



# Maximize productivity for 24/7 mission critical applications

## SATO, Beyond Expectations

As a pioneer, SATO's flagship print engine pursues automatic print and apply machine's needs to expand its use in the world.

### Easy to Use

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



### Quick Maintenance

- Easy Tool-less Printhead Replacement
- Simple Roller Replacement
- Convenient Access to Backside
- Tool-less Sensor Cover Replacement



### Enhanced Connectivity

- Multiple Interfaces Onboard
- D-SUB 25 pin EXT Interface -NPN/PNP Connection
- Standard Emulations Onboard
- Multiple Language Support



# GENERAL SPECIFICATIONS | S84-ex/S86-ex

## PRINT SPECIFICATIONS

### Printer Models

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

### Print Mode

Dispense, Continuous

### S84-ex

#### Print Resolution

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

#### Print Speed

16 ips 14 ips 6 ips  
(406.4 mm/sec) (355.6 mm/sec) (152.4 mm/sec)

#### Print Area

##### Maximum Print Width

4.1" (104.0 mm)

##### Maximum Print Length

98.43" 59.06" 15.75"  
(2500.0 mm) (1500.0 mm) (400.0 mm)

### S86-ex

#### Print Resolution

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

#### Print Speed

14 ips (355.6 mm/sec) 12 ips (304.8 mm/sec)

#### Print Area

##### Maximum Print Width

6.6" (167.5mm)

##### Maximum Print Length

49.2" (1249.0mm)

## 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, Continuous Labels, Roll, 0.125" gap

### Media

#### Width

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

#### Minimum Length

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

#### Thickness

0.002" (0.05mm) – 0.012" (0.31mm)

### Ribbon

#### Width

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

#### Length

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

2.95MB

### Memory

48MB ROM, 64MB RAM

## USER FRIENDLY SUPPORT TOOLS

### Large Status LED

Blue/Red

### Status LCD

Normal/Orange

### Alarm Sound

Beep (3 volume settings)

### Self Diagnosis

Head Check  
Auto Sensor Calibration

### Simple Standalone Mode

9 Formats

### Emulations

LCD Selectable-SZPL, SDPL

### Remote Setting

Web Browser  
SATO All-In-One Printer Utilities

### Drivers

Windows, Linux, SAP Smart Forms, Mac OS X

## COMMUNICATION INTERFACES SPECIFICATIONS

### Standard

USB2.0 (Type B)  
RS232C  
IEEE1284  
Ethernet  
Protocol TCP/IP: LPR, FTP, TELNET, SNTP  
D-SUB 25pin EXT  
(14pin conversion cable included)

### Optional Interface

Wireless LAN IEEE 802.11b/g/n\*  
Protocol TCP/IP: LPR, FTP, TELNET  
Security: WEP, WPA, WPA2, Dynamic WEP  
Bluetooth 2.0+EDR Class2 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 (1byte/2byte), Maximum 11.7MB

## BARCODE SYBBOLOGIES SPECIFICATIONS

### Barcodes

#### Linear

Code 39, Code 93, Code 128, CODABAR  
(NW-7),EAN8/13, GS1 DataBar™, GS1-128  
(UCC/EAN128),Interleaved 2/5, Industrial  
2/5, JAN8/13, Matrix 2/5,MSI, Bookland,  
POSTNET™, UPC-A/E Intelligent Mail Barcode

#### 2D Sybologies

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

## OPERATING & ENVIRONMENT CHARACTERISTICS

### Electrical Requirements

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

### Standards & 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

-5 to 40°C, 15-85% RH, Non Condensing

#### Storage

-20 to 60°C, 15-90% RH, Non Condensing

## PHYSICAL CHARACTERISTICS

### S84-ex

#### Dimensions

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

#### Weight

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

### S86-ex

#### Dimensions

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

#### Weight

Direct Thermal or Thermal Transfer Model:  
30.2lbs (15.1kg)  
Direct Thermal Only Model: 27.1lbs (13.6kg)

\* Please contact your local SATO office for availability.

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