

## **Advanced Printer Driver Ver.4**

## **Install Manual**

### Overview

An overview of the APD and the description of operating environment.

## Installation and Setup

Descriptions from installation of the APD to making prints with the TM printer.

#### Silent Installation

Descriptions of the silent install.



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## 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.



Provides information that must be observed to avoid damage to your equipment or a malfunction.



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.

## About this Manual

## Aim of the Manual

This manual is aimed to provide the necessary information to install the EPSON TM printer driver and Customer display (Advanced Printer Driver).

### Manual Content

The manual is made up of the following sections:

Chapter 1 Overview

Chapter 2 Installation and Setup

Chapter 3 Silent Installation

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## Overview

## Introduction

Advanced Printer Driver (hereafter called APD) is a Windows printer driver for EPSON TM printers and Customer Displays. You can display the Customer Display using the same operation as printing.

APD can monitor the status of the TM printer with Status API for use of POS embedded. However, the Customer Display is not supported.

The APD environment that is already set up can be restored (silent install) on another computer.

The printers locally connected to the computers can be used as shared printers (Point & Print), by using network function of the OS.

NOTE

Screens in Windows Vista are used for the descriptions in this manual.

## Package organization

The APD consists of the following packages.

APD installer (APD\_4xxE.exe)

A package to install the APD.

Manual/Sample installer (APDMANE\_x.exe)

A package to install APD manuals (PDF) and sample programs using the APD.

## Manual organization

#### Install Manual

This manual. Descriptions of the procedures from installing the APD to performing test print, adding printer drivers, and the silent install which is an automated APD installation.

#### **TM Printer Manual**

Descriptions of how to use the APD and its functions.

#### **Printer Specification**

Descriptions of the specifications of each printer driver.

#### TM-C100 Manual

Descriptions of how to use the TM-C100 printer driver and its functions.

### **Customer Display Manual**

Descriptions of how to use the Customer Display printer driver and its functions.

#### Status API Manual

Descriptions of how to get the status of the TM printer from the user application by using the Status API.

#### Devmode API / PRINTERINFO Manual

Descriptions of how to configure some printer functions on your application using the Devmode API. Explanations about PrinterInfo, which is one of the Windows functions, are also provided.

## Operating Environment

### Computer

Any PC/AT compatible machine running any of the following Windows systems.

#### OS

- Microsoft Windows Vista SP1 (32bit) English version
- Microsoft Windows XP Professional SP3 (32bit) English version
- Microsoft Windows XP Embedded SP2 English version

The following components are required.

Volume Shadow Copy Service

System Restore Core
OLE Dialog Interfaces
Local Printing Support

Task Scheduler (Required for USB driver installation)
Primitive: DbgHelp (Required for USB driver installation)

Communications Port (If the Computer has no serial or parallel port, one of them

must be installed manually.)

Primitive: Winhlp32 Required for help file browsing)

After installing the components listed above, perform a dependency check for the components using the utility of the Windows XP Embedded (Target Designer). For more details, ask your OS distributors.



OSs other than those listed above are not supported. Also, it cannot be used in the Terminal Server environment.

### .NET Framework Version

For .NET environment, use in the following environment.

- .NET Framework 2.0 or later.
- For Windows Vista, .NET Framework 3.0 or later is installed.

#### Interface

The following interfaces are supported with the APD.

Interface	Descriptions
Parallel	-
Serial	-
USB	USB 2.0 compliant (Full-Speed 12 Mbps operation. High-Speed operation is not possible.)
Ethernet	10/100 Base-T (To configure the settings of IP Address, see the UB-E02 Technical Reference Guide.)
Wireless LAN	IEEE 802.11b (To configure the settings of IP Address, see the UB-R02 Technical Reference Guide.)

Interfaces only for the Customer Display or Drawer can be mounted on some TM printer models.

For information on the interfaces available on your TM printers, ask your sales representative.

## **Application**

The APD supports direct printing from the Windows applications. No programming is required for printing directly from commercial applications, such as word processing or spread sheet.

When you want to receive TM printer statuses such as paper out errors at your application, use the Status API. In this case, you need to develop the applications to incorporate the monitoring function.

## Supported Models

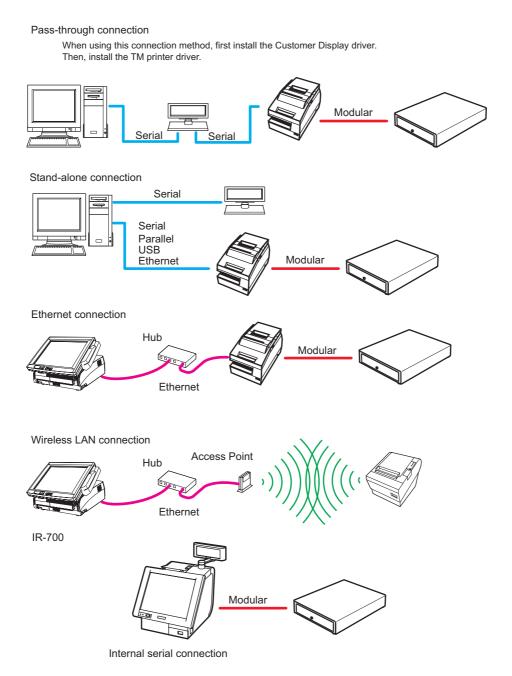
APD 4.xx supports the following models.

