Powered On Site

reddot winner 2026

Empowering the future workplace

Best-in-class Thermal Industrial Printer

CL4-SXR / CL6-SXR

SATO AEP Application Enabled Printing

SOS SATO Online Services

SATO App Storage

RFID

2yrs WARRANTY

Watch video

2yrs WARRANTY

2-Year limited manufacturer warranty. Subject to regional availability, SKU eligibility, and policy terms
Full details, exclusions, and coverage map available at:

In today's world of AI, digitalization, rapid technological changes and rising security risks, businesses need equipment they can depend on. The CL4/6-SXR series offers robust construction, exceptional print speed, superior print quality, and the flexibility to adapt to workplace requirements in an age where printers, too, must evolve with their users.

For new traceability solutions

The CL4/6-SXR printer can pick up data from print logs, sensors and cloud-based systems to generate data unique to each and every item to label. It can provide new traceability solutions to businesses looking to shift to data-driven decision making.

For operations that cannot stop

SOS (SATO Online Services) provides IoT remote maintenance to ensure uninterrupted operation. It has been enhanced with AI-powered predictive alerts that identify errors before they occur to keep operations running without downtime.

Features that support stable and efficient printing

SATO AEP (Application Enabled Printing)

SATO AEP (Application Enabled Printing) is a platform that allows SATO printers to operate as standalone, PC-less label printing solutions by running applications directly on the printer.
It supports direct scanner input, on-screen operation, and connectivity with peripheral devices, enabling the printer to manage the entire label printing workflow without a PC.

SOS (SATO Online Services)

SATO Online Services (SOS) monitors the operational status of label printers in real time to prevent errors and ensure stable operations.

Watch video

SATO App Storage

SAS (SATO App Storage) is a cloud-based service for managing applications and related configuration data for SATO AEP, allowing efficient deployment across an entire printer fleet.

Watch video

High-speed, with precision

SATO's fastest ever

18 ips* 457.2 mm/sec

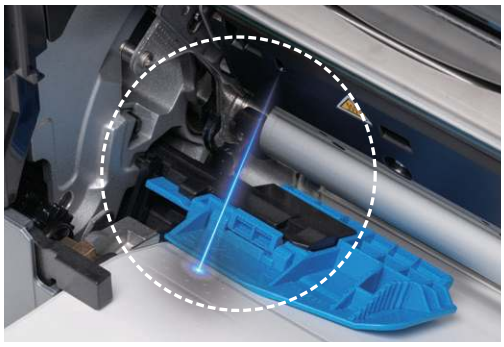
* With CL4-SXR, 8-dot/mm printhead

A redesigned printing mechanism encapsulating SATO's 40-plus years of know-how gives the printer the high-speed performance required for high-volume industrial labeling operations.

Print accuracy ±0.3 mm*

SATO's very own label feed technology ensures superior print accuracy in high-precision print mode.
The new GAP2 sensor complements the existing sensor to enhance accuracy even in regular print mode.

*Based on tests using select labels under specific conditions. Actual results may vary depending on the user's environment and label material selected.



Our commitment to performance

Thermal head temperature compensation

This feature automatically adjusts the thermal head's heat output to compensate for low-temperature conditions. It maintains stable print quality from the very first dot, even in cold temperatures that can inhibit color development.

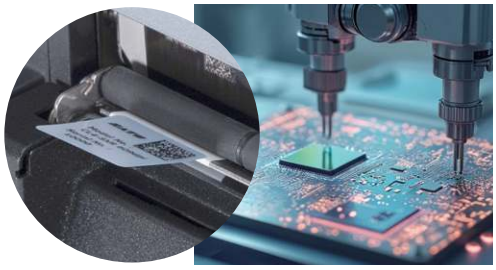
Printed with previous model

Printed with CL4/6-SXR

Enhanced dispensing*

The printer now peels liners better than ever, overcoming limitations conventional models have had in printing small nameplate labels for electronic devices, thin and low-stiffness labels, and labels with strong adhesive.

* Based on test results using select labels and label sizes.



Expertise is in the details

Better view on the roll

A 17% larger side window makes it easier for users to see when they need to replace the roll.

LED status indicator

Operational status and error conditions are visible at a glance.

Large & intuitive display

The large color LCD with resistive touchscreen allows easy operation even with gloves on.

Compatibility with the previous model

It uses the same label output height and rubber-feet positions as the CL4/6 NX series, allowing easy replacement in embedded installations.

