# EnduraPress Heat Press


Training: Required

Reservation: Required

Please check with Library staff to confirm minimum age certification requirements to use this machine with supervision, and without supervision as provided on the Equipment Usage Chart.

## Table of Contents

## Certification

To become certified on this piece of equipment you will need to attend a training class that lasts approximately 60 minutes. By the end of the class you will be able to:
Print a design on the transfer paper
Know which transfer paper/printer to use according to the material being pressed
Adjust settings and timer on heat press for specific materials
Press transfer designs on various materials

To sign up for a training session please see the training binder (available at the front desk).

## Reservation

To reserve this piece of equipment you will need to first be certified on this equipment. After you have attended a training for the equipment you may sign up for a time slot. To see available time slots and sign up for one please see the **Reservation Binder** (available at the front desk).
Your reservation reserves the equipment for you to use during that time, if you are more than 5 minutes late to your reservation time you will lose your reservation and the machine may be used on a first come-first served basis.

# Reference Sheet

## Approved Materials

Fabric: Cotton or Polyester for Pigment Ink & Transfer Paper

Fabric: Polyester (90-100%) and Sublimation Blanks for Sublimation Ink & Transfer Paper

Items that are provided by the Innovation Studios grant for heat pressing.

- Aprons (light colored)
- T-shirts (light colored)
- Mousepads
- Canvas bags (light colored)
- Aluminum sublimation blanks

Max Design Area of Heat Press
9” x 11”

## Machine Accessories

- Scissors
- Paper cutter (not included but would be helpful if available)
- X-Acto knife
- Cutting mat
- Pigment ink or Sublimation ink transfer paper
- Heat resistant tape (for sublimation transfers)
- Teflon sheet
- Teflon pillow
- Gloves or hot pad
- Ruler to T-Square (not included in Library Innovation Studios kits but would be helpful if available)
- Epson Workforce Printer fill with Pigment Ink
- Epson Workforce Printer filled with Sublimation Ink
- Refillable Ink Cartridges with bottles of Pigment and Sublimation Ink and syringes for refilling, one for each type (i.e.one set for Pigment and one set for Sublimation)
- Software: CorelDraw, Corel Photo Paint and Gimp, (Adobe Illustrator and Photoshop – not provided)

**Important Safety Information:**

The heat press achieves temperatures of 400 °+, burn hazards exist with this process. There is also some risk as scissors or Xacto knives are used for cutting transfer paper.

**Workflow:**

1. Acquire/design images
2. Edit/adjust/size images
3. Determine the content of the material being pressed (cotton or polyester)
4. Select the correct printer (ink type) and corresponding transfer paper
    i. Pigment Ink =Softstretch SS
    ii. Sublimation Ink =TexPrint
5. Print images on transfer paper – mirrored or backwards (except for glass photo frame noted in its instructions)
6. Cut out images
7. Set temperature, pressure and time on heat press
8. Set timer
9. Carefully arrange material on heat press base
10. Quickly press T-shirt 2-3 seconds to get rid of moisture and wrinkles
11. Place printed, cutout image on material upside down
12. If using sublimation transfer paper tape down with heat resistant tape
13. Cover all with the protective Teflon sheet
14. Press material
15. Remove from press
16. Remove/peel off transfer paper from material while hot
17. If using Pigment transfer paper, stretch the material while it is still warm in all directions.

# Heat Press Components


**Correct voltage is 110-120V/60 Hz**

**Operation Instruction**

1. Turn off the machine when not in use, and remove the power plug from socket.
2. Gloves are recommended as the press gets very hot.
3. Grasp the handle firmly with one hand when opening.
4. Keep children away from the machine.
5. Do not touch the heating platen and platen cover (unless wearing protective gloves) while in operation.

6. Do not attempt to press products that are not intended for normal heat transfer.
7. **Do not set the temperature any higher than 480°F as it may cause overheating and stop working!**

## Control Panel Operation

**Chart # 1**

P-1: Temp. Setting Mode. Touch Set & ⇧ ⇩ key to set desired temp.

## 2. Control Panel Setting

I


Control Panel Window

II


P-1: Temp. Setting Mode.
Touch Set & ↑ ↓ key to set desire a temp.

III


P-2: Time Setting Mode.
Touch Set & ↑ ↓ key to set desire a time.

V


Touch Set & ↑ ↓ Choose °C or °F

IV


P-4: Temp. collation mode
Touch Set & ↑ ↓ key to set read-out temp. with any number plus or deduced.

VI


P-5: Pre-alarm setting
Touch Set & ↑ ↓ to set seconds in advance, you could decide few sec. alarm in advance

VII


Touch Set to finish all settings

Press the Set Key and Screen **P-1** is displayed. Use arrows to increase or decrease temperature. ⬆⬇

Press the Set Key again to move to Screen **P-2** Time Setting Mode. Use arrows to increase or decrease the length of time the item is to be pressed. ⬆⬇

The **P-3** Screen is to set Centigrade or Fahrenheit temp measurement. This should already be set, but it will show either a C

⬆⬇

for Celsius or an F for Fahrenheit. Just touch the up or down arrow to change it.

The **P-4** is temp calibration mode. (This requires testing the platen for actual temperature, not necessary for most users)

The **P-5** is the Pre-Alarm. This is a feature that you won't always need, but it's good to have. If, for example, you're doing pigment transfers with that must be peeled warm, you might set a five second pre-alarm to give you time to put on a pair of cotton gloves before the end of the press cycle. To do this, just use the up arrow in the P – 5 pre-alarm screen to add an alarm five seconds before the end of cycle alarm begins.

## Heat Press Time, Temperature and Pressure Settings

General guidelines provided by manufacturer of the EnduraPress Heat Press and the transfer paper manufacturers.

## Chart # 2

| Surface/Material | Transfer Paper | Press time | Temp | Pressure | Tips/Comments |
|---|---|---|---|---|---|
| Cotton/Blend | Pigment | 15-25 sec. | 365 ° | High | Pre-press shirt for 3-5 seconds to eliminate moisture. |
| Polyester | Sublimation | 35 – 40 sec. | 400 ° | 30-40 Psi (light - med) | Pre-press shirt for 3-5 seconds to eliminate moisture. Tape down design with heat tape. Use Teflon pillow underneath garment to avoid ghosting. |
| Polyester—another option | Sublimation | 35 - 55 sec. | 385° - 390 ° | Light | Try this range of time and temp. settings to avoid the press marks. |
| Mousepads | | 45 sec. | 400 ° | 40 Psi (med) | |
| Beveled Glass Frames | Sublimation | 270 sec. | 400° | Light | Do not clamp down the heat press or the glass could break. Keep the pressure very light so that the heating element sits |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | lightly on the frame. Do not reverse the image. *Full instructions available as appendix a1 |
| Ceramic Sublimation Photo Tile | Sublimation | 4-4.5 Mins | 380 - 400 | Medium | Reverse image, tape down image using heat resistant tape. |
| | | | | | |

**Setting the Heat Press Pressure**

Adjust the pressure by turning the knob clockwise to increase and counter-clockwise to decrease.

It's a good idea to do this first before starting to heat the press because you will want to "test" your pressure and it is much easier if the press isn't hot.

Your heat press works like a fulcrum. Putting thicker materials in the heat press multiplies the closing force. If you place thick items like mouse pads or hoodies in the press, you must reduce the pressure setting. If you place thick items in the press without reducing the pressure setting, the applied clamping force will be too high. You may damage the heat press.

Most new users of heat presses focus on adjusting time and temperature and forget about the critical third element. The amount of pressure applied can make the difference between success or failure. For most heat transfer applications, there should be a definite amount of resistance when you close the press. If you can close the press completely with no effort at all, your T-shirt transfers are probably not going to stick.

Set the press for minimum pressure, then place your thick item on the base and do a test press to see how much force is actually being applied to the item. Likewise, when going from a thick item to thin one, you'll need to

increase the pressure setting to account for the change in material thickness.

## Preparing the Artwork

- ***Open*** or ***import*** the image into CorelDraw.
- Open a Vector file or Import a Raster file
- The image may not be 8 ½” x 11” the size of most transfer sheets.To correct this, after the artwork opens in CorelDraw, select it and copy it.

