

DualJet Hybrid System

Getting Started Guide For The **EPSON Stylus® PRO 4880**



DualJet Hybrid System

Getting Started Guide

for the

EPSON Stylus® PRO 4880

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Introduction

Congratulations on your purchase of the DualJet Hybrid Decorating System, featuring ArTainium UV+ and ChromaBlast digital transfer inks. The DualJet system, designed to work with the Epson Stylus PRO 4880, is the latest advancement from Sawgrass Technologies, a leader in the development of digitally-driven color transfer technologies and related products.

The DualJet Hybrid System for the Epson Stylus PRO 4880 includes ArTainium UV+ and ChromaBlast Inks, and the DualJet 4880 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 DualJet 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, mousepads, plaques, puzzles, synthetic or cotton T-shirts...and all point in between.

The DualJet 4880 Driver is user-friendly software that enables you to select your inset and control your color output. The DualJet 4880 Driver bundles sublimation color management software with the ChromaBlast print driver, giving you a powerful combination of customized decoration options. By using the DualJet 4880 Driver to print with ArTainium inks, your printed images can be transferred onto a wide variety of products designed to accept sublimation dyes, including: ceramics, metals, tiles, mylar, polyester fabrics, performance wear blanks and UniSub materials, resulting in a bright, vibrant, durable product. Using the driver interface to print with the 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 DualJet System for the Epson Stylus PRO 4880 is ideal for markets that specialize in short run personalized or customized products.

This document contains information for using ArTainium UV+ and 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 ArTainium UV+ and ChromaBlast Digital Transfer Inks in your Epson Stylus PRO 4880 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 PRO 4880 Printer User's Guide.

Technical Support is available from your Authorized DualJet Hybrid Decorating System reseller, or directly from Sawgrass Technologies, Inc. See the section entitled Technical Support on Page 62 for additional information.

Sawgrass Technologies strives 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.

Thank you and enjoy your DualJet Hybrid Decorating System...

About this Document

This document contains descriptions and procedures for using **ArTainium®UV+** and **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 **ArTainium®UV+** and **ChromaBlast™ Digital Transfer Inks** in your **EPSON Stylus PRO 4880 Ink Jet Printer**. To assist you in the overall setup process, references are made back to the instructions contained in the **EPSON Stylus PRO 4880 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 useful “Tips”, Materials, Practices, and/or Observances that will have a beneficial impact on either Printing and/or Sublimation.

Installing ArTainium®UV+ and ChromaBlast™ Digital Transfer Ink Cartridges



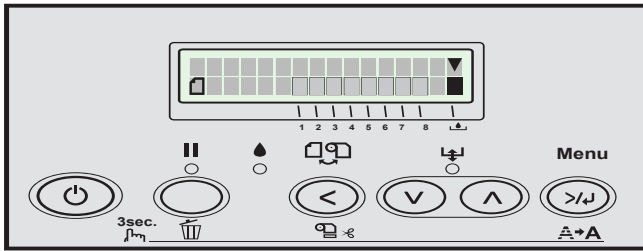
Do not install the **Epson Inks** provided with the printer. Please call **Sawgrass Technical Support** if you need assistance installing the **ArTainium®UV+** and **ChromaBlast™ Digital Transfer Ink Cartridges**.

If you are replacing existing cartridges because they are empty or low, please see the following instructions. If not, go directly to **Step 1, page 5**.

When a cartridge is empty or low, **INK LOW** or **REPLACE INK OUT** will display on the **LCD Panel**. Raise, then lower the ink levers on either side of the printer. The ink indicator on the **LCD Panel** will flash, indicating which cartridge is low or empty. Be sure you have the correct color cartridge for replacement.



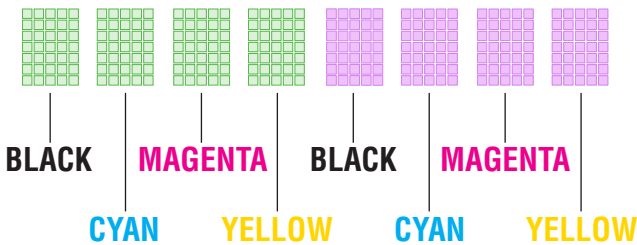
NOTE: The **LCD Panel** will indicate the ink colors of the original **OEM Ink Configuration** and not the **DualJet Hybrid Ink Configuration**.



DualJet Hybrid System Ink Configuration

ArTainium® UV+

ChromaBlast™



Installing ArTainium®UV+ and ChromaBlast™ Cartridges (Cont.)

1. Attach the power cord to the printer & plug the printer in to an appropriate outlet. (Fig.1) Ensure the printer power is on by pressing the power button on the control panel. (Fig. 2)

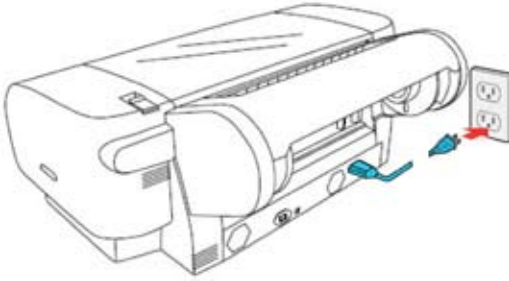


Figure 1

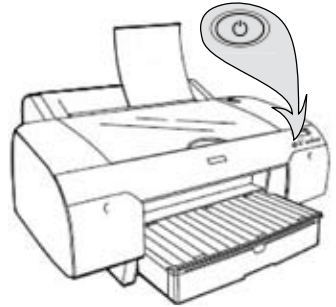


Figure 2

2. Press the ink compartment cover to release the latch, (Fig. 3) and open the cover. (Fig. 4)

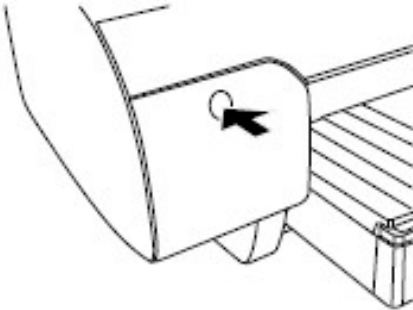


Figure 3

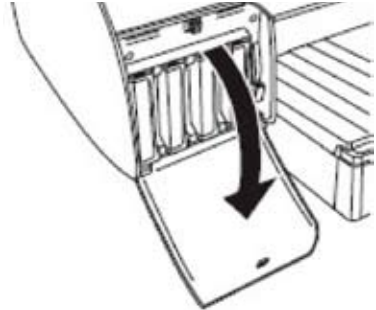


Figure 4

3. Raise the ink lever to the unlocked position. (Fig. 5) The ink lever is located to the right of each ink compartment. (Fig. 6)

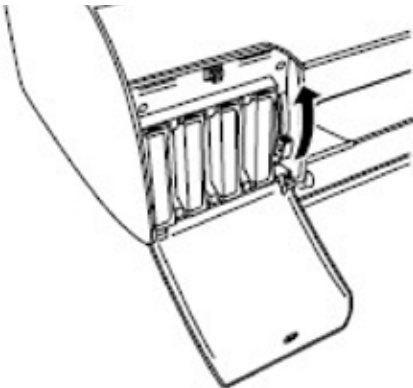


Figure 5

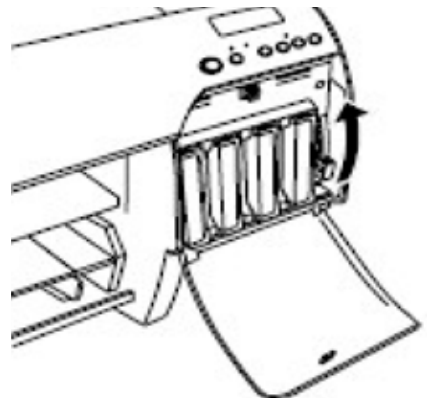


Figure 6



If you are just replacing an empty cartridge, then continue to step **4** and **5** below. If you are installing a full set of **ArTainium®UV+** and **ChromaBlast™ Digital Transfer Ink Cartridges**, please continue to **Step 6, Page 8**.

- 4.** Remove the empty ink cartridge from the printer.

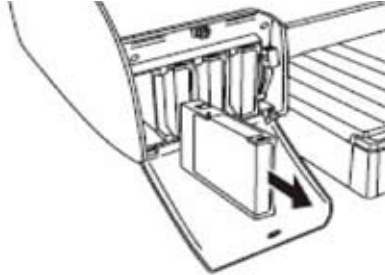
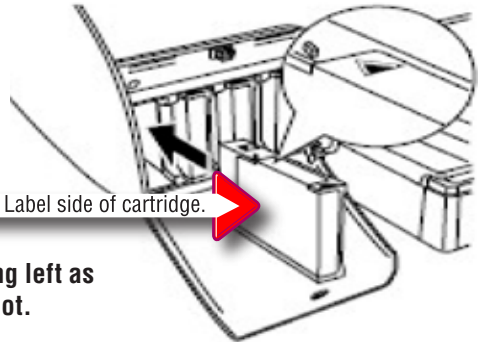


Figure 7

- 5.** Carefully remove its packaging and insert the replacement ink cartridge into the slot with the label side facing left. (See **Fig. 8**) Do not force the cartridge into the slot. Lower the ink lever in to the locked position. (**Fig. 9, Page 8**)



Note: Label side of cartridge.

Figure 8

Note: The cartridge label should be facing left as the cartridge is inserted into it's slot.



If you are installing a complete set of ink cartridges, then install using the following order starting from **left to right**:

Left Side:

ArTainium UV+: Black (AT), Cyan (AT), Magenta (AT), Yellow (AT)

Right Side:

ChromaBlast: Black (CB), Cyan (CB), Magenta (CB), Yellow (CB)

Cartridge Configuration								
Channel								
Manufacturer	1	2	3	4	5	6	7	8
OEM	Matte K	C	M	Y	Lt. K	Lt. C	Lt. M	Lt. Lt. K
ArTainium UV+	ArT K	ArT C	ArT M	ArT Y				
ChromaBlast					CB K	CB C	CB M	CB Y

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

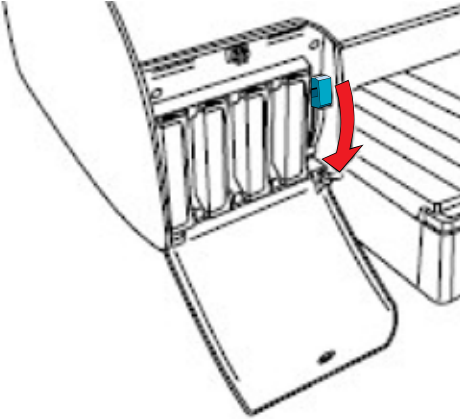


Figure 9

7. Close the ink compartment cover if you have standard size ink cartridges installed. (Fig. 10) If you have extended cartridges installed in the printer, (Fig. 11), you will need to leave the cover open.

