

# **MODELX** TRAINING





### TRAINING OUTLINE

WWW.DTGCONNECTION.COM

#### Back of the printer

### INSTALLATION

#### FIRST THINGS FIRST:

- Plug in waste ink tank & set bottle on the ground
- Insert CMYK ink into printer
- Shake W1 & W2 for 30 seconds before plugging into printer
- Plug ethernet cable from printer to PC
- Connect power cord & switch back switch to | (ON)
- Press & hold power button until blue light starts flashing then let go
- Turn heat press on & set to 330° F



## Heat Press Equipment

- All garment inks are required to reach a certain temperature and time to be properly cured, if this temperature or time is not properly adjusted on your heat press you risk the possibility of the shirt washing out during the wash cycle. Keep Heat Press at least 10'ft from printer.
- Heat Press Setting: White or light shirts using <u>only CMYK</u>: 356°F (180°C) for 30 seconds
- Anything using white ink: 330°F (165°C) for 90 seconds.
- All prints can be run at this longer/colder setting if you are alternating from light to dark.
- <u>Pressure</u> Pressure should be set to a Medium to medium –high settings. If not enough pressure is applied the ink will not cure and will wash out. 40-50 PSI
- Location Heat press should be set at least 10 feet away from the printer. Having the heat press too close can heat up electrical components and damage them.
- Heat press Protective sheets Always use a heat press sheet to protect both the shirt and the heat platen. Below are some acceptable heat press sheets
  - DTG Connection Soft Touch paper / Parchment paper
  - Stahls Kraft Sheets
  - Teflon Sheets creates a very shiny finish to the image.
- Good heat ensures the ink cures into the shirt and good washability





### IMPORTANT NEED TO KNOWS

- Always leave your printer on to allow the machine to perform the necessary automatic maintenance.
- Any time white ink is loaded into the Model X the printer MUST run the auto maintenance to avoid clogs. If you know you will be away from the printer for more than 3 days, contact Technical Support for flush instructions.
- Remember, if the printer cannot clean itself while white ink is loaded for long periods of time and the print head carriage warranty may be voided.

#### • Do not run the printer dry.

- The printer will stop performing the auto maintenance if any of the ink carts reads 0%.
- It is recommended you replace your ink carts at 5% to avoid the possibility of your machine running dry and stopping the auto maintenance cycle.
- Remember, if the printer cannot clean itself without ink loaded and the print head carriage warranty may be voided.

#### Perform daily and weekly maintenance.

- Each DAY it is recommended that you run a nozzle check.
- This will help you understand how your print heads are firing and will help you to see potential issues before they become problems that can't be solved.
- Each week, if white ink is loaded, you MUST clean the heads and the maintenance station, EVEN IF you're not printing with the machine.



## ENVIRONMENT SPECIFICATIONS

Temperature (inks) 50°F to 90°F (10°C to 32°C).

> Humidity Range: 45% to 80% RH

Humidifiers must be EVAPORATIVE (no vapors)







### **SUBSTRATES**

- DTG uses aqueous (water-based ink) and works best with cotton fabrics.
- The quality of the garment can affect the outcome of your print!
- For BEST results, we recommend 100% Combed Ringspun Cotton
- Its always recommend to test the fabric first to see what kind of color result you get, in some cases different fabrics will require different ink settings.
- For high poly blends or 100% Poly, we recommend to do DTF (Direct to film)



## PRETREATING (DARK GARMENTS)

- Pretreat is a liquid primer that is necessary for the white ink to adhere onto a colored garment.
- You MUST use pretreat if you are using white ink on your print
- Pretreatment can be hand sprayed or applied with a pretreatment machine
- Pretreat must be applied evenly and consistently onto a garment for best print results.
- A higher quality garment will require less pretreat, while a low quality one will require more
- Not all shirts are the same and testing may be required to find the correct amount to apply.
- You can buy shirts that are already pretreated and skip the step of spraying them yourself.

## PRETREATING (LIGHT GARMENTS)

- Pretreating light garments using CMYK inks is optional
- You need to use a treatment for dedicated for lights only, dark treatment will not work for CMYK without white ink
- You can achieve brighter, sharper prints using a light pretreatment
- Light treatment works with white poly as well!



