

IColor Dye Sublimation Toner Upgrade Kit Instructions Specifically for the IColor 650, 600 & 500 Systems

The IColor Dye Sublimation Upgrade Kit is just one of the many specialty cartridge sets that can be used in the IColor 650, 600 or 500 Digital Color + White Transfer Media Printers. Instantly transform your iColor printer into a dye sublimation printer. The upgrade kit consists of 4 toner and 4 drum cartridges (CMYK) and is shipped in 8 separate boxes. Simply remove and store the standard cartridges and swap with the sublimation kit to instantly print and sublimate on polyester coated materials.

Operating on the same application principles as standard ink sublimation systems, you must press onto white 100% polyester or sublimation coated materials for best results. 50/50 cotton poly blends may also be used for a lighter, vintage look. White overprint is not an option with sublimation, only CMYK prints are possible. This means you must press on white or lighter colored substrates for best results. For darker substrates, 100% K prints are recommended.

The IColor Dye Sublimation Upgrade Kit has several unique advantages suited for a production environment:

- 1) Vastly faster print speeds: 35 pages per *minute* vs 34 pages per *hour* for ink (photo mode) (100 times faster!)
- 2) No clogged heads resulting from non-use. Toner based systems do not have this maintenance issue.
- 3) Longer expiration period.
- 4) More than 10 times the yield as compared to starter ink rated at 350 pages.
- 5) Use regular, good quality copy paper instead of costly sublimation paper.

Instructions for installation of the IColor Dye Sublimation Upgrade Kit:

1. With the power off, open the lid of your IColor printer and remove the standard toner/drum cartridges.
 - TIP: These should be removed as a toner/drum set. Do not disengage the toner from the drum.
 - They should be stored in a cool, dark place. Never expose the drum to light for more than a few minutes.
2. Locate the black drum cartridge and open the box.
 - Remove the orange seal tape and hard plastic inner seal and rest on a stable surface.
 - Be careful not to touch or scratch the drum surface or print quality could be severely affected.
3. Locate the black toner cartridge and open the box.
 - Remove the seal tape from the bottom of the cartridge. Lever the cartridge into the drum unit carefully, inserting the left side first, and then laying flat on the right. It should sit perfectly flush in the drum unit.
4. Once satisfied that the cartridges are together properly, push the blue handle forward all the way.
 - This will lock the cartridges together and open the toner cartridge to allow the toner to flow down to the drum unit.
 - Do not move the blue handle until it is completely aligned with the drum unit!
5. Once locked and fully engaged, install the black toner/drum into the front slot of your IColor printer.
 - Refer to the user's manual for your printer for further information regarding cartridge installation.

6. Repeat steps 2 – 5 for the yellow, magenta and cyan cartridges.

- Be sure to correctly match the toner and drum cartridge colors and toner type.
- Failure to do so will result in toner contamination, as the drums are precharged with the appropriate color toner.

7. The cartridges should be installed in 'A' or 'CMYK' configuration, where the black is in the front, followed by yellow, magenta and cyan in the rear.

8. Once all of the cartridges have been installed, power on your IColor printer. You are now ready to print.



KEEP TONER TYPES TOGETHER! NEVER COMBINE A DYE SUBLIMATION TONER CARTRIDGE WITH TRANSFER TONER DRUM UNIT, OR CONTAMINATION WILL OCCUR.

Suggested storage conditions:

Whenever not in use, be sure to store the Dye Sublimation cartridges in a dark, safe place. Prolonged exposure to light is detrimental to the OPC drum cylinder. The recommended range for the temp and humidity is 40% RH to 70% RH, temp 59 to 77°F / 25°C.