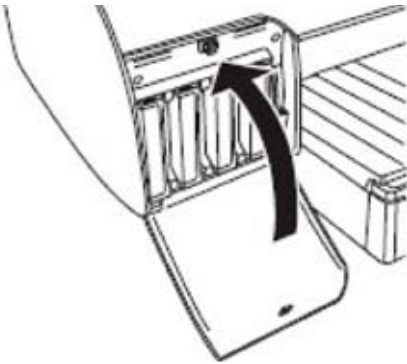


Figure 10

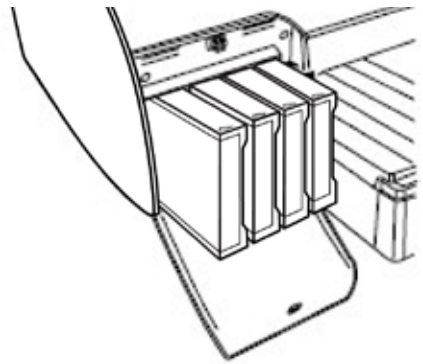
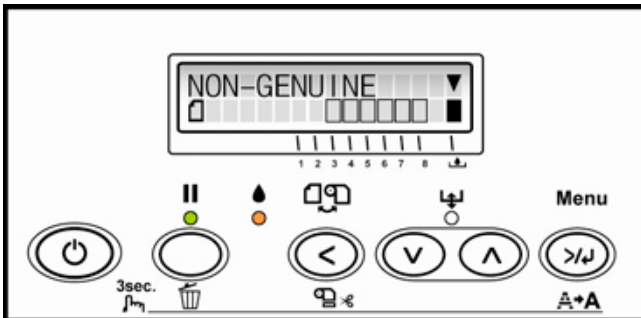
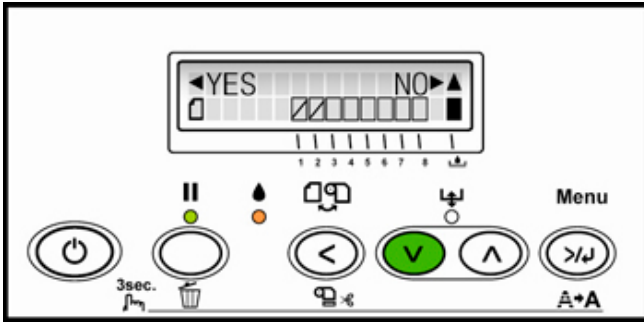


Figure 11

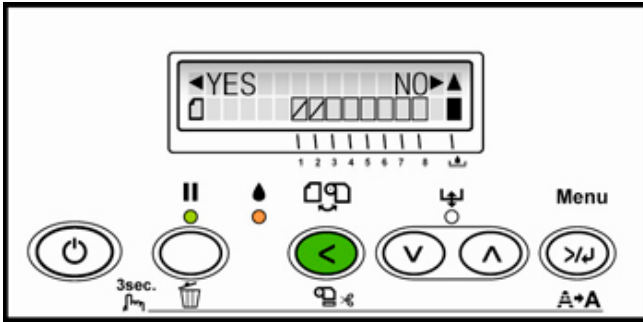
8. After approximately 1 minute, the ink leer messages will appear on the **LCD Panel**. The **LCD** will indicate that the printer recognized “**NON-GENUINE**” ink cartridges.



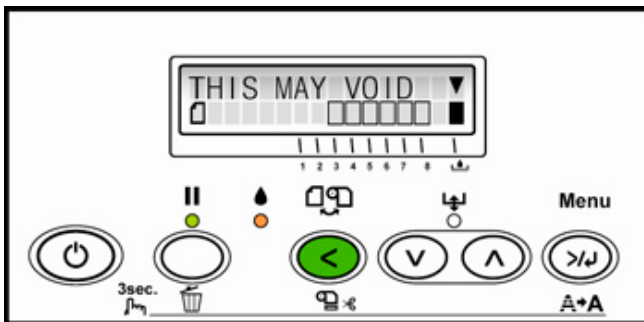
8. Press the down key (**V**) until a message appears that asks the user whether the ink cartridges are “**NON-GENUINE**”.



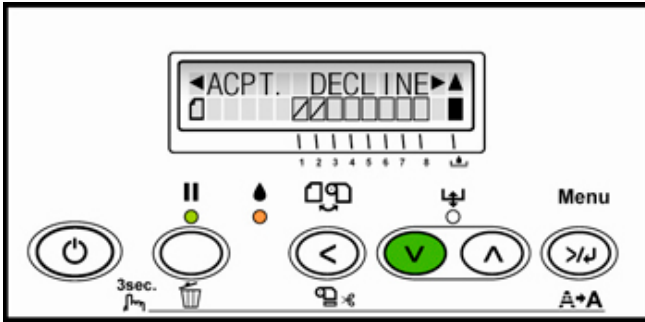
9. Press the left key (<) to acknowledge that the cartridges are “NON-GENUINE”.



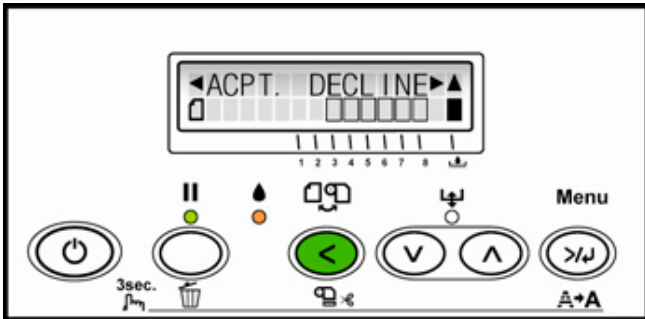
10. Press the left key (<) until the following message appears:



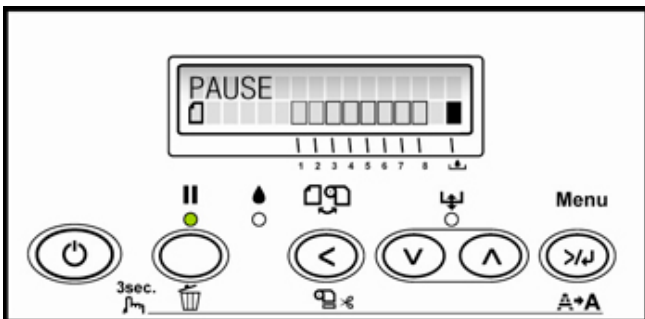
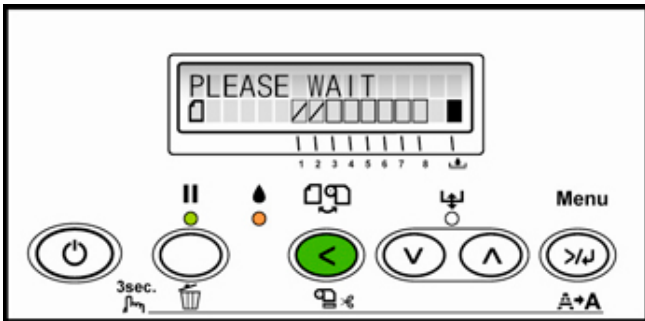
11. Press the down key (V) until the following message appears:



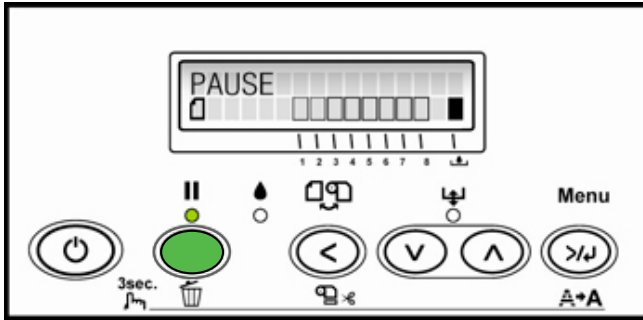
12. Press the left key (<) to accept acknowledgement of the warranty message.



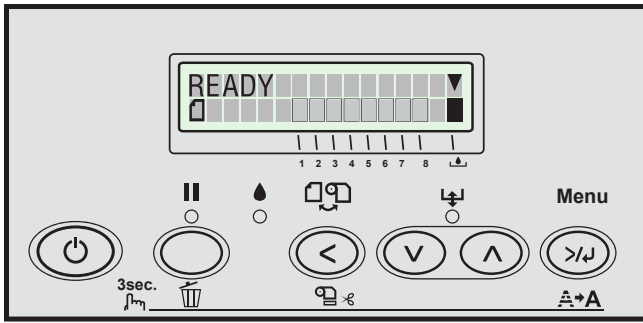
13. The following messages will appear:



14. Press the **PAUSE** key once.



15. The following message will appear. The printer is now ready for use.



16. This completes your installation.



Perform a nozzle check from **The ChromaBlast 4880 Driver™ Tab** or the **ArTainium 4880 Hybrid Driver Tab** of the **DualJet Driver**. A few cleanings may be necessary to get a good nozzle check.

Selecting Paper

Recommended Media For Best Results

For ArTainium UV⁺: TruPix, TruPix Classic or TextPrint

For ChromaBlast: ChromaBlast Media

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

ArTainium UV⁺ Heat Transfer (Sublimation) Instructions

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

- Thickness of surface.
- Heat absorption; how fast the surface absorbs heat.
- Coatings used on materials to create a receptive surface for sublimation inks. (Ceramics, Metals, Plastics, etc.)
- Accuracy of heat press unit. (Time, Temperature, and Pressure)

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

SURFACE/SUBSTRATE	Transfer Time ArTainium UV ⁺	TEMPERATURE	P. S. I. PRESSURE	REMARKS
CERAMIC	150-210 seconds	350°F-400°F	40 psi	Time varies with pressure. Use green tile mat for ceramic tile.
FR PLASTIC	75-80 seconds	400°F	40 psi	Remove Plastic
METAL (Other) White, Silver, Gold	60 seconds	375°F- 400°F	40 psi	Time varies with manufacturer. (Contact reseller for times and temps.) Place absorbent sheet on bottom plate of heat press. Then place transfer paper, face up, on top of absorbent sheet. Next place substrate, face down, on top of transfer paper. For best results, remove paper from substrate immediately after setting.
METAL (Universal Woods)	60 seconds	400°F	40 psi	Remove plastic. Use absorbent sheet.
MOUSE PADS	45 seconds	400°F	40 psi	
POLYESTER FABRIC & PERFORMANCE APPAREL	45 seconds	400°F	40 psi	
SOFT L'INK™	35 seconds	400°F	40 psi	Pre-Press for 5 seconds to eliminate moisture. Use Teflon sheet between sides of shirt to prevent "blow through".
UNISUB™ PRODUCTS	75-85 seconds	400°F	40 psi	Remove Plastic

ChromaBlast Printing and Heat Transfer Instructions

RECOMMENDED APPLICATIONS

White or light colored fabrics in 100% cotton.

PRINTING

Print using the supplied **ChromaBlast 4880 Driver** program only. The **Print Side** of **ChromaBlast Media** is opposite the **ChromaBlast Logo**. For the **Epson 4880** place **Print Side** face **DOWN** in the printer tray. **ChromaBlast Logo** side **UP**.

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 a **.25 inch (1/4") margin** around the printed area.
2. **Place** garment on the heat press. **Pre-Press** for 3-5 seconds to remove moisture. **Position** a **Teflon®** sheet between garment layers to prevent “**Blow Through**”. Next apply **ChromaBlast** paper with **reversed** image face down, against the garment surface to be printed. **Position** carefully.
3. **Press** image according to the following **recommended** settings.

Pressure:	Heavy	If using a pneumatic press, set the pressure to 60 psi .
Temperature:	375°F - 400°F (190°C - 205°C)	
Time:	40 sec	If you press the garment at a temperature higher than 375°F , reduce the transfer time to prevent scorching.
4. **Peel** the paper off **immediately** using an even motion.
5. **Stretch** the image area **lightly** and **evenly**, while the shirt is hot, both side to side and top to bottom to reduce the hand.

RECOMMENDED HEAT PRESS SETTINGS

Pressure: **Heavy**. If using a pneumatic press, set the pressure to **60 psi**.

Temperature: **375°F - 400°F (190°C - 205°C)**

Time: **40 seconds**. If you press the garment at a temperature higher than **375°F**, reduce the transfer time to prevent scorching.

In order for the **Media** to bond the **ChromaBlast Ink** to the cotton fibers it is **critical** that the **pressure** and **time** relationship in the recommended settings above be **maintained** to achieve the best looking and longest lasting results possible.

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.

*dual*jet™ HYBRID™ SYSTEM

User Guide For the Epson Stylus® PRO 4880



For distribution with ArTainium UV+® and ChromaBlast™
ONLY
NOT FOR RESALE

Ver. 1.0, Sept. 2008)

Setup Instructions – Windows XP / Vista

The **EPSON Stylus® PRO 4880 DualJet Hybrid System** with **ArTainium®UV+** and **ChromaBlast™ digital transfer inks** comes supplied with a single **CD** that includes both the **ChromaBlast 4880 Driver™** and **ArTainium 4880 Hybrid Driver™ Printer Drivers** and documentation. The installation will **autorun** once the **CD** is placed in the computer. **On-Screen** instructions will prompt the user to register the software to facilitate full installation.