**A Note About File Types**

**Vector**

- Vector files are mathematically described drawings
- Vector files can be made as big as you want them without degradation of quality
- Vector files can be “Opened” in CorelDraw File-Open
- Vector files extension: .eps, .ai,.pdf, .svg.cdr

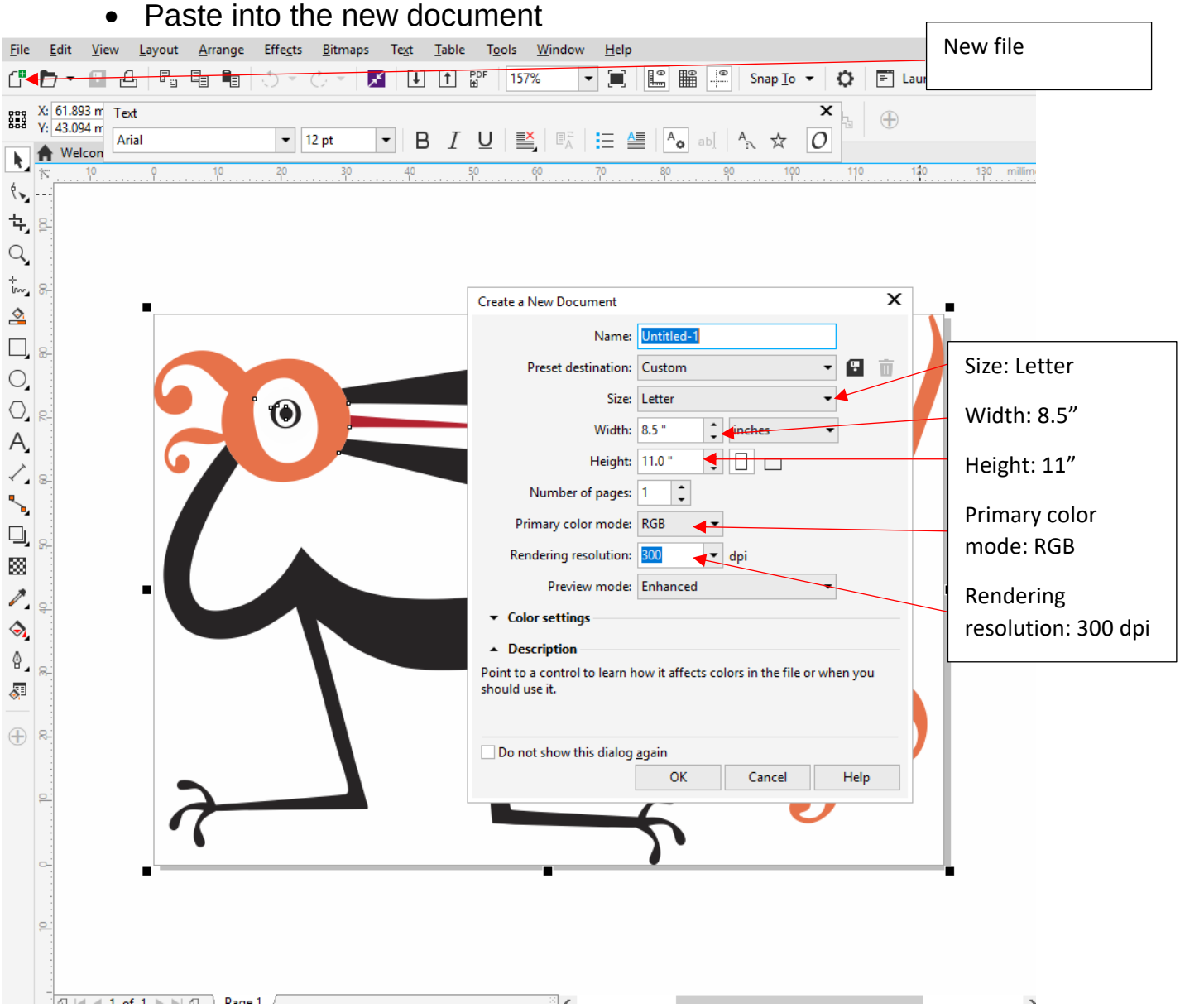
**Raster**

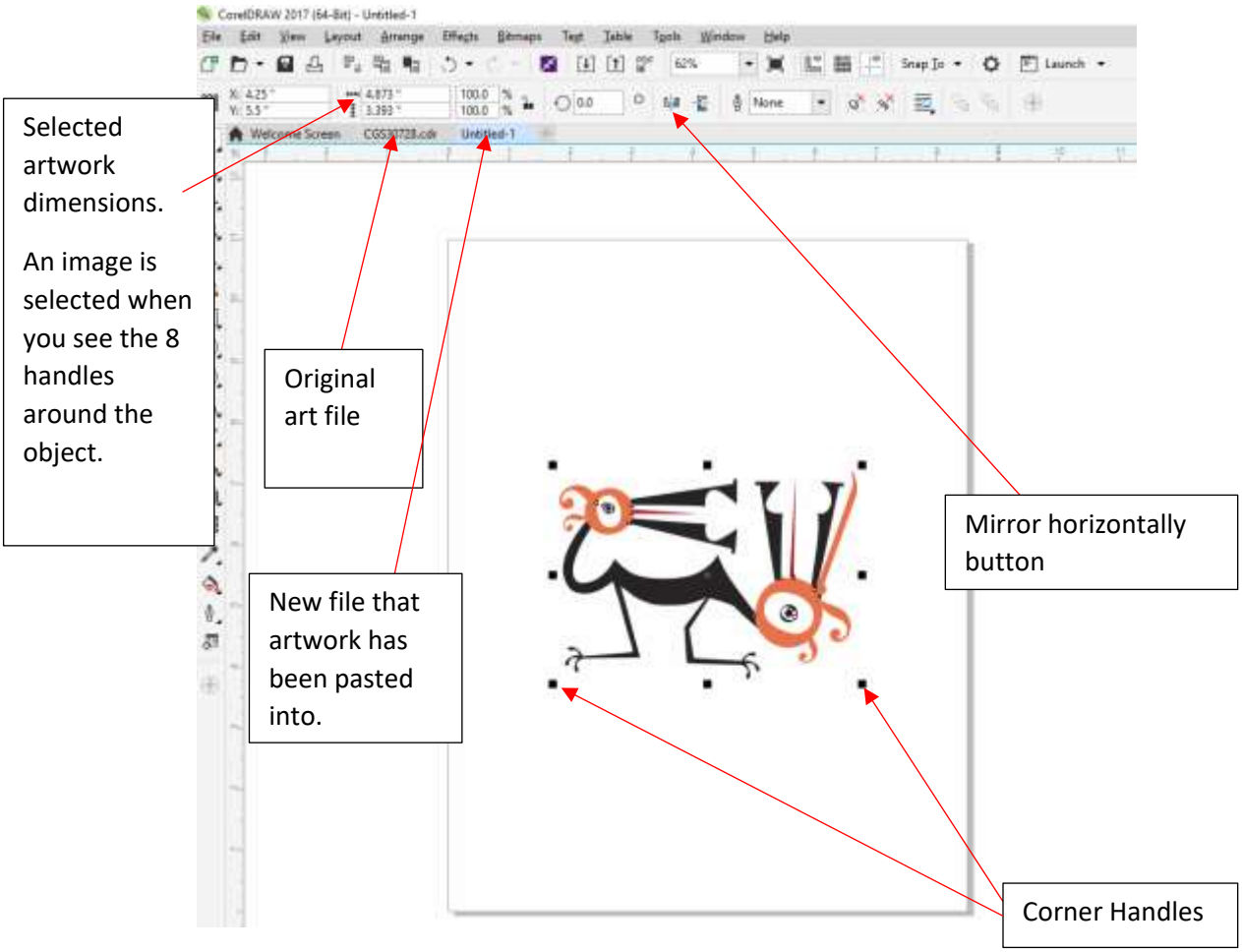
- Raster files are made of pixels
- Not a good idea to make a bitmap bigger because the picture becomes pixelated.
- Raster files must be imported rather than opened into CorelDraw. File-Import
- Common raster file extensions:
  .jpeg, .gif, .png, .tif, .bmp

- Create a new file to paste the artwork into. The new document is set on Letter size or 8.5” x 11”, Primary color mode is set to RGB and the resolution is 300 dpi. *See the “Create a New Document” dialog box below.*

Click on “OK”

- Paste into the new document






- Adjust size by grabbing a corner handle and pulling towards the center to reduce the size or pulling outward to increase the size. Always use the corner handle to avoid distorting the image.
- Reverse the image by selecting the artwork and clicking on the Mirror horizontally button shown above.
- Remember that you would only increase the size of the artwork if it is vector art. If it is a photo you can make it smaller but not bigger without it becoming pixelating.

## Resolution of the Image

- The resolution of your image will have a lot to do with the success of your heat pressing projects. The term resolution describes the number of dots or pixels that an image contains or that can be displayed on a computer monitor or other display device. The resolution should be 300 dpi (dots per inch)

## Printing the image

- Determine the type of fabric you want to print on, i.e. polyester or cotton and select the corresponding printer, ensuring the correct transfer paper is loaded in the paper drawer, right side down.
  100% polyester or a high % of polyester = Sublimation
  Cotton, polyester or blends = Pigment
- If the graphic is small, place several graphics on the sheet at one time that can be cut out and heat pressed later so as not to waste the expensive transfer paper.
- Print to either the pigment ink or sublimation ink printer which are both labeled Epson 3620 but one is distinguished from the other as Epson 3620 (copy). Each printer is labeled either Pigment or Sublimation.