Stylish design

Rounded corners and a compact body give it a stylish look while maintaining the robustness needed for industrial use.

Visible usability

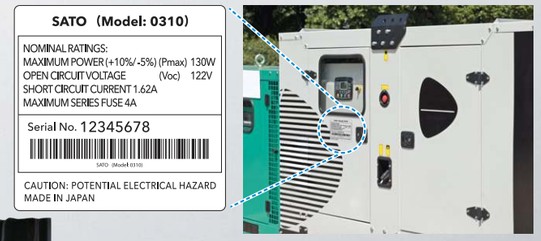
User-accessible parts are color-coded in the same color for better usability.

Wrinkle control

Improvements to the ribbon feed mechanism reduce ribbon wrinkles and improve print quality.

Innovated thermal head

We developed a new print head exclusively for the CL4/6-SXR series to give it noise resistance during print and meet its new features such as printer temperature control and predictive error detection. This enables printing of high-durability labels that previously required dedicated machines.



Stable output

The redesigned label holder offers improved stability, reducing vibration during printing and minimizing paper dust from friction. Labels can be replaced without adjusting the holder.

New damper

It prevents label retraction at damper release and stabilizes media feed for better print accuracy.

Robust die-cast aluminum construction

Media guide locking mechanism

Improved locking feature allows easier positioning and prevents skews better.

Designed to be easy for anyone

Products for a diverse workplace need user-friendly interfaces.
The CL4/6-SXR series features a large LCD that can be customized for each individual worksite, together with a print preview function and a built-in speaker that cater to greater accuracy and efficient operations.

Large touch panel

For intuitive operation

A large 4.3-inch resistive touchscreen provides clear visibility and intuitive control, even with gloves on.

Customizable screen

To tailor to each worksite

Customize the screen and apps to fit your workflow. Set icons, colors, messages, shortcuts and widgets to suit different operations.

Print preview

For greater accuracy

Preview labels on the LCD before printing to prevent wasting labels due to layout or content errors.

Built-in speaker

To hear notifications

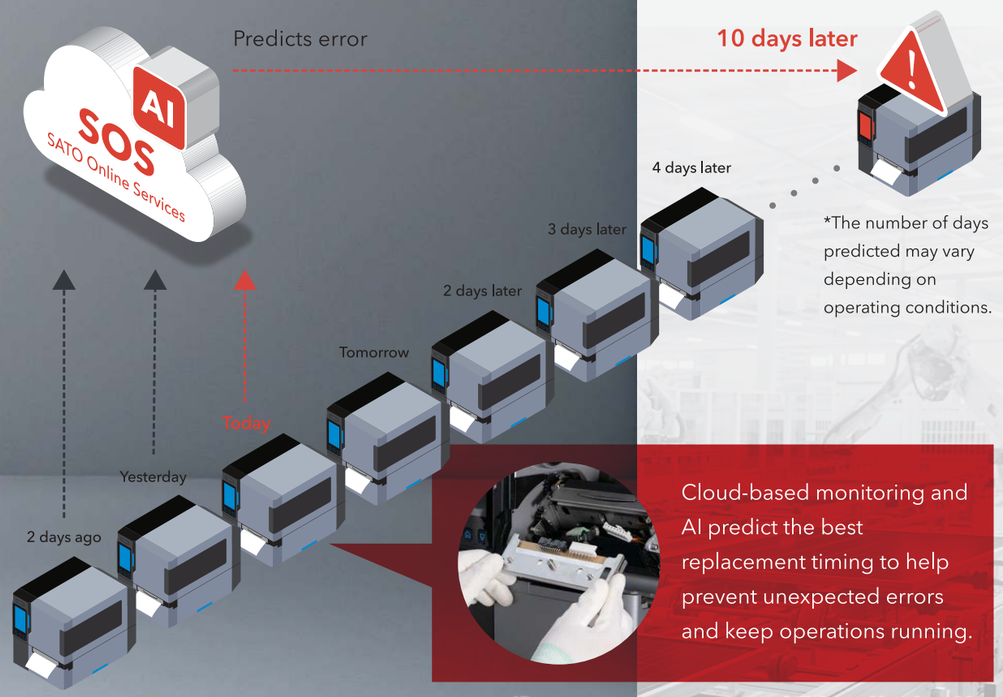
The on-board speaker with 8 volume levels can be activated via apps to play back audio/voice files for greater usability.

