

DS4000/2000/1500 3+ Weeks Complete Shutdown Procedure

PLEASE NOTE: Once installed, the DS printer is intended to be used as a daily production machine. If possible, we recommend avoiding long periods of non-use.

PLEASE NOTE: Always be mindful of moving parts around the machine. Several components will be moved during the shutdown process, and it is best practice to keep safety in mind during the procedure.

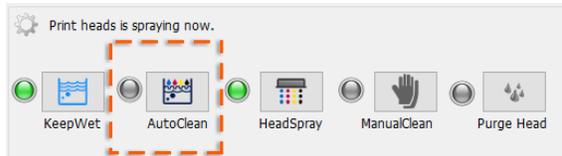
PLEASE NOTE: The following steps assume that the machine has just finished printing the final copy before the shutdown procedure. Many of the following steps will involve physical cleaning of components. Due to the nature of water-based ink, residue can build up. Taking a little extra time to clean now, will make starting back up that much easier.

PLEASE NOTE: During extended power off state longer than 3 weeks ink system needs to be cleaned from ink and filled with cleaning solution.

DS4000/2000/1500 printer can be shutdown safely for up to 3 weeks of no use. It is recommended to power on printer and refill sub tanks with the ink as well as purge ink through print heads within 3 week's time. If printer needs to be stored longer with no use, we recommend system be filled with I-Clean solution.

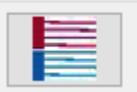
1. Press Auto Clean

Press **Auto Clean** to clean nozzles after job has been printed.



2. Print Check Nozzle

Perform **Check Nozzle** print to ensure print heads are in good condition prior to long term shutdown. Make sure to put the date on the nozzle check print and store it with the printer.



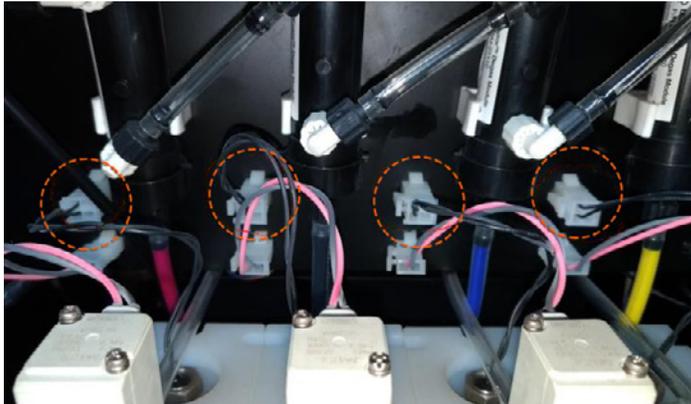
3. Remove Head Carriage Cover

Remove **head Carriage Cover** to obtain access to the sub-tanks, ink lines and printheads.



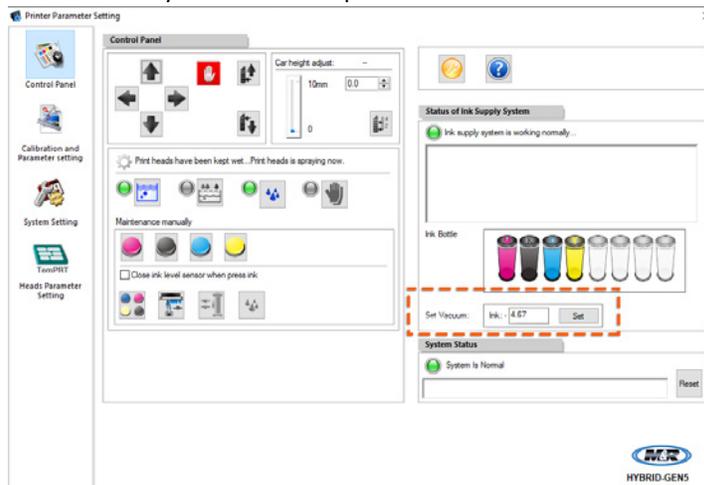
4. Disconnect Float Sensors

Disconnect flow sensors from the sub tanks in order to disable ink pump. Wait about 10 min so most of sub tank ink will recalculate back to main ink tanks.