DM-D10X/20X	DM-D110/210	DM-D500	TM-C100	TM-H5000II
TM-H5200	TM-H6000II	TM-H6000III	TM-J2100	TM-J7100
TM-J7600/7500	TM-L60II	TM-L90	TM-L90 Peeler	TM-P60
TM-P60 Peeler	TM-T70	TM-T88III	TM-T88IV	TM-T90
TM-U120	TM-U220	TM-U230	TM-U295	TM-U375
TM-U590	TM-U675	TM-U950	BA-T500	EU-T300
EU-T400	EU-T500			

## Connection Pattern

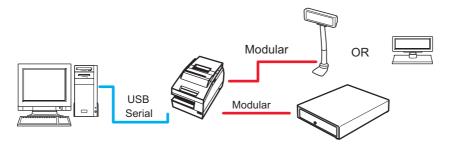
## When connecting the Customer Displays or the Cash Drawers to the TM printers.

The connection patterns shown below are available depending on the TM printer interface. For the pass-through connection or Y-connection, be sure to install the drivers in the correct order.



#### Pass-through (Y) connection

When using this connection method, first install the TM printer driver. Then, install the Customer Display driver.



CAUTION

If you use a connection with interface conversion connector or interface expanded board, the operation is not guaranteed.



- Select the appropriate connection patterns for each TM printer model (interface specification) and configure the communication settings of each interface.
- Use DIP switch to configure communication settings of the TM printer and the Customer Display. For more details, see the manuals bundled with the products.

## Connecting cable

For the Serial connection, use a cable configured as follows.

D-Sub	25P(TM)	D-Sub 9F	P(PC)
Pin	Signal	Signal	Pin
1	FG TXD	DCD	1
2		TXD	3
3	RXD	 - RXD	2
20	DTR	 - DTR	4
6	DSR	DSR	6
4	RTS	 - RTS	7
5	CTS	- CTS	8
7	GD	- GD	5
25	RESET	RI/RESET	9

## Restrictions

- The APD cannot coexist with OPOS on a computer at the same time.
- When using the printer driver for EPSON Terminal Printers (laser printer, ink-jet printer and others) or EPSON printer window together with the APD, installation and uninstallation must be performed in the following order:

#### [Installation]

- 1. EPSON Terminal Printer driver
- 2. APD

#### [Uninstallation]

- 1. APD
- 2. EPSON Terminal Printer driver

If you want to overwrite the EPSON Terminal Printer driver after the APD is installed, uninstall the APD first and then overwrite the EPSON Terminal Printer driver.

- For a USB connection, the printer driver can be installed by Plug and Play after installing the APD; however, the printer driver cannot be added when the TM printer is offline (cover open, paper out, and so on.) When the printer recovers from the offline status, it will be added.
- The maximum number of printers that can be connected simultaneously through a USB connection is 8.
- When a Parallel interface TM printer is connected to Windows XP, a Plug and Play request window pops up and "EPSON TM-P2.01" is added in Other devices of the Device manager. Do not perform [Uninstall] or [Update Driver Software] for this device. When a Parallel interface TM printer is connected to the computer prior to the driver installation, the computer detects "EPSON TM-P2.01", but you should not uninstall or update, just click [Cancel]. (It is added to Other device in the Device manager, and deleted when the driver is installed.)

When you connect a TM printer with parallel interface before installing the driver, "EPSON-P2.01" is detected. In such case, just click "Cancel" and not select "Uninstall" or "Update Driver Software". (It is added to "Other device" in the Device manager, however, automatically deleted after the driver is installed.)

## Manuals/Sample Programs

Manuals and sample programs are provided in a package separate from the APD.

#### Installation

Follow the procedures below to install the manuals and sample programs.

CAUTION

Install manuals/sample programs after installing the APD.

- Double click the [Manual/Sample Installer] icon to start the installation. ■
- **2** The Install Shield Wizard screen appears. Click the [Next] button.
- The "License Agreement" screen appears. Read the content and select "I accept the terms of the license agreement." Then click the [Next] button.
- The "Select Features" screen appears. Select "Manual" or "Sample"; then click the [Next] button."
- The "Ready to install the Program" screen appears. Click the [Install] button. The installation of manuals or sample programs starts.
- The "Install Shield Wizard Complete" screen appears. Click the [Finish] button. Installation ends.
- **7** Select from [Start]-[All Programs]-[EPSON]-[EPSON Advanced Printer Driver 4] and open [Manual]/[Sample Program]. The screen to select manuals and sample programs appears.