SYSTEM REQUIREMENTS

Minimum Hardware and Recommended Operating System:

Pentium 4 – 3.0GHz or Athlon XP 3000+ Processor

1 GB RAM (2 GB recommended) Windows XP / Vista

30 GB of Free Hard Disk Space for Software and Processing Files

Product Overview – DualJet 4880 Driver

DualJet 4880 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 Color Management Software**, the **Sawgrass DualJet 4880 Driver Printer Driver** software, and **ColorSure** tools and utilities.

Step By Step Installation – DualJetDriver

1. **DualJet 4880 Driver** installation will now begin with the assurance that the **Epson Printer Driver Software** is installed prior to this application.

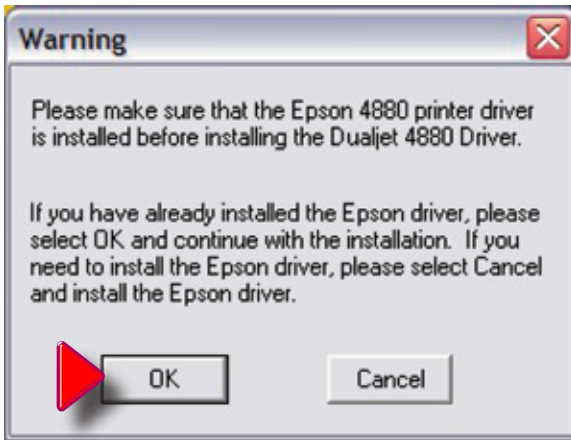


Figure 1

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 **DualJetDriver 4880**, you will be prompted to do so. Registering is the only way to take full advantage of the advanced features in **DualJetDriver 4880**. If you choose to register later, select **Register Later** and click **Next** to proceed with the installation. (Fig. 0) 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 **PowerDriverIQ** software, you will be prompted to register. (Fig. 0)

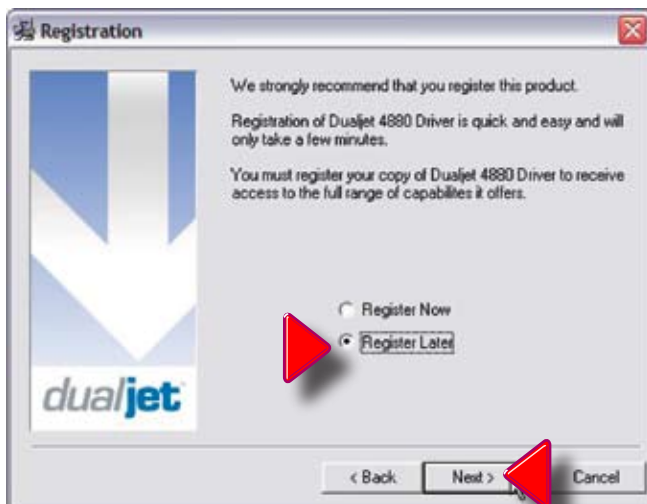


Figure 4



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 **DualJetDriver 4880** driver 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”**.

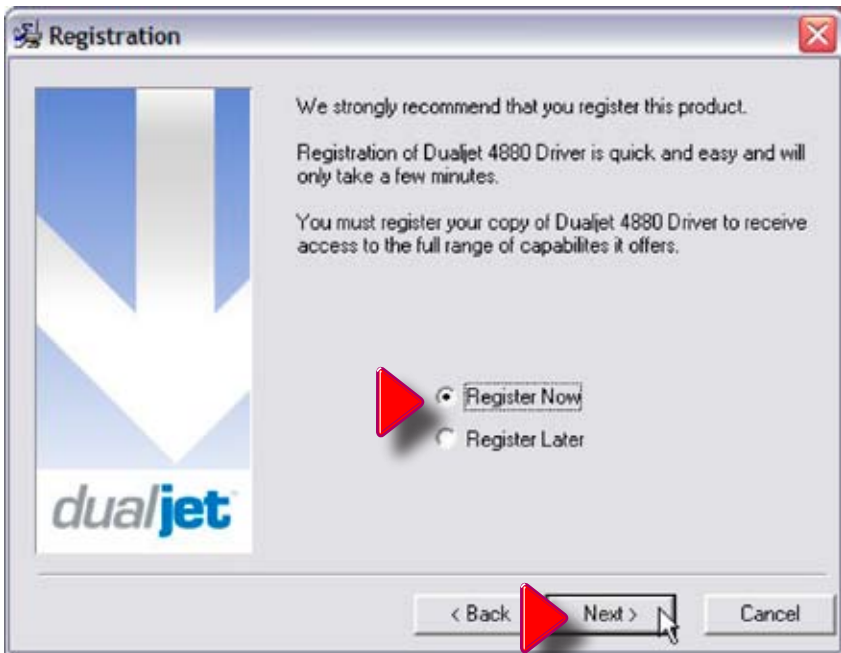


Figure 6

7. In the **DualJetDriver 4880 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 **DualJetDriver 4880** 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

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

Figure 8

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



Figure 9

10. An e-mail has been sent to the address you specified. Retrieve the registration e-mail from your in-box and make note of the **Registration Code** given. Toggle back to the **DualJet 4880 Driver Registration Screen**, (Fig. 7, Page 24) and enter this number in the “**Registration Code**” **Box** at the bottom of the **DualJet 4880 Driver Registration Screen**, (Fig. 7), shown on **Page 24**. Click “**Apply Code**”. Screen will appear indicating that you have successfully registered your driver software. Click “**OK**” to continue the installation process.

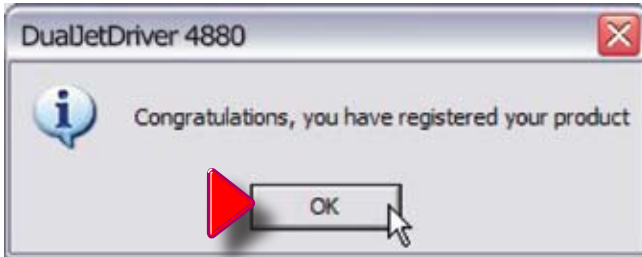


Figure 10

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.

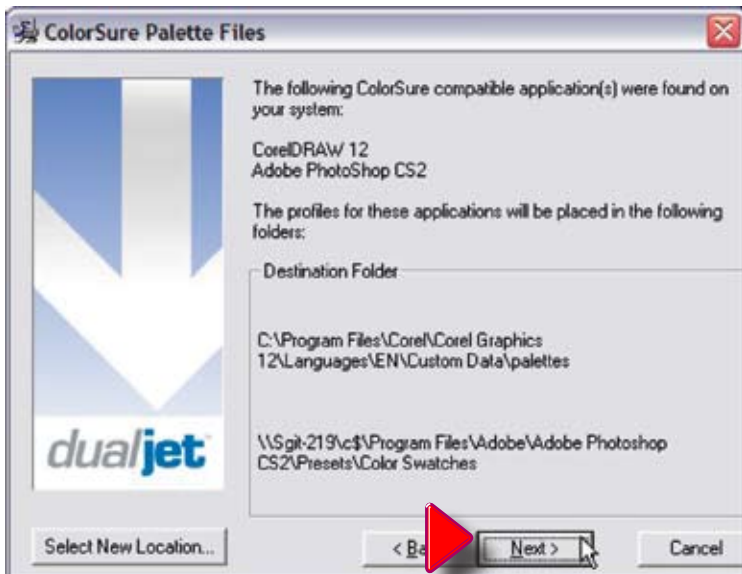


Figure 11



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.

12. 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 12

13. With this Screen, **Installation** of the **DualJet 4880 Driver** will begin. Click **“Next”** to continue.



Figure 13

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

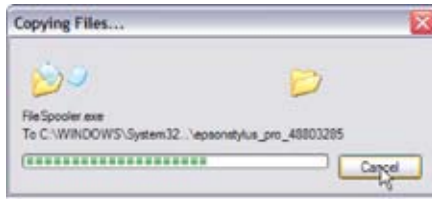


Figure 14



Note: Cancel any ‘Found New Hardware’ wizards that may start during this process, do **NOT** cancel any file copy process however.

15. Once the installation has completed, the **Hybrid Installation Complete** screen will display. Click “OK” to end the installation.



Figure 15

DualJet 4880 Driver Introduction

DualJet digital printing systems are comprised of a few key tools to ensure high quality output each time you print with **DualJet**. **DualJet 4880 Driver** color management software is one of those tools.

DualJet 4880 Driver color management software is a professional grade color management program that provides SubliJet users with the necessary tools to ensure colors print right the first time. **DualJet 4880 Driver Software** is available for all major **Windows** based operating systems.

The **DualJet 4880 Driver** software and color profiles are 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 your output for popular substrates, such as **Unisub**, polyester performance apparel, ceramics, metals and many others. This is a valuable tool that saves you time, money and limit costs associated with proofing in an effort to get the color “just right”. The **DualJet 4880 Driver** also comes standard with the **ColorSure Palette** for managing the color output of your **ChromaBlast** cotton decorating inks. The **ColorSure 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. If you want to know how a particular color will look once transferred, simply print the **ColorSure Palette** onto the substrates you plan to work with. 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.

DualJet 4880 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 **DualJet 4880 Driver** is used. Used in conjunction with digital transfer inks, you and your customers will truly experience the next generation in digital color!

Using DualJet 4880 Driver

DualJet 4880 Driver is simple to use. Whenever you have inks in your printer, you should print using **DualJet 4880 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. Select “Print” from the File Menu.

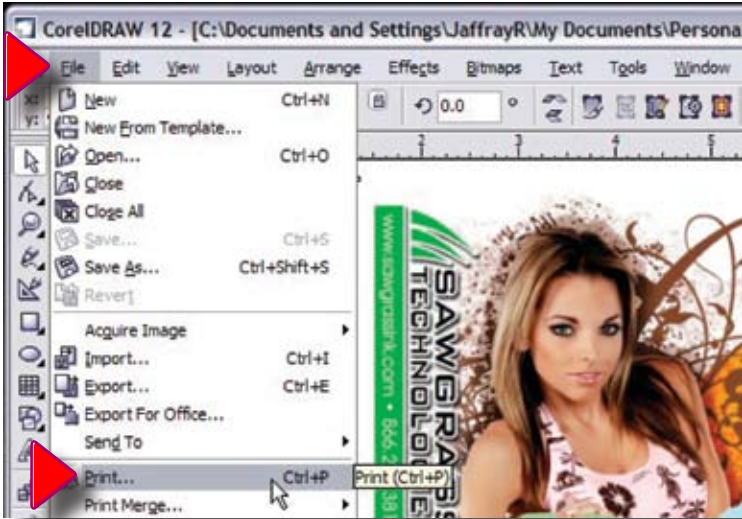


Figure 1



Note: Please see “Group 2 - Color Options” on page 35 for more in-depth information on color options available within the **DualJet 4880 Driver**.

- 2) Select the **DualJet 4880 Driver**. Use the “Properties” Button (Fig. 2) to access “DualJet 4880 Driver Properties”. (Fig. 3, Page 32)

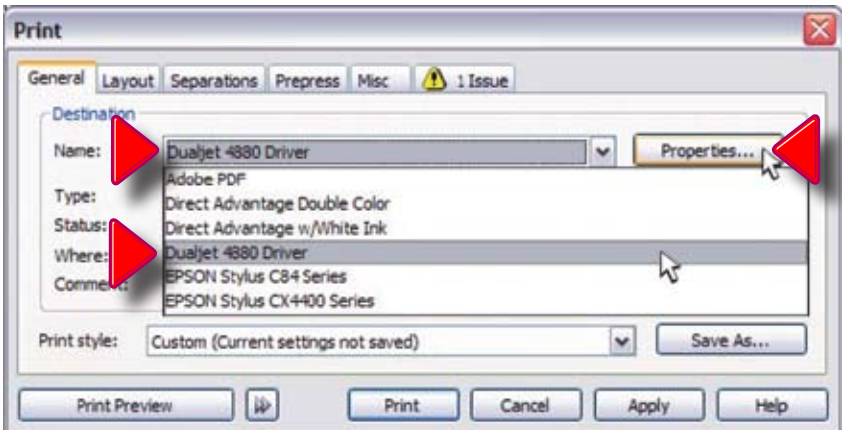


Figure 2

- 3) In **Figure 3 (a & b)**, you must set preferences according to the printing you propose to do. The **“ChromaBlast 4880 Driver”** is used only on cotton fabric. It cannot be used on a hard, non-porous surface, so the **Substrate** may decide which ink you use. You must also set the **Size** of image, **Number of Copies**, whether **Bitmap** or **Vector**, **Print Quality**, and **Density**. Once this is done, click **“Apply”** and then **“OK”** to return to the **“Print” Window (Fig. 2)**. Here, click on **“Apply”**, and then **“Print”**.

