TM-P60 User's Manual

EMC and Safety Standards Applied

Product Name: TM-P60
Model Name: M196A
The following standards are applied only to the printers that are so labeled. (EMC is tested using EPSON power supplies.)

North America: EMI: FCC/ICES-003 Class B
                 Safety: UL 60950/CSA C22.2
                         No. 60950

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.

FCC Compliance Statement For American Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

FOR CANADIAN USERS

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

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

RF Module

This equipment contains the following wireless module.
Manufacturer: Universal Scientific Industrial Co., Ltd.
Model Name: CF114100

Product Name: USI WLAN CompactFlash Card Type I

USA

This device conforms to Part 15 of the FCC rules.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

For body worn operation, this CF114100 has been tested and meets the FCC RF exposure guidelines when used with the Universal Scientific Industrial Co., Ltd. accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

CANADA

This device conforms to IC, Low Power License-Exempt Radio Communication Devices (RSS-210).
The information such as Certification No., Model Name, and Manufacturer Name are described on the surface of the module.

Important Safety Information

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.

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.

⚠ *DANGER:*

Dangers must be observed carefully to avoid serious injury or death.

⚠ *WARNING:*

Warnings must be observed carefully to avoid serious bodily injury.

⚠ *CAUTION:*

Cautions must be observed to avoid minor injury to yourself or damage to your equipment.

Safety Precautions

⚠ *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, do not continue to use it. Continued use may lead to fire. Unplug the equipment immediately and contact your dealer or a Seiko Epson service center for advice.

⚠ *CAUTION:*

Do not connect cables in ways other than those mentioned in this manual. Different connections may cause equipment damage and burning.
Be careful not to drop this product. The product may break or cause injury if it is dropped.
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.
Before moving the product, unplug it and unplug all cables connected to it.

Safety Precautions for Rechargeble Battery Pack

⚠ *DANGER:*

If any liquid from the battery gets into your eyes, promptly wash it out with clean water for more than 10 minutes and consult your doctor at once. If you do not, the liquid may cause loss of eyesight.
Never disassemble or modify the battery pack. This may cause fire, explosion, leakage, overheating or damage.
Do not expose the battery to fire or heat it. This may cause fire, explosion, leakage, overheating or damage.

⚠ *WARNING:*

Keep the battery pack away from fire or flame if it produces a strange odor or leakage. Otherwise fire or explosion may occur.
Should any battery liquid get on skin or clothing, promptly wash it off with clean water. If you do not, the liquid may damage your skin.
Do not expose the battery to water. Do not allow water to contact the terminals. This may cause fire, overheating or electric shock.
Be sure to use and charge the battery that came with the printer. Using a battery other than the one specified may cause fire, explosion, leakage, overheating or other damage.

Safety Label

⚠ ⚠ *CAUTION:*

During printing or after printing, the print head can be very hot.

Purpose of This Manual

This manual provides information to operators of the TM-P60 printer to describe basic operations to enable safe and correct use of the printer. (Illustrations are provided at the end of this manual.)

Notes on Use

❏ Be sure to use the power switch to turn the printer on and off.
❏ Do not unplug or plug in the AC adapter (option) during printing.
❏ Be sure not to open the roll paper cover when the printer is operating.
❏ Protect the printer from impact.
❏ Do not apply excessive force to the printer case.
❏ Do not place food or beverages such as coffee on the case of the printer.

Notes on Installation

❏ Be sure that the printer is installed horizontally when you install it on a table.
❏ Be sure that roll paper side is on the bottom when you install the printer vertically.

Notes on the Rechargeable battery

The safety precautions on the rechargeable battery are described previously in this manual. For more details, see the battery instructions that came with the printer.

Part Names

See illustration A.

Unpacking

The following items are included for the standard specification printer. If any item is damaged, contact your dealer.

❏ Printer
❏ Roll paper
❏ Battery pack and its User's Manual
❏ User's Manual (this manual)

Control Panel (LEDs and Switches–Illustration B)

POWER LED	Meaning
On	Power is on.
Off	Power is off.
Flashing	The printer is in power-off operation or is in an area where wireless communication is not possible.

Printer Condition	ERROR LED	Meaning
Power On	On	Printer is offline (paper out, power-on initialization, roll paper cover open, power-off operation, or when the battery is used to supply the power, the remaining battery charge is not enough for printer operation.)
	Off	Printer is online.
	Flashing	The temperature of the printer is too high. The printer resumes printing automatically when the temperature returns to normal.
Power Off, battery installed, and AC adapter (option) connected	On	Indicates that an abnormality occurred during battery charging. The battery must be replaced with a new one.
	Off	Battery is being charged (BATT. [battery] LED is on.)

