UNCRATING AND UNPACKING

A. Inspect the crate for signs of physical damage
   1. If damage is noticed, note it as well as document it with pictures from a camera or cell phone.
   2. This does not necessarily mean the equipment is damaged
B. Carefully look at the "Tilt Watch" indicator
   1. This will be "Red" if it has been tipped or jarred.
C. Tools required;
   1. Razor knife or scissors
   2. Phillips Screwdriver (or drill with Phillips bit or power screwdriver)
D. The crated weight of the machine is approximately 340lbs, and the machine itself is approximately 150lbs.
E. Remove the screws in the lid (top) of the crate.
F. Remove the top
G. Remove the surrounding contents of the crate (not the machine)
   1. Compare the contents to your packing slip
      a) Report any discrepancies to the shipping liaison

NOTE

Contents vary based on promotion and how you ordered the equipment; standard, with extra ink or platens, etc.

UNCRATING AND UNPACKING CONT.

H. Remove from crate with the assistance of extra help

IMPORTANT

DO NOT lift from front and/or back bed area's, be sure to lift from the sides of the machine

I. Be sure to place on an EXTREMELY sturdy table, that does not wobble nor shake, as this may compromise your prints
J. **Carefully** remove the wrapping and/or padding
K. Remove any/all tape from the machine
L. Remove the protective film on the top cover of the machine
M. Check the "shut off" valve on the waste bottle
    1. Make sure it is all the way "open" (the wheel is up at the top)

Click here for video: Uncrating and Unpacking

POWER AND USB CABLES

A. Plug the power cord into the back of the machine
   1. Plug the other end into a standard wall outlet or a UPS

NOTE

We strongly recommend using a quality UPS to protect your investment

   2. Turn on the power switch next to the power cord
      a) Power may or may not come on at this time

B. The USB cable must pass through the support bracket (guide), before plugging it into the machine
   1. This is to keep the cable away from the platen, as the machine prints
   2. Leave a soft bend in the cable