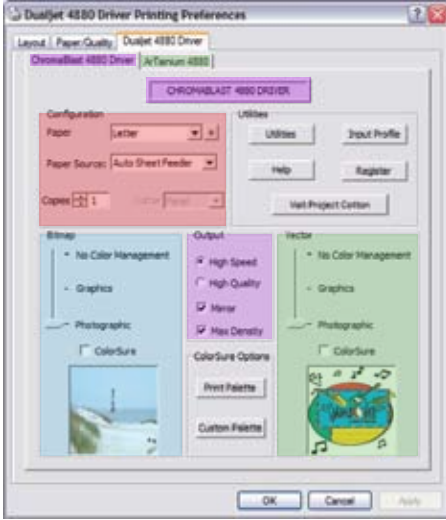


Figure 3 (a)

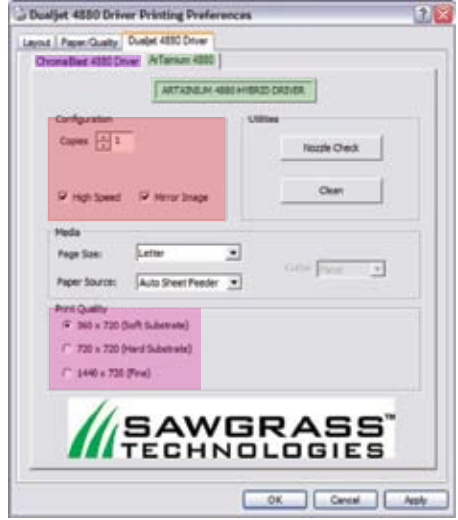


Figure 3 (b)

Figure 3

Setting DualJet 4880 Driver Document Properties /Printing Preferences

To configure **DualJet 4880 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 **DualJet 4880 Driver Printer**. (Point 1) Scroll the Drop-Down Menu and click on **“Properties”**. (Point 2) This leads to the **DualJet 4880 Driver Properties Window**. (Fig. 3, Page 32)

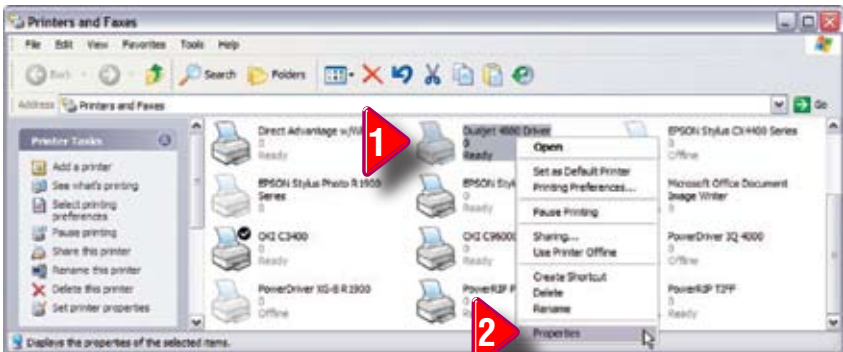


Figure 2

3. In the “DualJet 4880 Driver Properties” Window, click on the “Printing Preferences” Button near the bottom of the screen in Fig. 3.

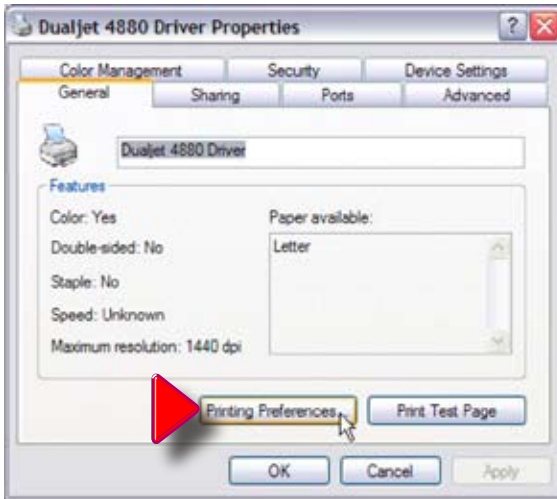


Figure 3

4. You now have access to both the “ChromaBlast 4880 Driver”, & the “ArTainium 4880 Hybrid Driver” Windows, (Fig. 4, a & b), in the “DualJet 4880 Driver Printing Preferences” Windows.



Figure 4 (a)



Figure 4 (b)

Figure 4

From an Application:

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

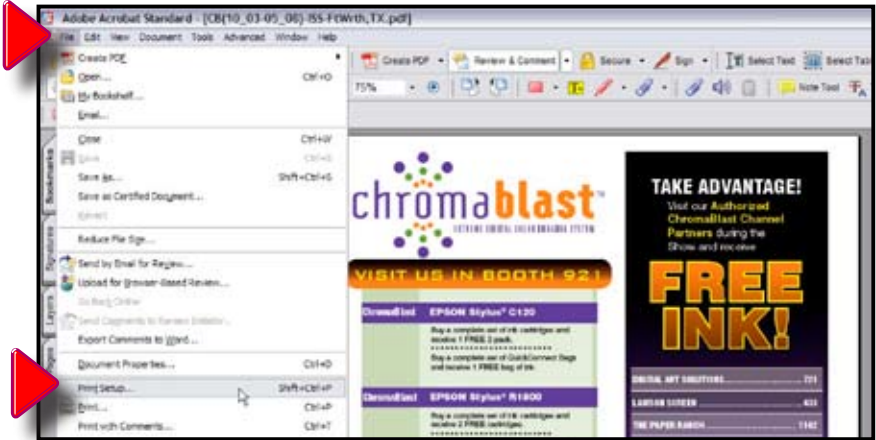


Figure 1

2. Choose the **DualJet 4880 Driver Printer** from the list of printers. Click the **Properties Button** to access the **DualJet 4880 Driver Document Properties**.

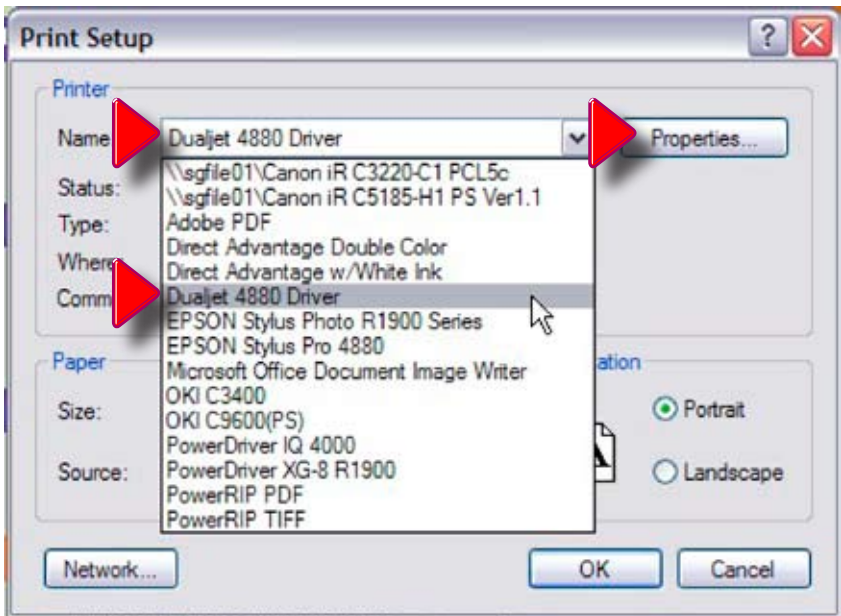


Figure 2

3. The **DualJet 4880 Driver Document Properties Screen** appears as shown. (Fig. 3)

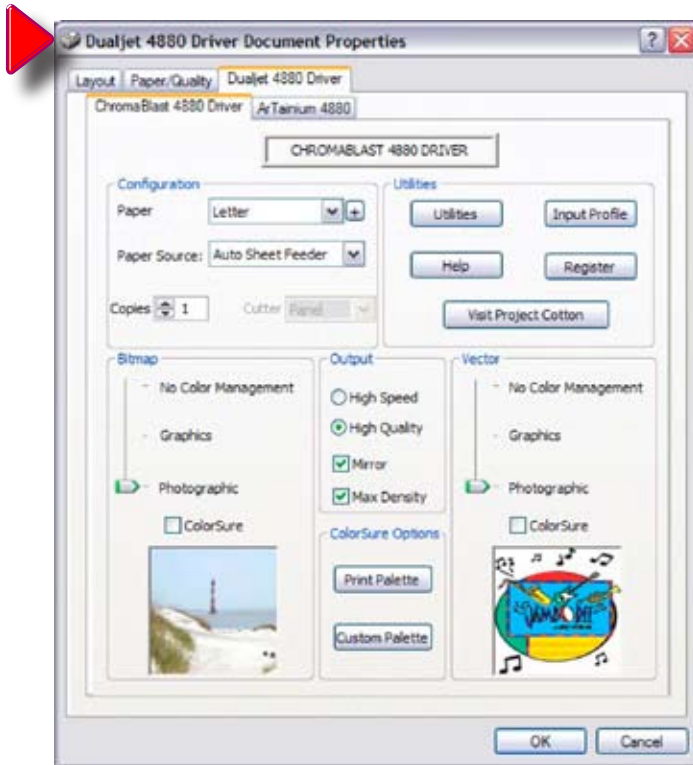


Figure 3

4. Select either the **ChromaBlast 4880 Driver Tab**, or the **ArTainium 4880 Hybrid Driver Tab**, depending on the type of printing and substrate called for. (Fig. 3)

DualJet 4880 Driver Properties: (ChromaBlast)

The **Figures** below show the **Document Properties/Printing Preferences** for a registered version of **DualJet 4880 Driver**.

There are three main property groups (see the color-coded boxes in the screen shot, Fig. 1, Page 32, & Fig. 1, Page 39):

- Group (1): Configuration** — Set Paper Size, Transfer Substrate, 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.

NOTE There are two distinct drivers at work here. They are: The “**ChromaBlast 4880 Driver**”, & the “**ArTainium 4880 Hybrid Driver**”. To facilitate clarity and ease, we’ve color-coded the three groups so that similar functions across the board, from one driver to the other, are identifiable, though they may not be worded similarly or appear in the same relative location.

ChromaBlast 4880 Driver Tab

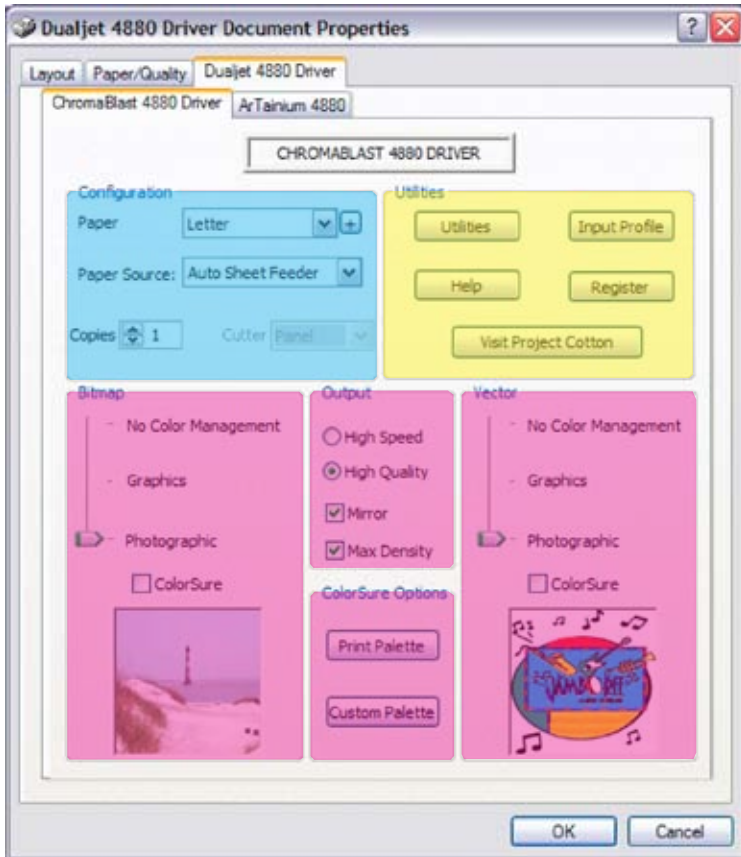


Figure 1

Group 1—Configuration: ChromaBlast 4880 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.