Before you print with the IColor Dye Sublimation Upgrade Kit:

1. If printing from the IColor ProRIP Software, be sure to import your image into the CMYK queue and mirror print. Under the job tab, select the desired media setting from the media type drop down menu, depending on the graphic being printed.
 - a. For vector graphics or 'cartoon-like' images, choose 'Sublimation Toner – Vibrant Colors'. This setting allows the prints to press as vividly as possible, as it is not necessary to use the ICC profile. Pressed images will be very vibrant but will have less accurate colors.
 - b. For graphics like photographs (especially for skintones) which require more accurate color representation, choose 'Sublimation Toner – Accurate Colors'. This selection employs the use of a custom ICC profile which is already integrated into the ProRIP for your convenience. Pressed images will have more accurate colors, but will not be as vibrant.
2. If printing photographic type images requiring accurate colors from the IColor TransferRIP Software, or from Photoshop, CorelDraw and other software capable of utilizing standard ICC profiles, a stand alone profile must be installed (provided upon request from your IColor dealer).
 - Save the profile to a specific folder on your computer. Navigate to the file, right click and install.
3. When printing from programs other than the IColor ProRIP or TransferRIP Software, Color Handling should be set to allow your specific software package to handle colors.
 - For example, in Photoshop set to 'Photoshop Manages Color'.
 - Set the print driver to 'No Color Matching' under 'Color Management' and 'High Quality' under 'Job Options'.
 - Be sure to mirror print and select the proper ICC profile before printing (if desired).
4. When printing black as part of your image, be sure to set the color to 100% K in your design software.
 - Printing composite blacks is not recommended and will not produce rich blacks.
 - TIP: Some file formats, such as PNG, cannot reproduce true black because they are saved as RGB images.
 - Choose a file format such as PDF or TIFF to preserve a CMYK file format for best results. You can also import your image into the RIP software and change the black elements to 100% K.

Printing with the IColor Dye Sublimation Upgrade Kit:

5. Place your media into the desired tray of your IColor printer and print your image. High quality copy paper is suggested (Inkjet dye sublimation media will not work as well).
 - TIP: The printed image may appear light and have imprecise colors. Do not judge the quality of the print until you press the image - it will look correct when pressed to the substrate after the sublimation process.
6. Cover the transfer with copy paper instead of kraft paper, as the image will sublimate upwards and transfer to it.
 - For most applications, press at 380°F / 193°C with low pressure.
 - The duration of the press depends on the type and thickness of the substrate used as well as the graphic type, but is usually between 60 – 120 seconds. Longer press duration increases color density.
 - Quickly cool the substrate to stop the sublimation process – not doing so could result in a ghosting effect or a lighter final result.
 - The use of STC9 solution or SubliClean sheets will be needed for most hard surfaces, to remove or black transferred toner residue.

Instructions for suggested press times and peeling method:

Sublimatable Glass (White Backer)

- 1) Close the press to preheat the lower platen. It is also recommended to warm up the glass substrate as well, for best results.
- 2) Print the image using the IColor Dye Sublimation Toner kit. Do not mirror print for this application.
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (white backer face up).
- 5) Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the media to the substrate or lower platen for additional stability.
- 6) Cover the transfer with copy paper.
- 7) Press at 380°F / 193°C with low pressure for 420 seconds (7 mins).
- 8) Open the press slowly and peel immediately (hot peel).
- 9) Cool substrate as quickly as possible.
- 10) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Coated Acrylic / Unisub Plastics

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. Mirror Print.
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (coated side face up).
- 5) Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the media to the substrate or lower platen for additional stability.
- 6) Cover the transfer with copy paper.
- 7) Press at 380°F / 193°C with low pressure for 60 seconds.
- 8) Open the press slowly and peel immediately (hot peel).
- 9) Cool substrate as quickly as possible.