Check the label on the T-shirt. All T-shirts provided as consumables will have the fabric contents and price on the label.

Mousepads provided are polyester covered. Dimensions are 9.25” x 7.75”. If you want the image on the mousepad to completely cover it dimensions for artwork should be .1/4” -.1/2” larger than the mouse pad.

Aprons are polyester or polyester/cotton blend.

## Preparing to Press

- Pigment transfer paper:
    - Cut out the images as close to the edges of the ink as possible. If available, use a cutting machine or x-acto knife with a straight edge on a cutting matt for straight and uniform edges. This is especially good for type blocks.
- Sublimation transfer paper:
    - Cutting close to the image with the sublimation transfers is not as important as with the pigment transfer paper, but it's good to be aware that the edge of the sublimation transfer paper can create a permanent indentation when pressed.
- Set the press according to the instructions for the type of material and transfer paper, as shown on **Chart # 2** on page 10. This will require three settings: temperature, pressure and time for each T-shirt or other item you are pressing on. **Please Note:** Pigment transfers require High pressure. Sublimation on polyester requires much less pressure in order to avoid permanent indentations on the fabric.
- Use the lint roller to ensure a perfectly clean surface prior to pressing.
- Pre-press the material first before applying the transfer. This gets rid of moisture that could prevent a good transfer of ink and also eliminates wrinkles. Timing for this process is just a second or two.
- Place the T-shirt or other material on the bottom plate, making sure the collar is off the edge of the plate, which would raise up the platen slightly and reduce the pressure on the rest of the shirt.

- Lay the transfer onto the spot you want the design to appear on the T-shirt or other material ink-side down. See Figure 1 and 2 for placement guidance.
- Place a Teflon sheet on top of the T-shirt to keep the top platen free of ink that could spoil subsequent pressings. The Teflon will also keep the machine from accumulating ink and dust, and Teflon is easy to wipe clean. Lock the press and follow the manufacturer timing instructions for each type of material being used.

**Tips**

- Use a potholder or gloves to hold down the hot T-shirt material while lifting off the transfer paper

**Warning:**

Never leave a heat press on unattended.

- The printer that corresponds to the material you will be pressing the design onto, i.e. pigment ink printer to cotton, polyester or blends and sublimation ink printer to polyester only (can be a blend but a blend that has a high percentage of polyester will be most successful and long lasting)

**Guidelines For Pigment Inkjet Process**

- Cut out the design as close as possible since a plastic film will surround the design/artwork.
- After pressing remove transfer paper while hot, then stretch the fabric in all directions while still warm for best results.
- Wash in cool water with T-shirt turned inside out. Hang to dry.

## Guidelines For Sublimation Inkjet Process

- Use heat resistant tape to hold down transfer paper as it doesn’t stick and could move when lifting the press after the heating process. This could result in ink dropping on areas where you don’t want it.

## Refilling Printer Ink Cartridges.

For more detailed instructions see page 9 of the Epson WK 3260 SOP.

**Cobra Ink System**
**www.cobraink.com**
**For Pre-filled**

**You must remove the yellow tab or clear vent plug completely leaving the vent hole totally exposed before installing cartridges. Remove your empty cartridge, leave the printer to sit powered on without a cartridge for 5 minutes before installing new cartridge, this allows the printers memory time to clear.**

**For Re-Filling**

**When the ink monitor senses it is out of ink "cannot recognize cartridges", remove that cartridge, fill to the top with ink and reinsert the cartridge: do this each time the ink light comes on for each color. Note: Please make sure that you allow at least 2 minutes or more ( it may need to be left to sit without a cartridge for at least 5 minutes before installing new one.) this allows the memory of the printer to clear. Also always make sure that you wipe the electronic chip on the side of the cartridge with a soft cloth to remove any residue.**

**Note on the Code 252XL cartridges, you will need to reset these cartridges 2 to 3 times before you need to refill them with ink. When you receive the empty warning that the color is empty, remove that color only and then snap it back into place. These are standard cartridges and will need to do this on all colors.**

**Refill with Cobra ink only.**

Beveled Glass 7” x 9” Frame w/Bling Studded Easel (for Sublimation)
Product Code: BG03
Price: $4.25 plus cost for Sublimation Transfer Paper

- Temperature: 400F
- Time: 270 sec
- Pressure: Light to Medium (Note, your glass frame is thicker than a t-shirt and not forgiving like a mousepad. If you don’t adjust the tension properly and force the heat press shut, you will break the glass frame and like other mistakes that are made, you still must pay for the frame. If you want to test the tension, you may play with the tension before heating up the heat press using a like thickness piece of wood. Even when the item you are heat pressing is unbreakable, you still do not want to put too much force to shut the heat press. Makers have broken the heat press forcing it closed with too much muscle. Recent testing was successful in not clamping down the heat press at all. Screw the pressure down until it sits fairly snug on top of the glass but don’t clamp it down.)

1. **Do Not** Reverse image since you are printing on the back of the frame.
2. Tape the sublimation image printed in 6.5” x 8.5” to the white side of the frame. Note that the main attraction of your picture should be about 4” x 6”. Whether your picture is vertical or horizontal, the bottom of your picture should be on the end with the drilled hole that holds the Bling Studded Easel.
3. Place onto heat press with coating face down with a foam pillow underneath.
4. So sublimation pillow on bottom, then printed sublimation image (printed side up), then glass frame with white side down, then Teflon sheet.
5. Press according to temp, time, pressure listed above:
6. GLASS WILL BE VERY HOT— HAVE YOUR GLOVES ON!
7. After pressing, remove paper immediately.
8. Once cool, you can insert the Bling Studded Easel that is included in the box with the frame. (It screws apart, then back together.)

Tip provided by Nelson Public Library: Also, one more thing on heat pressing the glass. If you preheat the glass, by preparing it for pressing and laying it on the platform, we bring the press around and let it hover above the glass as it preheats. We do not lock down the press to transfer and the pictures have come out great. Thanks, Mar

**Ceramic Sublimation Photo Tile 8” x 10” CTile01**

**$2.00 (includes tax)**

# How to Press Ceramic Photo Tiles

Remember to REVERSE image. Once you align your image to the tile and tape it down using heat resistant tape, position the ceramic tile face down in the heat press and press at the above temperature and time. Tiles may be pressed face up but the coating may bubble and the results may not be consistent.

Our time and temperature is only a recommendation. We recommend always testing new sublimation blanks to reach the most ideal settings for your press.

Standard Sublimation Ceramic Tiles

- Temperature: 380-400 F
- Time: 4-4.5 minutes
- Pressure: Medium

Teflon pillow, and parchment paper is recommended for best results (and so that ink is not left on heat press surfaces).

If you discover better instructions, please provide to joann.mcmanus@nebraska.gov to share with other studios.

**These are notes I found about the Denier Poly Bags:**

*Many of these notes are related to heat press vinyl (not provided in our Studios). So I am not sure how the sublimation transfers work. Good luck and report what you figure out.*

I heat press everyone just fine - as long as you use a press pillow in the bag with a cover sheet on top - let the handles hang off the press as the handles are NOT heat friendly. **I press vinyl at 305 and they do just fine. Don't go much higher than 305... 325 degrees is about the max these bags will take.**

This bag takes HTV well, **just make sure to use a pressing pillow inside the bag to avoid creasing and keep the straps and zipper out of the press!**

**Has a nice vinyl liner, so if you are heat pressing, be sure to place a towel or fabric of some sort so the inside does not stick to itself.**

I decorated these bags for my bridesmaids. The bag took the vinyl fairly easy, but glitter vinyl actually worked best. Overall, I think their perfect!

I was able to hand paint palm leaves onto them and also heat press vinyl onto them rather easily. **My only suggestions for those planning on using a heat press, are to make sure you press the bags separately first, to remove any moisture from the material, and place a silicon sheet inside the bag before pressing so that the inner lining does not melt and glue your bag shut.** My bags came out perfectly! My clients were very pleased!

They took vinyl well, but I didn't realize the inside was some type of meltable material and ironed my bag shut. **Remember to use a towel and put it on the inside of the bag before applying vinyl on the outside of the bag**. Vinyl stuck very well on the bag.

This bag was great! Perfect for HTV GLITTER! Straps are a little rough and can’t keep on your shoulder for a long time with anything in it. But, the bag is nice. **Just be sure to put a Teflon sheet In between the bag when pressing or the bag melts together.**

ctions see page 9 of the Epson WK 3260 SOP.

**Cobra Ink System**
**www.cobraink.com**
**For Pre-filled**

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**Note on the Code 252XL cartridges, you will need to reset these cartridges 2 to 3 times before you need to refill them with ink. When you receive the empty warning that the color is empty, remove that color only and then snap it back into place. These are standard cartridges and will need to do this on all colors.**

**Refill with Cobra ink only.**

Figure 1

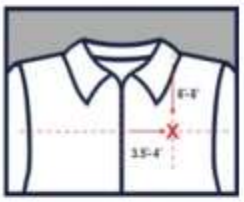
## Design Placement Tips

**Professional results every time.**

Though heat printing is ideal for customizing garments quickly and easily, finding the perfect placement and lining up graphics can be a challenge. Follow these guidelines for logos and graphics placement to get professional results every time you heat press.