Printer Condition	BATT. LED	Meaning
Power On and battery installed	On	Remaining battery charge is not enough. It must be fully charged.
	Off	Remaining battery charge is adequate.
	Flashing	Remaining battery charge is below half.
Power Off and battery installed	On	The battery is being charged.
	Off	The battery is fully charged.

Buttons

POWER

Press the button to turn the power on or off. To turn off the power, you need to hold the button for more than 2 seconds.

FEED

Press the button to feed paper.

Supplying Power (Illustration-C)

You can supply power through the battery pack packaged with the printer or the AC adapter provided as an option.

⚠ WARNING:

Be sure to use the battery that came with the printer. Using a battery other than the one specified may cause fire, explosion, leakage, overheating or other damage.

⚠ CAUTION:

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
1.   Slide the battery cover to open it.
2.   Install the battery and close the cover.

If you use the AC adapter (option), plug in the connector as shown in illustration A.

Battery Recharging

⚠ WARNING:

Be sure to charge the battery that came with the printer. Using a battery other than the one specified may cause fire, explosion, leakage, overheating or other damage.

Note: The battery can be charged only when the temperature is between 0 °C ~ 40 °C.
1.   Be sure that the printer is turned off and the battery to be charged is installed.
2.   Connect the AC adapter (option) to the printer (see illustration A.)
3.   Recharging will now be started.

Recharging will take approximately 5 hours with the AC adapter, or if you use the fast recharger (option), recharging will take approximately 2.5 hours. For detailed information for the fast recharger (option), see its instructions. The times described above are the times taken to charge a battery pack that is fully discharged.

Installing or Replacing Roll Paper (Illustration-D)

⚠ CAUTION:

Be sure to use roll paper that meets the specifications.
Note: Do not use paper rolls that have the paper glued to the core.
1.   Press the button to open the roll paper cover.
2.   Remove the used roll paper core if there is one, and insert the new roll paper.
     Note: Note the direction the paper comes off the roll.
3.   Pull out some paper, close the cover, and tear off the paper with the manual cutter.

Installing or Replacing Roll Paper Vertically

You can hang the printer vertically on a belt using a clip on the back of the printer or a neck strap provided as an option. When you use the printer vertically, follow the steps below to install roll paper.
1.   Press the button to open the roll paper cover.
2.   Remove the used roll paper core if there is one.
3.   Set the new roll paper on the inside of the roll paper cover. See ① in illustration D.
     Note: Note the direction the paper comes off the roll.
4.   Pull the leading edge of the roll paper. See ② in illustration D.
5.   Align the left edge of the roll paper with the edge of the cover. See ③ in illustration D.
6.   Close the cover and tear off the paper with the manual cutter.

Buzzer

The factory default is set to On (buzzer sounds) to indicate the following:
❏   Remaining battery charge is not adequate
❏   Host disconnection
❏   Transmission of status information
❏   Roll paper end
❏   Error

Belt Clip (Illustration-E)

You can hang the printer on your belt using the belt clip attached to the back of the printer.
If you want to hang the printer on your neck, you can use the neck strap provided as an option.

Troubleshooting

No lights on the control panel

❏ Check that the battery is installed.

ERROR LED is flashing or on

❏ The printer temperature may be too high. The printer resumes printing automatically when the temperature returns to normal.
❏ Make sure that the roll paper cover is properly closed.
❏ Make sure that roll paper is installed.
❏ When the printer power is on, if the ERROR LED and the BATT. LED are on, the remaining battery charge is not enough for printer operation. The battery must be fully charged.

❏ When the battery is being charged, if the ERROR LED is on, an abnormality has occurred. The battery must be replaced with a new one.
❏ Turn off the power, wait several seconds, and then turn it on again. If the error remains, contact a qualified service person.

Cleaning the Print Head (Illustration-F)

⚠ CAUTION:

After printing, the print head can be very hot. Be careful not to touch it and to let it cool before you clean it. Do not damage the print head by touching it with your fingers or any hard object.
Turn off the printer, open the paper roll cover, and clean the thermal elements of the print head with a cotton swab moistened with an alcohol solvent (ethanol, methanol, or IPA).
EPSON recommends cleaning the thermal head periodically (generally every 3 months) to maintain print quality.

How to Set Up the Network
Preparation
Printing a Status Sheet

Make sure the printer is turned off and the roll paper cover is closed properly. Power on the printer and then open the roll paper cover. Hold down the FEED button until the printer beeps (about 2 seconds). Close the roll paper cover. The printer prints the parameters for the printer. You can check all setting values necessary (SSID, Network mode, IP address, Subnet mask, Gateway address) for the network connection.

