Epson EcoTank L3250 Sublimation Daily Maintenance SOP

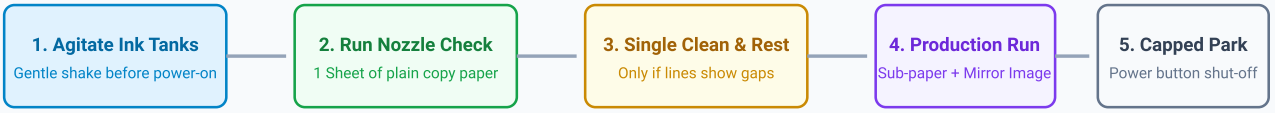
DOC ID: SOP-L3250-SUB-EN-V1.0

Model: Epson EcoTank L3250 / L3251 | **Ink Type:** Disperse Dye Sublimation Ink | **Interval:** Daily Pre-run / Weekly Preventative | **Target Role:** Print Operators / Studio Technicians

Purpose & Mechanics: The Epson L3250 features a Micro Piezo Heat-Free printhead (180 black / 59 per color nozzles). Sublimation ink uses suspended solid dye particles that dry rapidly at the nozzle exit if left unserviced. This SOP establishes a standardized protocol to prevent clogging, banding, ink starvation, and roller gear marks.

⚠️ **Critical Rules (Strict Compliance Required):** 1. Never mix sublimation ink with stock OEM dye ink. 2. Never force-flush printhead nozzles with a syringe under high positive pressure. 3. Do not run more than 2 consecutive head cleanings to avoid capping overflow and severe cavitation.

1. DAILY OPERATIONAL WORKFLOW (VISUAL FLOWCHART)



2. DAILY START-UP & OPERATING INSTRUCTIONS

Step 1: Re-disperse Ink Pigments

Before turning the printer on, gently tilt the printer body back and forth (or tap the tank panel) to re-disperse settled dye particles. Ensure all 4 color levels are above 1/3 full to prevent drawing air into ink dampers.

Step 2: Print Nozzle Check Pattern

Feed a single sheet of plain copy paper. Run a Nozzle Check via driver preferences. **Pass Criteria:** All 4 stepped color staircases (C, M, Y, BK) must show 100% unbroken lines before loading sublimation paper.

Step 3: Correct Cleaning Protocol

If minor line dropouts occur, execute ONE "Head Cleaning" cycle via software. Wait 5 minutes to allow back-pressure to equalize and dissolved bubbles to dissipate, then re-check. Never chain-clean repeatedly.

Step 4: Proper Power-Down & Capping

Always power off using the **on-board power button**. Wait until the print carriage glides fully to the right home position and locks tight against the rubber capping seal before disconnecting power.

3. PREVENTATIVE MAINTENANCE MATRIX

Frequency	Target Assembly	Action & Standard	Key Objective
Daily (End of Day)	Capping Station Lip	Use a lint-free foam swab dipped in cleaning fluid to gently clean the perimeter rubber lip of the right capping pad.	Preserves airtight seal; prevents overnight dry-out
Weekly	Paper Feed Roller (Pick-up)	Sublimation paper coatings release chalky powder. Wipe the rubber intake roller with a swab dampened with isopropyl alcohol.	Prevents paper slipping, misfeeds, and skewing
Weekly	Star Wheels (Pizza Wheels)	Clean the output metal star wheels with a dry microfiber cloth to remove wet sublimation ink build-up.	Eliminates dotted track lines on prints
Idle > 5 Days	Wet Capping Protection	Add 1.5 ml of moisturizing solution onto the capping sponge pad, park the carriage, and cover printer with a dust slip.	Keeps nozzles moist up to 15 days of downtime

4. SUBLIMATION TROUBLESHOOTING & DEFECT CORRECTION

1. Pizza Wheel Marks (Dotted Roller Lines)

- **Root Cause:** Heavy ink saturation does not dry fast enough before passing under star wheels.
- **Fix:** Switch print driver paper type to "Epson Matte" with High Quality (slows feed rate); adjust drying interval; lower studio humidity to 45%–55%.

2. Sublimated Black Appears Green or Brown

- **Root Cause:** Under-heating causes green cast; over-pressing causes brown/burnt look.
- **Fix:** For 100% polyester, press at 385°F (196°C) for 45–50s with medium pressure. Ensure dedicated L3250 ICC color profile is applied in graphics software.

🛠️ Stubborn Clog Rescue: 3-Stage Recovery Protocol

1. **Overnight Cap Soak:** Apply 2 ml of warm specialized printhead recovery solution directly into the cap station sponge. Park and lock the printhead for 2–4 hours to soften crusts.
2. **Single Power Clean:** Run ONE Power Cleaning cycle in the maintenance utility. Wait 12 hours before printing to let micro-bubbles settle out of the damper assembly.
3. **Tech Support Escalation:** If missing nozzles exceed 20% after following stages 1 & 2, contact technical support for ink supply pressure balancing and damper replacement.

Technician Sign-off: _____

Compliance Standard: ISO/IEC Print Care 2026

Technical Hotline: support@winnerjet.com