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**DCS & Labelling Worldwide**

# **LOW VOLUME LABELLING SOLUTIONS CX400**



**QUICK GUIDE**



## DCS & Labelling Worldwide

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Warning : This equipment complies with the requirements in Part 15 of FCC rules for a Class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps necessary to correct the interference.

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Specifications	All Models
Fonts	Compatible with all SATO CL printers Code Page 858, Others available. U; S; M; WB; WL; XU; XS; XB; XL; OCR-A/B; Outline Font (50 ~ 999 dots)
Text Rotation	0°; 90°; 180°; 270°
Graphic Formats Graphic Rotation	SATO Hex/Binary; PCX; Raster & BMP Formats 0°; 90°; 180°; 270°
Electrical	110/220 VAC±10%, 50/60 HZ
Size	197mm (7.76") x 257mm (10.2") x 164mm (6.5")
Environment	Operating : 4 ~ 38°C (30 ~ 80 RH, non condensing) Storage : -20 ~ 50°C (25 ~ 85 RH, non condensing)
Approvals	CE, FCC Class A, TUV, UL/CUL, CCC
Accessories Additional Memory	Dispenser; RS232C Interface Cable; Cutter 2MB, 4MB additional flash memory

## CX400 Specifications

Specifications	CX400TT	CX400DT
Print Method	Thermal Transfer/Direct Thermal	Direct Thermal
Max. Ribbon Length	100mm	NA
Max. Ribbon Roll Diameter	38mm (1.50")	NA
Carbon Ribbon Inner	12.8mm (.50")	NA
Core Diameter Outer	18.4mm (.72")	NA
Weight (including power)	3.67kg	3.63kg

Specifications	All Models
Print Head Density	8 dot/mm (203dpi)
Print Speed	25.4mm/sec(1 ips), 50.8mm/sec(2 ips), 76.2mm/sec(3 ips), 101.6mm/sec(4 ips)
Media	Continuous Paper, Paper Labels, Vinyl Labels, Tag
Media Width	108mm (4.3")
Max. Roll Diameter	127mm (5")
Label Roll Core Diameter	25.4 (1")
Max. Print Width	104mm (4.1")
Max. Print Length	1270mm (50")
Min. Label Length	10mm (.39")
Min. Inter-Label Gap	2mm (.08")
Max. Inter-Label Gap	25.4mm (1")
Media Sensing (Left side, adjustable)	See-through sensor for die-cut or notched media; Reflective sensor for Eye-mark; Continuous Material
Interface Ports	9-pin RS232 Serial & 36-pin Centronics
Baud Rate	9600, 19200 & 38400 bps
Flow Control	Xon/Xoff and RTS/CTS protocols
Memory	2MB total RAM; 2MB flash memory
Bar Codes Supported	UPC, EAN8/13, EAN128, Code39, Code93, MSI, I25, M25, Postnet Bookland, Code 128, UCC 128, Codabar, MaxiCode, PDF417
Bar Code Rotations	0°; 90°; 180°; 270°
Bar Code Ratios	1:2; 1:3; 2:5

## PRINTER OVERVIEW

CX400 is SATO's latest desktop printer in the "Compact" series. With a 32-Bit high-speed RISC processor, it allows for maximum throughput directly from standard Windows® applications as well as from SATO's proprietary labeling software - SATO Label Galley. With a small footprint, it also has a 2MB internal Flash ROM and 1MB DRAM.

Additional features include a maximum print speed of 4inch/sec and maximum printing length of 50 inches (without any memory expansion). This new CX400 also offers a flexible interface module - RS232C and Centronics interface as a standard and optional interface modules including Ethernet (10/100BaseT), 100Base-TX LAN adapter (via the parallel port) and USB adapter.

The CX400 not only boasts of a sleek look with its smooth lines, but also of its sturdy chassis. Offering a superior print quality, the CX400 is more than perfect for low volume printing needs. Designed with "ease of usage" in mind, its wide compartment makes it easy for media loading (5"OD label roll can be loaded).

