



## Printer Operation Tips

This bulletin reviews basic printer operation tips including caddy usage cautions, cartridge/service station cleaning and complete printer calibration instructions. For more information refer to the on-line training guide.

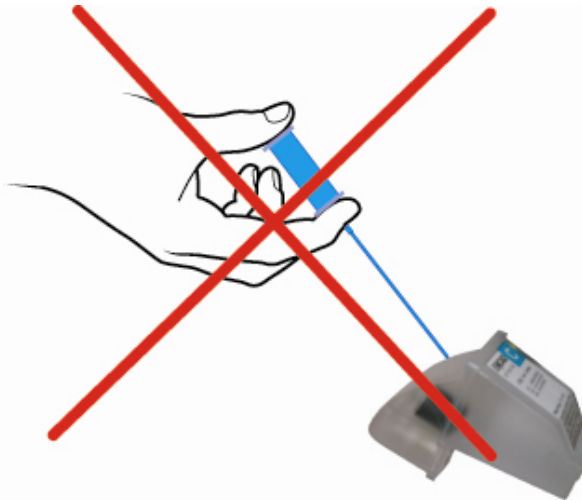


### 1) Caddy Usage:

**CAUTION**

**DO NOT REFILL CADDY!**

**a)** Do not attempt to refill caddies with ink (i.e. do not use a syringe with needle). The internal pressure balance between internal caddy chamber and accumulator will be lost once the integrity of caddy surface is broken; this will ultimately lead to immediate caddy failure and will also result cartridge failure and/or cartridge deprime (via significant pressure loss). Only order replacement caddies when ink is low.



**b)** To sustain normal print operations only install new ink caddies (50 ml inside) onto cartridge. Ensure caddy is completely sealed against cartridge surface. Perform routine maintenance (including service station cleaning and pad/wiper replacement periodically).

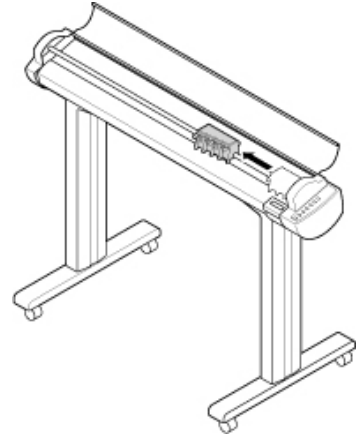
## 2) Cartridge/Service Station Cleaning

### a) Wiping cartridge nozzles and contacts:

1. Wipe the print nozzles/jet plate only if you have already run the clean test and the print quality is still not satisfactory. Wiping the print nozzles removes dried ink on the print cartridge nozzles or jet plate area.
2. Remove the print cartridges from the printer via the control panel display. Do not attempt to install or remove an ink cartridge from the carriage at any time without first selecting **Shortcut Menu - Down Arrow - Access Cartridges - Select** to move the carriage away from the service station.

**CAUTION**

Do not attempt to manually pull the carriage assembly out of the service station while the printer is turned on as this can damage the printer or cause bodily harm.



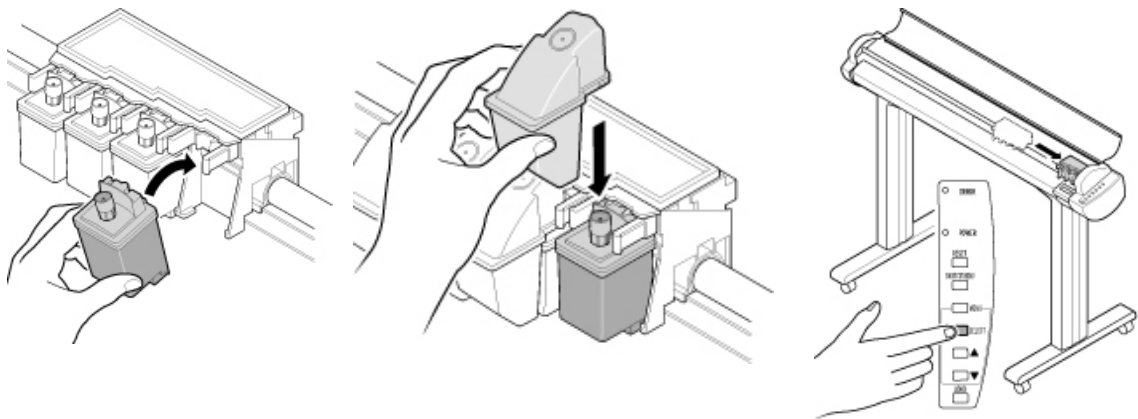
3. Dampen a clean, lint-free cloth with distilled water. Gently wipe the nozzles and jet plate in one direction. Hold the damp cloth against the nozzles for about three seconds, gently blot and wipe dry. Use another clean section of cloth to gently wipe the contacts. Ensure rear electrical contacts on cartridge are clean as well.

