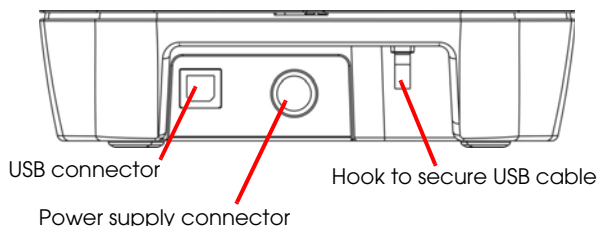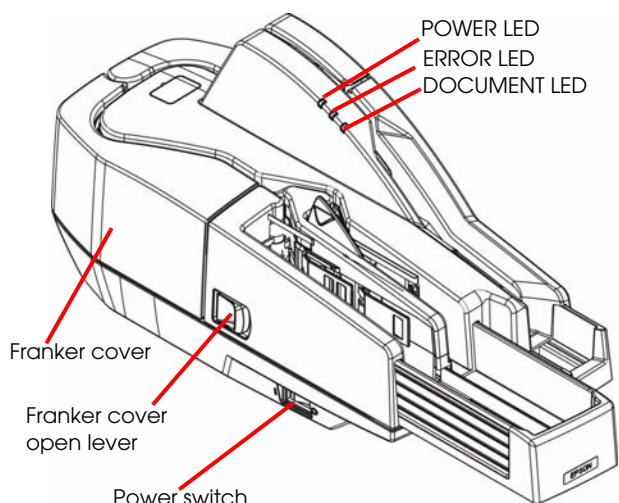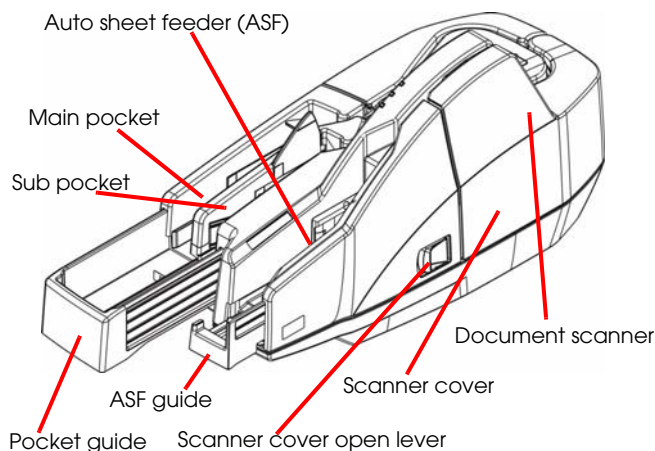# EPSON

PRODUCT INFORMATION GUIDE

UPDATE FOR BUSINESS SYSTEM PRODUCTS

11/07

This package provides a scanner product section to be added to the *Epson Business System Product Information Guide*. The table of contents of this section is listed below.

Epson CaptureOne

Auto sheet feeder (ASF)

Main pocket

Sub pocket

Document scanner

ASF guide

Scanner cover

Pocket guide

Scanner cover open lever

POWER LED

ERROR LED

DOCUMENT LED

Franker cover

Franker cover open lever

Power switch

USB connector

Power supply connector

Hook to secure USB cable

Accessories

Franking cartridge	
EFC-01 franking cartridge Ink color: red	

Utility & Documents CD	Contents
	TM-S1000 Driver TM-S1000 Utility TM-S1000 Utility User's Manual TM-S1000 User's Manual

Connections

Connector	Description
USB 2.0	Run the TM-S1000 Utility before connecting.
Power	Adapter C, 24 V ± 10%, supplied with CaptureOne

Specifications

Computer requirements

CPU	Pentium 4 1.2 GHz or more
Memory	256MB or more above minimum OS system requirements
Windows version	2000 Professional SP4
	XP Home Edition/ Professional SP2
	Vista (32-bit, 64-bit) Home Basic/ Home Premium/ Ultimate/ Business

Scanning specifications

Single pass	Scans both sides of check, reads MICR, endorses, performs franking in same pass.	
Processing speed	30 dpm or 60 dpm, depending on model	
Scanner type	CIS (contact image scanner)	
Resolution	200 x 200 dpi, 120 x 120 dpi, 100 x 100 dpi	
Graduation	Gray scale:	256 levels
	Black and white:	2 values
Data formats	Gray scale:	TIFF, JPEG, BMP, RAW
	Black and white:	TIFF (CCITT Group 4), BMP
Scanning area	3.94* (W) x 9.25" (L) (maximum) {100* x 235 mm (maximum)} * = fixed	
Scanning speed	19.69 "/s {500 mm/s}	
Font recognition	OCR A and OCR B	

