



# Print Engines



S84-ex



S86-ex

# S84 *ex*

# S86 *ex*

Maximize productivity for 24/7 mission critical applications

## SATO, Beyond Expectation

SATO's flagship print engines are used by the world's best print and apply systems.

### Easy to Use

- Two Color Status LED and LCD
- Best-in-class Print Speed and Throughput
- Simple Standalone Mode Support
- Downloadable/ Uploadable Printer Settings, Log, Data, Firmware, via SD and USB



### Quick Maintenance

- Easy Tool-less Printhead and Roller Replacement
- Convenient Access to Rear Cabinet
- Tool-less Sensor Cover Replacement



### Enhanced Connectivity

- Multiple Interfaces On-board
- D-SUB 25 pin EXT Interface - NPN/PNP Connection
- Standard Emulations On-board
- Multi-national Language Support



**PRINT SPECIFICATIONS**
**Method**

Direct Thermal or Thermal Transfer,  
Direct Thermal Only, Ribbon Saver (S84-ex Only)

**Mode**

Continuous, Dispense

**S84-ex**
**Resolution**

203 dpi (8 dots/mm)	305 dpi (12 dots/mm)	609 dpi (24 dots/mm)
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**Speed**

16 ips (406.4 mm/sec)	14 ips (355.6 mm/sec)	6 ips (152.4 mm/sec)
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**Print Area**
**Maximum Width**

4.1" (104.0 mm)

**Maximum Length**

98.43" (2500.0 mm)	59.06" (1500.0 mm)	15.75" (400.0 mm)
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**S86-ex**
**Resolution**

203 dpi (8 dots/mm)	305 dpi (12 dots/mm)
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**Speed**

14 ips (355.6 mm/sec)	12 ips (304.8 mm/sec)
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**Print Area**
**Maximum Width**

6.6" (167.5 mm)

**Maximum Length**

49.2" (1,249.0 mm)

**MEDIA SPECIFICATIONS**
**Sensor Type**

Adjustable Transmissive Sensor for Gap,  
Adjustable Reflective Sensor for Black Mark,  
Paper End, Ribbon Near-end/End

**Media Type**

Die-cut Labels 0.125" Gap,  
Continuous Labels, Roll

**Media**
**Width**

S84-ex 0.51" (13 mm) to 5.16" (131 mm)  
S86-ex 2.13" (54 mm) to 7.09" (180 mm)

**Minimum Length**

Continuous Mode 0.36" (9 mm)  
Dispense Mode 0.51" (13 mm)

**Thickness**

0.002" (0.05 mm) to 0.012" (0.31 mm)

**Ribbon**
**Width**

S84-ex 0.98" (25 mm) to 5.04" (128 mm)  
S86-ex 2.32" (59 mm) to 6.99" (177 mm)

**Length**

1968.5 ft (600 m) on 1" (25.4 mm) ID Core

**Wind**

Face-in/Face-out, No Setting Change Required

**SATO Genuine Consumables**

For maximum print quality and optimum use,  
SATO recommends the use of SATO genuine  
consumables.

**MEMORY & PROCESSING SPECIFICATIONS**
**Receive Buffer**

2.95 MB

**Memory**

48 MB Flash, 64 MB RAM

**USER FRIENDLY SUPPORT TOOLS**
**Large Status LCD**

Blue/Red

**Status LCD**

White/Orange

**Audible Alerts**

Adjustable Volume Setting

**Self Diagnosis**

Head Check,  
Auto Sensor Calibration

**Simple Standalone Mode**

Store Up to 9 Formats

**Multi-national Language Support**

Internal Scalable Fonts for Print,  
Selectable LCD Languages

**Emulations**

LCD Selectable-SZPL, SDPL (Pre-installed)

**Remote Setting**

Web Browser,  
SATO All-In-One Printer Utilities

**Drivers**

Windows, Linux, SAP Smart Forms, OSX

**COMMUNICATION INTERFACES SPECIFICATIONS**
**Standard**

USB 2.0 (Type B), RS232C, IEEE1284, Ethernet  
(Protocol TCP/IP: LPR, FTP, TELNET, SNTP),  
D-SUB 25 pin EXT (14 pin conversion cable  
included)

**Optional Interfaces**

Wireless LAN, IEEE 802.11 b/g/n  
(Protocol TCP/IP: LPR, FTP, TELNET  
Security: WEP, WPA, WPA2, Dynamic WEP),  
Bluetooth 2.0+ EDR Class 2 SPP

**External Memory**

USB Type A, SD/SDHC Card

**OPTIONS**

W-LAN Kit, Bluetooth Kit

**FONT SPECIFICATIONS**
**Internal Fonts**
**Bitmap**

U, S, M, WB,WL, XS, XU, XM, XB, XL, OCR-A,  
OCR-B, Chinese (GB18030, Big5),  
Korean (KSX1001)

**Scalable**

CG Times, CG Triumvirate™, SATO  
GAMMA, SATO VICA, Thai, Arabic

**Downloadable Fonts Support**

Bitmap, True Type (1 byte/2 byte),  
Maximum 11.7 MB

**BARCODE SYMBOLOGIES SPECIFICATIONS**
**Barcodes**
**Linear**

Code 39, Code 93, Code 128, CODABAR (NW-  
7), EAN 8/13, GS1 DataBar™, GS1-128 (UCC/  
EAN 128), Interleaved 2/5, Industrial 2/5, JAN  
8/13, Matrix 2/5, MSI, Bookland, POSTNET™,  
UPC-A/E Intelligent Mail Barcode

**2D Symbologies**

PDF417, Micro PDF, Maxi Code, GS1 Data  
Matrix, QR Code, Micro QR Code, Security  
QR, Composite Symbologies

**OPERATING & ENVIRONMENT CHARACTERISTICS**
**Electrical Requirements**

Universal Auto-ranging Power Supply,  
100-240 VAC +/- 10%, 50/60 Hz

**Standard & Agency Approvals**

IEC 60950, CE Marking, EN 60950-1,  
EN 55022 Class A, EN 55024, R&TTE,  
NEMKO-GS, cMETus, UL60950-1/CSA C22.2  
No. 60950-1, FCC, ICES-003, NMB-003, RCM,  
CCC, SRRC, KC

**Environment**
**Operating**

23 to 104°F (-5 to 40°C), 15-85% RH,  
Non-condensing

**Storage**

-4 to 140°F (-20 to 60°C), 15-90% RH,  
Non-condensing

**PHYSICAL CHARACTERISTICS**
**S84-ex**
**Dimensions**

Width: 9.65" (245 mm)  
Depth: 16.06" (408 mm)  
Height: 11.81" (300 mm)

**Weight**

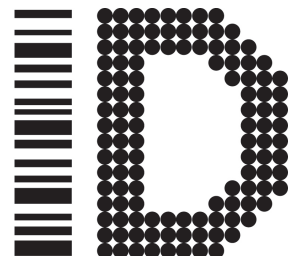
Direct Thermal or Thermal Transfer Model:  
30.2 lbs (13.7 kg)  
Direct Thermal Only Model:  
27.1 lbs (12.3 kg)

**S86-ex**
**Dimensions**

Width: 9.65" (245 mm)  
Depth: 18.23" (463 mm)  
Height: 11.81" (300 mm)

**Weight**

Direct Thermal or Thermal Transfer Model:  
33.3 lbs (15.1 kg)  
Direct Thermal Only Model:  
30.0 lbs (13.6 kg)



**TECHNOLOGY**

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