From prevention to prediction

Turn maintenance into a proactive process.
AI analyzes operating data to detect early signs of trouble and alerts you before errors occur, helping you reduce downtime.

Thermal head failure prediction system

Monitors usage and operating conditions to recommend the best replacement timing.



Cloud-based monitoring and AI predict the best replacement timing to help prevent unexpected errors and keep operations running.

*Does not guarantee prevention of all thermal head troubles.

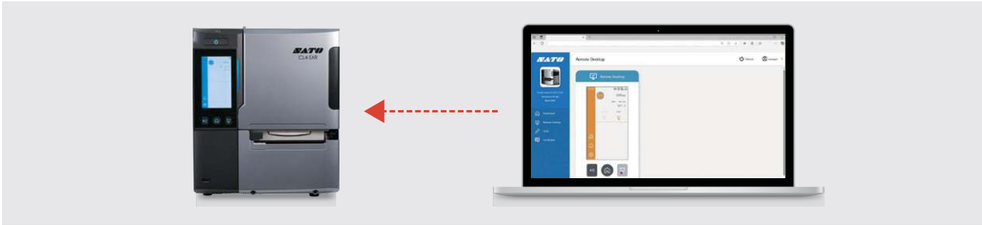
Smart features that keep your site running

Tool-free parts replacement for easy maintenance

Wide-opening cover allows users to quickly replace the thermal printhead, platen roller and other consumable parts without using tools.

Remote desktop for efficient printer management

Operate and manage printers remotely – ideal for unattended or automated operations in hard-to-access locations such as production lines and dustproof enclosures.



Simple on-screen guidance for quick recovery support

On-screen step-by-step guidance helps users resolve errors fast and minimize downtime.

Caring for users, caring for the earth

As a responsible corporate citizen, SATO pays attention to every aspect of the product it offers. CL4/6-SXR uses recycled materials in its components and comes with a label waste prevention feature to help create a sustainable future.

Use of recycled materials

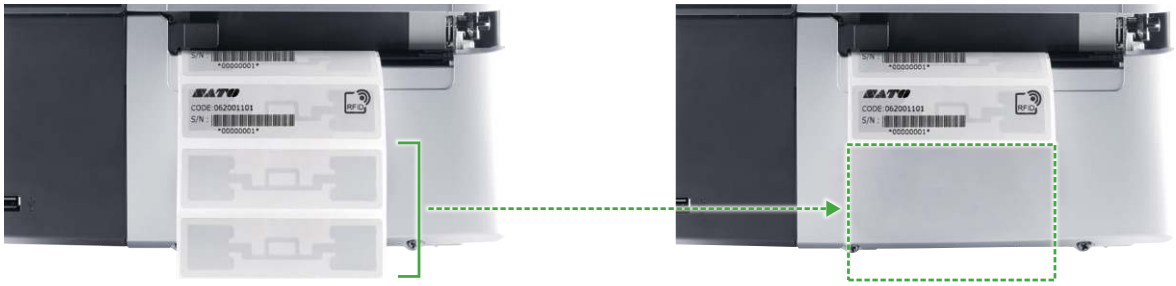
The cover and components are made of recycled ABS resin, which reduces carbon footprint while maintaining the components' quality.

Recycled resin content (against the total weight of resin components): Approx. 34%

Label waste prevention*

This feature detects the edge of the first label upon loading to align its position, allowing the printer to print from the very first label. It saves the first few labels from going to waste as they usually do when setting up a new roll, saving resources, particularly RFID labels. The printer also rewinds the ribbon automatically when the cover is opened.

*This function may not activate under certain conditions.



Variety of options to optimize your printing operations

Cutters and dispensers

Cutter

Rotary cutter also available for faster cutting.

Linerless cutter

Dispenser

Can either rewind the peeled liner internally or let it drop from the front of the printer.

Barcode validator

- Validates all 1D and 2D barcode symbologies
- Reads multiple labels simultaneously
- Designed for quick setup using a mount kit and a scanner
- Voids unreadable labels

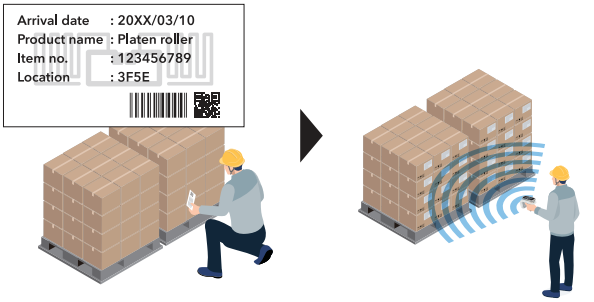
*Optimized for use with selected scanners. Validation quality may vary and is not guaranteed.