These design placement tips are intended as guidelines. Adjustments may be necessary based on the type and size of the garment.

Download and print this handy chart.

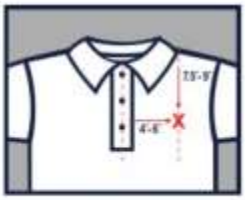



### Jackets - Left Chest

3.5" to 4" from center's edge and 6" to 8" from the seam of the left shoulder.

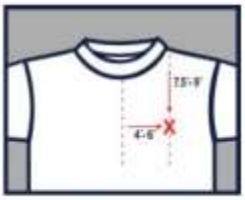

### Jackets - Back

6" to 9" from the seam of the collar to the design's center.




### Polo Shirts

7.5" to 9" from the shoulder's left seam and 4" to 6" from the center, in line with the collar meeting the shoulder seam.

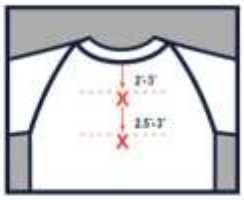



### T-Shirts

7.5" to 9" from the shoulder's left seam and 4" to 6" from the center.


### Sweatshirts

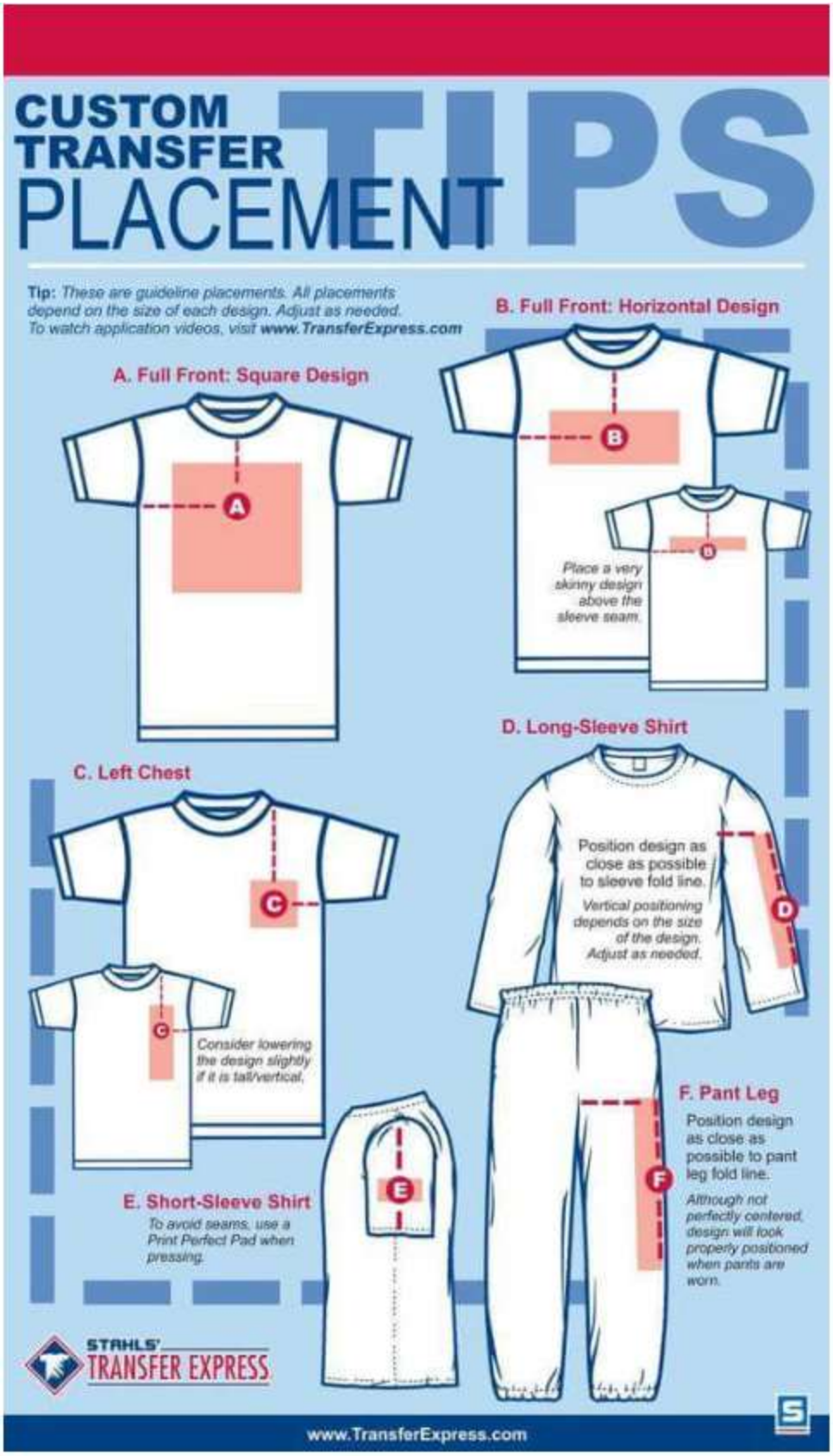
Top of the design 3" to 3.5" from the bottom of neck's edging.




### Athletic Jersey

Top of the design 2" to 3" or 2.5" to 3" from the bottom of neck's edging.

Figure 2


CUSTOM TRANSFER PLACEMENT TIPS
Tip: These are guideline placements. All placements depend on the size of each design. Adjust as needed. To watch application videos, visit www.TransferExpress.com
A. Full Front: Square Design
A
B. Full Front: Horizontal Design
B
B
Place a very skinny design above the sleeve seam.
C. Left Chest
C
C
Consider lowering the design slightly if it is tall/vertical.
D. Long-Sleeve Shirt
Position design as close as possible to sleeve fold line.
Vertical positioning depends on the size of the design. Adjust as needed.
D
E. Short-Sleeve Shirt
To avoid seams, use a Print Perfect Pad when pressing.
E
F. Pant Leg
Position design as close as possible to pant leg fold line.
Although not perfectly centered, design will look properly positioned when pants are worn.
F
STAHLS' TRANSFER EXPRESS
www.TransferExpress.com

**FAQs**

**Q**: How often should I use my printer?

**A**: These printers use water based inks which as you know, water evaporates. If you don't use it, the print head will dry up and potentially clog and damage the head. We recommend doing a head cleaning a week and ensuring you have a perfect nozzle check to make sure your printer stays healthy and in perfect working condition.

**Q**: I didn't use my printer for a certain amount of time, what should I do to get it going again?

**A**: The very first thing you need to do is re-prime the cartridges. Ensure you can pull the ink into the syringe and all the inks are flowing as they should. Once re-primed, run up to 5 head cleanings with a nozzle check after each cleanings and see if you can get a perfect nozzle check or if it's even improving. If it stays the same all 5 cleanings, there's a good chance you've got a clog and in that case you need to call one of our technicians for further instructions.

**Q**: What is the difference between your three types of ink?

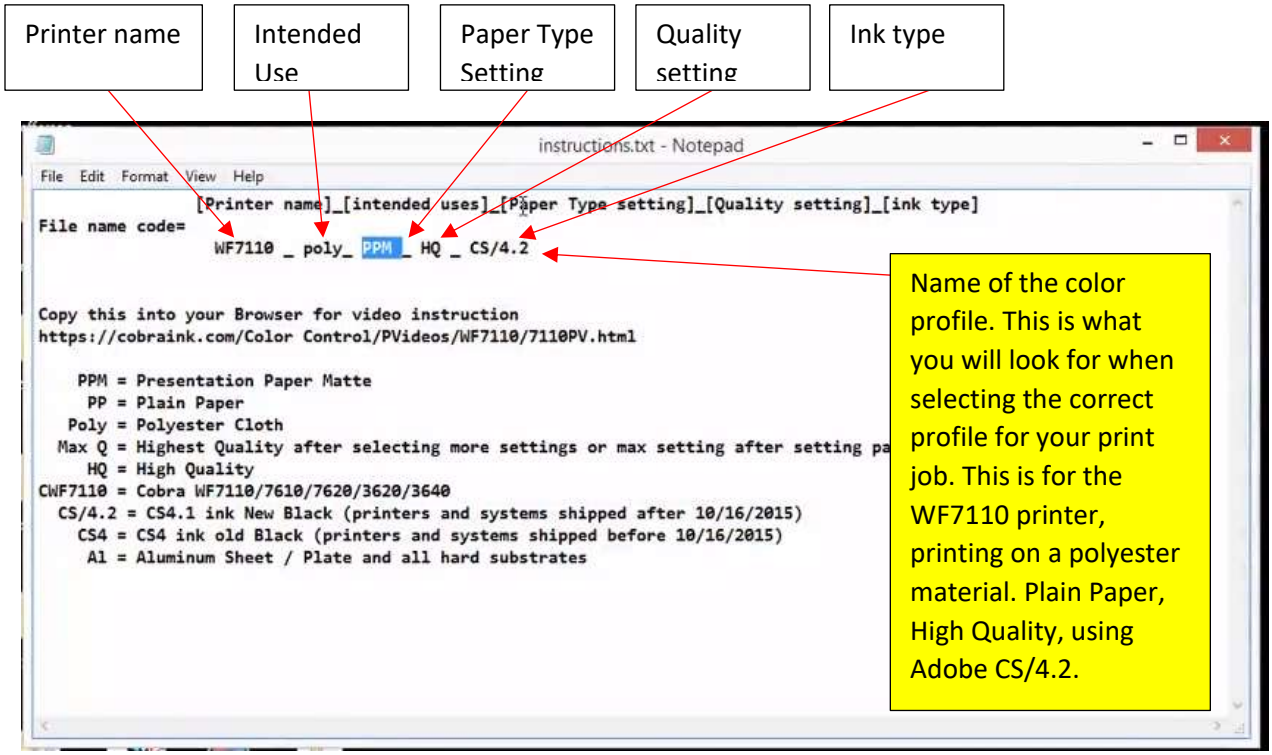
**A**: **Dye** is for general office printing, photographs, and screen printing. **Pigment** is for general office printing, photographs, and doing cotton blended shirt transfers. (50% and higher) **Sublimation** ink is for doing poly coated substrates, license plates, phone cases, mouse pads, coffee cups, and poly clothing. (65% and higher)