5. Change Negative Pressure

Change **negative pressure NP** to -1.1 kpa. This will help with Ink, Distilled Water and I-Clean flow to the recalculation system as well as print heads.



6. Return Lines connection

Disconnect 4 ink return lines from main ink tanks and connect extension tubing to each line. End of extension tubing's place in designated waste container.



7. Main Ink Lines connection

Disconnect 4 **main ink lines** from the main ink tank containers and attach extension tubing to each line. Place ends of the tubing in Distilled Water Container. Kit M&R# YYYYYYY



8. Empty Waste Ink Tank

Make sure your waste ink tank is empty at this stage. You will have lots of water going to waste tank during cleaning process.



9. Reconnect Float Sensors

Now you can reconnect sub tank float sensors. Reconnecting will activate ink pumps and cleaning process will be initiated using distilled water. Note that every 30 seconds alarm will sound for pump timeout. Make sure you keep resetting pump using reset button in the software. Water will be flowing true print heads and to the tray as well as recirculation lines to the secondary waste tank. This process may take over 20 to 30 min until lines are relatively clean from ink. NOTE that you will not be able to clean lines 100% it will always have stains of ink.



10. Remove Water from Ink System

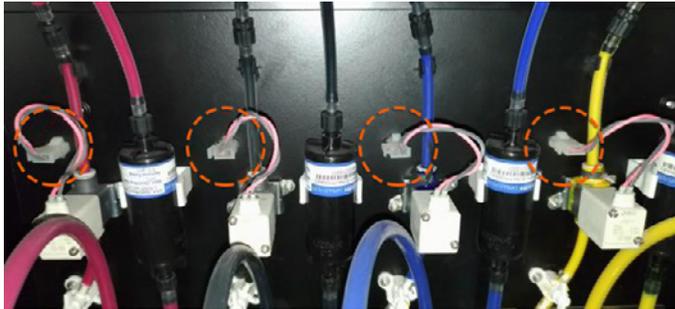
Remove feeding ink lines from Distilled water container. Let air be pumped true the system until most of the water is removed from the sub tanks and print heads.

11. Fill system with I-Clean solution

Insert Ink feeding lines in I-Clean container. Pumps will fill the system with I-Clean solution. You need at least 2L to 3L of I-Clean solution to fill DS ink system. When sub tanks are fill with I-Clean you can press ALL INK to help cleaning solution go through the printheads and true return lines.

12. Seal Recalculation lines

When you notice that cleaning solution filled all Print Heads and Recalculation lines, you can disconnect SMC recirculation valves to seal return lines.



13. Seal Print Heads

If all Printheads are filled with I-Clean solution you can disconnect all Quick connection valves incoming to the print heads. Note that there are 32 connections that need to be disconnected.



14. Disconnect Ink float sensors

Disconnect Sub tank ink floats sensors to stop pumps and trap I-Clean inside the system.



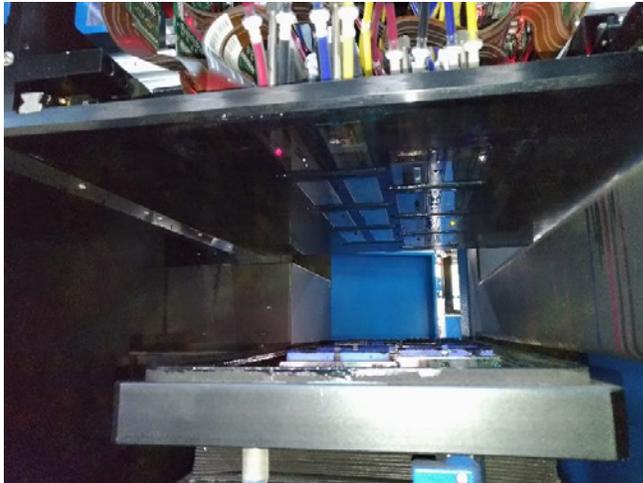
15. Press Manual Clean

Pressing **Manual Clean** will move tray to low position to inspect Print heads and headplate condition.