*Validation is subject to print layout. Testing prior to use is recommended.

RFID options

Prints and encodes various types of RFID labels

- UHF kit
  ISO/IEC18000-6 TypeC Gen2
- HF kit
  ISO/IEC15693, ISO/IEC14443 TypeA, FeliCa Lite-S



Print and encode your own RFID labels

Read by batch; reduce handling time

Other accessories

RWG500 Rewinder

Rewinds labels as they print. Enhances efficiency in the subsequent label application process.

			CL4-SXR			CL6-SXR	
Printing Specifications	Model name		CL4-SXR TT203	CL4-SXR TT305	CL4-SXR TT609	CL6-SXR TT203	CL6-SXR TT305
	Print resolution		8 dots/mm (203 dpi)	12 dots/mm (305 dpi)	24 dots/mm (609 dpi)	8 dots/mm (203 dpi)	12 dots/mm (305 dpi)
	Print mode		Continuous, tear-off, cutter, dispenser, linerless cutter, rotary cutter			Continuous, tear-off, cutter, dispenser	
	Printing method		Direct thermal, thermal transfer				
	Print speed		2–18 ips	2–16 ips	2–6 ips	2–14 ips	2–14 ips
	Max. print	Width	104 mm (4.09")	104 mm (4.09")	104 mm (4.09")	Extension: 167.5mm(6.60") Standard: 152mm (5.98")	Extension: 167.5mm(6.60") Standard: 165.3mm (6.51")
		Length	2500 mm (98.42")	1500 mm (59.05")	400 mm (15.75")	Extension: 2500mm (98.42") Standard: 2500mm(98.42")	Extension: 1500mm (59.05") Standard: 1500mm(59.05")
	Printer Memory		Flash 8GB / RAM 2GB				
	Processor		ARM Cortex-A53 Quad Core				
Consumable Specifications	Sensor Type		I-mark Sensor (Reflective), Label Gap Sensor (Transmissive), Label Gap Sensor 2 (Transmissive), Label Waste Prevention sensor. Media Low sensor				
	Media Type		Roll or fan-fold die cut labels, Plain paper face stock, Synthetics and Continuous stock				
	Label length (*1)	Continuous	6–2497 mm (0.24"–98.30")	6–1497 mm (0.24"–58.94")	6–397 mm (0.24"–15.63")	6–2497 mm (0.24"–98.30")	6–1497 mm (0.24"–58.94")
		Tear-off/ cutter	17–2497 mm (0.67"–98.30")	17–1497 mm (0.67"–58.94")	17–397 mm (0.67"–15.63")	17–2497 mm (0.67"–98.30")	17–1497 mm (0.67"–58.94")
		Dispenser	Direct thermal: 10–397 mm (0.39"–15.63") Thermal transfer: 28 mm–397 mm (1.10"–15.63")			47–177 mm (1.85"–6.97")	
		Linerless cutter	30–120 mm (1.18"–4.72")		-		
			30–120 mm (1.18"–4.72")				
	Label width (*1)		22–128 mm (0.87"–5.04")		47–177 mm (1.85"–6.97")		
	Label width (Linerless cutter)		60–118 mm		-		
	Media thickness		60–268 µm (0.06–0.28 mm)				
	Label	Roll diameter	Max. 220 mm (8.7")				
		Core diameter	76 mm (3.0"), 101 mm (4.0")				
		Other	Face-in/face-out (No setting change required)				
	Ribbons	Width	39.5 mm (1.55") –128 mm (5.04")		59 mm (2.32") –177 mm (6.97")		
		Max. length	600 m (1968.5")				
		Other	Core diameter: 25.4 mm (1.0"), wind direction: face-in/face-out (No setting change required). Ribbon Low & Ribbon End Sensor.				
Operating characteristics	Dimensions		W275 mm, D457 mm, H321 mm (Box: W370 mm x D600 mm x H430 mm)		W338 mm, D457 mm, H321 mm (Box: W460 mm, D640 mm, H450 mm)		
	Weight		15.5 kg/ 34.2 lbs (excludes media, ribbon, and options)		19.4 kg/ 42.8 lbs (excludes media, ribbon, and options)		
	Enviroment	Driver	Windows OS: 11 / Server2025 / Server2022 / Server2019 / Server2016 | MAC, Linux OS: CUPS drivers				
		Operating	Continuous/tear-off/cutter: 0-40°C/20-85% RH (without condensation) Dispenser: 5-35°C/30-80% RH (without condensation) Linerless cutter: 5-35°C/30-75% RH (without condensation)				
