

TM-T20

Software User's Manual

Cautions and Trademarks

Cautions and Trademarks

Cautions

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ESC/POS Command System

EPSON ESC/POS is a proprietary POS printer command system that includes patented or patent-pending commands. ESC/POS is compatible with all types of EPSON POS printers and displays (excluding the TM-C100 printer). ESC/POS is designed to reduce the processing load on the host computer in POS environments. It comprises a set of highly functional and efficient commands and also offers the flexibility to easily make future upgrades.


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Cautions and Trademarks

For Safety

Key to Symbols

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

 Caution:	Provides information that must be observed to avoid damage to your equipment or a malfunction.
Note:	Provides important information and useful tips.

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.

Aim of the Manual

This manual provides information on how to use TM-T20 Software & Documents Disc for the product users or development engineers who use the software.

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Overview

This chapter describes the specifications of TM-T20 Software & Documents Disc.

TM-T20 Software Installer

TM-T20 Software Installer allows you to install various drivers and utilities for the TM-T20 printer.

Drivers and Utilities to be Installed

Drivers

- ❑ Advanced Printer Driver Ver5
Windows printer driver. The following versions are provided.
 - ❑ Advanced Printer Driver Ver.5.xx
- ❑ UPOS
Stands for **Unified Point of Service**. This is the standard specification of POS market, which defines drivers for controlling POS peripheral devices in various operation environments. The following drivers are provided.
 - ❑ OPOS ADK
 - ❑ OPOS ADK for .NET
 - ❑ JavaPOS ADK for Windows

Utilities

- ❑ TM-T20 Utility
Allows you to check and configure the TM-T20 settings.
- ❑ EpsonNet Config
This utility is for configuring network settings, such as IP address, of the printer connected to an Ethernet.
- ❑ EpsonNet Simple Viewer
This allows you to monitor the status of the printer connected to a network printer or client computer (POS or KIOSK terminal). Using this with TM-T20 Utility makes it possible to change the settings of TM-T20 connected to a client computer.
- ❑ Epson TM Virtual Port Driver
This allows you to convert TM-T20 from serial to USB / Ethernet. When your POS application has a serial port of TM-T20, and you want to connect TM-T20 via USB / Ethernet, you can use the USB / Ethernet-connected printer from the application as though the printer is serial printer. Because the tool performs the conversion automatically, you do not need to change the application's ESC/POS commands that controls the printer connected via serial port.

Overview

Support OS

The following lists the supported operating systems for running the TM-T20 drivers and utilities.

- ☐ Windows 8 (32 bit / 64 bit ^{*1})
- ☐ Windows 7 SP1 (32 bit / 64 bit ^{*1})
- ☐ Windows Vista SP2 (32 bit / 64 bit ^{*1})
- ☐ Windows XP SP3 (32 bit)
- ☐ Windows 2000 SP4 ^{*2}
- ☐ Windows Server 2008 R2 SP1 ^{*1}
- ☐ Windows Server 2008 SP2 (32 bit / 64 bit ^{*1})
- ☐ Windows Embedded for Point of Service ^{*3}
- ☐ Windows Embedded POSReady 2009 ^{*3}

^{*1} The OPOS ADK can be used under 64-bit OS as long as the system meets the operating requirements. For more details, see the release note before installing the OPOS ADK.

^{*2} The OPOS ADK for .NET, Advanced Printer Driver Ver.5 and the Epson TM Virtual Port Driver cannot be used under Windows 2000.

^{*3} EpsonNet Simple Viewer is not supported.

Restrictions on Using Multiple Drivers on the Same System

TM-T20 Software Installer may not install the driver, or if the driver can be installed, the combination of the existing driver and the newly installed driver may not be supported. Refer to the following table.

Before TM-T20 driver is installed	TM-T20 Software Installer			
	A	B	C	D
Advanced Printer Driver Ver.3	-	-	-	-
Advanced Printer Driver Ver.4.00 to 4.08	-	_*	_*	_*
Advanced Printer Driver Ver.4.09 or 4.17	-	-	-	-
Advanced Printer Driver Ver.4.50 to 4.53	-	✓	✓	✓
Advanced Printer Driver Ver.4.54 or later	✓	✓	✓	✓
OPOS ADK Ver.2.67 former	-	!	-	-
OPOS ADK Ver.2.68 or later	✓	!	✓	-

Overview

Before TM-T20 driver is installed	TM-T20 Software Installer			
	A	B	C	D
current OPOS ADK for .NET Ver.1.11.8 former	-	-	!	-
OPOS ADK for .NET Ver.1.11.20 or later	✓	✓	!	-
JavaPOS ADK Ver.1.11.18 former	-	-	-	!
JavaPOS ADK Ver.1.11.20 or later	✓	-	-	!
TM-S1000 Driver	✓	✓	✓	-
TM-S9000/2000 Driver	✓	✓	✓	-
TM-J9000 OPOS ADK	✓	✓	✓	-
TM-J9000 Advanced Printer Driver	✓	✓	✓	-
TM-J9000 Status API	✓	✓	✓	-
TMCOMUSB Ver.2	-	-	-	-
TMCOMUSB Ver.3 and Ver.4. or Epson TM Virtual Port Driver Ver.5 to Ver.7.00	-	✓	✓	✓
Epson TM Virtual Port Driver Ver.7.10a or later	✓	✓	✓	✓
Epson InkJet Printer Driver	✓	✓	✓	✓

A : Advanced Printer Driver Ver.5

B : OPOS ADK Ver.2.7x (TM-T20)

C : OPOS ADK for .NET Ver.1.12.x (TM-T20)

D : JavaPOS ADK for Windows Ver.1.13.x (TM-T20)

✓ : Supported

- : Not supported

* : Can not be installed.

! : TM-T20 Software Installer starts in update mode. The installer shows the version of driver already installed on the computer and allows you to select whether to update the driver or not.

How to Access the Manuals

The manuals of the drivers and utilities are also installed.

To see the manuals, access the manual data as follows.

☐ Advanced Printer Driver Ver.5

Start - All Programs / All apps(Windows 8) - EPSON - EPSON Advanced Printer Driver 5 - EPSON APD5 TM-Txx Manual

The Easy Install does not install the manuals. Install the manuals separately after finishing the Easy Install.

 See **“Installing Advanced Printer Driver Ver5 Manual” on page 18**

☐ OPOS ADK

Start - All Programs / All apps(Windows 8) - OPOS - Manual

Overview

- ❑ OPOS ADK for .NET
Start - All Programs / All apps(Windows 8) - EPSON OPOS for .NET - Manual
- ❑ JavaPOS ADK for Windows
Start - All Programs / All apps(Windows 8) - Epson JavaPOS ADK - Documentation
- ❑ TM-T20 Utility
Start - All Programs / All apps(Windows 8) - EPSON - TM-T20 Software - TM-T20 Utility - User's Guide
- ❑ EpsonNet Simple Viewer
Start - All Programs / All apps(Windows 8) - EpsonNet - EpsonNet Simple Viewer - User's Manual

Differences Depending on the OS

The content of the descriptions of some operations in this book may be different depending on the OS. See the following.

Item	Description
Screens shown	Screens in Windows 7 are used for the descriptions in this manual.
Confirmation and setting of the printer driver	<p>Windows 8 Desktop - Sidebar Settings - Control Panel - Hardware and Sound - Devices and Printers</p> <p>Windows 7 Start - Control Panel - Hardware and Sound - Devices and Printers Right click the printer driver, and select the Printer properties.</p> <p>Windows Vista Start - Control Panel - Hardware and Sound - Printers Right click the printer driver, and select the Properties.</p> <p>Windows XP Start - Control Panel - Printers and Faxes Right click the printer driver, and select the Properties.</p> <p>Windows 2000 Start - Settings - Control Panel - Printers Right click the printer driver, and select the Properties.</p>
Uninstall a program	<p>Windows 8 Desktop - Sidebar Settings - Control Panel - Uninstall a program</p> <p>Windows 7 Start - Control Panel - Uninstall a program</p> <p>Windows Vista Start - Control Panel - Uninstall a program</p> <p>Windows XP Start - Control Panel - Add or Remove Programs</p> <p>Windows 2000 Start - Settings - Control Panel - Add/Remove Programs</p>

Viewing the User's Manual

- ❑ Software User's Manual (this manual):
Explains about TM-T20 Software & Documents Disc, how to install the driver, how to use the utilities, and so on.

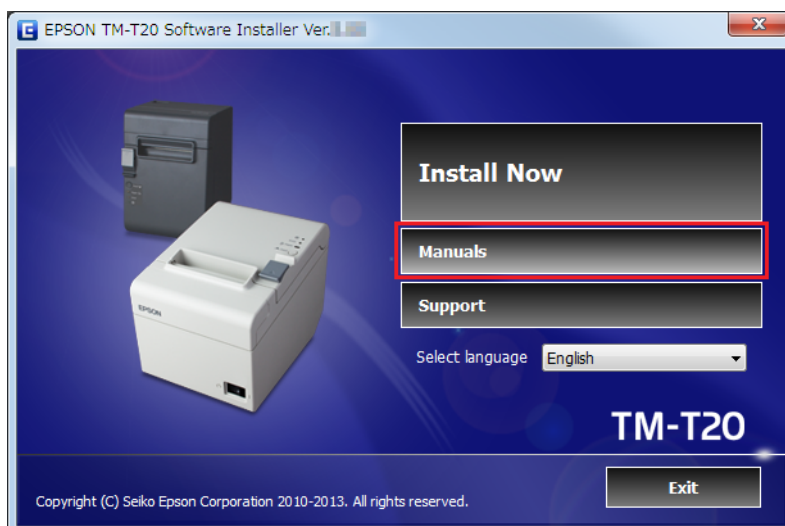
Overview

- ❑ **User's Manual:**
Describes how to set up TM-T20 hardware, what are included in the box, how to handle the hardware, compliant safety standards, safety precautions, and so on.
- ❑ **Technical Reference Guide:**
Provides all information necessary to develop, design, and/or install a system that uses TM-T20, or to develop or design a printer application for TM-T20.
- ❑ **ESC/POS Quick Reference:**
Quick Reference is a guide to using ESC/POS command to control the printer.

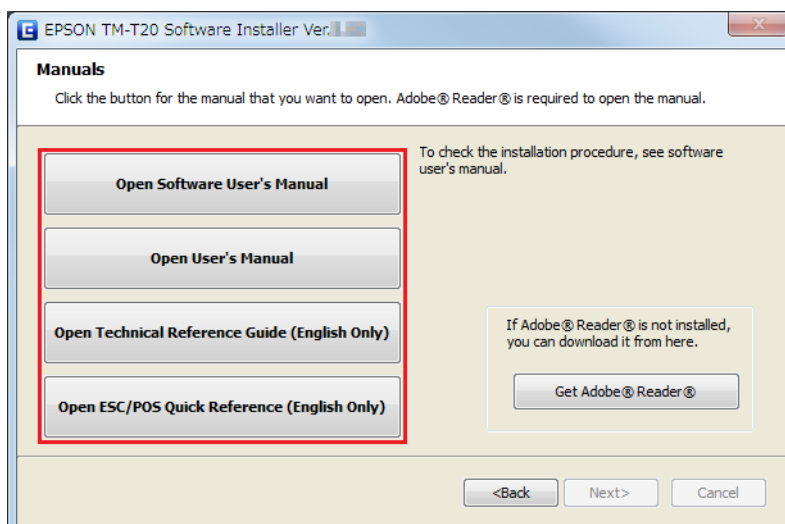
The following is how to view the manuals.

- 1** Insert the TM-T20 Software & Documents Disc to the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Manuals** button.

When the TM-T20 Software Installer is not automatically read, double click the **TMInstallNavi.exe** icon in the TM-T20 Software & Documents Disc.



- 2** The **Manuals** screen appears. Click the manual button you want to see.



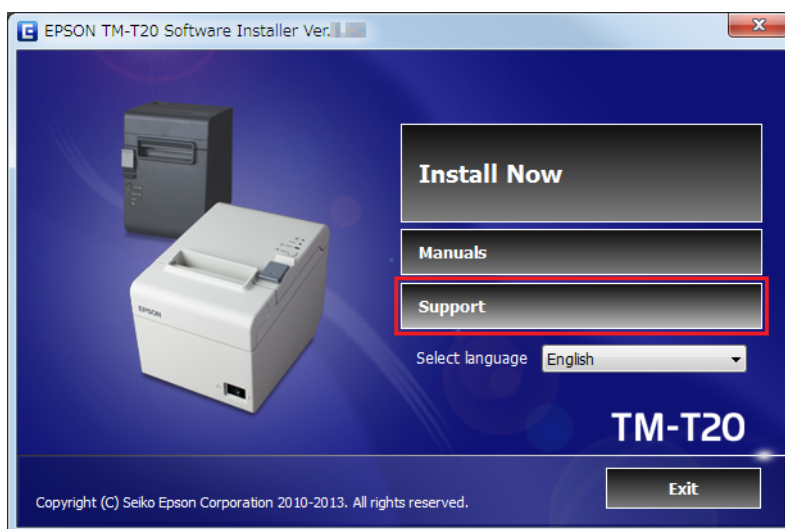
Overview

Getting the URL of Epson Support Website

The website provides a variety of product information and the latest driver download service.

- 1 Insert the TM-T20 Software & Documents Disc to the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Support** button.

When the TM-T20 Software Installer is not automatically read, double click the **TMInstallNavi.exe** icon in the TM-T20 Software & Documents Disc.



- 2 The **Support Information** screen appears. Click the button of your area. The URL of Epson support website is displayed.



Installation

Installation

This chapter describes how to install the printer drivers and conduct a test print after the installation. The uninstallation procedure is also provided.

☞ See “**Uninstallation**” on page 35


Caution:

- ❑ *Install with administrator privileges.*
- ❑ *Close all running applications before the installation.*
- ❑ *If your printer is a serial type, and your OS is Windows 2000, you can not install Advanced Printer Driver using the installer. So, refer to , ☞ “**Adding a printer to a Windows2000 PC**” on page 32 and install Advanced Printer Driver.*

Installation Types

You can select the installation type from the following.

- ❑ **Easy Install:** ☞ See “**Easy Install**” on page 12
This is a standard installation, which installs the TM-T20 printer driver and TM-T20 Utility. If you are using an Ethernet, EpsonNet Config and EpsonNet Simple Viewer are also installed.
- ❑ **Custom Install:** ☞ See “**Custom Install**” on page 20
You can select printer drivers and utilities you want to install. Select this installation type if you want to install the OPOS driver, JavaPOS driver, the printer driver manual, and sample programs and tools for developing programs.
- ❑ **Update mode:** ☞ See “**Update Mode**” on page 33
If the printer driver and/or UPOS is already installed, the driver version is displayed and you can select whether to update the driver or not.

Easy Install


Caution:

- ❑ *When installing, connect just one printer to the computer. Do not connect multiple printers.*
- ❑ *Turn off the printer and then start the installation.*

1

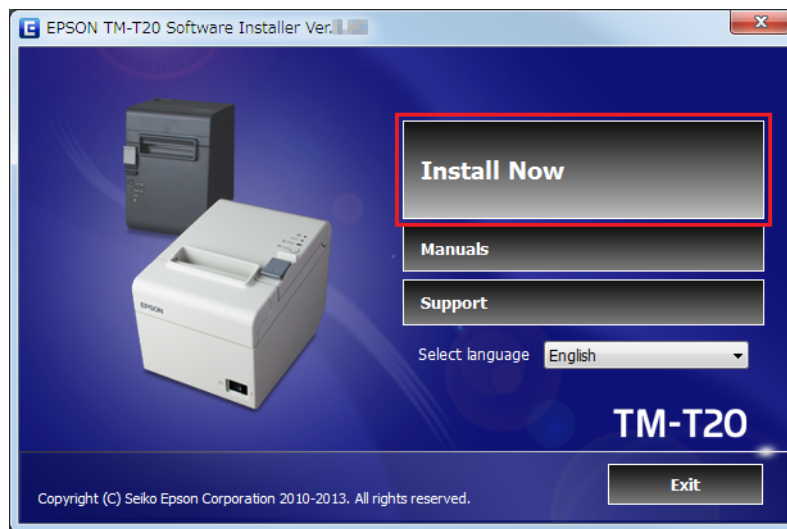
Insert the TM-T20 Software & Documents Disc into the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Install Now** button.

Note:

*The displayed language can be changed from **Select language**.*

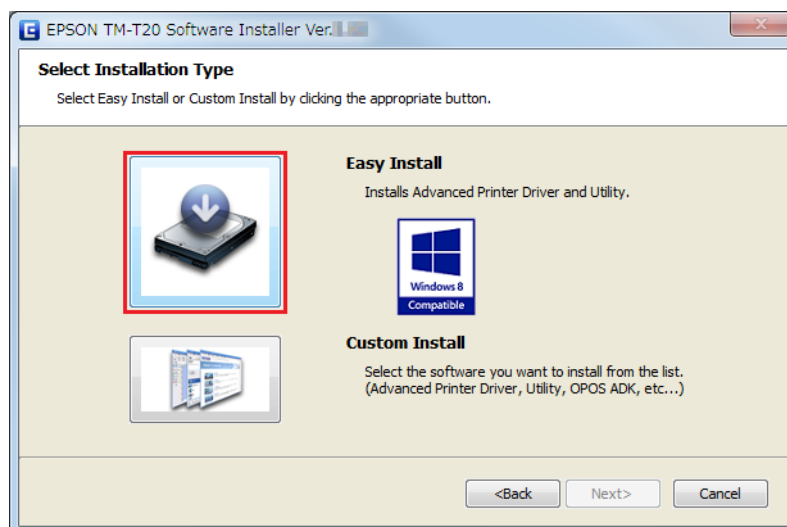
Installation

When the TM-T20 Software Installer is not automatically read, double click the **TMInstallNavi.exe** icon in the TM-T20 Software & Documents Disc.



2 The **License Agreement** screen appears. Read the content and select the **I accept the terms in the license agreement**. Then click the **Next** button.

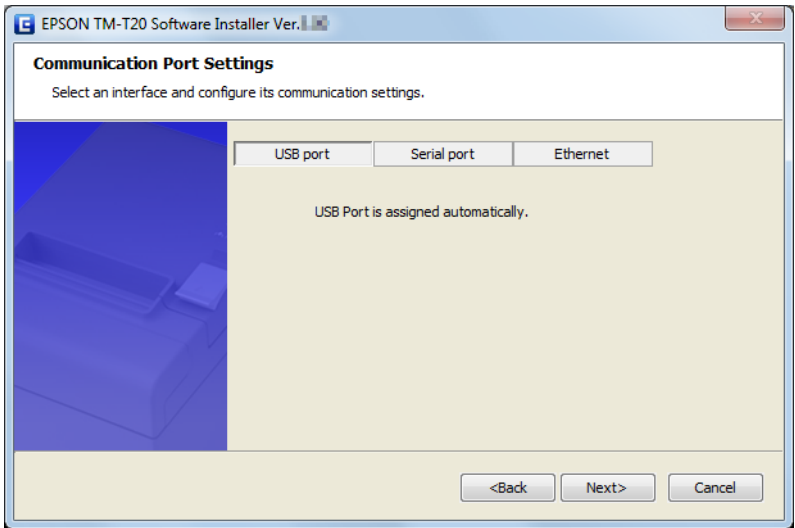
3 The **Select Installation Type** screen appears. Click the **Easy Install** button.



4 The **Communication Port Settings** screen appears. The setting varies depending on the connection method. Select the port to connect the printer.

USB connection	Click the USB port button, and then click the Next button. Proceed to Step 7.
Serial connection	Proceed to Step 5.
Ethernet connection	Proceed to Step 6.

Installation




5 Click the **Serial port** button. Configure the communication settings, then click the **Next** button. Proceed to Step 7.

Select the COM port, Bits per second, Data bits, Parity and Stop bits.

