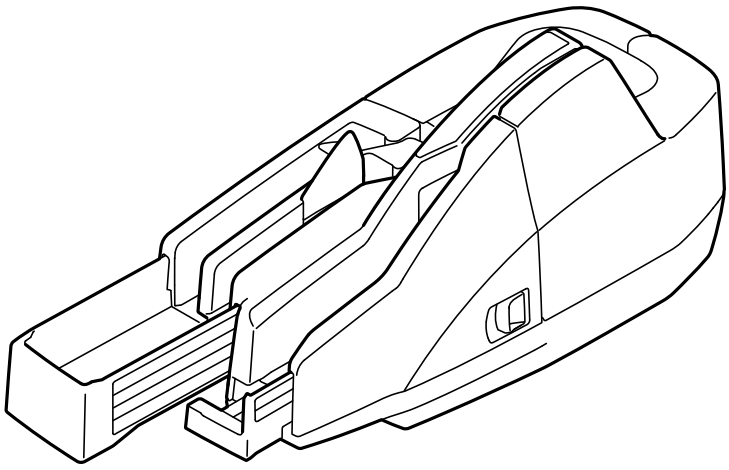
EPSON

TM-S1000II-NW

Technical Reference Guide



Product Overview

Describes features and general specifications for the product.

Setup

Describes setup and installation of the product.

Advanced Usage

Describes advanced usage methods for the product.

Application Development Information

Describes how to control the scanner and necessary information when you develop applications.

Handling

Describes how to handle the product.

Troubleshooting

Describes what to do when problems occur.

Product Specifications

Provides product specifications and interface specifications.

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Rev. A

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For Safety

Key to Symbols

The symbols in this manual are identified by their level of importance, as defined below. Read the following carefully before handling the product.

WARNING	You must follow warnings carefully to avoid serious bodily injury.
CAUTION	Provides information that must be observed to prevent damage to the equipment or loss of data. • Possibility of sustaining physical injuries. • Possibility of causing physical damage. • Possibility of causing information loss.
CAUTION	Provides information that must be observed to avoid damage to your equipment or a malfunction.
NOTE	Provides important information and useful tips.

Warnings

WARNING

- ❏ **Do not set up this product or handle cables during a thunderstorm. There is a risk of electric shock.**
- ❏ **Never insert or disconnect the power plug with wet hands. Doing so may result in severe shock.**
- ❏ **Handle the power cable with care. Improper handling may lead to fire or electric shock.**
  - ∗ Do not modify or attempt to repair the cable.
  - ∗ Do not place any heavy object on top of the cable.
  - ∗ Avoid excessive bending, twisting, and pulling.
  - ∗ Do not place the cable near heating equipment.
  - ∗ Check that the plug is clean before plugging it in.
  - ∗ Be sure to push the plug all the way in.
- ❏ **Be sure to use the specified power source. Connection to an improper power source may cause fire or shock.**
- ❏ **Do not place multiple loads on the power outlet. Overloading the outlet may lead to fire.**
- ❏ **Shut down this product immediately if it produces smoke, a strange odor, or unusual noise. Continued use may lead to fire. Immediately unplug the product and contact qualified service personnel.**
- ❏ **Never attempt to repair this product yourself. Improper repair work can be dangerous.**
- ❏ **Never disassemble or modify this product. Tampering with this product may result in injury or fire.**
- ❏ **Do not allow foreign matter to fall into the product. Penetration by foreign objects may lead to fire.**
- ❏ **If water or other liquid spills into this product, do not continue to use it. Continued use may lead to fire. Unplug the power cord immediately and contact qualified service personnel.**

Cautions

CAUTION

- ❏ Do not connect cables in any other way than described in this manual. Improper connection may result in damage to the product or cause fire.
- ❏ Be sure to set this product on a firm, stable, horizontal surface. The product may break or cause injury if it falls.
- ❏ Do not use the product in a humid or dusty place. Excessive moisture or dust may damage the product or cause fire.
- ❏ Do not sit or lean on the product. Do not place heavy objects on the product. Doing so may break the product or cause injury.
- ❏ To ensure safety, unplug this product before leaving it unused for an extended period.
- ❏ Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause fire.

Restriction of Use

If this product is used for applications which require a high level of reliability or safety in terms of functionality or precision for equipment directly related to the operation of aircraft, trains, ships, automobiles etc., disaster or crime prevention equipment, various safety equipment, etc., we ask that you use this product only after including fail-safe and redundancy designs in order to maintain the reliability and safety of said overall systems, ensuring that it is designed in consideration of safety.

This product is not designed for use in applications that require an extremely high level of reliability or safety, such as aerospace equipment, trunk communications equipment, nuclear power control equipment, medical equipment, etc., so we ask that you carefully consider whether or not this product is appropriate for such applications.

Open Source Software License

This product uses open source software in addition to Epson proprietary software.

For information of the open source software used in this product, see the following URL.

http://xxx.xxx.xxx.xxx/PRESENTATION/ADVANCED/LICENSE/TOP

For “xxx.xxx.xxx.xxx” in the above URL, input your scanner’s IP address.

Manuals for This Product

The following manuals are available for this product.

Paper manual 	**Manuals, such as Setup Guide, included in the product package** Explains how to install and set up this product, from checking the bundled items. Precautions for handling this product are also provided. To ensure safe and correct use and to prevent harm to you or others, or damage to property, please read the paper manuals before using the product.
Manuals viewed on computers and smart devices 	**User's Manual** Describes the functions of this product, how to operate it, information on maintenance, and how to solve various problems. In addition to the URL below, you can also access it from the QR Code attached to the product itself. ☞ https://support.epson.net/p_doc/99b/
Manuals viewed on computers 	**TM-S1000II-NW Technical Reference Guide (this manual)** Describes information necessary to set up this product, perform daily tasks, and develop your own system. You can access the manual from the URL below. For customers in North America: https://www.epson.com/support/ For customers in other countries or regions: https://epson.sn
Manuals viewed on computers and smart devices 	**Web video manual** The videos clearly explain how to set up the product and connect it to the host computer. You can access the manual from the URL below. ☞ https://support.epson.net/p_doc/979/ The contents of the videos are subject to change without notice.

About This Manual

Aim of the Manual

This manual is intended to provide developers with the information they need to develop and design scanner application software.

Manual Content

This manual consists of the following sections.

Contents

Product Overview

This chapter describes features and specifications of the product.

Features

The TM-S1000II series is a compact check scanner that integrates functions for processing business documents such as checks.

The TM-S1000II series can perform four operations in a single pass: scanning front and back sides of a document, reading a magnetic ink character recognition (MICR) line, and franking.

What the Scanner Does while a Document Pass Through

- ❏ Read magnetic ink character recognition (MICR) line (E13B, CMC7) on checks
- ❏ Obtain image data scanned from both sides of a document
- ❏ Scan and recognize OCR A/B fonts in document images
- ❏ Add digital endorsement to the images of the front and back of checks
- ❏ Analyze image quality with IQA* function
- ❏ Frank (stamp a mark in red ink) a processed document

*: IQA (Image Quality Assurance): Complies with FSTC (Financial Services Technology Consortium) recommendations.

Functions for Accuracy and Efficiency

- ❏ Double-feed detection
- ❏ Detection of documents improperly loaded
- ❏ Function for sorting documents into two pockets
- ❏ Maintenance counter
- ❏ Equipped with High-Speed USB (USB 2.0) and Ethernet interfaces. Wi-Fi is also available with the optional OT-WL06.
- ❏ A connector cover is included as standard to protect the optional OT-WL06 from theft

Easy Operation

- ❏ Easy drop-in paper loading
- ❏ Universal design
- ❏ Equipped with built-in buzzer
- ❏ TM-S1000II series API is provided for easy application development.

Franking Cartridge

- ❏ Stamp on electronically settled documents
- ❏ Franking or not can be selected according to the data scanned from a document

Product Configuration

Model

- ❏ 30 dpm model
- ❏ 60 dpm model

* dpm: the number of documents that can be processed in 1 minute (Documents Per Minute)

NOTE

For detailed information about processing speed, see "Processing Speed" on page 21.

Included

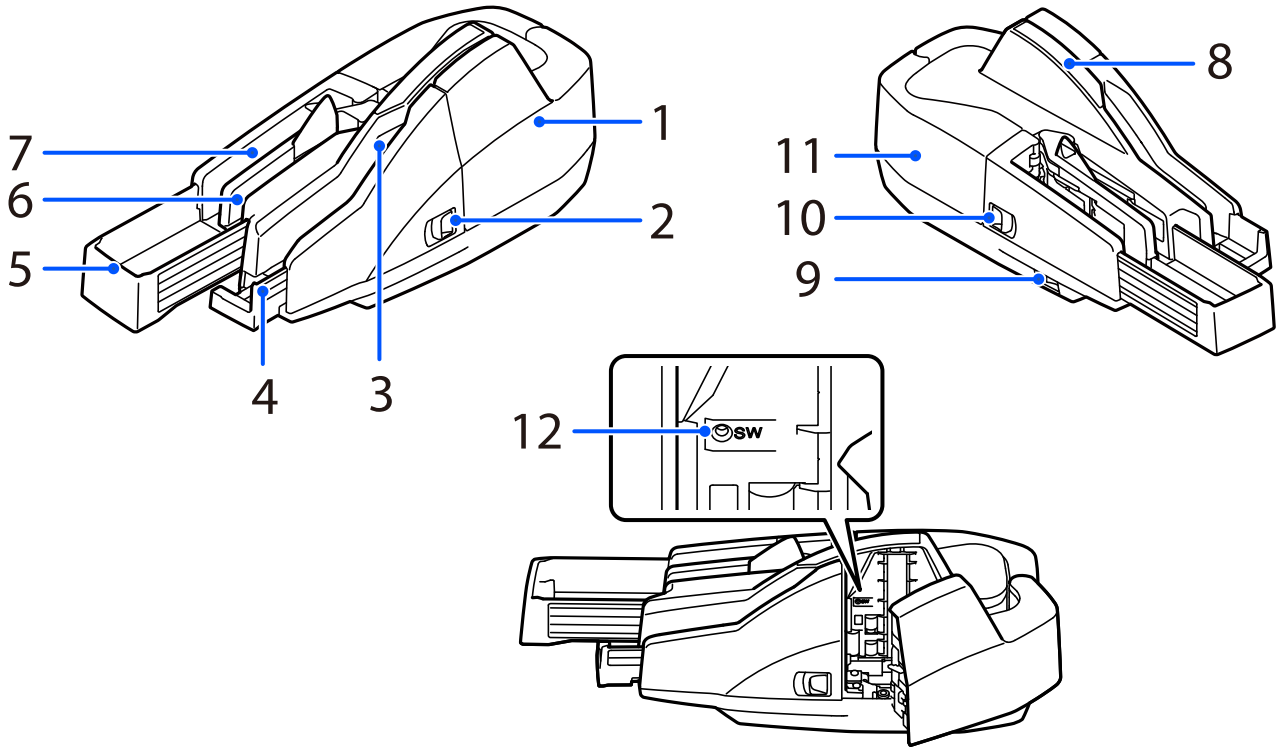
- ❏ AC adapter
- ❏ AC cable
- ❏ Power switch cover
- ❏ Connector cover
- ❏ USB cable (length: 180 cm {70.9 in.})
- ❏ Dedicated franking cartridge (Model: EFC-01)
- ❏ Manuals

Options

Wireless LAN cable set (Model: OT-WL06)

Part Names and Functions

Body

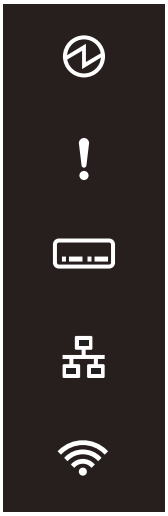


1	Scanner cover	Open this cover to remove jammed paper or to clean the scanner unit.
2	Scanner cover open lever	Move this lever to open the scanner cover.
3	ASF (Auto-Sheet-Feeder)	Load documents here to scan them. Up to 100 sheets can be loaded at a time.
4	ASF guide	Extend this ASF guide to match the length of the documents.
5	Pocket guide	Extend this pocket guide to match the length of the documents.
6	Sub pocket	Processed documents are ejected into these pockets.
7	Main pocket	
8	LED indicators	These LEDs indicate the operating status of the scanner. "LED Indicators" on page 14
9	Power switch	Flip this switch to turn the scanner on or off.
10	Franker cover open lever	Move this lever to open the franker cover.
11	Franker cover	Open this cover to replace the franking cartridge.
12	Network button	This button is located inside the scanner. Open the scanner cover and press the button to initialize the network settings. "Resetting the Network Settings" on page 44

LED Indicators

This section describes the function of each LED.

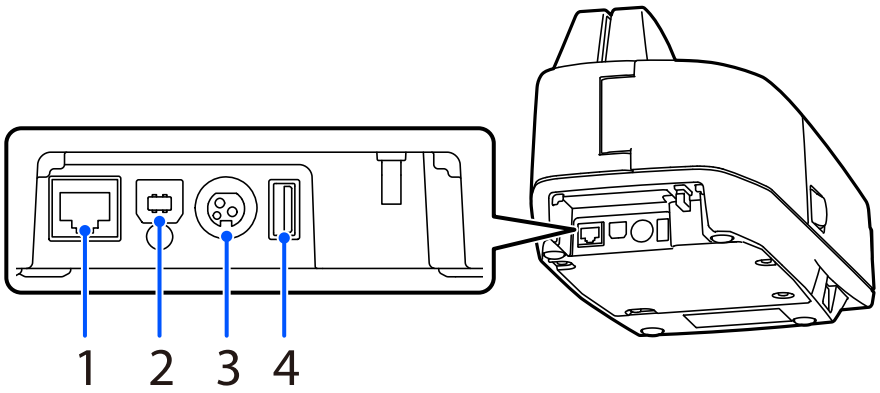
For more information on the scanner statuses indicated by the LEDs, see "Status and Errors" on page 16.