16. Visually inspect the headplate surface

Using flashlight inspect underside of the head plate. Visually inspect the head plate surface to determine if cleaning will be necessary during the following step.



17. Physically clean the headplate surface

It is very important to take extra caution during this step. The goal is to clean any debris (lint, ink buildup, etc.) from the areas **AROUND** the printheads. Please **do not touch or wipe** the printheads themselves.

Only lint-free wipes should be used during this process, as well as distilled water and/or I-CLEAN solution. **DO NOT** use aggressive chemicals that could damage the printheads. Gently clean the entire head plate surface until no buildup is present. For cleaning, print carriage can be moved over the pallet and press half index for easy access.



18. Clean the wipers and wiper tray

While the head carriage is still over the pallet, use another lint free cloth to gently clean each of the wiper blades. It is best to use a new section of the cloth during each wipe. Once the wiper blades have been cleaned, visually inspect the contents of the wiper tray. If there are any large pieces of debris or dried ink, remove those so that they do not block drainage of the tray. Clean the wiper tray using warm water and I-CLEAN, until there is no ink residue remaining. Open drain valve to help drain ink from tray to the waste.

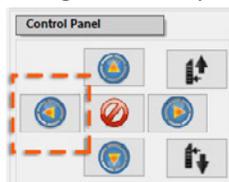


19. Maintain fluid level in wiper tray

Since the machine will be in an extended shutdown state, it is important to maintain a proper fluid level of cleaning solution that will not harden like the ink. Since the tray was flushed/cleaned during the previous step, please confirm that drain valve is now closed. Carefully fill the reservoir of each tray section with enough I-CLEAN until the fluid just reaches the top of the drain opening. Tray should now have a stagnant pool of cleaning solution present.

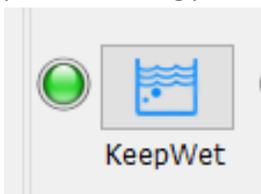
20. Move the head carriage back to the home position

At this point, the head carriage can be moved back to the home position. Ensure that there are no obstructions in the way of the head carriage before proceeding. Press *left arrow* once to return the head carriage all the way to the home position above the wiper tray.



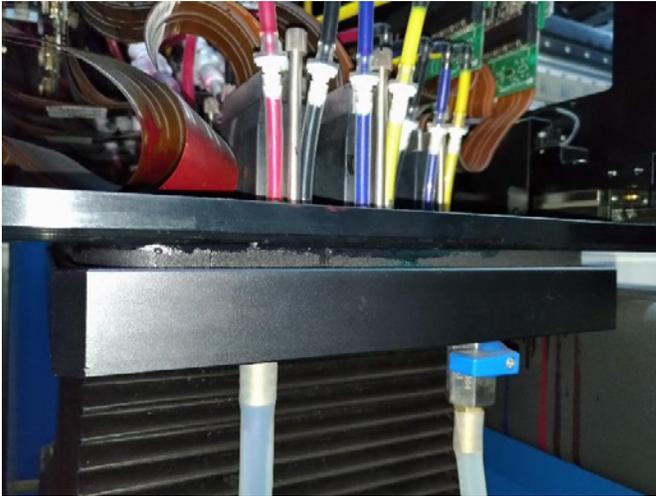
21. Seal the printhead plate against the wiper tray gasket

Click the **Keep Wet** button. The head carriage will lower itself until coming into contact with the gasket of the wiper tray. This process is the same as "capping" a printer, and is used to ensure that the printheads are protected during periods of non-use.



22. Visually confirm that the heads are being protected

Once the keep wet process is complete, the software will show a little green light on the Keep Wet button. Open the right-side door to visually confirm that the head plate has sealed against the wiper tray gasket, and then close the door.



23. Close the printer software / Power OFF the computer

Close the printer software. Power OFF the computer, its is not necessary to keep PC ON when printer is not in use.

24. Power OFF the machine

Press the power button to turn the machine off.



25. Turn cabinet light off

Turn off the print compartment light.



26. Main Power Switch OFF

Turn Main Power Switch to OFF position.