Click here for video: Power and USB Cables

ANATOMY

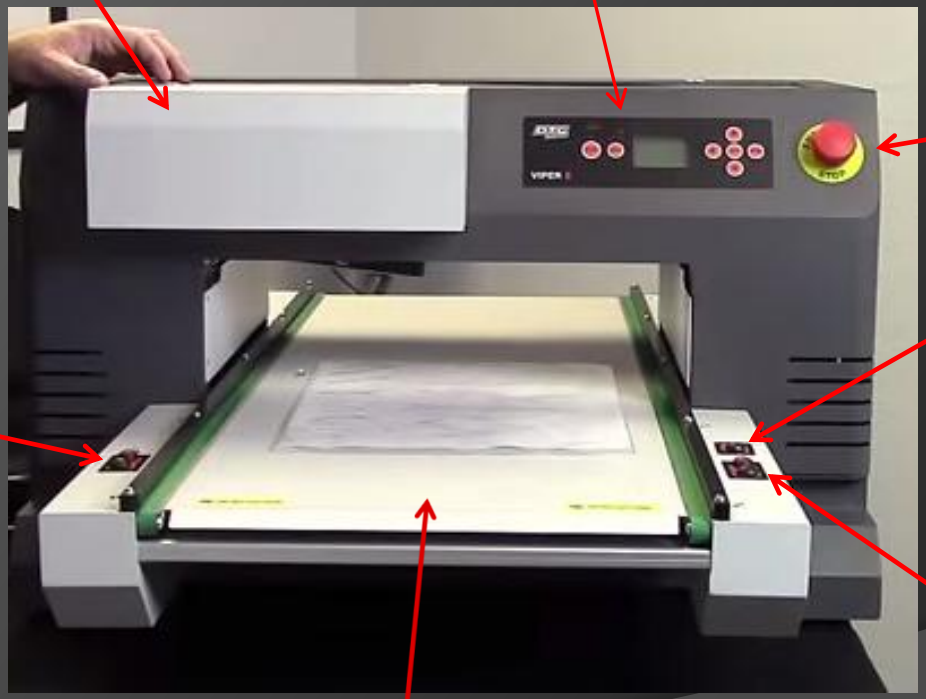
Cartridge Release Levers

Ink Cartridge Bay

Door Sensor Switch

Ink Cartridge Cover

Control Panel



Emergency Stop

Layer Button

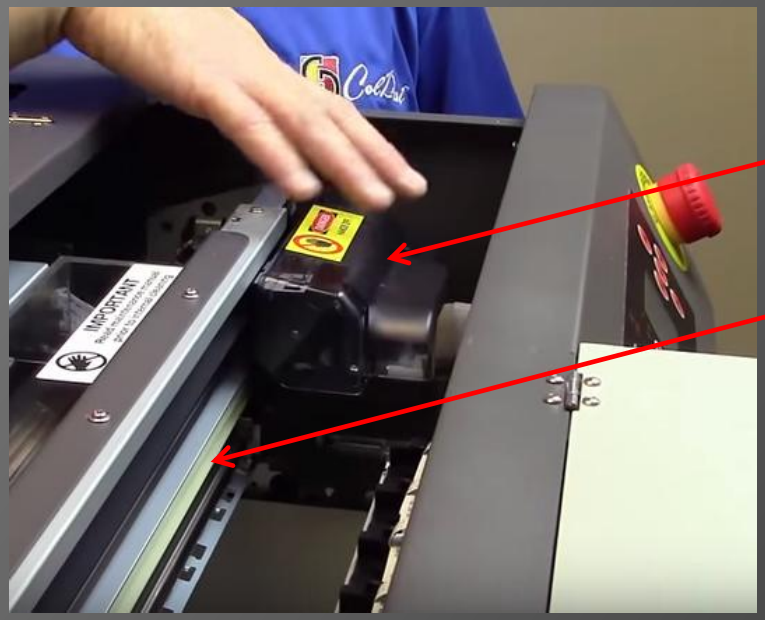
Bed Up and Bed Down Buttons

Bed Load and Bed Eject Buttons

Bed

ANATOMY CONT.

ANATOMY CONT.