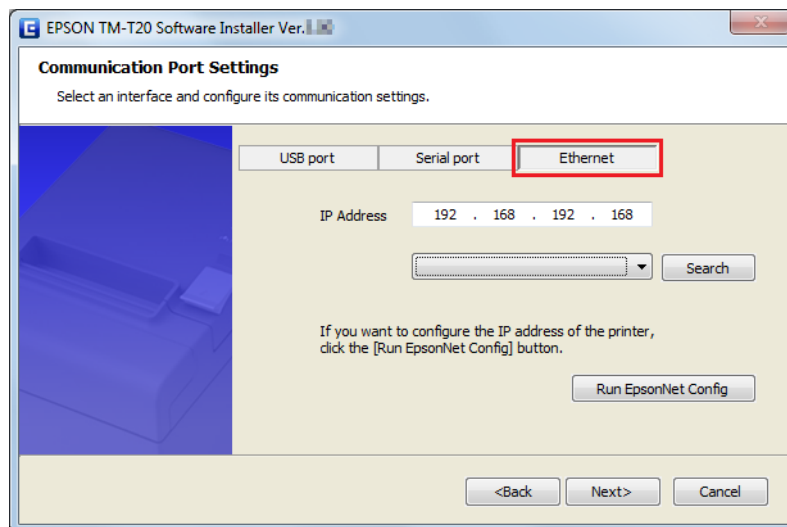
Note:
The driver's serial communication setting should be the same as that of the printer.

6 Click the **Ethernet** button.

When printer is already networked	Proceed to Step 7.
When using Ethernet	Click the Run EpsonNet Config button and configure the printer's network setting using the EpsonNet Config.  See "Network Address Setting for Ethernet Printer" on page 17
When configuring the network setting after installing the driver.	Proceed to Step 7.

Note:
*When the EpsonNet Config is not installed, the **Cannot start EpsonNet Config. Do you want to install it now?** message appears. Click the **Yes** button to install it.*

Installation

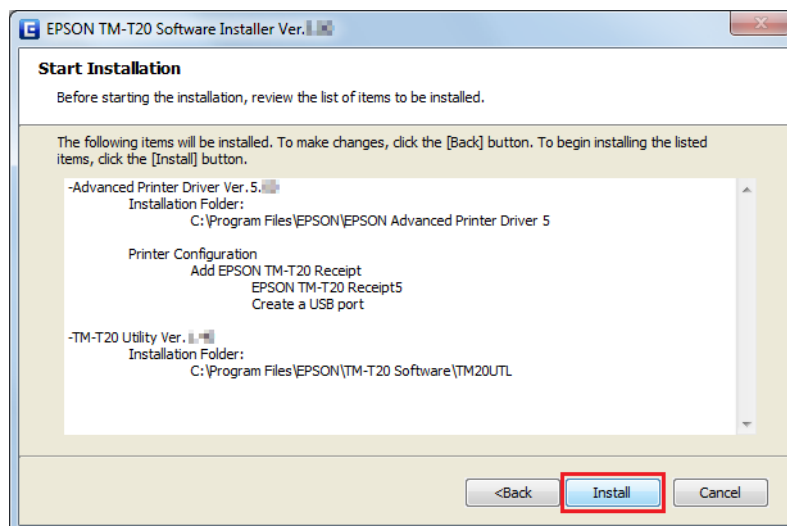


7

The Start Installation screen appears. The driver and utility to be installed are listed.

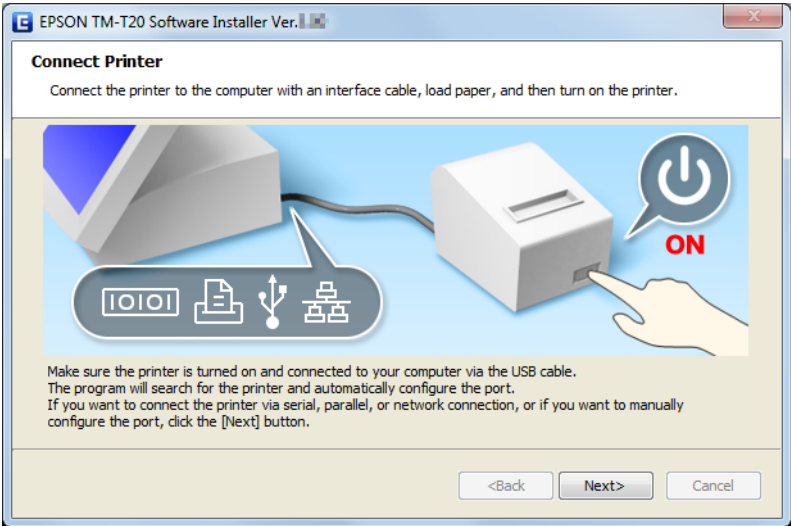
- ☐ Advanced Printer Driver Ver.5.xx
- ☐ TM-T20 Utility Ver. x.xx
- ☐ EpsonNet Config Ver. x.xx (Only for Ethernet connection)
- ☐ EpsonNet Simple Viewer (Only for Ethernet connection)

Click the **Install** button to start the installation.




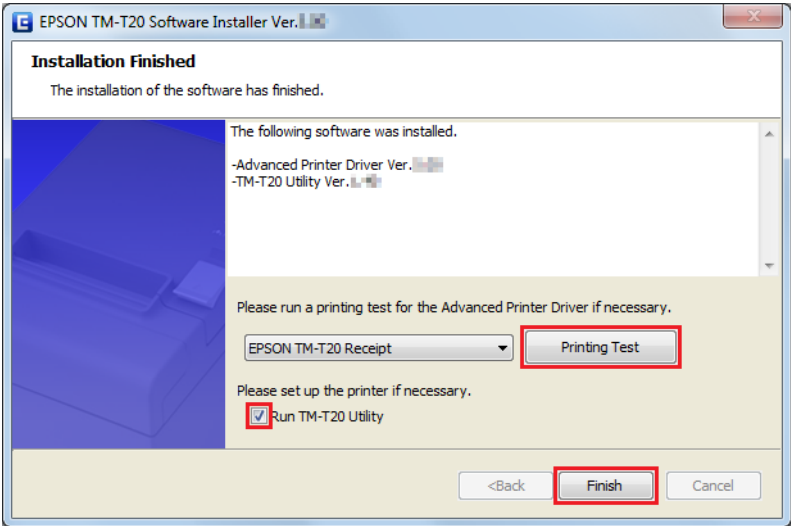
Installation


- 8 The **Connect Printer** screen appears. Connect the computer to the printer, and turn the printer on. When installing the driver without connecting the printer, click the **Next** button.



- 9 When the installation is completed, the **Installation Finished** screen appears.

When conducting test print	Click the PrintingTest button. When the test print is finished, click the Finish button to end the installation.
When exiting the installation	Uncheck the Run TM-T20 Utility . Then click the Finish button to end the installation.
When setting the printer using TM-T20 Utility continuously	Check the Run TM-T20 Utility checkbox (the box is checked by default). Click the Finish button to end the installation. The TM-T20 Utility starts to run.  See "TM-T20 Utility" on page 54



This is the end of the printer driver installation. For information on how to print using the printer driver.
 See **"Using the Printer Driver"** on page 40

Installation

Network Address Setting for Ethernet Printer

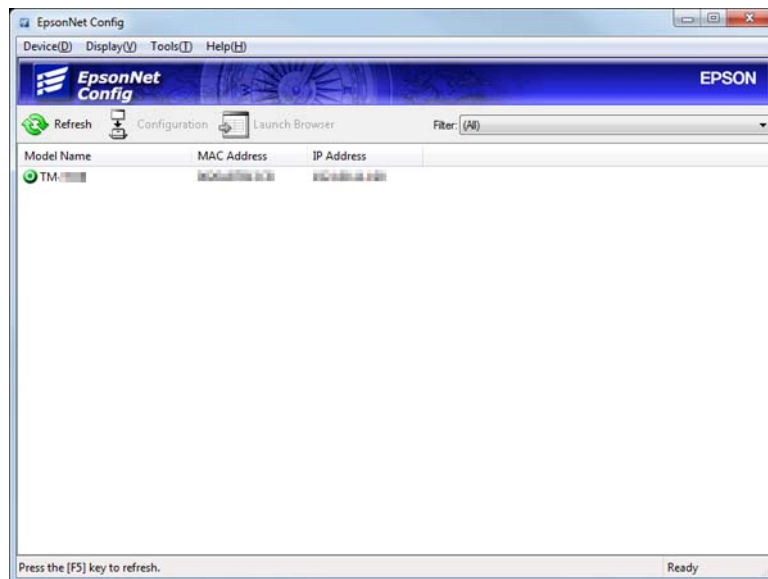
If you are using an Ethernet connection, configure the IP address using the EpsonNet Config.

- 1 Start the EpsonNet Config.

When the EpsonNet Config is already installed, start it by clicking **Start - All Programs - EpsonNet - EpsonNet Config Vx - EpsonNet Config**.

- 2 The **EpsonNet Config** screen appears.

Check that the target printer is listed in the screen.



- 3 Select the printer you want to configure, then click the **Configuration** button.

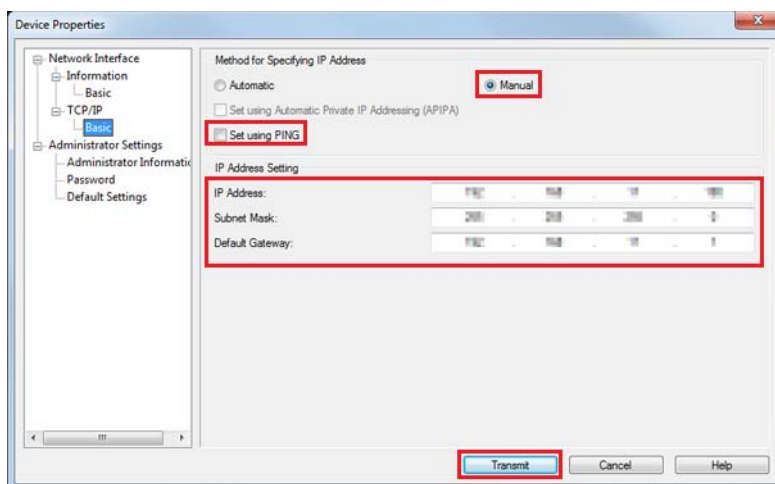
When the printer does not appear, click the **Refresh** button.

- 4 The **Device Properties** screen appears. Select the **Network Interface - TCP/IP - Basic**.

Installation

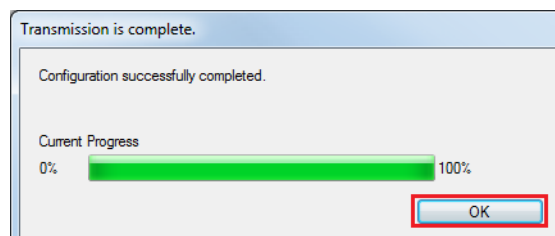
- 5 Configure the printer IP address. Then click the **Transmit** button.

Select the **Manual** and **Set using PING**. Then configure the IP Address, Subnet Mask and Default Gateway.



- 6 The confirmation screen appears. Click the **Yes** button.

- 7 The configured settings are sent to the printer. After approx. 30 seconds, the completion screen appears. Click the **OK** button.



- 8 Confirm the settings on the **EpsonNet Config** screen.

- 9 Quit the EpsonNet Config.

Installing Advanced Printer Driver Ver5 Manual

The Easy Install does not install the Advanced Printer Driver manual. To see the manual, install it separately.

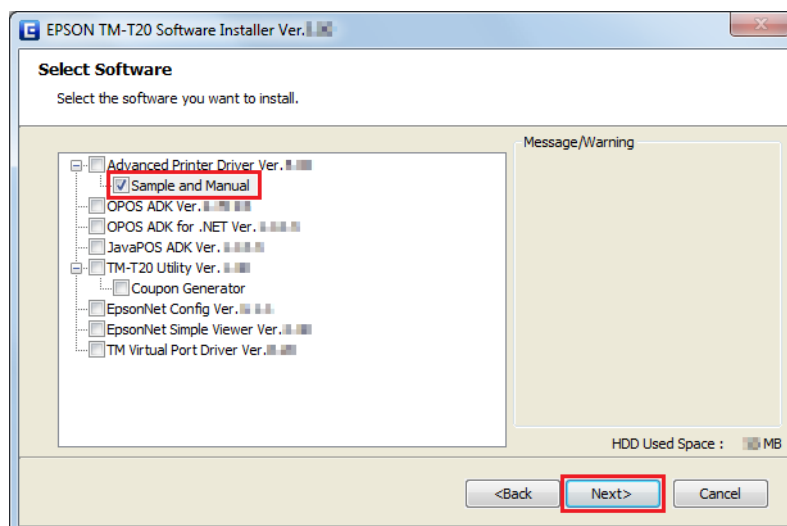
- 1 Insert the TM-T20 Software & Documents Disc into the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Install Now** button.

When the **TM-T20 Software Installer** is not automatically read, double click the **TMInstallNavi.exe** icon in the TM-T20 Software & Documents Disc.

- 2 The **License Agreement** screen appears. Read the content and select the **I accept the terms in the license agreement**. Then click the **Next** button.

Installation

- 3 The **Update Software** screen appears. Click the **Next** button.
- 4 The **Select Software** screen appears. Check the **Sample and Manual** checkbox and click the **Next** button.
Clear the checkbox for the drivers or utilities that you do not install here.



- 5 The **Start Installation** screen appears. Click the **Install** button.
- 6 The **EPSON APD5 Sample&Manual - InstallShield Wizard** screen appears, click the **Next** button.
- 7 The **License Agreement** screen appears. Read the content and select the **I accept the terms of the license agreement**. Then click the **Next** button.
- 8 The **Ready to Install the Program** screen appears. Click the **Install** to install the sample programs and manual of Advanced Printer Driver.
- 9 The **InstallShield Wizard Complete** screen appears. Click the **Finish** button.
- 10 The **Installation Finished** screen appears. Click the **Finish** button to finish the installation.

This is the end of the installation of the Advanced Printer Driver manual.

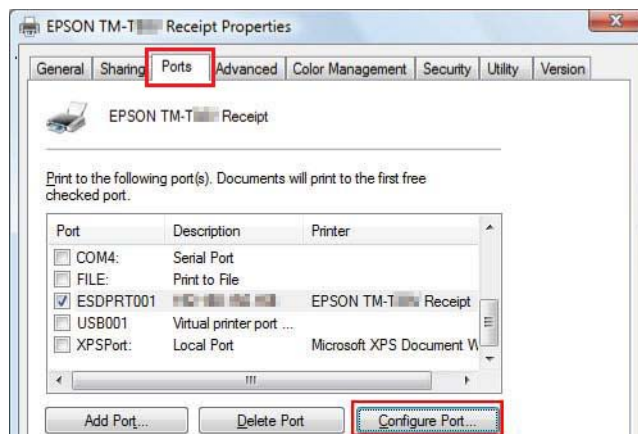
Configuring IP Address of the Printer Driver

The following explains how to configure the printer's IP address for the installed printer driver. This will change the Epson port setting.

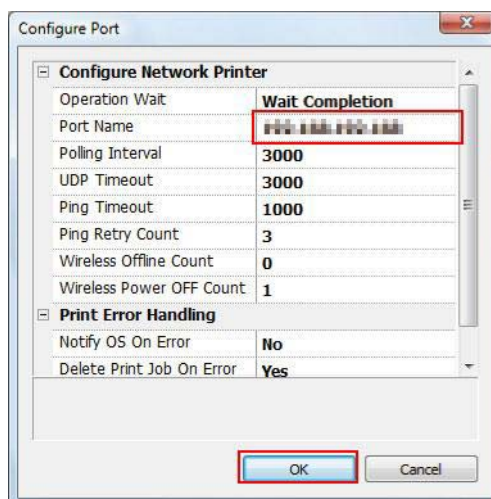
- 1 Select from **Start - Control Panel - Hardware and Sound** and open **Printers** and then right click the target printer driver and select **Properties**.
See [“Differences Depending on the OS” on page 9](#)

Installation

- 2 The property screen of the printer appears. Select the **Ports** tab and then click the **Configure Port...** button.



- 3 The **Configure Port** screen appears. Set a configure port while referring to the screen and click the **OK** button.



- 4 The display returns to the Properties screen. When you click the **OK** button, the changes you made become effective.

Custom Install

Caution:

- ☐ When installing, connect just one printer. Do not connect multiple printers.
- ☐ When you are prompted whether to restart the computer during the installation, select **No** and continue the installation. Restart the computer and the printer after all the installation is finished. If you select **Yes** and restart the computer during the installation, the rest of the drivers will not be installed.
- ☐ If you select more than one drivers to install them under Windows 2000, you will be prompted that this may cause the printer to malfunction. Under Windows 2000, you can install only one driver.

The following items can be installed with the Custom Install. The TM-T20 Software & Documents Disc is required for Custom Install

- ☐ Advanced Printer Driver Ver.5

Installation

- ☐ Sample and Manual
- ☐ OPOS ADK
- ☐ OPOS ADK for .NET
- ☐ JavaPOS ADK
- ☐ TM-T20 Utility
- ☐ EpsonNet Config
- ☐ EpsonNet Simple Viewer
- ☐ Epson TM Virtual Port Driver

Displaying the Select Software Screen

The TM-T20 Software & Documents Disc is required for Custom Install. You can select items you want to install in **Select Software** screen. Follow the steps below to display the **Select Software** screen.

- 1** Insert the TM-T20 Software & Documents Disc into the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Install Now** button.

Note:

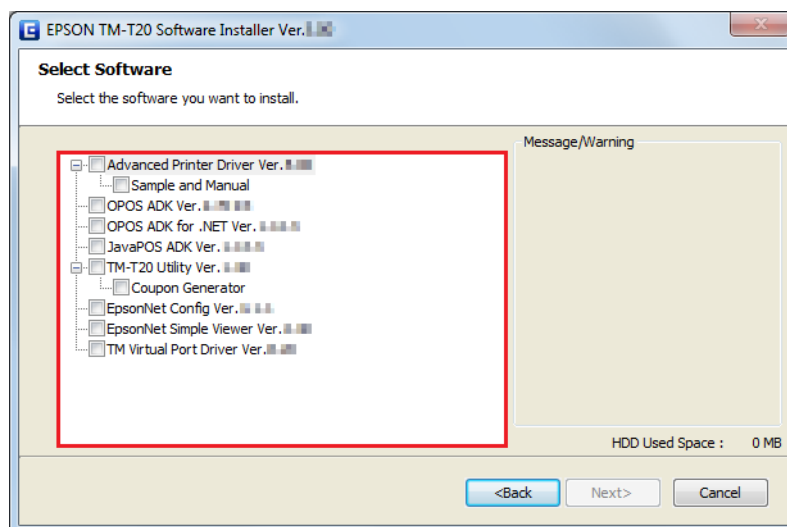
*The displayed language can be changed from **Select language**.*

When the TM-T20 Software Installer is not automatically read, double click the **TMInstallNavi.exe** icon in the printer driver CD.

- 2** The **License Agreement** screen appears. Read the content and select the **I accept the terms in the license agreement**. Then click the **Next** button.
- 3** The **Select Installation Type** screen appears. Click the **Custom Install** button.

Installation

- 4** The **Select Software** screen appears. Check the items you want to install from the list.
After this step, follow the installation procedure for each item.



Installing the Printer Driver

The printer driver can also be installed with Easy Install in the TM-T20 Software & Documents Disc. Easy Install installs all items of the printer driver, and Custom Install allows you to select items you want to install from the following.

- ☐ Advanced Printer Driver Ver.5
- ☐ Sample and Manual

Follow the steps below to execute the printer driver installation.

- 1** Insert the TM-T20 Software & Documents Disc into the computer and follow the steps.
☞ See “**Displaying the Select Software Screen**” on page 21
- 2** Select the **Advanced Printer Driver Ver.5.xx**. Clear the check box for the items you do not want to install. Click the **Next** button.
- 3** The **Check Install** screen appears. Check the **Warning**.
Check the computer environment and click **Next** to continue the installation.

Note:

In the **Warning**, the versions of Epson driver/tool that can coexist with the APD5 are listed.

- 4** The **License Agreement** screen is displayed. After checking the contents and selecting **Agree**, click **Install**.
Installation of Advanced Printer Driver Ver.5 begins.