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<b>Problem</b>	<b>Remedy</b>
Host stops responding or displays “Printer not ready” message	<ol style="list-style-type: none"> <li>1. Review your software setup following the instructions provided.</li> <li>2. Check that the host-to-printer communication cable is connected and undamaged. If using the serial port, make sure you are using a null modem cable or adaptor.</li> <li>3. If using the serial port, check that the host and the printer are of the same parameters. The self-test label shows the current printer serial port parameters.</li> <li>4. If using a communication switch between the host and printer, remove the switch and connect the printer directly to the host.</li> <li>5. Restart both printer and host, run the original software, and try again.</li> </ol>
Labels feed continuously	<ol style="list-style-type: none"> <li>1. Check that the print media is loaded correctly. Confirm that the gap/mark goes through the media sensor.</li> <li>2. Confirm that the sensor type (Eye-mark or gap) in the software matches your print media.</li> </ol>
Poor print quality	<ol style="list-style-type: none"> <li>1. Check that the print media is loaded and there is no side-to-side motion of the paper as it feeds through the printer.</li> <li>2. Check your software print darkness and print speed settings. These settings may need adjustments for optimum results.</li> </ol>

**Troubleshooting**

Problem	Remedy
POWER light not lit	Double check the AC source and the power supply connections. Disconnect the cable between the printer and host, then restart the printer. If the POWER light is lit with the host disconnected, it might be a host computer or cabling problem.
ERROR light is lit or flashing	<ol style="list-style-type: none"> <li>1. If both ERROR and POWER indicators are flashing in the same direction, it means media error, that is, media is out or the gap was not found.</li> <li>2. If ERROR and POWER indicators are flashing in opposite directions, it means the ribbon is either empty or not installed.</li> <li>3. POWER is lit and ERROR is flashing  <b>For ERROR indicator</b>                      Longer OFF time, shorter ON time : Cover is open or there is problem in cover sensor.                      Others : If you are using the serial communication, check the parameters on both printer and host sides.</li> </ol>
Self-test label does not print	<ol style="list-style-type: none"> <li>1. If printing in the thermal mode, confirm that you have loaded direct thermal media.</li> <li>2. Disconnect the cable between the printer and the host computer. Restart the printer and try to print a self-test label again.</li> </ol>
Label does not feed	<ol style="list-style-type: none"> <li>1. Confirm that the print media is loaded correctly.</li> <li>2. Restart the printer and confirm that the POWER indicator is lit and ERROR indicator is off. Press the FEED button.</li> <li>3. If the printer still does not feed, disconnect the communication cable and repeat step 2. If the printer feeds with the cable disconnected, there might be a problem with the host or cable.</li> </ol>

**Installation**

Remove the CX400 from its packing container. Check to make sure you have the following items:



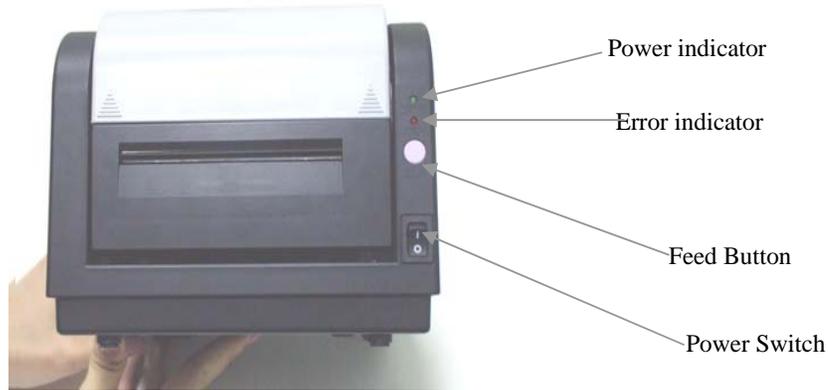
Careful considerations must be given when selecting the location to install you're the printer, especially environmental conditions. To obtain optimum results from CX400, always try to operation locations influenced by:

- Direct or bright sunlight, as this will make the label sensor less responsive and may cause the label to be sensed incorrectly.
- Locations which have extreme temperatures, as this can create electrical problems on the circuits in the printer.
- The installed location of the printer should ideally be in areas free from dust, humidity and sudden vibrations.