- 10) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Duraluxe Aluminum

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (coated side face up). [Peel off protective film](#).
- 5) Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the paper to the substrate or lower platen for additional stability.
- 6) Cover the transfer with copy paper, and then a [silicon pad](#).
- 7) For full color images: Press at 380°F / 193°C with low pressure for 60 - 120 seconds, depending on how saturated you want the colors to be.
 - a. For 100% black [text](#) only - Press at 430°F / 221°C with low pressure for 20 seconds.
 - b. For 100% black [images and graphics](#) - Press at 430°F / 221°C with low pressure for 60 seconds.
- 8) Open the press slowly and peel immediately (hot peel).
- 9) Cool substrate as quickly as possible.
- 10) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Sublimatable Metals (Dynasub / Unisub / SuperSub)

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (coated side face up). [Leave protective film on the substrate](#).
- 5) Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the paper to the substrate or lower platen for additional stability.
- 6) Cover the transfer with copy paper and a [silicon pad](#).
- 7) For full color images: Press at 380°F / 193°C with low pressure for 60 - 120 seconds, depending on how saturated you want the colors to be.
 - a. For 100% black [text](#) only - Press at 430°F / 221°C with low pressure for 20 seconds.
 - b. For 100% black [images and graphics](#) - Press at 430°F / 221°C with low pressure for 60 seconds.
- 8) Open the press slowly and peel immediately (hot peel).
- 9) Cool substrate as quickly as possible, then remove the protective film once cooled.
- 10) If necessary or when pressing without the protective film, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

SubliSlate

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (coated side face up). Align the printed image to the substrate with the printed image on top (image facing the substrate). It is suggested you wrap the transfer around the substrate and tape it securely. This will allow the edges of the substrate to accept the transfer as well.

- 5) Cover the transfer with copy paper.
- 6) Press at 380°F / 193°C with low pressure for 540 seconds (9 mins).
- 7) Open the press slowly and peel immediately (hot peel).
- 8) Cool substrate as quickly as possible.
- 9) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Coated Ceramic (Heat Press)

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 3) Place a piece of copy paper on the press to protect the bottom plate (if desired).
- 4) Place the substrate on the lower platen of the press (coated side face up). Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the paper to the substrate or lower platen for additional stability.
- 5) Cover the transfer with copy paper.
- 6) Press at 380°F / 193°C with low pressure for 150 - 180 seconds.
- 7) Open the press slowly and peel immediately (hot peel). Dunk into warm water to stop the sublimation process.
- 8) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Ceramic Mugs (Mug Press)

- 1) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 2) Trim the image and align to the mug dimensions.
- 3) Use heat resistant tape and hold in place. Be sure not to tape over any part of the image or defects will result.
- 4) Place the mug into the mug press and press at 380°F / 193°C with medium pressure for 150 - 180 seconds.
- 5) Open the press slowly and peel immediately (hot peel). Dunk into warm water to stop the sublimation process.
- 6) If necessary, clean excess toner residue with STC9 solution, or use a SubliClean sheet during the pressing stage.

Polyester Textiles

- 1) Close the press to preheat the lower platen.
- 2) Print the image using the IColor Dye Sublimation Toner kit. [Mirror Print](#).
- 3) THREAD the shirt or textile onto the lower platen of the press. Failure to thread the textile will cause the image to sublimate through the textile to the other side.
- 4) Align the printed image to the substrate with the printed image on top (image facing the substrate). You can tape the substrate to the printed transfer for additional stability.
- 5) Cover the transfer with copy paper.
- 6) Press at 380°F / 193°C with low pressure for 60 - 90 seconds for full color images and up to 120 seconds for solid 100% K images (more time yields darker results).
- 7) Open the press slowly, peel immediately and cool the substrate as quickly as possible.
- 8) STC9 solution or SubliClean is NOT used for textile transfers.

Removing the polymer residue left behind on hard surfaces:

SubliClean

For most hard surfaces, the use of UniNet SubliClean film will prevent toner residue from transferring to the substrate during the pressing process. SubliClean is available in rolls, and is used in between the substrate and the printed transfer.