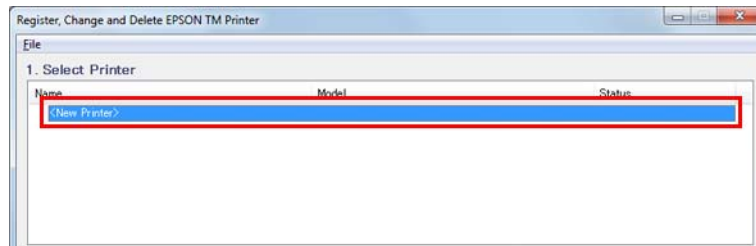
Installation

5 The **Printer Registration** screen appears.

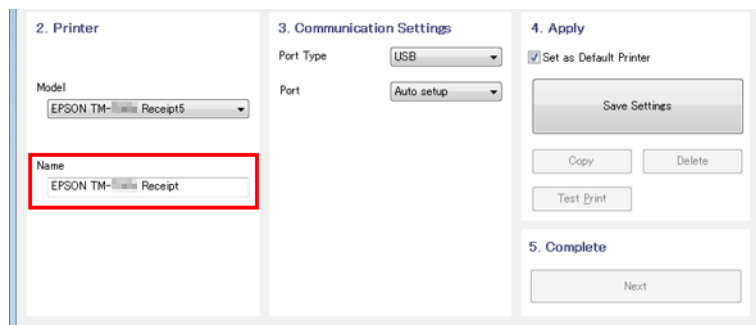
Here, connect the printer to the computer and turn the printer's power on. Click **Next**.

6 The **Register, Change and Delete EPSON TM Printer** screen is displayed.

From **1. Select Printer**, select **<New Printer>**.

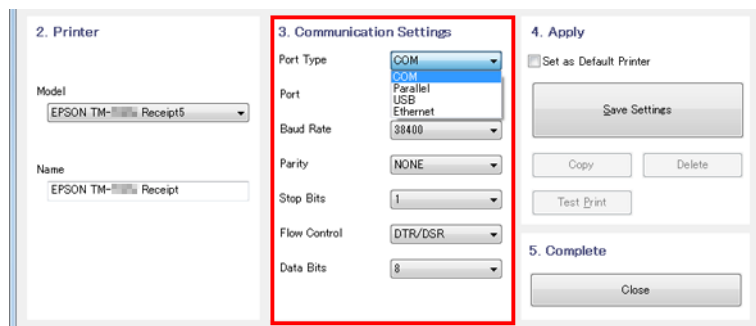


7 Set the followings from **2. Printer**.




Item	Description
Name	Specify the printer driver name. Do not use Unicode/2-byte characters for the name.

8 Select a port to use (Serial/USB/Ethernet) from **Port Type** under **3. Communication Settings**. Necessary settings are done according to the interface.



Installation

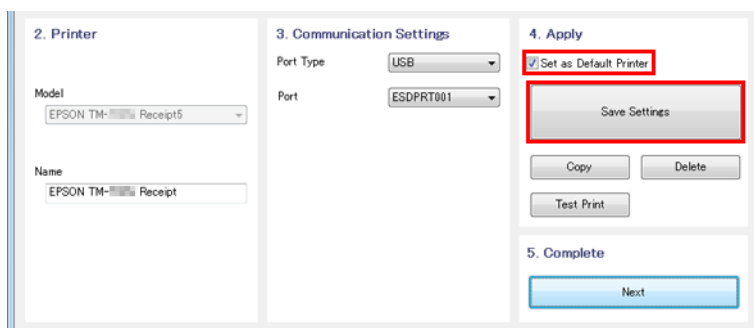
Port type	Item	Description
COM		Communicate with serial port. Set the following communication setting.
	Port	Specify the number of serial port used for connecting the printer.
	Baud Rate	Specify the baud rate.
	Parity	Specify the parity.
	Stop Bits	Specify the stop bits.
	Flow Control	Specify the method of data flow between the computer and the printer.
	Data Bits	Specify the data bits.
USB		Communicate with USB port. Set the following communication setting.
	USB Port	Specify the USB port used for connecting the printer. Usually, no setting is required.
Ethernet		Communicate with Ethernet port. Set the following communication setting.
	Ethernet Port	Specify the Ethernet port used for connecting the printer. Usually, no setting is required.
	IP Address	Set the IP address of Ethernet port the TM printer is connected.
	Set to Printer	Setup the IP address to the printer itself.  See "Network Address Setting for Ethernet Printer" on page 17

Note:

When path through connection is used by the driver of APD4 customer display, adjust the TM printer's communication settings with the communication settings of customer display driver set by APD4.

9

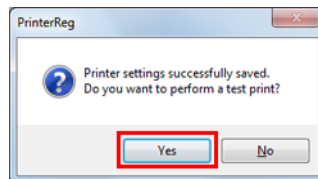
Set the followings from **4. Apply** and click **Save Setting**.



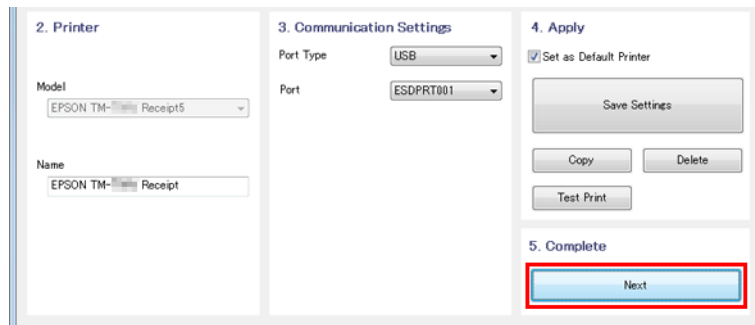
Item	Description
Set as Default Printer	Check when configuring the printer as that normally used from the Windows applications.

Installation

- 10** When the printer is registered, the screen comes up as shown below.
Click **Yes**. Test page printing of Windows is carried out.



- 11** After confirming the test page printing of Windows, click **Next** under **5. Complete**.



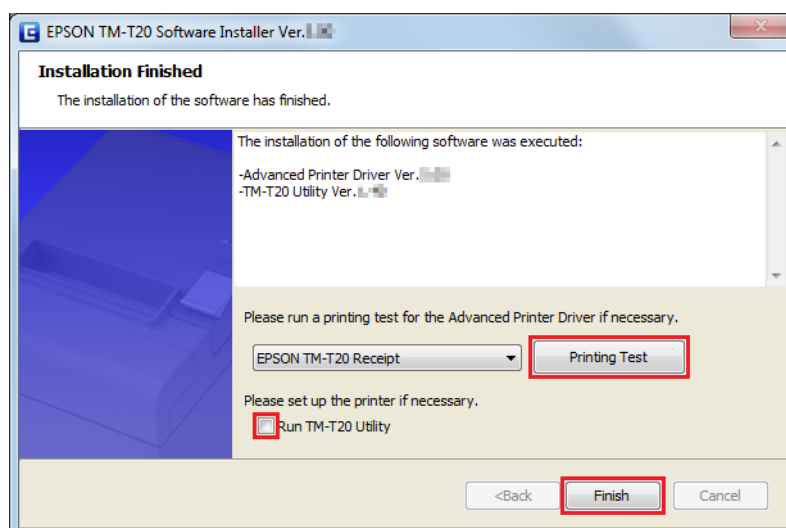
- 12** The **Installation Complete** screen appears.

Click **Close** to finish the installation.

- 13** When the installation is completed, the **Installation Finished** screen appears.

When conducting test print:


Click the **Printing Test** button. When the test print is finished, click the **Finish** button to end the installation.



This is the end of the printer driver installation.

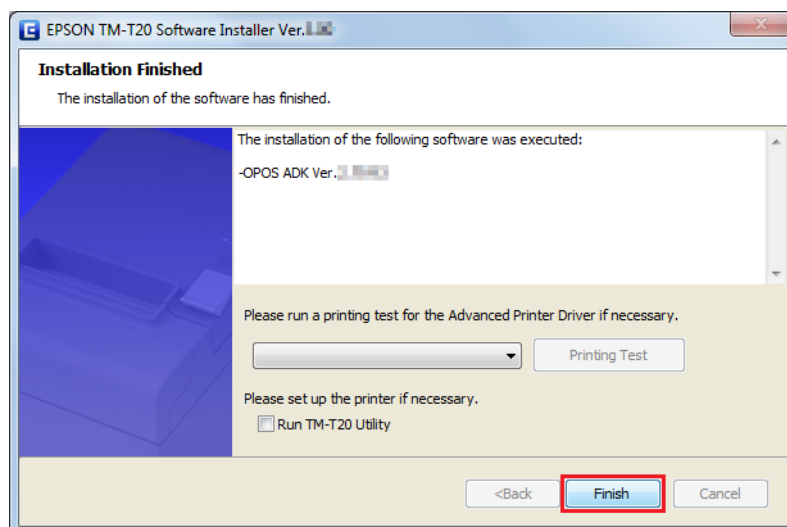
Installation

Installing the OPOS ADK

- 1** Insert the TM-T20 Software & Documents Disc into the computer and follow the steps.
 See “[Displaying the Select Software Screen](#)” on page 21
- 2** Check the **OPOS ADK Ver. x.xx**. Clear the check box for the items you do not want to install. Click the **Next** button.
- 3** The **Start Installation** screen appears. The driver and utility to be installed are listed. Click the **Install** button to start the installation.
- 4** The **Choose Setup Language** appears. Select your language, and click the **Next** button.
- 5** The **EPSON OPOS ADK for TM-T20 Version x.xx xxx** appears. Click the **Next** button.
- 6** The **Software License Agreement** screen appears. Read the content and select the **I accept the terms of the license agreement**. Then click the **Next** button.
- 7** The **Select Registry File** screen appears. Click the **Next** button.
- 8** The **Setup Type** screen appears. Select **Developer** and then click the **Next** button.
Click the **Browse** button to change the default installation location.
- 9** The **Start Copying Files** screen appears. Click the **Next** button.
- 10** The **Port selection** screen appears. Select the port. Click the **Next** button to start the installation.
- 11** The **InstallShield Wizard Complete** screen appears. Click the **Finish** button.

Installation

- 12** When the installation is completed, the **Installation Finished** screen appears. Then click the **Finish** button to end the installation.



This is the end of the OPOS ADK installation.

Installing the OPOS ADK for .NET

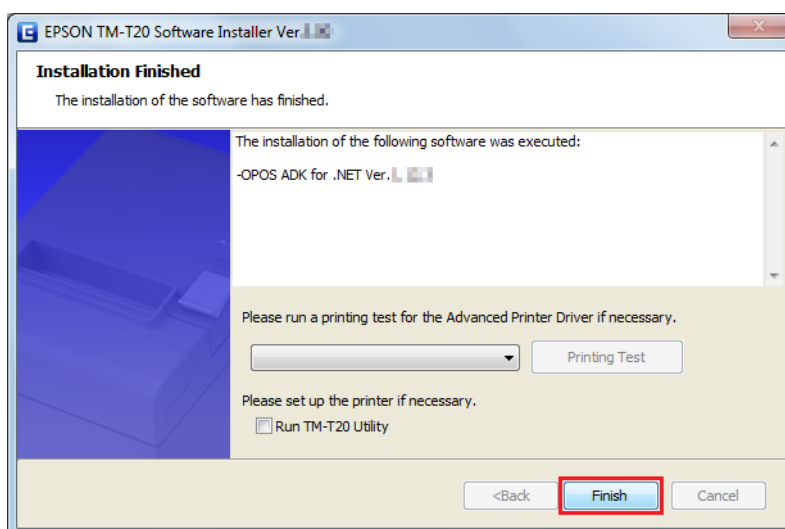
Note:

To install the OPOS ADK for .NET, Microsoft .NET Framework and Microsoft POS for .NET are required. Install Microsoft .NET Framework and Microsoft POS for .NET Ver.1.11 beforehand.

- 1** Insert the TM-T20 Software & Documents Disc into the computer and follow the steps.
 ➤ See “**Displaying the Select Software Screen**” on page 21
- 2** Select the **OPOS ADK for .NET Ver. x.xx.x**. Clear the check box for the items you do not want to install. Click the **Next** button.
- 3** The **Start Installation** screen appears. The driver and utility to be installed are listed. Click the **Install** button to start the installation.
- 4** Install the EPSON OPOS ADK for .NET.
 The **EPSON OPOS ADK for .NET x.xx.x - InstallShield Wizard** screen appears.
 Select the language, and then click the **Next** button.
- 5** The **Welcome to the InstallShield EPSON OPOS ADK for .NET** screen appears. Click the **Next** button.
- 6** The **License Agreement** screen appears. Read the content and select the **I accept the terms of the license agreement**. Click the **Next** button.
- 7** The **Setup Type** screen appears. Select **Developer** and then click the **Next** button.
 Click the **Browse** button to change the default installation location.

Installation

- 8 The **Setup Type** screen appears. Select the port and click the **Next** button.
- 9 The **Start Copying Files** screen appears. Click the **Next** button to start the installation.
- 10 The **InstallShield Wizard Complete** screen appears. Click the **Finish** button.
- 11 When the installation is completed, the **Installation Finished** screen appears. Then click the **Finish** button to end the installation.



This is the end of the OPOS ADK for .NET installation.

Installing the JavaPOS ADK

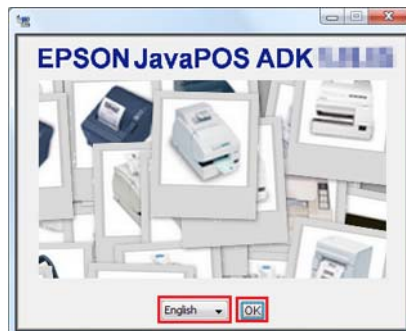
Note:

To install the JavaPOS ADK, Java Runtime Environment and Java Advanced Imaging API are required.
Make sure to install the above software before installing JavaPOS ADK.

- 1 Insert the TM-T20 Software & Documents Disc into the computer and follow the steps.
☞ See **“Displaying the Select Software Screen” on page 21**
- 2 Select the **JavaPOS ADK Ver. x.xx.x**. Clear the check box for the items you do not want to install. Click the **Next** button.
- 3 The **Start Installation** screen appears. The driver and utility to be installed are listed. Click the **Install** button to start the installation.

Installation

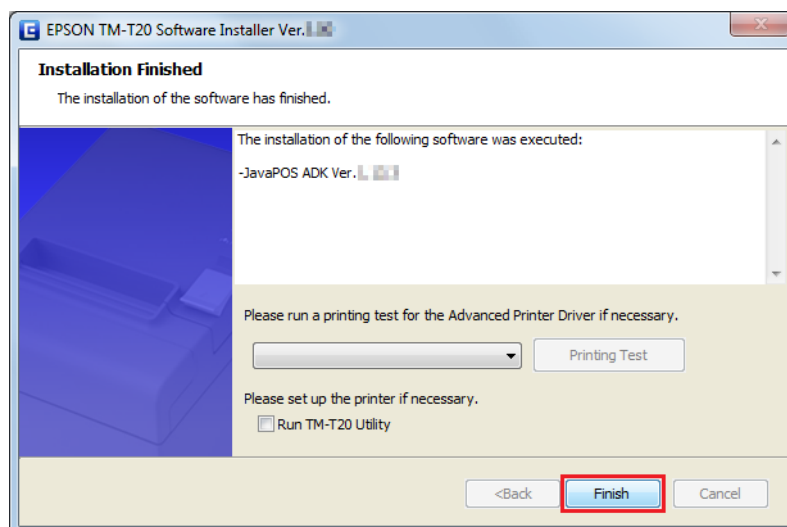
- 4 The **EPSON JavaPOS ADK x.xx.x** screen appears. Select the language and then click the **OK** button.



- 5 The **Introduction** screen appears. Click the **Next** button.
- 6 The **License Agreement** screen appears. Read the content and select the **I accept the terms of the License Agreement**. Click the **Next** button.
- 7 The **Choose JVM** screen appears. Click the **Next** button.
- 8 The **Choose Install Set** screen appears. Select **Developer** and then click the **Next** button.
- 9 The **Choose Folder Location** screen appears. Click the **Next** button.
- 10 The **Choose your communication** screen appears. Select the port and click the **Next** button.
- 11 The **Location for jpos.xml** screen appears. Click the **Next** button.
- 12 The **Pre-Installation Summary** screen appears. Click the **Install** button to start the installation.
- 13 The **Installation Complete** screen appears. Click the **Done** button.
- If a message to ask you to restart the computer appears, select **No, I will restart my system myself**.

Installation

- 14** When the installation is completed, the **Installation Finished** screen appears. Then click the **Finish** button to end the installation.



This is the end of the JavaPOS ADK installation.

Installing the Utility

The utility can also be installed with Easy Install on the TM-T20 Software & Documents Disc.

Easy Install installs TM-T20 Utility for a serial or USB connection, and for an Ethernet connection, it installs TM-T20 Utility, EpsonNet Config and EpsonNet Simple Viewer.

Custom Install allows you to select utilities you want to install from the following.

- ☐ TM-T20 Utility Ver. x.xx
 - ☐ Coupon Generator
- ☐ EpsonNet Config Ver. x.xx
- ☐ EpsonNet Simple Viewer Ver.x.xx
- ☐ Epson TM Virtual Port Driver Ver. x.xx

Follow the steps below to execute the utility installation.

- 1** Insert the TM-T20 Software & Documents Disc into the computer and follow the steps.
 ➤ See [“Displaying the Select Software Screen” on page 21](#)
- 2** Select the utilities you want to install from the list. Clear the check box for the items you do not want to install. Click the **Next** button.
- 3** The **Start Installation** screen appears. The drivers and utilities to be installed are listed. Click the **Install** button to start the installation.

Installation

- 4** TM-T20 Utility is installed.

Proceed to Step 12 if you do not install any other utility or driver.

The installation is started without displaying any other screens.

- 5** EpsonNet Config is installed.

The installation is started without displaying any other screens.

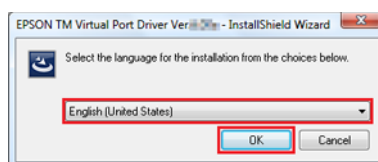
- 6** EpsonNet Simple Viewer is installed.

Proceed to Step 12 if you do not install any other utility or driver.

The installation is started without displaying any other screens.

- 7** Install the Epson TM Virtual Port Driver.

The **EPSON TM Virtual Port Driver Ver. x.xx - InstallShield Wizard** screen appears. Select the language used for installation and click the **OK** button.



- 8** The **Welcome to the EPSON TM Virtual Port Driver Ver. x.xx Setup Wizard** screen appears. Click the **Next** button.

- 9** The **License Agreement** screen appears. Read the content and select the **I accept the terms in the license agreement**. Then click the **Next** button.

- 10** The **Ready to Install the Program** screen appears. Then click the **Install** button.

- 11** When the following screen appears, click the **Restart Later** button.

Note:

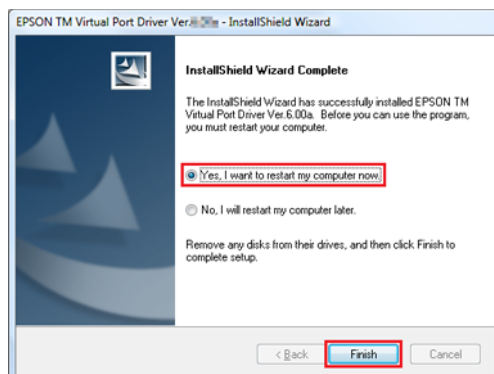
*If you restart your PC at this point, the installation process may not be completely performed. Be sure to select the **Restart Later** button.*

- 12** The **InstallShield Wizard Complete** screen appears. Click the **Finish** button.

If the restart of your PC is requested, select **Yes, I want to restart my computer now.** and click the **Finish** button.

Installation

If you restarted the computer, there's no need to proceed to Step 12, but the installation is complete.



Caution

*If the restart of your PC is requested on the **InstallShield Wizard Complete** screen, be sure to select **Yes, I want to restart my computer now.***

13

When the installation is completed, the **Installation Finished** screen appears.

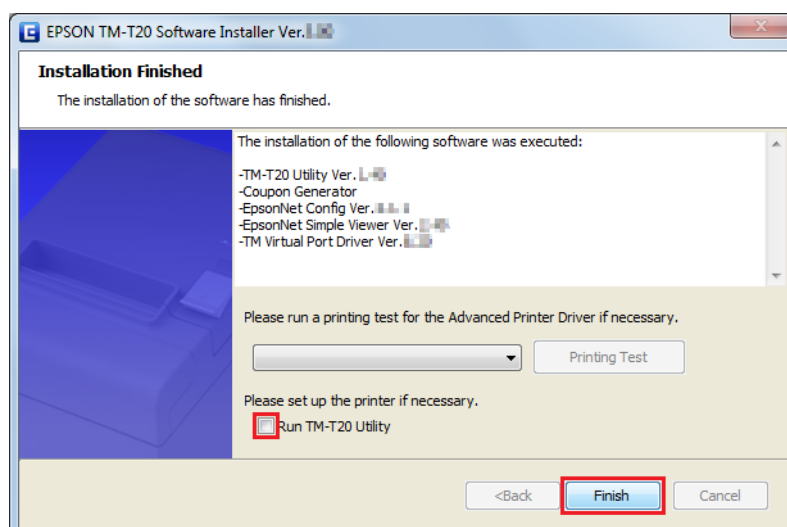
When exiting the installation:

Uncheck the **Run TM-T20 Utility** (the box is unchecked by default). Then click the **Finish** button to end the installation.