## Color Profiles

Color Profiles have been installed on each of the Epson WK3260 printers, one for each type of ink – Pigment or Sublimation. These profiles have been obtained by the ink manufacturer. These color profiles tell the graphics program/printer how best to print for that fabric

### Understanding Color Profile and How To Use Them

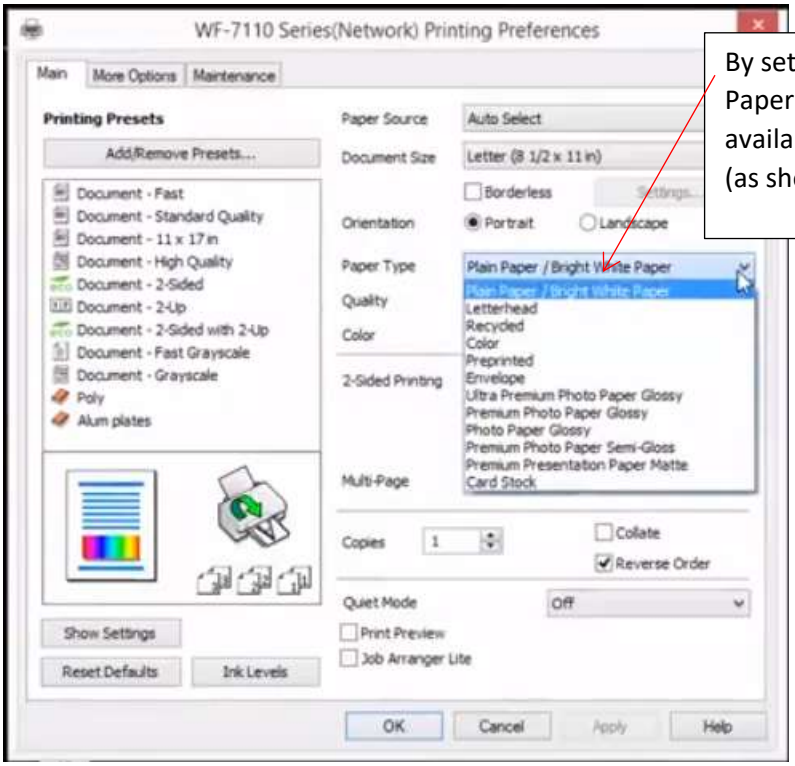
### How to read the Color Profile code.



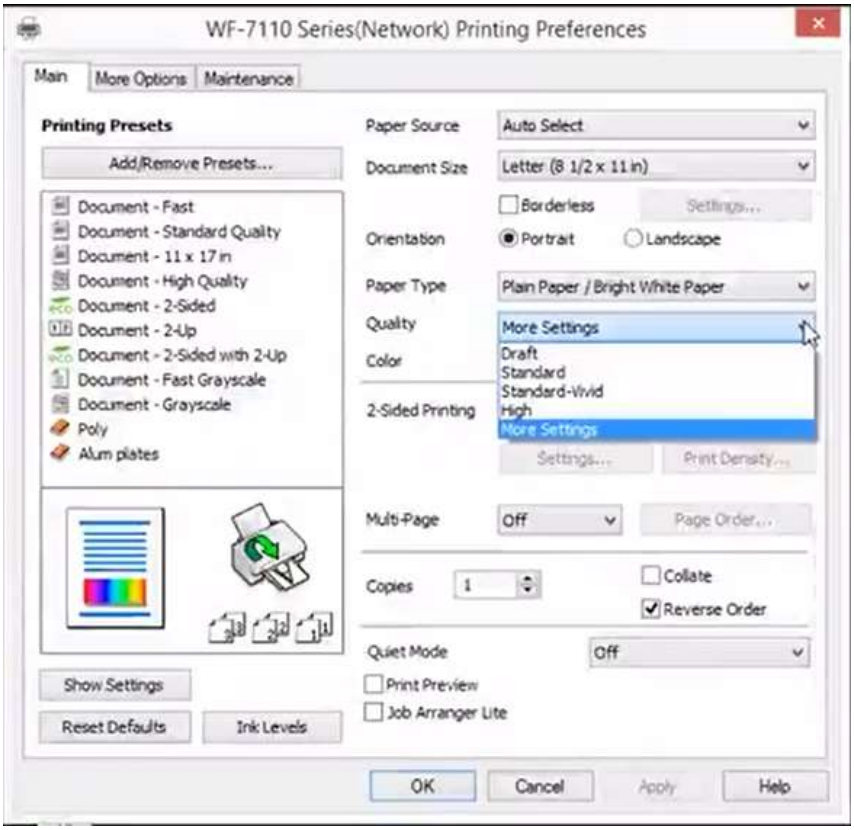

Setting up a color profile on the printer

Make sure that CorelDraw is closed.

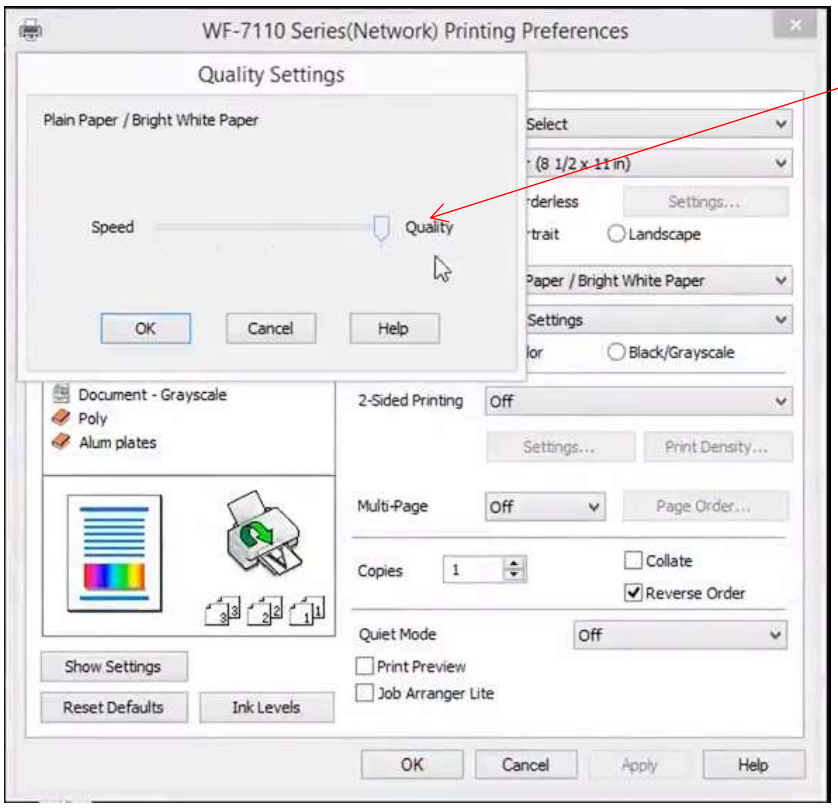
Go to the Windows button in the lower left hand corner. Right click, go to Control Panel, Printers and Devices, Select the **Epson WF 3260**, right click and go to **Printing preferences**.