### Uninstallation

Follow the procedures below to uninstall manuals and sample programs.

CAUTION

Uninstall manuals/sample programs before uninstalling the APD.

- Select from [Start]-[Control Panel] and open [Uninstall a program].
- The "Program and Features" screen appears. Click the [EPSON APD4 Sample&Manual] button.
- The uninstallation confirmation screen appears. Click the [Yes] button. Manuals and sample programs are uninstalled.
- ⚠ Click the [Finish] button. Installation ends.

## Installation and Setup

This chapter describes the procedures from the installation to execution of test print. The uninstallation procedure (page 27) and various maintenance procedures after installation (page 51) are also provided.



- · Install with Administrator privileges.
- Do not connect the TM printer, until installation of the APD completes.
- Close all running applications before the installation.

### Notes on upgrading from APD 2.xx, 3.xx

APD 2.xx or 3.xx needs to be uninstalled in order to install APD 4.xx. Keep in mind the following points.

- When you install APD 4.xx to a computer on which APD 2.xx or 3.xx has been installed, the previous version is automatically uninstalled before the installation of APD 4.xx.
- Some printers do not support APD 4.xx. Make sure that your printer supports APD 4.xx. If you are using such printer and install APD 4.xx, the printer becomes unusable on your system.

## Installation methods

The following methods are available to install the APD.

Standard Installation

page 18

This is a standard method to install the APD.

Use this method also when you connect the Customer Display with the stand-alone connection.

- *Installation when connecting Customer Display to TM printer* page 29

  When you make pass-through or Y-connection (page 11) to use one port for your TM printer and Customer Display, their drivers should be installed in the specified order.
- Plug and Play page 39

TM printer with USB interface can be added as a printer device on a computer on which the APD is already installed (standard or custom install).

• Custom installation page 41

This allows you to select specific functions and port drivers to install the APD.

• Installation for sharing the printer page 46

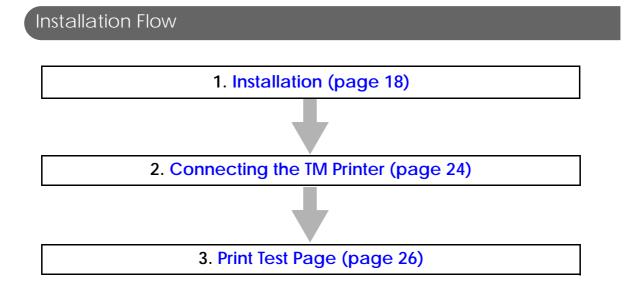
This method installs a printer to be shared (Point & Print).

• Silent installation page 57

This allows you to copy the APD environment to other computers.

## Standard Install

This is a standard method to install the APD. Under normal conditions, use this method.

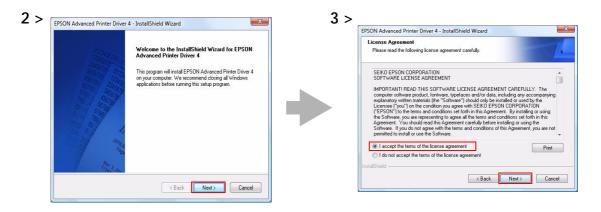


### Installation

Follow the procedure below.



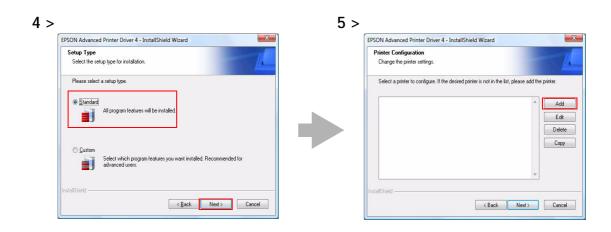
- Double click the [APD] icon and start the installation.
- The Install ShieldWizard screen appears. Click the [Next] button.
- The "License Agreement" screen appears. Read the content and select "I accept the terms of the license agreement". Then click the [Next] button.



- The "Setup Type" screen appears. Select "Standard", then click the [Next] button.
- The "Printer Configuration" screen appears. When installing the printer driver as well as the APD, click the [Add] button. When you want to install the printer driver later, click the [Next] button and proceed to Step 11.

NOTE

- For the USB interface, installing the printer driver at Step 5 is not necessary, the printer driver will be installed by Plug and Play function of the computer after APD driver is installed.
- Click the [Copy] button to install more than one of the same printer driver. Up to 100 drivers can be copied. However, you can connect and use a maximum of 8 printers.

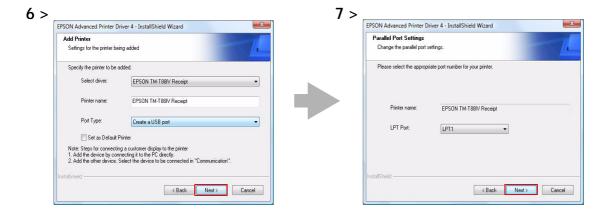


The "Add Printer" screen appears. Configure the printer driver and port to use, and click the [Next] button.