When setting the printer using TM-T20 Utility continuously:

Check the **Run TM-T20 Utility** checkbox. Click the **Finish** button to end the installation. The TM-T20 Utility starts to run.

☞ See “TM-T20 Utility” on page 54



This is the end of the utility installation.

Adding a printer to a Windows2000 PC

If your printer is a serial type, and your OS is Windows 2000, install Advanced Printer Driver as follows.

Installation

- 1 In Windows2000's **Printers**, double click **Add Printer**. The **Add Printer** wizard starts up.
- 2 Follow the instructions shown on the screen. Select **Local Printer**, and turn off **Automatically detect and install my Plug and Play printer..**
- 3 Select a COM port to connect the printer.
- 4 Select **Have Disk** then **Browse**, and then select the following INI files on the CD-ROM.
root/Windows/Advanced Printer Driver/V5_INF/Driver/EA5INSTMT20.INF
- 5 Select a driver to install, then install it.
- 6 In Windows2000's **Printers**, the printer's queue is created.

Update Mode



Caution:

- ☐ When installing, connect just one printer. Do not connect multiple printers.
- ☐ When you are prompted whether to restart the computer during the installation, select **No** and continue the installation. Restart the computer and the printer after all the installation is finished. If you select **Yes** and restart the computer during the installation, the rest of the drivers will not be installed.

The update mode allows you to update the printer driver already existing on the system, or check to see if the selected newer version of printer driver can exist with the existing printer driver on the same system.

When the Advanced Printer Driver, OPOS ADK, OPOS ADK for .NET, JavaPOS ADK, and Epson TM Virtual Port Driver are already installed, the driver installation is carried out in the update mode.

Under Windows 2000, you will be just notified that installing the new driver may cause the printer to malfunction due to the incompatibility with the existing one.

- 1 Insert the TM-T20 Software & Documents Disc into the computer. The TM-T20 Software Installer is automatically read and the **EPSON TM-T20 Software Installer** screen appears. Click the **Install Now** button.

Note:

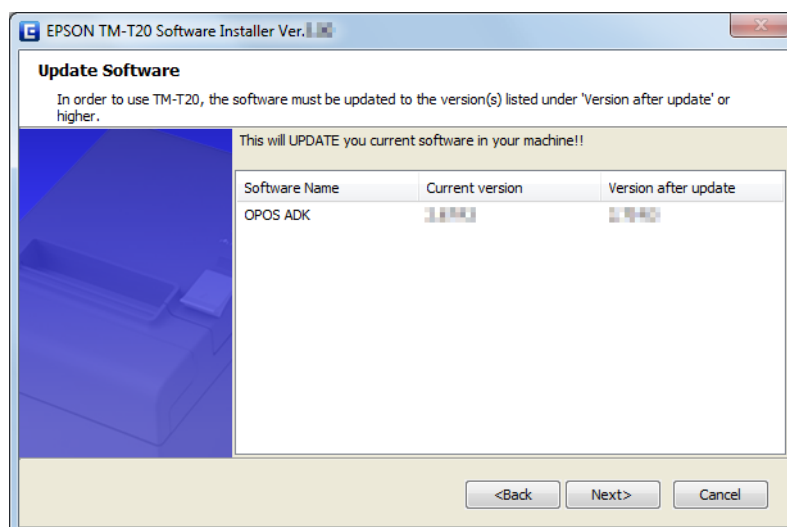
*The displayed language can be changed from **Select language**.*

When the TM-T20 Software Installer is not automatically read, double click the **TMInstallNavi.exe** icon in the TM-T20 Software & Documents Disc.

- 2 The **License Agreement** screen appears. Read the content and select the **I accept the terms in the license agreement**. Then click the **Next** button.

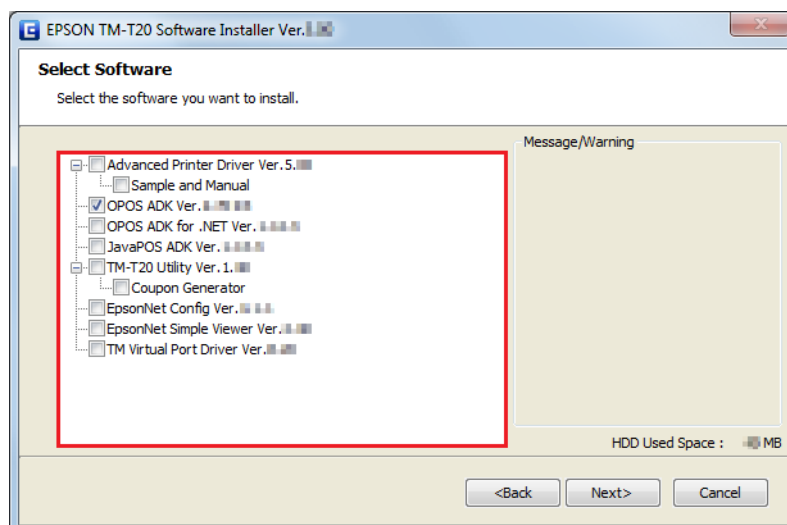
Installation

- 3** The **Update Software** screen appears. The system is checked and existing driver and its version are displayed. Click the **Next** button.



- 4** The **Select Software** screen appears. Check the checkbox for the drivers and utilities you want to install and uncheck the checkbox for those you do not need.

Items that require updating are automatically selected.



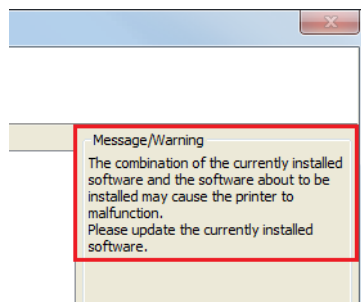
- 5** The installer checks the validity of the update or the combination of the drivers. A warning message is displayed if the combination can cause the printer to malfunction. Check the screen for the warning message, and click the **Next** button.

When you click the **Next** button with the warning message displayed, a warning screen appears. Click the **OK** button to proceed to Step 6.

Note:

If you select more than one drivers to install them under Windows 2000, you will be prompted that this may cause the printer to malfunction. Under Windows 2000, you can install only one driver.

Installation



- 6 The **Start Installation** screen appears. Check that the listed items to be installed are correct, and click the **Install** button.
- 7 When the installation is finished, the **Installation Finished** screen appears. Click the **Finish** button to end the installation.

Uninstallation

- ☐ Uninstall the printer driver
- ☐ Uninstall the TM-T20 Utility
- ☐ Uninstall the EpsonNet Config
- ☐ Uninstall the Epson TM Virtual Port Driver
- ☐ Uninstall the EpsonNet Simple Viewer
- ☐ Uninstall the OPOS ADK
- ☐ Uninstall the OPOS ADK for .NET
- ☐ Uninstall the JavaPOS ADK

Uninstalling the Windows Printer Driver



Caution:

Do not delete the printer driver in **Start - Control Panel - Hardware and Sound - Printers**.

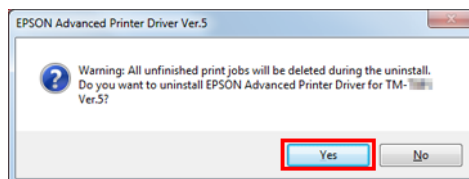
☞ See *"Differences Depending on the OS"* on page 9

Even though the icon (the printer driver) disappears from the screen, the printer driver is not uninstalled.

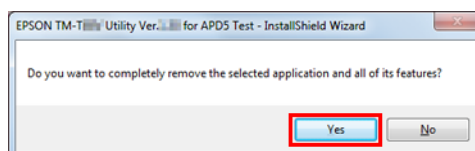
- 1 Quit all applications running on the computer.
- 2 Select **Start - Control Panel - Uninstall a program - EPSON Advanced Printer Driver for TM-T20 Ver.5** and click **Uninstall**.

Installation

- 3 The uninstallation confirmation screen appears. Click the **Yes** button.
The Advanced Printer Driver Ver.5 is uninstalled.




- 4 The uninstallation confirmation screen for model specific utility is displayed. Click **Yes** when not using the model specific utility with other drivers and applications. Click **No** when not uninstalling.
The Advanced Printer Driver Ver.5 utility is uninstalled.




- 5 The **Uninstallation Complete** screen is displayed. Uninstallation is complete after clicking **Finish**.

Uninstalling the TM-T20 Utility

- 1 Quit all applications running on the computer.
- 2 Select **Start - Control Panel - Uninstall a program - EPSON TM-T20 Utility**. Click **Uninstall**.
For information of the differences in screen selections based on the OS versions.
 See [“Differences Depending on the OS” on page 9](#)
When the **User Account Control** screen appears, click the **Continue** button.
- 3 The TM-T20 Utility uninstallation confirmation screen appears. Click the **Yes** button.
- 4 The uninstallation of the TM-T20 Utility starts.
- 5 The **Uninstall Complete** screen appears. Click the **Finish** button to finish the uninstallation.

Uninstall the EpsonNet Config

- 1 Select **Start - Control Panel - Uninstall a program - EpsonNet Config**. Click **Uninstall**.
For information of the differences in screen selections based on the OS versions.
 See [“Differences Depending on the OS” on page 9](#)

Installation

When the **User Account Control** screen appears, click the **Continue** button.

- 2 The EpsonNet Config uninstallation confirmation screen appears. Click the **Yes** button.
- 3 The uninstallation of the EpsonNet Config starts.
- 4 The **Uninstall Complete** screen appears. Click the **Finish** button to finish the uninstallation.

Uninstalling the Epson TM Virtual Port Driver

- 1 Select **Start - Control Panel - Uninstall a program - EPSON TM Virtual Port Driver**. Click **Uninstall**.

For information of the differences in screen selections based on the OS versions.

🔗 See “[Differences Depending on the OS](#)” on page 9

When the **User Account Control** screen appears, click the **Continue** button.

- 2 The Epson TM Virtual Port Driver uninstallation confirmation screen appears. Click the **Yes** button.
- 3 The uninstallation of the Epson TM Virtual Port Driver starts.
- 4 When uninstallation is complete, the window automatically closes.

Uninstalling the EpsonNet Simple Viewer

When uninstalling this tool, also uninstall EpsonNet SDK for Windows, unless you are using it with another application. Follow the steps below to uninstall this tool.

- 1 Select **Start - Control Panel - Uninstall a program - EpsonNet Simple Viewer**. Click **Uninstall**.

For information of the differences in screen selections based on the OS versions.

🔗 See “[Differences Depending on the OS](#)” on page 9


When the **User Account Control** screen appears, click the **Continue** button.

- 2 The **Uninstall Confirmation** window appears. Click on the **Yes** button. This tool will be uninstalled.
- 3 The **Uninstall Complete** window appears. click on the **Finish** button.
If EpsonNet SDK for Windows is not been used with any another application, perform Step 4 through Step 6.
- 4 The **Uninstall or change a program** window appears. Double-click on **EpsonNet SDK for Windows**.


Installation

- 5 The **Uninstall Confirmation** window appears. click on the **Yes** button. The EpsonNet SDK for Windows will be uninstalled.
- 6 The **Uninstall Complete** window appears. click on the **Finish** button.
When **Yes, I want to restart my computer now.** is selected, the computer will restart.

Uninstalling the OPOS ADK

- 1 Quit all applications running on the computer.
- 2 Select **Start - Control Panel - Uninstall a program - EPSON OPOS ADK Version x.xx.** Click **Uninstall.**
For information of the differences in screen selections based on the OS versions.
 See [“Differences Depending on the OS” on page 9](#)
When the **User Account Control** screen appears, click the **Continue** button.
- 3 The EPSON OPOS ADK uninstallation confirmation screen appears. Click the **Yes** button.
- 4 The **Information** screen appears. Click the **Yes** button.
- 5 The **ADK Selection** screen appears. Click the **Next** button.
- 6 The **Confirm Deletion** screen appears. Click the **Start** button.
- 7 The uninstallation of the EPSON OPOS ADK starts.
- 8 The **Uninstall Complete** screen appears. Click the **Finish** button.
When **Yes, I want to restart my computer now.** is selected, the computer will restart.


Uninstalling the OPOS ADK for .NET

- 1 Quit all applications running on the computer.
- 2 Select **Start - Control Panel - Uninstall a program - EPSON OPOS ADK for .NET x.x.x.** Click **Uninstall.**
For information of the differences in screen selections based on the OS versions.
 See [“Differences Depending on the OS” on page 9](#)
When the **User Account Control** screen appears, click the **Continue** button.
- 3 The EPSON OPOS ADK for .NET uninstallation confirmation screen appears. Click the **Yes** button.

Installation

- 4 The uninstallation of the EPSON OPOS ADK for .NET starts.
- 5 The completion screen appears. Click the **Finish** button to complete the uninstallation.

Uninstalling the JavaPOS ADK

- 1 Quit all applications running on the computer.
- 2 Select **Start - Control Panel - Uninstall a program - EPSON JavaPOS ADK**. Click **Uninstall**.
For information of the differences in screen selections based on the OS versions.
 See “**Differences Depending on the OS**” on page 9
When the **User Account Control** screen appears, click the **Continue** button.
- 3 The **Uninstall Epson JavaPOS ADK** screen appears. Click the **Uninstall** button.
- 4 The uninstallation of the EPSON JavaPOS ADK starts.
- 5 The completion screen appears. Click the **Done** button to finish the uninstallation.

Using the Printer Driver

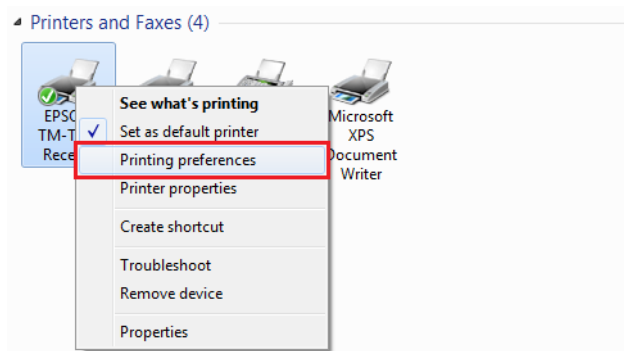
This chapter explains how to use the major functions of the printer driver.

Printer Driver Access Methods and the Application Range

Depending on how you access the printer driver, the application range of the settings you make on the printer driver varies.

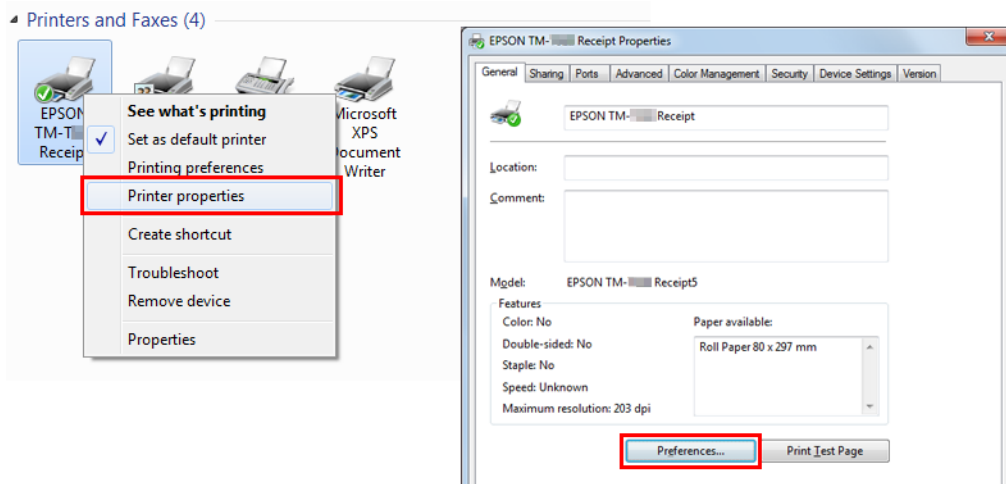
- ❑ Accessing the printer driver from the printer driver's Print menu
The print settings you made on the printer driver are applied to the print settings of the all users configured on the computer. You must have administrative privileges to make the settings.
- ❑ Accessing the printer driver from the printer driver's Properties
The print settings you made on the printer driver are applied to your print settings only. They are not applied to the settings of other users. This method is recommended.
- ❑ Accessing the printer driver from the application's print setting menu
The print settings you made on the application are applied to the application only. The settings are canceled when you quit the application. When you start the application again, the print settings configured in the printer driver's properties are applied.

Accessing from the Printer Driver's Print menu

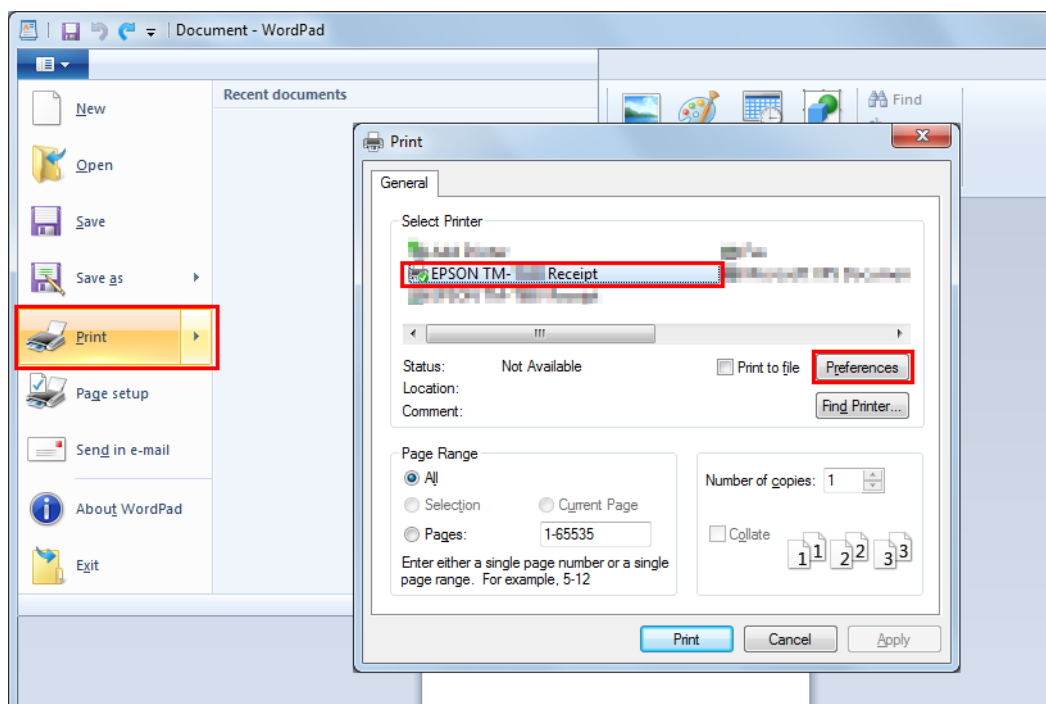


Using the Printer Driver

Accessing from the Printer Driver's Properties



Accessing from the Application's Print Setting Menu

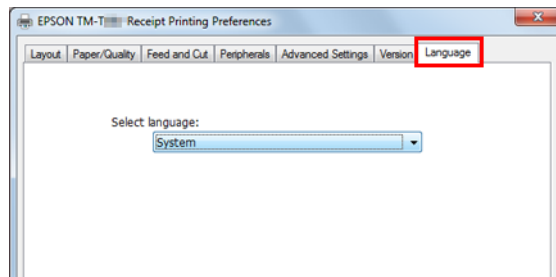


Language for Displaying Properties

The language used in the Advanced Printer Driver screen and Help can be selected from 24 languages. Selecting the language that is easiest for you to understand will help you correctly configure the settings in the Advanced Printer Driver. The language that initially appears is set based on the language information in your operating system.

Using the Printer Driver

- 1 Select the **Language** tab from Printing Preferences.



- 2 Select the language that you wish to use in the screens and Help from the **Select language** pull-down list. When finished, click the **OK** button.

