c. Choose “**Document**” by clicking the radio button.  
d. Under “**Options > Color Handling**” choose “**No Color Management**”.



## To Print; CS and Photoshop 7:

Always select **File, > Print with Preview**. On the print dialog page, set the options as described in the following **a** thru **d**:

- a. Click on “**More Options**”.
- b. Choose **Color Management** in the drop-down menu.
- c. Choose “**Document**” by clicking the radio button.
- 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**”.



## Adobe Photoshop Elements 5.0/4.0/3.0:

Select **Edit** and then **Color Settings** from the top drop down **Menu Bar**. Select **No Color Management**. Click **Ok**.



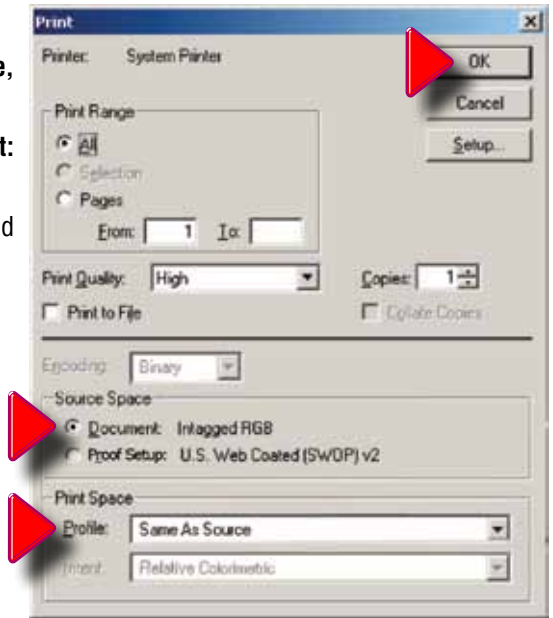
## To Print RGB Graphics

Click **File**, > **Print**, then set the **Range**, **Print Quality**, & **Copies**.

Fill in radio button “**Document: Intagted RGB**”.

In “**Print Space**”, “**Profile**” should read: “**Same As Source**”.

Press “**OK**”.



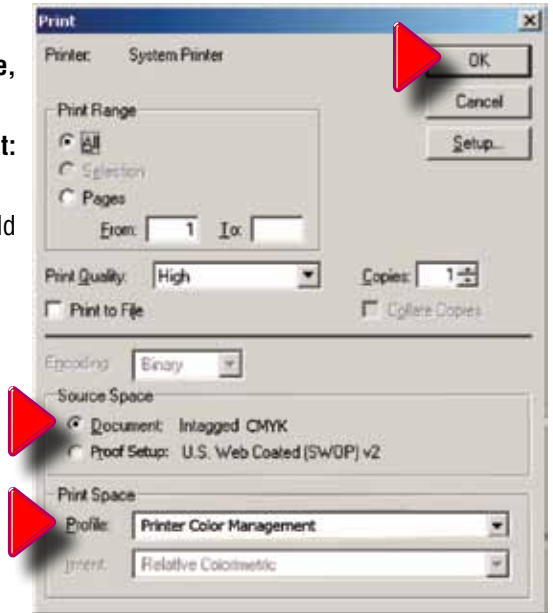
## To Print CMYK Graphics

Click **File**, > **Print**, then set the **Range**, **Print Quality**, & **Copies**.

Fill in radio button “**Document: Intagted CMYK**”.

In “**Print Space**”, “**Profile**” should read: “**Printer Color Management**”.

Press “**OK**”.



# Appendix B:

## Using ChromaBlast 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 a wide variety 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: 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.

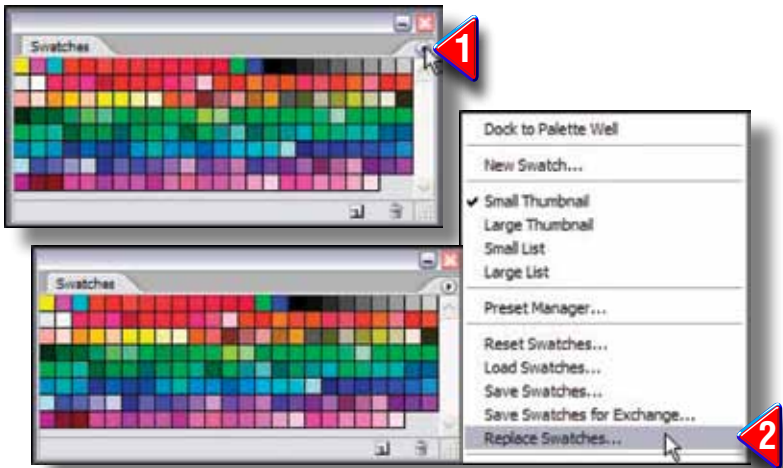
#### To print the ColorSure palette, follow the steps below:

- Click 'Start' and navigate to the 'Printers and Faxes' folder. Right-click on your **ChromaBlast R1900 Driver** icon and select 'Printing Preferences' from the menu. You may also open **ChromaBlast R1900 Driver** from within an **Adobe** or **Corel** program by going to **File, Print**, and choosing the **ChromaBlast Driver R1900** printer from the pull-down menu. Click "Properties" to open **PowerDriver R1900 IQ**. Select the **ChromaBlast R1900 Driver Tab**.
- 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 4880 and ChromaBlast 4880 install three palettes: two for Adobe products and one for Corel products. These colors match the palette that is printed from within PowerDriver and the ChromaBlast driver.