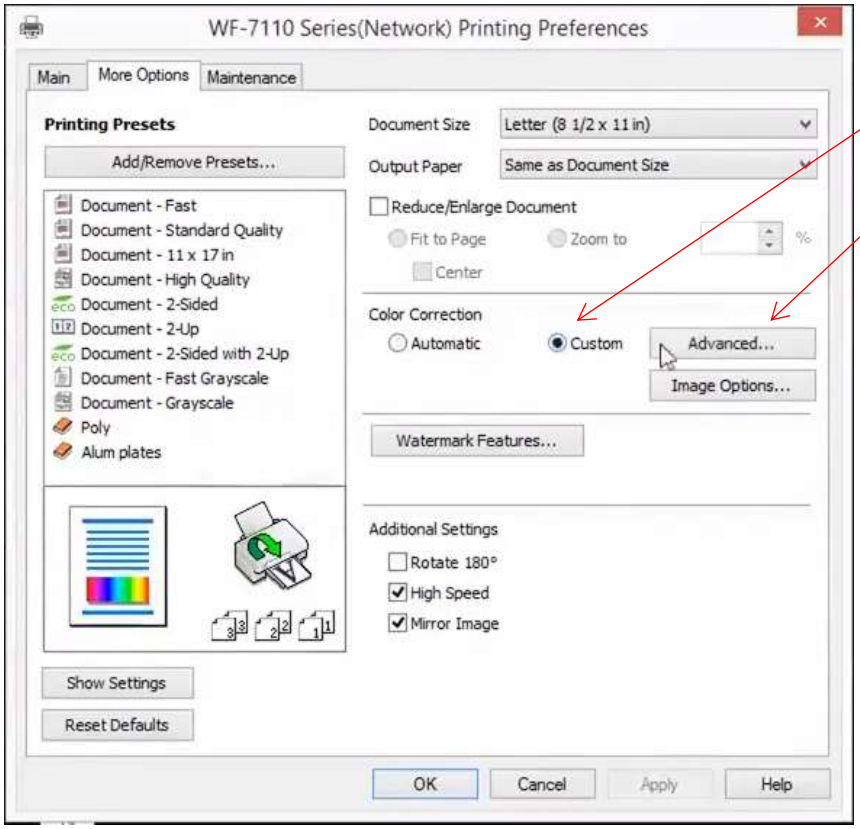

By setting the Paper type to Plain Paper you have more options available under the Quality selection (as shown in the illustration below)



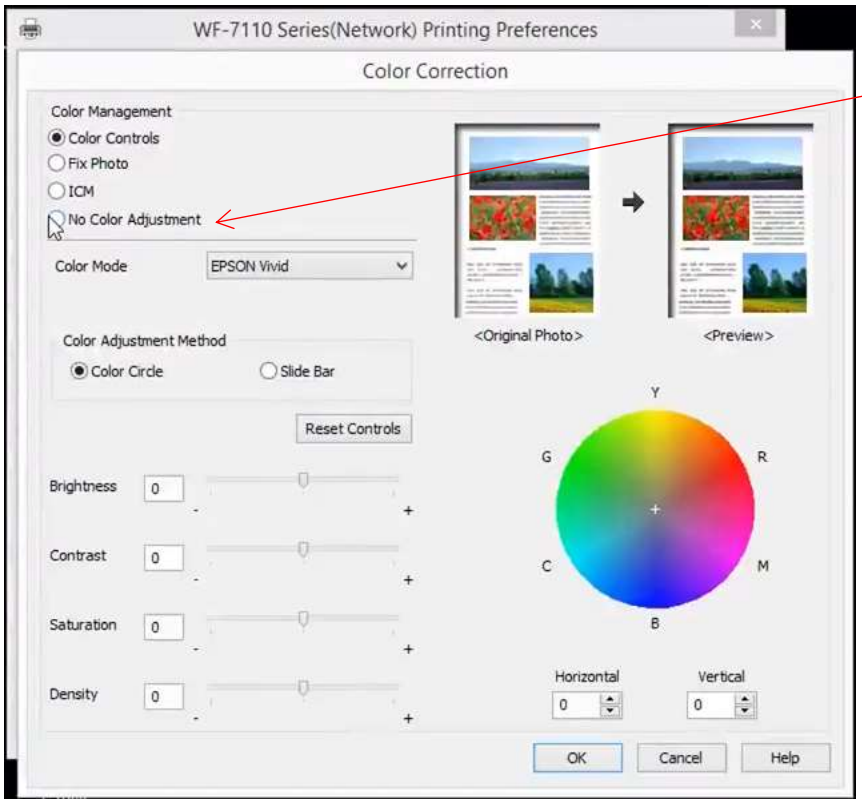

With Plain Paper selected, go to the Quality tab and select “More Settings”.



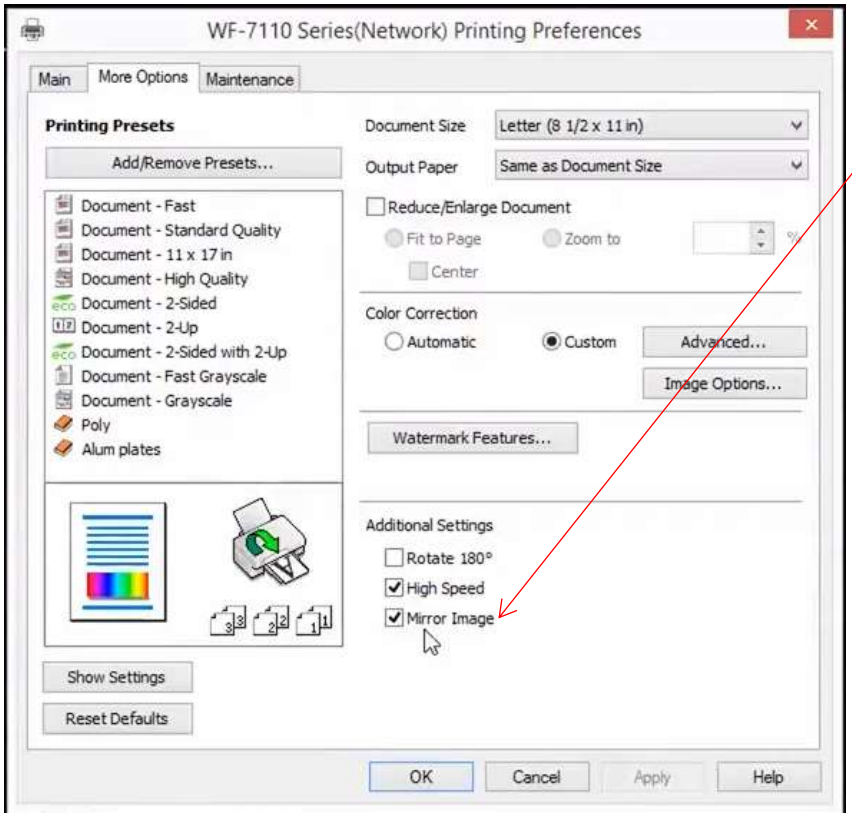

Move the bar to the highest quality setting available.




Under “Color Correction” select the “Custom” radio button and click on the “Advanced” button.

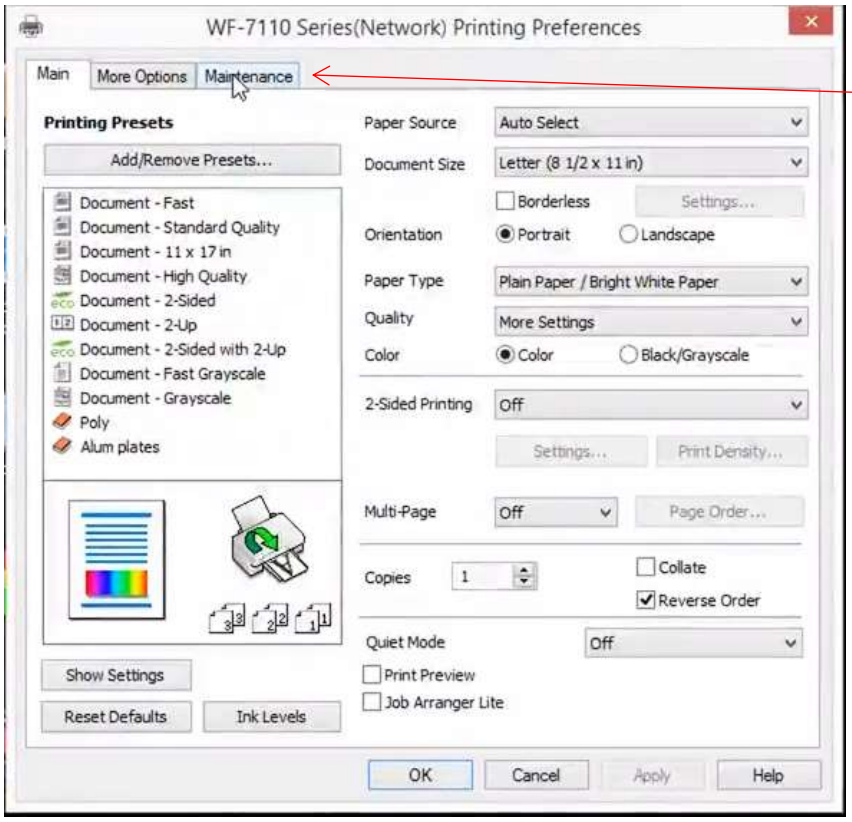



Under “Advanced” select the “No Color Adjustment” radio button. Then select “OK”. This forces the printer to use the Color Management you select rather than the default.