The languages that can be selected are shown below.

Selectable languages			
Chinese-Hongkon	Chinese-Simplified	Chinese-Traditional	Croatian
Czech	Danish	Dutch	English
Finnish	French	German	Hungarian
Italian	Japanese	Korean	Norwegian
Portuguese	Russian	Slovenian	Spanish
Swedish	Thai	Turkish	Vietnamese

How to Use the Basic Functions

 [“Paper Feed and Cut Setting” on page 42](#)

 [“Peripheral Device's Action Settings” on page 44](#)

 [“Logo Printing” on page 46](#)

Paper Feed and Cut Setting

It sets the timing of auto-cut and paper feed before and after the printing.

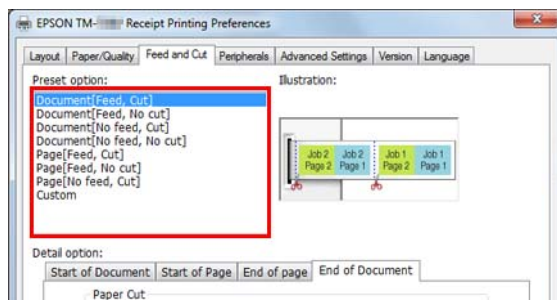
- 1 Select **Feed and Cut** tab from printing preferences.

Using the Printer Driver

2

Select a cut and paper feed method displayed in the **Preset option** list and click **OK**.

Select using the illustration of paper feed and cut displayed in **Illustration** for your reference.



Note:

- ☐ *Feed: Paper is fed to the auto-cutter's cutting position after printing a document.*
- ☐ *No Feed: Paper is not fed after printing a document.*

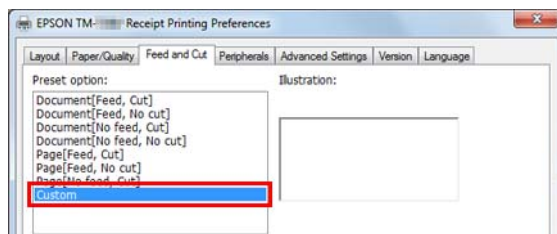
Customization of Paper Feed and Cut

Customization is possible, when no preset function is desired, such as specifying the amount of paper feed and modifying the timing control.

Follow the steps below.

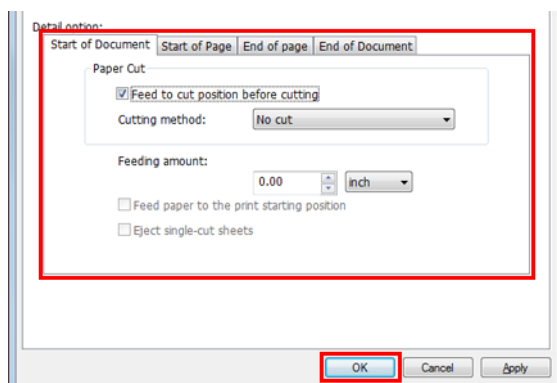
1

Select **Custom** from the list of **Preset option**.



2

Select the control timing from **Detail option** tab to setup the action.



Settings are described below.

Using the Printer Driver

Item		Description
Timing	Start of Document	At the beginning of document printing
	Start of Page	At the beginning of each page in the document
	End of Page	At the end of each page in the document
	End of Document	At the end of document printing
Action	Feed to cut position before cutting	When checked, paper is fed to the cutting position of auto-cutter.
	Cutting method	Auto-cutter will not act when No cut is selected.
	Feeding amount	The amount of paper feed can be specified by inches.
	Feed paper to the print starting position	When checked, paper is fed to the head position.
	Eject single-cut sheets	When checked, single cut sheets are printed.

3

Click OK.

Peripheral Device's Action Settings

It sets peripheral device's actions such as the cash drawer and buzzer.



Caution

Option buzzer can be operated only with the APD5 utility.

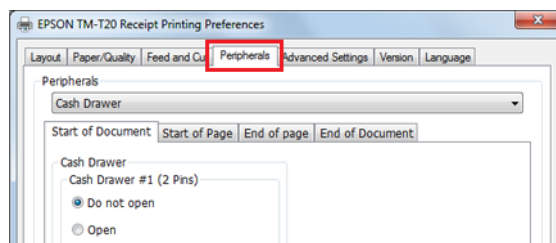
See "Optional Buzzer" on page 73

How to Setup

Follow the steps below.

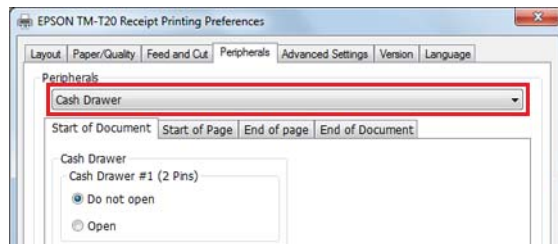
1

Select **Peripherals** tab from Printing Preferences.

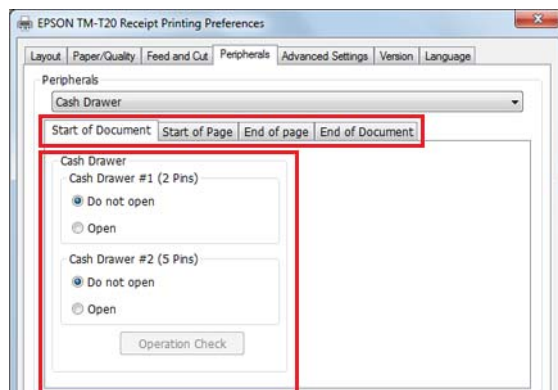


Using the Printer Driver

- 2** From the **Peripherals** pull down list, select the combination of peripheral device to be connected to the printer.



- 3** Select the timing to set the peripheral device settings.
 See [“Setting of Peripheral Device” on page 45](#)



- 4** Confirm **Current settings** and click **OK**.

Setting of Peripheral Device

Settings may be different depending on peripheral devices.

Note:

- ☐ Cash drawer and external buzzer cannot be used simultaneously.
- ☐ Built-in buzzer is not supported on some models.

Cash Drawer

Settings of cash drawer are shown below.

Peripherals	Setting Value	Description
Cash Drawer #1 (2 Pins)	Do not open	Drawer #1 (2 pins) does not open.
	Open	Drawer #1 (2 pins) opens.
Cash Drawer #2 (5 Pins)	Do not open	Drawer #2 (5 pins) does not open.
	Open	Drawer #2 (5 pins) opens.

Buzzer

Settings of buzzer are described below.

Using the Printer Driver

Peripherals	Setting Value	Description
Built-in Buzzer	Turn off	Built-in buzzer does not sound.
	Turn on	Built-in buzzer sounds.
External Buzzer	Turn off	External buzzer does not sound.
	Turn on	External buzzer sounds.
	Pattern	Specify buzzer sound pattern.
	Count	Specify buzzer sound frequency.

Logo Printing

Logo can be printed at the beginning and the end of printing.

There are 2 printing methods.

- ☐ Print by Registering Logo to Printer Driver
 See **“Print by Registering Logo to Printer Driver”** on page 46
- ☐ Print by Registering Logo to Printer
 For detail, see Advanced Printer Driver Ver.5 Printer Manual.

Note:

- ☐ The file formats that can be registered are BMP, JPEG, GIF and PNG.
- ☐ The maximum file size that can be registered is 2047 x 831 dots (width x height). Number of dots is calculated as follow. Calculation formula: Number of dots = length (cm) / 2.54 (1 inch) x resolution level of TM printer (DPI)

Print by Registering Logo to Printer Driver

Note:

When using a serial interface, it is recommended to register a logo to the printer. For detail, see Advanced Printer Driver Ver.5 Printer Manual.

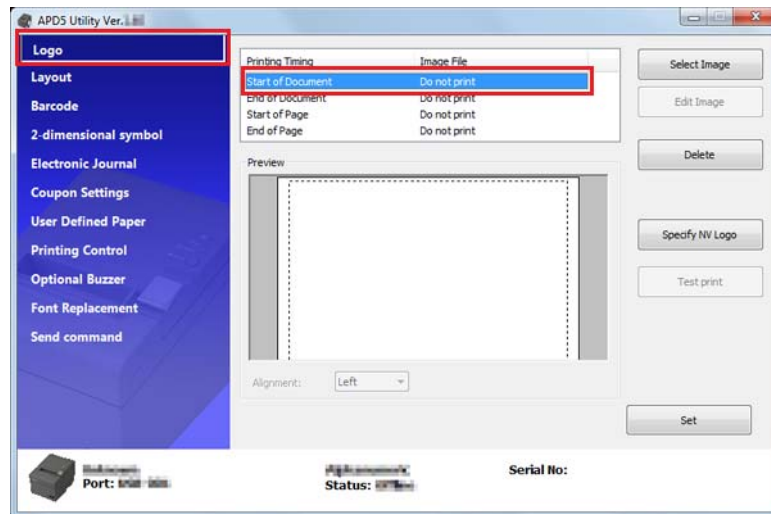
Follow the steps below to register a logo and print.

- 1** Launch the APD5 utility.
- 2** Select **Logo**.

Using the Printer Driver

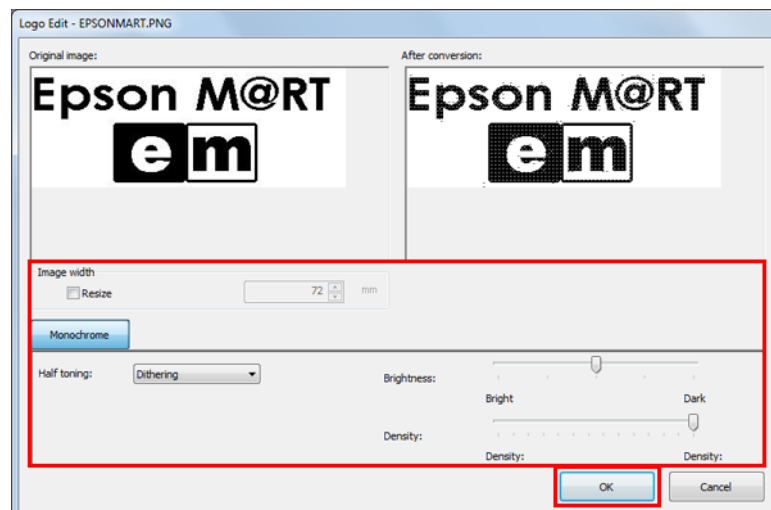
- 3 Select the position where the logo is printed.

Select the printing position from **Start of Document** / **End of Document** / **Start of Page** / **End of Page**.



- 4 Click **Select Image** to specify the logo to print.

- 5 The **Logo Edit** screen is displayed. Refer to the preview at the upper part of the screen and edit the image data for logo. When editing is done, click **OK**.



Settings are described below.

Item	Description
Resize	When checked, the image can be resized. If the image size is bigger than the paper width and its size is not changed, any part that doesn't fit the paper is cut off.
Image width	Setup the image size after resizing. (Unit : mm)
Half toning	Setup the half-toning type. Select from Dither / Error Diffusion / None .

Using the Printer Driver

Item	Description
Brightness	Setup the brightness. Select from 5 levels.
Density	Setup the printing density.

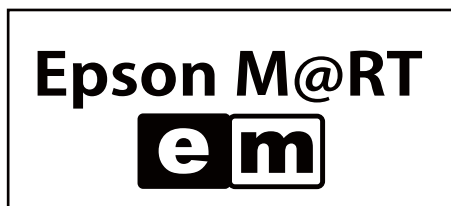
6

Click Set.







The logo is registered to the driver.

7

When printing, the logo is printed at the position set in the APD5 utility.



Advanced Method

- ☐  "User Defined Paper Setting" on page 48
- ☐  "Barcode Printing" on page 50
- ☐  "2 dimensional symbol Printing" on page 50
- ☐  "Coupon Printing" on page 51
- ☐  "Buzzer Settings" on page 52
- ☐  "Other Convenient Functions" on page 53

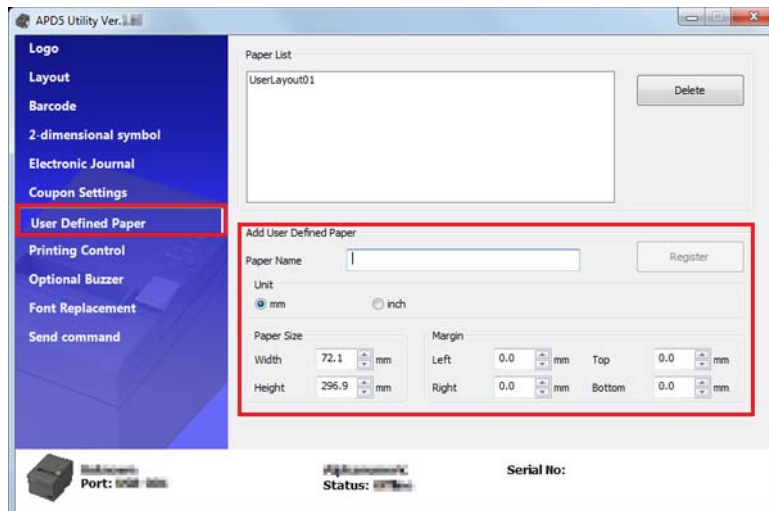
User Defined Paper Setting

Regular paper size can be printed using the user defined paper setting. It cannot expand/reduce according to the printer's paper width.

Using the Printer Driver

1

Select **User Defined Paper** of the APD5 utility to setup user defined paper.



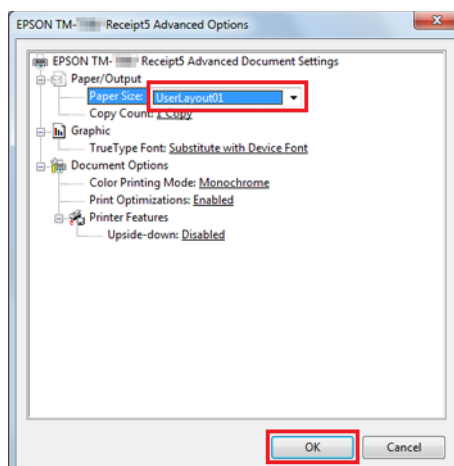
Item	Description
Paper Name	Name of the user defined paper. This name is displayed in Printing Preferences - Layout .
Unit	Specify the unit for the paper width setting.
Paper Size	Specify the user defined paper size (width, height).
Margin	Specify the user defined paper size space (top, bottom, left, right).

2

Reopen **Printing Preferences** and select the **Layout** tab. Click **Advanced** and detail document setting of the printer appears.

3

From the paper size, select the user defined paper you defined. Click **OK**.



Using the Printer Driver

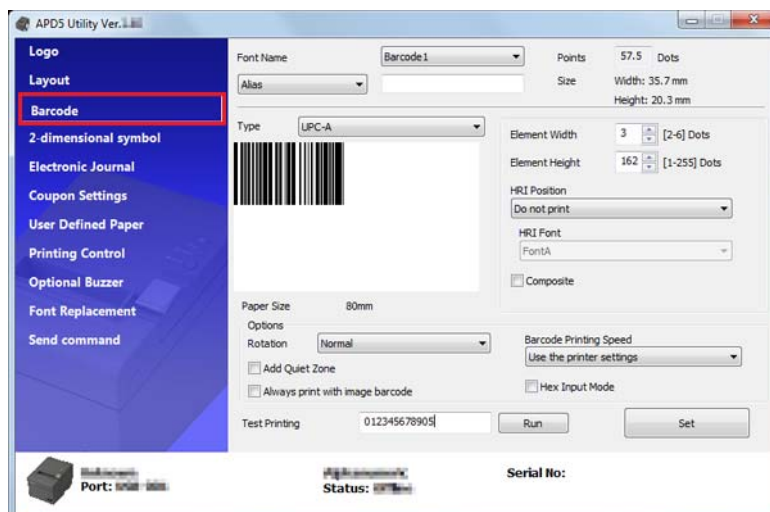
Barcode Printing

Set a barcode font to the Advanced Printer Driver. Barcode can be printed without having barcode encoder in an application or preparing graphic data of barcode. High precision reading of barcode can be printed comparing to when the barcode data is set in an application.

1

Barcode font can be setup from **Barcode** of the APD5 utility.

For detail, see Advanced Printer Driver Ver.5 Printer Manual.



2

Specify a barcode font to barcode data using the application.

3

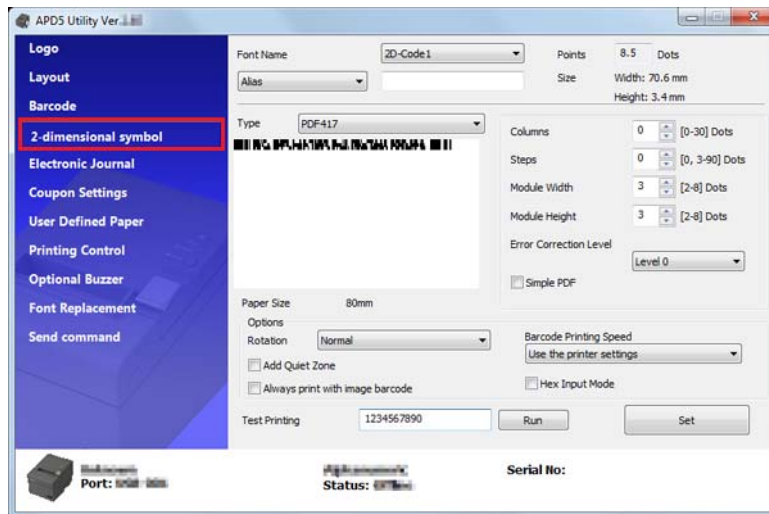
Barcode is printed based on the settings of the APD5 utility.

2 dimensional symbol Printing

It sets a 2 dimensional symbol font to APD5. The 2 dimensional symbol printing is possible for the customer without implementing the 2 dimensional symbol encoder or preparing a 2 dimensional graphic data in an application.

Using the Printer Driver

- 1 2 dimensional font can be set from **2-dimensional symbol** of the APD5 utility.
For detail, see Advanced Printer Driver Ver.5 Printer Manual.

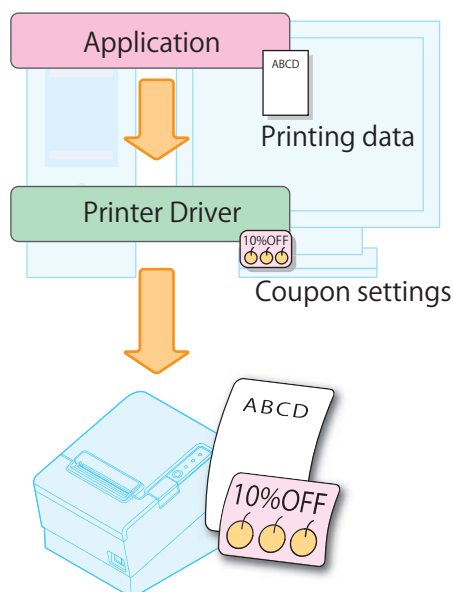


- 2 Specify a 2 dimensional font to 2 dimensional data using the application.
- 3 2 dimensional symbol is printed based on the settings of the APD5 utility.

Coupon Printing

APD5 provides the coupon printing function.

Coupons can be printed with various settings without modifying the customer's POS application.



Note:

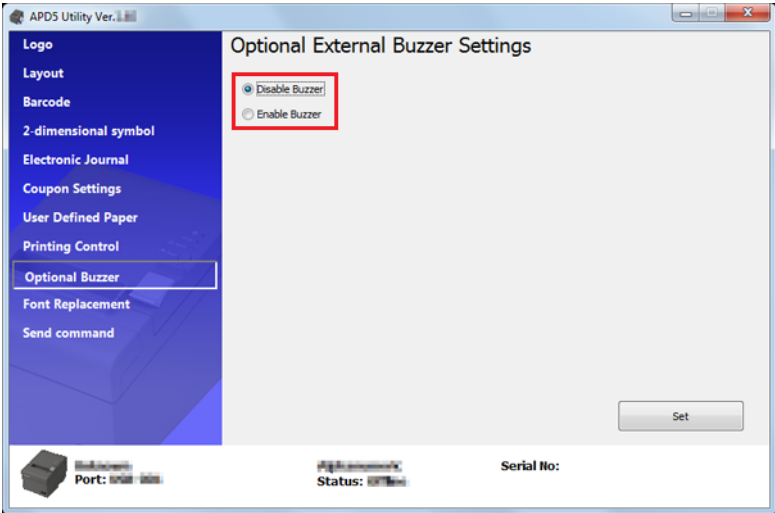
For detail, see *Advanced Printer Driver Ver.5 Printer Manual*.