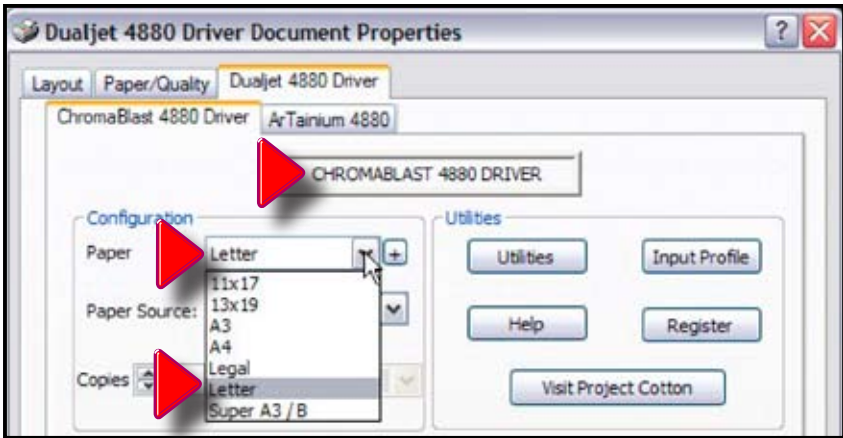


Figure 2

To Add Custom Paper Sizes – Click the + Button to the right of the paper size drop down list. (Fig. 3)

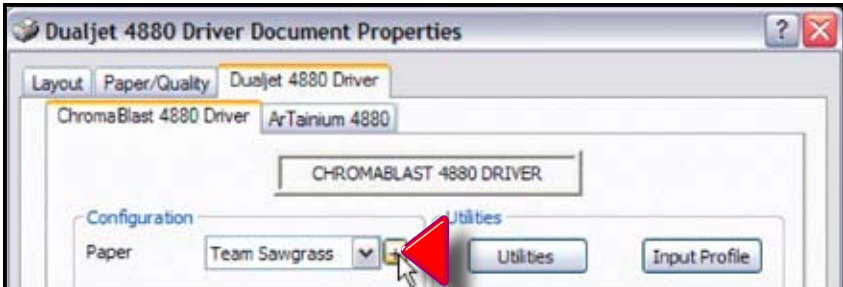


Figure 3

The following dialog box will appear. (Fig. 4) Insert the paper size and margins of the custom paper. (Fig. 5, Page 40)



Figure 4

Give the custom paper a name in the **Form Name** box. (Fig. 5) Click on the “**Add Form**” Button when done.



Figure 5

Note that after adding a custom paper size, the printing preferences dialog box must be closed and reopened before the new paper size will show in the paper size drop down list. (Fig. 6)

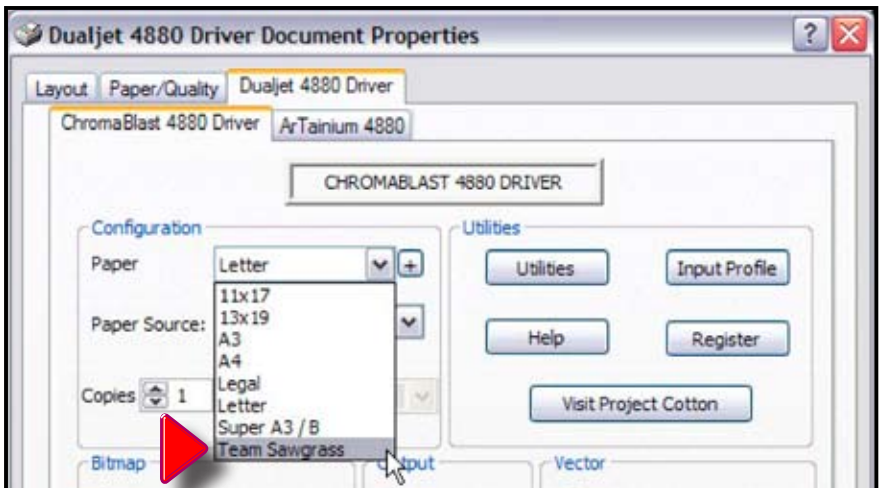


Figure 6

Deleting and Modifying Custom Paper Sizes

The driver uses standard **“Windows Print Server” Forms** for paper size definitions. These forms can be added, deleted, and maintained using the standard **“Windows Print Server Properties” configuration dialog**. To access the **Print Server Properties Dialog Box**, click on **“Start > Printers and Faxes”** from the **Windows Desktop**.



Figure 7

From the **“Printers and Faxes” Dialog Box**, select **File > Server Properties** from the **Drop Down Menu**. (Fig. 8)

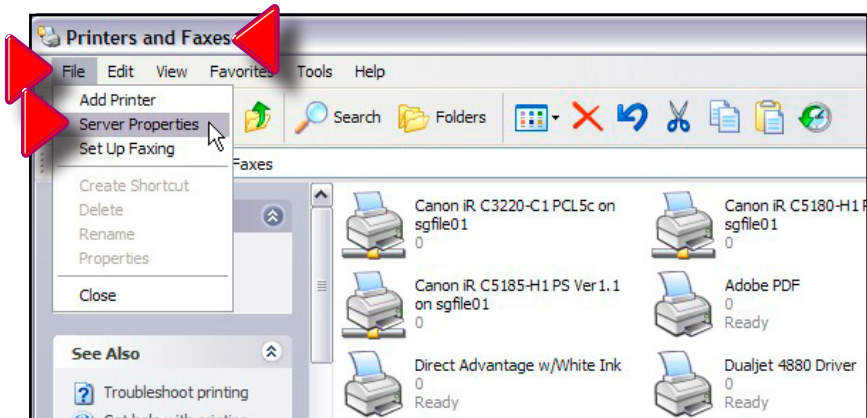


Figure 8

In the “**Print Server Properties**” **Dialog Box**, click on the “**Forms**” **Tab**. (**Fig. 8**) From this **Dialog Box**, you can create and save a new form, or adjust and save or delete or rename an existing form.

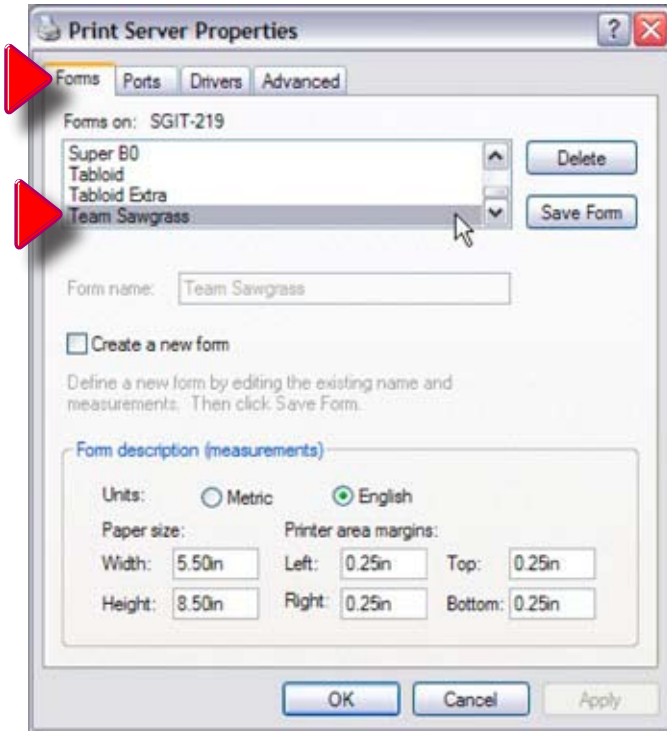


Figure 9

Group 2–Color Settings: ChromaBlast 4880 Driver Tab

This tab gives you access to all of the color management controls available in **ChromaBlast 4880 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 4880 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 4880 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 4880 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 4880 Driver Tab** settings. All other image types will be color corrected based on the **ChromaBlast 4880 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 **CorelDraw, Corel PhotoPaint, 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.
- **Max Density** - Uncheck this box if you experience bleeding or smearing issues with output.

Group 3 – Printer Options: ChromaBlast 4880 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 **DualJet 4880 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 4880 Driver™** driver functions and settings. Also contains a link to the **Sawgrass Technologies Website**.
 - **Register** – If the **ChromaBlast 4880 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**. (**DualJet 4880 Driver** supports both **ICC** and **ICM** profile types). Right click on the profile file name and select “Install”.
- Visit Project Sublimation** – This button will take you to the Project Sublimation website. Are you looking for answers to your sublimation questions? Would you like some hands-on experience making products? Do you want to learn more about color management? Project Sublimation tours cities throughout North America. Check the calendar and sign up for an interactive Project Sublimation workshop in your area!

DualJet 4880 Driver Properties: (ArTainium)

The **Figures** below show the **Document Properties/Printing Preferences** for a registered version of **DualJet 4880 Driver**.

There are three main property groups (see the color-coded boxes in the screen shot, Fig. 1, Page 32, & Fig. 1, Page 39):

- Group (1): Configuration** — Set Paper Size, Transfer Substrate, 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.

NOTE There are two distinct drivers at work here. They are: The “**ChromaBlast 4880 Driver**”, & the “**ArTainium 4880 Hybrid Driver**”. To facilitate clarity and ease, we’ve color-coded the three groups so that similar functions across the board, from one driver to the other, are identifiable, though they may not be worded similarly or appear in the same relative location.