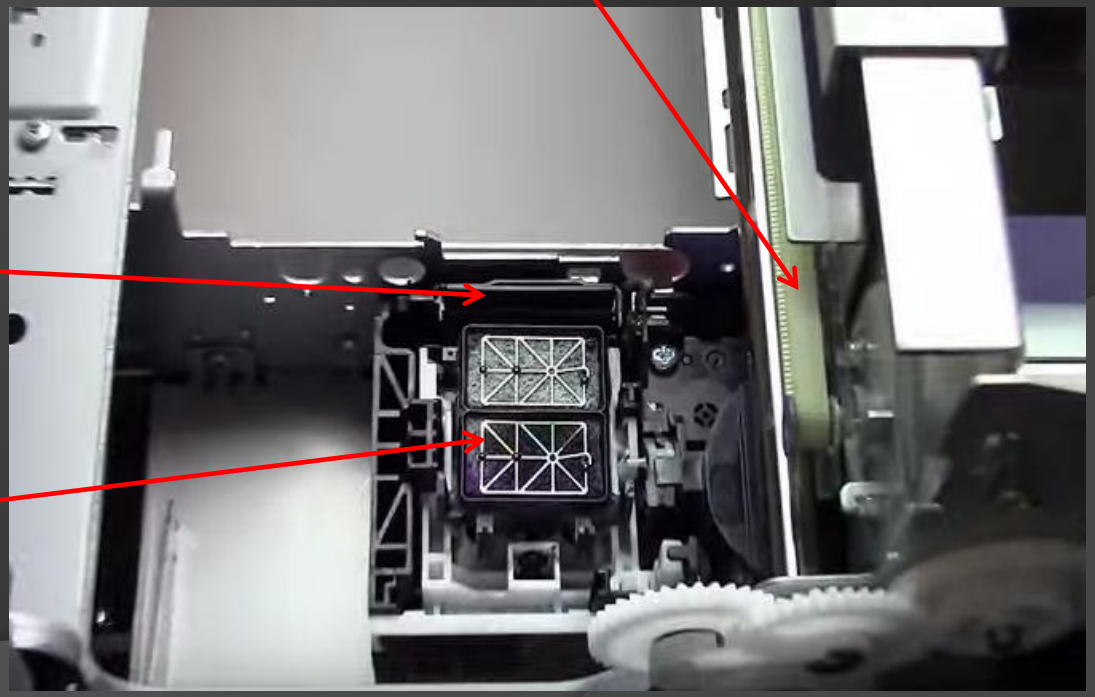


Print Head Carriage – Inside is the Print Head, as well as the Dampers

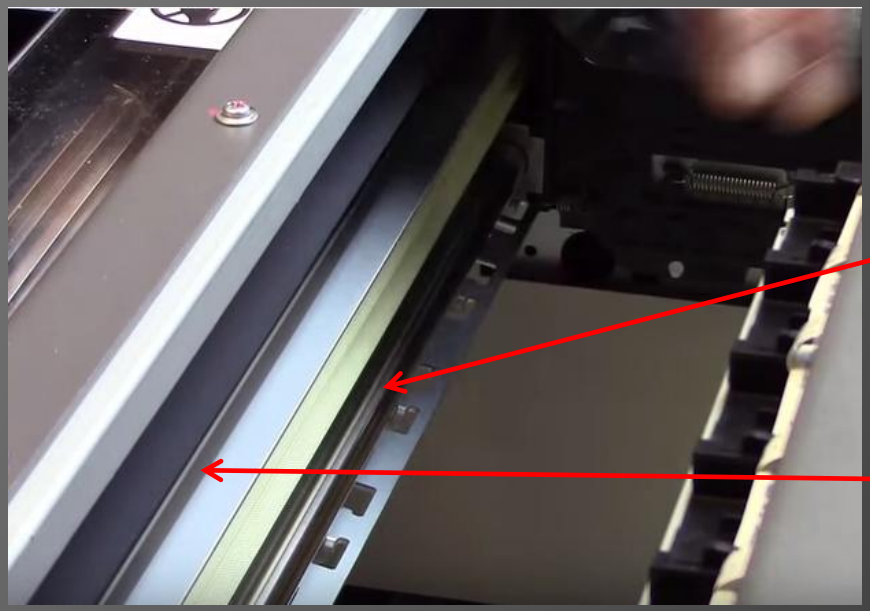
Carriage Belt

Wiper (Blade)

Capping Station



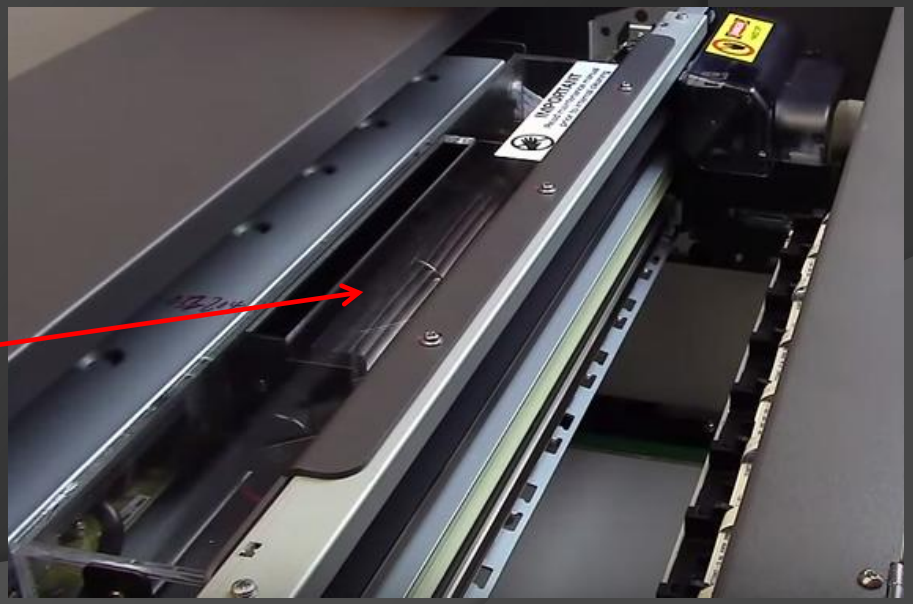
ANATOMY CONT.