Paper specifications

Type	Normal, single-ply only
Size (H x L)	2.68 ~ 4.72" x 4.72 ~ 9.25" {68 ~ 120 mm x 120 ~ 235 mm}
Thickness	0.003 ~ 0.008" {0.075 ~ 0.2 mm}
Weight	16 ~ 32 lb {60 ~ 120 g/m^2}
ASF capacity	Holds up to 100 sheets
Main pocket capacity	Holds up to 100 sheets
Sub pocket capacity	Holds up to 50 sheets
Installation	Must be horizontal (within a tilt of ± 5°)

MICR specifications

Magnetic character types

E13B, CMC7

Electronic endorsement

Can paste recorded image data on the back image of a check.

Reliability

Franking cartridge life

18,000 in Epson standard print pattern

Scanner life span 1 million sheets

MTBF: 180,000 hours

MCBF: 2,470,000 cycles

Electrical Characteristics

Power supply   Adapter C supplied with CaptureOne

Supply voltage   24 V ± 10%

Current consumption

Operation	1.0 A, approximate
Standby	0.2 A, approximate

Safety

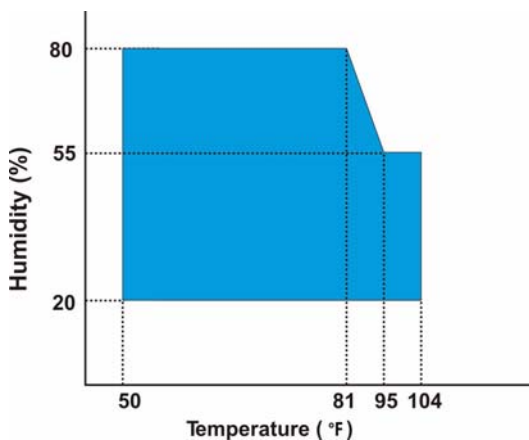EMI   FCC/ICES-003 Class A

Safety standards   UL60950-1/
            CSA C22.2 No. 60950-1

(Tested using the Epson Adapter C.)

Environmental Conditions

Temperature   Operating   50 to 104° F {10 to 40° C}
          Storage
            Packed   –4 to 140° F {–20 to 60° C}
                 (≤120 hours at –4 or 140° F)

Humidity (no condensation)
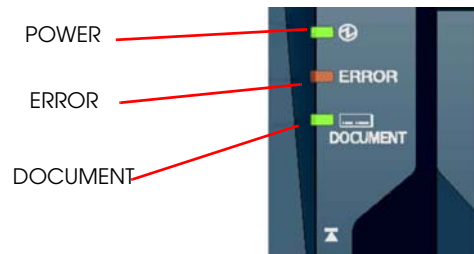   Operating   20 to 80% RH
          Storage   5 to 85% RH

DIP Switches

Two fixed DIP switches are located on the main board inside the bottom cover of the CaptureOne.

SW	Function	ON	OFF
1	Internal use. Do not change.	—	Fixed to OFF
2	Internal use. Do not change.	Fixed to ON	—

Lights and Switches

LEDs

POWER

On when CaptureOne power is on.

ERROR

Off when CaptureOne is online.

On when scanner is offline (and when scanner cover or franker cover are open)

Flashes during an error or while waiting for document removal. (See "Error LED Codes" below.)

DOCUMENT

On when the scanner is ready to process documents in the ASF or during document processing.

Flashes when the scanner is waiting for document insertion.
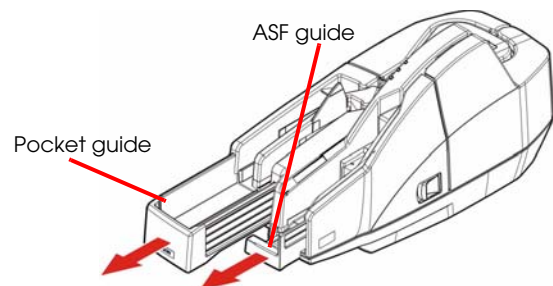
Switches

POWER

Turns the CaptureOne on or off.