- To open the **ColorSure Palette** in **Corel 9, 10, 11, 12, X3, and X4**, choose **Window > Color Palettes > Open Palette**. Select the file “**ColorSure PaletteCorel.cpl**”
- To open the **ColorSure Palette** in **Adobe Illustrator**, (**Colorsure Palette.aco**) choose **Window > Swatch > Libraries > Other Library**. Navigate to its **Installation Destination** set during **PowerDriver** installation: **C:\Program Files \Sawgrass \PowerDriver \Adobe Illustrator** and hit **Open**. For easier access to the **Palette File**, copy it from this installation path to **Illustrator10 \Presets \Swatches** and it will show up in your **Drop-down** list directly under the **Swatch Libraries Menu**. Other versions of **Illustrator** will have similar steps.
- To open the **ColorSure Palette** in **Adobe PhotoShop**, (**Colorsure Palette.aco**) choose the “**Swatches Palette**”, click the option arrow on the palette, (**Point 1**), choose **Replace Swatches**, (**Point 2**), and pick the “**Colorsure Palette.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 below each color.

### IV. Using Color Finder

After printing and transferring 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 where the **Color Finder Tool** comes in handy. 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 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:

- Open the **ChromaBlast R1900 Driver Window** as instructed in **“Printing the ColorSure Palette”** outlined in **Section II**.
- At the bottom of the window, click the **Custom Palette Button**; this will open the **“Custom Palette Utility” Window**. (**Figure 1**)
- First, make sure you select your desired **Substrate**, **Output (High Speed or High Quality)**, and the **Mirror** option from the **Printing Preferences Window**. Click **Apply** at the bottom of the window. This is a very important step as it will affect the final printed output. (**Figure 2**)
- Click on **Color Chooser** and select your desired starting color from the matrix. If you do not wish to use **Color Chooser**, you have the option to manually enter the **Start Color** values in the **CMYK** boxes. (**Figure 3, page 51.**)

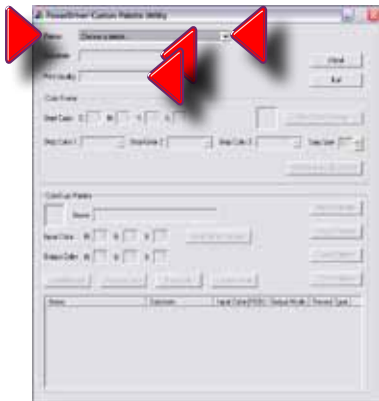


Figure 1

- To use **Color Chooser**, simply click on the **‘Start Color Chooser’** button in the **“Color Finder” Section**, at the top right of the **“ChromaBlast Custom Palette Utility” Window**. You can then choose a color from the basic color selection, or you can click on the **Color** button at the right of the window. This will display a color matrix. 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 **RGB** boxes with the corresponding values. (**Fig. 3**)
- For advanced users, **RGB** values can be determined by printing out a **Custom Palette**, which is outlined in the next section.