	Power LED	Stays on while the scanner is powered on.
	Error LED	• On The scanner is offline, such as when the scanner cover or franker cover is open. • Flashing An error has occurred or the scanner is waiting for documents to be removed.
	Document LED	• On The scanner is ready to process documents in the ASF or the scanner is processing documents. • Flashing The scanner is waiting for documents to be loaded.
	Ethernet LED	• On A LAN cable is connected to the scanner and the scanner is ready to communicate. • Flashing The scanner is temporarily unable to communicate, such as when it is obtaining an IP address after a LAN cable is connected. • Off The scanner is not connected to an Ethernet network, or it is connected to a Wi-Fi network.
	Wi-Fi LED	This LED indicates the Wi-Fi connection status when the optional wireless LAN unit is connected to the scanner. • On The scanner is connected to a Wi-Fi network and ready to communicate. • Flashing The scanner is temporarily unable to communicate, such as when it is attempting to connect to a configured network or is in the process of acquiring an IP address. • Off The scanner is not connected to a Wi-Fi network, or it is connected to an Ethernet network.

Connectors

The connectors are located on the back side of the scanner.



1		Ethernet connector	Connect a LAN cable.
2		USB connector (Type B)	Connect a USB cable (Type B).
3	24V ⎓	Power supply connector	Connect a DC cable for the AC adapter.
4		USB connector (Type A)	Connect the optional wireless LAN unit (OT-WL06).

Online and Offline

Offline

The scanner automatically goes offline under the following conditions:

- During power on (including resetting with the interface) until the scanner is ready
- When the scanner cover is opened
- When the franker cover is opened
- When an error has occurred

Online

The scanner is online and ready for normal processing unless there is a reason to go offline.

Status and Errors

The LEDs on the scanner light up or flash to indicate status of the scanner.

CAUTION	If an error occurs, all scanner operations are stopped.

NOTE	The flashing LED alone does not indicate what the error is. Develop an application that allows the scanner user to identify the error and know the solution.

Status Display

●: ON ☀: Flashing ○: OFF -: Ignore the LED light

Power LED	Error LED	Document LED	Scanner Status
☀	●	○	The scanner has just been turned on and is performing an initialization operation. The Ethernet LED and Wi-Fi LED also flash.
☀*1	●	○	The scanner is performing a turn-off process. The Ethernet LED and Wi-Fi LED also flash.
●	○	○	The scanner is online.
●	●	○	The scanner cover or the franker cover is open.
●	○	☀*1	The scanner has received a command and is waiting for document(s) to be loaded.
●	○	●	The scanner is ready to process documents or is processing documents.
●	☀*1	○	The scanner is waiting for processed documents to be removed from the pocket.
●	☀	○	A recoverable or unrecoverable error has occurred. See "Error Status" on page 18 for more information.
☀*2	○	○	A RTC (Real Time Clock) error has occurred. See "Scanner Clock is Not Right" on page 60 to correct the setting.
☀	○	-	The scanner is updating firmware. The power LED flashes irregularly during the firmware update.

*1: The LED flashing pattern is: lighting for 320 ms followed by a pause for 320 ms.
*2: The LED flashing pattern is: lighting for 4960 ms followed by a pause for 160 ms.

Network Connection Status

●: ON ☀: Flashing* ○: OFF

Ethernet LED	Wi-Fi LED	Scanner Status
●	○	A LAN cable is connected to the scanner and the scanner is ready to communicate.
☀	○	The scanner is temporarily unable to communicate, such as when it is obtaining an IP address after the LAN cable is connected.
○	●	The scanner is connected to a Wi-Fi network and ready to communicate.
○	☀	The scanner is temporarily unable to communicate, such as when it is attempting to connect to a configured network or is in the process of acquiring an IP address.
☀	☀	The network firmware is being started.
○	○	The scanner is not connected to either an Ethernet network or a Wi-Fi network.

* The LED flashing pattern is: lighting for 320 ms followed by a pause for 320 ms.

Error Status

There are two possible error types: recoverable errors and unrecoverable errors.

Recoverable Errors

Processing is no longer possible when recoverable errors occur. They can be recovered easily by turning the power off and then on again or sending an error recovery command from the driver after eliminating the cause of the error.

Error	Error LED flashing interval Approx. 320 ms Approx. 5120 ms	Error description	Recovery measure
Mechanical positioning error		One of the following errors during initialization and operation. • Error in hopper position detection • Error in franker position detection • Error in pocket switch plate position detection	Remove the cause (foreign matter or papers) and call BiCancelError of the driver or turn off/on the power.
		The paper length sensor, middle sensor, franking sensor, or ejection sensor has detected paper during initialization.	
Paper jam error		After initialization, paper was detected on the path before the CIS.	Remove the paper and call BiCancelError of the driver or turn off/on the power.
		• Paper jam. (Paper length sensor, middle sensor, franking sensor, or ejection sensors detected paper feed error.) • ASF failed in feeding paper.	Remove the jammed paper and call BiCancelError of the driver or turn off/on the power.
		Too short/long paper detected.	Remove the paper left in the paper path and call BiCancelError of the driver or turn off/on the power.
		Cover opened during paper feeding.	If the paper is left in the paper path, remove it and call BiCancelError of the driver with covers closed or turn off/on the power.

Error	Error LED flashing interval Approx. 320 ms Approx. 5120 ms	Error description	Recovery measure
Reading error*		One of the following errors in the high-speed mode. • Multi-feed error • Status other than "Check was correctly inserted" • External noise detected	Open the franker cover, remove the paper, and call BiCancelError of the driver or turn off/on the power.
		When an application judges an error in the confirmation mode.	

* This error occurs only if the scanner is set to stop the document at the franking position instead of ejecting it into the pocket when a reading error occurs.

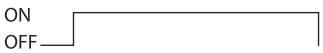
CAUTION The error recovery command is valid only if a recoverable error (excluding automatically recoverable errors) occurs.

Unrecoverable Errors

When an unrecoverable error occurs, the product stops operating. If turning the product off and then back on again does not clear the error, servicing is required. Contact qualified service personnel.

CAUTION

If an unrecoverable error occurs, immediately turn off the scanner by operating the power switch or unplugging the DC cable or the power plug.

Error	Error LED flashing interval Approx. 320 ms Approx. 5120 ms	Error description
CPU execution error		The CPU is executing an incorrect address.
Memory Read/Write error		After Read/Write checking, the scanner does not work correctly.
Drive circuit error		There is an abnormality in the drive circuit.
Motor current error		There is an abnormality in the paper feed motor.

Processing Modes

The TM-S1000II series has multiple processing modes that are selectable in accordance with how you want to use the scanner.

For detailed information about processing modes, see the TM-S1000II API Reference Guide.

Processing mode		Description	30 dpm model	60 dpm model
PC API (USB connection)	**High-speed mode**	The scanner processes a document without stopping from feeding a document until ejecting it.	✓	✓
	Confirmation mode without overlap[*1]	After reading a document, the scanner stops processing before ejecting it and waits for a command from a PC to restart processing.	✓	✓
	Confirmation mode with overlap[*2]			✓
Web API (Network connection)	**High-speed mode**	The scanner processes a document without stopping from feeding a document until ejecting it.	✓	✓

∗1: The next document is fed after a document is ejected into the pocket.
∗2: The next document is fed while processing the previous document is still in progress.

Processing Speed

The processing speed (dpm: the number of documents that can be processed in 1 minute) when using the driver differ depending on the following conditions.

NOTE

The processing speed may slow down while saving data in the HDD.

For 30 dpm model (USB connection)

Processing mode	Paper size	Driver/Application settings*1	Franking/Eject process setting	Processing speed
High-speed mode	Personal check	All disabled	Regardless	30 dpm
		One or more enabled	Both disabled	30 dpm
			Either or both enabled	28 dpm
	Business check	All disabled	Regardless	30 dpm
		One or more enabled	Both disabled	30 dpm
			Either or both enabled	28 dpm
Confirmation mode without overlap	Any check	All disabled	Regardless	28 dpm*2
		One or more enabled	Regardless	28 dpm*2

∗1: Judgements of the following items can be enabled with the driver.
- Magnetic waveform detection result
- MICR "?" detection result
- IQA result

Settings with an application are available only for the confirmation mode.

∗2: The processing speed is a maximum. It may slow down depending on the environment (including the application) and conditions of documents.

For 30 dpm model (Network connection)

Processing mode	Paper size	Scan setting *1	Processing speed*2*3
High-speed mode	Personal check	All disabled	30 dpm
		One or more enabled	20 dpm
	Business check	All disabled	30 dpm
		One or more enabled	18 dpm

∗1: Judgements of the following items can be enabled with the Web API.
- MICR "?" detection result
- IQA result

However, when the IQA judgment function is enabled, the processing speed will be lower than the speed listed in the table above.

∗2: The processing speeds are when the scanner is connected via wired LAN (10BASE-T/full duplex) and the network is not overloaded. When connected via wireless LAN, the speeds will be slower.

∗3: The above processing speeds are not achieved and are reduced when the IQA function is enabled.

For 60 dpm model (USB connection)

Processing mode	Paper size	Driver/Application settings*1	Franking/Eject process setting	Processing speed
High-speed mode	Personal check	All disabled	Regardless	60 dpm
		One or more enabled	Both disabled	60 dpm
			Either or both enabled	32 dpm
	Business check	All disabled	Regardless	60 dpm
		One or more enabled	Both disabled	60 dpm
			Either or both enabled	32 dpm
Confirmation mode with overlap	Any check	All disabled	Regardless	40 dpm*2
		One or more enabled	Regardless	32 dpm*2
Confirmation mode without overlap	Any check	All disabled	Regardless	28 dpm*2
		One or more enabled	Regardless	28 dpm*2

∗1: Judgements of the following items can be enabled with the driver.
- Magnetic waveform detection result
- MICR "?" detection result
- IQA result

Settings with an application are available only for the confirmation mode.

∗2: The processing speed is a maximum. It may slow down depending on the environment (including the application) and conditions of documents.

For 60 dpm model (Network connection)

Processing mode	Paper size	Scan setting*1	Processing speed*2*3
High-speed mode	Personal check	All disabled	60 dpm
		One or more enabled	32 dpm
	Business check	All disabled	45 dpm
		One or more enabled	26 dpm

∗1: Judgements of the following items can be enabled with the Web API.
- MICR "?" detection result
- IQA result

However, when the IQA judgment function is enabled, the processing speed will be lower than the speed listed in the table above.

∗2: The processing speeds are when the scanner is connected via wired LAN (10BASE-T/full duplex) and the network is not overloaded. When connected via wireless LAN, the speeds will be slower.

∗3: The above processing speeds are not achieved and are reduced when the IQA function is enabled.

Selectable Processes

The following process settings can be configured from your application software.

❏ Franking process
- With franking
- Without franking

❏ Ejection process
- Ejects documents to the Main pocket
- Ejects documents to the Sub pocket
- Does not eject documents
- Waterfall (When the first pocket becomes nearly full with ejected documents, automatically switches to the other pocket)

❏ Electric endorse
- With electric endorsing
- Without electric endorsing

Each process is performed based on the parameters shown below.

	High-speed mode	Confirmation mode
Franking process	• Double-feed detection result • Incorrect insertion detection result • External noise detection result	• Double-feed detection result • Incorrect insertion detection result • External noise detection result • Magnetic waveform detection result • MICR "?" detection result • IQA result • Select the check items with the application software*
Ejection process	• Double-feed detection result • Incorrect insertion detection result • External noise detection result	• Double-feed detection result • Incorrect insertion detection result • External noise detection result • Magnetic waveform detection result • MICR "?" detection result • IQA result • Select the check items with the application software*
Electric endorse	• Double-feed detection result • Incorrect insertion detection result • External noise detection result • Magnetic waveform detection result • MICR "?" detection result • IQA result	• Double-feed detection result • Incorrect insertion detection result • External noise detection result • Magnetic waveform detection result • MICR "?" detection result • IQA result • Select the check items with the application software

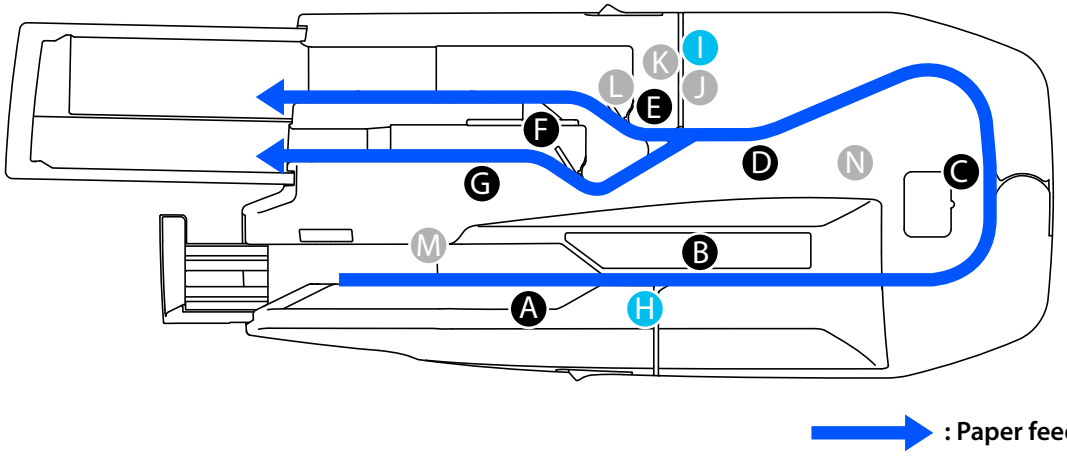
* You can use your application software to select what to check with the scanner driver (for USB connections) or Web API (for network connections).

NOTE

If the waterfall function is enabled, the setting of the ejection process is ignored.
The waterfall function automatically switches to the other pocket when the first pocket becomes nearly full with ejected documents.

Sensors

There are 7 paper sensors, 2 cover open sensors, and 5 other sensors.



Paper Sensors

ASF sensor (A)

This sensor is located in the feeder paper path. It detects when a document is in the ASF. When the sensor detects a document, the document LED lights if scanning is possible.

Paper length sensor (B)

This sensor is located in the feeder paper path. It is mainly used for internal processing, but also includes a function for detecting a piece of paper remaining in the feeder path in the event of a paper jam or the like.

Middle sensor (C)

This sensor is located in the feeder paper path. It is mainly used for internal processing, but also includes a function for detecting a piece of paper remaining in the feeder path in the event of a paper jam or the like.

Franking sensor (D)

This sensor is located in the feeder paper path. It detects when a document has reached the franking printing section.

Eject sensor (E)

This sensor is located in the feeder paper path. It detects whether a document is properly ejected and stored in a pocket.

Main pocket nearly full sensor (F)

This sensor is located in the Main pocket. It detects whether documents stored in the pocket need to be removed.

NOTE

- The sensor detects the nearly full status when the thickness of the documents in the Main pocket exceeds the specified value (80 or more of documents whose thickness is 0.13 mm without folds, wrinkles, or roughness).
- To prevent paper jams, use the scanner with the setting to stop continuous processing when it detects that the pocket is almost full. For more information on settings, see the *TM-S1000II API Reference Guide* (for USB connection) or the *TM-S1000II-NW Web API Reference* (for network connection).

Sub pocket nearly full sensor (G)

This sensor is located in the Sub pocket. It detects whether documents stored in the pocket need to be removed.

NOTE

- The sensor detects the nearly full status when the thickness of the documents in the Sub pocket exceeds the specified value (40 or more of documents whose thickness is 0.13 mm without folds, wrinkles, or roughness).
- To prevent paper jams, use the scanner with the setting to stop continuous processing when it detects that the pocket is almost full. For more information on settings, see the *TM-S1000II API Reference Guide* (for USB connection) or the *TM-S1000II-NW Web API Reference* (for network connection).

Cover Open Sensors

Scanner cover open sensor (H)

This sensor detects the opening/closing of the scanner cover. The scanner automatically goes offline when the cover is opened. It goes back online when the scanner cover is closed.

Franker cover open sensor (I)

This sensor detects the opening/closing of the franker cover. The scanner automatically goes offline when the cover is opened. It goes back online when the franker cover is closed.

Other Sensors

Franking cartridge sensor (J)

This sensor detects whether the franking cartridge is installed or not.

Franking cartridge position sensor (K)

The franking cartridge is installed in the franking cartridge holder, and the franking operation is achieved by a motor driving the cartridge holder. The scanner has a franking cartridge sensor for detecting the position of the cartridge holder.

Pocket switch plate sensor (L)

Since the scanner can eject processed documents into either of two pockets, it is equipped with a switch plate that switches which pocket the documents are ejected into. This sensor detects the position of the switch plate.

Hopper position sensor (M)

This sensor is located in the ASF. It detects the position of the hopper, which holds documents in place.

Paper thickness sensor (N)

When more than one document is fed into the scanner at a time, this sensor detects the thickness and unevenness of the fed documents. Thus, the scanner can detect a double-feed error.

NOTE	Even if a double feed is detected, it is still possible to obtain MICR and image data that has been read, and to carry out print electronic endorsements and franking.

Maintenance Counter

The TM-S1000II series has the maintenance counter to get the following counts.

- Documents fed from the ASF: Counts the number of times a document is fed from the ASF.
- Scanned documents: Counts the number of times a document is scanned by the image scanner.
- MICR line scanning: Counts the number of times a MICR line is scanned.
- Hopper open/close: Counts the number of times that the hopper in the ASF switches from the closed state to the open state.
- Franking: Counts the number of times that the franker is driven.
- Pocket switching: Counts the number of times the pocket from which documents are ejected switches from the Main pocket to the Sub pocket.
- Total operation hours: Counts the number of hours that the power has been on.

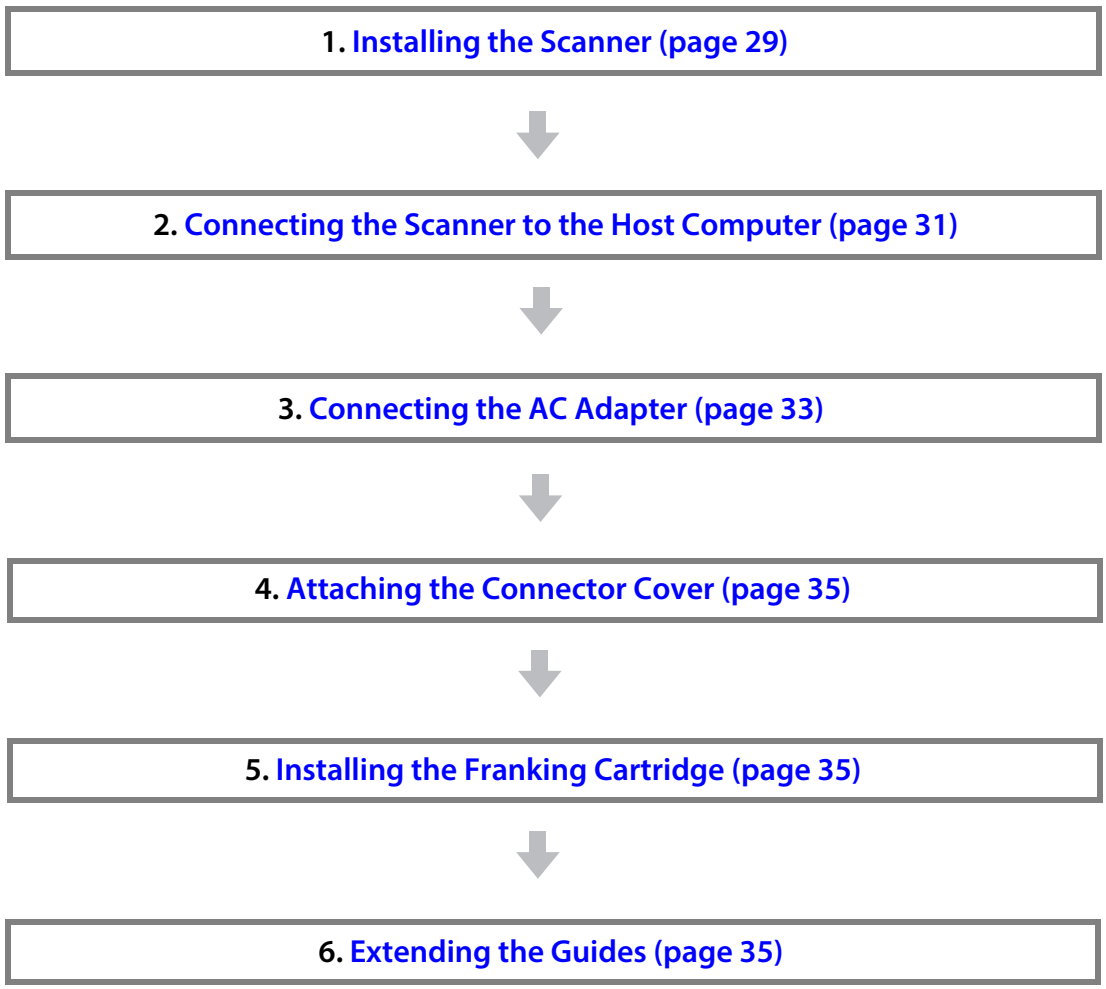
Counter	Counter type	Number of times or Hour
Documents fed from the ASF	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
Scanned documents	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
MICR line scanning	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
Hopper open/close	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
Franking	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
Pocket switching	Resettable	1 to 4,294,967,295 times
	Cumulative	1 to 4,294,967,295 times
Total operation hours	Resettable	1 to 71,582,788 hours
	Cumulative	1 to 71,582,788 hours

Setup

This chapter describes setup and installation of the product.

Flow of Setup

This chapter consists of the following sections along with the setup flow of the product.

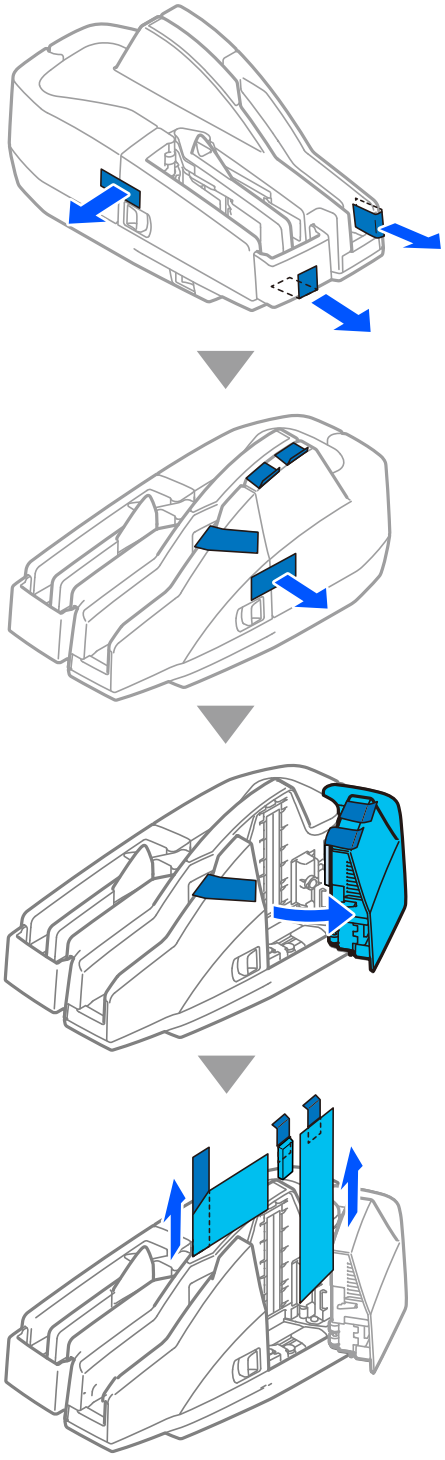


Installing the Scanner

You can install this scanner only horizontally.

Removing the Packing Materials

Packing materials are attached to the scanner to protect it from shocks during transportation. Before installing the scanner, remove the packing materials shown below.



Important Notes on Installation

- Install the product horizontally (within ±5°).
  However, when installed with the left side of the pocket raised, the number of sheets stored may not meet the specifications even if the inclination is less than 5° depending on the condition of the document.
- Do not place the scanner in dusty locations.
- Do not catch cables or allow foreign matter under the scanner.
- Do not subject the scanner to abnormal impact while it is operating. This may cause defective readings.
- Do not install the scanner near electronic devices that generate strong magnetic fields. Otherwise, the scanner may stop reading an MICR line and generate an error in order to avoid reading it incorrectly. If the error occurs, take the following measures to reduce the effects of electromagnetic radiation.
  * Install the scanner away from the electronic device that generates strong magnetic fields.
  * Install a shield plate (steel plate or shield material, etc.) that can prevent electromagnetic waves between the electronic device that generates strong magnetic fields and the scanner.

Connecting the Scanner to the Host Computer

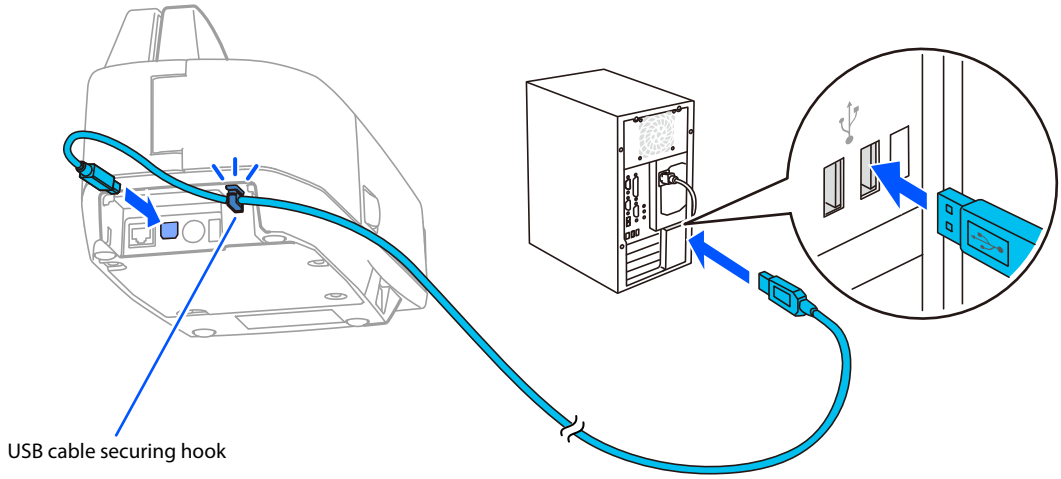
Connecting via USB

1 **Confirm that the scanner is not connected to the host computer.**

2 **Install the scanner driver on the host computer.**

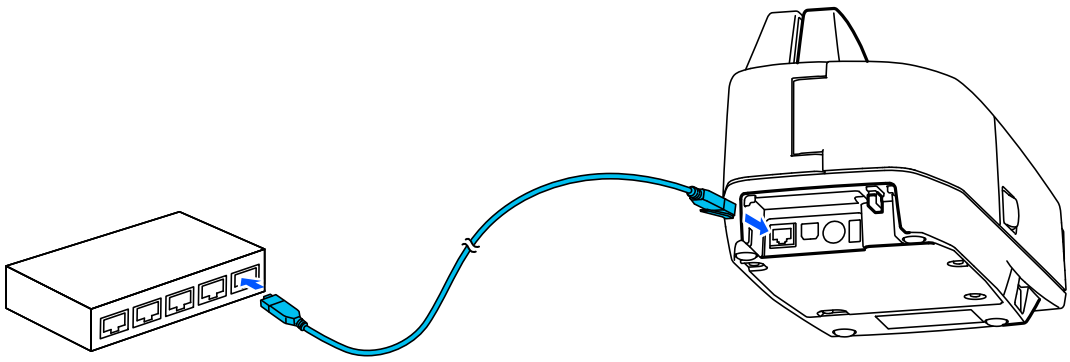
3 **Connect the host computer to the scanner with the included USB cable.**

> **CAUTION**
> - Be sure to use the USB cable that is included with the scanner.
> - Pass the USB cable through the USB cable securing hook as shown below to prevent the cable from falling off.



Connecting via Ethernet

Connect a LAN cable to your router or hub.



See "Network Settings" on page 36 for network connection settings.

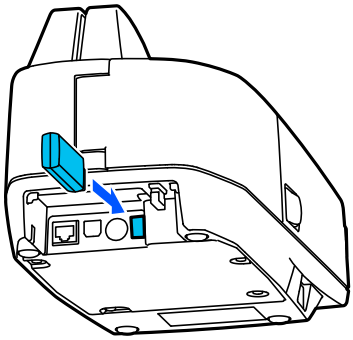
Connecting via Wireless LAN

CAUTION

Depending on the installation conditions of the scanner and the routing for cables connected to it, the status of the radio waves for the Wireless LAN unit may decline. If this does happen, use an extension cable.