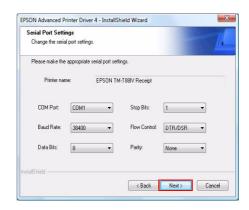
Setting		Description
Select driver	Select the printer driver to be	installed.
Printer name	The printer driver name. This is	S
	Do not use Unicode/2-byte c	haracters for the name.
Port Type	Select the type of interface to	o connect the computer and printer.
	Create a Parallel port:	Proceed to Step 7.
	Create a Serial port:	Proceed to Step 8.
	Create an Ethernet port:	Proceed to Step 9.
	Create a USB port:	Proceed to Step 10.
Set as Default Printer	Check when configuring the Windows applications.	ne printer as that normally used from the

7 The "Parallel Port Settings" screen appears. Configure the settings of the Parallel port and click the [Next] button. Proceed to Step 10.

Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
LPT Port	Specify the number of parallel port used for connecting the printer. Usually, the port number is automatically displayed and no setting is required.



The "Serial Port Settings" screen appears. Configure the settings of the Serial port and click the [Next] button. Proceed to Step 10.



Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
COM Port	Specify the number of serial port used for connecting the printer.
Baud Rate	Specify the baud rate.
Data Bits	Specify the data bits.
Stop Bits	Specify the stop bits.
Flow Control	Specify the method of data flow between the computer and the printer.
Parity	Specify the parity.

The "Ethernet Settings" screen appears. Configure the IP Address of the TM printer and click the [Next] button. Proceed to Step 10.



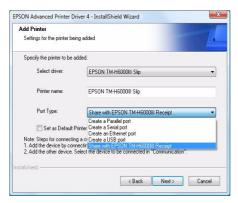
Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be
	changed.
IP address	Enter the printer IP address.
	To find the information about IP Address of the TM printer, see the Technical
	Reference Guide of each TM printer.

The display returns to the "Printer Configuration" screen. All the printer drivers, configured between Step 6 to Step 9, appear in the list.

To install multiple printer drivers, repeat Step 5 to Step 9. To install the same printer driver multiple times, click the [Copy] button.

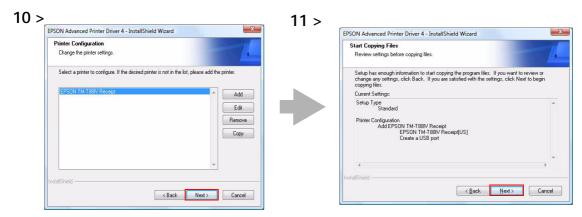
For the following installation combinations, select the setting of the first printer driver for the "Port Type" of the "Add Printer" screen (page 20) at Step 6 when you install the second or later printer drivers (example: "Share with EPSON TM-H6000III Receipt").

- Using both the Receipt driver and Slip driver for a hybrid printer
- Using peeler paper on one label printer and using full-label paper on another label printer
- Making multiple different print settings on multiple printer drivers
   (Example: using two drivers, specify portrait receipt printing on one driver and specify landscape receipt printing on another driver)

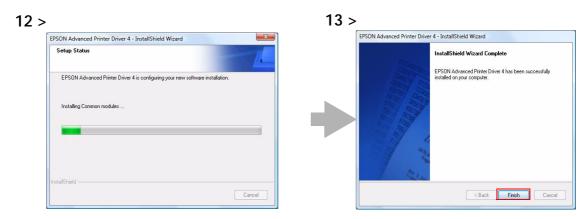


When the settings of the printer drivers are finished, click the [Next] button.

11 The "Start Copying Files" screen appears. See "Current Settings" to confirm the installation settings and then click the [Next] button.



- **12** The APD is installed.
- 13 The "InstallShield Wizard Complete" screen appears. Click the [Finish] button to finish installation.



When printer drivers are added at Step 5, confirm that the printer drivers are installed in [Hardware and Sound] - [Printers] from [Start] - [Control Panel]. When you have not added printer drivers at Step 5, no printer drivers are displayed in the [Printers].



NOTE

The location for printer drivers differs depending on the OS.

- Windows Vista
   [Start] [Control Panel] [Hardware and Sound] [Printers]
- Windows XP
   [Start] [Control Panel] [Printers and Faxes]

### Connecting the TM Printer

Before connecting the TM printer, set the Handshaking setting of the printer to "Receive buffer full".

Connect the TM printer. For information on how to connect the TM printer and configure the DIPSW, see the User's Manual supplied with the TM printer or the Technical Reference Guide.



- The maximum number of printers that can be simultaneously connected to multiple computers is 8.
- Turn off the power of the TM printer and wait for more than 5 seconds before turning on the power.

## Parallel (LPT) connection

When the printer is connected, the "New Hardware Detected. EPSON TM-P2.01" screen appears then the "Found New Hardware Wizard" screen. In this case, perform the following steps.

- Click the [Next] button to search for the driver.
- The driver is found and installed.