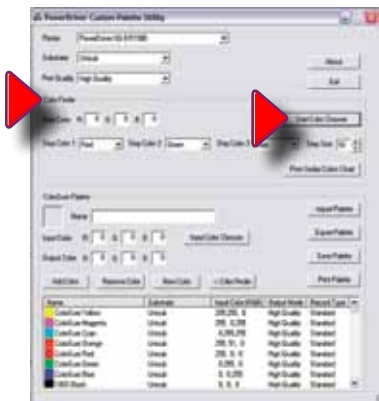


Figure 2

## Color Chooser Dialog Window

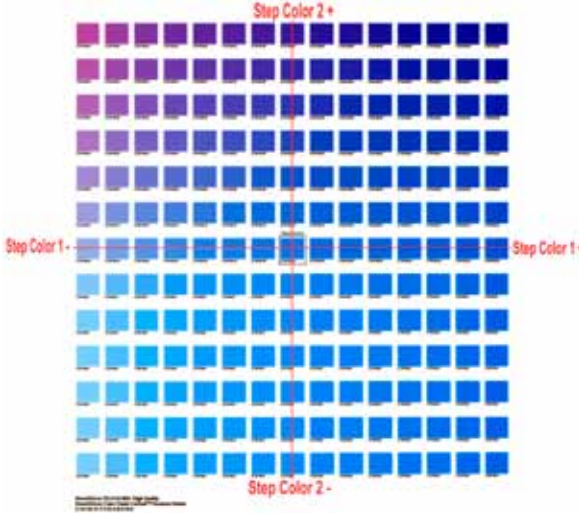


Figure 3

## Custom Palette Utility

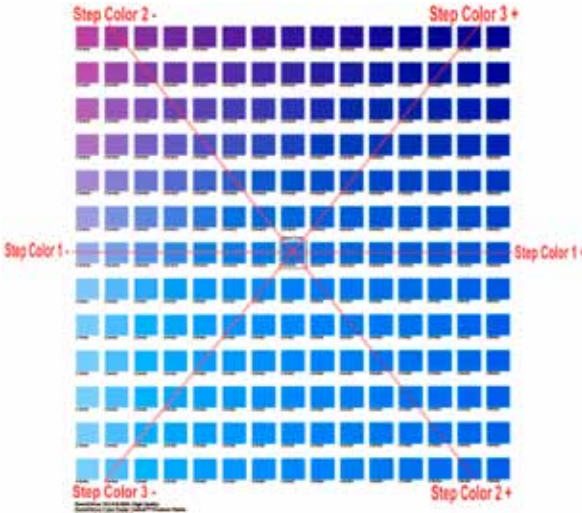
You may alter the chosen color's **CMYK** value by selecting two or three **Step Colors**. Using multiple step colors will present you with a greater range and variety of colors to choose from.

- 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 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 Colors**' **Button** is clicked, 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 **Section V. "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.

## To Find More Custom Colors

1. First, try to locate a new **Start Color** from the palette 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 **Y&K** 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.

## V. The ChromaBlast 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 **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 **CustomPalette 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 colormatrix window are the **RGB** values. Simply click ‘**OK**’ and the **RGB InputColor** 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 ChromaBlast 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**

Contact your authorized reseller to purchase sublimation supplies and equipment. For more information, see the **Dealer 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 **ChromaBlast Inks**, including temperature and relative humidity.

### **ChromaBlast**

- Supported operating Conditions are **65° – 80° F** with **35 – 60%** relative humidity
- Optimum operating Conditions are **70° – 75° F** with **40 – 50%** relative humidity

## **Storage**

- Care should be taken to prevent storing **ChromaBlast** inks below freezing temperatures (**32°F, 0°C**). Do not expose these inks to extreme heat (temperatures in excess of **104°F, 40°C**). If these inks have been in storage, you should allow them to reach room temperature before using them.
- 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 ink bag/cartridge for the specific ink expiration date.

## **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.

## **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 Photo R1900 Printer Quick Reference Guide**.

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

- The image may need color adjustment. Use the driver color matching software. For more information on how to use this software, please see the relevant **User Guide Sections on Color Management**.
- Ensure you used the right Printer Driver and driver settings. Please see the relevant **User Guide Sections** related to **Software**.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines see the section entitled **ChromaBlast Transfer Instructions, Page 8**.
- Verify that all colors print correctly. Run the **Nozzle Check** utility and clean the print heads as required.

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

**ChromaBlast Ink** naturally looks muted before heat transference of the image. After transferring is complete, **ChromaBlast'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 **ChromaBlast Heat Transfer Instructions**.
- With **ChromaBlast**, ensure you used the recommended **ChromaBlast v1.5 Media and Inks**.
- 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 plotchy.**

- Ensure you printed on the correct side of the paper or other media. With paper, the print side is the bright white side.

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled **ChromaBlast Transfer Instructions, Page 8**.
- Verify your printer driver settings are correct. Please see the relevant section of the **User's Guide** for additional information.
- Ensure your substrate is designed to accept a **ChromaBlast** transfer. Garments made from natural fibers such as **Cotton** are compatible with the **ChromaBlast** sublimation process.

### **My image looks blurred.**

- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled **ChromaBlast Transfer Instructions, Page 8**.
- Ensure you printed on the correct side of the media. The print side is opposite the **LOGO** side of the media.
- Verify that the printer's print heads are properly aligned. For further instructions, see the **Epson Stylus Photo Printer Quick Reference 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 Photo Printer Quick Reference Guide**.
- If one or more of the nozzles fail to print, perform a **Print Head Cleaning**. For further instructions, see the **Epson Stylus Photo Printer Quick Reference Guide**.

## **Technical Support**

If you are having difficulties achieving good results from your **ChromaBlast Inks**, you have several support options:

- 1. Telephone:** You may contact your authorized **ChromaBlast** reseller during their normal hours of operation for assistance. A full listing of authorized **ChromaBlast 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.'s Web Site** 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**.

# Notes:



