

# **TM-H2000 Product Information Guide**

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Interface

## What's in the Box

- D Printer
- User's Manual
- □ Small thermal paper roll (for operational testing)
- Dever supply and AC cable (Energy Star models only)
- □ Cable connector cover
- Power switch cover
- □ ERC-43B (endorsement ribbon)

#### Accessories

Option	Model	Part Number
AC adapter (with AC cable)	PS-180	C825343
AC adapter (without AC cable)	PS-180	C825341
AC cable	AC CABLE	205498100
Interface boards	UB series	see price sheet
Epson customer display series	DM-D	see price sheet
58 mm paper guide	PG-58II	C32C814622
Endorsement ribbon	ERC-43(B)	ERC-43(B)
Franker cartridge	EFC-02	A43S020479

# **Printer Specifications**

## Printing

Print methods:	receipt: thermal line printing
	slip (endorsement): serial impact dot matrix
Pacaint Sactio	n

#### **Receipt Section**

Dot density:	203 dpi × 203 dpi (dpi = dots per inch [25.4 mm])
Print width:	2.83" (72 mm), 576 dots (3.15" paper) 2.1" (52.5 mm), 420 dots (2.28" paper)
Characters per line:	font A: 48, font B: 64 (3.15" paper) font A: 35, font B: 46 (2.28" paper)
Print direction:	unidirectional with friction feed
Print speed:	10.2"/sec. (260 mm/sec.) maximum
Paper feed speed:	approx. 7.9"/sec. [200 mm/sec.] (continuous paper feed)

Character sets:	alphanumeric: 95 characters;
	international: 37 characters;
	extended graphics: 128 × 11 pages
	(including a space page)

#### **Slip/Endorsement Section**

Head wire matrix:	9-pin vertical; 1/72" wire pitch
Print width:	2.80" (71.2mm) max
Characters per line:	font A: 25; font B: 33; endorsement font: 40
Printing direction:	Bidirectional, minimum distance printing
Print speed:	Approx 4.0 lps (40-column, 21.1 cpi with normal head energizing)
Character sets:	alphanumeric: 95 characters; international: 37 characters; extended graphics: 128 × 12 pages (including a space page)

#### Interfaces

Built-in:	USB 2.0 Full-speed
Optional:	serial, parallel, USB, Ethernet, and wireless

## Media

## **Roll Paper**

Paper type:	thermal roll paper
Paper size:	58mm or 80 mm wide

# **Slip Paper**

Paper type:	normal, pressure-sensitive, or carbon copy paper
Paper size:	2.68 to 9.06" (W) $\times$ 2.68 to 11.69" (L) [68 to 230 mm (W) $\times$ 68 to 297 mm (L)]
Minimum paper size:	2.68 × 5.98" (68 × 152 mm)
Sheets:	3 parts maximum
Total thickness:	0.0035 to 0.0122" (0.09 to 0.31 mm)

# Reliability

# **Receipt Printer**

Print head life:	150 million pulses, 150 km
Mechanism:	20 million lines
Autocutter:	2 million cuts
MTBF:	360,000 hours
MCBF:	96 million lines

#### **Endorsement Printer**

Print head life:	200 million characters
MTBF:	180,000 hours
MCBF:	65 million lines

# Safety

EMI:	FCC part15B Subpart B Class A CAN/CSA-CEI/IEC CISPR 22 Class A
Safety Standards:	UL60950-1 CAN/CSA C22.2 No.60950-1
(Tested using the P	S-180.)

# **Dimensions**

Dimensions	7.13" × 6.30" × 10.94"
(H × W × D):	(181 mm × 160 mm × 278 mm)
Weight:	approx. 8.82 lb (4.0 kg)

# **Dip Switches**

## **Serial Interface**

Bank 1	Function	ON	OFF
1	Data reception error	Ignored	Prints "?"
2	Receive buffer capacity	45 bytes	4 KB
3	Handshaking	XON/XOFF	DTR/DSR
4	Word length	7 bits	8 bits
5	Parity check	Yes	No
6	Parity selection	Even	Odd
7 and 8	Transmission speed	See table be	low

Transmission speed	Switch 1-7	Switch 1-8
4800	ON	ON
9600	OFF	ON
19200	ON	OFF
38400	OFF	OFF