Connection

Set the setting of the host PC and AP to match the network setting that you have confirmed with the status sheet.
Note:
For the AP mentioned above, it applies only to the printer if it is in the InfraStructure mode (you can check it with the status sheet).
You can check whether the connection to the printer has been correctly done by inputting the ping command through the command prompt.
Example: Ping 192.168.192.168
Note:
Although the example shows the address 192.168.192.168, use whatever IP address is reported on the status sheet. Because the default IP addresses for all the wireless printers are the same, you should power on and configure only one printer at a time.

Resetting the Printer to Factory Defaults

Open the roll paper cover. Turn on the printer's power while pressing down the FEED button. Press the FEED button 6 times. Close the roll paper cover. The printer prints the procedure for resetting. Follow the procedure.

Host Operating System

Windows® XP and 2000 are the recommended host PC operating systems because these operating systems have built-in TCP/IP support.

Setup

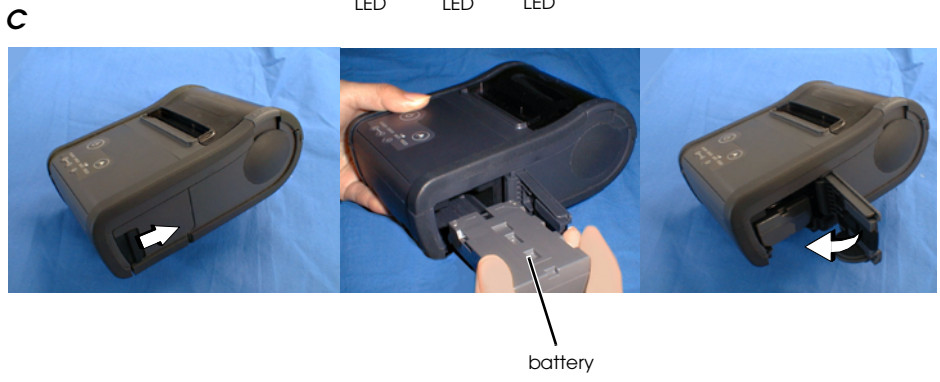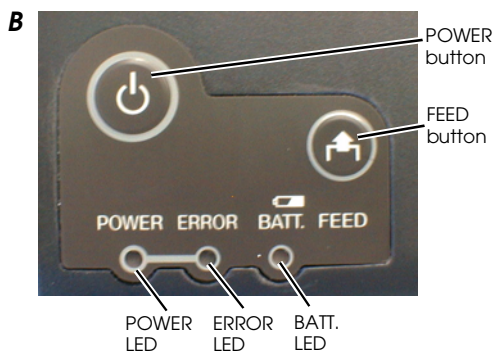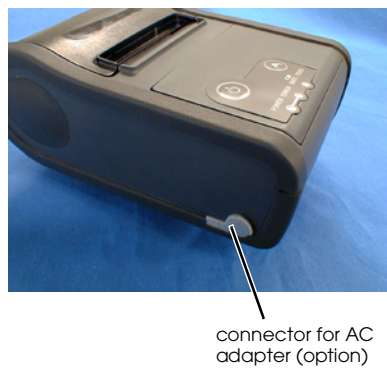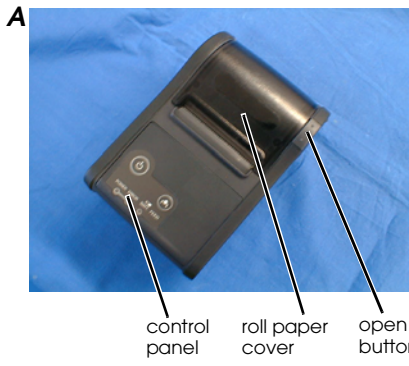There are two methods for the setup. For details, see the *TM-P60 Technical Reference Guide*.

❏ Using a Web browser
1. Start Windows Internet Explorer (or your Web browser).

2. Input the IP address of the TM-P60 in the browser address bar and press Enter (Example: http://192.168.192.168 [default]).
3. The browser displays a dialog box requesting a user name and password. Click OK without entering any user name or password. (If you have changed the user name and password, you need to input them.)
4. You can modify the parameters by following the menus. You must click Submit to send the change to the printer and then click Reset to make the submission effective on each Web page. If you change the IP address, SSID, etc., you have to change the setting of the host PC and AP to match the printer's setting.