Using the Printer Driver

Buzzer Settings

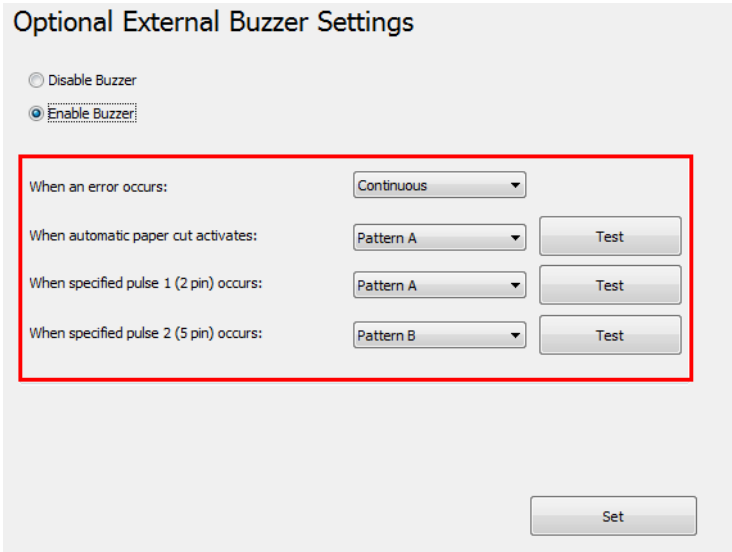
Allows you to configure whether an external optional buzzer is used and the buzzer pattern settings. Configure as follows.

- 1
- Click the **Optional Buzzer** menu.
- 2
- Select whether or not the external buzzer is used.



Disable Buzzer	Do not use the external buzzer. Go to step 4.
Enable Buzzer	Use the external buzzer. Go to step 3.

- 3
- Specify when the external buzzer sounds and the buzzer pattern.



Setting	Description
When an error occurs	Configure the buzzer setting when an error occurs.

Using the Printer Driver

Setting	Description
When automatic paper cut activates	Configure the buzzer setting when automatic paper cutting takes place. To test the buzzer sound, click the Test button.
When specified pulse 1 (2 pin) occurs	Configure the buzzer setting when the specified pulse is generated. To test the buzzer sound, click the Test button.
When specified pulse 2 (5 pin) occurs	Configure the buzzer setting when the specified pulse is generated. To test the buzzer sound, click the Test button.

4

Click the **Set** button. The settings are reflected in the printer.

Other Convenient Functions

Printer driver can be also used the ways shown below.

- ☐ Print by Registering Logo to Printer
- ☐ Sending Commands
- ☐ Print Device Font in .NET Environment
- ☐ Printing start position setting
- ☐ Print the 80mm width layout with 58mm width
- ☐ Alias name setting to font
- ☐ Creation of emulation font
- ☐ Replacing function of device font
- ☐ Printing Control Settings

Note:

For detail, see *Advanced Printer Driver Ver.5 Printer Manual*.

TM-T20 Utility

This chapter explains how to use the TM-T20 Utility that configures this printer.




Overview

**Caution:**






While saving the settings, do not turn off the printer or terminate the connection with the printer.

TM-T20 Utility provides the following functions.

For general users

- ☐ Operation Check:  See **“Operation Check” on page 62**
- ☐ Electronic Journal ^{*1 *3 *4}.
- ☐ Storing Logos:  See **“Storing Logos” on page 63**
- ☐ Coupon Settings ^{*1 *3 *4}.
- ☐ Paper Reduction ^{*2 *4}
- ☐ Automatic Paper Cut ^{*2}:  See **“Automatic Paper Cut Settings” on page 69**

For printer administrators

- ☐ Printing Control:  See **“Printing Control Settings” on page 71**
- ☐ Font:  See **“Font Settings” on page 72**
- ☐ Optional Buzzer:  See **“Optional Buzzer” on page 73**
- ☐ Communication I/F:  See **“Communication I/F Settings” on page 74**
- ☐ Setting Backup/Restore:  See **“Setting Backup/Restore” on page 77**

^{*1} Cannot be used on Windows 2000.

^{*2} Because this cannot be used with some printer versions, it may not be displayed.

^{*3} If the coupon driver or Epson TM Virtual Port Driver Ver.8 is not installed, this is disabled.

^{*4} For details, refer to the TM-T20 Utility User's Manual.

TM-T20 Utility

Starting the TM-T20 Utility

Starting the TM-T20 Utility


Activate the TM-T20 Utility as follows.

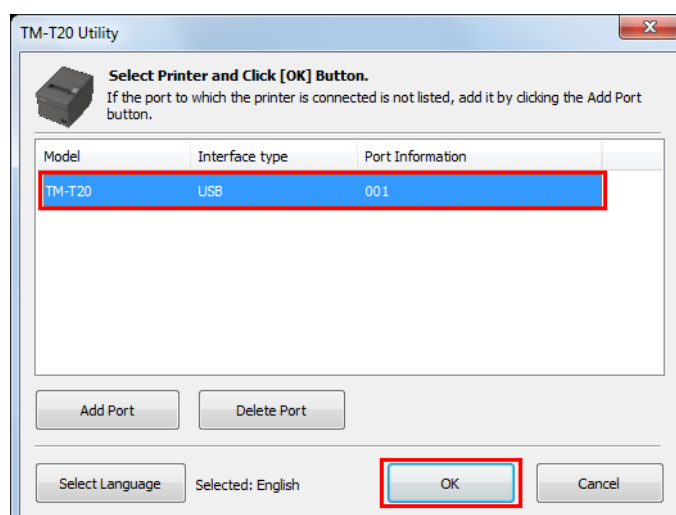
If you have checked **Run TM-T20 Utility** at Step 10 of Easy Install procedure, start from Step 2.

1 Select **Start - All Programs - EPSON - TM-T20 Software - TM-T20 Utility**.

2 The following screen appears. Select the printer to use and click the **OK** button.

If you wish to change the language that appears in the TM-T20 Utility, click the **Select Language** button.

If the printer is not displayed, click the **Add Port** button. Then go to the following section;  See “**Adding a Communication Port and Starting the TM-T20 Utility**” on page 56.



Note:

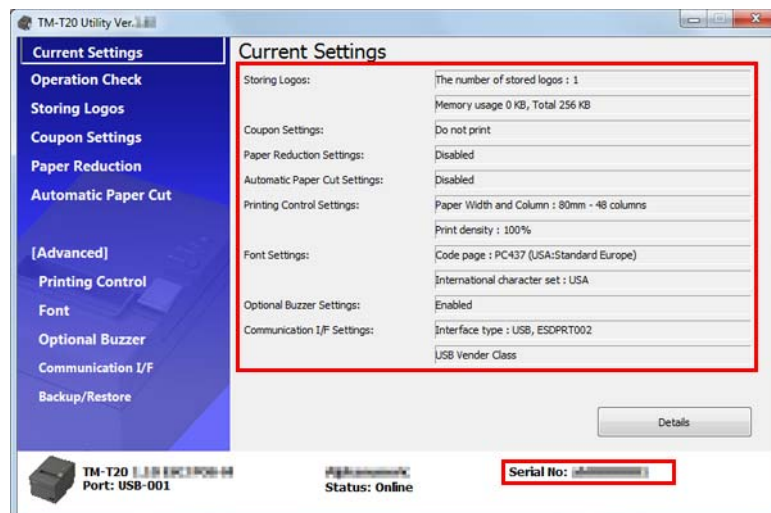
- ☐ Click the **Add Port** button when you want to newly configure a port of the printer.
 See “**Adding a Communication Port and Starting the TM-T20 Utility**” on page 56
- ☐ To delete a port, select the port and click the **Delete Port** button.

3 The TM-T20 Utility is started. When the communication with the printer is established, the printer settings obtained from the printer are displayed in the **Printer settings** screen.

To recognize the connected printer when connected via USB, run the **Test Printing** after running TM-T20 Utility, or check the serial number on one of the sides of the printer and the serial number of TM-T20 Utility.

When executing TM-T20 Utility for the first time, it does not boot if the communication with the printer cannot be established. Once the communication is established, the utility can boot using the previous printer setting information even if it is offline.

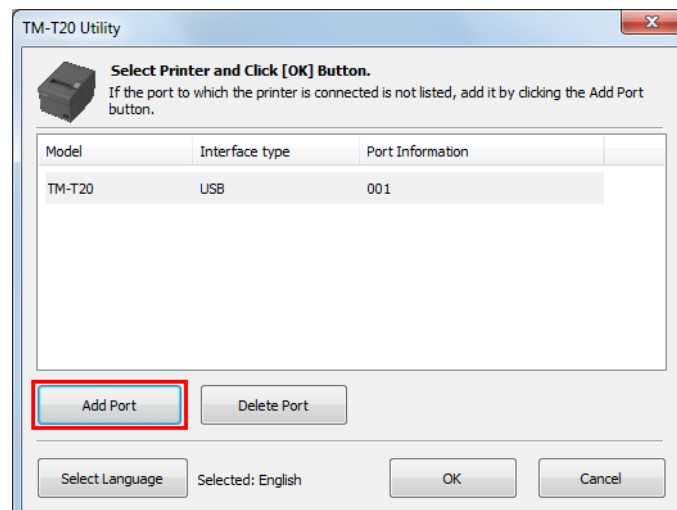
TM-T20 Utility



Adding a Communication Port and Starting the TM-T20 Utility

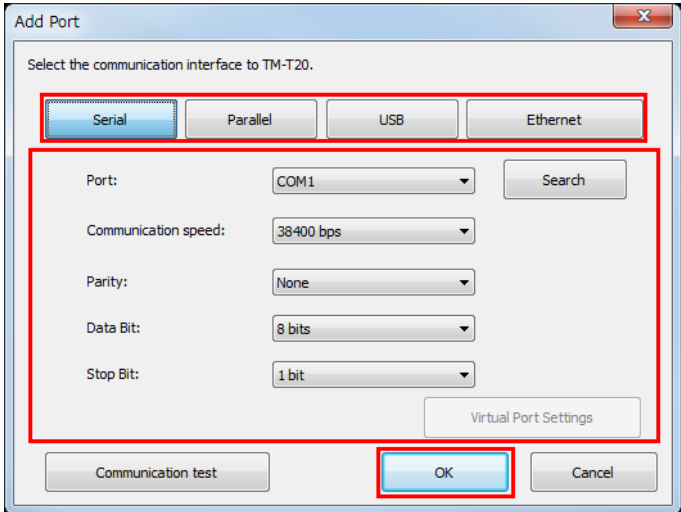
Add a communication port as follows:

- 1 Select **Start - All Programs - EPSON - TM-T20 Software - TM-T20 Utility**.
- 2 The following screen appears. Click the **Add Port** button.

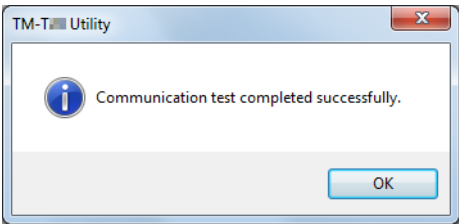


TM-T20 Utility

3 The **Add Port** screen appears. Configure the port to be added. Then, click the **OK** button.



- Note:**
- ❑ If the communication with the port failed, an error message appears. In such case, you cannot add the port. Make sure the printer is connected properly and check your communication settings.
 - ❑ Clicking the **Communication test** button displays the communication result on the screen. It does not conduct a test print.



Serial

Setting	Description
Port:	Selects the serial port of the computer you use.
Search:	Searches for available serial ports.
Communication speed:	Configures the communication speed.
Parity:	Configures the parity.
Data Bit:	Configures the bit length.
Stop Bit:	Configures the stop bit.
Virtual Port Settings	Starts the Virtual Port Settings tool. For details, see the manual for the Virtual Port Settings tool.
Communication test	Runs a communication test.

Parallel

TM-T20 Utility

Setting	Description
Port:	Selects the parallel port of the computer you use.
Search:	Searches for available parallel ports.
Virtual Port Settings	Starts the Virtual Port Settings tool. For details, see the manual for the Virtual Port Settings tool.
Communication test	Runs a communication test.

☐ USB

Setting	Description
Port:	Selects the USB port you use.
Search	Searches for the available USB port(s).
Communication test	Runs a communication test.

Note:

If connected via USB, printers cannot be added under the environment where both Printer Class printers and Vendor Class printers exist. In such a case, first turn off the existing printers, and then start the utility.

☐ Ethernet

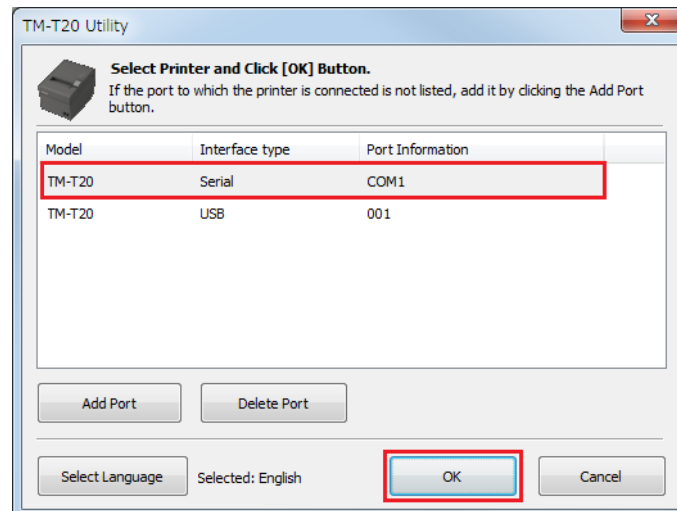
Setting	Description
IP Address:	Configures the IP address of the printer you use.
Search	Searches for the TM-T20 printers on the network and displays their IP addresses.
Advanced settings (EpsonNet Config)	Activates the EpsonNet Config. Make the network settings of the printer using the EpsonNet Config.
Communication test	Runs a communication test.

Note:

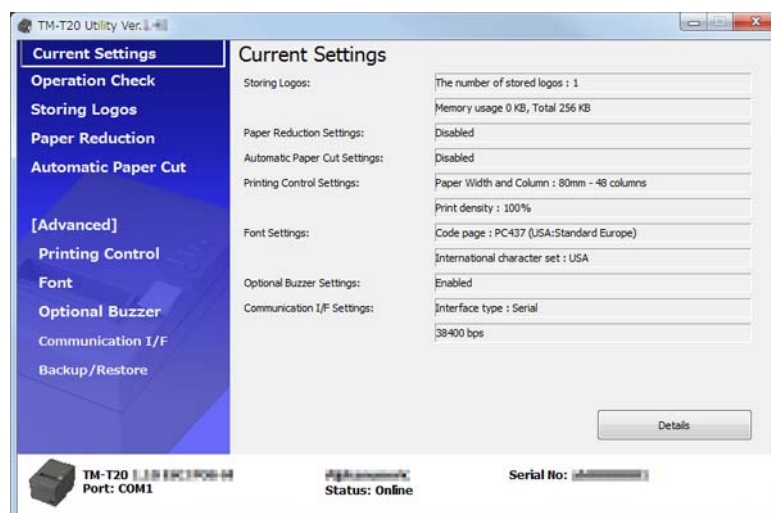
*If no TM-T20 with its IP address configured is displayed even after clicking the **Search** button, enter the IP address of TM-T20 directly to **IP Address**.*

TM-T20 Utility

- 4 The following screen appears again. Select the added port and click the **OK** button.



- 5 The TM-T20 Utility is started.



TM-T20 Utility

Current Settings

Allows you to check the printer settings and the maintenance counter.

Setting	Value
Storing Logos:	The number of stored logos : 1
	Memory usage 0 KB, Total 256 KB
Coupon Settings:	Do not print
Paper Reduction Settings:	Disabled
Automatic Paper Cut Settings:	Disabled
Printing Control Settings:	Paper Width and Column : 80mm - 48 columns
	Print density : 100%
Font Settings:	Code page : PC437 (USA:Standard Europe)
	International character set : USA
Optional Buzzer Settings:	Enabled
Communication I/F Settings:	Interface type : USB, ESDPRT002
	USB Vender Class

Details

Setting	Description
Storing Logos:	Displays the number of stored logos and their sizes.
Automatic Paper Cut Settings:	Displays the settings of the automatic paper cut function.
Coupon Settings: *1	Displays the coupon settings.
Paper Reduction Settings: *2	Displays the paper reduction Enable/Disable setting.
Printing Control:	Displays the paper width and the print density settings.
Font:	Displays code page of the printer font, and international character set.
Optional Buzzer:	Displays the buzzer settings.
Communication I/F:	Displays the communication setting of the port.
Details	Displays information of interface, and maintenance counters. 🔗 See "Details" on page 60

*1 If the coupon driver or Epson TM Virtual Port Driver Ver. 8 is not installed, this won't be displayed.

*2 Because this cannot be used with some printer versions, it may not be displayed.

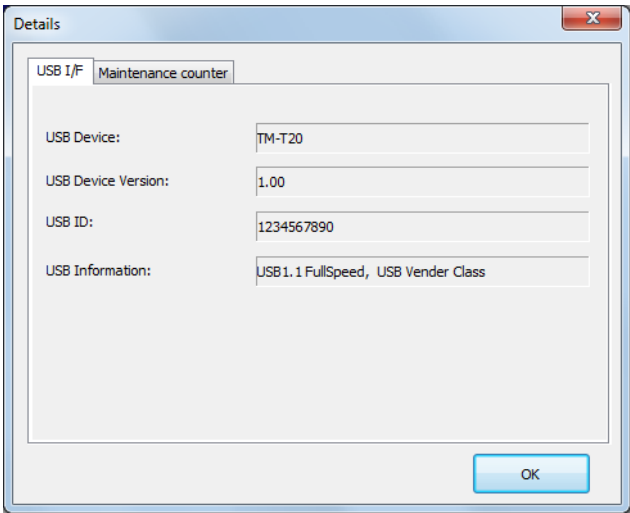
Details

Interface Information

Note:

When a serial or parallel connection is used, interface information does not appear; only the maintenance counter appears.

TM-T20 Utility



USB I/F

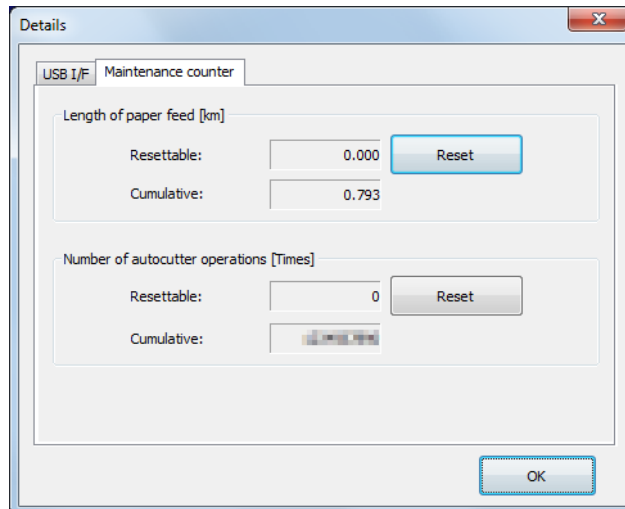
Setting	Description
USB Device:	Displays the product name.
USB Device Version:	Displays the product version.
USB ID:	Displays the serial number.
USB Information:	Displays the character string configured to the interface for identification purpose.

Ethernet I/F

Setting	Description
Ethernet I/F:	Displays the product name.
MAC address:	Displays the MAC address setting of the interface.
Hardware version:	Displays the hardware version of the interface.
Software version:	Displays the software version of the interface.

TM-T20 Utility

Maintenance counter



Allows you to check the following counters and to reset some of them.

The cumulative counter cannot be reset.

