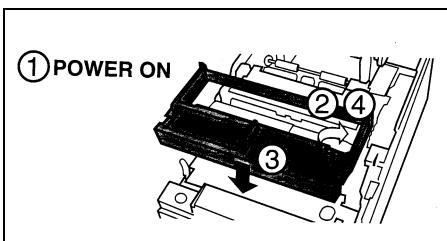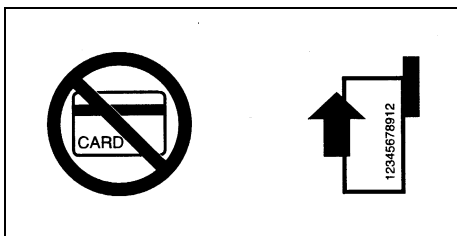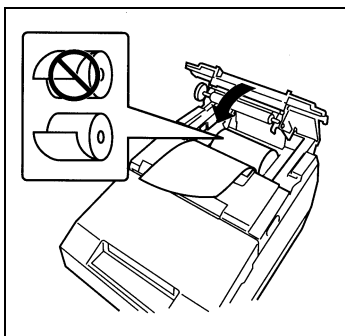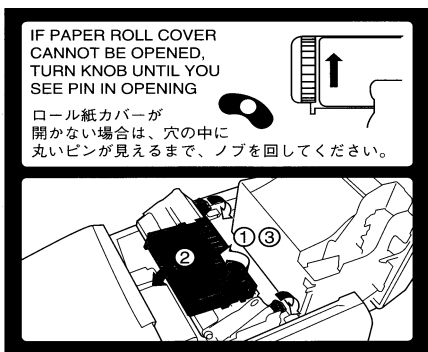# TM-H6000

User's Manual / Bedienungsanleitung
Gebruikershandleiding / Manuel d'utilisation
Manual do utilizador / Manual del usuario
Manuale dell'utente

Labels / Etiketten /Etiketten/ Étiquettes / Etiquetas / Etiquetas / Etichette

IF PAPER ROLL COVER
CANNOT BE OPENED,
TURN KNOB UNTIL YOU
SEE PIN IN OPENING

ロール紙カバーが
開かない場合は、穴の中に
丸いピンが見えるまで、ノブを回してください。

① ③
②

CARD

12345678912

① POWER ON

② ④
③

EMC and Safety Standards Applied

Product Name: TM-H6000/TM-H6000P
Model Name: M147A

The following standards are applied only to the printers that are so labeled. (EMC is tested using the EPSON PS-170 power supply.)

Europe:	CE marking	
	Safety:	EN 60950
North America:	EMI:	FCC/ICES-003 Class A
	Safety:	UL 1950/CSA C22.2 No. 950
Japan:	EMC:	VCCI Class A
		JEIDA-52
Oceania:	EMC:	AS/NZS 3548 Class B

WARNING

The connection of a non-shielded printer interface cable to this printer will invalidate the EMC standards of this device.

You are cautioned that changes or modifications not expressly approved by SEIKO EPSON Corporation could void your authority to operate the equipment.

CE Marking

The printer conforms to the following Directives and Norms:

Directive 89/336/EEC	EN 55022 Class B
	EN 55024
	IEC 61000-4-2
	IEC 61000-4-3
	IEC 61000-4-4
	IEC 61000-4-5
	IEC 61000-4-6
	IEC 61000-4-8
	IEC 61000-4-11
Directive 90/384/EEC	EN 45501

FCC Compliance Statement For American Users

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

FOR CANADIAN USERS

This Class A digital apparatus complies with Canadian ICES-003.

Safety Precautions

This section presents important information intended to ensure safe and effective use of this product. Read this section carefully, and store it in an accessible location.

⚠ *WARNING:*

Shut down your equipment immediately if it produces smoke, a strange odor, or unusual noise. Continued use may lead to fire. Immediately unplug the equipment, and contact your dealer or a SEIKO EPSON service center for advice.

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.

Be sure to use the specified power source. Connection to an improper power source may cause fire.

Do not allow foreign matter to fall into the equipment. Penetration by foreign objects may lead to fire.

If water or other liquid spills into this equipment, unplug the power cord immediately, and then contact your dealer or a SEIKO EPSON service center for advice. Continued usage may lead to fire.

⚠ *CAUTION:*

Do not connect cables in ways other than those mentioned in this manual. Different connections may cause equipment damage and burning.

Be sure to set this equipment on a firm, stable, horizontal surface. Product may break or cause injury if it falls.

Do not use in locations subject to high humidity or dust levels. Excessive humidity and dust may cause equipment damage or fire.

Do not place heavy objects on top of this product. Never stand or lean on this product. Equipment may fall or collapse, causing breakage and possible injury.