- 1) Peel and cut a piece of SubliClean slightly larger than the size of the substrate.
- 2) Lay it flat on the substrate, then cover with the printed transfer sheet.
- 3) Press as stated in the above instructions.
- 4) When using SubliClean, all hot peels now become warm peels. Otherwise, it will not peel away cleanly.
- 5) Not for use on fabrics or garments.
- 6) The result will be a brighter, glossier image on your substrate.

STC9 Solution

Instead of SubliClean, the use of STC9 cleaning solution will remove any toner residue that may have transferred.

- 1) After the image has been pressed and peeled - pour a small amount of the solution onto the completed substrate and rub with a paper towel. The residue will come off rather easily.
- 2) Once finished, be sure to wash off the cleaner from the substrate with soap and water before using.
- 3) Not for use on fabrics or garments.
- 4) The result will be a brighter, glossier image on your substrate.

Be sure to order SubliClean or a bottle of STC9 with your Dye Sublimation kit if you plan to work with hard surfaces!

TECH TIPS

Some substrates may require more or less press time and/or varying pressure depending on the material used.

- When pressing, a longer press duration will result in deeper and denser colors.
- Some testing may be required to achieve the desired result. Pressing for too long may cause an overexposed look.
- If more vibrant colors are desired, do not use the ICC profile. The profile is designed for photo-realistic images.
- Profile is built into the IColor ProRIP software. To obtain the stand alone ICC Profile, contact your iColor dealer.

For textiles and T-shirts, the use of a threadable heat press is required, otherwise the image could sublimate onto the other side of the textile.

In order to stop the sublimation process on ceramics, you must dunk the substrate in water or the image may start to blur and spread as the gasses rise. For other hard surfaces and textiles, it is suggested to quickly cool the substrate after peeling away the transfer. Do this by air cooling, or placing the textile on a cold surface such as stone or metal to retain color vibrancy.

Overbled images can sublimate onto the plates of the heat press, so the use of copy paper below and above your project is recommended to protect the plates of your heat press. Use of upper and lower covers is also suggested.

If you are using tape to secure your image to the substrate, make sure the tape is not covering any part of the transfer, as that will lead to inconsistent results. Heat resistant tape is suggested.

To see video instructions for IColor Dye Sublimation Toner, visit www.icolorprint.com/video

Expand your printing capabilities using UniNet IColor Printing Solutions line of specialty toners, which can be used individually or combined with your full color design, in any of the IColor digital printers and presses to create vibrant images and stunning effects for a variety of markets.

IColor Absolute Dye Sublimation Toner - Now you can produce high quality, vibrant color prints for sublimation transfers onto polyester-based textiles, and sublimation coated hard surface substrates such as ceramic, metal, acrylic and more using your IColor Digital Transfer Printer. Toner based systems do not require priming or cleaning, nor is it necessary to use the printer regularly to prevent clogging of ink heads. UniNet IColor Dye Sublimation cartridges offer higher yields than competing ink sublimation systems and prints at much higher speeds for greater efficiency and productivity. Easily swap back and forth between regular toner and sublimation toner. Use one machine for several uses with IColor Technology!

IColor Absolute White Toner - Create vibrant, bright white images on clear and dark substrates. With UniNet's patented Double White technology, a double layer of white is applied, producing rich image quality for applications such as cosmetics and beverage labels and more!

IColor Absolute Clear Toner - An advanced toner technology that enables spot satin gloss finishes. Users can flood an entire page for sheen and protection with a varnish effect, or use a spot application to make specific elements stand out. Using this transparent effect creates depth and contrast to further enhance the quality of printed output for use on invitations, product labels, menus, promotional materials, brochures, flyers, wine tags and more.

IColor Absolute Security Toner - UniNet security toner contains special RF fragments which can be read by a special reader to confirm authenticity. Most commonly used as a yellow cartridge, simply print a portion of your image in yellow for increased security and authenticity. The reader is only sold in conjunction with the toner kit and is keyed to a specific frequency.

March 2021 Revision - A newer version of this manual may be available at www.icolorprint.com/support

(Or scan this QR Code)