**Consumables**

Always use SATO labels in CX400 printer. The use of incorrect material may cause malfunctions of the printer and void the printer warranty.

## Components

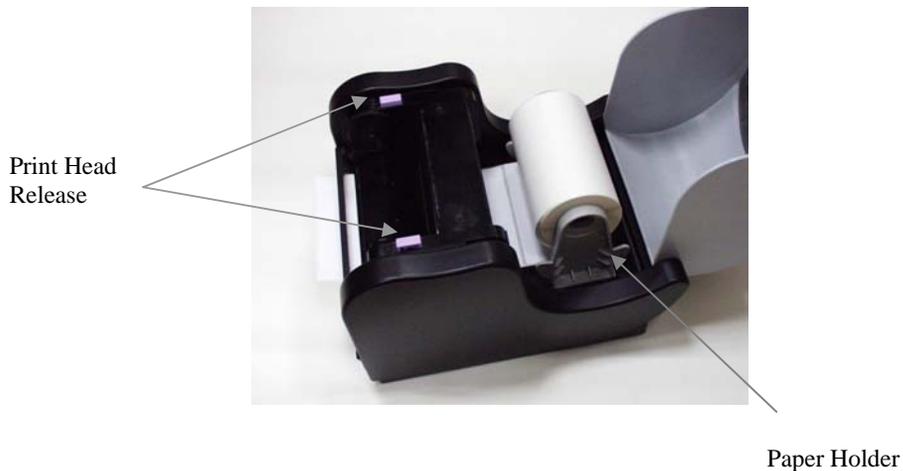


Spring Loaded Take-up Spindle  
(Tighten ribbon roll after loading)

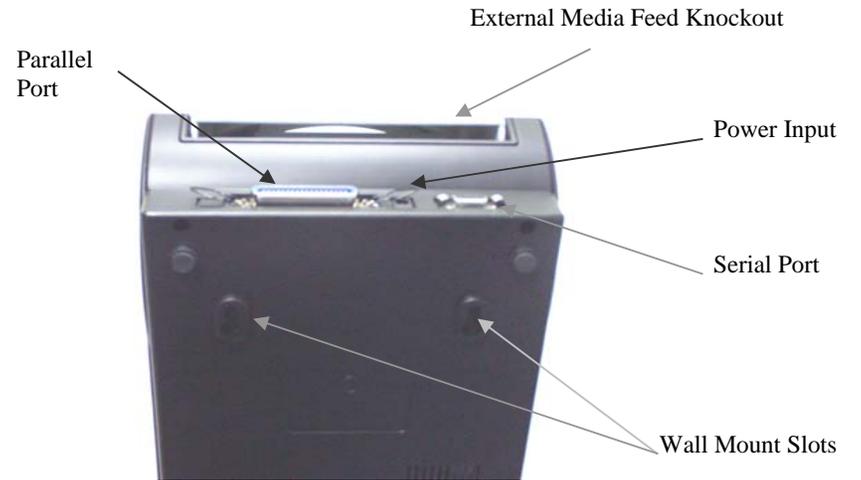
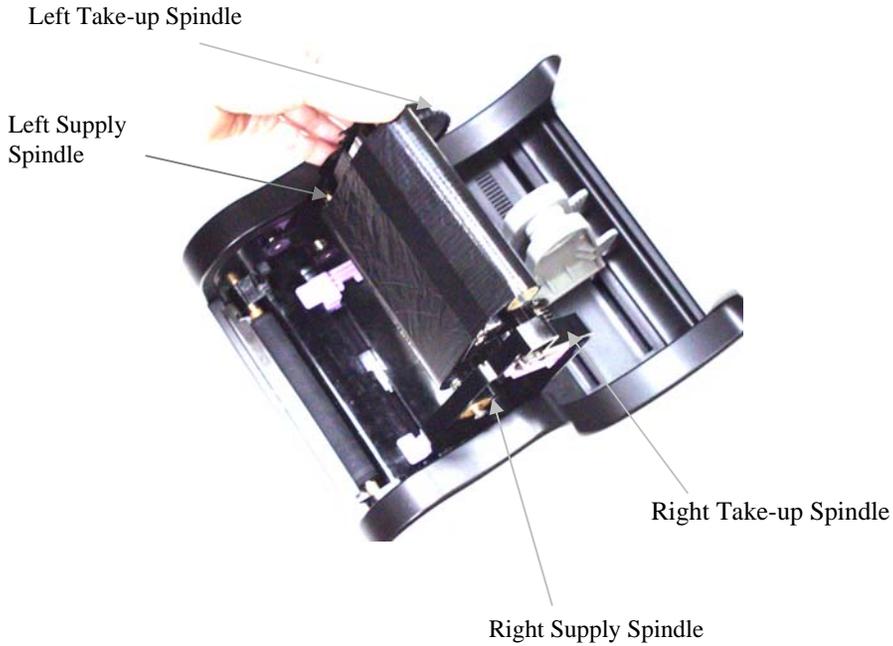