Caution: do not wipe the nozzles and the contacts with the same section of cloth.

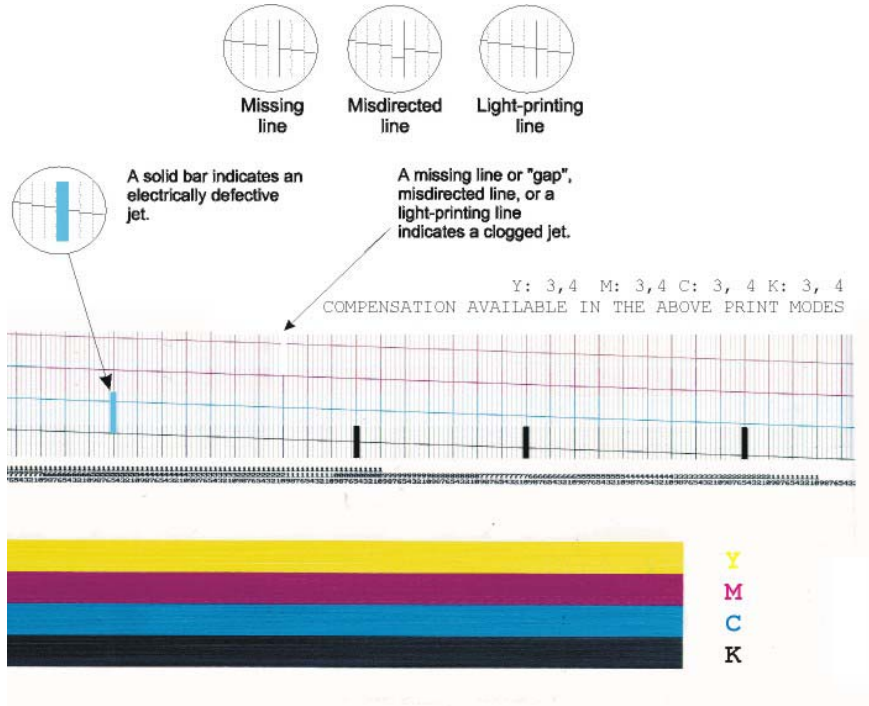


**Cartridge  
Jet Plate**

4. Reinstall the print cartridges, ensure the snap-on reservoir is seated securely and flush onto the cartridge opening. Select **Shortcut Menu - Down Arrow - Access Cartridges - Select** to move the carriage back to the service station.



5. Repeat the Clean test, followed by the Prime pattern. If the print quality still has not improved and the cartridge is not empty, a new cartridge may be necessary. Refer to the on-line maintenance guide supplied on the system CD supplied with the printer for complete maintenance instructions.



If print quality has not improved using the recommended cleaning process, contact support for further assistance.

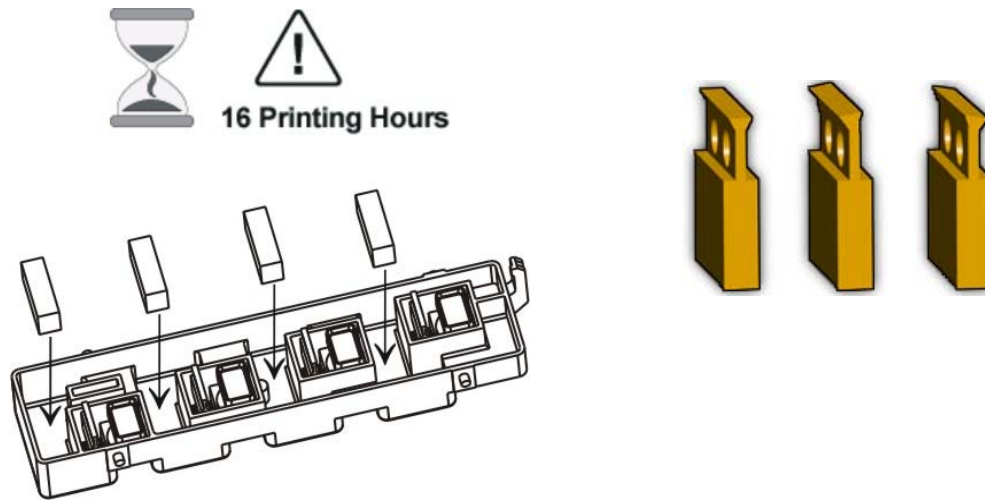
### b) Service Station Maintenance

The service station pads typically become saturated approximately every 8 or 16 printing hours depending on the type of printing performed (super draft/draft or normal/best respectively). Pad saturation may also vary depending on the spit interval selected, the number of times the printer is turned on and off. Pad maintenance should be performed when over saturation (visible bending/arcing upwards) is observed.