1 **Make sure the scanner is turned off.**

2 **Connect the optional wireless LAN unit to the USB connector (Type A) on the scanner.**
For details on how to connect the unit, refer to the user's manual of the wireless LAN unit.



See "Network Settings" on page 36 for network connection settings.

Connecting the AC Adapter

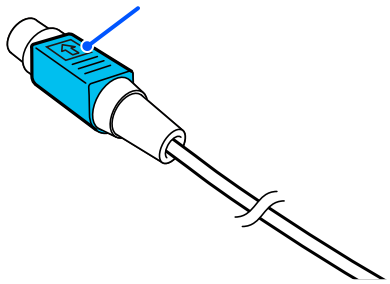
WARNING

- **Be sure to use only the specified AC Adapter [AC adapter, C1] or [PS-190]. Using a nonstandard power supply can result in electric shock and fire.**
- **Never insert the AC cable plug into a wall outlet that does not meet the input voltage of the AC adapter. Doing so may result in damage to the scanner.**
- **If a malfunction occurs with the AC adapter or scanner, immediately turn off the scanner and unplug the AC cable from the wall outlet.**

CAUTION

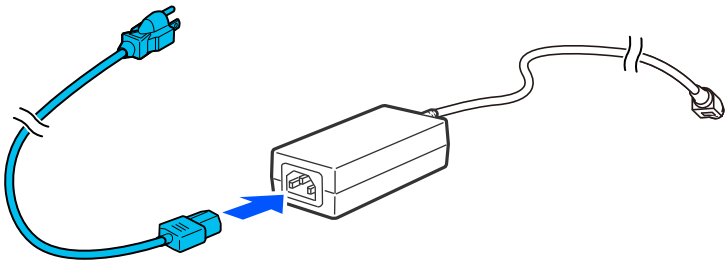
When disconnecting the DC cable of the AC adapter from the scanner, make sure that the AC cable is not connected, and then hold the arrow-printed portion of the connector to pull it straight out.

Arrow-printed portion of the connector

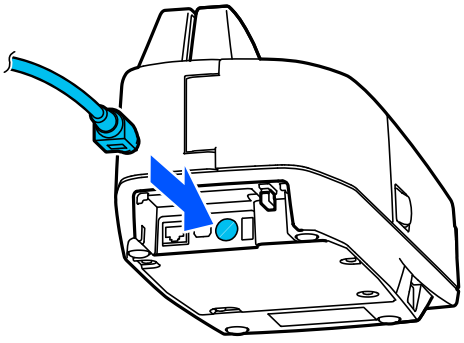


1 **Make sure the power switch is in the off position and the scanner is turned off. Be sure the AC cable is not plugged into a wall outlet.**

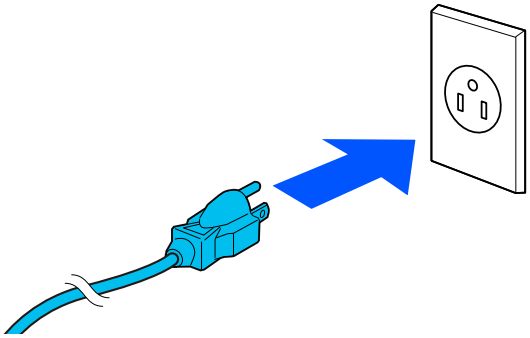
2 **Connect the AC cable to the AC adapter.**



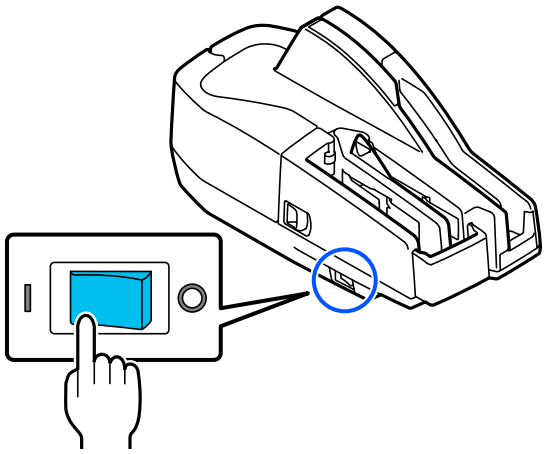
3 **Connect the AC adapter to the scanner with the DC cable of the AC adapter.**



4 **Plug the AC cable into a wall outlet.**



5 **Flip the power switch to the | ON position to turn on the scanner.**



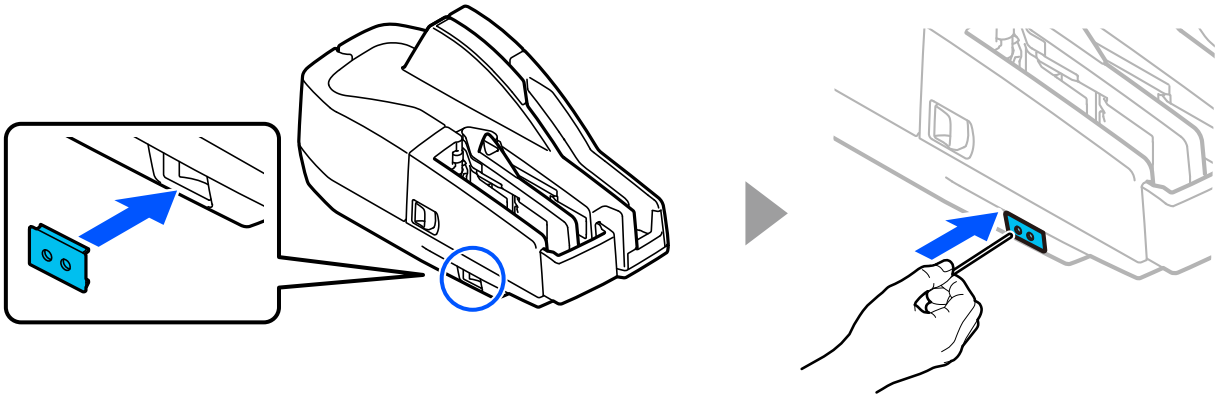
Power Switch Cover

The power switch cover is intended to prevent the power switch from being pressed accidentally. To use the cover, attach it over the power switch. To turn the power on or off after the cover is attached, press the switch through the hole in the cover with a thin stick or similar object.

When storing the scanner or not using it for a long period of time, turn it off with the power switch and unplug the power cable.

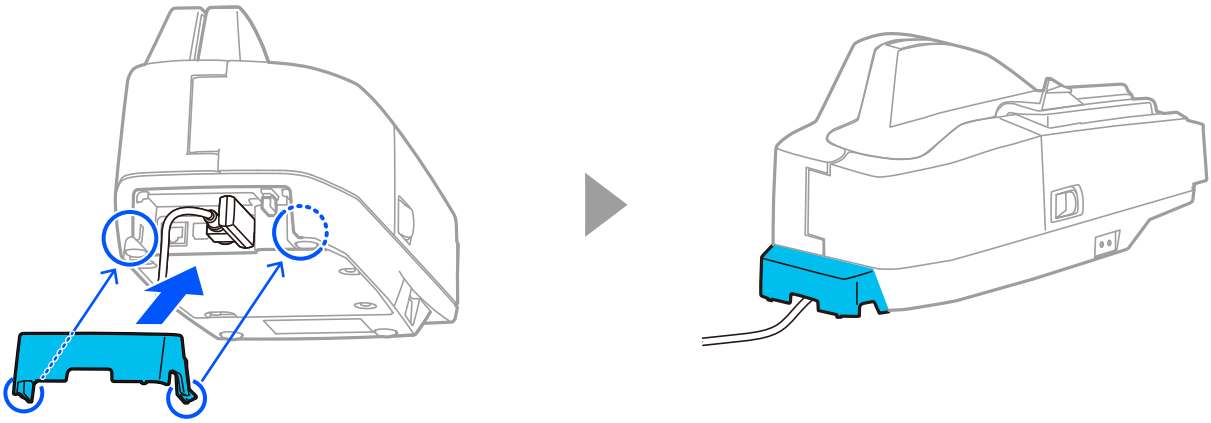
WARNING

If a problem occurs with the scanner with the power switch cover attached, unplug the power cable immediately. Continued use may result in a fire hazard.



Attaching the Connector Cover

When using the connector cover, attach it as shown in the figure.



Installing the Franking Cartridge

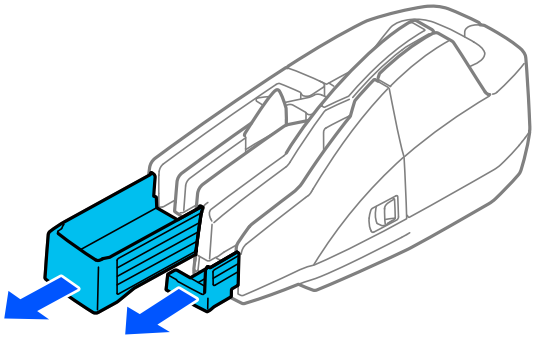
For instructions on how to install the flanking cartridge, see "Installing and Replacing the Franking Cartridge" on page 51.

Extending the Guides

Extend both the pocket guide and the ASF guide.

CAUTION	Before using the scanner, be sure to pull the pocket guide out far enough to allow the processed documents to fit inside the pocket. Otherwise, a paper jam may occur.

The ASF guide supports loaded documents so that each of the documents is fed straight into the scanner. Extend the ASF guide according to the length of the documents.



Advanced Usage

Network Settings

This section provides detailed instructions for connecting the scanner to your network.

Connecting to an Ethernet Network

Configure the scanner's network settings from your computer using the TM-S1000II Utility and Web Config, a web application pre-installed in the scanner. The setting process is as follows.

1. Use TM-S1000II Utility to set the scanner's network segment to the same segment as the computer. This is necessary to open the scanner's Web Config from your computer.
2. Configure the scanner's network settings in Web Config.

Setup Procedure

Follow the steps below to set up the scanner.

1 **Using a LAN cable, connect the scanner via a hub to the same network as the computer on which the TM-S1000II Utility is installed.**

2 **Turn on the scanner.**

3 **Start the TM-S1000II Utility.**

4 **Select the target scanner and click [OK].**

5 **Click [Display the Web Config] to start Web Config.**

6 **Select "Advanced Settings" to log in to Web Config.**

If the product is in its factory default state, no user name has been set. Therefore, do not enter anything in the "User Name" field. The user name can be set in the "Change Administrator Password" screen.

The default password is the serial number of the scanner. The serial number can be found on the nameplate affixed to the scanner. See "Checking the Nameplate" on page 57 for the location of the nameplate.

To improve security, it is recommended to change the administrator password from the default password. The password can be changed from [Advanced Settings] - [Product Security] - [Administrator Password] in Web Config. It can also be changed using TM-S1000II Utility.

7 **Select the Network tab, and change the settings based on information obtained from your network administrator.**

8 **Click [Refresh] to send the changes to the scanner.**

> NOTE
>
> Depending on the items you have changed, such as an IP address, the connection to the computer will be disconnected and the Web Config screen will not be displayed. If this happens, change the computer's network settings so that the network segment is the same as that of the scanner.

Setup Procedure using the USB Cable

You can also configure the network segment of the scanner using a computer connected via a USB cable. In that case, follow the steps below.

1 **Using a USB cable, connect the scanner to the computer on which the TM-S1000II Utility is installed.**

2 **Turn on the scanner.**

3 **Start the TM-S1000II Utility.**

4 **Select the target scanner and click [OK].**

5 **Set the scanner's network segment to the same segment as the computer.**
Subnet mask: Same subnet mask as the computer
IP address: Same segment as the computer (same network address), different host address

Example

	Computer	Scanner
Subnet mask	255.255.255.0	255.255.255.0
IP address	192.168.192.168	192.168.192.2

6 **When the setting is finished, turn off the scanner and disconnect the USB cable.**

7 **Connect the scanner to the network via a hub using a LAN cable.**

8 **Start your web browser and enter the IP address of the scanner in the address field.**
Example: http://192.168.192.2

> NOTE
>
> At the time of initial setting, when accessing Web Config from a browser, an authentication warning message may be displayed.

9 **Select "Advanced Settings" to log in to Web Config.**

If the product is in its factory default state, no user name has been set. Therefore, do not enter anything in the "User Name" field. The user name can be set in the "Change Administrator Password" screen.

The default password is the serial number of the scanner. The serial number can be found on the nameplate affixed to the scanner. See "Checking the Nameplate" on page 57 for the location of the nameplate.

To improve security, it is recommended to change the administrator password from the default password. The password can be changed from [Advanced Settings] - [Product Security] - [Administrator Password] in Web Config. It can also be changed using TM-S1000II Utility.

10 **Select the Network tab, and change the settings based on information obtained from your network administrator.**

11 **Click [Refresh] to send the changes to the scanner.**

NOTE

Depending on the items you have changed, such as an IP address, the connection to the computer will be disconnected and the Web Config screen will not be displayed. To reconnect from the computer, change its network settings so that the network segment is the same as the scanner.

Connecting to a Wireless Network

There are the following two methods to configure the wireless LAN settings.

When connecting the scanner to a Windows device, either Method 1 or Method 2 can be used to set up the scanner.

If the scanner is connected to an iOS or Android device, set it up using Method 1.

Method1: Setup using Web Config

Connect the device and scanner via SimpleAP and configure the wireless LAN settings using Web Config, a network configuration tool. Web Config is a scanner built-in web page that allows you to check and change scanner settings in a browser. The scanner can be easily set up from a smart device such as a tablet/smart phone or a computer.

☞ "Setup using Web Config" on page 39"

Method2: Setup using TM-S1000II Utility and Web Config

Configure the scanner's network settings from your computer using the TM-S1000II Utility and Web Config, a web application pre-installed in the scanner.

You need to first use TM-S1000II Utility to set the scanner's network segment to the same segment as the computer. This is necessary to open the scanner's Web Config from the computer.

☞ "Setup using TM-S1000II Utility and Web Config" on page 41

CAUTION

- When using wireless LAN, make sure you disconnect the LAN cable. If a LAN cable is connected, wireless LAN is disabled.
- When you set up the access point at the same time, configure the access point in advance and check that it operates correctly.
- Examine the radio wave situation in the surrounding area before use.
- Avoid using the same channel that is used in the neighboring shops where Wireless LAN is used.
- When using the product in an environment with devices that generate radio interference, such as a microwave oven in the kitchen, please take the following points into consideration.
  - ∗ Install the scanner as far away as possible from devices that cause radio interference.
  - ∗ Use channels that are away from frequency bands that cause radio interference.
  - ∗ Install shielding plates between the scanner and devices that generate radio wave interference.
  - ∗ Use either 2.4 GHz or 5 GHz, whichever is free from radio wave interference.
  - ∗ In auto channel setting for the access point, do not select a channel in which the devices may cause radio wave interference.

Setup using Web Config

1 **After checking the following items, connect the wireless LAN unit.**

- The scanner is turned off
- LAN cable is not connected
- USB cable is not connected

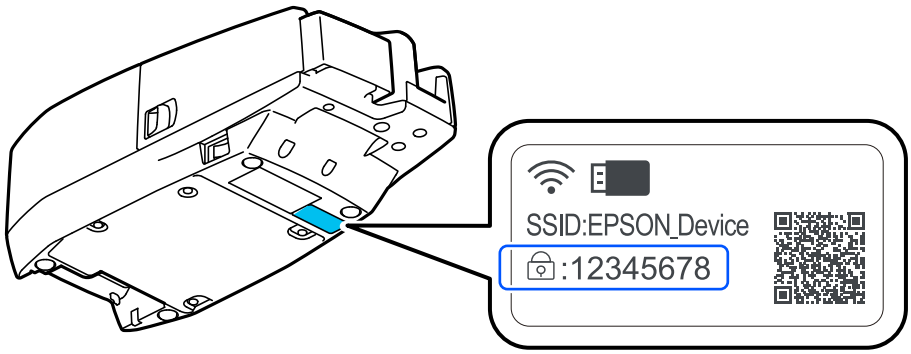
2 **Turn on the scanner.**

The scanner starts in the SimpleAP mode.

3 **With your device for setup, scan the QR Code on the label affixed to the bottom of the scanner.**

If you cannot read the QR Code, open the Wi-Fi setting of the device and connect to the "EPSON_Device" SSID.

The password can be found next to the symbol on the label.



4 **Once the scanner and device are connected, enter "http://172.16.10.1" in the address field of your web browser.**

5 **When the Web Config screen opens, select the "Wi-Fi" menu.**

6 **Enter the password and select [OK] to log in to Web Config.**

If the product is in its factory default state, no user name has been set. Therefore, do not enter anything in the "User Name" field. The user name can be set in the "Change Administrator Password" screen.

The default password is the serial number of the scanner. The serial number can be found on the nameplate affixed to the scanner. See "Checking the Nameplate" on page 57 for the location of the nameplate.

To improve security, it is recommended to change the administrator password from the default password. The password can be changed from [Advanced Settings] - [Product Security] - [Administrator Password] in Web Config. It can also be changed using TM-S1000II Utility.

7 **From the list of SSIDs displayed, select the SSID of the network you want to connect to and select [OK].**

8 **Enter your network password and select [OK].**

When the Wi-Fi LED lights up, the connection is complete.

Setup using TM-S1000II Utility and Web Config

1 **Using a LAN cable, connect the scanner via a hub to the same network as the computer on which the TM-S1000II Utility is installed.**

2 **Turn on the scanner.**

3 **Start the TM-S1000II Utility.**

4 **Select the target scanner and click [OK].**

5 **Click [Display the Web Config] to start Web Config.**

6 **Select "Advanced Settings" to log in to Web Config.**

The default password is the serial number of the scanner. The serial number can be found on the nameplate affixed to the scanner. See "Checking the Nameplate" on page 57 for the location of the nameplate.

To improve security, it is recommended to change the administrator password from the default password. The password can be changed from [Advanced Settings] - [Product Security] - [Administrator Password] in Web Config. It can also be changed using TM-S1000II Utility.

7 **Select the Network tab, and change the settings based on information obtained from your network administrator.**

8 **Click [Refresh] to send the changes to the scanner.**

> NOTE
>
> Depending on the items you have changed, such as an IP address, the connection to the computer will be disconnected and the Web Config screen will not be displayed. If this happens, change the computer's network settings so that the network segment is the same as that of the scanner.

Web Config

Web Config is a scanner's built-in web page that allows you to check and change scanner settings on your browser.

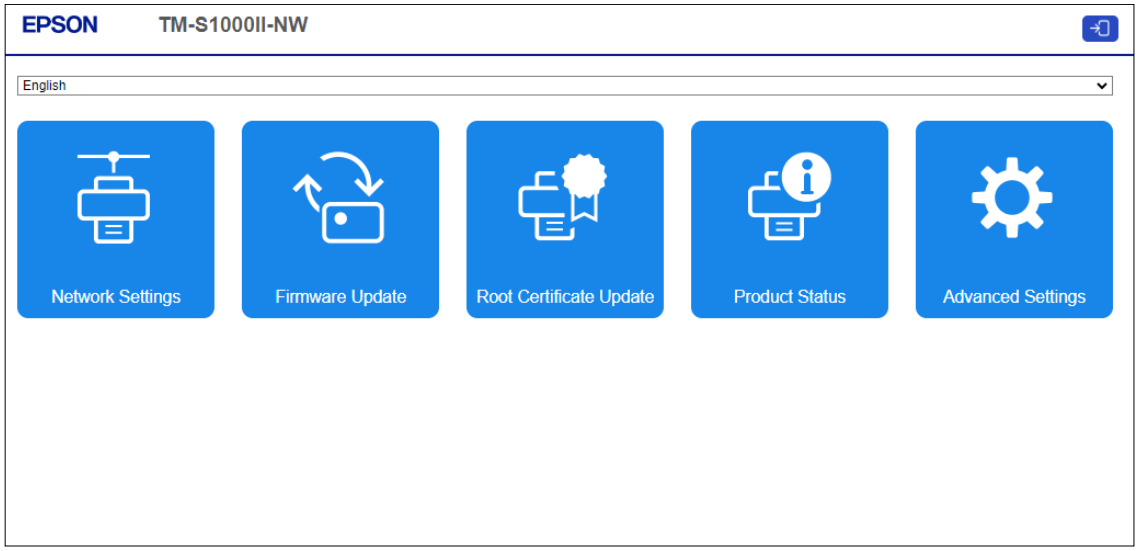
To use Web Config, you need to set your computer's IP address to the same segment as the scanner.

How to Start Web Config

1 Start your web browser on a computer or smart device on the network and enter the IP address of the scanner in the address field.

Example for HTTPS	Example for HTTP
IPv4: https://192.0.2.111/ IPv6: https://[2001:db8::1000:1]/	IPv4: http://192.0.2.111/ IPv6: http://[2001:db8::1000:1]/

2 After Web Config starts, select the menu you wish to configure.



3 When the authentication screen appears, enter your password and log in.

If the product is in its factory default state, no user name has been set. Therefore, do not enter anything in the "User Name" field. The user name can be set in the "Change Administrator Password" screen.

The default password is the serial number of the scanner. The serial number can be found on the nameplate affixed to the scanner. See "Checking the Nameplate" on page 57 for the location of the nameplate.

To improve security, it is recommended to change the administrator password from the default password. The password can be changed from [Advanced Settings] - [Product Security] - [Administrator Password] in Web Config. It can also be changed using TM-S1000II Utility.

NOTE

Enable JavaScript in your browser. Because a self-signed certificate owned by the scanner is used when accessing HTTPS, a warning will appear in the browser when Web Config is started.

What can be Configured in Web Config

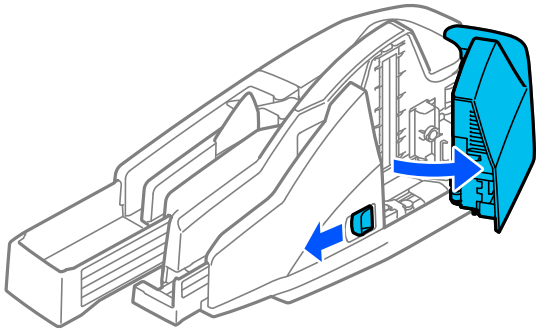
For information on what can be configured in Web Config, refer to the Web Config Reference Guide.
The Web Config Reference Guide can be obtained from the URL listed in "Downloading Software" on page 48.

Resetting the Network Settings

Follow the steps below to restore the network settings to the factory default.

1 **Be sure that the scanner is turned on and in normal (online) condition.**

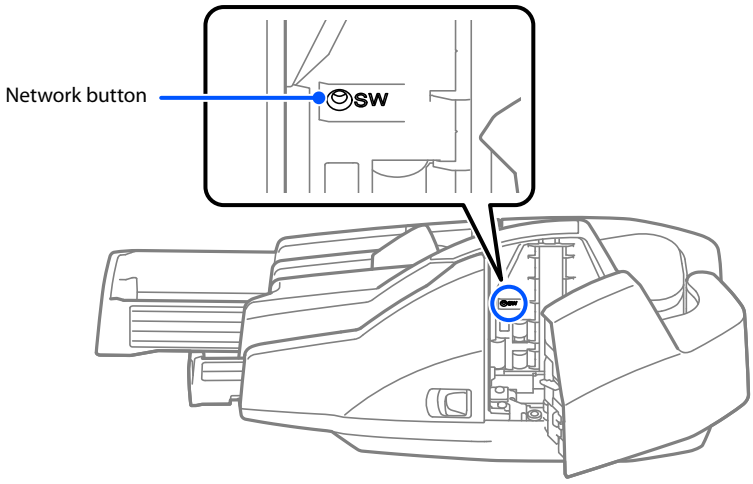
2 **Move the scanner cover open lever to open the scanner cover.**



3 **Press and hold the network button for at least 3 seconds.**

The buzzer sounds and the Ethernet LED and Wi-Fi LED flash.

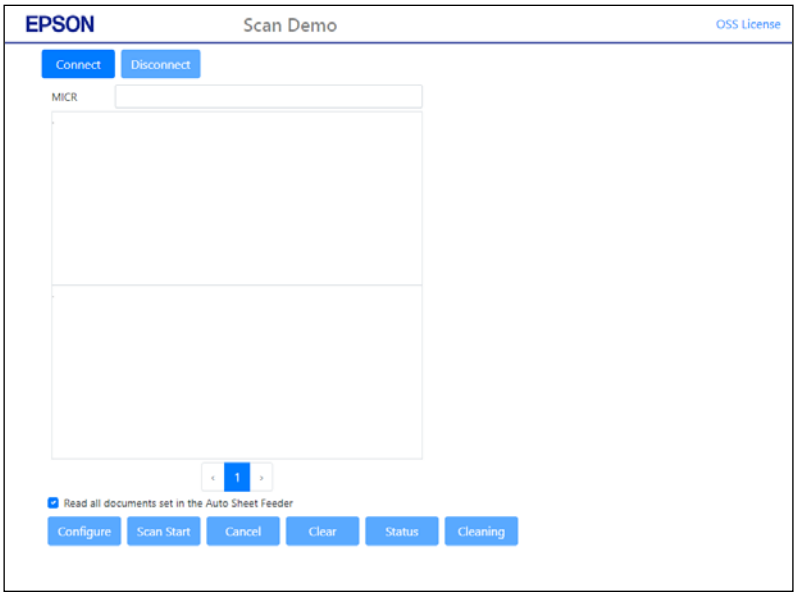
The LEDs will turn off when the resetting the network settings is completed.



Scanning Demonstration

The Scan Demo function can be activated by entering the IP address of the scanner and /demo in the address field of your web browser.

Example: http://xxx.xxx.xxx.xxx/demo



Application Development Information

This chapter describes product control methods and the information required to develop applications used by the product.

Operating Environment

The operating environment required to get the most out of the product's basic specifications differs depending on the connection method.

Requirements for Using 30/60 dpm Model via USB

❏ PC
- CPU: At least Intel Celeron 3205U 1.5 GHz or the equivalent
- Memory: 1 GB or more, or more than the minimum memory size required by your OS
- Storage: At least 30 MB free space is required to install the driver
- Interface: USB2.0 Hi-speed

Requirements for Using 30/60 dpm Model via Network

❏ PC
- CPU: At least Intel Celeron 3205U 1.5 GHz or the equivalent
- Memory: 1 GB or more, or more than the minimum memory size required by your OS

❏ Tablet
- CPU: Dual-core 1.8 GHz equivalent or higher
- Memory: At least 512 MB

❏ Network environment
Wired LAN: 10BASE-T/Full duplex or higher

Driver for Windows Environment

The drivers described below are available for application development.

For detailed information on the functions, supported environments, OS, development languages, etc., please refer to the manual for the driver.

EPSON TM-S9000/S2000/S1000II Driver

The following functions are supported when using TM-S1000II with the above drivers.

✓ : Supported -: Unsupported

Function	USB connection	Network connection
Scanning a document	✓	-
Reading a MICR line on a check	✓	-
Endorsing a document	-	-
Electronic endorsement	✓	-
Printing on a document (Example: printing receipts or cashier's checks)	-	-

Web API

TM-S1000II-NW can scan over a network using the Web API pre-installed in the scanner itself.

The following functions are available.

- Scanning a document
- Reading a MICR line on a check
- Franking a document

For more information, see the Web API Reference Guide.

Utilities

The utilities described below are available for application development.

For details about functions and support environments, refer to the documentation that comes with each utility.

TM-S1000II Utility

This utility runs on a host PC and allows you to configure the scanner settings and run operation check.

For USB connection, the following functions are provided. For network connections, you can use Web Config to perform the following functions.

- Check and change the current settings
- Save and restore the current settings
- Perform operation checks

Epson Device Admin

This utility runs on a server and host PC, and allows you to remotely maintain and support multiple scanners at once.

It has the following functions.

- Monitor alerts/errors
- Monitor consumables information
- Update scanner's firmware

Downloading Software

You can obtain software and manuals from one of the following URLs.

For customers in North America, go to the following web site:
☞ https://www.epson.com/support/

For customers in other countries and regions, go to the following web site:
☞ https://epson.sn

Handling

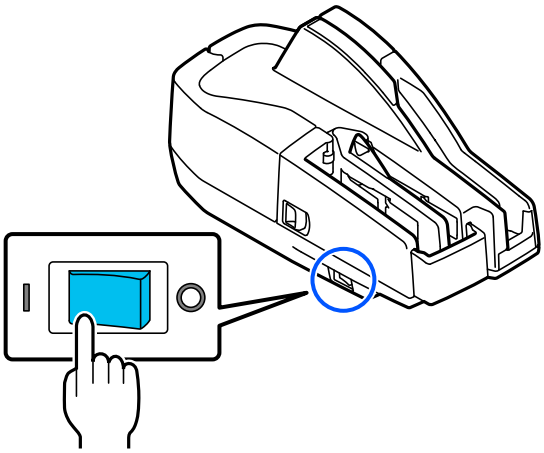
This chapter describes basic handling of the scanner.

