



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DECALPRO[®] fx

KIT CONTENTS:

- 1) TTS Transfer Paper 20 Sheets, 8-1/2" x 11"
- 2) TRF Foil Sampler 19 foils, 8" wide x 36" long
- 3) Test Images B&W & Color practice images
- 4) Carrier Boards 2ea .020" fiberglass laminate
- 5) CarrierTRF Clear Mylar[®] "Flat-Pack", 8"x15'
- 6) 3M Tape Low Tack #2080 adhesive tape
- 7) Acetate Sheets 2 "alignment carriers" (See Pg 4)
- 8) KK-2000* Special adhesive spray
- 9) Alcohol Swabs* For quick-start practicing



(* Not included in the kit for EXPORT or AIR shipments due to pressurized container)

Welcome to DecalProFX! These instructions are "short 'n sweet" to get you up and running as quickly as possible right out of the box with just enough information so you don't go into "information overload"!

As you get familiar with working with this product, you will need to do some reading on our website to gain a full understanding of how to do more advanced techniques. If these procedures sound confusing as they are presented here, please either review the video clips online or give us a call if all else fails. During this training period, we hope you don't get frustrated, but if you do, email or call us immediately. Our "Tech Support" is right here in Florida to assist you with any problem you might encounter. Eventually we'll have video clips on the website for all techniques, but for now they are downloadable "PDF" files.

Our website at "www.decalfpx.com" is more than just an online "sales" site. When users (as well as ourselves) discover new and better ways to use DecalPRO we put this information on the site under the main "LIBRARY" tab. Our website is your central focal point for gaining a greater understanding of DecalPRO to help you master all techniques. We also welcome your ideas, suggestions and new techniques and would really like to see what you've been able to do with DecalPRO. (We feel this is the best testimonial we can think of for any product of this type.) In fact, if you send us good digital pictures of what you have created using our process, we'll send you your choice of \$20 worth of supplies for your efforts. (* See below)

As you start to use this system, please keep in mind that because this is a radically new way to make dry transfers, it is expected for everyone to have a bit of

a "learning curve" that could take an hour or two to master. To assist you in getting a fast jump-start we have included two pages of preprinted graphics.

Before you can start to use this kit there are two key pieces of hardware you will need a laminator and a regular "hot air gun" (hair dryers will not work). Regarding the laminator, there are only two that will work with this process both made by GBC[®]. One is the "H-210" the other is called the "Creative Lamina-tor" (available from us or your local Staples[®] office supply store or even eBay[®] to find a good price on a used unit). In addition to the laminator and heat gun mentioned above, you will need a few miscellaneous items that you probably already have:

- 1) Craft-knife (eg. X-Acto[®] with a new blade!)
- 2) Roll of paper towel
- 3) Bowl of water large enough for your images
- 4) 12" paper cutter if you have one available
- 5) Sheet of regular white paper
- 6) Bottle of Rubbing (or Denatured) alcohol...
(a few "wipes" included to get you going fast)

Thank you for your purchase. Now let's get started!

Frank Miller, PULSAR
Owner, Developer and CBW

Pulsar
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INSTRUCTIONS

PREPARATION

● HEAT UP THE LAMINATOR:

Turn on your GBC® laminator now to allow it enough time to get up to temperature and be ready when we start. If you have the GBC® "H-210" model turn the temperature control up to '10' whereas if you have the GBC® "Creative" laminator it has no temp control. Regardless of what the indicator shows on either unit, they both require a full 20 minutes.

● CUT UP ONE OF THE CARRIER BOARDS:

Using a paper cutter, cut a board into 3 pieces. We suggest cutting 4" off the 10" side to generate two boards: a 4"x8" and a 6"x8". Next cut the 4"x8" board at the 3" mark to yield a 3"x4" with the remaining board becoming a 4"x5". **We will be using the 3" x 4" for all of these practice images.** You should now have 4 boards: 3"x4", 4"x5", 6"x8" and your untouched 8"x10" board.

● CUT UP ALL PRE-PRINTED SAMPLE GRAPHICS:

Carefully cut up the B&W and Color preprinted "test" images so that each graphic has its own black border. Notice that on the color page, the bottom six images are reversed. Keep them separate from the others as they will be used later when you advance beyond the basic technique addressed here. Please get a firm handle on this process before working on more advanced techniques. If we were to put all that you need to know here, it would be over 18 pages long which we KNOW you don't want to get into right now! We want to get you up and running as effortlessly and quickly as possible. All other info is found on-site under the "LIBRARY" tab.

PROCEDURE

STEP #1 – REMOVE MOISTURE FROM THE PAPER:

Let's start with making a metallic graphic first. Select any one of the B&W images and lay it over a safe surface that won't be damaged by high heat. Position the X-Acto® knife point (or anything suitable) over the corner of the print to hold it in place so it won't blow away when the hot air gun is blasting over the print. Turn the hot air gun to its highest heat setting and while positioning the nozzle about 2 inches away from the paper, make multiple overlapping passes at a slow rate of about 2~3" per second. The important thing is to not stop moving the gun or else you may burn the paper!