## **GRAPHIC SPECIFICATIONS**



- True to size
- 300 dpi resolution
- Transparent background
- Create images in RGB
  - Cropped to exact size of graphic (no dead space)
- Save/Export as .png
- If you have black in going onto a black shirt, omit the black in the graphic, you will get a nicer print!



### **TURBORIP**

- Images must be placed into TurboRIP before sending the job via ethernet or USB to the printer.
- You cannot just plug a image onto a USB directly into printer
- TurboRIP is NOT a graphics program.



### PLACING AN IMAGE

You can either drag and drop an image into the white grid area of TURBORIP or go to FILE – PLACE IMAGE – then open the image you want.

#### **Printer**

- Model X File : File saves to PC then transfer to USB
- Model X: Send job via Ethernet

#### **Resolution (Quality Modes)**

- 4 pass (Speed)
- 8 pass (Fine)
- I6 pass (Superfine)

#### Platen

 Ability to change the platen templates to match what you are using on your printer (Medium is default)

#### Ink Drop Size

• Ability to change drop sizes. (rarely used)

#### Sizing

- Scale (Size by percentage) Leave the oval checked to keep aspect ratio of image
- Size (You can type in size by inches here)
- Must hit APPLY to confirm the changes

#### Position

- X offset (left to right)
- Y offset (top offset)
- You can center or rotate graphics simply by hitting the according buttons



#### **Background**

- Gives you capability to remove solid background off a graphic. Take the eyedropper tool and select the color you want to remove then move the Color Tolerance slider up to 10 to remove it cleanly.
- Doesn't work with all backgrounds, best to do it beforehand in graphics program

#### White Ink

- Check the ADD WHITE UNDERBASE box to activate the white ink
- Leave GREYSCALE checked to save on ink cost
- Select **PRINT WHITE ONLY** if you don't want a color pass on a graphic
- You also have an option to ADD WHITE HIGHLIGHT to 100% white areas

#### White Ink settings

- Option to choose between 4 pass or 8 pass white
- 8 pass is recommended for high quality white

#### White Ink Adjustments

- **Opacity**: If you have an image that has feathered edges, move the slider to -20 so the white will have a soft edge like the color
- **Choke:** If you are getting an unintended white stroke around your entire image, you can reduce the white ink by raising the choke. Each number up reduces the white by a millimeter.
- The drop down menu allows you to increase or decrease the amount of white beneath those color channels.



## **Operation Display**



## Maintenance Screen



## Nozzle Check & Auto Cleaning



- You can check the nozzle condition with this button.
- Make sure to check the nozzle condition before printing T-shirt.
- If there is nozzle clogging, perform head cleaning until the problem is resolved.



If there is nozzle clogging (missing lines) or faded lines, proceed with cleaning procedure.



You can press this button to perform automatic print head cleaning.



In this box, user can choose the channel to clean, with the option of normal and strong.



- Prepare the A4 transparent media to check nozzle condition (to check white nozzle, transparent media is required).
  Prepare medium-size platen. Nozzle check pattern is based on
- medium platen, aligned on top-center. (Additionally, all built-in patterns are based on this platen).
- 3. Attach media on the platen aligned top center using masking tape or sticky spray.
- 4. Move the platen to the printing position, press [Nozzle Check] button.
- 5. And check the results of printed nozzle check pattern.

## Recent Jobs Menu



### **PRINTING - BEST PRACTICES**

Always press the shirt 5-10 seconds before printing. This will remove the moisture and lay down all fibers on the shirt.

Be sure not to touch the area where the print will go after you press. If you do, the fibers of the shirt will stick back up.

Lay the shirt on the platen with the collar on closest edge to you. Make sure the collar falls off the edge of the platen.

After you put the hoop on, look at the shirt to see if there are any raised bumps. If so, gently pull the sides and corners of the shirt to flatten it.

Make sure the print area is always raised above the seams of the shirt by using the correct platen or placing something underneath.



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