To ensure safety, unplug this product before leaving it unused for an extended period.
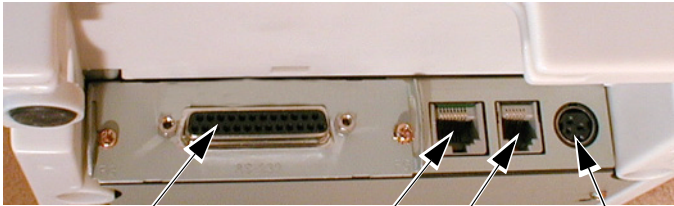
Labels

⚠️ *WARNING:*

Do not connect a telephone line to the drawer kick-out connector or the display module connector; otherwise the printer and the telephone line may be damaged.

⚠️ ♨️ *CAUTION:*

Thermal head and paper feed motor for the thermal section are hot.

Connectors

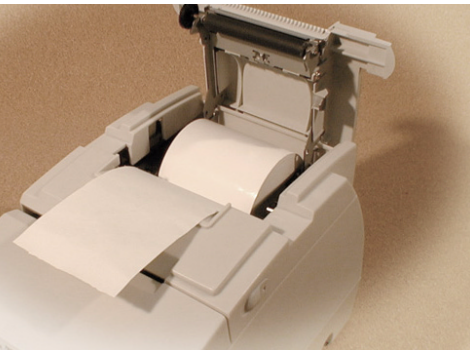interface   DM   drawer kick-out   power

Installing the Paper Roll

> **Note:**
> Do not use paper rolls that have the paper glued or taped to the core because they might cause a paper jam.
>
> To prevent paper jams, make sure that nothing obstructs paper coming out of the paper exit, and do not pull the paper out of the printer.
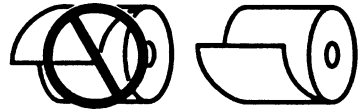
Installing the Ribbon

Use the EPSON ERC-32. The use of any ribbon cassettes other than those approved by EPSON may damage the printer and will void the warranty.

1. Turn on the printer. Turn the knob on the ribbon cartridge. Open the front cover of the printer, and insert the new ribbon.
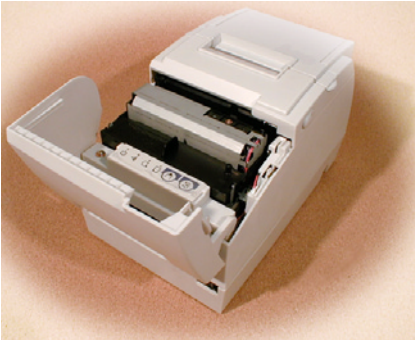
2. Turn the knob 2 or 3 times, and check the ribbon position.
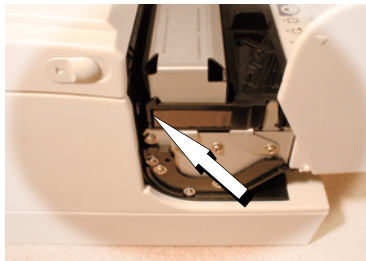
Inserting Slip Paper

Troubleshooting

Error light on or blinking.

Make sure that the printer cover is properly closed.

Turn off the printer, and check for a paper jam.

The autocutter is jammed or the paper roll cover will not open.

1. Turn off the printer, and open the unit cover.
2. Then turn the knob until you see a pin in the opening.

knob

pin

Cleaning the Print Head

⚠️ ♨️ *CAUTION:*

After printing, the print head can be very hot. Be careful not to touch it. Also, let it cool before you clean it. Do not damage the print head by touching it with your fingers or any hard object.
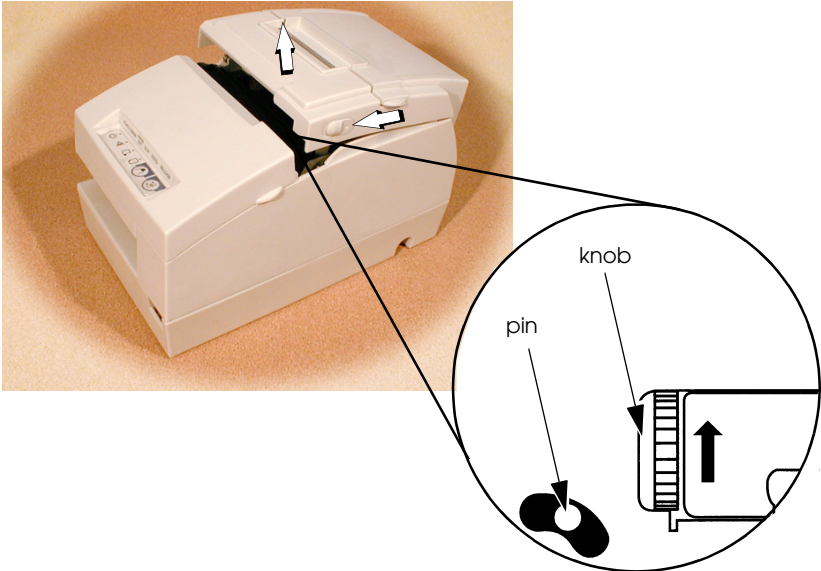
Open the paper roll cover, and clean the thermal element (the green part) of the print head with a cotton swab moistened with an alcohol solvent (ethanol, methanol, or IPA).