ArTainium 4880 Hybrid Driver Tab

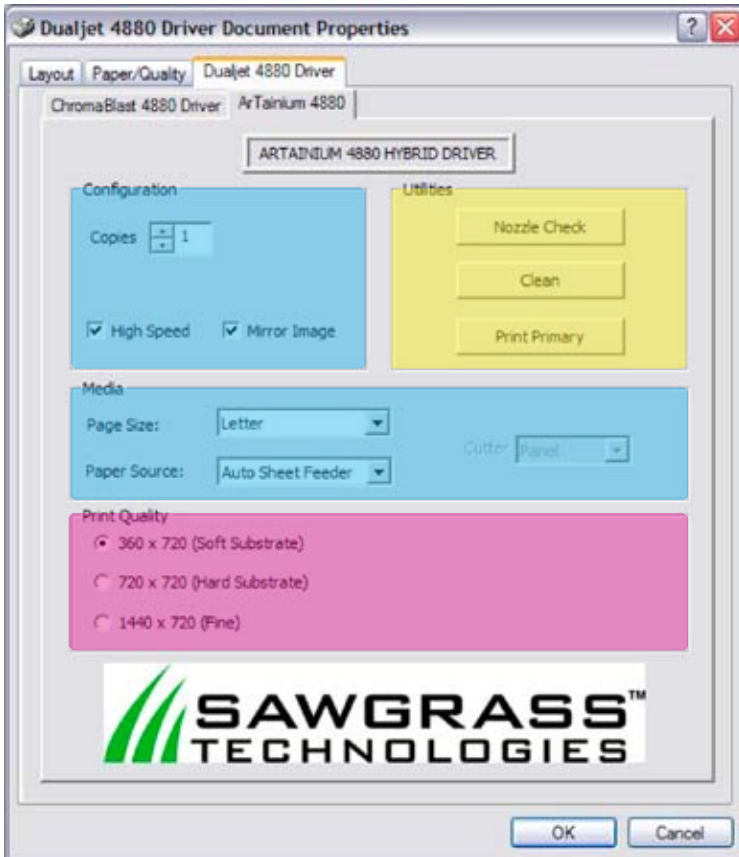


Figure 1

Group 1–Configuration: ArTainium 4880 Hybrid Driver

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

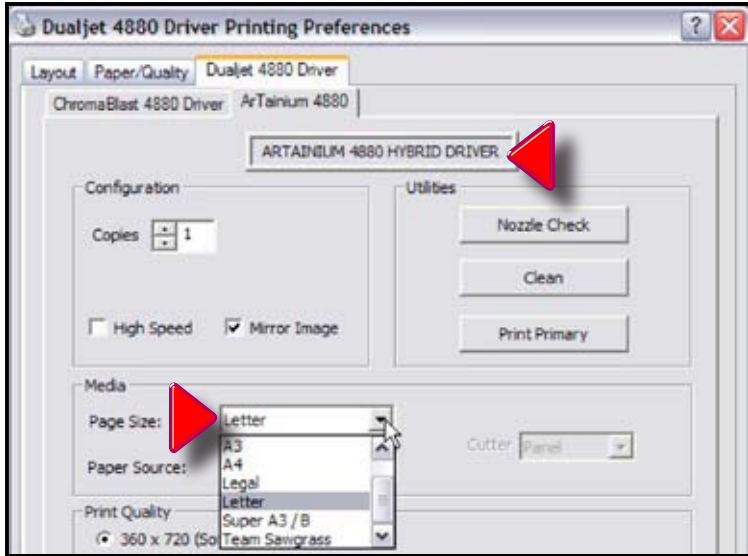


Figure 2

- **Paper Source** - Sets the Printer to choose the Paper in the Auto-Feeder, Roll Paper if your unit is fitted with that option, or Paper that is fed manually into the printer.
- **Copies** – Sets the copy count for the number of prints to be made.
- **Mirror Image** - For work that has lettering, or a distinct “Right - Left” orientation, so that when the image is actually printed on the surface and the paper sheet is removed, the resulting image will read properly, from left to right.
- **High Speed** - If the printer supports multiple resolutions, choose the most appropriate setting. For soft substrates, the High Speed option works well.

Group 2–Color Settings: ArTainium 4880 Hybrid Driver

- **360 x 720** - This resolution setting is for Soft Substrates such as garments, fabrics, or mouse pads, etc.
- **720 x 720** - This resolution is primarily for non-absorbent substrates or Hard Substrates such as metal, plastic, ceramic, wood or **Unisub®** type products.
- **1440 x 720** - This resolution is for images that require the finest of detail.

Group 3—Utility Options: ArTainium 4880 Hybrid Driver

- **Nozzle check** - This option allows you to be certain that all of your nozzles are clear and functioning to prevent wasting ink.
- **Clean** - If the nozzles aren't firing according to the patterns shown in the **User's Manual** provided by **Epson**, you now have the option of running a cleaning utility to return the nozzles to optimum functionality prior to printing your images.
- **Print Primary** - Use this function to print a page of the **Primary ArTainium Ink Colors. (Cyan, Magenta, Yellow & Black)**

Setting ChromaBlast Driver™ 4880 Printer Properties

To configure this 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 > Printers & Faxes**
2. Right-click on your **DualJet 4880 Driver™ Printer**.
3. Select the **“Printing Preferences” Button**.
4. Select the **“ChromaBlast 4880 Driver Tab**.

From an Application:

1. Select **File > Print Setup**.
2. Choose the **DualJet 4880 Driver™ Printer** from the list of printers.
3. Click the **“Properties” Button**.
4. Select the **“ChromaBlast 4880 Driver Tab**.

Setting ArTainium® 4880 Hybrid Driver Printer Properties

To configure this 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 > Printers & Faxes**
2. Right-click on your **DualJet 4880 Driver™ Printer**.
3. Select the **“Printing Preferences” Button**.
4. Select the **“ArTainium® 4880 Hybrid Driver Tab**.

From an Application:

1. Select **File > Print Setup**.
2. Choose the **DualJet 4880 Driver™ Printer** from the list of printers.
3. Click the **“Properties” Button**.
4. Select the **“Printing Preferences” Button**.
5. Select the **“ArTainium® 4880 Hybrid Driver Tab**.

Using ChromaBlast Driver™ 4880 in Windows XP/Vista

The **ChromaBlast 4880 Driver™** is simple to use. Whenever you have **ChromaBlast™ inks** in your printer, you should print using the **ChromaBlast 4880 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 **CorelDraw**. Select **Print** from the **File Menu**.



Figure 1

2. Select the **DualJet 4880 Driver Printer** from the **Drop Down Menu**, then click on “**Properties**” to bring up the **DualJet 4880 Driver Document Properties Window**.

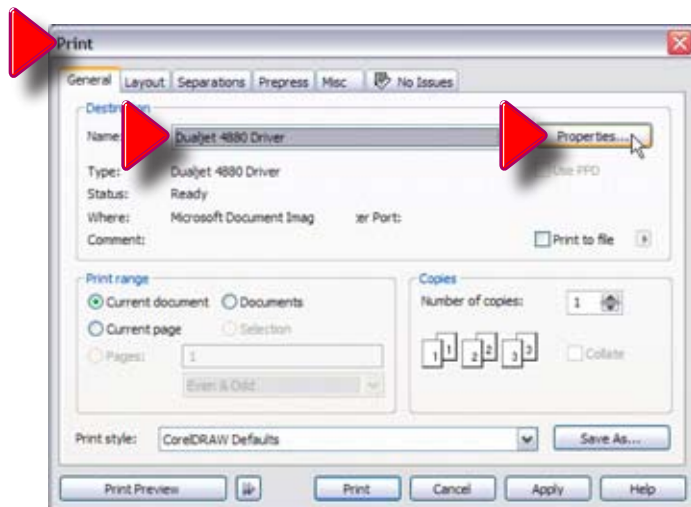


Figure 2

3. In the **DualJet 4880 Driver Document Properties Window**, choose the **ChromaBlast 4880 Driver™ Tab**. Here make your choices as to **Print Size & Quantity**, **Bitmap/Vector**, **High Speed/ High Quality**, **Density**, **Mirror**, (so that lettering or graphics with a left/right orientation will be legible after sublimation), and the **ColorSure Option**. Once this is done, click **“OK”** to return to **“Print” Window**. Click **“Apply”**, then **“Print”**.

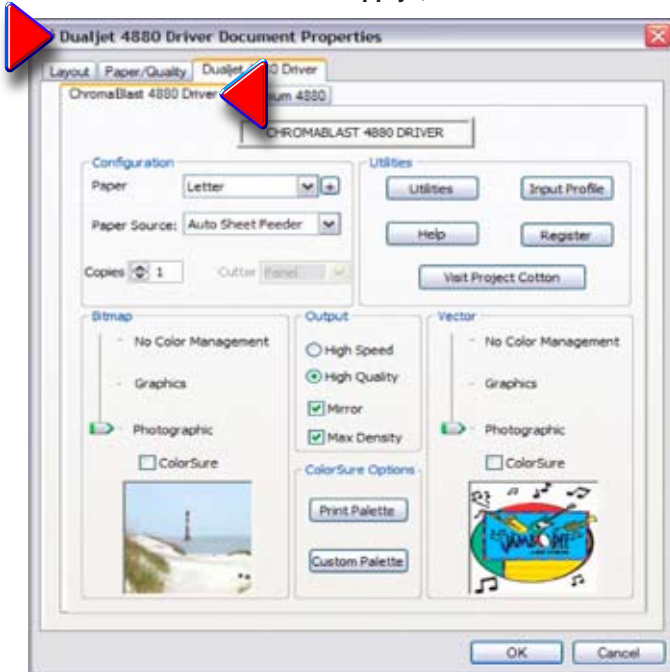


Figure 3

Using ArTainium® 4880 Hybrid Driver in Windows XP/Vista

The **ArTainium® 4880 Hybrid Driver Tab** is simple to use. Whenever you have **ArTainium® inks** in your printer, you should print using the **ArTainium® 4880 Hybrid Driver Tab**. 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 **CorelDraw**. Select **Print** from the **File Menu**.



Figure 1

2. Select the **DualJet 4880 Driver Printer** from the **Drop Down Menu**, then click on “**Properties**” to bring up the **DualJet 4880 Driver Document Properties Window**.

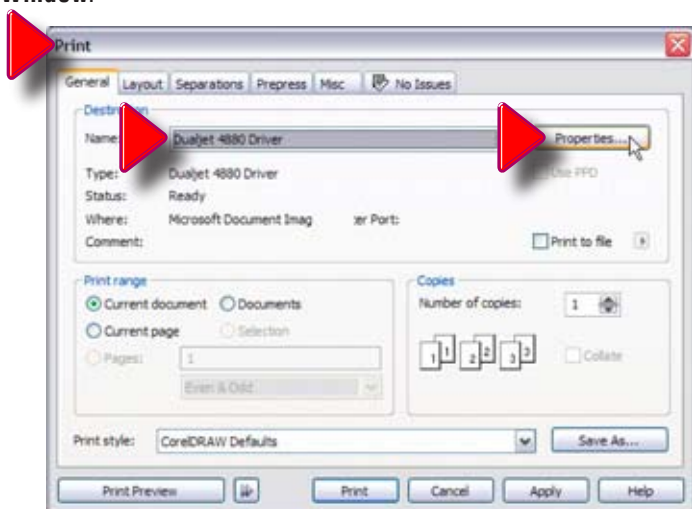
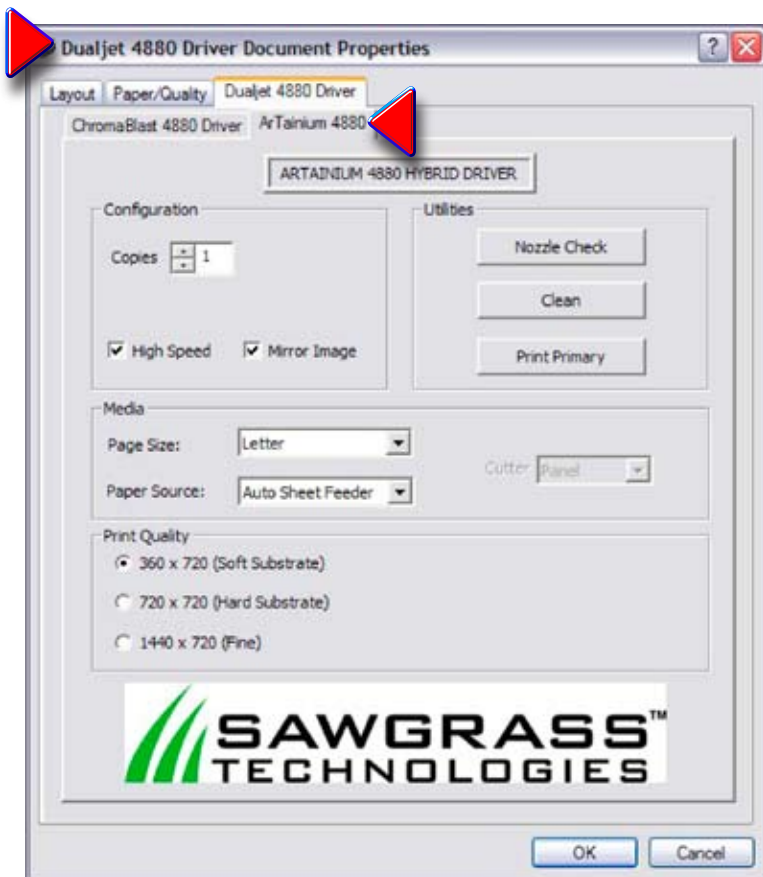


Figure 2

3. In the **DualJet 4880 Driver Document Properties Window**, choose the **ArTainium® 4880 Hybrid Driver Tab**. Here make your choices as to **Print Size & Print Quantity, Substrate, High Speed or Not, Mirror**, (so that lettering or graphics with a left/right orientation will be legible after sublimation), and the **Cutter Setting**, if your machine is outfitted for cutting. Once this is done, click **“OK”** to return to **“Print” Window**. Click **“Apply”**, then **“Print”**.