STEP #2 – PREPARE FOILS + COVER SHEET:

Unfold the "TRF Sampler Pack" and cut a piece of Red Metallic foil 3" long then cut this 8" wide piece to a 5" length. Discard the remaining 3". Do the same with a piece of plain white paper making it 3" x 5" then fold over one inch of its length and crease it so the paper size is 3" x 4". This is the reusable "cover sheet". Lastly, open the Mylar "CarrierTRF" pack (6"x9" flat-pack) and cut a 3" strip then cut it again to make it 3" square.

STEP #3 – TRANSFER FOIL TO THE GRAPHIC:

Lay the printed graphic over the 3"x4" Carrier Board. The top of the print should always be right at the top of the board. Cover the image with the Metallic Red foil allowing an inch to wrap around the top or "leading edge" of the board that is going to be inserted into the laminator first. (From this point on we will refer to the laminator as the TIA for "Toner Image Applicator"). Insert the board in one smooth motion until the rollers grab the board and foil. As soon as this happens, drop your fingers down on top of the foil and apply dragging resistance over the foil. This drag helps to prevent any wrinkling of the foil as it goes through the TIA. Try to keep the foil taught. (Alternatively you can wrap both ends of the foil around the leading and trailing edges of the board and tape the foil ends UNDER the board using the Blue 3M "2080" Tape.)

When the board exits the TIA, remove the graphic from the board and peel the Metallic Red foil back, 180° over itself and discard. You should NOT see any black toner around the Metallic Red that is now perfectly transferred over the toner graphic, nor should you see any wrinkles in the foil. If you do see wrinkles it means you did not have proper "drag" over the tail end of the foil. If you see evidence of black toner peeking through the otherwise all red image, you didn't give the laminator enough time to heat up!

STEP #4 – REMOVE STRAY FOIL MARKINGS:

Lay the image face-up on your table top. Take the blue 3M "2080" tape and apply barely overlapping strips covering the entire graphic. Rub over each strip to get good adhesion. Now remove the strips starting at the top. Carefully peel each strip 180° back over itself and discard. Notice that each strip slightly raises the edge of

INSTRUCTIONS (cont'd)

the one below it. Run your finger over the raised edge then remove it. Continue this until they have all been removed. Inspect the graphic and surrounding blue paper areas for any evidence of foil remaining where there was no toner image. Some foils (like White) may require you to do this taping step twice because White is a very heavy pigment. Do this in opposite directions (vertically then horizontally) to ensure all residual foil has been removed.

Even though these foils are made to only stick to toner, they will however permanently bond to paper with high moisture content which is why we need to thoroughly remove moisture out of the paper as you did above in STEP #1. If you still have foil remaining after the tape strips are removed it means you didn't remove enough moisture from the paper to start with. Be more aggressive on your next try, but continue on with this exercise.

STEP #5 – CLEAN CARRIER + GRAPHIC:

Wet a paper towel with alcohol and wipe down both the 3" square Mylar Carrier film (previously cut) and the Metallic Red graphic. Let them air dry or a give them a quick hit of hot air.

STEP #6 – ASSEMBLE THE CARRIER BOARD:

Position the graphic over the Carrier Board, lay the Mylar Carrier over the graphic then cover both with the white paper "cover". The creased flap wraps around the leading edge of the Carrier Board. Insert the board into the TIA. When it exits, insert the board a second time. Remove the white paper cover and carefully slide the graphic off the board. Handle the graphic carefully.

STEP #7 –WATER BATH:

This step is to release the graphic from the TTS transfer paper. Slowly feed the graphic vertically into the water bath. The paper will begin to curl towards the front of the graphic as you do so. Keep feeding the paper into the water bath until it is completely submerged. While you are waiting for the release to happen prepare a dry paper towel on your work area.

After about a minute the paper's coating will dissolve releasing the graphic. You can now lift the Mylar Carrier out of the water bath. The dissolved coating from the paper (called Dextrin®) tends to

cling a little bit to the Mylar Carrier during this release stage, so, after you remove the Carrier, you will want to carefully drag the film through the water to ensure there is no residue remaining on the Carrier film. Be careful that you don't cause a wrinkle in the film since this could cause the image to break away. You might see some of the border around the graphic break away and that's OK because that is exactly what the border is there for; to protect the Carrier from separating from the graphic during this stressful paper curling when it first gets wet. The Carrier film should be removed within a minute after separation from the TTS paper.

STEP #8 – DRY CARRIER + REMOVE BORDERS:

Lay the mylar Carrier film down over the paper towel and cover with another. Pat-dry the Carrier. This is normally done twice to fully dry the mylar and graphic image. Trim off the four borders going around the print with an X-Acto® knife and a straight edge ruler. **Do not use a paper cutter! The "shock" from the blade can cause the image to be easily damaged ruining the graphic.** Lay the Carrier face-up over a paper towel (so you are looking through the Mylar at the Metallic Red graphic). Position a straight edge ruler (or the edge of a Carrier Board) over the film so the outside edge of the ruler is just exposing a border. Using the X-Acto® knife, trim off the border and repeat to remove the remaining 3 borders.