A power switch cover is available to prevent accidental turn off. If installed and a failure occurs, unplug scanner immediately.
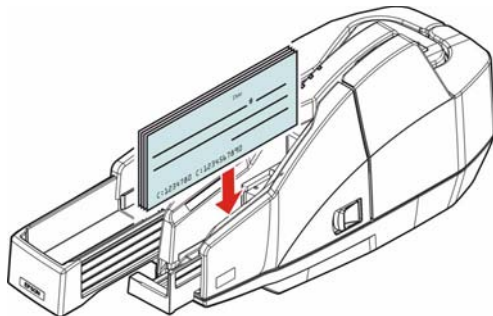
Loading Checks

1. Fully extend the pocket guide. Extend the ASF guide fully, if needed. See the illustration below.

⚠ **CAUTION**: Be sure to pull the pocket guide out far enough to hold the checks stored in the ASF guide before using the scanner. Otherwise, a paper jam may occur.

2. You can put up to 100 checks in the ASF to be fed automatically. Align the checks neatly on the bottom-right corner so that they will feed one by one.

3. Insert checks straight facing the outside, as shown below.

Ejecting Checks

1. When the checks are ejected, remove them.

Main pocket
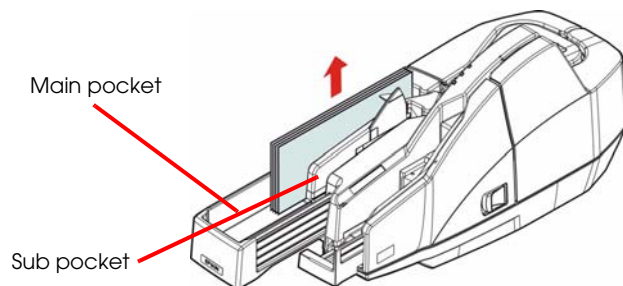
Sub pocket

⚠ **CAUTION**: Do not overfill pockets with checks (main pocket: 100; sub pocket: 50). Otherwise, a paper jam may occur.
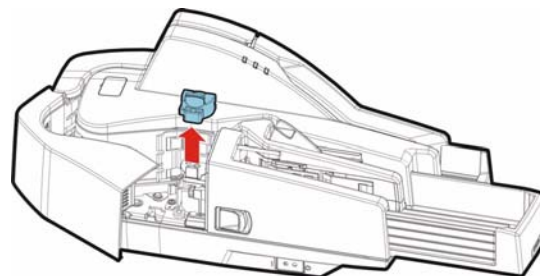
Installing the Franking Cartridge

⚠ **CAUTION**: Keep the franking cartridge out of reach of children.
Do not disassemble the franking cartridge.
Handle carefully because ink stains permanently.
Use only genuine Epson cartridges.
Do not remove cartridge from packing until ready to use.
Use cartridge before expiration date printed on the box.
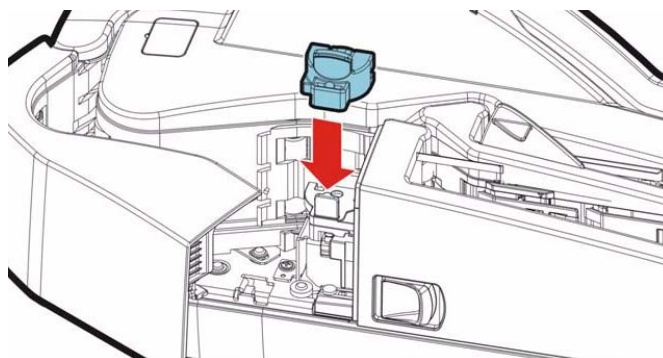Dispose of cartridge according to applicable regulations.

1. Open the franker cover by pulling the lever forward.
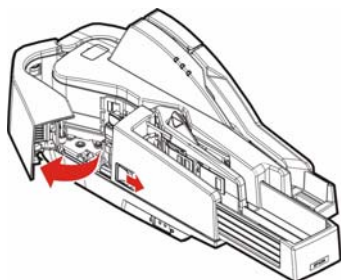
2. Remove any used franking cartridge, if any has been installed, by holding the knob at the top of the cartridge, as shown below.
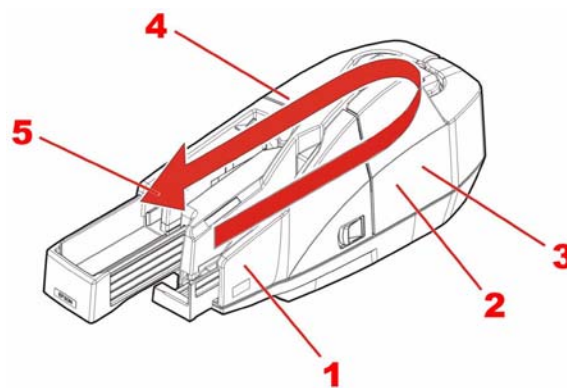
3. Carefully insert the new franking cartridge from the top, and push it firmly but gently until it clicks into place.