#### Serial (COM) connection

When using the serial connection, make sure the printer settings match the printer driver port settings (BaudRate/DataBits/Parity/StopBits/FlowControl).

## Ethernet (10/100 Base-T) connection

When using Ethernet connection, check the IP address setting. To configure the IP address, use the Epson TM Netwingconfig Utility. For details, see the "UB-E02 Technical Reference Guide."

## Wireless LAN (IEEE 802.11b) connection

When using wireless LAN connection, check the IP address setting. To configure the IP address, use the Epson TM Netwingconfig Utility. Also check the security measures and location sufficiently. For details, see the "UB-R02 Technical Reference Guide."

### **USB** connection

Do not connect the TM printer to the computer before installing the APD. In case you connect the TM printer first, delete the port drivers and reinstall the printer drivers without connecting the TM printer.



USB device requirements

- Maximum USB cable length is 5m, and 5 cascaded hubs maximum.
- Use the USB cable and the USB hubs compliant with USB2.0 specification (12Mbps).



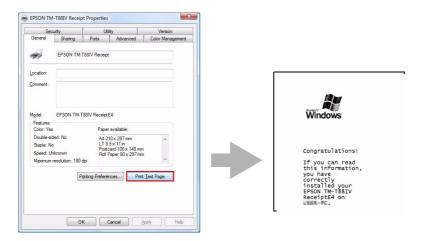
For USB power saving, see the C:\Program Files\EPSON\EPSON Advanced Printer Driver 4\TMUSB\readme\_e.txt generated after the APD installation.

### Print Test Page

After installing the APD, execute test print to check if the APD is properly installed and work normally.

Perform Print Test Page in the following procedures.

- Open the Printers screen from [Start] [Control Panel]. Right click the printer driver you have installed and select [Properties].
- The Properties screen of the printer appears. Click the [Print Test Page] button to start test printing.





- Print Test Page of the APD does not print all the data, unlike normal Print Test Page does.
- The Print Test Page prints characters and images as an image. The data volume is large for serial connection and may take longer to print compared with other interfaces.
- The following screen appears. If the test print was output correctly, click the [OK] button. If the test print was not output correctly, click the [Troubleshoot...] button and perform troubleshooting in accordance with the Windows message.



## Uninstallation

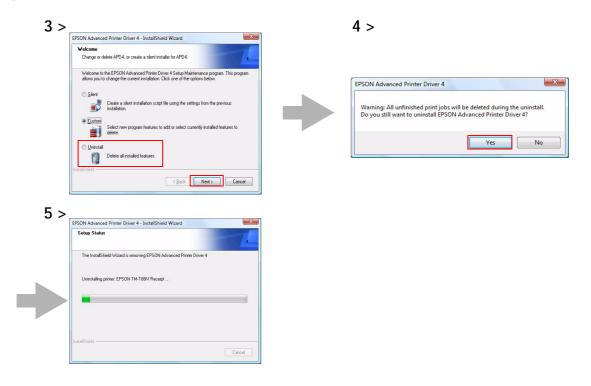
Uninstall everything related to APD (port drivers, printer drivers, and so on).



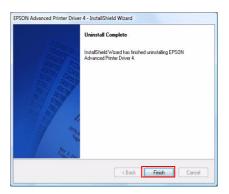
Do not uninstall printer drivers directly from [Start] - [Control Panel] - [Hardware and Sound] - [Printers]. Even if the icon (the printer driver) disappeared from the screen, APD is not uninstalled. To uninstall the printer driver, see "Uninstalling the printer driver" on page 54.

Follow the procedure below to uninstall the APD.

- End all the other operations on the computer.
- Select from [Start] [All Programs] [EPSON] [EPSON Advanced Printer Driver 4] and open [Change or delete APD4, or create a silent installer for APD4.]
- The "Welcome" screen appears. Select "Uninstall", then click the [Next] button.
- ⚠ The uninstallation confirmation screen appears. Click the [Yes] button.
- **5** The APD is uninstalled.



The "Uninstall Complete" screen appears. Click the [Finish] button to finish uninstallation.



# When connecting Customer Display to TM printer

This section explains how to install the APD when connecting a Customer Display to a TM printer.

#### Installation Flow

1. Installation when using pass-through connection (page 29) Installation when using Y-connection (page 33)



3. Test print/display (page 38)

### Installation when using pass-through connection



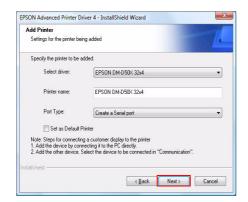
The pass-through connection is a connection method to connect the computer and the TM printer via the Customer Display.

The serial interface must be used and the communication settings on each of the three devices must be the same. For information on DIP switch / Memory switch settings on the Customer Display and the TM printer, see the User's Manual supplied with the TM printer or the Technical Reference Guide.

