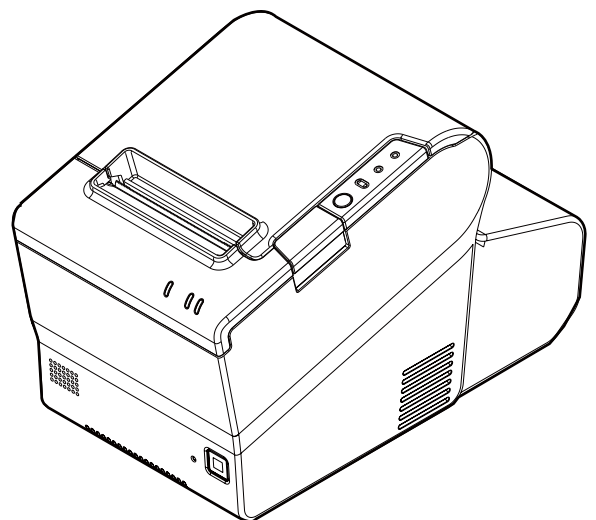


# TM-T88V-DT

## *User's Manual*

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## Important Safety Information

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

For information on development of a system with this product and setup, see also *Technical Reference Guide*. You can access *Technical Reference Guide* from the included *Manual CD*.

If Windows Embedded POSReady7 or Windows Embedded POSReady 2009 is installed on your model, be sure to read “[MICROSOFT SOFTWARE LICENSE TERMS](#)” at the end of this manual before you start using the product. If you do not accept any one of the terms, do not use the product.

## 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:**

**Warnings must be observed carefully to avoid serious bodily injury.**

### **CAUTION:**

**Cautions must be observed to avoid minor injury to yourself, damage to your equipment, or loss of data.**

### **Note:**

*Notes have important information and useful tips on the operation of your product.*

## Safety Precautions

### **WARNING:**

- If this product produces smoke, a strange odor, or unusual noise, immediately unplug the AC cable, and then contact your dealer or an Epson service center for advice. Continued use may lead to fire or electric shock.**
- Do not use this product with any voltage other than the specified one. Doing so may lead to fire or electric shock.**
- Be sure to use the specified AC adapter [AC adapter, T (Model: M284A)]. Connection to an improper power source may lead to equipment damage, fire, or electric shock.**
- Do not connect the cables in ways other than those specified in the manuals. Different connections may cause equipment damage or fire.**
- Do not block the openings of this product. This may cause overheating inside the product and lead to fire.**
  - **Do not place the product in an unventilated narrow location, such as a bookshelf.**
  - **Do not place the product on carpet.**
  - **Do not cover the product with any fabric.**
- Do not use this product where inflammable fumes of gasoline, benzene, thinner, or other inflammable liquids may be in the air. Doing so may cause an explosion or fire.**

- ❑ **Do not use aerosol sprayers containing flammable gas inside or around this product. Doing so may cause fire.**
- ❑ **If water or other liquid spills into this product, immediately unplug the AC cable, and then contact your dealer or an Epson service center for advice. Continued use may lead to fire or shock.**
- ❑ **Do not allow foreign objects to fall into this product. Penetration by foreign objects may lead to fire or electric shock.**
- ❑ **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, fire, or electric shock.**
- ❑ **Do not attempt to open or disassemble the internal lithium battery. This could result in burns or release of hazardous chemicals.**
- ❑ **Do not leave the internal lithium battery in a hot place such as near a fire or a heater because it could overheat and ignite.**

### **CAUTION:**

- ❑ Do not use this product in locations subject to high humidity or dust levels. Excessive humidity and dust may cause paper jams and other problems, such as fire, or electric shock.
- ❑ Be sure to set this product on a firm, stable, horizontal surface. The product may break or cause injury if it falls.
- ❑ Do not stand on or place heavy objects on top of this product. Equipment may fall or collapse, causing breakage and possible injury.
- ❑ Be sure to use this product with the connector cover attached. If it is not attached, foreign objects may enter this product, causing fire or equipment damage.
- ❑ When you move this product, be sure to hold the main body. If you hold only the connector cover, it may come off and the main body may break or cause injury if it falls.
- ❑ The print head can be very hot during and immediately after printing. If you need to touch it, such as for cleaning, wait until it cools down. Touching it before that may cause burns.
- ❑ Be careful of the cutter blades of the printer unit.
- ❑ Make sure that the total power requirements of all devices receiving power from this product do not exceed the power supplying capability of the product. Otherwise, the devices may be damaged.
- ❑ Connecting an outdoor overhead LAN cable directly to this product may lead to lightning damage. If you need to connect such a cable to the product, the cable must be protected against an electrical surge between the cable and the product. You should avoid connecting the product to a non-surge protected outdoor overhead LAN cable.
- ❑ Do not connect a telephone line to the drawer-kick connector of this product. The telephone line or product may become damaged.
- ❑ To ensure safety, unplug this product before leaving it for an extended period.

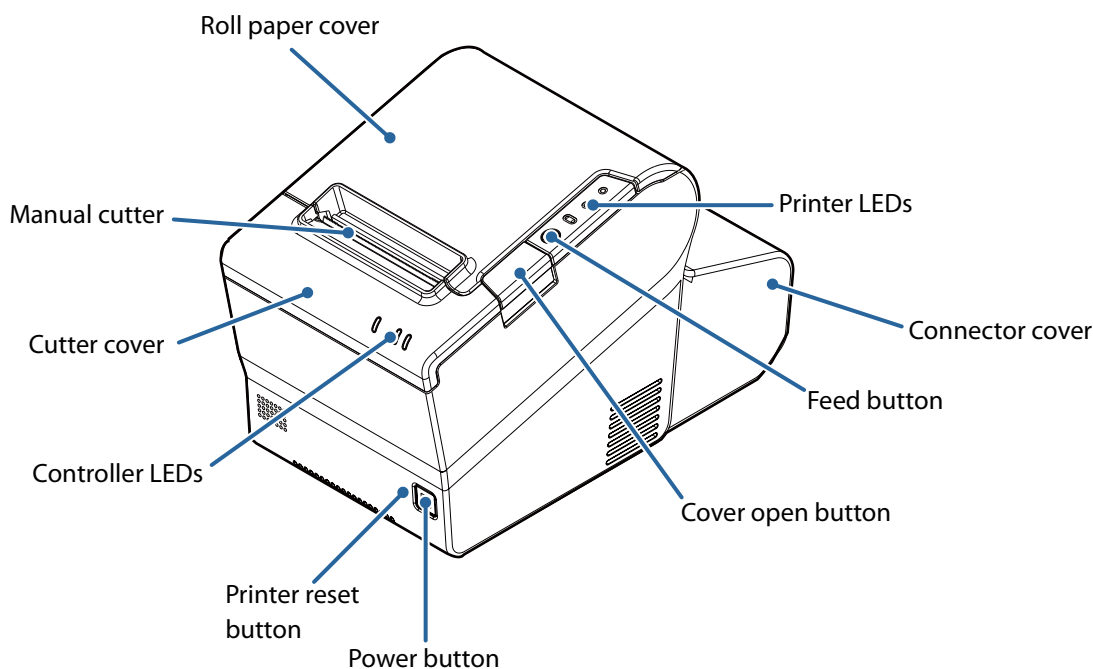
## Caution Labels

The caution label on the product indicates the following precautions.



*Do not touch the thermal head and the frame on its side because they can be very hot after printing.*

## Part Names and Functions



### **Roll paper cover**

Open this cover to install/replace the roll paper.

### **Manual cutter**

Use this cutter when you cut the roll paper manually.

### **Cutter cover**

Open this cover to unlock the autocutter blade when the roll paper cover does not open due to a paper jam. (🔗 [“The roll paper cover will not open” on page 25](#))

### **Printer reset button**

Keep pressing this button with a pointed object (such as a pen) until the ⏻ (Power) LED goes off to reset the printer unit.

### **Power button**

Press this button to turn on or shut down the product. Keep pressing the button to turn off the product forcibly. (🔗 [“Forced Termination” on page 20](#))

### **Cover open button**

Press this button to open the roll paper cover.

### **Feed button**

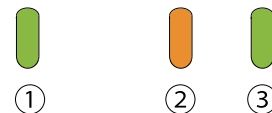
Press this button to feed the roll paper.

### Connector cover

Use the product with this cover attached to protect cables. (🔗 [“Attaching/Removing the Connector Cover”](#) on page 11)

### Controller LEDs

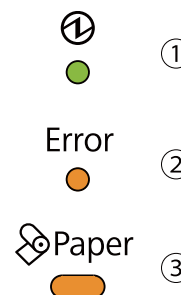
Indicates the controller unit status.



LED	LED status	Meaning
① Storage access LED (Green)	On	Accessing storage.
② Status LED (Orange)	Flashing (with approx. 1 sec intervals)	Booting/Shutdown/Updating software.
	Flashing (with approx. 160 msec intervals)	CPU temperature is high.
③ Status LED (Green)	On	Power is on.
	Flashing (with approx. 1 sec intervals)	Standby.
	Off	Power is off.