Carriage Rail

Endcoder Strip

Overspray (Atomizing) Fan

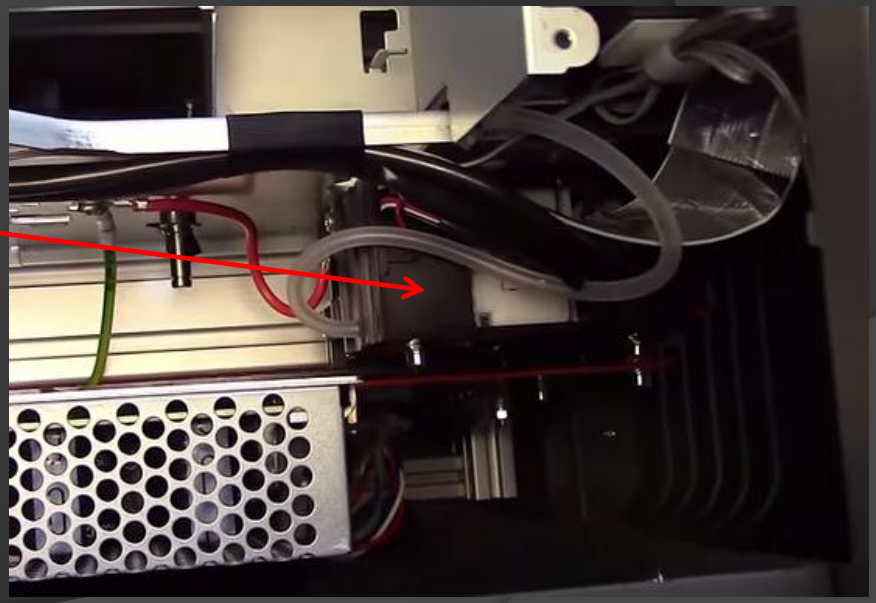


ANATOMY CONT.

Head Ribbon Cables

Ink Tubing Harness

(Ink) Pressure Pump



Click here for video: Anatomy of the Viper2

ALIGNING THE PLATENS

EXTREMELY IMPORTANT

This should be done BEFORE you perform the "Loading Inks" procedure

A. Tools Required
   1. A height gauge
      a) We like using **three quarters** – readily available in most households
      b) Can be almost anything – an Allen wrench, a piece of tubing, a piece of wood, etc.
   2. Crescent (adjustable) wrench or a 10mm box wrench
   3. The platen
B. All four corners of each platen are adjustable
   1. This ensures that they remain level, as to provide the best prints
   2. Adjust by turning the nuts on the underside of the platen

NOTE

When adjusting, you must measure from the surface of the platen to the bottom of the print head, not down to the base of the platen

Adjustment Nut

ALIGNING THE PLATENS CONT.

C. Remove the top cover
   1. Slide it to one side of the machine or the other (it should be towards to waste bottle door, but if that does not work, slide it towards the end of the machine away from the Emergency Stop button
   2. Lift up on the cover to remove it
      a) Power may or may not come on at this time

D. Release the print head from the capping station, but with power still being supplied to the bed functions
   1. Press the “power” button
   2. **It is NOT powered off until you hear the machine beep**

E. Now press the “power” button to power back up

ALIGNING THE PLATENS CONT.

1. Watch the print head. When it leaves the capping station and travels to the other side of the machine (side away from the control panel), then press the “Emergency Stop” button

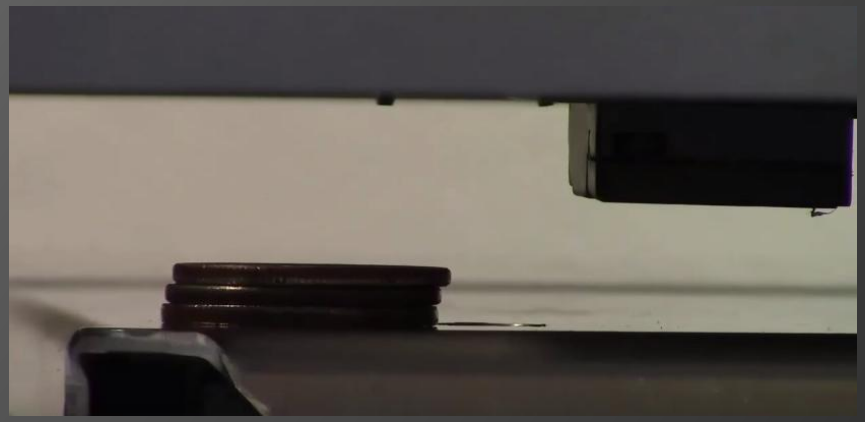
C. Release the “Emergency Stop” button by turning it clockwise, not by pulling it out
   1. This will give power to the bed operations and gap height sensors.