STEP #9 – APPLY SPRAY ADHESIVE:

Set the graphic aside. Lay down a new paper towel and apply a few quick bursts of the KK-2000 adhesive over the paper towel. Lay the Carrier face-down over the paper towel (so you are now looking at the black toner graphic). The paper towel was sprayed to hold the thin Mylar Carrier from blowing away when the adhesive is applied. Now apply two VERY LIGHT coats of adhesive over the entire mylar carrier. It doesn't take much at all. We have a short "flash" video clip on the website to demonstrate just how light of an amount you are applying. Make these passes quick and even at a distance of about 12" above the Carrier film. It is very easy to apply too much adhesive because the spray is very concentrated.

Allow the adhesive to setup for about 30 seconds (or blow on it for about 15 seconds) before you

INSTRUCTIONS (cont'd)

are ready to make the transfer. You don't have to use it right away. It can stay in this state for several days.

STEP #10 – CLEAN THE RECEIVING SURFACE:

The target location must be very clean. Use a paper towel wet with alcohol and thoroughly clean the target location.

You are now ready to make the transfer! This is a critical step because there is no "undo" button! Wherever the image first touches – that's where the image is going! Rub lightly from the center out. When the graphic has been applied and rubbed down well (with mere finger pressure), put a small piece of Scotch tape over a corner of the Mylar Carrier to lift it and begin slowly peeling the film back 180° over itself and discard. If when peeling it back you notice a small piece of the image lifting with the Carrier, simply lay it back down and apply more rubbing pressure, then continue the peel back again. If the graphic has micro air-bubbles after removal of the Carrier Mylar you can lay a new piece of Carrier foil over the image and apply more rubbing pressure to flatten out the graphic. Peel back per usual.

Now for a "Quick Review" of the Procedure:

- 1) Remove moisture from printed TTS paper
- 2) Cut selected TRF foil & 'Carrier' Mylar® to size
- 3) Apply color TRF foil to the graphic using the TIA
- 4) Remove residual foil from the image using the tape
- 5) Wipe The 'Carrier' Mylar® and graphic with alcohol
- 6) Bond 'Carrier' Mylar® to the graphic using the TIA
- 7) Water bath to release image from the paper
- 8) Dry the 'Carrier' Mylar® and remove borders
- 9) Apply adhesive
- 10) Clean target surface with alcohol and transfer

Here are some important bits of info you should know now (and much more on the website for later).

GHOSTING: If there is ever any "ghosting" of adhesive where a slight "haze" of adhesive remains on the target surface all you need to do is first let the adhesive setup for about 15 minutes then merely wet a paper towel and wipe right over the graphic. Any exposed adhesive will be wiped away in seconds with only light wiping action. Some target surfaces have greater tensile strength than others so there

may be some instances where you may have some of this "ghosting". The beauty of using this particular alcohol-based adhesive is that you use alcohol to remove it (!) and alcohol can't damage the graphic.

ALIGNMENT CARRIERS: Included in your kit are 2 acetate sheets for practice. This is a very neat trick to assist in handling your image as you are trying to register the graphic for transfer. Do this any time **prior to** applying the adhesive. Simply lay an acetate sheet over the back of the graphic (toner side) and make a loose outline with a Sharpie pen on the acetate. Cut out the outline in the center of the sheet. After the adhesive has been applied, merely lay the acetate over the sprayed Mylar Carrier so the graphic is sitting inside the opening in the sheet. This semi-rigid acetate holds the graphic .005" above the target surface so you can move it around on a flat target surface to get the image in the correct spot before pressing the Mylar Carrier down to make contact with the target surface. Peel back like normal and... Voila!

CLEAR COAT: You can always apply a "clear coat" covering spray (like Krylon® "Crystal Clear") over the graphic and the entire project but in many cases you will find that if the image is not in a "hostile" location, a clear coat is simply not necessary.

REMOVING A TRANSFER MISTAKE: Remove it with Scotch Tape within the first hour before the adhesive gets a chance to set up. Simply lay a piece of Scotch® tape over the image and lift off. The tape won't lift off all of the image but it will break up the image considerably. Wet a paper towel with alcohol and wipe over the image. The alcohol can now work under the remaining pieces to soften the adhesive in about a minute allowing all evidence of the graphic to be removed. Now just remake the graphic and you're back on track.

OTHER FOILS: Even though we have only discussed working with the Metallic Red foil, **all foils** behave the same way. Please refer to the website for a lot more information when you are ready.

We sincerely hope you have a lot of fun with your new found capability giving you the power to do for yourself what has never existed before... **and don't forget to call us** if you have any difficulty using our DecalPRO system. (850) 926-2009, 9-5 EST.