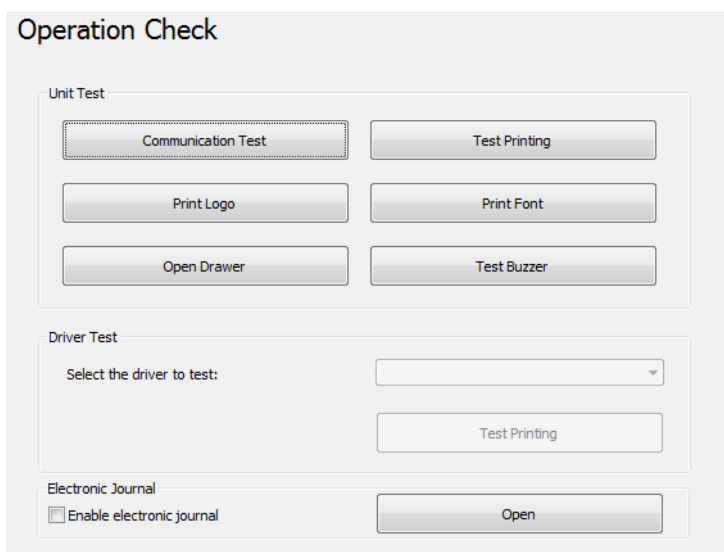
- ☐ Length of paper feed [km]
- ☐ Number of autocutter operations Times

Operation Check

Allows you to check the printer operation and communication between the printer and the driver.

Configure as follows.

- 1 Click the **Operation Check** menu.



TM-T20 Utility

2

Click the button of the item you want to check.

You can check the followings.

☐ Unit Test

Setting	Description
Communication Test	Checks if the communication between the computer and the printer is normal.
Test Printing	Makes a test print. To see if the printer prints correctly.
Print Logo	Prints the logo stored on the printer.
Print Font	Prints the fonts installed on the printer.
Open Drawer	Opens the drawer connected to the printer.
Test Buzzer	Sounds an external optional buzzer that is connected to the printer.

☐ Driver Test

Setting	Description
Select the driver to test	Selects the driver you want to check.
Test Printing	Makes a test print. To see if the printer prints correctly.

Note:

For Windows 2000, the Test Printing is not available.

☐ Electronic Journal

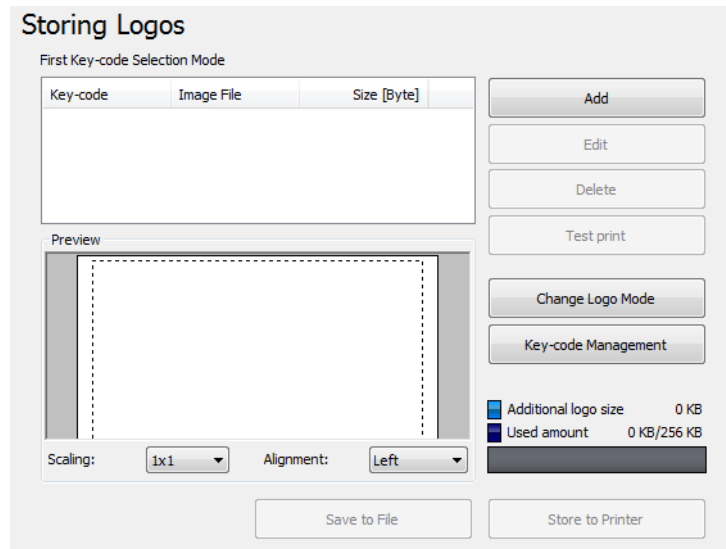
Setting	Description
Enable electronic journal	Sets electronic journal Enable/Disable. (This is activated when ticked)
Open	Displays the electronic journal screen.

Storing Logos


Allows you to configure the logos to be stored on the printer.

TM-T20 Utility

This section describes how to configure logos to be stored on the printer. The utility allows you to print your logo already stored on the printer, but you cannot edit and restore it as a file. When using the OPOS to store your logo, see [“Storing Logos” on page 83](#).

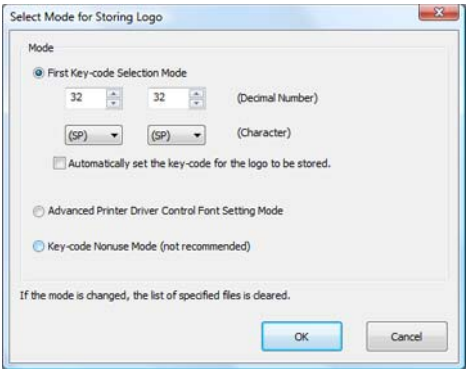


Storing Logos has the following functions.

Setting	Description
Key Code List	Displays the logos registered in the printer and the logos to be added in the printer. The logos registered in the printer have  at the beginning of the Key-code.
Add	Adds logo data on the list.
Edit	Edits the halftone and brightness settings of the selected logo data.
Delete	Deletes the selected logo data from the list or deletes logos stored on the printer.
Test print	Prints the selected logos.
Change Logo Mode	Displays Select Mode for Storing Logo screen.
Key-code Management	Displays Key-code Management screen.
Preview	Displays the logo image to be stored on the printer. Logo images stored on the printer are not displayed.
Logo Indicator	Indicator: Registerable memory size in the printer for logos Additional logo data: Size of logos displayed on the list Used amount: Size of registered logos
Save to File	Saves the configured logo data as a file to store it to the printer. The data can also be stored as a bmp file.
Store to Printer	Stores the configured logo data to the printer.

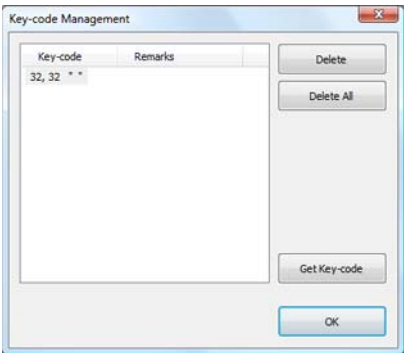
TM-T20 Utility

Select Mode for Storing Logo has the following functions. The current setting is displayed below **Storing Logos**.



Setting	Description
First Key-code Selection Mode	Specifies the logo identifying code.
Automatically set the key-code for the logo to be stored.	If this is turned on, automatically sets Key-codes to the logos to be registered. If turned off, sets Key-codes when adding or editing logos.
Advanced Printer Driver Control Font Setting Mode	The Advanced Printer Driver allows you to assign a control font (h to l) to your logo instead of using a key code.
Key-code Nonuse Mode (not recommended)	Not recommended.

Key-code Management has the following functions. You can check the Key-code of the logo stored in the printer, or delete the logos.



Setting	Description
Get KeyCode	Obtains registered Key-code numbers.

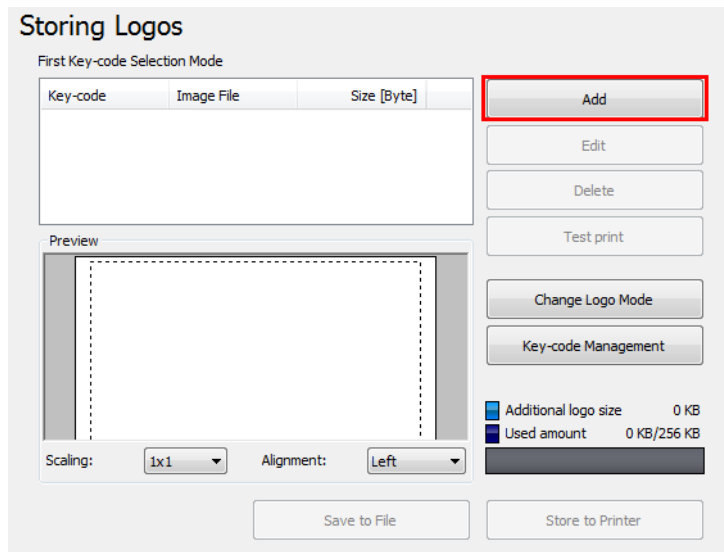
Adding a Logo

Add a logo as follows.

TM-T20 Utility

1

Click the **Add** button.

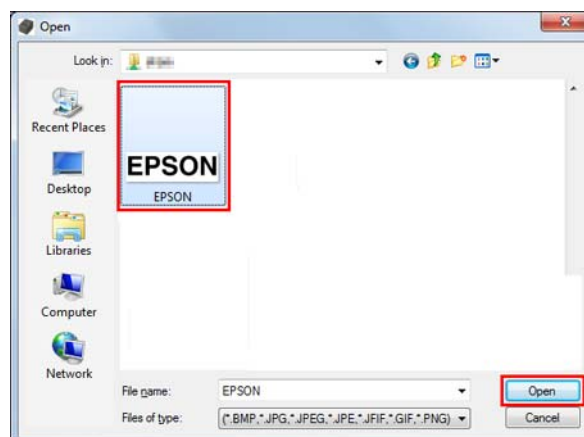


2

Specify the image data to be used as a logo.

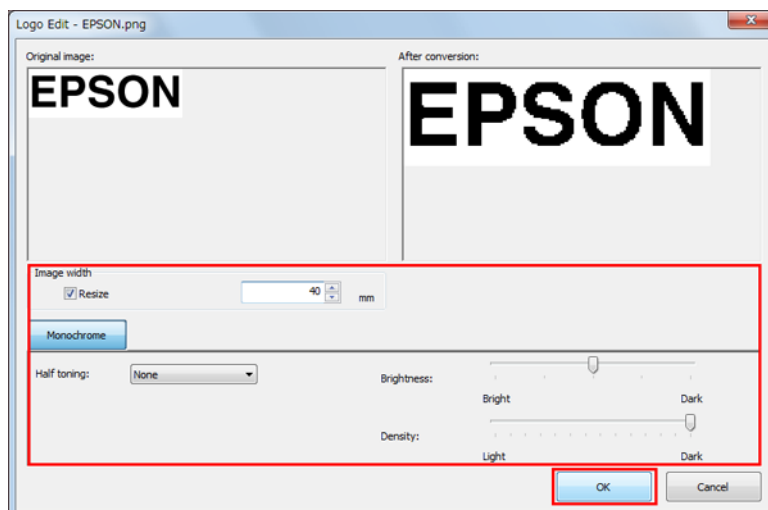
A file size of 2047 (W) x 831 (H) pixels (dots) or less can be specified, and the format can be bmp, jpeg, gif, or png. If the logo width is greater than the paper width, a warning message will appear. Click the **OK** button and reduce the logo size in the **Logo Edit** screen of step 3.

Paper width - Number of columns:	Pixels
80mm - 48 columns	576
80mm - 42 columns	546
58mm - 42 columns	378
58mm - 35 columns	420



TM-T20 Utility

- 3** The **Logo Edit** screen appears. Edit the logo image while checking the image previewed on the upper portion of the screen. When finished, click the **OK** button.



You can edit the followings.

Setting	Description
Image width	Specifies the width to which the image is resized (in mm).
Resize	Specifies whether or not the image is resized. If the image width is greater than the paper width and resizing is not specified, the part of the image that exceeds the paper width will be cut off.
Half toning	Configures the halftone setting of the image.
Brightness	Configures the brightness of the image.
Density	Configures the printing concentration.

- 4** If the logo mode is **First Key-code Selection Mode** and **Automatically set the keycode for the logo to be stored.** is not turned on, the **Key-code Settings** screen is displayed. Set a Key-code and click the **OK** button.

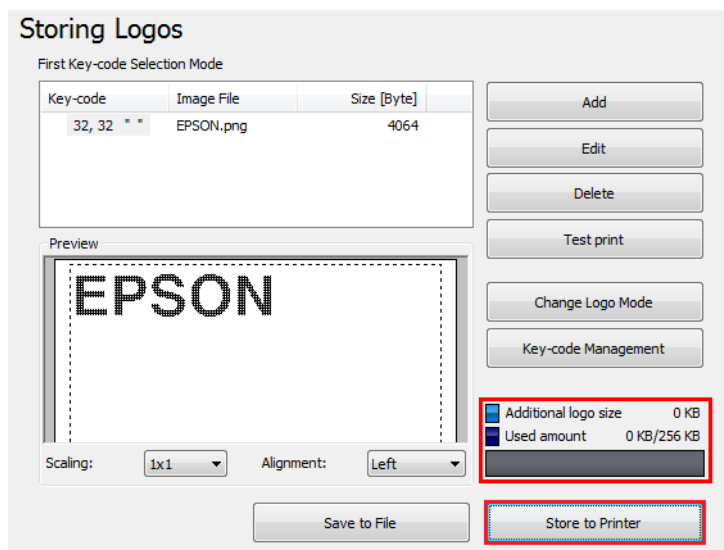
If the logo mode other than **First Key-code Selection Mode** is selected or **Automatically set the keycode for the logo to be stored.** is turned on, the **Key-code Settings** screen is not displayed.



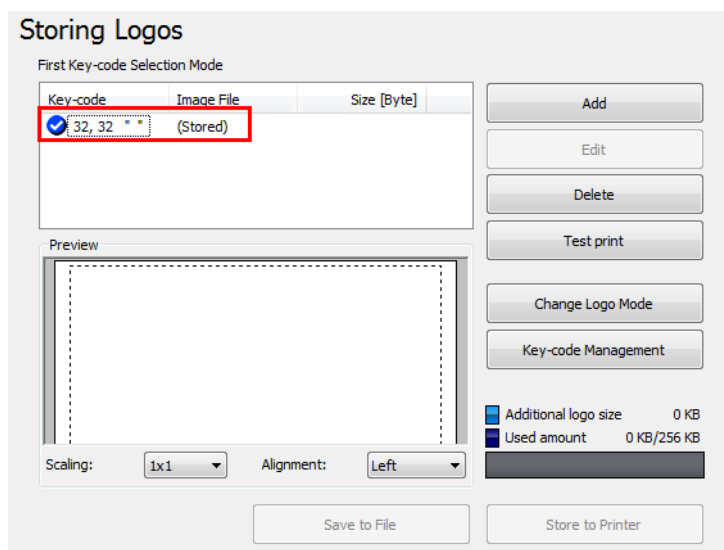
- 5** The logo data is added on the list. When storing multiple logo data, repeat Step 1 through 4.

TM-T20 Utility

- 6** After storing all the logo data to be added to the printer, check the indicator on the right side of the screen to see if the data size is acceptable to be stored on the printer, and then click the **Store to Printer** button.



- 7** The logo data is stored to the printer. The logo data are also saved in the logo store file (TLG file). This file is used when creating the printer setting file.



Logo Store File

Because the logo store file (TLG file) is automatically saved when adding logos to the printer, the logo store file only contains the logo data last added to the printer. When saving multiple logo data in the printer setting file, add all the logo data to the printer altogether at once. When saving the data already stored on the printer, follow the procedure below.

- 1** Prepare all the logo data to add to the printer.
- 2** Delete all the logo already stored on the printer.

🔗 See “Storing Logos” on page 63


TM-T20 Utility

3 Store all the logos and add them to the printer altogether at once. In this way, the logo store file (TLG file) containing all the logo data is created.

 See “Adding a Logo” on page 65

Automatic Paper Cut Settings

Allows you to configure whether to cut paper and print a logo when the cover is closed.

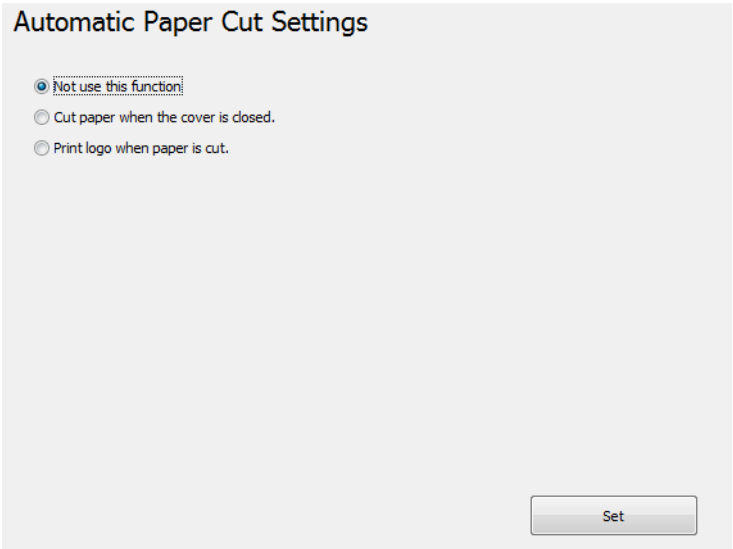
**Caution:**

- ☐ If you set a logo here, the logo will be printed when you print coupons too.
- ☐ If you don't want to print the logo on coupons, set the logo printing during auto cut in coupon printing. (For details, refer to the TM-T20 Utility User's Manual.)

Configure as follows.

1 Click the **Automatic Paper Cut** menu.

2 Click the item you want to check.



Not use this function	Disables the automatic paper cut function. Go to Step 4.
Cut paper when the cover is closed.	Executes automatic paper cut when the cover is closed. Go to Step 4.
Print logo when paper is cut.	Prints the logo when executing the automatic paper cut. Go to Step 3.

TM-T20 Utility

3 Configure the **Print logo when paper is cut**.

Automatic Paper Cut Settings

Not use this function

Cut paper when the cover is closed.

Print logo when paper is cut.

Top Logo:

Key-code

32 32

Alignment

Center

Bottom Logo:

None

Left

Condition

☒ When paper is cut by command

☒ When cover is closed

☐ When printer is powered on

☒ Extra Upper Space Reduction

This may cause a white line to appear on the top logo. Please conduct test printing.

THE STORE

ABCDEFGHIJKLMN

Set

Setting	Description
Top Logo	<div>Sets the logo that is printed at the top of the paper.</div> <div><input type="checkbox"/> Key-code: Selects the Key-code of the logo to be printed.</div> <div><input type="checkbox"/> Alignment: Selects the logo print position.</div>
Bottom Logo	<div>Sets the logo that is printed at the bottom of the paper.</div> <div><input type="checkbox"/> Key-code: Selects the Key-code of the logo to be printed.</div> <div><input type="checkbox"/> Alignment: Selects the logo print position.</div>
Condition	<div>Sets the condition for top logo printing.</div> <div><input type="checkbox"/> When paper is cut by command: The checkmark cannot be removed from this checkbox.</div> <div><input type="checkbox"/> When cover is closed: Sets whether the top logo is printed when the cover is closed.</div> <div><input type="checkbox"/> When printer is powered on: When you select this, the printer is reset every time the printer setting is changed, paper is automatically cut and Top Logo is printed.</div>
Extra Upper Space Reduction:	<div>Selects whether to reduce the top margin when printing the logo configured at Top Logo. You can select this function only when Top Logo is selected.</div> <div>Selecting this may cause a white line to appear on the logo (13 mm away from the top of the logo). Make sure to conduct a test print to see if the print result is acceptable for you.</div>



Caution:

Since this cannot be used with some printer versions, **Extra Upper Space Reduction** may not be displayed in some cases.

4 Click the **Set** button. The settings are reflected to the printer.

TM-T20 Utility

Printing Control Settings

Allows you to configure the printing control settings of the printer. Configure as follows.

- 1 Click the **Printing Control** menu.
- 2 Configure the following printing control items.

Printing Control Settings

Paper width - Number of columns: 80mm - 48 columns ▼

Logo 180 dpi Emulation Mode: Disabled ▼

Print density: 100% ▼

Print speed: Level 13 (Fast) ▼

Set

Setting	Description
Paper width:	Selects the paper width.
Logo 180 dpi Emulation Mode:	Enables or disables Logo 180 dpi Emulation Mode . Logo 180 dpi Emulation Mode allows you to print logos created for 180dpi printers on the same position and in the size when using TM-T20. However, Storing Logos (🔗 See “Storing Logos” on page 63), allows you to freely adjust the size of logos when adding/editing them. So it is recommended to use Storing Logos when adjusting the size of logos.
Print density:	Selects the print density.
Print speed:	Selects the print speed.


Caution:

- ❏ When you change the paper width

When changing the paper width from 80 mm to 58 mm, attach the Roll Paper Guide to the printer.
Changing the paper width from 58 mm to 80 mm may produce unexpected printout results. Make sure you test print after changing the width.

- ❏ If a power-related trouble occurs, such as a sudden power shutoff during printing, lower the **Print speed**.

TM-T20 Utility**Note:**

If you make any of the following settings different from that of the printer driver, the printer driver setting is used.

- ☐ Paper width
- ☐ Print density
- ☐ Print speed

3

Click the **Set** button. The settings are reflected to the printer.

Font Settings

Allows you to configure the printer font and international character set. Configure as follows.

Note:

- ☐ When using the Advanced Printer Driver Ver. 4.xx, **Code-page:** and **International character set:** settings become disabled.
- ☐ When using the OPOS ADK, the code page configured in OPOS becomes enabled.