Clean the thermal head periodically (generally every 3 months) to maintain receipt print quality.
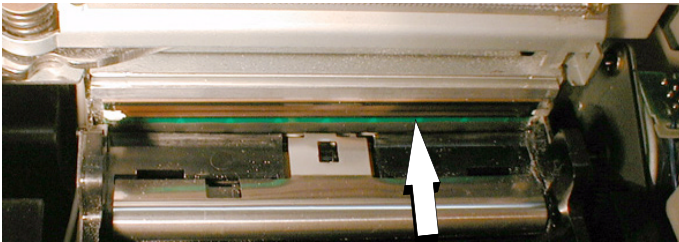
MICR and Endorsement Printing (Factory-installed options)

Reading MICR Characters On Personal Checks

⚠️ *CAUTION:*

Do not insert checks with staples in them. This may cause paper jams, MICR reading errors, and damage to the MICR head.

Be sure the checks are flat, without curls, folds, or wrinkles.

1. Wait until the SLIP light blinks. Then insert the check *face up*, with the right side of the check against the right side of the paper guide as far as it will go. Be sure that the MICR characters are on the right.

MICR
characters
on this side
face up

2. The printer will detect the check and start drawing it in. When the printer starts drawing it in, let go of the check immediately. When the printer ejects the check and the SLIP light starts blinking again, remove the check by pulling it straight up; do not pull it at an angle.

Cleaning the MICR Mechanism

Approximately every 12 months, clean the MICR head with a moistened cleaning sheet.

Use the following or an equivalent commercially available cleaning sheet:

PRESAT brand (KIC) "CHECK READER CLEANING CARD."

Note:
Be sure not to use an adhesive cleaning sheet.

Follow the steps below:

1. Load a paper roll in the printer, turn off the power, then open the paper roll cover and turn the power back on while holding down the RELEASE button.

2. Press the RELEASE button 7 times; then close the paper roll cover. The printer prints the following message on receipt paper, and the SLIP light flashes.

```
****  RECOGNITION MODE ****

    Please set check.
```

3. Insert the cleaning sheet like a standard check.

⚠ *CAUTION:*

Be sure that the sheet is inserted with the correct side up and that it is inserted in the correct direction.

Use a cleaning sheet only one time; then discard it.

4. When the sheet is ejected, press the RELEASE button, and remove the sheet from the printer.

Notes on using the MICR reader

Do not install the printer near any magnetic fields. Be especially careful where you install your display device, and be sure to check the recognition rate of the MICR reader with the display device in place.

Make sure that the printer is not subjected to any impact or vibration when it is performing a MICR reading.

Endorsement Printing

If your printer has the optional endorsement printing mechanism, install the endorsement ribbon following the steps below:

Use the EPSON ERC-41. The use of any ribbon cassettes other than those approved by EPSON may damage the printer and will void the warranty.

Note:
Be sure to turn on the power before installing a ribbon cassette.

1. Turn the ribbon cassette knob. Then open the unit cover. Inside the printer, push the levers backward to open the unit.
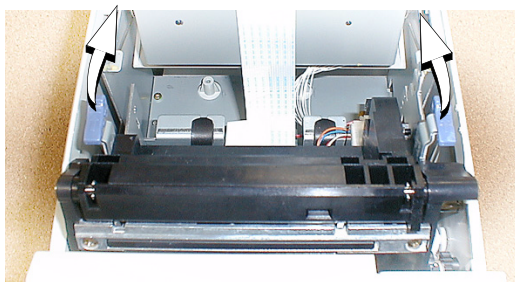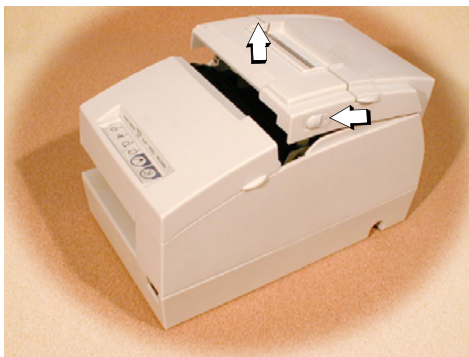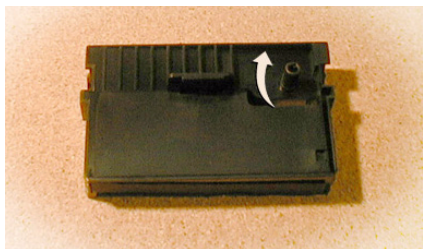
Note:
Do not open the unit
during printing.