#### Follow the procedure below.

- Double click the [APD] icon and start the installation.
- The Install ShieldWizard screen appears. Click the [Next] button.
- The "License Agreement screen" appears. Read the content and select "I accept the terms of the license agreement". Then click the [Next] button.
- The "Setup Type" screen appears. Select "Standard", then click the [Next] button.
- The "Printer Configuration" screen appears. Click the [Add] button.
- The "Add Printer" screen appears. Select a printer driver and port to be used for the Customer Display, and click the [Next] button.

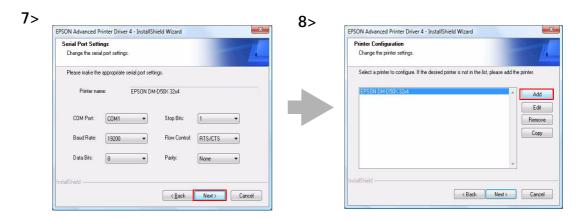
Setting	Description
Select driver	Select the printer driver for the Customer Display.
Printer name	The name of the driver for the Customer Display.
	Do not use Unicode/2-byte characters for the name.
Port Type	Select an interface to use for connecting the Customer Display.
	Select "Create a Serial port".
Set as Default Printer	Check when configuring the printer as that normally used from the
	Windows applications.



7 The "Serial Port Settings" screen appears. Configure the settings of the Serial port and click the [Next] button.

Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
COM Port	Specify the number of serial port used for connecting the printer.
Baud Rate	Specify the baud rate.
Data Bits	Specify the data bits.
Stop Bits	Specify the stop bits.
Flow Control	Specify the method of data flow between the computer and the printer.
Parity	Specify the parity.

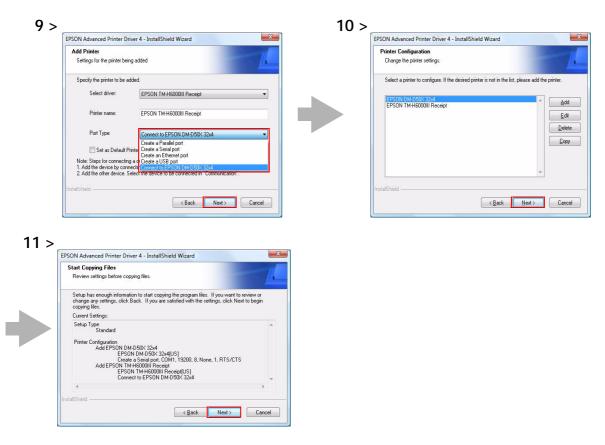
The display returns to the "Printer Configuration" screen. Click the [Add] button to add a printer driver for the TM printer.



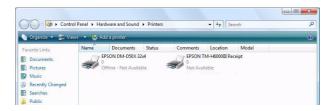
The "Add Printer" screen appears. First select a printer driver to use for the TM printer. Then, select the Port Type setting same as that for the Customer Display made at Step 6 to 7 (example: "Connect to EPSON DM-D50X 32x4"), and click the [Next] button.

Setting	Description
Select driver	Select the printer driver to be installed.
Printer name	The printer driver name. This is changeable.  Do not use Unicode/2-byte characters for the name.
Port Type	Select the type of interface to connect the computer and printer.
Set as Default Printer	Check when configuring the printer as that normally used from the Windows applications.

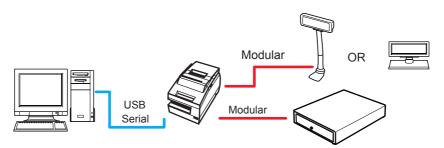
- 10 The display returns to the "Printer Configuration" screen. Click the [Next] button.
- 11 The "Start Copying Files" screen appears. See "Current Settings" to confirm the installation settings and then click the [Next] button.



- **12** The APD is installed.
- 13 The "InstallShield Wizard Complete" screen appears. Click the [Finish] button to finish installation.
- 14 In [Start] [Control Panel] [Hardware and Sound] [Printers], check that the specified printer driver and Customer Display driver are correctly installed.



## Installation when using Y-connection



The Y-connection is a connection method to connect the computer and the Customer Display via the TM printer.

The available interfaces of the computer and the TM printer are USB and serial. The TM printer and the Customer Display should be connected using the serial interface, and the modular cable of the Customer Display should be connected to the DM-D connector on the printer.

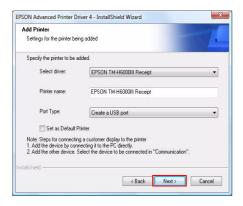
Set 19200 bps for the communication speed for the Customer Display.

When turning on the Customer Display and the TM printer, first turn on the Customer Display, and then turn on the printer.

For information on DIP switch / Memory switch settings on the Customer Display and the TM printer, see their Technical Reference Guide supplied with your model.

#### Follow the procedure below.

- Double click the [APD] icon and start the installation.
- The Install ShieldWizard screen appears. Click the [Next] button.
- The "License Agreement" screen appears. Read the content and select "I accept the terms of the license agreement". Then click the [Next] button.
- The "Setup Type" screen appears. Select "Standard", then click the [Next] button.
- The "Printer Configuration" screen appears. Click the [Add] button.
- The "Add Printer" screen appears. Select a printer driver and port to be used for the TM printer, and click the [Next] button.