### Printer LEDs

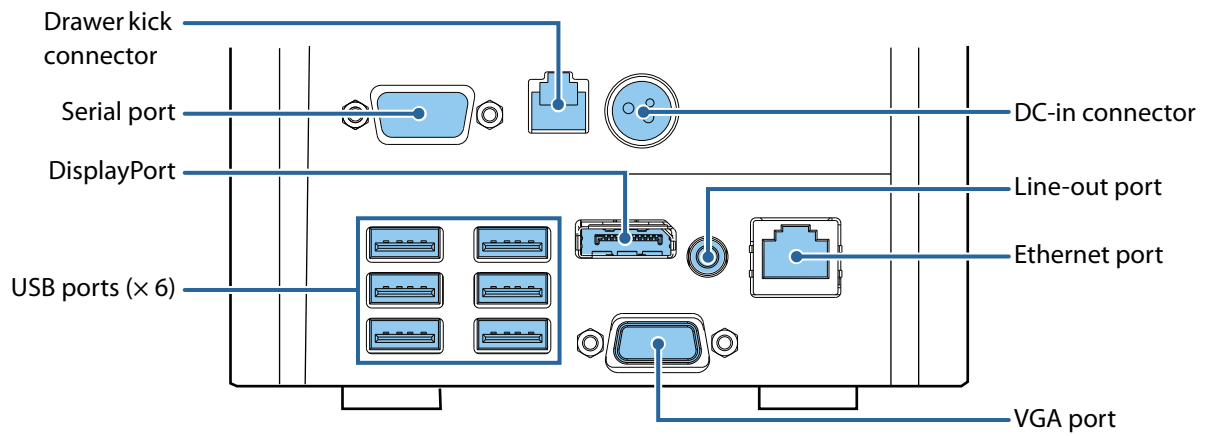
Indicates the printer unit status.



LED	LED status	Meaning
① ⏻ (Power) LED (Green)	On	Power is on.
	Off	Power is off.
② <b>Error</b> LED (Orange)	On	Offline
	Flashing	An error has occurred.
	Off	In normal status.
③ <b>Paper</b> LED (Orange)	On	Roll paper near-end.
	Flashing	Waiting for the self-test printing to be continued.
	Off	There is a sufficient amount of roll paper remaining.

## Interface

All the ports and connectors are located on the back of the product



**Note:**

If the connector cover is attached, detach it to access the ports or connectors. (👉 ["Removing the connector cover" on page 12](#))

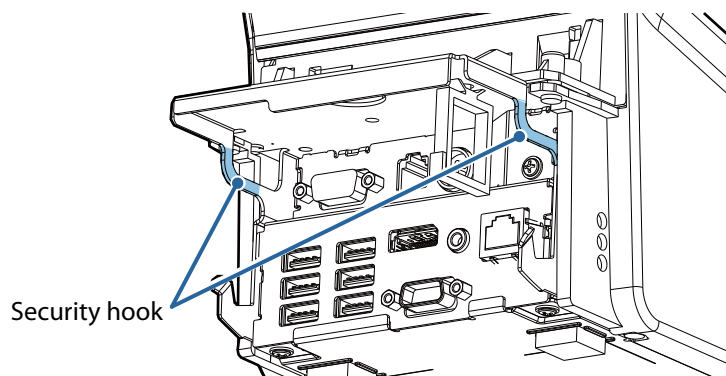
## Setup


### Installing the Product

Install the product horizontally on a firm, stable surface.

 **Note:**

- ❑ The security hook on the back of the product allows you to attach a commercially available antitheft wire.



- ❑ A tape for fixing the product (DF-10) is available as an option. ( ["Securing the Product" on page 17](#))



## Connecting the AC Adapter

Follow the steps below to connect the AC adapter.

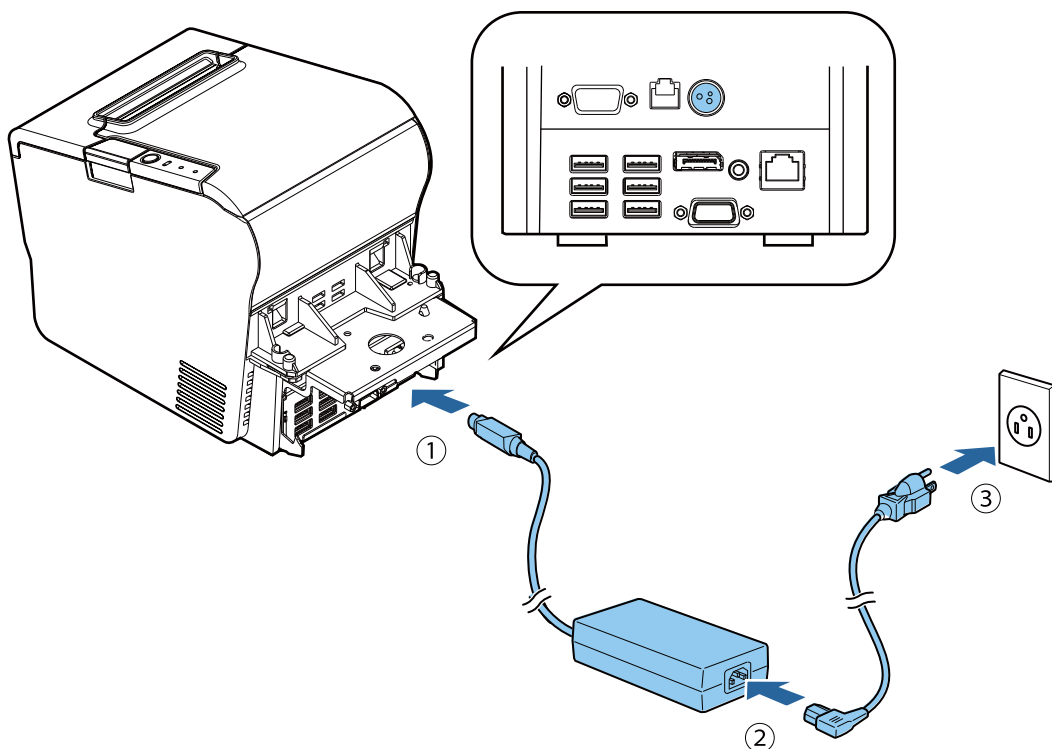
### **WARNING:**

**Be sure to use the specified AC adapter [AC adapter, T (Model: M284A)]. Connection to an improper power source may lead to equipment damage, fire, or electric shock.**

### **CAUTION:**

*Be sure to leave a space between the AC adapter and the main unit.*

1. Firmly insert the DC connector of the AC adapter all the way into the DC-in connector on the product. (① in the illustration)
2. Firmly insert the connector of the AC cable all the way into the AC inlet on the AC adapter. (② in the illustration)
3. Firmly insert the plug all the way into the grounded wall outlet. (③ in the illustration)
4. Set the AC adapter so that its label side is facing down.

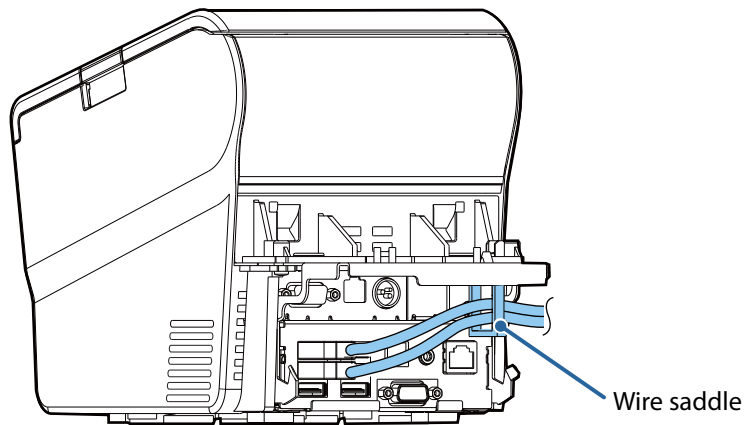


## Connecting External Devices

If you connect external devices, turn off the product and then connect each cable to the port/connector on the back of the product. (☞ ["Interface" on page 7](#))

**Note:**

*When connecting the cables whose connectors do not lock themselves (USB cables and line-out cable), pass the cables through the wire saddle to prevent them from coming off.*



## Attaching/Removing the Connector Cover

### Attaching the connector cover

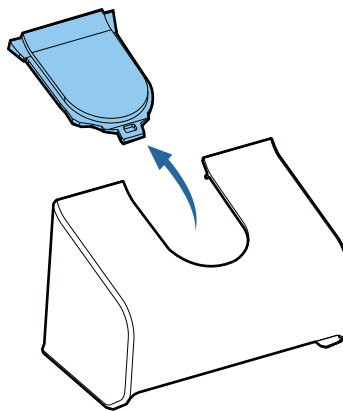
#### **CAUTION:**

Be sure to hold both sides of the connector cover when attaching it, or it may become damaged.

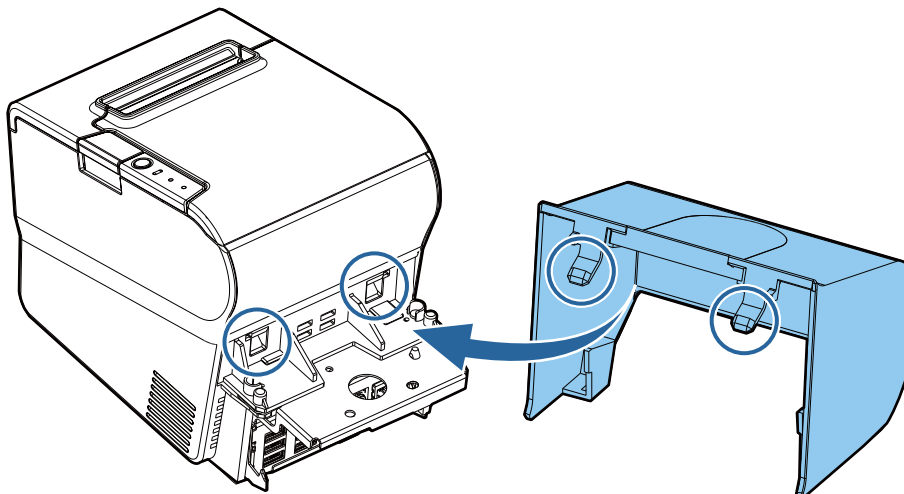
Follow the steps below to attach the connector cover to protect cables.

