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 Free Printhead and Roller Replacement
• Convenient Access to Rear Cabinet
• Tool Free 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

www.satoamerica.com
**GENERAL SPECIFICATIONS / S84-ex/S86-ex**

**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)
- **Speed:** 16 ips (406.4 mm/sec), 14 ips (355.6 mm/sec), 6 ips (152.4 mm/sec)
- **Print Area:**
  - Maximum Width: 4.1" (104.0 mm)
  - Maximum Length: 98.43" (2500.0 mm)
  - Minimum Length: 15.75" (400.0 mm)

**S86-ex**
- **Resolution:** 203 dpi (8 dots/mm), 305 dpi (12 dots/mm)
- **Speed:** 14 ips (355.6 mm/sec), 12 ips (304.8 mm/sec)
- **Print Area:**
  - Maximum Width: 6.6" (167.5 mm)
  - Maximum Length: 49.2" (1249.0 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-out 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, SIPL (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, SNMP), 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 (Protocol TCP/IP, LPR, FTP, WPA2, Dynamic WEP), Bluetooth 2.0+ EDR Class 2 SPP

**External Memory**
- **USB Type A, SD/SDHC Card**

**OPTIONS**
- **W-LAN Kit, Bluetooth Kit,**
  - UHF RFID Kit ISO18000-6 Type C (S84-ex Only)

**FONT SPECIFICATIONS**
- **Internal Fonts:** Bitmap
- **BuilderInterface:** U, S, M, WB, WL, XS, XU, XM, XB, XL, OCR-A, OCR-B, Chinese (GB18030, Big5),
  - Korean (KSV100)
- **Scalable Fonts:**
  - 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
  - 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, SRR, 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)