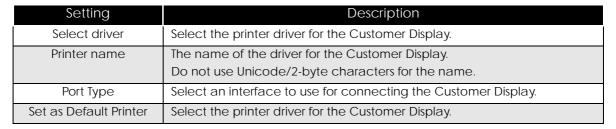


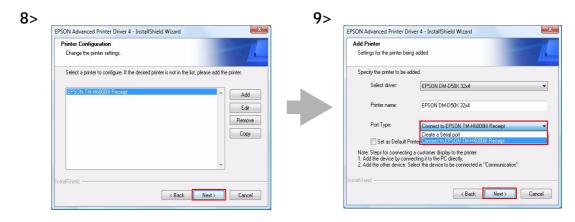
Setting	Description
Select driver	Select the printer driver to be installed.
Printer name	The printer driver name. This is changeable.  Do not use Unicode/2-byte characters for the name.
Port Type	Select the type of interface to connect the computer and printer.  Create a Serial port: Proceed to Step 7.  Create a USB port: Proceed to Step 8.
Set as Default Printer	Check when configuring the printer as that normally used from the Windows applications.

7 The "Serial Port Settings" screen appears. Configure the settings of the Serial port and click the [Next] button.

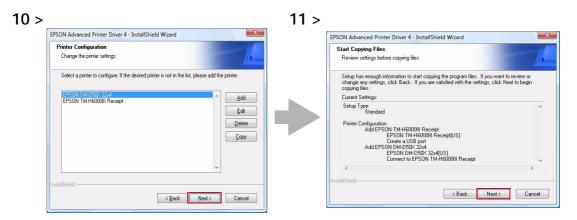
Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
COM Port	Specify the number of serial port used for connecting the printer.
Baud Rate	Specify the baud rate.
Data Bits	Specify the data bits.
Stop Bits	Specify the stop bits.
Flow Control	Specify the method of data flow between the computer and the printer.
Parity	Specify the parity.

- The display returns to the "Printer Configuration" screen. Click the [Add] button to add a printer driver for the Customer Display.
- The "Add Printer" screen appears. First select a printer driver to use for the Customer Display. Then, select the Port Type setting same as that for the TM printer made at Step 6 to 7 (example: "Connect to EPSON TM-H6000III Receipt"), and click the [Next] button.





- 10 The display returns to the "Printer Configuration" screen. Click the [Next] button.
- 11 The "Start Copying Files" screen appears. See "Current Settings" to confirm the installation settings and then click the [Next] button.



- 19 The APD is installed.
- 13 The "InstallShield Wizard Complete" screen appears. Click the [Finish] button to finish installation.
- 14 In [Start] [Control Panel] [Hardware and Sound] [Printers], check that the specified printer driver and Customer Display driver are correctly installed.



#### Connecting the devices

Confirm the following before connecting devices (TM printer, Customer Display)

- Set the Handshaking setting of the printer to "Receive buffer full".
- Configure the DIPSW when you connect the DM-D500 with the Y-connection.

Connect the TM printer. For information on how to connect the TM printer and configure the DIPSW, see the User's Manual supplied with the TM printer or the Technical Reference Guide.



- The maximum number of printers that can be simultaneously connected to multiple computers is 8.
- Turn off the power of the TM printer and wait for more than 5 seconds before turning on the power.

#### Serial (COM) connection

When using the serial connection, make sure the printer settings match the printer driver port settings (BaudRate/DataBits/Parity/StopBits/FlowControl).

#### **USB** connection

Do not connect the TM printer to the computer before installing the APD. In case you connect the TM printer first, delete the port drivers and reinstall the printer drivers without connecting the TM printer.



USB device requirements

- Maximum USB cable length is 5m, and 5 cascaded hubs maximum.
- Use the USB cable and the USB hubs compliant with USB2.0 specification (12Mbps).

NOTE

For USB power saving, see the C:\Program Files\EPSON\EPSON Advanced Printer Driver 4\TMUSB\readme\_e.txt generated after the APD installation.

#### Test print/display

Use the following print and display tests to check if the APD is properly installed and functions normally.

#### TM printer

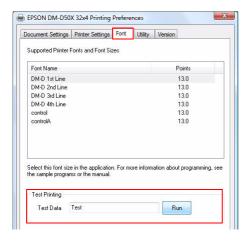
For TM printers, use the preset test print function to make a test print on the printers. (For details, see "Print Test Page" on page 26.)

#### **Customer Display**

For Customer Displays, use the preset test print function of the printer driver to send text data to the Customer Displays.

Follow the procedure below.

- Select from [Start] [Control Panel] [Hardware and Sound] and open [Printers] and then right click the target printer driver and select [Printing Preferences...].
- The Printing Preference screen appears. Select the [Font] tab.
- 3 Enter text data in the Test Data box to be displayed on the Customer Display, and click the [Run] button.