#### **Note:**

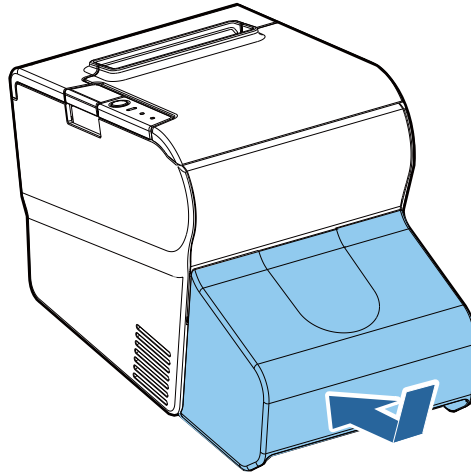
If you use the product with the optional customer display (Model: DM-D110), remove the U-shaped part from the connector cover.



1. Align the hooks on the connector cover with the dents on the main body.



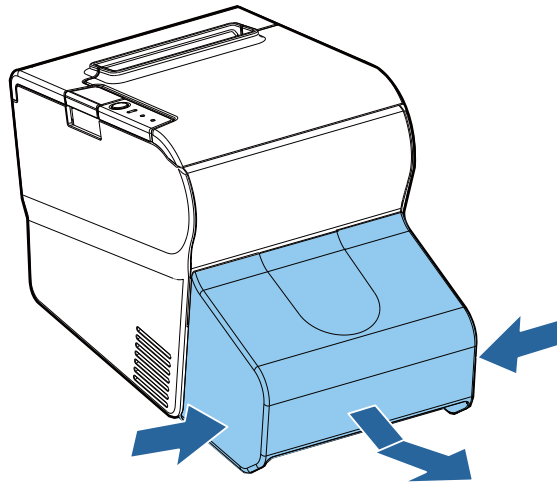
2. Push the connector cover to click onto the main body.



3. Make sure the cables are not pinched.

### ***Removing the connector cover***

Push the connector cover down while pushing the lower part of the both sides of it inward to detach the hooks from the main body.



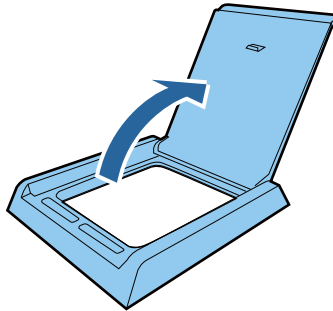
## Attaching the Power Button Cover

Attaching the power button cover that comes with the product onto the power button prevents accidental operation of the power button. Follow the steps below to attach the power button cover.

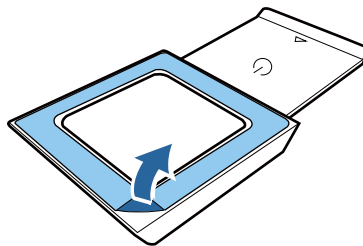
 **Note:**

*It is recommended to clean any dirt around the power button before you attach the cover.*

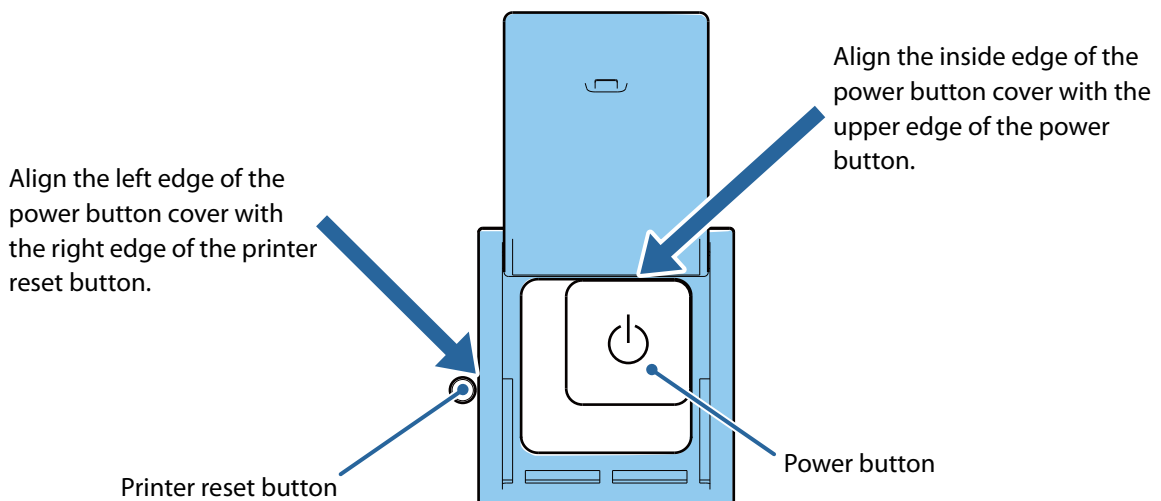
1. Open the power button cover.



2. Peel off the backing paper.



3. Attach the power button cover as shown in the illustration.

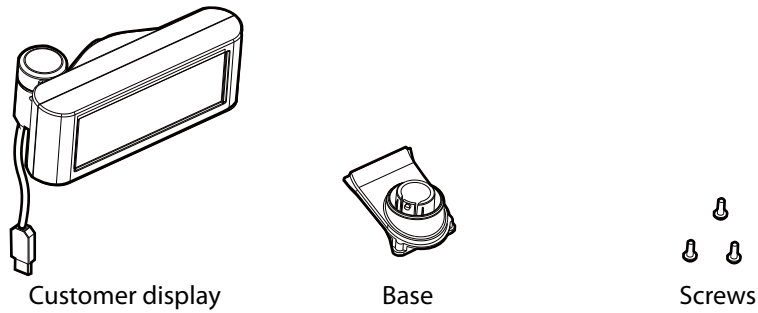


## Installing the Customer Display

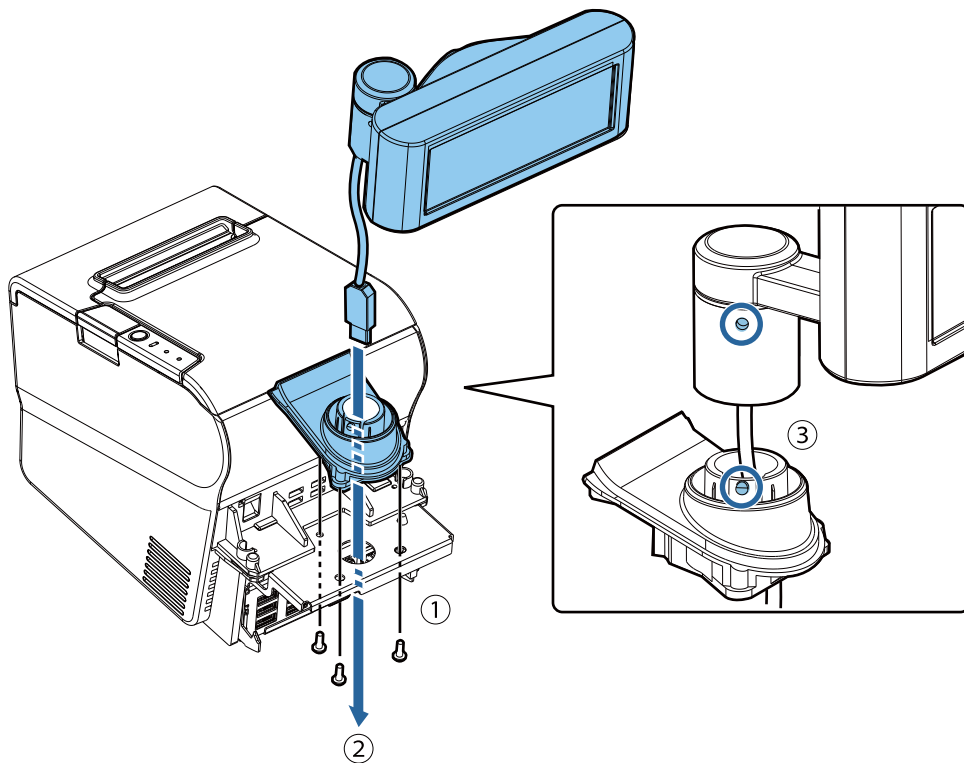
If you use the product with the optional exclusive customer display (Model: DM-D110), follow the steps below to install it.

### For models without a pole

Use the following items. The base and screws are included with the customer display.