D. Place the stack of Quarters (or whatever you are using as your gauge), in one of the corners of the platen

ALIGNING THE PLATENS CONT.

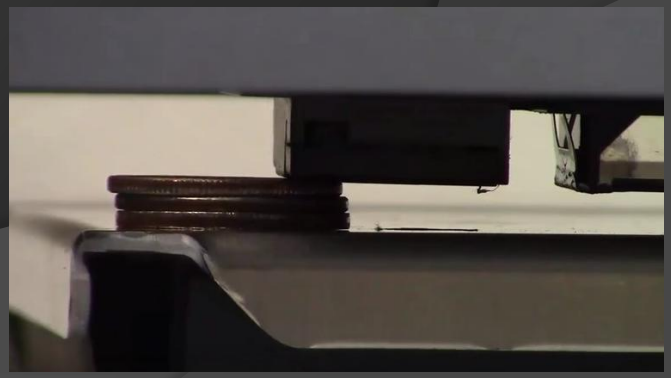
D. Push the platen into the machine by hand, until the Quarters would be in the path of the plastic piece, to the left of the print head

E. Bring the print head over so it is just off to the side of the Quarters (gauge)



F. Using the “Bed Up/Down “ buttons, raise or lower the bed until the Quarters (gauge) are even with that plastic piece on the head carriage, to the left of the print head

1. As you check this, **be sure not to be pushing down on the print head**, as the slightest amount will alter the height.
   a) Power may or may not come on at this time



ALIGNING THE PLATENS CONT.

G. Press the "Bed Up and Bed Down" buttons simultaneously, to turn off your gap (height) sensors
   1. The green light above the buttons will turn amber when done correctly
      a) This will prevent the bed from changing height, if the sensor beam is broken, which ensures we are making each corner of the platen the same distance from the print head

H. Now move the stack of Quarters to another corner of **that** platen.

I. Check the relationship between the quarters and the plastic piece to the left of the print head
   1. If it **is** the same height, move the stack of quarters to the next corner, and check the height relationship at that corner of the platen
   2. If it is **not** the same, using your wrench on the adjustment nut, on the underside of the platen, located at the corner where the Quarters are, adjust it so the quarters are the same exact distance from the plastic piece next to the print head.

Adjustment nut

J. You will be slowly, pulling and pushing the platen, into and out of the printer, by hand, so the quarters will be in line with the print head, also to get to the adjustment nut

ALIGNING THE PLATENS CONT.

K. Repeat Steps H and I for all of the corners of that platen.
L. When done, it is a good idea to go back and re check each corner
M. Repeat this process for all of your platens

NOTE

The more accurate you are, the better your prints will be (if not done properly, you will have parts of your prints that are sharp and other areas which are not). If, when you are setting the height of the platens before you print (or during the printing process), your platens keep tripping the height sensor, that indicates that your platens are not level, and you should go through this process again.

N. When finished, don't forget to turn your gap (height) sensors back on by pressing the "Bed Up and Bed Down" buttons simultaneously
   1. The light will change from an amber color, back to green

Click here for video: ALIGNING Platens

PLATENS AND LOADING PLATENS

A. The Viper2 uses a 4-2-1 platen system
   1. In a 4 up configuration, you can put 4 small items or print 4 small prints (such as left chest)
      a) Each measures approximately: 7 ¼in X 11in

   2. In a 2 up configuration (using the two plastic adaptors), you can do two standard items or prints (such as a shirt front or back)
      a) Each measures approximately: 11in X 16in

   3. In a 1 up configuration (using the single large plastic adaptor), you can do one very large item or print
      a) This measures approximately: 16in X 24in

PLATENS AND LOADING PLATENS CONT.

NOTE

Make sure the plastic adaptors sit **flat,** especially in the gaps between the platens (if it does not, you might have to shave the foam down slightly, so they do lay flat). Always be sure to **store the platen, and the plastic adaptors FLAT** when not in use, so the don't become warped.