4. Close the franker cover until it clicks into place.

Single Pass Check Flow

The CaptureOne can perform 4 actions on a document in a single pass: scanning the image of both the face and back, reading magnetic characters, and franking.

1. Insert a document into the feeder section.
2. The scanner scans the images of the face and back.
3. The scanner reads the magnetic characters on the document.
4. The franking section prints a pattern.
5. The document is fed to the outlet.
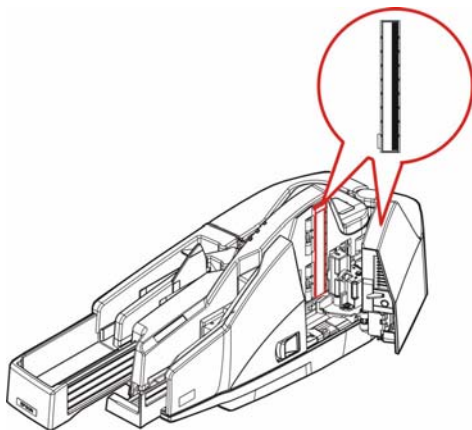
Cleaning the Scanner Glass

Clean the scanner glass if it gets dirty from ink or paper dust, or at least once every 6 months or 100,000 passes.

1. Open the scanner cover as shown below.
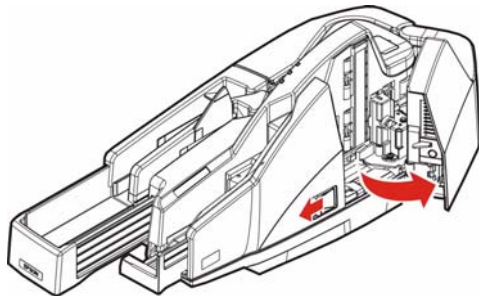
2. Lightly wipe the glass areas shown in the picture below with a soft dry cloth.

⚠️ **CAUTION**: To prevent spots or stains, do not use synthetic detergent, benzine, water, or other liquids to clean. Never apply any liquid directly to the scanner glass.

3. If the scanner glass is smeared with grease, oil, ink, etc., wipe the glass with a cloth lightly dipped in alcohol.

4. Close the scanner cover firmly until it clicks into place.

Cleaning the MICR Unit

Dirt or dust on the MICR unit can increase errors in reading magnetic characters. Clean the MICR unit every 6 months or 100,000 passes. Use the TM-S1000 Utility in the Utility & Documents CD or your application to clean the MICR unit.

Use PRESAT Brand (KIC) "CHECK READER CLEANING CARD" or an equivalent commercial cleaning sheet.

✎ **Note:** For cleaning steps, see the TM-S1000 Utility User's Manual. Do not use sticky cleaning sheets. They may cause a jam or machine failure. Dispose of used cleaning sheets properly. Do not reuse.
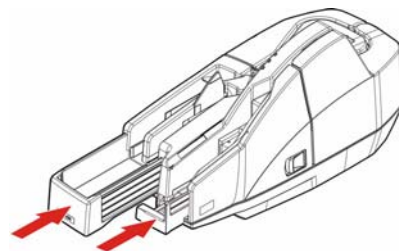
Clearing a Paper Jam

Open the scanner cover or franker cover to remove the jammed paper. See the illustration below.
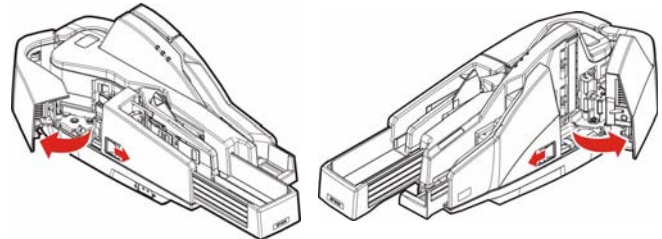
Transporting the Scanner

Follow the steps below to transport the scanner.

1. Turn off the scanner.
2. Confirm that the ① *POWER* LED is off.
3. Remove the power supply connector.
4. Store the pocket guide and the ASF guide inside the scanner.