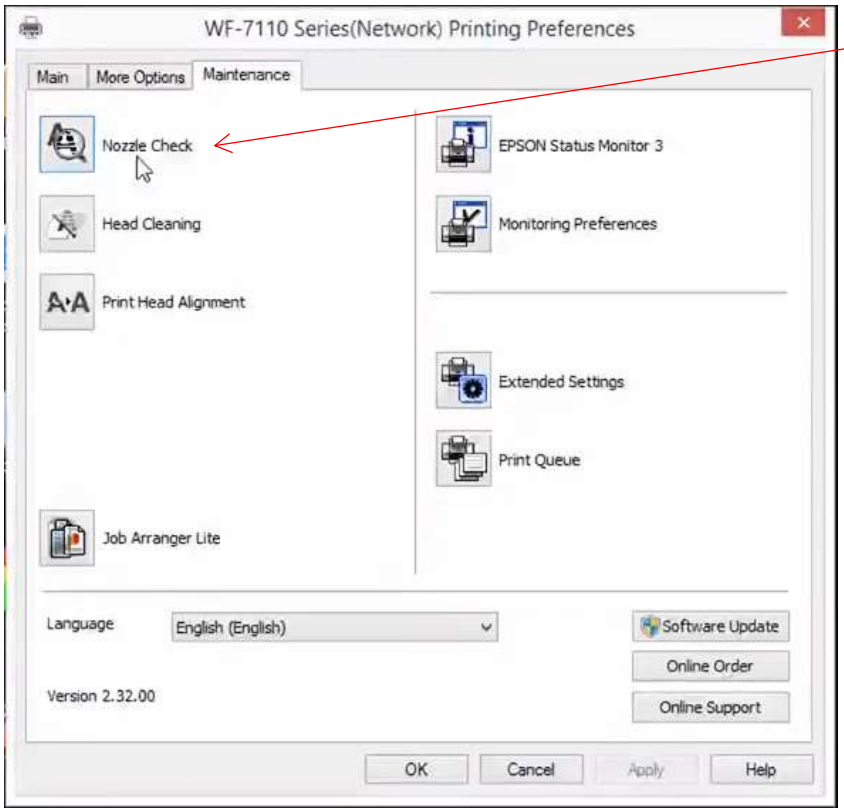



Here you can select to always print the “Mirror Image” and it is done automatically. *This has NOT been set up to automatically Mirror because in previous instructions you are instructed to do this in CorelDraw, which would cancel out this setting and not reverse the image.*

Select “OK”.



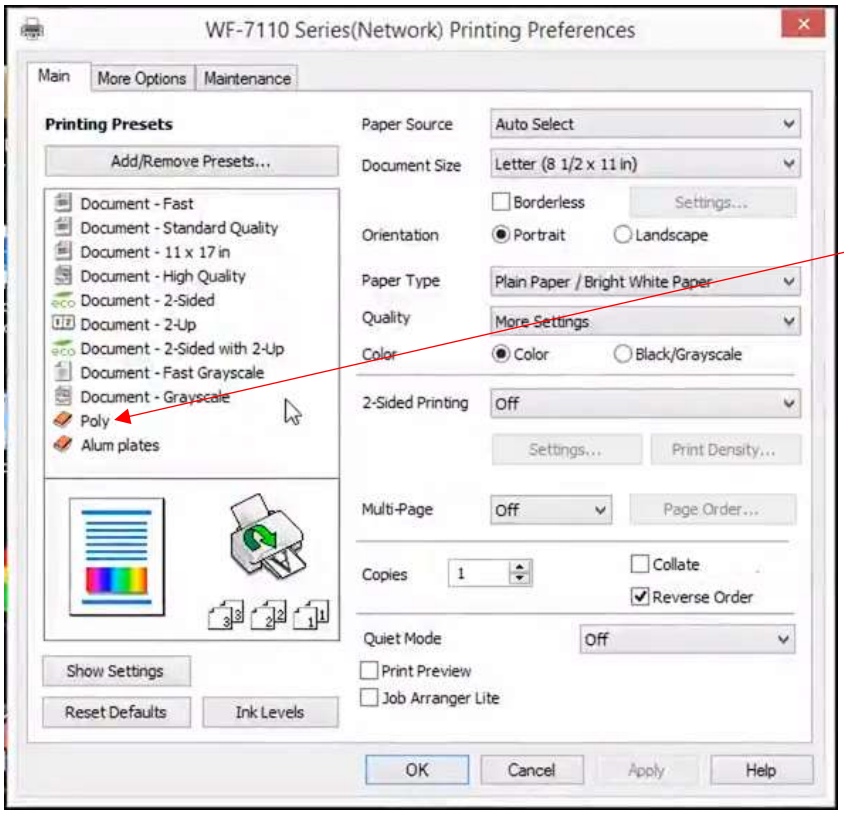

Now select the Maintenance tab.



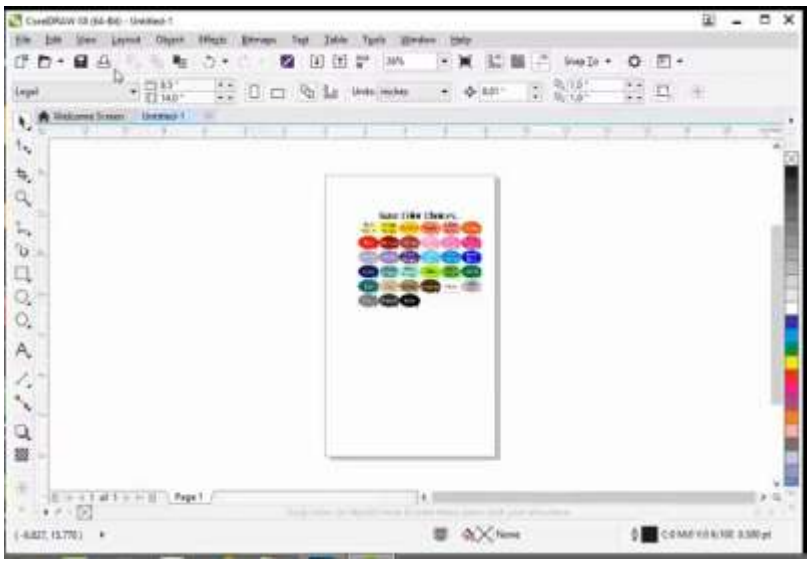

Select “Nozzle Check”. This prints out a test page and you are asked if you want to do a head cleaning. **Make sure you don’t have the transfer paper loaded yet.** It’s better to do this on cheaper paper. If the printout looks good, you would say no the Head Cleaning. If it is streaky or coverage isn’t what it should be, proceed with the Head Cleaning.

Do Not mess with the Print Head Alignment! Cobra Ink warns that 99% of the time this causes more problems if not done correctly.

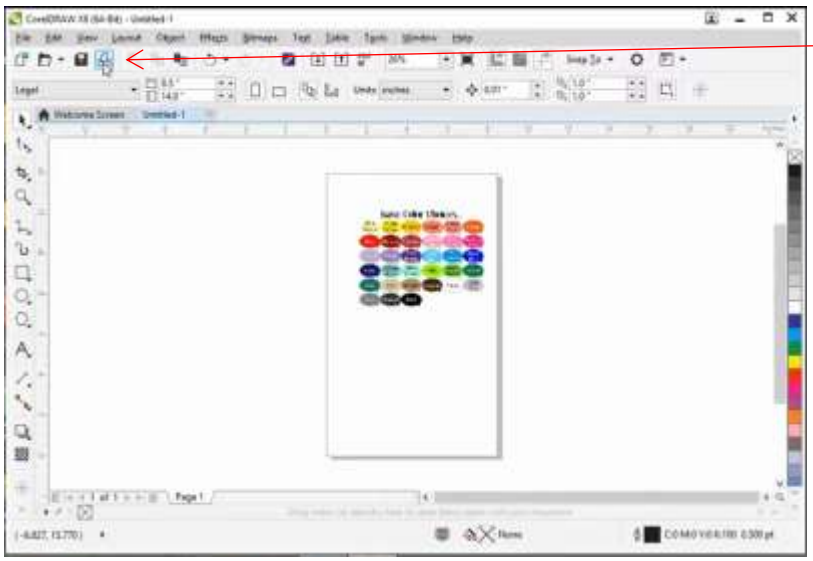
Select “OK”.