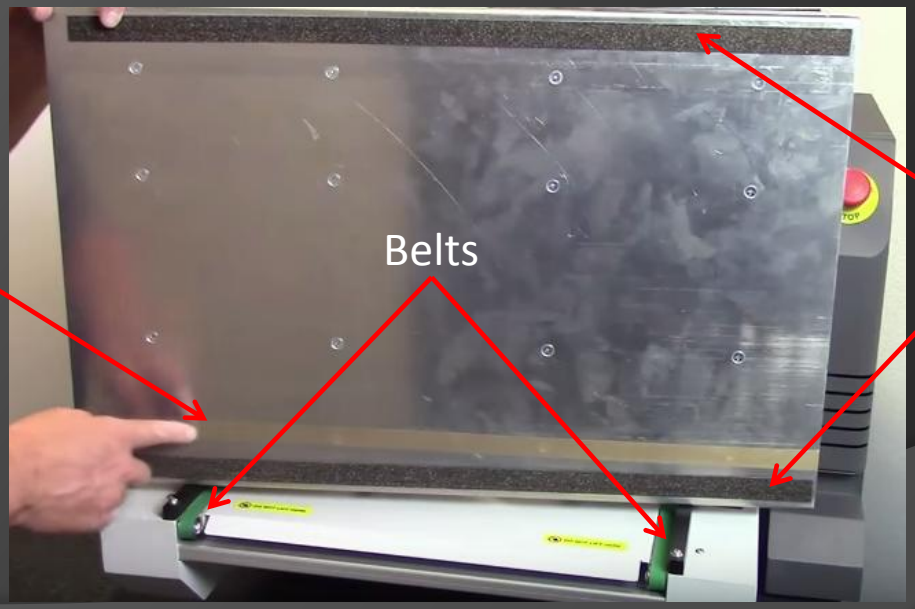
B. Always lift your platens from the base, **not** from the platens themselves.

Incorrect Way

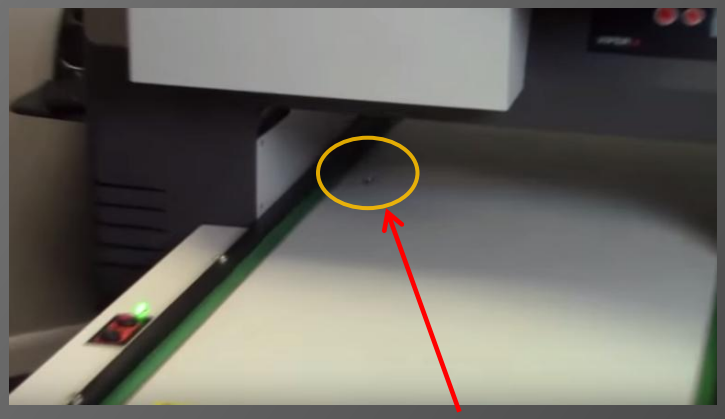
Correct Way

PLATENS AND LOADING PLATENS CONT.

C. The cork strips, on the bottoms of your platens, helps prevent the platen from slipping on the belt
   1. There is one on each edge of the platen
D. The Teflon tape covers up the screws, so they don't get stuck on the media sensor switch
   1. There is only one, so you need to make sure you load the platen in such a way, as the Teflon tape is positioned on the side of the machine where the media sensor is located.



PLATENS AND LOADING PLATENS CONT.



Location of media sensor

Close up of media sensor switch

E. When loading the platens with garments, place the platen on a flat work surface (such as a sturdy table)
   1. It is usually not convenient to load the platen while it is on the machine
      a) To be more efficient when running production, it is a good idea to have multiple platens. You load a set while the other is on the machine printing.
   2. When loading a 2 up configuration, the collar goes towards the control panel (away from the side where the Teflon tape is). For a 1 up or 4 up configuration, the collar is out towards the front of the machine
      a) This also depends on which way the image is rotated (the software rotates automatically, which is a setting in your media setup)
   3. Hold your hand on the shoulder seam, with the outer edges of your fingers running along the outer edges of the platen
      a) This will guide you and help keep the garment straight

PLATENS AND LOADING PLATENS CONT.