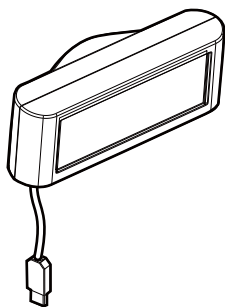


1. Attach the base on the TM-T88V-DT with the three screws. (① in the illustration)
2. Pass the USB cable of the customer display through the base. (② in the illustration)
3. Align the dowel hole in the customer display and the dowel on the base to attach the customer display on the base. (③ in the illustration)
4. Connect the USB cable to the USB port. (↗ "Interface" on page 7)

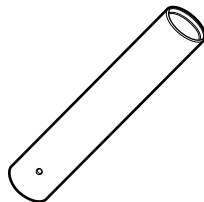


## For models with a pole

Use the following items. The pole, base, and screws are included with the customer display.



Customer display



Pole



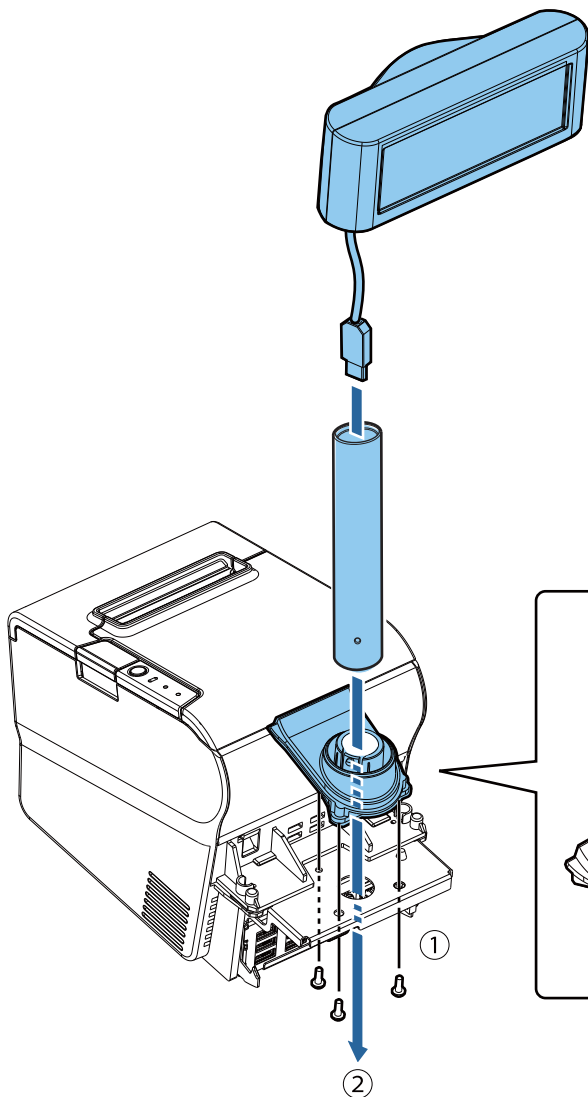
Base



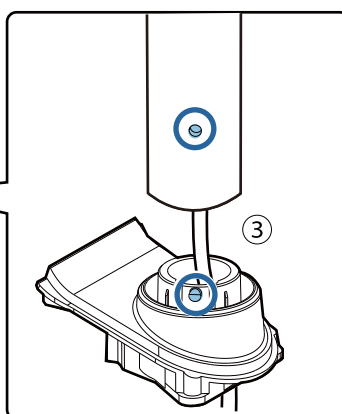
Screws

### **⚠ CAUTION:**

The pole does not come out of the customer display once it is attached to it. Be sure of its orientation when attaching it to the customer display.



1. Attach the base on the TM-T88V-DT with the three screws. (① in the illustration)
2. With the end of the straight pole with a hole pointing downward, pass the USB cable of the customer display through the pole and base. (② in the illustration)
3. Attach the pole with the customer display.
4. Align the dowel hole in the pole and the dowel on the base to attach the pole on the base. (③ in the illustration)
5. Connect the USB cable to the USB port. (🔗 "Interface" on page 7)



## Changing the orientation of the display

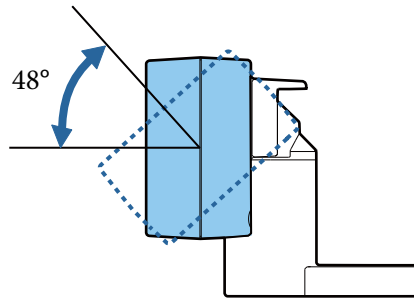
Hold the TM-T88V-DT with your hand and move the display or arm to change the direction or angle.

### **CAUTION:**

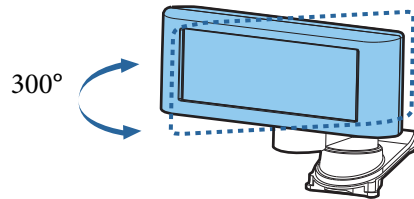
*Do not rotate the display with excessive force. Doing so may break it.*

The mobile range of the display is as follows.

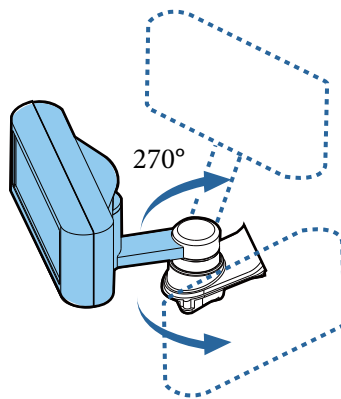
- Display tilt: Maximum angle of 48° (5 levels)



- Display rotation: Maximum angle of 300°



- Arm rotation: Maximum angle of 270° (only for models without a pole)

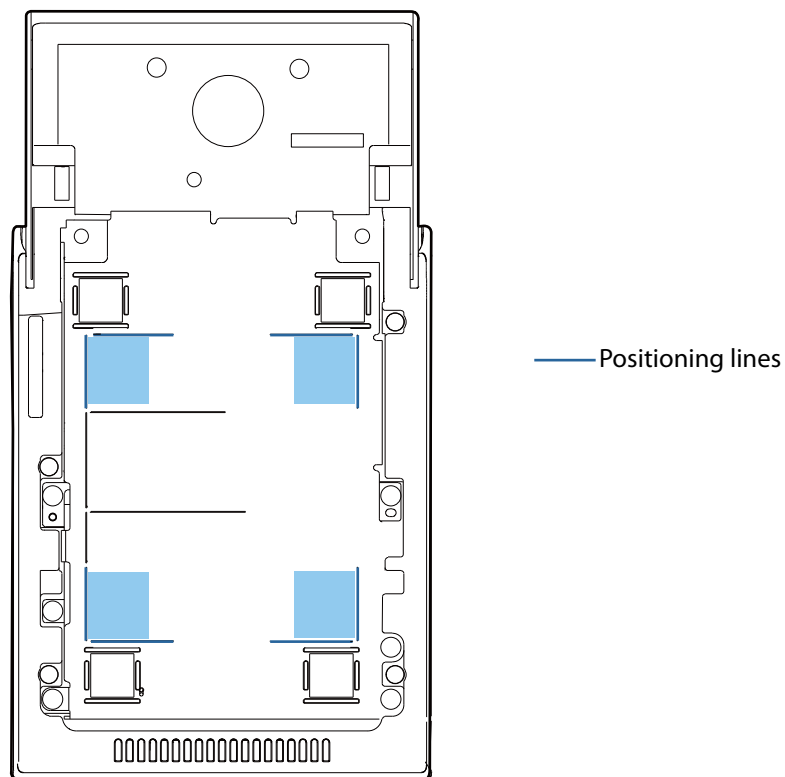




## Securing the Product

Using the optional affixing tape (Model: DF-10) secures the product to the installation surface. Follow the steps below to use the affixing tape.

1. Turn over the product so that you can see its bottom.
2. With two pieces of the affixing tape combined, peel off the backing paper of a pair on one side, and paste it to one of the specified positions on the bottom of the product.
3. In the same way, paste other three pairs of tape in the specified positions.
4. Peel off the backing paper of each pair on the other side of the affixing tape, turn over the product back on its bottom, and place and secure it firmly to the installation surface.



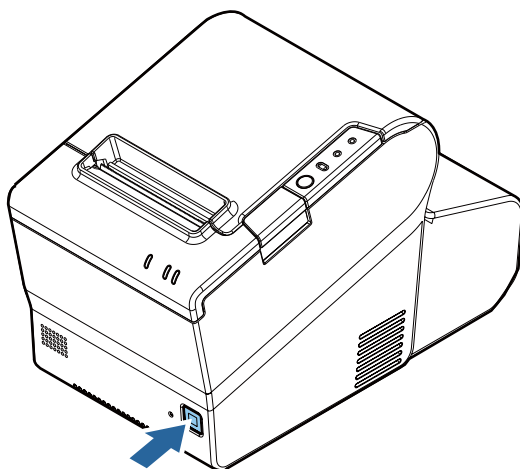
## Basic Operations

### Turning Power On/Off

**⚠ CAUTION:**

- ❑ If you turn the product off, wait more than 10 seconds before you turn it again.
- ❑ When the product is turned off or when it is in the standby mode, do not hold down the power button longer than 4 seconds.

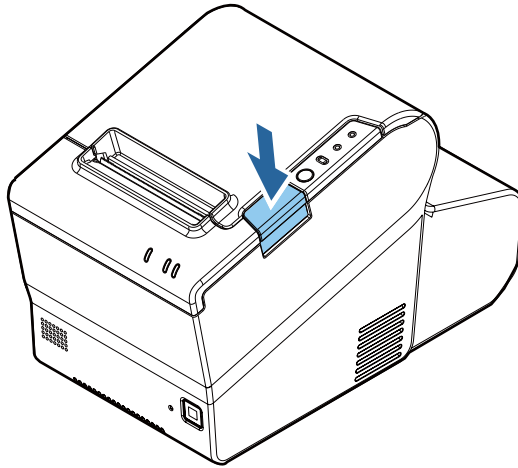
Press the power button to turn on/off the product.