Turning the Power On/Off

This section describes how to turn the product on/off.

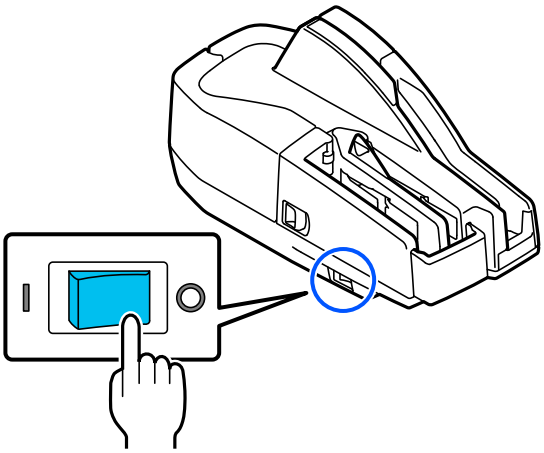
Turning the Power On

Flip the power switch to the | ON position to turn on the scanner.
The ⏻ power LED will light up and the scanner will turn on.



Turning the Power Off

Flip the power switch to the ○ OFF position to turn off the scanner.
The ⏻ power LED will stop flashing, all LEDs will turn off, and the scanner will turn off.



Opening the Covers

> **CAUTION** Do not open any cover of the scanner during operation, such as while scanning a document. Doing so may cause a scanning error, MICR error, or paper jam error.

Opening the Scanner Cover

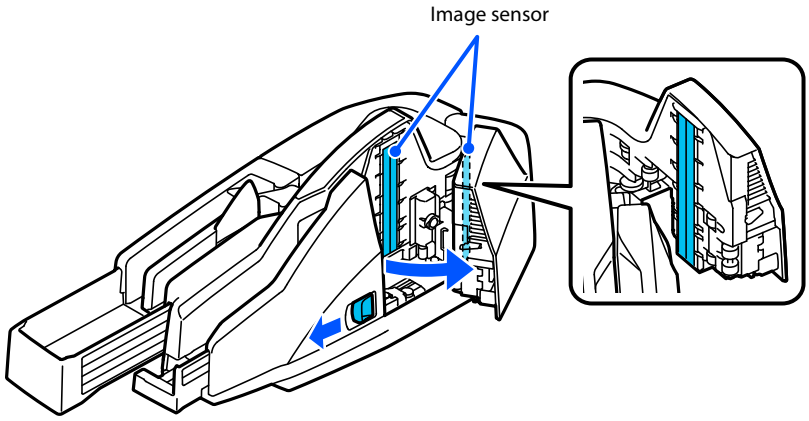
Move the scanner cover open lever to open the scanner cover.

Open the scanner cover when you clean the image sensor of the scanner or remove jammed paper.

☞ "Cleaning the Image Sensor" on page 55

☞ "Removing a Paper Jam" on page 57

> **CAUTION** Do not touch the image sensor inside the scanner cover with your bare hands.



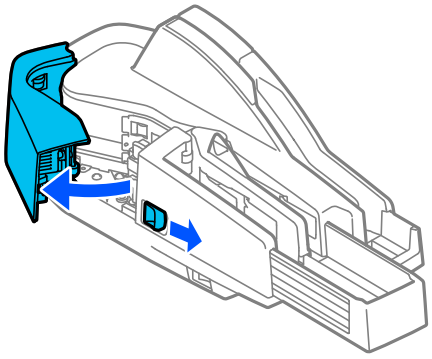
Opening the Franker Cover

Move the franker cover open lever to open the franker cover.

Open the franker cover when you replace the franking cartridge with new one or remove jammed paper.

☞ "Installing and Replacing the Franking Cartridge" on page 51

☞ "Removing a Paper Jam" on page 57



Installing and Replacing the Franking Cartridge

Important Notes on the Franking Cartridge

- Keep the franking cartridges out of the reach of children.
- Do not disassemble franking cartridges.
- Be careful during handling because the ink can permanently stain clothing.
- For the best performance of the scanner, it is recommended to use genuine Epson cartridges. Use of non-genuine Epson products can adversely affect the scanner and print quality and prevent the scanner from realizing its maximum performance.
- Do not unpack the franking cartridge until just before installing it. Print quality will deteriorate if the franking cartridge is left unpacked for an extended period of time.
- Use up the franking cartridge within 18 months from the date of production indicated on the cartridge box.
- Dispose of franking cartridges in accordance with the laws, ordinances, and regulations of your country or region.

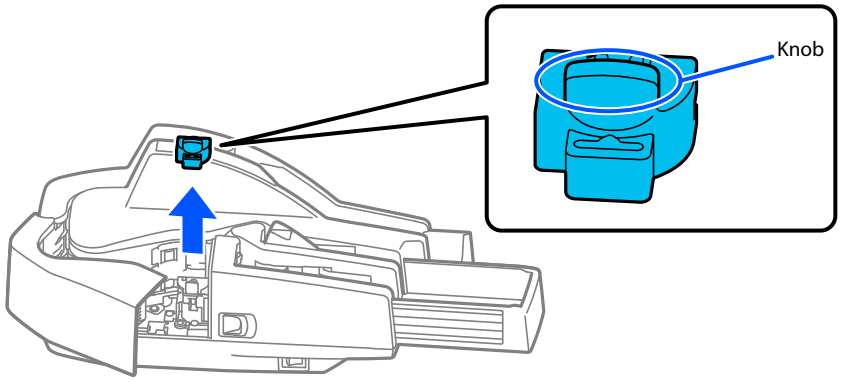
Installing and Replacing the Franking Cartridge

Follow these steps to install a franking cartridge for the first time or to replace it.

1 **Open the franker cover.**

"Opening the Franker Cover" on page 50

2 **When replacing a used franking cartridge, hold the cartridge by its top knob and remove it upward.**



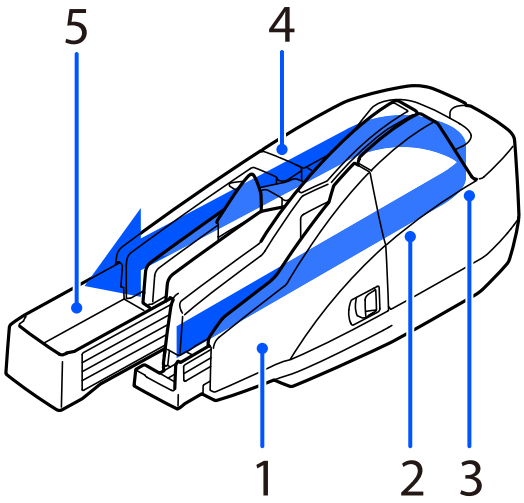
3 **Carefully insert a new franking cartridge from the top, and push it firmly but gently until it clicks in place.**

4 **Close the franker cover firmly until it clicks in place.**

Processing Documents

The TM-S1000II series can perform four operations in a single pass: scanning front and back sides of a document, reading a magnetic ink character recognition (MICR) line, and franking.

Document Process Flow



1 **Documents loaded here are fed into the scanner one by one.**
See "How to Set Documents" on page 53.

2 **Both sides of the document are scanned at the same time.**

3 **Magnetic ink characters recognition (MICR) line on the check is scanned.**

4 **Franking; a fixed message is stamped on the document in red ink.**

5 **Processed documents are ejected here.**
See "How to Remove Documents" on page 54.

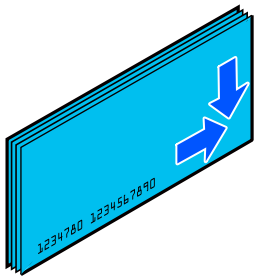
Important Notes on Processing Documents

- Load paper that meets the requirements listed in "Paper Specifications" on page 63.
- Do not load copy paper or other multi-ply paper.
- Make sure that the documents have no curl, bending (especially on the corners), warpage, or wrinkles.
- Do not load checks with paper clips, staples, adhesive tape, or other foreign materials attached.
- Do not open the covers while the scanner is processing documents.

How to Set Documents

1 When loading multiple documents at one time, neatly align the bottom right corner of the stack of documents.

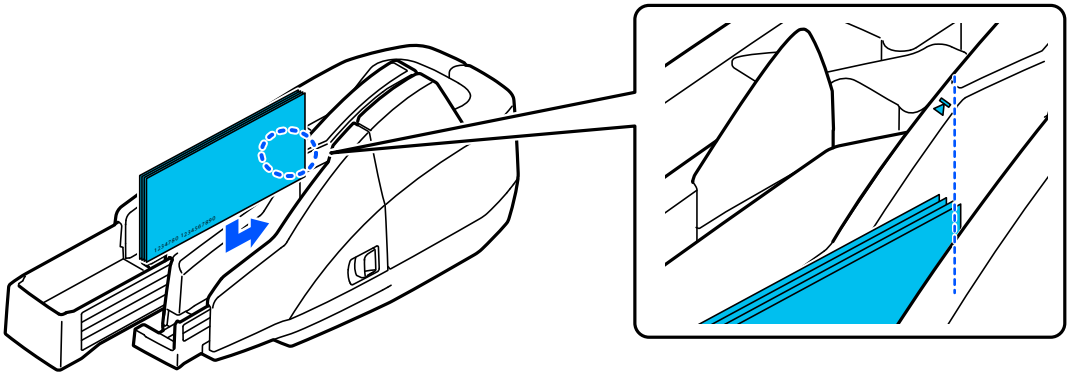
CAUTION	If the documents are loaded without being aligned, they may not be fed at all, or a paper jam or multi-feed error may occur.



2 Load documents into the ASF. If the documents have MICR lines, load them with the MICR line facing outward. Be sure to align the leading edge of the documents with the ▼ mark.

The scanner starts to feed the documents one by one.

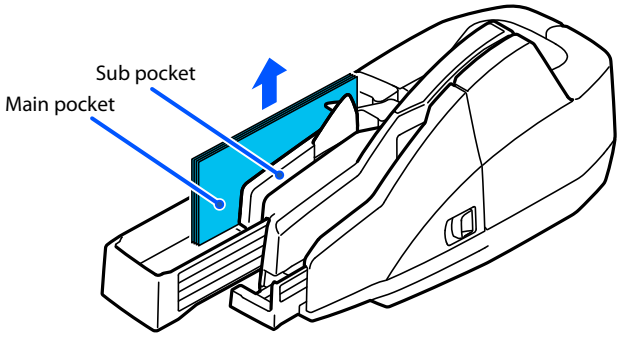
CAUTION	• Release your hand as soon as you load documents into the ASF. If the scanner starts feeding before you release your hand, the documents may be skewed resulting in a paper jam or MICR reading error. • Do not open the covers while the scanner is processing documents.



How to Remove Documents

When the documents are ejected, remove the documents.

CAUTION The number of documents ejected into the pockets should not exceed the capacity (up to 100 sheets for the main pocket and 50 sheets for the sub-pocket). Exceeding the capacity while the scanner is processing documents may result in paper jams.



NOTE

- With your application software, you can configure the ejection settings, such as which of the two pockets the processed documents will be ejected into, and whether to automatically switch to the other pocket when the first pocket is nearly full.
- You can set the scanner's built-in buzzer to sound when an error occurs, such as a paper jam, in your application software.

Cleaning

Cleaning the Image Sensor

If the image sensor of the scanner becomes dirty with ink, or paper dust, scan quality may deteriorate. Clean the image sensor once a week or every 2,000 scans.

Follow these steps to clean the image sensor.

1 **Open the scanner cover.**

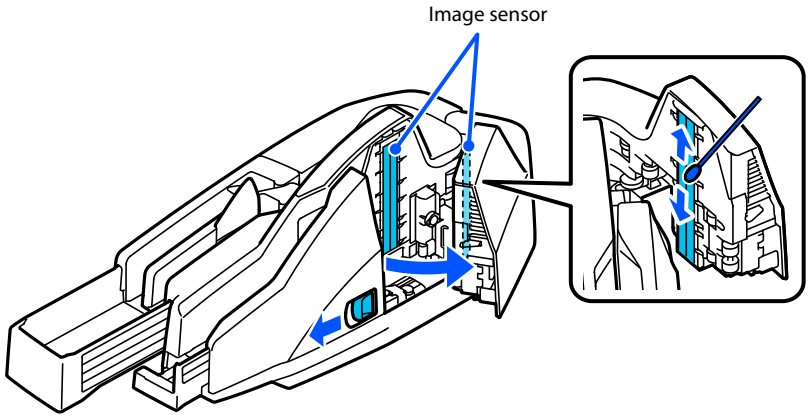
"Opening the Scanner Cover" on page 50

2 **Lightly wipe the image sensor shown in the figure below with a soft, dry cloth.**

For stubborn stains such as oil or grease, wipe them off with a cloth lightly moistened with alcohol. Then, wipe off the alcohol with a dry cloth.

CAUTION

- **Do not use synthetic detergents, benzene, water or other liquids for cleaning. Using them may cause stains on the glass surface.**
- **Never apply any liquid directly to the glass of the scanner.**
- **Be careful not to spill liquid into the scanner mechanism or electronic components. This could permanently damage the mechanism and circuitry.**



3 **Close the scanner cover firmly until it clicks in place.**

Cleaning the MICR Unit

Dirt on the MICR unit can cause frequent MICR read errors. The MICR unit should be cleaned once a week or every 2,000 scans.

Use the following cleaning cards manufactured by KICTeam, Inc.

- Waffletechnology® MICR cleaning card (model: KWEPS-CS1B15WS)
- Epson Check Scanner Cleaning Kit (model: KWEPS-KCS2)

Use the TM-S1000II Utility or your application software to clean the MICR unit.

CAUTION

- **Do not use sticky cleaning sheets. They may cause a paper jam or machine failure.**
- **Be sure to dispose of used cleaning sheets.**

NOTE

- For cleaning procedures, see the manual for the TM-S1000II Utility or your application software.
- We recommend cleaning the image scanner after cleaning the MICR unit. See "Cleaning the Image Sensor" on page 55.