4. Slide your hands until the collar is just off the top edge of the platen
5. Make sure the garment appears straight

NOTE

The key to loading platens is the ability to reproduce the way you loaded the platen, so you get consistent placement of the image on the garment

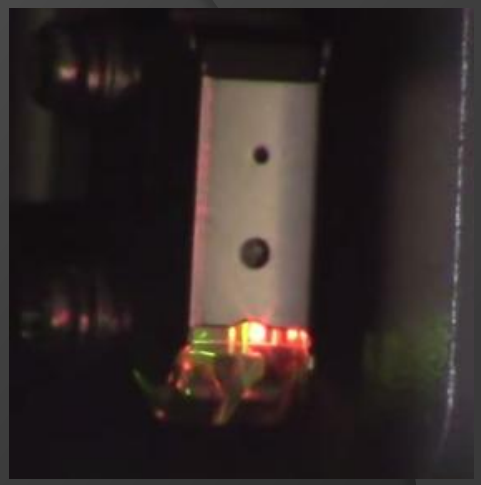
6. Tuck the collar and the bottom of the shirt, at the same time
   a) When tucking, don't just push the material into the TucLoc (rubber sides). Instead, use a slight curling motion with your fingers, so the material is smooth and taught, but not stretched.
   b) Be sure not to brush the surface of pre treated garments, as this will disturb the surface fibers, thus compromising the quality of your prints
   c) Be sure NOT to try tucking the material where there is no TucLoc (the empty space between the platens)
   d) All of your excess material gets tucked to the underside of the platen, or on very large garments, tuck material into the TucLoc area
7. Now tuck the two sides in

NOTE

Always remember, **the print surface must be the highest flattest surface.** We can accomplish this by using different platens and/or by creating "jigs" to elevate the print surface

PLATENS AND LOADING PLATENS CONT.

There are two gap sensors. The one shown here is the one on the side of the machine away from the control panel. There is another one opposite this one, on the control panel side.



Close up of media height (gap) sensor

F. Push the loaded platen **slowly** into the machine, so the gap sensor is over the beginning edge of the garment.
   1. If you are printing in a 2 up configuration, and you are loading two garments, bring the front edge of the rear platen even with the "Bed Up – Bed Down" button light, which should place the beginning edge of the garment just under the gap sensors, by about ¼ in.

PLATENS AND LOADING PLATENS CONT.

G. Hold the “Bed Up” button, which starts out with the light “green”, until the bed (platen) stops rising, and the light turns “red.”
   1. Then release the button

H. The bed (platen) **will** drop down slightly, and the light will turn “green” again
   1. **If it does NOT, then the platen was not under the gap sensor properly, and you must re check the height**

NOTE

BEFORE you press the “Bed Load” button on the machine, you must first press the “Layer” button so that it is “lit” blue, if you are doing a print with multiple layers (as in printing a black or color shirt, where you are printing a white under base layer and a color layer – thus multiple layers).

PLATENS AND LOADING PLATENS CONT.

I. **SLOWLY** push the platen all the into the machine, by hand, so the gap sensor can scan the entire print surface, to find any high spots and to ensure the surface was flat, and that no loose areas are sticking up
J. Then pull the platen back out, SLOWLY, to the front of the machine, so the end of the platen is about ¼ in to ½ in in front of the "media" sensor
K. If the gap sensor was tripped, and the bed (platen) lowered, be sure to re load the garment on the platen (at least fix any loose/high areas), then repeat steps "G" through "K" as necessary.
L. Then press the "Bed Load" button
   1. This will load the platen into the machine
   2. If you get an "error", turn the power off , pull the platen out, then reload

PLATENS AND LOADING PLATENS CONT.

M. You can also load the platen closest to the back of the machine, if you are doing a single garment with the 2 up configuration, but that requires changing a setting in your software, so you can “choose” which platen you place the image on, each time you print.
   1. Go into the properties of the print queue(s), and under the “general” settings, under the “layout manager”, you would turn on the feature call “Show Import Template Job dialogue”.
   2. When you bring in an image to the Rip software, a dialogue box will pop up asking which platen you would like to place the image on.
   3. Then do Steps “G”, “H”, and “L” and then print.

Click here for video: Platens and Loading Platens