## ***Opening the Covers***

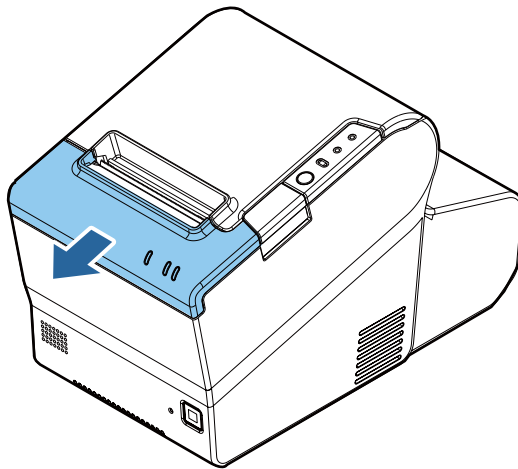
### ***Opening the roll paper cover***

Press the cover open button to open the roll paper cover.



### ***Opening the cutter cover***

Slide the cutter cover toward front to open it.



## **Controlling the Speaker Volume**

You can control the speaker volume through the operating system of the computer.

### **Forced Termination**

#### **CAUTION:**

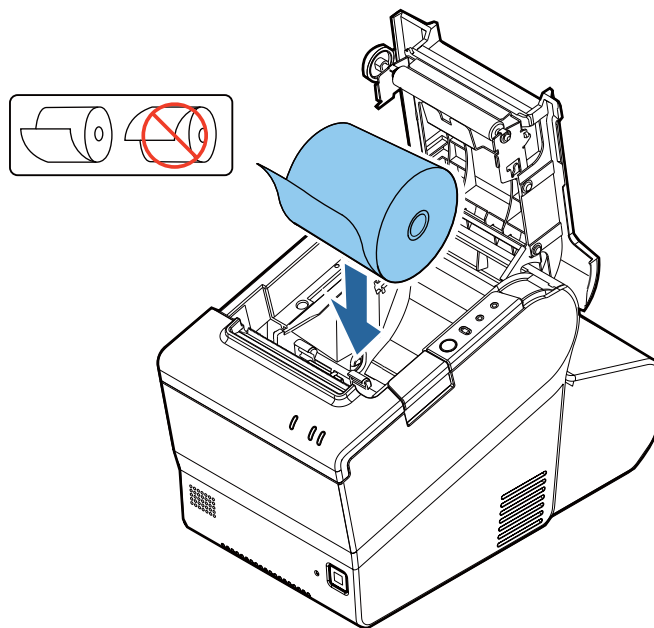
*When forced termination is executed, all unsaved data is lost and recovery of the operating system may be required.*

If you cannot turn the product off using applications or the operating system, you can execute forced termination as a last resort by pressing the power button for approximately 4 seconds.

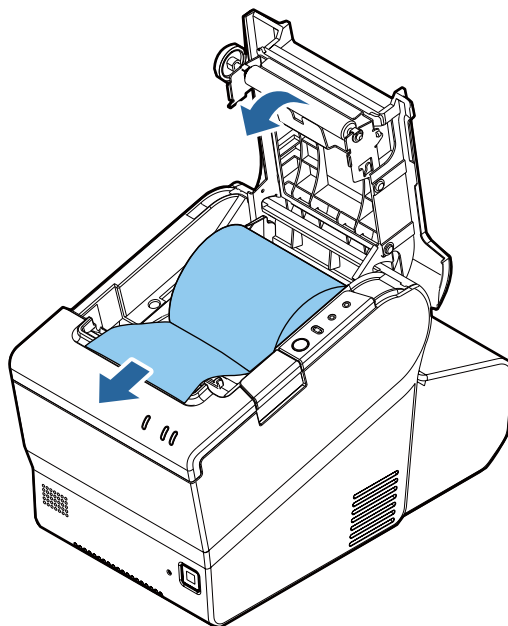
## Installing/Replacing the Roll Paper

Follow the steps below to install/replace the roll paper.

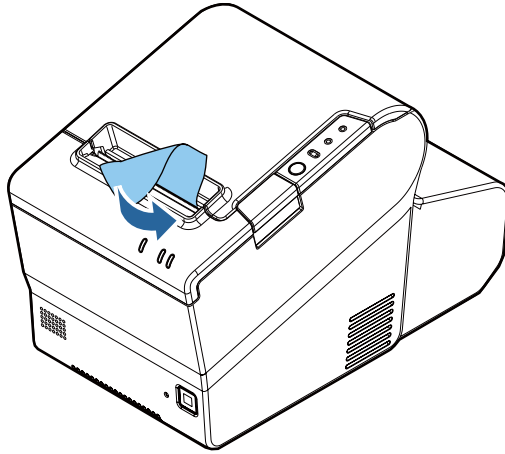
1. Open the roll paper cover. (☞ [“Opening the roll paper cover”](#) on page 19)
2. Remove the used roll paper core if there is one.
3. Insert the roll paper in the correct direction.



4. Pull out some paper, and close the roll paper cover.



5. Tear off the paper.



## Cleaning

### Cleaning the Product Case

Be sure to turn off the product, and wipe the dirt off the product case with a dry cloth or a damp cloth. For persistent dirt, use a cloth slightly moistened with mild neutral detergent.

#### CAUTION:

Never clean the product with alcohol, benzene, thinner, or other such solvents. Doing so may damage or break the parts made of plastic and rubber.

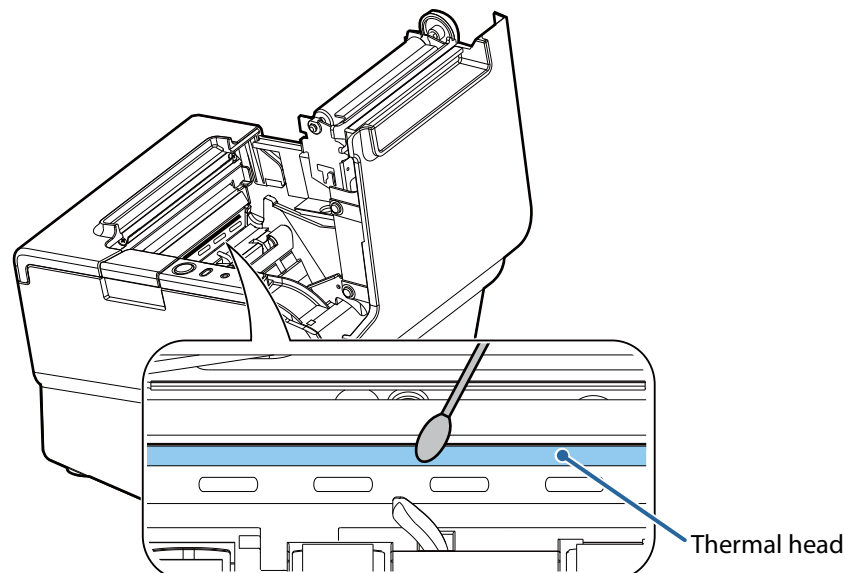
### Cleaning the Thermal Head

To maintain print quality, Epson recommends cleaning the thermal head periodically (generally every 3 months) by following the steps below.

#### CAUTION:

- The thermal head and the frame on its side can be very hot after printing. Be careful not to touch them and to let them cool before you clean it.
- Do not damage the thermal head by touching it with your fingers or any hard object.

1. Turn off the product. ([↗](#) “Turning Power On/Off” on page 18)
2. Open the roll paper cover. ([↗](#) “Opening the roll paper cover” on page 19)
3. Clean the thermal elements of the thermal head with a cotton swab moistened with an alcohol solvent (ethanol or IPA).



## Troubleshooting

### ⌚(Power) LED does not light

Check whether the AC adapter is correctly connected. (🔗 [“Connecting the AC Adapter” on page 9](#))

### Error LED is on

- ❑ Check whether the roll paper cover is correctly closed.
- ❑ If the **Paper** LED is on, check whether the roll paper is correctly installed and any roll paper remains. (🔗 [“Installing/Replacing the Roll Paper” on page 21](#))

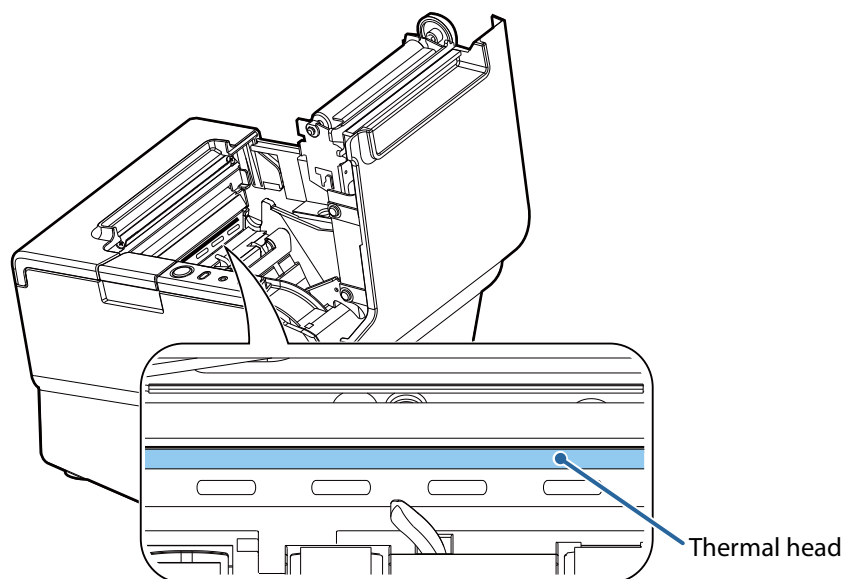
### Error LED is flashing

- ❑ Check whether paper is jammed. If it is jammed, remove it. (🔗 [“Paper is jammed” on page 24](#))
- ❑ Printing stops if the thermal head overheats and resumes automatically when it cools.
- ❑ For other cases, turn the product off, and after 10 seconds, turn it back on.