1

Click the **Font** menu.

2

Configure the following.

Font Settings

If you are using UPOS, you need to set the font on the UPOS.

Code-page: PC437 (USA:Standard Europe) ▼

International character set: USA ▼

Set Test Print

Setting	Description
Code-page:	Selects the Code Page of the printer font.
International character set:	Selects an international character set.

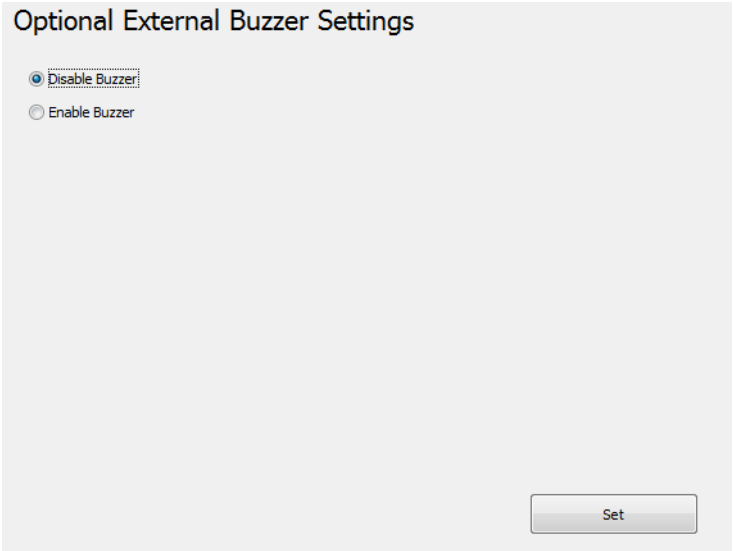
TM-T20 Utility

- 3
- Click the **Set** button. The settings are reflected to the printer.
- Click the **Test print** button to print the configured printer font pattern.

Optional Buzzer

Allows you to configure whether an external optional buzzer is used and the buzzer pattern settings. Configure as follows.

- 1
- Click the **Optional Buzzer** menu.
- 2
- Select whether or not the external buzzer is used.



Disable Buzzer	Do not use the external buzzer. Go to step 4.
Enable Buzzer	Use the external buzzer. Go to step 3.

TM-T20 Utility

- 3** Specify when the external buzzer sounds and the buzzer pattern.

Optional External Buzzer Settings

☐ Disable Buzzer
☒ Enable Buzzer

When an error occurs: Continuous

When automatic paper cut activates: Pattern A Test

When specified pulse 1 (2 pin) occurs: Pattern A Test

When specified pulse 2 (5 pin) occurs: Pattern B Test

Set

Setting	Description
When an error occurs:	Configure the buzzer setting when an error occurs.
When automatic paper cut activates:	Configure the buzzer setting when automatic paper cutting takes place. To test the buzzer sound, click the Test button.
When specified pulse 1 (2 pin) occurs:	Configure the buzzer setting when the specified pulse is generated. To test the buzzer sound, click the Test button.
When specified pulse 2 (5 pin) occurs:	Configure the buzzer setting when the specified pulse is generated. To test the buzzer sound, click the Test button.

- 4** Click the **Set** button. The settings are reflected in the printer.

Communication I/F Settings

This utility allows you to make printer communication settings. The port setting of the computer is not made, so making the printer settings may cause a communication error with the printer. In such case, change the printer driver settings or any other necessary settings on the computer so that they match with the settings made on the printer.

- 1** Click the **Communication I/F** menu. The type of port currently used for communicating with the printer is automatically detected and displayed on the **Communication I/F Settings** screen.

- 2** Make the communication settings.

Serial	Configures the serial communication. See "Serial" on page 75
USB	Configures the USB communication. See "USB" on page 75
Ethernet	Configures the IP address. See "Ethernet" on page 77

TM-T20 Utility

- 3
- Click the **Set** button. The settings are reflected to the printer.

Serial

Configures the serial communication.

Communication I/F Settings

Serial

Communication speed:

38400 bps

Parity:

None

Data Bit:

8 bits

Stop Bit:

1 bit

Flow control:

DTR/DSR

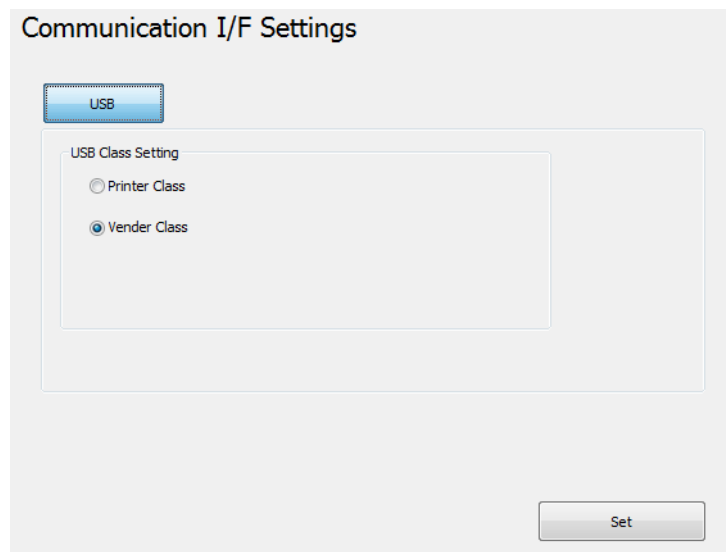
Set

Setting	Description
Communication speed:	Selects the communication speed.
Parity:	Configures the parity.
Data Bit:	Configures the data bit.
Stop Bit:	Configures the stop bit.
Flow control:	Configures the flow control.

USB

Configures the USB class.

Note:
When using the UPOS or Advanced Printer Driver Ver. 3.04, select **Vender Class**.

TM-T20 Utility

- ☐ **Printer Class (Default Setting):** Configures the printer to the printer class.
- ☐ **Vender Class:** Configures the printer to the vender class.

If you change the USB class from **Vender Class** to **Printer Class**, the printer becomes a Printer Class device. The computer detects the printer as a new Printer Class device and creates a new port.

Using the newly created port, you can print but cannot use the EPSON Status API. The existing port still allows you to both print and use the EPSON Status API, so you can delete the newly created queue and use the existing queue instead.

How to distinguish the EPSON Status API available port

Select **Properties - Ports** and check the **Port** and **Description**.

- ☐ **Printer Class**

Port: USBxxx

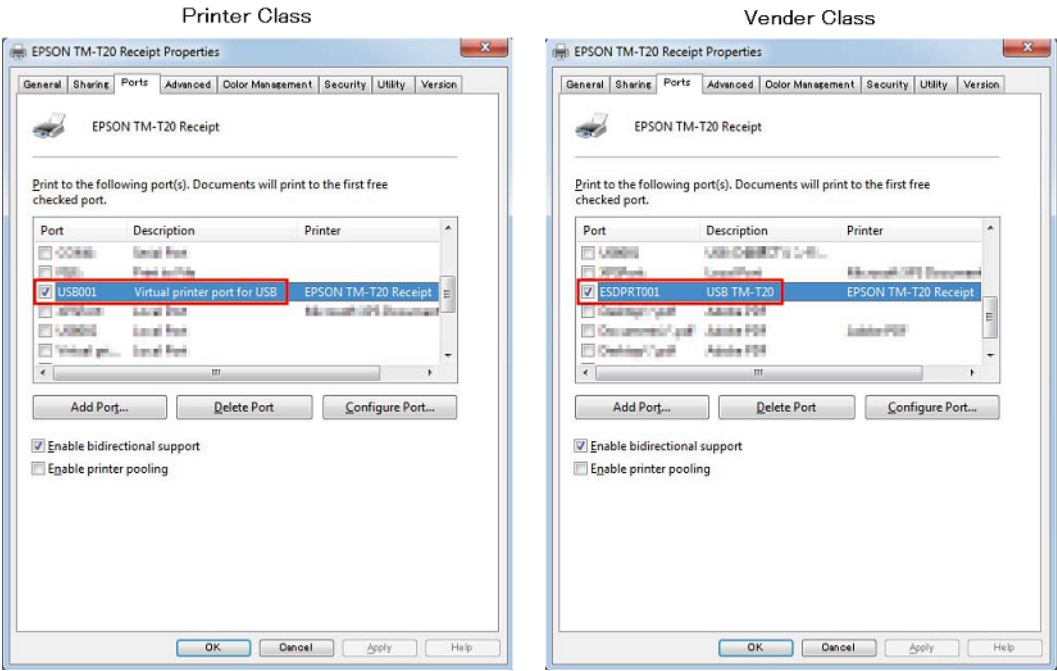
Description: Virtual printer port for USB

- ☐ **Vender Class**

Port: ESDPRTxxx

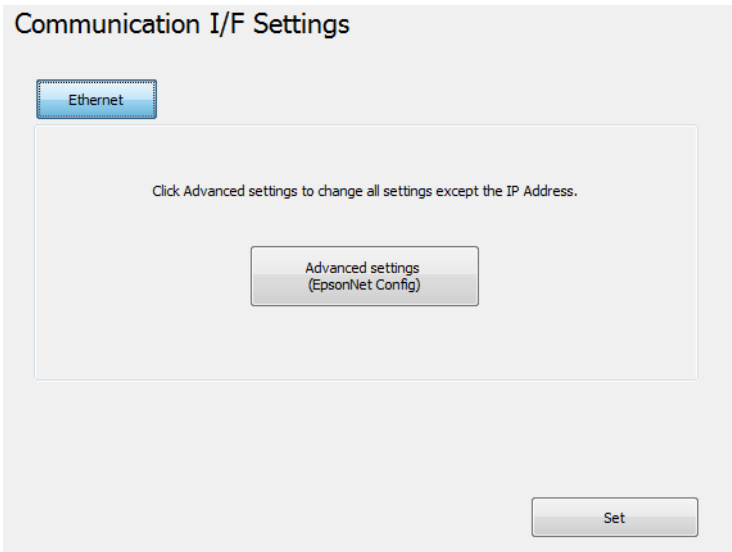
Description: USB TM-T20

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Ethernet

Starts EpsonNet Config, and configures network addresses.




Setting	Description
Advanced settings	Starts EpsonNet Config when the Advanced settings button is clicked.

Setting Backup/Restore

Allows you to save the printer settings to a file and to restore the stored settings to the printer.

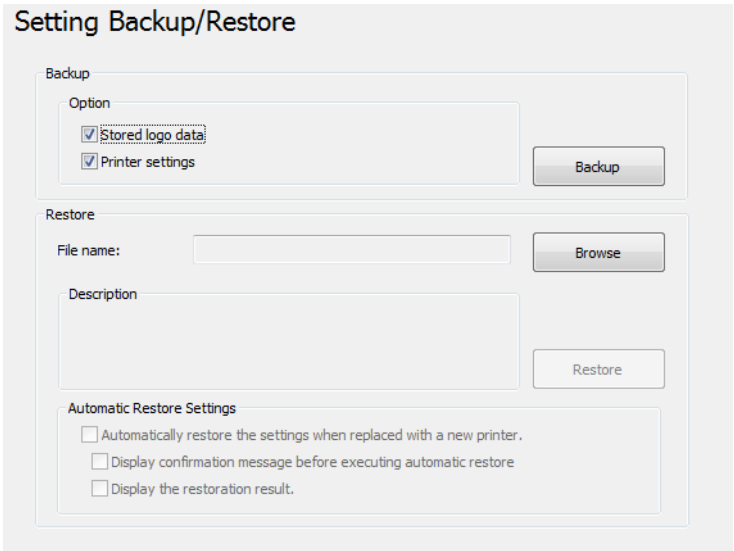
TM-T20 Utility

-  **Caution:**
- ❑ On the environment with no Advanced Printer Driver, OPOS, OPOS for .NET, or JavaPOS installed, **Automatic Restore Settings** is disabled.
 - ❑ Automatic Restore Settings cannot be saved or restored. If you want to copy coupon settings on another printer, refer to TM-T20 Utility User's Manual.

Saving the Printer Settings to a File

Save the settings as follows:

- 1
- Click the **Backup/Restore** menu.
- 2
- Select the setting items to be saved as a file from the **Option**.



The dialog box is titled "Setting Backup/Restore". It contains three main sections: "Backup", "Restore", and "Automatic Restore Settings".

- Backup section:** Includes an "Option" group box with two checked checkboxes: "Stored logo data" and "Printer settings". A "Backup" button is to the right.
- Restore section:** Includes a "File name:" text box, a "Browse" button, a "Description" text box, and a "Restore" button.
- Automatic Restore Settings section:** Includes three unchecked checkboxes: "Automatically restore the settings when replaced with a new printer.", "Display confirmation message before executing automatic restore", and "Display the restoration result."

- ❑ **Stored logo data:** Saves the logo data stored on the printer. In this step, data is not acquired from the printer, but the data in the logo store file (TLG file) is saved. ➤ See **“Logo Store File”** on page 68
- ❑ **Printer settings:** Saves all the set values of the printer.

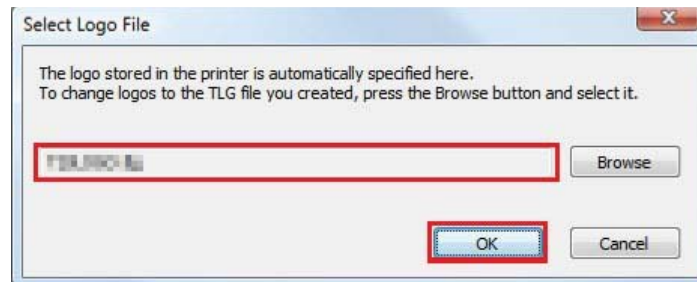
Paper reduction settings
Font settings (font replacement, code page, and international character set settings)
Print control settings (paper width, print speed, density, etc.)
Automatic paper cut setting
Optional buzzer settings

- 3
- Click the **Backup** button. A backup confirmation message will appear. Click the **Yes** button.

If Stored logo data was selected in step 2.	Go to step 4.
If Stored logo data was not selected in step 2.	Go to step 5.

TM-T20 Utility

- 4 The **Select Logo File** screen appears. The most recently saved logo filename will appear. Click the **OK** button.
If you wish to change the file to be saved, click the **Browse** button.

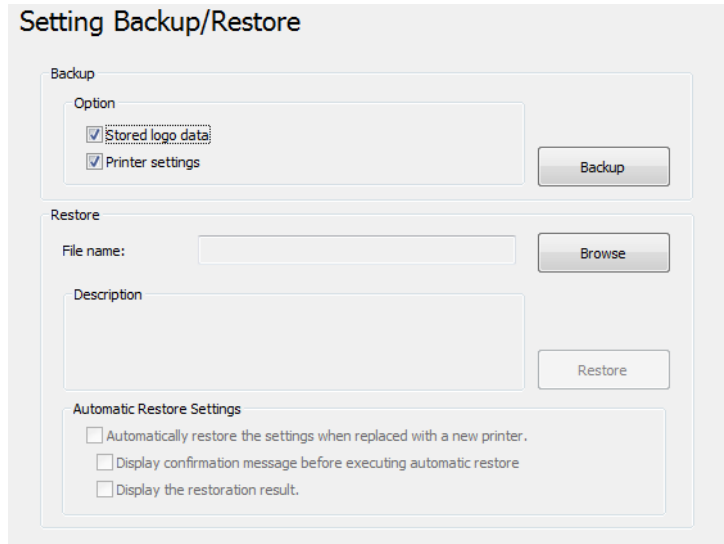


- 5 Specify the filename and backup location in the next screen and save the file.

Restore the Settings to the Printer

Restore the settings as follows:

- 1 Click the **Backup/Restore**.
- 2 Click the **Browse** button, and specify the printer setting file to be restored.



- 3 Click the **Restore** button. A restore confirmation message will appear. Click the **Yes** button.
- 4 If the restore is successful, a success message is displayed.

TM-T20 Utility**Automatic Restore Settings**

Configures the automatic restore settings.

Setting Backup/Restore

Backup

Option

☒ Stored logo data

☒ Printer settings

Backup

Restore

File name: TM-T20.Back

Browse

Description

Restore

Automatic Restore Settings

☒ Automatically restore the settings when replaced with a new printer.

☒ Display confirmation message before executing automatic restore

☒ Display the restoration result.

Setting	Description
Automatically restore the settings when replaced with a new printer.	To have printer settings automatically restored using the previously created backup file when the printer fails and is replaced with a new printer.
Display confirmation message before executing automatic restore	To display the confirmation message asking if you want to restore the settings before execution of automatic restoration.
Display the restoration result.	To display the success/failure result on the screen when automatic restore is executed.

Acknowledgements

TM-T20 Utility incorporate compression code from the Info-ZIP group.

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TM-T20 Utility

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Application Development Information

This chapter explains how to control this printer and gives information useful for printer application development.

How to Control the Printer

The printer is controlled by the drivers or ESC/POS commands.

Driver

Printer Driver

This is an Windows driver (APD = EPSON Advanced Printer Driver) which allows you to control POS operations, such as printing logos and barcodes, controlling paper cutting function and cash drawer. See this manual for more details about the printer driver. The driver includes Status API which allows you to monitor the printer status, and to send the ESC/POS commands.

See the following manuals and sample programs provided with EPSON Advanced Printer Driver Ver.5 for further details on using the driver and how to develop an application using the Status API functions.

- ☐ Install Manual
- ☐ Printer Manual
- ☐ Printer Specification for TM-T20
- ☐ Status API Manual

UPOS

This stands for **Unified Point of Service**. It is the standard specification of POS market, which defines drivers for controlling POS peripheral devices in various operation environments. Using the driver, you can develop POS system efficiently because you do not need to newly create commands. The following TM-T20 drivers that conform to UPOS are provided. Use one of them in accordance with your system environment.

- ☐ EPSON OPOS ADK
Suitable for an application that operates the printer under 32-bit version of Windows.
- ☐ EPSON OPOS ADK for .NET
Suitable for an application that operates the printer under Windows .NET environment.
- ☐ EPSON JavaPOS ADK for Windows
Suitable for an application that operates the printer under Windows Java environment.

See the following document for the information about how to create an environment and develop an application.

EPSON OPOS ADK

- ☐ OPOS Installation Manual

Application Development Information

- ☐ User's Manual
- ☐ Application Development Guide
- ☐ UnifiedPOS Retail Peripheral Architecture*
- ☐ Sample Program Guide

EPSON OPOS ADK for .NET

- ☐ OPOS ADK for .NET Installation Guide
- ☐ UnifiedPOS Retail Peripheral Architecture*
- ☐ User's Reference (SetupPOS)
- ☐ Application Development Guide (POSPrinter TM-T20)

EPSON JavaPOS ADK for Windows

- ☐ JavaPOS ADK Installation Guide

* This guide describes general information on how to control printers using the OPOS ADK (in the chapter **POS Printer** and **Appendix-A**). It does not describe Epson's specific functions.

ESC/POS Commands

The ESC/POS command is the printer command system developed by EPSON. This allows you to directly control the all functions of the printer. Using the commands with the driver, you can use a function that is not provided by the driver.

Compared to using the drivers, using the commands is difficult because you need to have knowledge about the detailed printer specifications and how to combine the commands.

Refer to the ESC/POS Quick Reference for a simple explanation of the ESC/POS command. A detailed explanation of the ESC/POS command is included in the ESC/POS Application Programming Guide. You can obtain this guide by signing a non-disclosure agreement with Epson.

Storing Logos



Caution:

- ☐ You cannot store UPOS SetBitmap logos and logos configured using TM-T20 Utility in the same printer.
- ☐ When a SetBitmap logo is stored, it overwrites and deletes an existing TM-T20 Utility logo.

The procedure to store logos differs by your system configuration as follows.

- ☐ When using the Advanced Printer Driver only
Use TM-T20 Utility to store logos.
- ☐ When using the OPOS and Advanced Printer Driver on the same system

Application Development Information

☐ OPOS setting

Using the OPOS SetupPOS, select **Bitmap** tab on the **Device Specific Settings** screen, and uncheck the checkbox for **NVRAM**.



☐ Storing logos in the printer

Use TM-T20 Utility to store logos in the printer.

Download

Drivers, utilities, and manuals can be downloaded from one of the following URLs.

For customers in North America, go to the following web site:

<http://www.epsonexpert.com/> and follow the on-screen instructions.

For customers in other countries, go to the following web site:

<https://download.epson-biz.com/?service=pos>

Select the product name from the "Select any product" pulldown menu.