Bank 2	Function	ON	OFF	
1	Handshaking (BUSY)	Receive buffer full	Offline or receive buffer full	
2	Customer display (DM-D) connection	Connected	Not connected	
3 and 4	Print density	See table below		
5 and 6	Reserved	Set to OFF (Do not change.)		
7	I/F pin 6 reset	Enabled	Disabled	
8	I/F pin 25 reset	Enabled	Disabled	
Laural	Function	Curitale 2.2	Curitals 2.4	
Level	Function	Switch 2-3	Switch 2-4	
1	Standard	OFF	OFF	
2	Medium	ON	OFF	
3	Dark	OFF	ON	

# **Parallel Interface**

Bank 1	Function	ON		OFF	
1	Auto line feed	Always enabled		Always disabled	
2	Receive buffer capacity	45 bytes		4 KB	
3-8	Reserved	Set to OFF (Do not		ot change.)	
Bank 2	Function	0	N	OFF	
1	Handshaking (BUSY)	Re ful	eceive buffer I	Offline or receive buffer full	
2	Reserved	Se	Set to OFF (Do not change.)		
3 and 4	Print density		See table below		
5 — 7	Reserved		Set to OFF (Do not change.)		
8	I/F pin 31 reset		Set to ON (Do not change.)		
Level	I Function		vitch 2-3	Switch 2-4	
1	Standard		F	OFF	
2	Medium		١	OFF	
3	Dark		F	ON	

# **Control Panel**

## LEDs

(Power)

On when the power is on.

Note: Turn off the product before opening any covers.

#### Error

Steadily on when the printer is offline. See if a cover is open. Blinking if there is an error. Turn the printer off for a few seconds, then turn the printer back on. If still blinking, contact a dealer or qualified service person.

#### Paper

Comes on when roll paper is low or out. Flashes when the product is performing a self-test.

#### Slip

Blinks when the printer is ready to receive slip paper. Steadily on during printing of a slip, and blinks again when slip paper should be removed.

## Buttons

#### Feed

Pressing this button once feeds paper by one line. Holding this button down feeds paper continuously.

#### Release

Pressing this button releases slip paper or starts a slip paper self-test.

# Loading Paper

#### **Receipt Section**

**Caution:** To avoid injury, do not touch any part of the printer other than the roll paper when the cover is open.

**Note:** Do not open the paper roll cover when the printer is printing or feeding paper. Only use paper that meets specifications, and do not use rolls that have the paper glued onto the core.

- 1. Be sure the printer is not receiving data, then open the roll paper cover by lifting the two tabs on the roll paper cover and pushing the cover back.
- 2. Remove the used roll paper core, if there is one, and insert the roll paper in the direction shown below.



- 3. Pull out some paper, and close the roll paper cover.
- 4. Tear off the extra paper using the manual cutter.

#### **Slip Section**

When inserting slip paper, be sure that the right side of the paper is against the right side of the paper guide as shown below.



## Installing a Ribbon

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

- 1. Unpack the ribbon and turn the knob on the ribbon in the direction marked on the ribbon to remove any slack.
- 2. Turn the printer on.
- 3. Open the printer's front cover using the tabs on each side of the cover.
- 4. Remove the old ribbon, if this is one.
- 5. Insert the new ribbon until it clicks into place.



6. Close the printer's front cover.

# **Testing the Printer**

#### **Receipt Section**

Follow the steps below to perform a self-test on roll paper:

- 1. Make sure the printer is off and all the covers are closed.
- 2. Press and hold the Feed button and turn on the printer. The printer prints its status and the Paper LED begins flashing.
- 3. To continue the self-test, press the Feed button.

The self test is complete when \*\*\* completed \*\*\* is printed.

#### **Slip Section**

Follow the steps below to perform a self-test on roll paper:

- 1. Make sure the printer is off and all the covers are closed.
- 2. Press and hold the Release button and turn on the printer.
- 3. When the Slip LED begins flashing, insert a slip.

The self test is complete when \*\*\* completed \*\*\* is printed.

## **Removing a Paper Jam**

#### **Receipt Section**

**Caution:** Do not touch the thermal head, because it can be very hot after printing. Let it cool before you remove the jammed paper.

- 1. Turn off the printer.
- 2. open the roll paper cover by lifting the two tabs on the roll paper cover and pushing the cover back.
- 3. Remove the jammed paper.
- 4. Close the roll paper cover.

## **Slip Section**

- 1. Turn off the printer.
- 2. Open the printer's front cover using the tabs on each side of the cover.
- 3. Open the franking unit using the lever at the right of the franking unit.



4. Remove the jammed paper.

## **Related Documentation**

EPSON TM-H2000 Specifications EPSON TM-H2000 Developer Guide EPSON TM-H2000 User Guide EPSON TM-H2000 Technical Manual