❑ Using the TMNetWinConfig (version 2.0) and the *TM-P60 Technical Reference Guide*
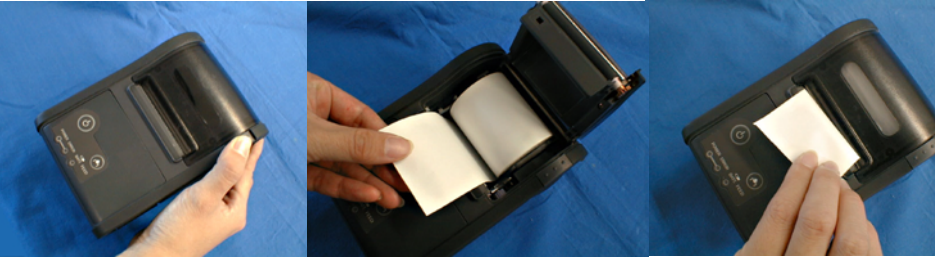For details, go to the following web site: http://pos.epson.com/

Specifications

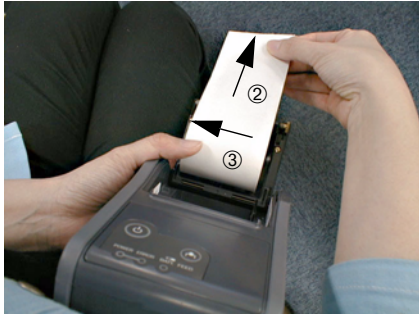| Print method		Thermal line printing
Print density		203 dpi × 203 dpi [dpi: dots per 25.4 mm (dots per inch)]
Printing width (default)		52.5 mm, 420 dot positions
Print font	Font	Font A: 12 × 24, Font B (default): 10 × 24, Font C: 8 × 16
	Characters per line	Font A: 35, Font B: 42, Font C: 52
	Character size (W × H)	Font A: 1.50 × 3.0, Font B: 1.25 × 3.0, Font C: 1.0 × 2.0
	Character set	95 Alphanumeric, 48 International, 128 × 10 Graphic
Paper	Roll paper dimensions (default)	57.5 ± 0.5 mm (59.5 ± 0.5 mm by removing the spacer installed)
	Paper thickness	50 μm ~ 80 μm
	Paper roll spool diameter	18 mm outside
	Specified thermal paper	Original: Kanzaki Specialty Paper (USA): P350 (paper thickness: 62 μm), P310 (paper thickness: 58 μm), P300 (paper thickness: 56 μm)
Print speed		Maximum 70 mm/s, when number of dots per dot line is 64 dots or less (printing with a fully charged battery, at 25°C, print density 100%)
Interface		RS-232C, IEEE802.11b
Receive buffer		128 bytes
Power consumption	Specified battery	Lithium-ion battery: Product name: LIP-2500, Trade name: Seiko Epson Corporation Output: DC 7.4 V Capacity: 2200 mAh
	AC adapter (option)	Output voltage: DC 12 V Input voltage: AC 100 V ~ 240 V Product name: PS-10, Trade name: Seiko Epson Corporation
Life	Mechanism	10,000,000 lines printing
	Print head	100,000,000 dots
	Autocutter	500,000 cuts
Temperature/ humidity	Operation (Printing quality guaranteed)	5 ~ 45°C, 10 ~ 90% RH
	Storage	Abnormal operations not found when the printer is left under the environment of 25°C, 60%RH for 2 hours after it was left in the following conditions: High temperature and humidity: 50°C, 90% RH for 120 hours High temperature: 70°C for 120 hours Low temperature: -25°C for 120 hours
Overall dimensions (mm)		103 × 159 × 65 (W × D × H)
Mass (with the battery, without roll paper)		Approx. 670 g

Note: For the battery specifications, see its instructions.

A

control panel | roll paper cover | open button

connector for AC adapter (option)

B

POWER button

FEED button

POWER   ERROR   BATT.   FEED

POWER LED | ERROR LED | BATT. LED

C

battery

D
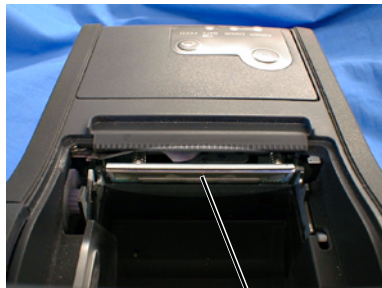

button   roll paper cover

E

clip

F

head

Recycling the Batteries

For American Users:

The lithium-ion battery is recyclable. At the end of its useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream. Please call 1-800-8-BATTERY for information on how to recycle this battery.

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/)

Printed on Recycled Paper