### Paper is jammed

#### ⚠️🔥 CAUTION:

*Do not touch the thermal head and the frame on its side because they can be very hot after printing.*



When paper is jammed, never pull out the paper forcibly. Open the roll paper cover (🔗 [“Opening the roll paper cover” on page 19](#)), and then remove the jammed paper.



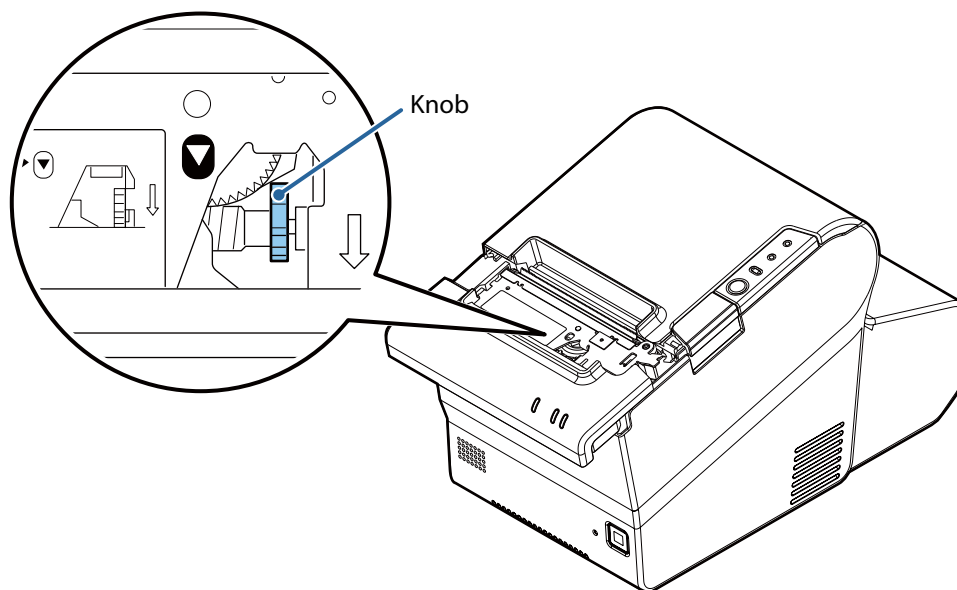
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## The roll paper cover will not open

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When the autocutter blade is locked, the roll paper cover will not open. Follow the steps below to return the autocutter blade to the normal position.

1. Turn off the product (🔌 “Turning Power On/Off” on page 18)
2. Open the cutter cover. (🔓 “Opening the cutter cover” on page 19)
3. Turn the knob in the direction of the arrow until you see a triangle in the opening of the frame.



4. Close the cutter cover.
5. Open the roll paper cover. (🔓 “Opening the roll paper cover” on page 19)

## Specifications

Item		SATA HDD models	SATA SSD models
<b>CPU</b>		Intel® Atom™ D2550 (1 MB Cache, 1.86 GHz)	
<b>Main memory</b>		4 GB DDR3, SO-DIMM slot	
<b>Backing storage</b>		SATA HDD* <sup>1</sup>	SATA SSD* <sup>1</sup>
<b>Interface</b>	Ethernet	10BASE-T/100BASE-TX/1000BASE-T	
	USB (× 6)	USB 2.0 Power supply: DC 5 V, 500 mA (Peak: 1A/100ms)	
	Serial	D-sub 9 pin male	
	VGA	D-sub 15 pin female	
	DisplayPort	DP1.1 female (16.1 mm × 4.76 mm)	
	Drawer kick	RJ12 6 pin Power supply: DC 24 V, 1 A	
	Line-out	φ 3.5 mm Mini-jack	
<b>RTC/CMOS Backup battery</b>		Lithium battery for RTC backup	
<b>Sound function</b>		Built-in monaural speaker	
<b>Print method</b>		Thermal line printing	
<b>Print speed</b>		300 mm/s	
<b>Roll paper</b>	Paper width* <sup>2</sup>	79.5 mm ± 0.5 mm {3.13" ± 0.02"} or 57.5 mm ± 0.5 mm {2.26" ± 0.02"}	
	Diameter	83 mm {3.27"} at maximum	
	Roll paper core	Inside diameter: 12 mm {0.47"} Outside diameter: 18 mm {0.71"}	
<b>Software</b>	Operating system	Windows Embedded POSReady7	
	Device control software	ePOS-Device	
<b>Power supply</b>		Dedicated AC adapter (AC adapter, T [Model: M284A]) DC 24 V, 4.2 A	
<b>Dedicated AC adapter</b>		AC adapter, T (Model: M284A) Input: AC 100 V to AC 240 V, 50 Hz to 60 Hz, 2.4 A Output: DC 24 V, 4.2 A	
<b>AC Power consumption</b>	Operating* <sup>3</sup>	63.8 W	61.8 W
	Standby	15.8 W	14.9 W
	Off	1.4 W	1.5 W
<b>Temperature</b>	Operating	5 to 40°C {41 to 104°F}	
	Storage	-10 to 50°C {14 to 122°F}	
<b>Humidity</b>	Operating	10 to 90 %RH (No condensation)	
	Storage	10 to 90 %RH (No condensation)	
<b>Overall dimensions</b> (including connector cover)		W × D × H: 145 mm × 279 mm × 183 mm {5.71" × 10.98" × 7.20"}	
<b>Mass</b>		Approx. 2.9 kg {6.39 lb}	Approx. 2.8 kg {6.17 lb}

\*1: The capacity differs depending on the model.

\*2: 58 mm width paper (57.5 ± 0.5 mm) is also available. For information on how to change paper width, see *Technical Reference Guide*.

\*3: Based on Epson operating conditions.

## **Appendix**

### **Restriction of Use**

When this product is used for applications requiring high reliability/safety, such as transportation devices related to aviation, rail, marine, automotive, etc.; disaster prevention devices; various safety devices, etc.; or functional/precision devices, etc.; you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety, such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care, etc., please make your own judgment on this product's suitability after a full evaluation.

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- 3 ) The open source software programs are WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. See the license agreements of each open source software program for more details.
- 4 ) OpenSSL toolkit  
This printer product includes software developed by the OpenSSL project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).  
This product includes cryptographic software written by Eric Young (eay@cryptsoft.com).
- 5 ) The list of open source software programs included with this printer product and the whole license agreements of each license can be found in the following URL.  
<http://xxx.xxx.xxx.xxx/licenses/>

\* For the underlined part in the above URL, input each printer's IP address.

# MICROSOFT SOFTWARE LICENSE TERMS

## MICROSOFT SOFTWARE LICENSE TERMS FOR: Windows Embedded POSReady7

These license terms are an agreement between you and SEIKO EPSON CORPORATION. Please read them. They apply to the software included on this device. The software also includes any separate media on which you received the software.

The software on this device includes software licensed from Microsoft Corporation or its affiliate.

The terms also apply to any Microsoft

- updates,
- supplements,
- Internet-based services, and
- support services

for this software, unless other terms accompany those items. If so, those terms apply.

If you obtain updates or supplements directly from Microsoft, then Microsoft, and not SEIKO EPSON CORPORATION, licenses those to you.

**As described below, using the software also operates as your consent to the transmission of certain computer information for Internet-based services.**

**By using the software, you accept these terms. If you do not accept them, do not use the software. Instead, contact SEIKO EPSON CORPORATION to determine its return policy for a refund or credit.**

**If you comply with these license terms, you have the rights below.**

### 1. USE RIGHTS

**Use.** The software license is permanently assigned to the device (physical hardware system) with which you acquired the software. You may only use the software on that device.

### 2. ADDITIONAL LICENSING REQUIREMENTS AND/OR USE RIGHTS

**a. Specific Use.** You may use the software with a point of service "POS" application.

A POS System means an Embedded System that performs functions substantially similar to that of a point of sale, kiosk (informational or transactional), digital signage, or similar types of devices; and is designed for use solely with a POS Application.

A POS application is a software application which provides any of the following functions;

- process sales and service transactions
- scan and track inventory
- record or transmit customer information
- perform related management functions
- provide information directly and indirectly to customers about available products and services

**b. Other Software.** You may use other programs with the software as long as the other programs

- directly supports the manufacturer's specific use for the device, or
- provide system utilities, resource management, or anti-virus or similar protection.
- Software that provides consumer or business tasks or processes may not be run on the device. This includes email, word processing, spreadsheet, database, scheduling and personal finance software. The device may use terminal services protocols to access such software running on a server.