Removing a Paper Jam

Open the scanner cover or franker cover to remove the jammed paper.

“Opening the Scanner Cover” on page 50
“Opening the Franker Cover” on page 50

Preparing for Transport

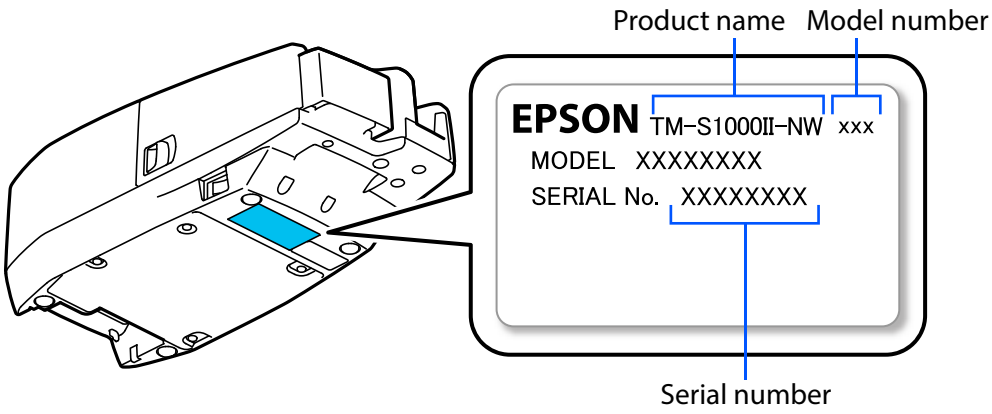
Follow the steps below to transport the scanner.

1. **Turn off the scanner.**
2. **Confirm that the ⏻ 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.**

Checking the Nameplate

The nameplate is affixed to the bottom of the scanner.

It shows the product name, model number, and serial number.



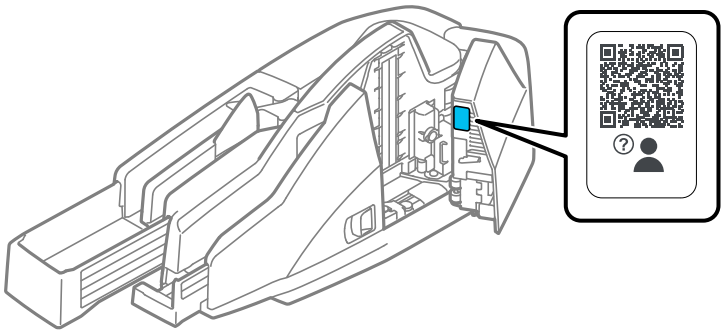
Troubleshooting

This chapter describes how to resolve problems.

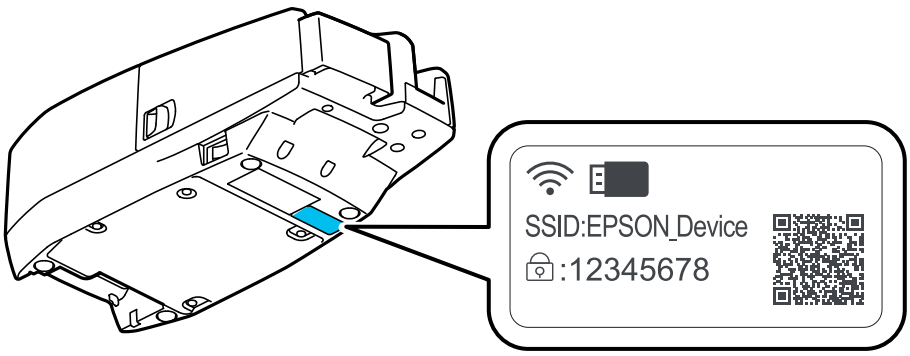
About the QR Code Label on the Scanner

By scanning the QR Code on the label attached to the inner side of the scanner cover, you can access the user's manual.

If you encounter any problems while using the scanner, you can use this QR Code to quickly check for trouble-shooting.



The label at the location shown below is not the QR Code label described above that accesses the user's manual; it is the one that is used for connecting the scanner to a Wi-Fi network.



The Product Does Not Turn On

Making sure each connector is oriented correctly, insert the power cable into the product and the power outlet as far as it will go.

“Connecting the AC Adapter” on page 33

The ! Error LED is Lit or Flashing

Check the flashing interval of the ! Error LED to determine what error is occurring and take action.

“Error Status” on page 18

Paper Jam

Open the scanner cover or franker cover to remove the jammed paper.

“Opening the Covers” on page 50

Problems with Reading Quality

Cannot Read Magnetic Ink Characters Correctly

The MICR head may be dirty. Clean the MICR unit.

“Cleaning the MICR Unit” on page 56

Scan Quality is Poor

The scanner glass may be dirty. Clean the scanner glass.

“Cleaning the Image Sensor” on page 55

Documents are not Fed Properly

Perform a test scan with three new documents using the TM-S1000II Utility. If the scanner is networked, a test scan can be performed from Web Config.

If the scanner has not been used for more than three months, repeat the test scan until the document is properly fed.

Scanner Clock is Not Right

The scanner has a clock function called RTC (Real Time Clock).

The time setting of the RTC may have been initialized when the scanner is first used. If this is the case, correct the time using the TM-S1000II Utility or Web Config. For instructions on how to correct the time, see the TM-S1000II Utility User's Manual or Web Config Reference Guide.

Product Specifications

General Specifications

Item		Description
Processing speed		30 dpm or 60 dpm depending on the model.
ASF (Auto Sheet Feeder) capacity		Up to 100 sheets of paper that is 0.13 mm or less in thickness.
MICR reader	Reading method	Permanent magnetic bias
	Supported fonts	E13B, CMC7 (Alphabetic characters are not supported.)
OCR reader	Supported fonts	E13B OCR A, OCR B
Electric endorsement		• Different images can be pasted on each document. • More than one image can be pasted. • Logos, graphics, and TrueType fonts are available.
Pocket capacity	Main pocket	Up to 100 sheets of paper that is 0.13 mm or less in thickness. The thickness of the stack of paper must be 13 mm or less, including warpage and curl of the paper.
	Sub pocket	Up to 50 sheets of paper that is 0.13 mm or less in thickness. The thickness of the stack of paper must be 6.5 mm or less, including warpage and curl of the paper.
Franking cartridge	Type	Dedicated franking cartridge (EFC-01)
	Ink color	Red
	Life of ink	18,000 times (when printing the default message)
Power supply		Power supply by the included AC adapter (AC Adapter, C1). AC adapter (PS-190) can also be used.
Interface		USB ("USB (type-B) Interface" on page 68) Ethernet Wi-Fi (available with the optional wireless LAN unit)
Life*1		1,000,000 sheets
MTBF*2		180,000 hours
MCBF*3		2,470,000 cycles
Overall dimension (W × H × D)		355 × 176 × 160 mm {14.0 × 6.93 × 6.30 in.}
Weight		Approx. 4.0 kg {8.82 lb} (excluding franking cartridge and AC adapter)

dpm: documents per minute, dpi: dots per inch (25.4 mm)

*1: Indicates the point at which the wear-out failure period starts.

*2: Indicates the mean time between failures during the random failure period.

*3: Indicates the overall mean time between failures, including wear-out and random failures, before the life is reached.

NOTE

- For detailed information about supported operating systems, .NET Frameworks, and development languages, see the TM-S1000II API Reference Guide. If you connect the scanner via a network, refer to the TM-S1000II-NW Web API Reference.
- The processing speed is not achievable when using USB Full-Speed.

Scanning Specifications

Item		Description
Image scanner		CIS (Contact Image Sensor)
Resolution	USB connection	200 × 200 dpi, 120 × 120 dpi, 100 × 100 dpi
	Network connection	200 × 200 dpi
Graduation		Grayscale (256 shades of gray), Black and white
Data compression format	Grayscale	JPEG
	Black and white	CCITT/group 4
Data format	Gray scale	TIFF, JPEG, BMP, Raster, JTIFF
	Black and white*1	TIFF*2, BMP
Scanning area		Height: 106 mm {4.17 in.} Length: Up to 235 mm {9.25 in.}
Image quality		Complies with IQA (Image Quality Assurance) formulated by FSTC (Financial Services Technology Consortium).
Skew correction		When the scanner is connected via USB, the TM-S1000II driver detects and corrects the skew of the scanned document image according to the settings. If the scanner is network-connected, skew correction is performed by the scanner itself.
Auto size adjustment		When the scanner is connected via USB, the TM-S1000II driver crops the image and adjusts it to fit the document size according to the settings. If the scanner is network-connected, the auto size adjustment is performed by the scanner itself.*3
Scanning speed		500 mm/s {19.69 in./s}

dpi: dots per inch (25.4 mm)

∗1: Image noise reduction is automatically performed by the TM-S1000II driver for USB connections or by the scanner itself for network connections when digitizing grayscale images.

∗2: The TIFF format of resolution 200 dpi, binary, CCITT-Group 4 compression conforms to ANSI X9.100-181-2007.

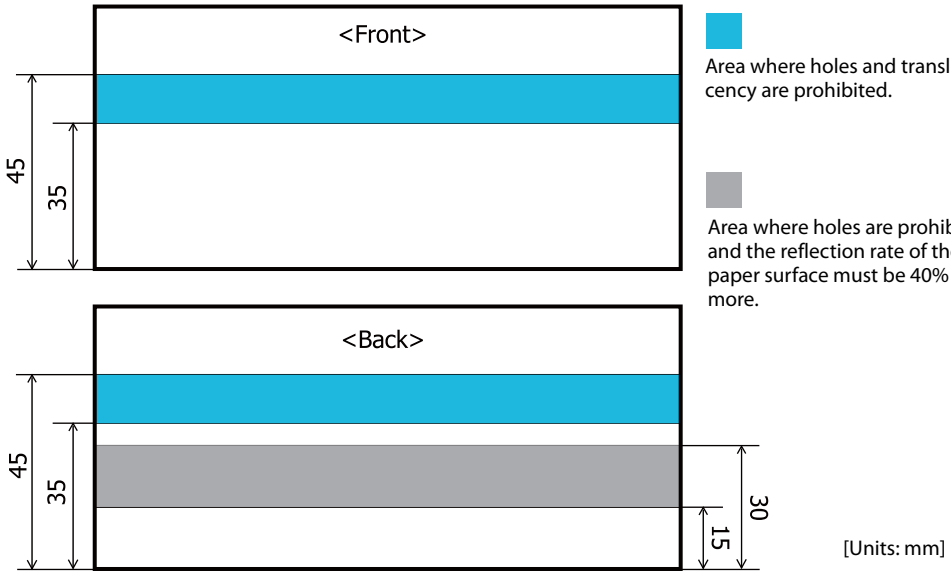
∗3: The image cropping process performed by the scanner itself when the scanner is connected to a network does not include black border processing. Therefore, if the front side of the document has black borders on all four edges, the size of the scanned image may differ between the front and back sides of the document.
The accuracy of the image cropping process is less than ±1.5 mm (the difference between the actual document size and the cropped image size).

Paper Specifications

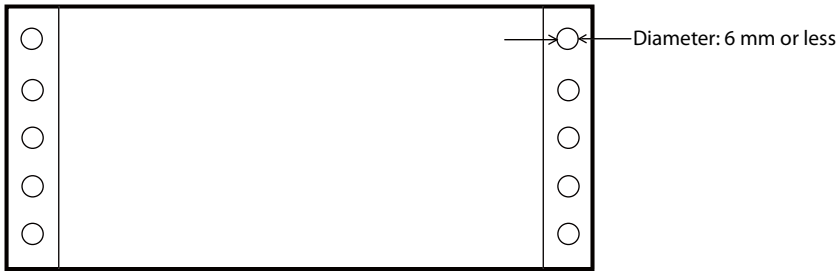
Item	Description
Type	Normal paper (single-ply only)
Size	Height: 68 to 120 mm {2.68 to 4.72 in.} Length: 120 to 235 mm {4.72 to 9.25 in.}
Thickness	0.075 to 0.2 mm {0.003 to 0.008 in.} (single-ply only)
Weight	60 to 120 g/m^2 {16 to 32 lb}

CAUTION

- Make sure that the paper has no curl, folds (especially at the top edges), warps, or wrinkles. Otherwise a paper jam may occur.
- Since the paper sensors use a translucent photo sensor and reflective photo sensor, do not use paper that has holes or translucency at the sensor position as shown in the figures below.

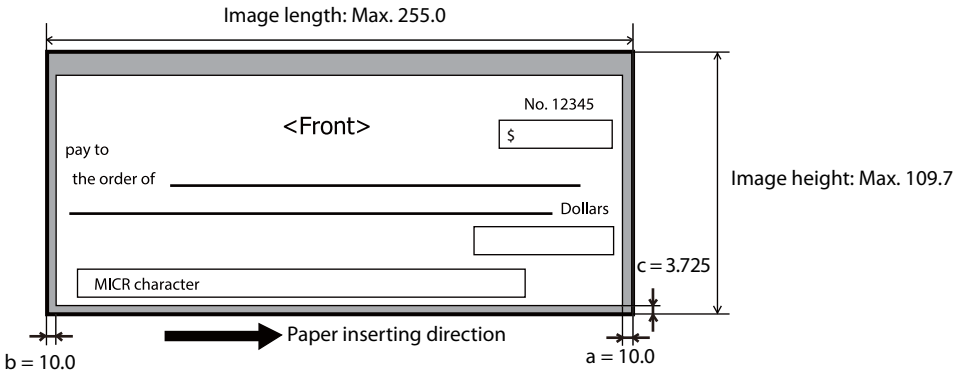


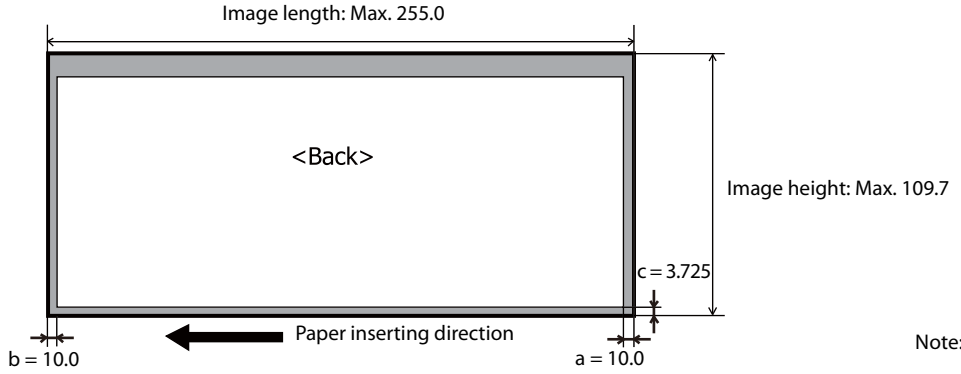
- The paper sensors ignore the range indicated in the figure below for the guide holes in fan-folded paper.