Appendix A:

Over-Riding Design Software Color Management

The **DualJet 4880 Driver** provides a complete color management solution for your **Hybrid ArTainium/ChromaBlast** printing. It is extremely important that you turn off any color matching features associated with your design software. An explanation of how to disable print-time color management in several popular design packages follows:

CorelDRAW™ version 10, 11, 12, X-3, and X-6

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



Figure 1

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

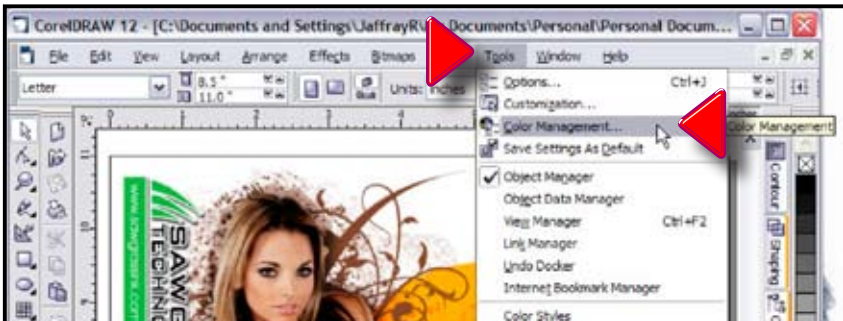
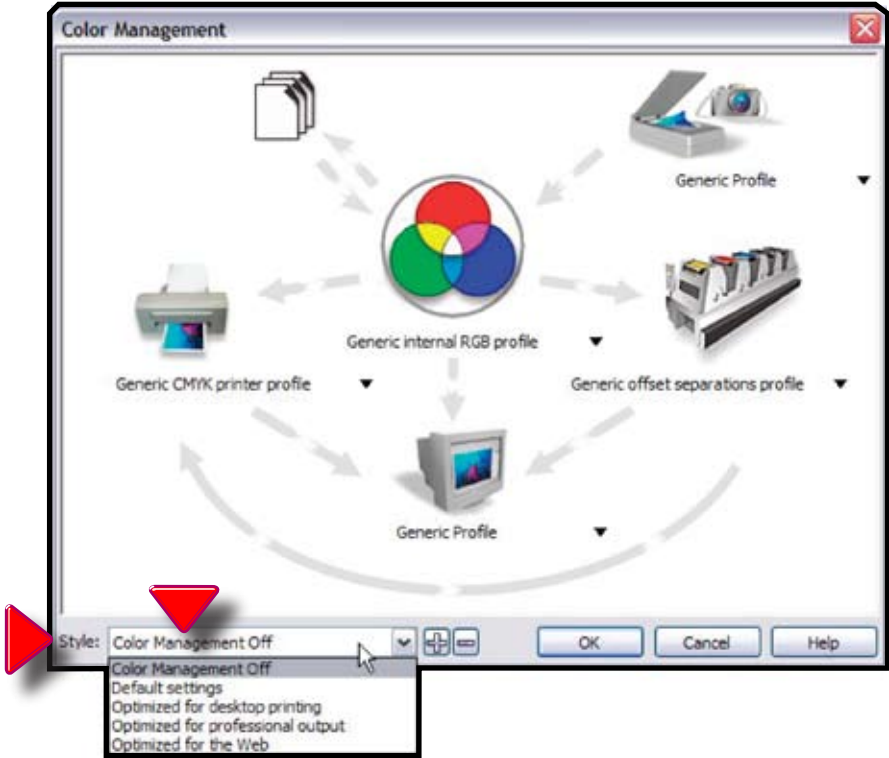


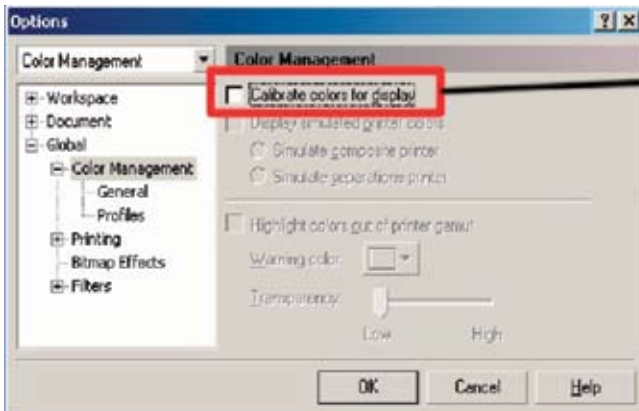
Figure 2

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



CorelDraw™ version 9

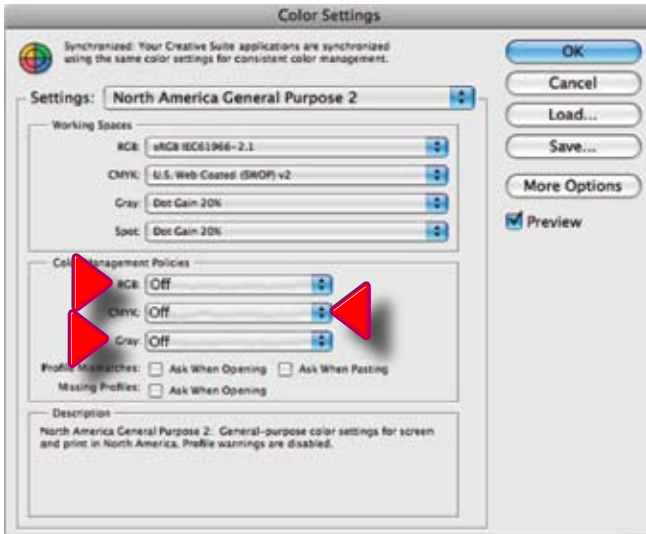
- Create a new graphic.
- From the **Main Menu** choose **Tools > Color Management**. The **Color Management Dialog Box** is displayed.
- In the **Color Management Window** (see figure below), **UNCHECK** the Calibrate colors for display box.



Must Be Unchecked

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

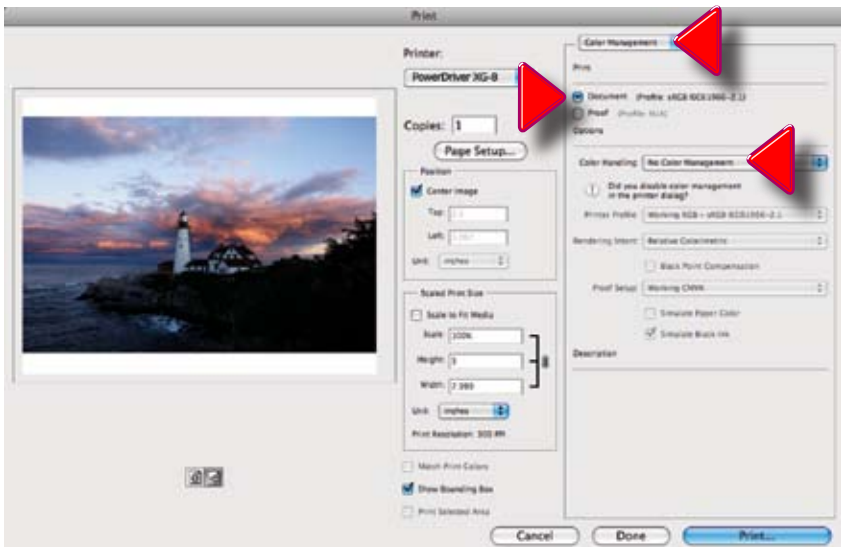
From the **Main Menu**, choose **Edit**, > **Color Settings**. In the **Color Settings Dialog Box**, turn all **Color Management Policies** to “Off”. (See below.) Mark the box “**Ask When Opening**” next to “**Profile Mismatches**”.



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:

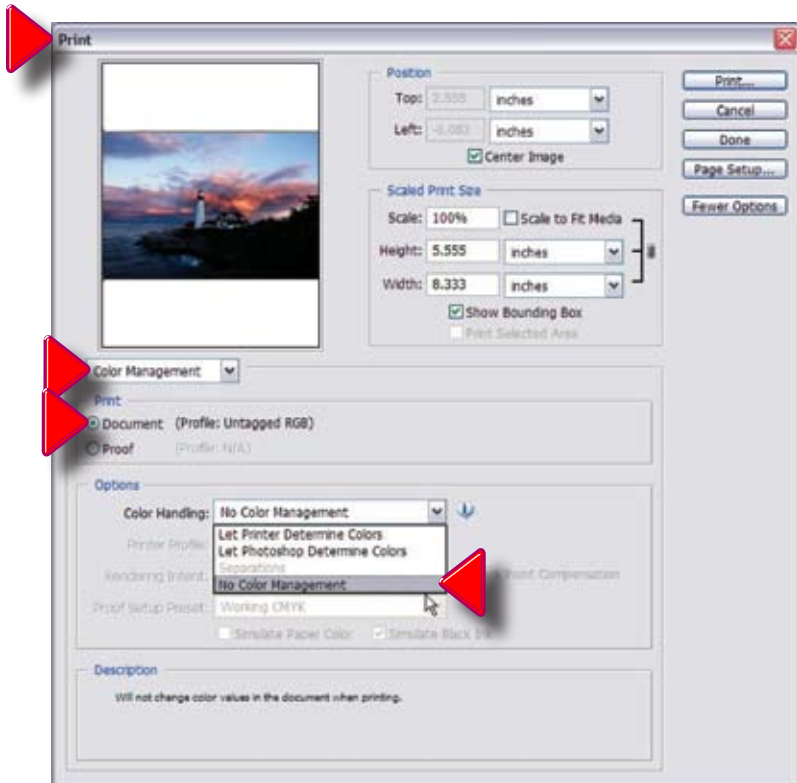
a. Click on “**More Options**”.



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**”.

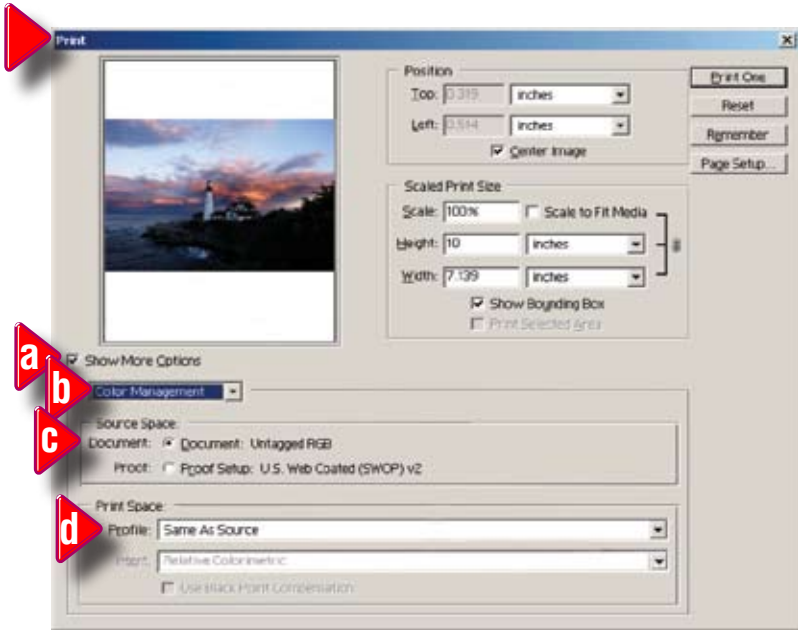


To Print; CS and Photoshop 7:

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

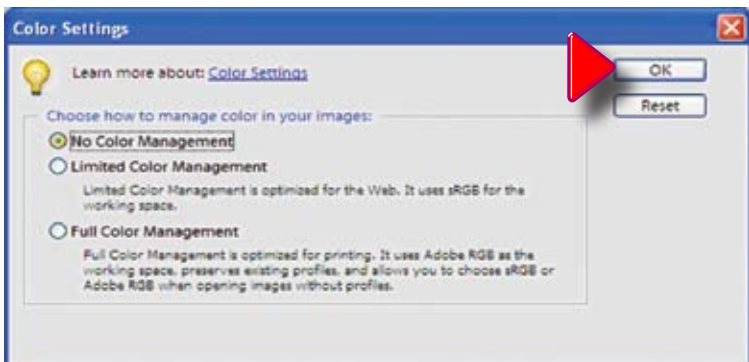
- a. Click on “**More Options**”.
- b. Choose **Color Management** in the drop-down menu.
- c. Choose “**Document**” by clicking the radio button.
- d. Choose **Same as Source** for **Print Space**.