**c. Storage/Network Use.** You may also store or install one (1) copy of the software on a storage device, such as network server, used only to install or run the software on your other POS Systems over an internal network; however, you must acquire and dedicate an additional license for each separate POS System on or from which the software is installed, used, accessed, displayed or run. Except as otherwise permitted by Remote Assistance features described above, a license for the software may not be shared or used concurrently on different POS Systems.

**d. Device Connections.** You may use terminal services protocols to connect the device to a server running business task or processes software such as email, word processing, scheduling or spreadsheets.

You may permit a maximum of twenty (20) computers or other electronic devices (each a "Device") to connect via Server Message Bloc (SMB) to the POS System to utilize one or more of the following services of the software: File Services, Print Services, Internet Information Services, Internet Connection Sharing and telephony services. The twenty connection maximum includes any indirect connections made through "multiplexing" or other software or hardware which pools or aggregates connections. Unlimited inbound connections are allowed via TCP/IP (Transmission Control Protocol ("TCP") and the Internet Protocol ("IP").

**e. Remote Desktop/Remote Assistance.** The software may contain Remote Assistance and Remote Desktop technologies that enable the software or other applications installed on the POS System to be used remotely between two or more computing devices, even if the software or application is installed on only one POS System. You may use Remote Assistance and Remote Desktop with all Microsoft products; provided however, use of these technologies with certain Microsoft products may require an additional license. For both

Microsoft products and non-Microsoft products you should consult the license agreement accompanying the applicable product or contact the applicable licensor to determine whether use of Remote Assistance or Remote Desktop is permitted without an additional license.

- f. **Font Components.** While the software is running, you may use its fonts to display and print content. You may only
  - embed fonts in content as permitted by the embedding restrictions in the fonts; and
  - temporarily download them to a printer or other output device to print content.
- g. **Icons, images and sounds.** While the software is running, you may use but not share its icons, images, sounds, and media.
- h. **VHD BOOT.** Additional copies of the software created using the software's Virtual Hard Disk functionality ("VHD Image") may be pre-installed on the physical hard disk of the device. These VHD Images may only be used for maintaining or updating the software installed on the physical hard disk or drive. If the VHD Image is the only software on your device, it may be used as the primary operating system but all other copies of the VHD Image may only be used for maintenance and updating.
- i. **Multiplexing.** Hardware or software you use to
  - pool connections,
  - reroute information, or
  - reduce the number of devices or users that directly access or use the software (sometimes referred to as "multiplexing" or "pooling"), does not reduce the number of licenses of any type that you need.

**3. INTERNET-BASED SERVICES.** Microsoft provides Internet-based services with the software. It may change or cancel them at any time.

- a. **Consent for Internet-Based Services.** The software features described below connect to Microsoft or service provider computer systems over the Internet. In some cases, you will not receive a separate notice when they connect. You may switch off these features or not use them. For more information about these features, see <http://windows.microsoft.com/en-US/windows7/windows-7-privacy-statement-highlights>. **By using these features, you consent to the transmission of this information.** Microsoft does not use the information to identify or contact you.

Computer Information. The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system, browser and name and version of the software you are using, and the language code of the device where you installed the software. Microsoft uses this information to make the Internet-based services available to you.

- Auto Root Update. The Auto Root Update feature updates the list of trusted certificate authorities. You can switch off the Auto Root Update feature.
- Digital Certificates. The software uses digital certificates. These digital certificates confirm the identity of Internet users sending X.509 standard encrypted information. They also can be used to digitally sign files and macros to verify the integrity and origin of the file contents. The software retrieves certificates and updates certificate revocation lists using the Internet, when available.
- IPv6 Network Address Translation (NAT) Traversal service (Teredo). This feature helps existing home Internet gateway devices transition to IPv6. IPv6 is next generation Internet protocol. It helps enable end-to-end connectivity often needed by peer-to-peer applications. To do so, each time you start up the software the Teredo client service will attempt to locate a public Teredo Internet service. It does so by sending a query over the Internet. This query only transfers standard Domain Name Service information to determine if your computer is connected to the Internet and can locate a public Teredo service. If you
  - use an application that needs IPv6 connectivity or
  - configure your firewall to always enable IPv6 connectivity
 by default standard Internet Protocol information will be sent to the Teredo service at Microsoft at regular intervals. No other information is sent to Microsoft. You can change this default to use non-Microsoft servers. You can also switch off this feature using a command line utility named "netsh."
- Information Rights Management. The software contains a feature that allows you to create content that cannot be printed, copied or sent to others without your permission. You may need to connect to Microsoft to use this feature for the first time. Once a year, you may need to re-connect to Microsoft to update it. For more information, go to [www.office.microsoft.com/en-us/assistance/HA010397891033.aspx](http://www.office.microsoft.com/en-us/assistance/HA010397891033.aspx). You may choose not to use this feature.
- Windows Media Digital Rights Management. Content owners use Windows Media digital rights management technology (WMDRM) to protect their intellectual property, including copyrights. This software and third party software use WMDRM to play and copy WMDRM-protected content. If the software fails to protect the content, content owners may ask Microsoft to revoke the software's ability to use WMDRM to play or copy protected content. Revocation does not affect other content. When you download licenses for protected content, you agree that Microsoft may include a revocation list with the licenses. Content owners may require you to upgrade WMDRM to access their content. Microsoft software that includes WMDRM will ask for your consent prior to the upgrade. If you decline an upgrade, you will not be able to access content that requires the upgrade. You may switch off WMDRM features that access the Internet. When these features are off, you can still play content for which you have a valid license.

- Windows Media Player. When you use Windows Media Player, it checks with Microsoft for
  - compatible online music services in your region;
  - new versions of the player; and
  - codecs if your computer does not have the correct ones for playing content.

You can switch off this last feature. For more information, go to [go.microsoft.com/fwlink/?LinkId=51331](http://go.microsoft.com/fwlink/?LinkId=51331).

- Windows (or Microsoft) Update Feature. Windows Update Feature. This is an optional feature that you can enable by selecting the "Opt In" dialogue box. Once enabled, this feature automatically connects to Microsoft or service provider computer systems over the internet to provide updates from Microsoft to your software and Runtime. In some cases, you will not receive a separate notice when they connect. Standard information about your computer is sent each time the feature connects. Standard computer information may include your Internet Protocol address, the type of operating system, browser and name and version of the software you are using and the language code of the device where you installed the software. Microsoft uses this information to make the Internet based service available to you. You may switch off this feature or not use it. **By using this feature, you consent to the transmission of this information.** Microsoft does not use the information to identify or contact you.
- 4. BENCHMARK TESTING.** You must obtain Microsoft's prior written approval to disclose to a third party the results of any benchmark test of the software. However, this does not apply to the Microsoft .NET Framework (see below).
  - 5. MICROSOFT .NET FRAMEWORK BENCHMARK TESTING.** The software includes one or more components of the .NET Framework (".NET Components"). You may conduct internal benchmark testing of those components. You may disclose the results of any benchmark test of those components, provided that you comply with the conditions set forth at [go.microsoft.com/fwlink/?LinkId=66406](http://go.microsoft.com/fwlink/?LinkId=66406). Notwithstanding any other agreement you may have with Microsoft, if you disclose such benchmark test results, Microsoft shall have the right to disclose the results of benchmark tests it conducts of your products that compete with the applicable .NET Component, provided it complies with the same conditions set forth at [go.microsoft.com/fwlink/?LinkId=66406](http://go.microsoft.com/fwlink/?LinkId=66406).
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    - publish the software for others to copy;
    - rent, lease or lend the software; or
    - use the software for commercial software hosting services.
  - 7. BACKUP COPY.** You may make one backup copy of the software. You may use it only to reinstall the software.
  - 8. DOCUMENTATION.** Any person that has valid access to your computer or internal network may copy and use the documentation for your internal, reference purposes.
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THIS PRODUCT IS LICENSED UNDER THE AVC, THE VC-1, THE MPEG-4 PART 2 VISUAL, AND THE MPEG-2 VIDEO PATENT PORTFOLIO LICENSES FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO DECODE AVC, VC-1, MPEG-4 PART 2 AND MPEG-2 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE SUCH VIDEO. NONE OF THE LICENSES EXTEND TO ANY OTHER PRODUCT REGARDLESS OF WHETHER SUCH PRODUCT IS INCLUDED WITH THIS PRODUCT IN A SINGLE ARTICLE. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [WWW.MPEGLA.COM](http://WWW.MPEGLA.COM).
  - 10. PRODUCT SUPPORT.** Contact SEIKO EPSON CORPORATION for support options. Refer to the support number provided with the device.
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  - 12. TRANSFER TO A THIRD PARTY.** You may transfer the software only with the device, the Certificate of Authenticity label, and these license terms directly to a third party. Before the transfer, that party must agree that these license terms apply to the transfer and use of the software. You may not retain any copies of the software including the backup copy.

- 13. NOT FAULT TOLERANT.** The software is not fault tolerant. SEIKO EPSON CORPORATION installed the software on the device and is responsible for how it operates on the device.
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- a. United States.** If you acquired the software in the United States, Washington state law governs the interpretation of this agreement and applies to claims for breach of it, regardless of conflict of laws principles. The laws of the state where you live govern all other claims, including claims under state consumer protection laws, unfair competition laws, and in tort.
  - b. Outside the United States.** If you acquired the software in any other country, the laws of that country apply.



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The terms also apply to any Microsoft

- Updates,
- Supplements,
- Internet-based services, and
- Support services

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**As described below, using some features also operates as your consent to the transmission of certain standard computer information for Internet-based services.**

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If you comply with these license terms, you have the rights below.