		Storage	-20-60°C/5-90% RH (without condensation)				
	Power requirements		AC100V–240V±10%, 50/60Hz, Auto-ranging power supply				
	Touch Panel		TFT Color LCD, 4.3 Inches, 480 x 272 dots (RGB)				
Interface characteristics	USB		USB 2.0: Type A (1 front + 1 rear) & Type B (1 rear)				
	Ethernet		10BASE-T/100BASE-TX/1000BASE-T (IPv4/IPv6, SNMPv3 MIB-II, FTP, FTPS, NTP, LPR, DHCPv4-DHCPv6, HTTP/HTTPS, SCP, mDNS), DHCP Option 81, Option 12, Option 77.				
	Serial port		RS-232C 2400–115200 (D-sub 9pin)				
	External IO port		EXT port (D-sub 15pin)				
	Remote Access		SNMP Ver.3, HTTPs, SOS, WebConfig, SOTI Connect.				
	Supported Printer Protocols		Standard: SBPL (SATO Barcode Printer Language) Emulation Language: Auto detect - SZPL, SDPL, SIPL, STCL, SEPL, SMGL, SPGL, SFPL				
	Dual Radio	Wireless LAN & Bluetooth® (*2)	IEEE802.11a/b/g/n/ac/ax, Tri-Band WLAN (2.4GHz, 5GHz, 6GHz), Wi-Fi Direct, WPS, Security WEP, WPA/WPA2/WPA3,DHCP Option 81, Option 12, Option 77				
			Bluetooth Ver.5.2 + BR/ EDR/BLE				
Fonts/ symbologies	Internal fonts		Standard bitmap: U, S, M, WB, WL, XS, XU, XM, XB, XL, X20, X21, X22, X23, X24, OCR-A, OCR-B Scalable fonts: 15 SATO fonts, multi-national language support (47 languages / Unicode), single and double byte fonts (Korean, Chinese, Japanese)				
	Linear barcodes		UPC-A, UPC-E, JAN/EAN, CODE39, CODE93, CODE128, GS1-128 (UCC/EAN128), CODABAR (NW-7), ITF, Industrial 2of5, Matrix 2of5, MSI, POSTNET, UPC add-on code, BOOKLAND, USPS code, GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Expanded Stacked				
	2D symbologies		QR code, Micro QR code, rMQR, PDF417, Micro PDF, MAXI code, GS1 Data Matrix, Data Matrix (ECC200), Aztec code, GS1QR code and composite symbologies				
	Functions–Useful features		User guidance videos on LCD, error guidance on LCD, multi language support LCD message (31 languages), LCD screen layout customization, thermal head check, label waste prevention function, high precision printing mode, print preview function, remote desktop function, speaker, start on AC, notification function, calendar, password lock, logo/font data download function, barcode checker, AEP (Application Enabled Printing)				
	Self Diagnosis Checking		Thermal head check, Paper near-end detection, Ribbon end detection, Ribbon near-end detection, Test print, Head lift detection, Label Waste prevention sensor.				
	Standard & agency approvals		Please contact your nearest SATO sales representative regarding agency approvals for your region.				
	Warranty		2-Year limited manufacturer warranty. Subject to regional availability, SKU eligibility, and policy terms. Full details, exclusions, and coverage map available at: https://www.satoeurope.com/service-and-support/warranty.php				
Options	CL4-SXR: 4		For printing: cutter kit [4,6], rotary cutter kit [4], dispenser kit (with internal rewinder) [4,6], linerless cutter kit [4], UHF RFID kit [4,6], HF RFID kit [4] Others: External rewinder RWG500 [4,6], barcode checker mount kit [4], external cover kit [4,6], Wireless LAN and Bluetooth kit [4,6], EXT conversion cable [4,6], Label Holder Kit [4]				
	CL6-SXR: 6						

*1 Without liner | *2 Please contact your nearest SATO sales representative for availability | *3 Only CL4-SXR is Wi-Fi certified

(*3)

satoeurope.com

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