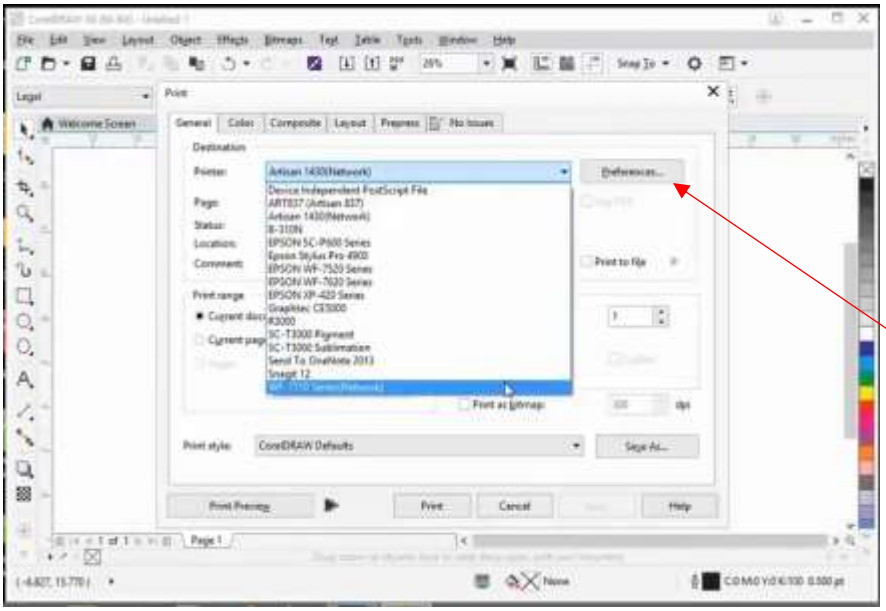

Here you can see the presets that have been loaded already. Since we don't use Aluminum Plates this shouldn't be selected. The Poly is one that we will use.



Now open a graphic file in CorelDraw.



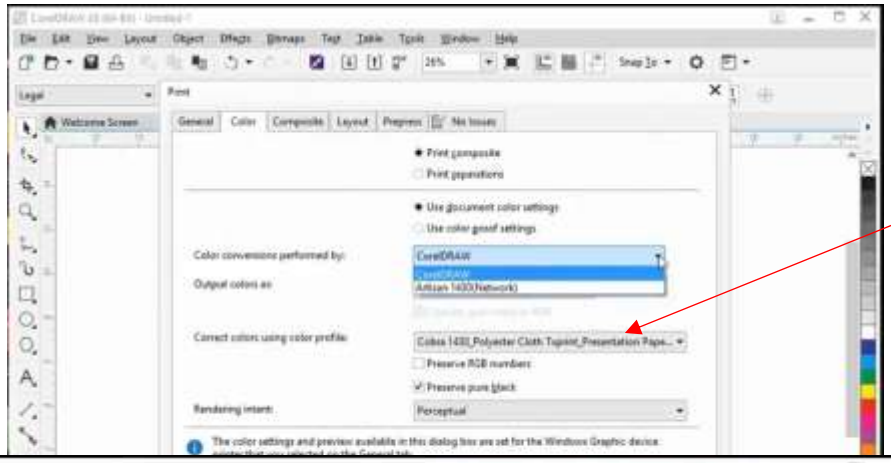
Click on the “Printer” icon.



Select Epson WF-3620 or the Epson WF-3620 (copy) depending on which is set up as sublimation or pigment (there should be a label on the printer designating which is which).

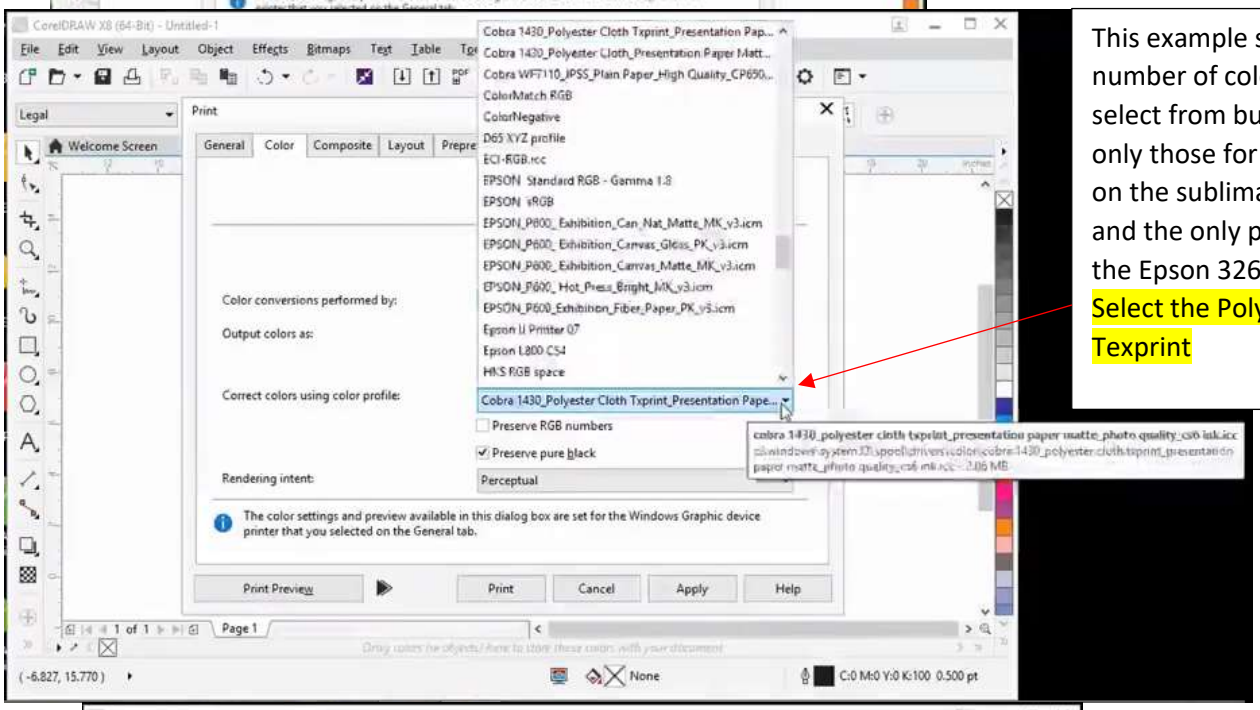
The printer dialog box opens and you select the correct printer, which is the Epson 3260 (copy).

At this point you can check the preferences that had been set up previously.

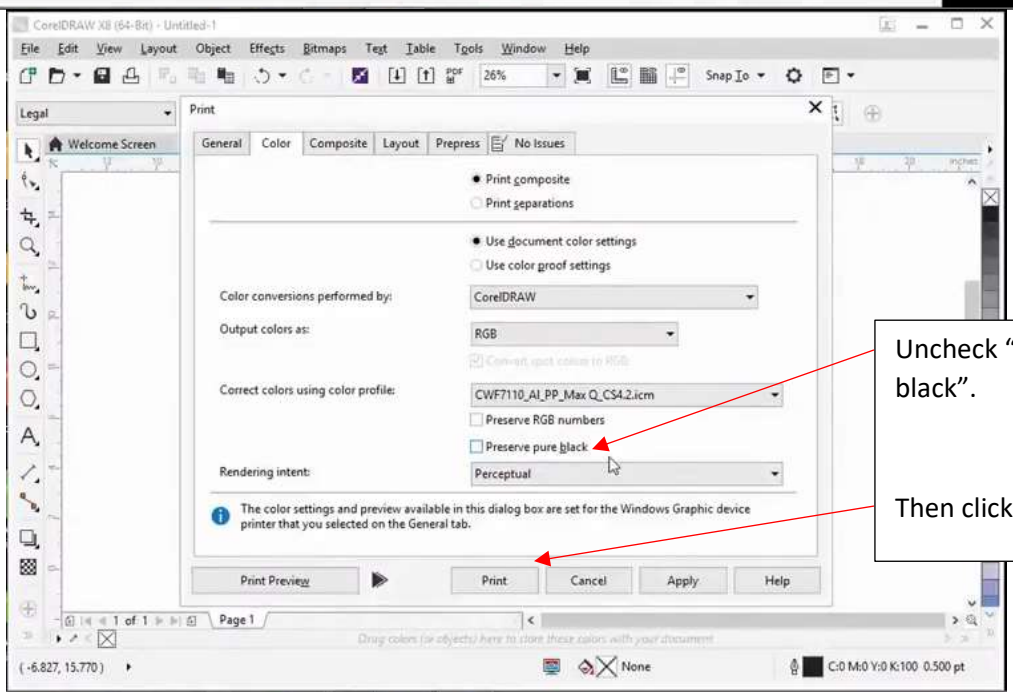


Click on the “Color” tab.

Select “CorelDraw” for the “Color conversion performed by”



This example shows quite a number of color profiles to select from but we need only those for sublimation on the sublimation printer and the only printer will be the Epson 3260 (copy). Select the Polyester Cloth Texprint



Uncheck “Preserve pure black”.

Then click on “Print”