The CX400 thermal transfer printer transfers ink from a ribbon to the label to produce an image.

1. Lift the top cover.
2. Press the two print head releases down to unlock the print head module and expose the ribbon supply spindles.
3. Unwrap the new ribbon and unwind 4" from the roll. The end of the ribbon is attached to a take-up core.
4. Observe the notches on both end of the supply core and the take-up core. These notches must fit on the corresponding nibs on both the supply and take-up spindles.
5. Roll several turns of ribbon on the take-up core. The coated side of the ribbon must be on the outside of the take-up roll.
6. Place the left notch of the take-up core into the nib of the left take-up spindle.
7. Place the right notch of take-up core into the nib of the right take-up spindle.
8. Pull the ribbon over the print head and insert the supply core onto the left supply spindle, make sure the notches in the core fit the nibs.
9. Place the right end of the supply core into the right spindle, lining up the notches with the spindle nibs.
10. Turn the take-up spindle to pull the ribbon over the print head. Check to make sure there are no ribbon wrinkles.
11. Lower the print head and press it firmly until it locks closed on both sides.
12. Close the top cover.
13. Wait until the ERROR stops blinking and becomes OFF, press the FEED to feed a label or to resume printing.



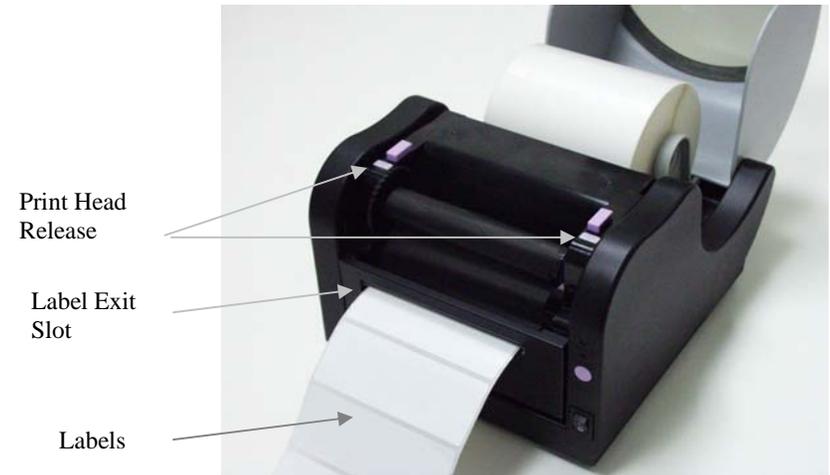
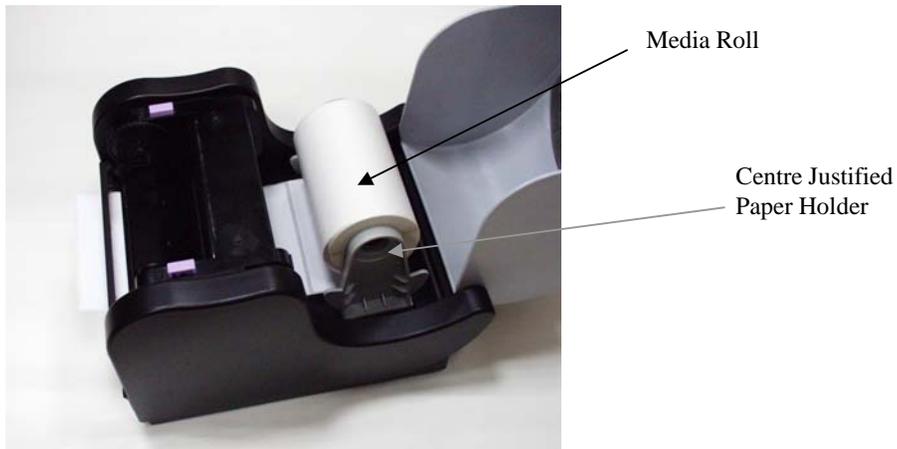
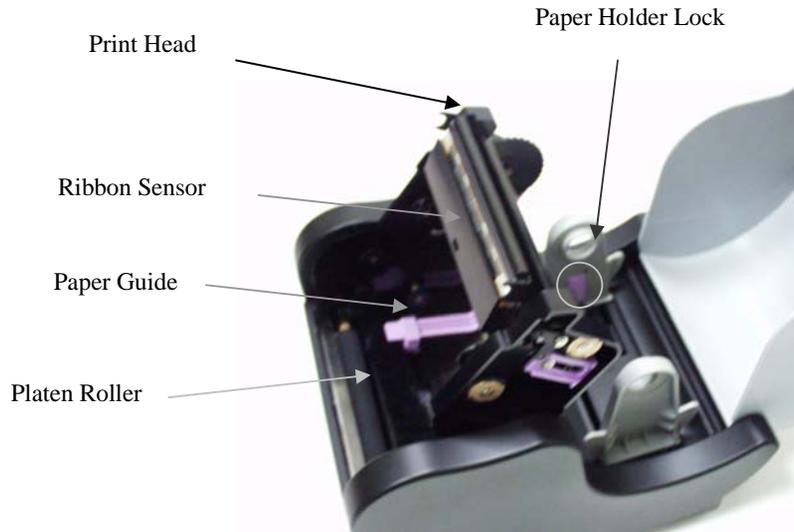
Loading Ribbon



Item	Details
FEED Button	Advances print media
POWER indicator	Indicates power status
ERROR indicator	Indicates error status
Power Input	Connects the power supply
Serial Port	Data input
Parallel Port	Data input
Print Head Release	Unlocks print head
Top Cover	Protects print media and mechanism

**Media Loading**

## Loading Labels or Tags



1. Lift the top cover.
  2. Press the two print head releases down to unlock the print head module.
  3. Unwrap the new media and unwind a few labels from the roll. Labels should be wound face-in for best results.
  4. Slide the centre justified paper guides apart until the label roll will drop down between them.
  5. Place media roll in the paper tray such that the media unwinds from the bottom of the roll towards the front of the printer. The label image surface must face up as it passes under the print head.
  6. Move the purple paper guides in place to fix the label position.
  7. Lift the print head and slip the free end of the media under the print head and out of the front paper exit.
  8. Lower the print head and press it down firmly until its locks closed on both sides.
  9. Close the top cover.
- Wait until the ERROR stops blinking and becomes OFF. Press the FEED button to feed a label or to resume printing