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**.



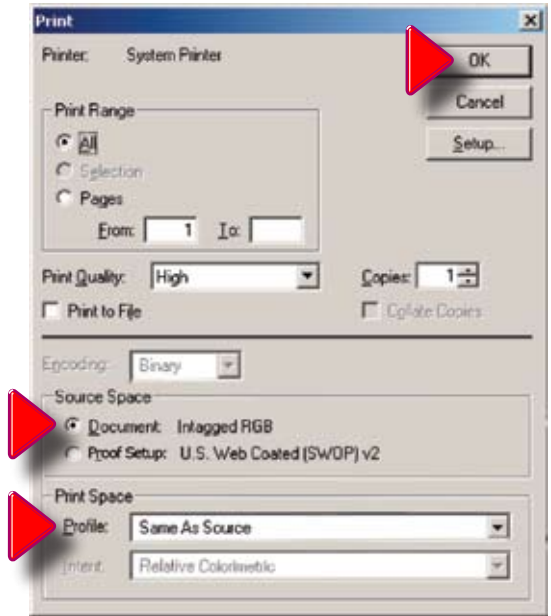
To Print RGB Graphics

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

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

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

Press “**OK**”.



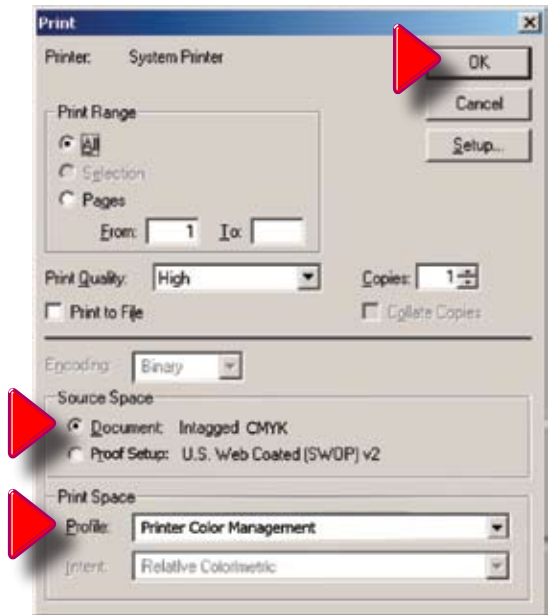
To Print CMYK Graphics

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

Fill in radio button “**Document: Intagged 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 CoreIDRAW 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.

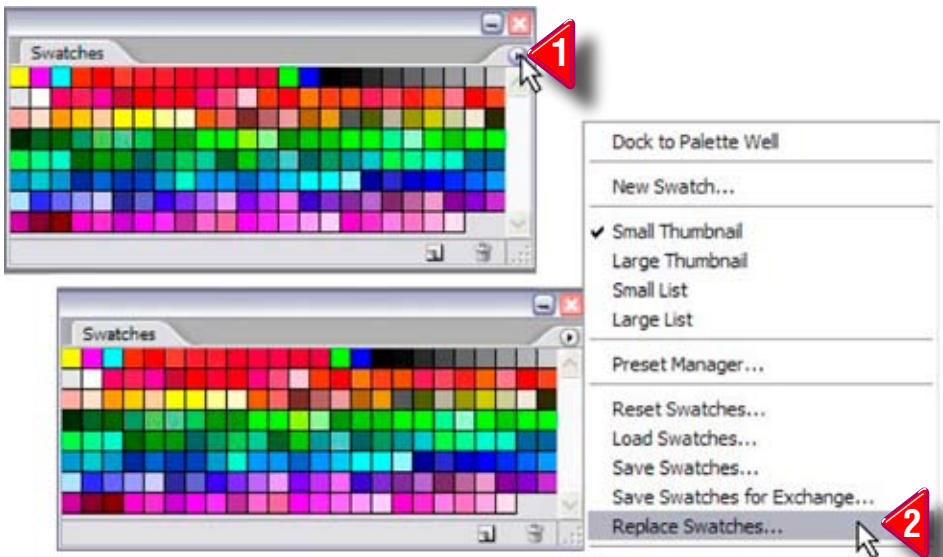
To print the ColorSure palette, follow the steps below:

- Click **'Start'** and navigate to the **'Printers and Faxes'** folder. Right-click on your **DualJet 4880 Driver** icon and select **'Printing Preferences'** from the menu. You may also open **DualJet 4880 Driver** from within an **Adobe** or **Corel** program by going to **File, Print**, and choosing the **DualJet 4880 Driver** printer from the pull-down menu. Click **"Properties"** to open **DualJet 4880 Driver**. Select the **ChromaBlast 4880 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 Palette Corel.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, (**Pointer 1**), choose **Replace Swatches**, (**Pointer 2**), and pick the “**Colorsure Palette.aco**” file.



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 navy blue with a **CMYK** value of **60,60,0,40** and choosing two step colors (e.g. cyan and magenta) would expand the original navy blue in four directions (more cyan, less cyan, more magenta, and less magenta). This expanded color chart – specific to a particular substrate and printing speed – is outputted directly to your printer.

How to use Color Finder:

- Open the **DualJet Driver Window** as instructed in “**Printing the ColorSure Palette**” outlined in **Section II**.
 - 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.
 - At the bottom of the window, click the **Custom Palette Button**; this will open the “**Custom Palette Utility**” **Window**.
 - 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.
- To use **Color Chooser**, simply click on the ‘**Color Chooser**’ button in the top right of the **Custom Palette Utility Window**. You can then choose a color from the basic color selection, or you can click on the ‘**Define Custom Colors**’ button at the bottom of the window. This will display a color matrix. To define a custom color, click any where in the matrix. Use the slider at the right of the matrix to adjust luminosity. Clicking ‘**OK**’ will automatically fill the **CMYK** boxes with the corresponding values.
- For advanced users, **CMYK** values can be determined by printing out a **Custom Palette**, which is outlined in the next section.

Custom Palette Utility

- You may alter the chosen color’s **CMYK** value by selecting two or three **Step Colors**. Using multiple step colors will present you with a greater range and variety of colors to choose from.
- For instance, if you choose to modify your **Start Color** with two steps, then **Step Color 1** will change its values on the **X** (horizontal) axis and **Step Color 2** will change its values on the **Y** (vertical) axis.

Color Finder Palette with two Step Colors

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

Color Finder Palette with three Step Colors

- Next, determine what **Step Size** you want to apply to the **Color Finder Palette**. This is simply a question of how much you want your **Start Color** to fluctuate.
- If your **Start Color** is close 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 **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 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.



Tips for Successful Sublimation

POLYESTER FABRIC

Maintain appropriate heat press times

- Shortened pressing times will result in good surface color but the sublimation dyes will not completely penetrate the polyester fibers. This leaves the dyes more susceptible to wash out.
- Longer pressing times will cause the dye molecules to penetrate deeper into the fiber, creating a washed out look. For guidelines on transfer times, see the section entitled Heat Transfer Instructions.
Maintain appropriate heat press temperatures and pressure
- The correct temperature setting is vital for achieving desired results. Higher temperatures can damage the polyester fibers to the point that they cannot properly “hold” the dyes. For guidelines on transfer temperatures, see the section entitled Heat Transfer Instructions.
- Too much pressure on the heat press may cause the dyes to penetrate too deeply into the fabric causing a washed out look. For guidelines on transfer pressure see the section entitled Heat Transfer Instructions.

METAL

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

CERAMIC TILES & MUGS

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

UNISUB

- Prepare the Substrate by peeling the transparent protective film off the surface of the substrate (if applicable) and be sure you are working with a clean, lint-free surface. To aid in the film removal process, touch laminated edge of blank product to corner of heated platen on your heat press for about 5 seconds. Plastic will shrink, allowing you to peel away more easily and reduce chipping the coating.

- The starting dwell time for all UniSub products (metals, plastics, MDF) is 60 seconds under 400 degrees F (200 degrees C) with medium pressure. When doing bulk items in a single pressing, you may need to increase overall dwell time 10-15 seconds to counter loss of heat. Transfer is arranged image side down to blank, white surface (after removing protective laminate film). Consider taping transfer to back of product only as some products (e.g. standard plaques) have foiled edges. Use only heat resistant tape.
- When storing or packaging finished sublimated products, do not stack finished items, either when hot or cold, face-to-face. Do not wrap finished pieces in shrink wrap or place them in a plastic bag for shipping.
- Visit www.unisub.com for additional information about sublimatable blanks and for templates to assist you in selecting optimal sizes and materials.

HANES SOFT L'INK SHIRTS

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

MOISTURE & HUMIDITY PROBLEMS

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

To avoid these problems:

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

Supplies & Equipment

Contact your authorized reseller to purchase sublimation supplies and equipment. For more information, see the **Sublimation Supplies Directory** on our website at www.sawgrassink.com.

Operating Conditions

Certain environmental conditions should be taken into account for the operation of **Artainium** and **ChromaBlast Inks**, including temperature and relative humidity.

ArTainium UV+

- Supported operating Conditions are **65° – 80° F** with **40 – 60%** relative humidity
- Optimum operating Conditions are **68° – 75° F** with **40 – 60%** 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 **Artainium** and **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 **Artainium** or **ChromaBlast** cartridges directly to light, especially sunlight, for extended periods.
- For best results, install your **Artainium** and **ChromaBlast** cartridges by the date on the cartridge. Please refer to the individual ink bag/cartridge for the specific ink expiration date.

Troubleshooting

The troubleshooting tips found in this section relate mainly to problems that can be seen in transferred **ArTainium** and **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 PRO 4880 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** section above.
- Ensure you used the right printer driver and driver settings. Please see the relevant **User Guide** section above.
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines see the section entitled **Heat Transfer Instructions, Page 12 & 13**.
- 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

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

My printout gets cut off on the bottom or side

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

My image looks good but it washes out

- Ensure you pressed the garment with the proper time, temperature, and pressure. If so, try pressing longer to ensure that the dyes are penetrating the fibers sufficiently. For guidelines, see the section entitled Heat Transfer Instructions.
- With **ArTainium UV+**, ensure you used a recommended paper. See the section entitled **Selecting Paper, Page .** 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 splotchy

- 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 used a recommended paper (See section on Selecting Paper)
- Ensure you pressed the item with the proper time, temperature, and pressure. For guidelines, see the section entitled **Heat Transfer Instructions, Pages 12 & 13.**
- Verify your printer driver settings are correct. Please see the relevant section of the **ArTainium 4880 Hybrid Driver** or **ChromaBlast Driver** section of the **User's Guide** for additional information.
- Ensure you do not have a moisture problem. For more information, see the section entitled **Moisture and Humidity** on the **Tips for Successful Sublimation, Page 64.**
- Ensure your substrate is designed to accept a sublimation 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 **Heat Transfer Instructions, Pages 12 & 13.**
- Ensure you used a recommended paper or other recommended media. For more information, see the section entitled **Selecting Paper.**
- Ensure you printed on the correct side of the paper or other media. The print side is the bright white side of the paper.
- Ensure you do not have a moisture problem. Try drying the paper on the press or putting a paper towel behind the transfer when you heat press it. Read the section entitled **Moisture and Humidity** in the **Tips for Successful Sublimation Section, Pages 56 & 57.**
- Verify that the printer's print heads are properly aligned. For further instructions, see the **EPSON Stylus PRO 4880 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 PRO 4880 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 PRO 4880 Printer Quick Reference Guide.**

Technical Support

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

- 1. Telephone:** You may contact your authorized **ArTainium** or **ChromaBlast** reseller during their normal hours of operation for assistance. A full listing of authorized **ArTainium** and **ChromaBlast Resellers** is available on our **Web Site** at 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. Web Site** at 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.
- 4. Fax:** You may fax a detailed description of your problem to **Sawgrass Technical Support** at **(843) 849-3847**.