Scannable Area

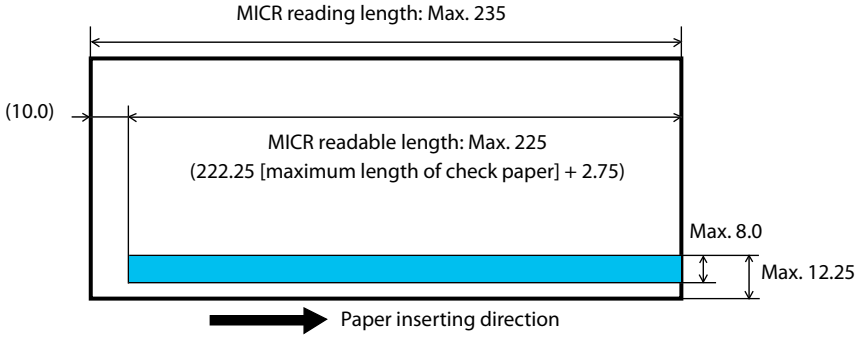
Image scanning may not be possible in the area a, b, and c in the figures below.





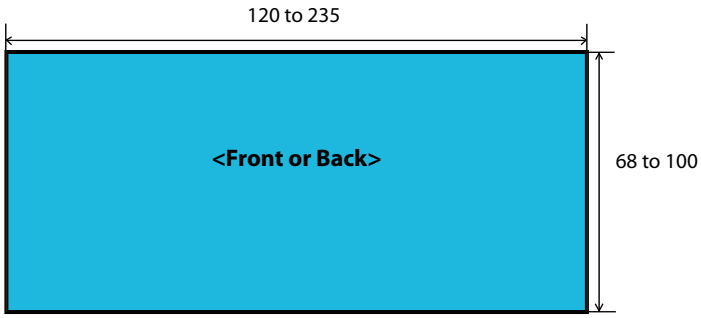
[Units: mm]
Note: Values are typical.

MICR Readable Area



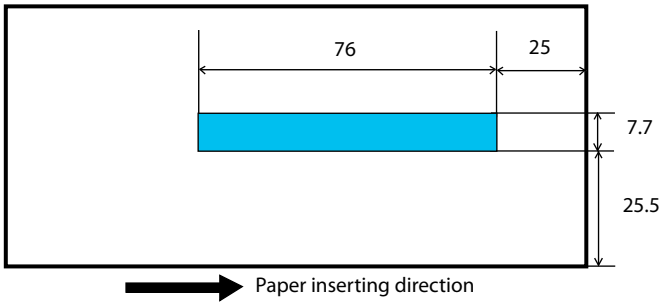
[Units: mm]

Area for Electric Endorsement



[Units: mm]

Area for Franking



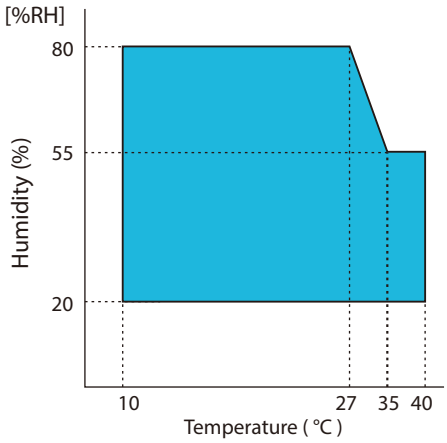
[Units: mm]

Electrical Specifications

Item	Description
Rated input	AC 115 to 230 V/50 to 60 Hz
Input current	1.0 A (max)
Rated output	DC 24 V/1.5 A
AC power consumption (115 to 230 V/50 to 60 Hz)*	Operating: Approx. 25.8 W Ready: Approx. 4.0 W Sleep: Approx. 1.4 W

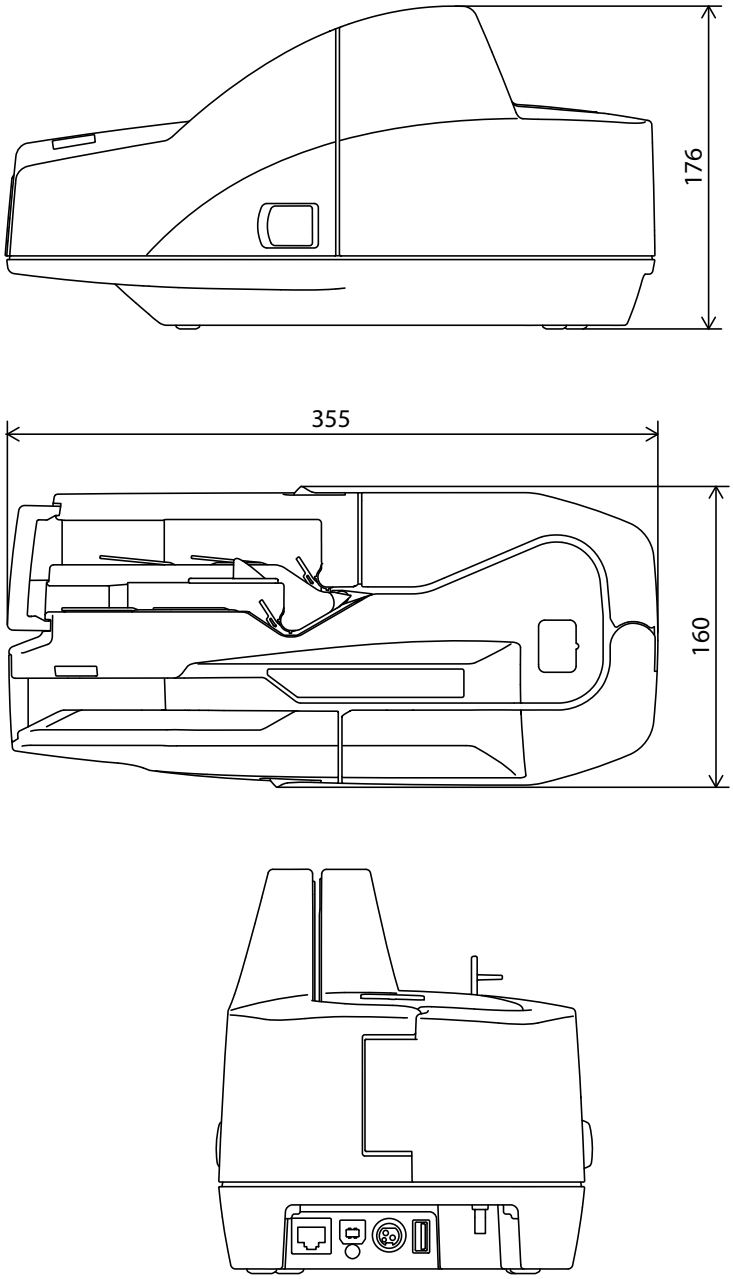
*According to our operation conditions. It may differ depending on the usage conditions and product model.

Environmental Conditions

Item		Description
Temperature/ humidity	Operating	10 to 40°C {50 to 104°F}, 20 to 80% RH, without condensation (See the graph on the right for operating temperature and humidity range.) 
	Storage (Factory packing)	-20 to 60°C {-4 to 140°F}, 5 to 85% RH, without condensation (120 hours or less at -20 {-4°F} or 60°C {140°F})
Vibration resistance	When packed	Frequency: 5 to 55 Hz Acceleration: Approx. 19.6 m/s^2 {2G} Sweep: 10 minutes (half cycle) Time: 1 hour Orientation: x, y, and z There is no external or internal visible damage and the unit operates normally after being subjected to vibration.
Shock resistance	When packed	Packing: Epson standard package specifications Height: 60 cm {23.62 in.} Orientation: 1 corner, 3 edges, and 6 surfaces There is no external or internal visible damage and the unit operates normally after being dropped.
	When unpacked	Height: 5 cm {1.97 in.} Orientation: Lift one edge and release it (for all 4 edges) There is no external or internal visible damage and the unit operates normally after being dropped while not operating.
Acoustic noise (operating)		Approx. 57.9 dB (bystander position) Note: The above value was measured under Epson's evaluation conditions. The value varies depending on the paper used, operating conditions (processing mode, processing speed, etc.).
Altitude		3,000 m or less

External Dimensions and Weight

Height: Approx. 176 mm {6.93 in.}
Width: Approx. 355 mm {13.98 in.}
Depth: Approx. 160 mm {6.30 in.}
Weight: Approx. 4.0 kg {8.82 lb}



[Unit: mm]

Interface Specifications

USB (type-B) Interface

Item	Description
General specification	USB 2.0
Communication speed	Hi-Speed (480 Mbps) Full-Speed (12 Mbps) The scanner processing speeds described in "Processing Speed" on page 21 cannot be achieved with Full-Speed.
Communication method	USB bulk transmission USB interrupt transmission
Power supply specification	USB self power supply function
USB bus current consumption	Approx. 0.2 mA

Network Interface Specifications

For both Ethernet interface and Wi-Fi interface

Support protocols

Protocols	Usage
IP, ARP, ICMP, UDP, TCP	Basic communication protocols
HTTP/HTTPS	Used in Web Config, and Web API
SNMP, ENPC	Used in setting and monitoring
DHCP, APIPA	Used in automatic setting for the IP address and so on

NOTE

- The automatic IP addresses setting is first done using DHCP, and when DHCP is disabled or fails, APIPA is used.
- If the LAN cable is not connected for more than 40 seconds after the product is turned on, the IP address will be automatically set again after the LAN cable is connected.

Network parameters

Item	Initial settings
IP address	192.168.192.168*
Subnet mask	255.255.255.0*
Default gateway	0.0.0.0*
IPv6 Address	Enable*
Acquiring the IP Address (Obtain IP Address)	Auto (DHCP)*
APIPA	Disabled

Item	Initial settings
DNS Server Address Setting	Auto*
Acquire host name automatically	Manual*
Acquire domain name automatically	Manual*
Register the network interface's address to DNS server	Manual*
Administrator Name	None*
Location	None*
Password	The serial number of the scanner*
Socket Timeout	300 seconds
Community name (Read only)	public
Community name (Read/Write)	None
SNMPv3	Disabled
Time Server	Disabled
Time Server Status	Invalid
Time Server Address	0.0.0.0
Bonjour	Enable*
SLP	Enable*
LLTD	Enable*
LLMNR	Enable*
IPsec	Disable*
SSLStrength (Encryption Strength)	128 bit*
https redirect	Enable*

* They are the default values when IP address acquisition is set to "Manual".

For Ethernet interface

USB takes precedence over network

The scanner cannot be connected via USB and via network (Ethernet or Wi-Fi) at the same time. If a USB cable and LAN cable are connected at the same time, the USB connection takes priority.

Communication specifications

10BASE-T, 100BASE-TX

Network parameters (Ethernet)

Item	Initial settings
Communication mode	Auto negotiation
Port Type	Auto

For Wi-Fi Interface (with OT-WL06)

Countries and regions where Wi-Fi can be used are limited. Since notes are provided for each country or region, check the sheet supplied with the wireless LAN unit.

Ethernet takes precedence over Wi-Fi

The scanner cannot be connected via Ethernet and via Wi-Fi at the same time. When connecting the scanner to a Wi-Fi network, be sure to disconnect a LAN cable from the scanner before connecting the wireless LAN unit and turning on the scanner.

Specifications

- Compliant with IEEE802.11a/b/g/n/ac (2.4 GHz or 5 GHz band).
- Infrastructure mode is supported.
- Security can be selected from the following:
  * WPA/WPA2-PSK
  * WPA2/WPA3-Enterprise
  * WPA3-SAE

Network parameters (Wi-Fi)

Item	Initial settings
SSID	EpsonNet
MAC Address	See the label on the wireless LAN unit
Network mode	Infrastructure mode
Communication standard	Automatic
Encryption type	WPA2-PSK
Passphrase	None
Power save	Enable

SimpleAP funtion

The SimpleAP function allows you to easily configure the scanner to connect to a wireless LAN using a setting tool without going through an access point or other network environment.

When the SimpleAP function is running, the following settings are applied.

Item	Initial settings
Wi-Fi Direct	Disabled
SSID	Epson_Device
Security	WPA2-PSK
Passphrase	See the label on the scanner
IP address	172.16.10.1 or 192.168.223.1 *
DHCP server function	Enabled*

* Do not use 172.16.x.x for the IP address of the wireless LAN and wired LAN because the default IP address of SimpleAP is 172.16.10.1. If used, SimpleAP will be stopped to avoid IP address conflicts.

If SimpleAP is restarted in the above state, the initial IP address of SimpleAP will be changed to 192.168.223.1 to avoid IP address conflicts.

Notes on Using Wi-Fi

- Install the product as far away as possible from devices that may cause radio interference, such as microwave ovens in the kitchen.
- Use channels that are away from frequency bands that cause radio interference.
- Install a shielding board between this product and devices that generate radio wave interference.
- Use a frequency band that will not cause interference, either 2.4 GHz or 5 GHz.
- When setting the auto channel of the access point, make sure that this product is not set to a channel that causes radio interference.

Before Connecting the Product via Wi-Fi

This product has not been confirmed to work with all wireless LAN devices, and operation with all wireless LAN devices is not guaranteed. Please use this product after sufficient confirmation and evaluation in advance.

Precautions for Use

When the settings of this product are initialized or changed, the product will be reset to reflect the changes. Depending on the network settings and environment, it may take approximately one minute for the changes to take effect. Also, the application may indicate that the product is turned off until it is reset. In this case, wait about one minute before connecting the product again.

In areas where Wi-Fi communication is busy, the application may misidentify that communication is disconnected and response is delayed, and indicate that the product is powered off. In this case, disabling the product's Power Save setting may improve the situation.