5. Pack the scanner upright.

Self-test

The self-test checks the following printer functions:

❏ Model name
❏ Serial number
❏ Control firmware version
❏ DIP switch settings
❏ Presence of franking cartridge

The self-test is performed with Epson TM-S1000 Utility. See TM-S1000 Utility User's Manual for details.
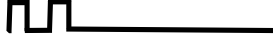
Scanner Dimensions and Weight

6.93 x 13.98 x 6.30" (H x W x D) {176 x 355 x 160 mm}
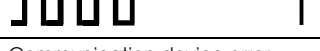8.82 lb {4 kg}

Error and Information Codes
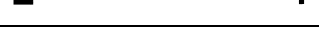
Status messages

DOCUMENT LED (Green)	Cause and Solution
Waiting for paper insertion 160 ms intervals	The scanner is waiting for a check to be inserted. Insert paper for scanning.

| ERROR LED (Orange)	Cause and Solution
Waiting for paper removal 160 ms intervals	This occurs when paper is sensed by the paper length, middle, franking, or ejection sensor during initialization of the scanner. Remove paper from pocket.

Recoverable errors

ERROR LED (Orange)	Cause and Solution
Mechanism position error Approx. 320 ms	This occurs when the ASF hopper, franking, or pocket switch board sensor detect an error during initialization of the scanner. The scanner can recover from this error if an instruction is sent from the driver or if the scanner is turned off, the error is cleared, and the scanner is turned back on.
Paper jam error 320 ms intervals	One of 5 things has happened: 1. Paper has been detected during initialization. 2. The paper length, middle, franking, or ejection sensor detected a paper-feed error. 3. The ASF failed to feed paper. 4. The check was too short or too long. 5. The cover was open during check feeding. Remove the jammed paper, be sure the cover is closed, and send an instruction from the driver or turn the scanner off and back on again.
Document read error 320 ms intervals	For this error to occur, the user must select that this error stop reading under any of the following circumstances: 1. Double-feeding was detected. 2. Incorrect check paper insertion was detected. 3. The scanner detected external noise. After the cause of the error is fixed, the scanner can recover from the error if it receives an instruction from the driver, if the scanner is turned off and back on, or if the franker cover is opened and the check is removed.

Unrecoverable errors

ERROR LED (Orange)	Cause and Required Action
CPU execution error Approx. 320 ms	The CPU is trying to execute an order to an invalid address. Turn off power as soon as possible.
Read/write or Memory overwrite error Approx. 5120 ms	A read/write check did not end normally or an error occured during a memory overwrite. Turn off power as soon as possible.

ERROR LED (Orange)	Cause and Required Action
High voltage error	Power supply voltage is too high. Turn off power as soon as possible.
Low voltage error	Power supply voltage is too low. Turn off power as soon as possible.
Communication device error	An error has occured with a communication device. Turn off power as soon as possible.
Drive circuit error	An image scanner error has occurred. Turn off power as soon as possible.

Sensors

The scanner has 7 paper sensors, 2 cover open sensors, and 5 other sensors.

Paper feed direction →
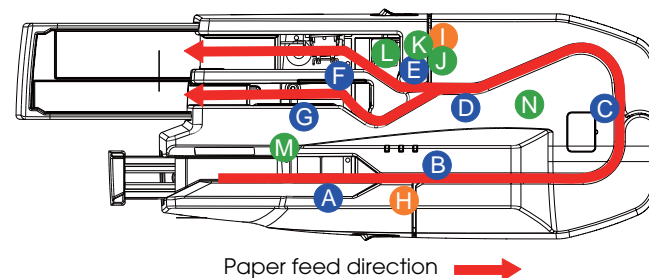
- ❏ A   ASF sensor
- ❏ B   Paper length sensor
- ❏ C   Middle sensor
- ❏ D   Franking sensor
- ❏ E   Eject sensor
- ❏ F   Main pocket nearly full sensor
- ❏ G   Sub pocket nearly full sensor
- ❏ H   Scanner cover open sensor
- ❏ I   Franker cover open sensor
- ❏ J   Franking cartridge sensor
- ❏ K   Franking cartridge position sensor
- ❏ L   Pocket switch board sensor
- ❏ M   Hopper position sensor
- ❏ N   Paper thickness sensor

Related Documentation

Epson TM-S1000 Service Manual

Epson TM-S1000 Parts Price List

Epson TM-S1000 Specification

Epson TM-S1000 Technical Reference Guide

Epson Franking Cartridge EFC-01 Specification