### 1. Use Rights

You may use the software on the device with which you acquired the software.

### 2. Additional Licensing Requirements and/or Use Rights

- a. Specific Use. SEIKO EPSON CORPORATION designed this device for a Point Of Sale Application. You may only use the software for that use.

“POS Application” means a software application which provides only the following functions to:

- i. process sales and service transactions, scan and track inventory, record and/or transmit customer information, and perform related management functions; and/or
  - ii. provide information directly and indirectly to customers about products and services available.
- b. Other Software. You may use other programs with the software as long as the other programs
- i. directly support the manufacturer’s specific use for the device, or
  - ii. provide system utilities, resource management, or anti-virus or similar protection.

Software that provides consumer or business tasks or processes may not be run on the device. This includes email, word processing, spreadsheet, database, networking/internet browsing, scheduling and personal finance software. The device may use terminal services protocols to access such software running on a server.

- c. WIN PE Component. You may use the Microsoft® Windows® Pre-installation Environment component (“WinPE Component”) only for your internal use and solely for purposes of installing the Software on point of service device. During installation you may use the WinPE component and the set-up components included in the Software to modify the Software to do the following:
- i. install device drivers for known device classes that are not supported by the WinPE Component and/or the set-up components included in the Software; and
  - ii. add unattended.xml and/or driverinstall.xml files to the setup folder of the Software and the files referred to in unattended.xml and/or driverinstall.xml files to enable unattended mode set up of the Software.

#### d. Device Connections

- i. You may use terminal services protocols to connect the device to another device running business task or processes software such as email, word processing, scheduling or spreadsheets.
- ii. You may allow up to 10 other devices to access the software to use
  - File Services,
  - Print Services,
  - Internet Information Services, and
  - Remote access (including connection sharing).

The 10 connection limit applies to devices that access the software indirectly through “multiplexing” or other software or hardware that pools connections. You may use unlimited inbound connections at any time via TCP/IP.

#### e. FBReseal

- i. This Product includes tools known as FBReseal.
- ii. Enterprise Customers are permitted to use FBReseal on the Image provided by SEIKO EPSON CORPORATION or on the Embedded Application and to replicate the Image to match the number of runtime licenses purchased by that Enterprise Customer. The Image created by FBReseal may only be installed onto Embedded Systems that already bear the COA for that Licensed Product.

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- Reverse engineer, decompile or disassemble the software;
- Make more copies of the software than specified in this agreement;
- Publish the software for others to copy;
- Rent, lease or lend the software; or
- Use the software for commercial software hosting services.

Except as expressly provided in this agreement, rights to access the software on this device do not give you any right to implement Microsoft patents or other Microsoft intellectual property in software or devices that access this device.

You may use remote access technologies in the software such as Remote Desktop to access the software remotely from another device. You are responsible for obtaining any licenses required for use of these protocols to access other software.

- a. **Remote Boot Feature.** If SEIKO EPSON CORPORATION enabled the device Remote Boot feature of the software, you may
- use the Remote Boot Installation Service (RBIS) tool only to install one copy of the software on your server and to deploy the software on licensed devices as part of the Remote Boot process; and
  - use the Remote Boot Installation Service only for deployment of the software to devices as part of the Remote Boot process; and
  - download the software to licensed devices and use it on them.

For more information, please refer to the device documentation or contact SEIKO EPSON CORPORATION.

- b. **Internet-Based Services.** Microsoft provides Internet-based services with the software. Microsoft may change or cancel them at any time.
- i. **Consent for Internet-Based Services.** The software features described below connect to Microsoft or service provider computer systems over the Internet. In some cases, you will not receive a separate notice when they connect. You may switch off these features or not use them. For more information about these features, visit <http://www.microsoft.com/windowsxp/downloads/updates/sp2/docs/privacy.mspix>.
- By using these features, you consent to the transmission of this information.** Microsoft does not use the information to identify or contact you.
- ii. **Computer Information.** The following features use Internet protocols, which send to the appropriate systems computer information, such as your Internet protocol address, the type of operating system, browser and name and version of the software you are using, and the language code of the device where you installed the software. Microsoft uses this information to make the Internet-based services available to you.
- (1) **Windows Update Feature.** You may connect new hardware to the device where you installed the software. Your device may not have the drivers needed to communicate with that hardware. If so, the update feature of the software can obtain the correct driver from Microsoft and install it on your device. You can switch off this update feature.
  - (2) **Web Content Features.** Features in the software can retrieve related content from Microsoft and provide it to you. To provide the content, these features send to Microsoft the type of operating system, name and version of the software you are using, type of browser and language code of the device where the software was installed. Examples of these features are clip art, templates, online training, online assistance and Appshelp. These features only operate when you activate them. You may choose to switch them off or not use them.
  - (3) **Digital Certificates.** The software uses digital certificates. These digital certificates confirm the identity of Internet users sending X.509 standard encrypted information. The software retrieves certificates and updates certificate revocation lists. These security features operate only when you use the Internet.
  - (4) **Auto Root Update.** The Auto Root Update feature updates the list of trusted certificate authorities. You can switch off the Auto Root Update feature.
  - (5) **Windows Media Player.** When you use Windows Media Player, it checks with Microsoft for
    - compatible online music services in your region;
    - new versions of the player; and
    - codecs if your device does not have the correct ones for playing content.

You can switch off this feature. For more information, go to <http://microsoft.com/windows/windowsmedia/mp10/privacy.aspx>.

- (6) **Windows Media Digital Rights Management.** Content owners use Windows Media digital rights management technology (WMDRM) to protect their intellectual property, including copyrights. This software and third party software use WMDRM to play and copy WMDRM-protected content. If the software fails to protect the content, content owners may ask Microsoft to revoke the software's ability to use WMDRM to play or copy protected content. Revocation does not affect other content. When you download licenses for protected content, you agree that Microsoft may include a revocation list with the licenses. Content owners may require you to upgrade WMDRM to access their content. Microsoft software that includes WMDRM will ask for your consent prior to the upgrade. If you decline an upgrade, you will not be able to access content that requires the upgrade. You may switch off WMDRM features that access the Internet. When these features are off, you can still play content for which you have a valid license.
- iii. **Misuse of Internet-based Services.** You may not use these services in any way that could harm them or impair anyone else's use of them. You may not use the services to try to gain unauthorized access to any service, data, account or network by any means.
- 4. Windows Update Agent (also known as Software Update Services).** The software on the device includes Windows Update Agent ("WUA") functionality that may enable your device to connect to and access updates ("Windows Updates") from a server installed with the required server component. Without limiting any other disclaimer in this Microsoft Software License Terms or any EULA accompanying a Windows Update, you acknowledge and agree that no warranty is provided by MS, Microsoft Corporation or their affiliates with respect to any Windows Update that you install or attempt to install on your device.
- 5. Product Support.** Contact SEIKO EPSON CORPORATION for support options. Refer to the support number provided with the device.
- 6. Backup Copy.** You may make one backup copy of the software. You may use it only to reinstall the software on the device.
- 7. Proof of License.** If you acquired the software on the device, or on a disc or other media, a genuine Certificate of Authenticity label with a genuine copy of the software identifies licensed software. To be valid, this label must be affixed to the device, or included on or in SEIKO EPSON CORPORATION's software packaging. If you receive the label separately, it is not valid. You should keep the label on the device or packaging to prove that you are licensed to use the software. To identify genuine Microsoft software, see <http://www.howtotell.com>.
- 8. Transfer to a Third Party**  
You may transfer the software only with the device, the Certificate of Authenticity label, and these license terms directly to a third party. Before the transfer, that party must agree that these license terms apply to the transfer and use of the software. You may not retain any copies of the software including the backup copy.
- 9. Not Fault Tolerant. The software is not fault tolerant. SEIKO EPSON CORPORATION installed the software on the device and is responsible for how it operates on the device.**
- 10. Restricted Use**  
The Microsoft software was designed for systems that do not require fail-safe performance. You may not use the Microsoft software in any device or system in which a malfunction of the software would result in foreseeable risk of injury or death to any person. This includes operation of nuclear facilities, aircraft navigation or communication systems and air traffic control.
- 11. No Warranties for the Software**  
The software is provided "as is". You bear all risks of using it. Microsoft gives no express warranties, guarantees or conditions. Any warranties you receive regarding the device or the software do not originate from, and are not binding on, Microsoft or its affiliates. When allowed by your local laws, SEIKO EPSON CORPORATION and Microsoft exclude implied warranties of merchantability, fitness for a particular purpose and non-infringement.
- 12. Liability Limitations**  
You can recover from Microsoft and its affiliates only direct damages up to \$250.00. You cannot recover any other damages, including consequential, lost profits, special, indirect or incidental damages.  
This limitation applies to:
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  - Claims for breach of contract, breach of warranty, guarantee or condition, strict liability, negligence, or other tort to the extent permitted by applicable law.
- It also applies even if Microsoft should have been aware of the possibility of the damages. The above limitation may not apply to you because your country may not allow the exclusion or limitation of incidental, consequential or other damages.
- 13. Export Restrictions**  
The software is subject to United States export laws and regulations. You must comply with all domestic and international export laws and regulations that apply to the software. These laws include restrictions on destinations, end users and end use. For additional information, see [www.microsoft.com/exporting](http://www.microsoft.com/exporting).