#### Frequency:

- At a minimum the service station should be cleaned (with running warm tap water for 1 minute) every 16 print hours to remove ink residues from the seals, wipers, and base of service station. Gently pull on tab at right of service station to release and lift up to remove station.

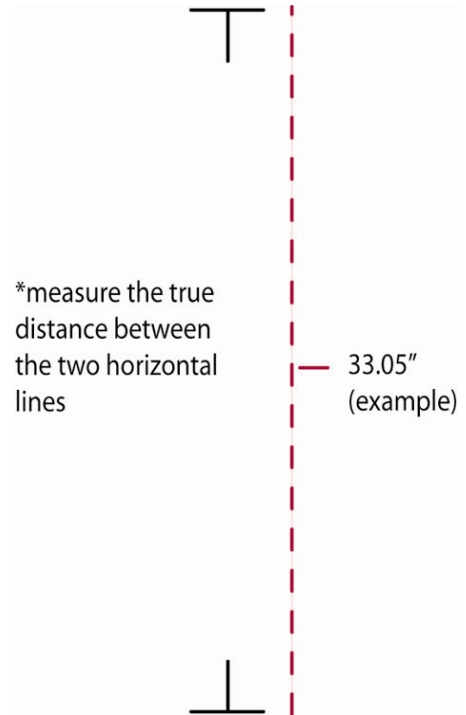
- Remove pads prior to station rinsing. It is suggested to replace (or rinse, clean and squeeze) the white foam pads when the service station is cleaned. Inspect the 4 wipers (see picture below right) for damage or severe warping/bending. Replace wipers as necessary, part number 209276 (each).



### 3) Printer Calibration Procedure

#### a) PAPER AXIS TEST

Prior to running a Paper Axis Test ensure a minimum of 36 inch media is loaded. To activate the Paper Axis Test select **UTILITY MENU – Paper CALIB - PAPER AXIS TEST**. An upside-down "T" will be printed in the center of the media, the media will advance approximately 33 inches or 838.2 mm and another "T" will be printed. This calibration is extremely important for paneling and framing operations to ensure proper line length accuracy; printer accuracy is guaranteed to +/- 0.2%. Cut off and measure the distance between the two T's using a draftsman ruler, enter the true value under '**Paper Axis = 33.00**'. Select Utility Menu, Paper Calib, Paper Axis =33.00, press Select (= sign should be flashing) enter the measured value once only and press 'Select' to stop cursor from flashing. *Note: the loaded value will always indicate 33.00" or 832.2 mm as the reference position but feel confident the printer's media feed value (stepper motor feed) is now properly adjusted for this media type.*



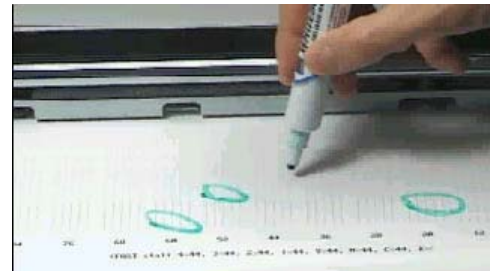
**NOTE:** Ensure **Calib XY=ON** at all times.

#### b) SLOW DEADBAND

To activate the Slow Deadband calibration select **UTILITY MENU – Db CALIB - SLOW DB TEST**. The Slow dB Test pattern will print very slowly. This is a mechanical adjustment of the printer servo system and should be performed monthly. Ensure the vertical lines are straight, if out of alignment, as in this example, then an adjustment is necessary. Select Utility Menu, Service Menu, Calibration Menu, Slow Deadband - change the values (under 'Slow') and rerun the pattern until correct.

#### c) COLOR DEADBAND

To activate the Color Deadband calibration select **MENU – Db CALIB - COLOR DB TEST**. The Color dB pattern will print. This is an electronic calibration for compensating the differences in cartridge resistances. Always perform this calibration whenever a cartridge is replaced. Choose the best value under the best group of aligned colors (under 'Fast'). Do not choose one value to characterize all colors unless illustrated by the pattern.



#### d) COLOR CALIBRATION

To activate the Color Calibration select **UTILITY MENU – COLOR CALIB – PRINT TEST**. Three (3) horizontal patterns followed by 3 vertical patterns should print. The color calibration pattern should be performed whenever a cartridge is removed from the carriage for cleaning or replacement. Choose the best value under each aligning set of colors, i.e. yellow to magenta, then magenta to cyan, then cyan to black. Enter the most correct value for each field.