APPLICATION NOTES

Title: **Required Routine Maintenance of the Gerber Solara ion™ and Gerber CAT | UV™**

Product: Gerber Solara ion & Gerber CAT | UV

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Summary: This document describes the required routine maintenance procedures for the Gerber Solara ion and Gerber CAT | UV.

It is very important to follow the recommended schedule to ensure that the printer is running at peak performance and to protect the integrity of the print heads. Failure to maintain the printer as described can result in printing issues, down-time, and premature print head replacement.

Gerber Solara ion & Gerber CAT | UV Regular Preventive Maintenance

Following is a chart of recommended regular maintenance to be performed by the owner to ensure continued print quality and trouble-free operation. Refer to specific instructions on recommended routine maintenance procedures in the *Gerber Solara ion and Gerber CAT | UV Owner's Guides*

Action	***Daily***	***Weekly***	***Monthly***	***6 Months***	***12 Months***
Perform a Clean Heads procedure whenever the Clean Heads LED is flashing before printing. Check and clean the waste ink tray as needed.	**X**				
Perform an End of Day Clean procedure at the end of the print day.	**X**				
Clean ink from the top of the sliding UV shield.	**At every Clean Heads Procedure**				
Clean ink from the right side plate and the side plate between the waste ink tray and the table.	**X**				
Perform a Periodic Maintenance Process.		**As needed (roughly every 40 hours of print time)**			

Action	*Daily*	*Weekly*	*Monthly*	*6 Months*	*12 Months*
Discard and replace the waste ink tray sponge **(CAT | UV only)**		X			
Clean Roll-to-Roll platen (if so equipped) and Flatbed table.		X			
Clean the Head Access Door.		X			
Perform Purge procedure on all inks			X		
Clean ink drips from the ink drawers when you replace ink bags.			**At ink change**		
Clean the table rails.				X	
Clean the Roll-to-Roll grit wheels (if so equipped).				X	
Clean Roll-to-Roll rubber drive wheels with alcohol (if so equipped).				X	
Replace rubber light shields as needed.					X
Replace Maintenance Shelf Mat as needed.					X

User-Replaceable Consumable items	
• Daily Maintenance Solution • GerberClean Solution • Impervious nitrile gloves at least 8 mils thick • Fisher Scientific foam-tipped swabs • Anticon Gold heavy-weight, clean room wipes • All-purpose wipes	• Waste ink tray sponge (CAT | UV only) • GerberCAT Ink Cyan 1 Liter Pouch • GerberCAT Ink Yellow 1 Liter Pouch • GerberCAT Ink Black 1 Liter Pouch • GerberCAT Ink Magenta 1 Liter Pouch • GerberCAT Flush 1 Liter Pouch • IP Surface Cleaner

These actions must be performed by an authorized Gerber technician yearly or every 1,000 hours of use, whichever comes first.
• Replace the two vacuum table motors
• Check for ink leaks at all connections. Replace the four ink pouch fittings and eight purge block set screws.
• Check ink vacuum operation, vacuum hoses, and replace the vacuum filter
• Inspect the UV lamps
• X-Axis – clean and lubricate the rails, check the steel belts and drive belts
• Y-Axis – clean and lubricate the rails and bearings, and check the tension and tracking of the steel belt and drive belt
• Z-Axis – clean and lubricate worm gears and rails, and check the coupler screw for each Z motor
• Roll to Roll – check operation, and rubber clutch drive and rollers
• Check the Y-Axis encoder mechanical alignment.

• Clean and check the operation of all fans
• Check all the electrical/electronic connectors and operation of the interlock circuit
• Check the operation of the maintenance shelf gas struts, sliding UV shield, and lubricate the ink draw runners
• Ion Only: Clean the encoder strips (one Y and two Z- axes) and check alignment; Run Y-axis encoder test and recalibrate.

Note: As with all parts, replace on an as-needed basis in the case of breakage or failure.

Term	***Definition***	***Intended Usage***
Head Clean	A small amount of ink is pumped from the pouch through the nozzles. May be referred to as a "prime".	Routine maintenance. If there are a few missing and/or misfiring nozzles in each head.
Purge	A larger amount of ink is pumped from the pouch through the nozzles and the purge valve.	To remove trapped air in a print head or if there are many missing nozzles in a specific head. Also used if you are filling an ink line (embedded in the "fill ink line" procedure), or replacing a print head or reservoir assembly.
End of Day Clean	Daily Maintenance Solution is swabbed on all heads at the end of the day after all printing is complete.	Printheads are cleaned using Daily Maintenance Solution to remove debris and ensure printhead health overnight.
Periodic Maintenance Process	Daily Maintenance Solution and Gerber Clean Solution are applied followed by a Clean Heads Procedure whenever angled nozzles are occurring in order to recover angled nozzles.	As needed in order to maintain healthy nozzles.
Daily Maintenance Solution	250ml bottle	Use with Anticon-covered swabs to clean the printheads whenever the LED is lit (after two hours of idle time and after four hours of printing time) and during the End of Day Clean procedure.
Gerber Clean Solution	125 ml bottle	Use with foam-tipped swab as part of the Periodic Maintenance Process on an as-needed basis (whenever angled nozzles are prevalent).
All Purpose wipes	56 count package	Use in the waste ink tray to absorb excess ink.
Anticon® Gold heavy-weight, clean room wipes	300 count package	Use with Daily Maintenance Solution to wipe the printheads during Clean Heads Procedure and End of Day procedures. Anticon wipes are the only wipes that should ever touch the printheads.

Fisher Scientific foam-tipped swabs	50, 250 or 500 count package	Use for cleaning the printheads. These non-scratching, lint free swabs are the only swabs recommended for the GERBER CAT|UV printhead.
Waste ink tray sponge **(CAT | UV only)**	A sponge that resides in the waste ink tray to capture ink mist and prevent spitting form adversely affecting printheads and prints.	Protection of printheads, prints, and absorption of ink spits.

CAUTION: It is very important to use only Gerber-recommended wipes and swabs when cleaning the print heads. Use of wipes and swabs other than what is recommended could damage the print heads. Be aware that damage caused by use of unapproved swabs or wipes will not be covered under the standard 12 month warranty for the Solara ion and Gerber CAT | UV or a Gerber Service Contract. Always use new, clean wipes and swabs. Never reuse wipes and swabs. Never substitute paper towels for wipes.

Long term shut down

If the printer will not be used for more than two weeks, you MUST follow the procedure "Shutting the printer down for more than two weeks" located in the *Gerber Solara ion and Gerber CAT | UV Owner's Guides.* This procedure includes special instructions for:

- Clearing ink from the ink lines
- Filling the ink lines with GerberCAT Flush
- Clearing GerberCAT Flush from the ink lines

The manual also includes instructions on preparing the printer for use after it has been shut down for more than two weeks.

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