2. Insert the ribbon into the printer in the position shown, and turn the knob again to seat the ribbon. Then close the printer.
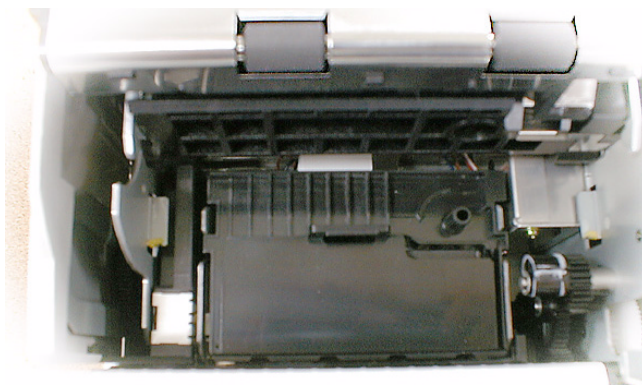
EPSON Ecology Label

This product is in compliance with the EPSON ecology label requirements. Please see the following link for detailed information on label criteria. (http://www.epson.co.jp/e/)

TM-H6000 Specifications

Print method:	Receipt: Thermal line Slip: 9-pin serial impact dot matrix Endorsement: 8-pin shuttle impact dot matrix
Print font:	Receipt: 9 × 17 / 12 × 24 Slip: 5 × 9 / 7 × 9 Endorsement: 5 × 7
Columns:	Receipt: 56 / 42 Slip: 60 / 45 Endorsement: 40

**Character size:
(W × H)**
	Receipt: 0.99 × 2.40 mm {0.04 × 0.09"}
	                    1.41 × 3.39 mm {0.06 × 0.13"}
	Slip: 1.56 × 3.1 mm {0.06 × 0.12"}
	                    1.24 × 3.1 mm {0.05 × 0.12"}
	Endorsement: 1.1 × 2.42 mm {0.04 × 0.10"}

Character sets:	95 alphanumeric, 37 international characters 128 × 11 (slip: 12) pages extended graphic characters
Print speed:	Receipt: 47, Slip: 5.14, Endorsement: 1.9 (lines per second)
Paper dimensions:	Receipt: Thermal roll paper 79.5 ± 0.5 × 83 mm {3.1 ± 0.02 × 3.3"} Slip/endorsement: 68 ~ 230 × 68 ~ 297 mm {2.7 ~ 9.1 × 2.7 ~ 11.7"} (W × L)
Paper thickness:	Slip (single-ply): 0.09 ~ 0.2 mm {0.0035 ~ 0.0079"} Endorsement: 0.09 ~ 0.2 mm {0.0035 ~ 0.0079"}

Thermal paper type:	Specified: NTP080-80
	  Nakagawa Mfg. (Europe) GmbH, Nakagawa Mfg. (U.S.A.) Inc.
	Original: TF50KS-E
	  Nippon Paper Industries Co., Ltd.

Copy capability:	Receipt/Endorsement: Single-ply Slip: 1 original + 3 copies
Inked ribbon:	Slip: ERC-32(P), Endorsement: ERC-41(P)
Ribbon life:	Slip: 6 million characters, Endorsement: 1 million characters
Interface (compatible):	RS-232C / Bi-directional parallel / RS-485 (dealer option)
Data buffer:	Selectable for 45 bytes or 4 KB using DIP switch
D.K.D. function:	2 drives
Power supply:	+24 VDC ± 10% (Option: PS-170)
Current consumption:	Slip: Approximately 1.7 A (mean) Receipt: Approximately 1.8 A (mean)
Temperature:	Operating: 5 to 45°C {41 to 113°F} Storage: −10 to 50°C {14 to 122°F}
Humidity:	10 to 90% without condensation
Reliability:	Receipt: MTBF: 360,000 hours, MCBF: 52 million lines Slip: MTBF: 180,000 hours, MCBF: 18 million lines
Overall dimensions:	185 × 186 × 298 mm {7.28 × 7.32 × 11.73"} (H × W × D)
Weight (mass):	Approximately 5.8 kg {12.8 lb}