The text data entered in Step 3 will be displayed on the Customer Display when the APD has been properly installed.

# Plug and Play

Using Windows Plug and Play function, a printer driver can be easily installed on a computer on which the APD is already installed.



- The Plug and Play function is available only for the TM printer with the USB interface.
- Slip Rotate for EPSON TM-H6000III cannot be installed using the Plug and Play function.

#### Installation Flow

1. Connecting the TM Printer (page 40)

2. Installing the printer driver (page 40)

3. Print Test Page (page 26)

#### Connecting the TM Printer

Connect the TM printer following the procedure below.

- Check that "Receive buffer full" is set as a busy condition of the printer.
- Connect the TM printer.



- If you inadvertently connect the TM printer to the computer before installing the APD, delete the corresponding port driver and then, without connecting the TM printer, reinstall the printer driver.
- For information on how to connect the TM printer and check the DIP switch setting, see the User's Manual supplied with the TM printer or the Technical Reference Guide.



- The maximum number of printers that can be simultaneously connected to multiple computers is 8.
- Turn off the power of the TM printer and wait for more than 5 seconds before turning on the power.
- · USB device requirements
  - \* Maximum USB cable length is 5m, and 5 cascaded hubs maximum.
  - \* Use the USB cable and the USB hubs compliant with USB2.0 specification (12Mbps).

For details, see the C:\Program Files\EPSON\EPSON Advanced Printer Driver 4\TMUSB \readme\_e.txt generated after the APD installation.

## Installing the printer driver

The printer driver is automatically installed when the connected printer is turned on.

The following message appears in the lower right of the computer screen.

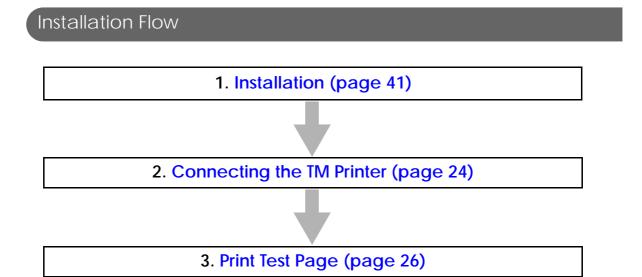




The printer driver cannot be added when the TM printer is offline (cover open, paper out, and so on.) When it recovers from the offline status, the printer driver will be added.

## Custom Install

The custom installation allows you to install the APD with specified port drivers and tools. Use this method when you do not want to install unnecessary port drivers or tools.



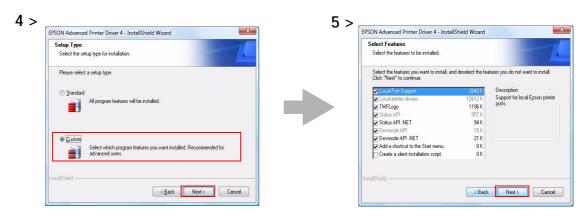
#### Installation

Follow the procedure below.

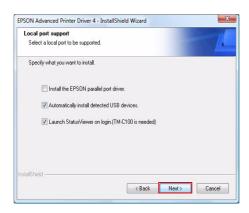
- Start installing by double clicking the APD icon.
- The InstallShield Wizard screen appears. Then click the [Next] button.
- The "License Agreement" screen appears. Read through it and if you accept its terms, select "I accept the terms of the license agreement" and click the [Next] button.

- The "Setup Type" screen appears. Then select "Custom" and click the [Next] button.
- The "Select Features" screen appears. Select the features of the APD you want to install, and then click the [Next] button. The following features are available.

Features	Description
TMFLogo	Installs the TMF logo tool that allows you to save bitmapped
	images to the TM printer.
Status API .NET	Supports Status API in .NET environment.
Devmode API .NET	Supports Devmode API in .NET environment.
Add a shortcut to the Start menu.	Shortcut icon to the APD will be added in the Start menu.
	Default setting : checked
Create a silent installation script.	Creates a script file for the silent install. For more details, see
	"Silent Installation" on page 57.
	Default setting: unchecked



The "Local port support" screen appears. Select the port driver to be installed and then click the [Next] button. For Serial or Ethernet interface, do not select any printer driver and click [Next] button.



ltem	Description
Install the EPSON parallel port driver.	When this is checked, EPSON Parallel Port Driver for the TM printer equipped with Parallel interface will be installed.
Automatically install detected USB devices.	When this is checked, the Plug and Play function will be enabled for the TM printer equipped with the USB interface. If this is not checked, the printer driver cannot be installed by the Plug and Play function.
Launch StatusViewer on login. (TM-C100 is needed)	When this is checked, the Status Viewer automatically starts to run when you login the computer.

- 7 The "Printer Configuration" screen appears. When installing the printer driver as well as the APD, click the [Add] button.
- The "Add Printer" screen appears. Configure the printer driver and port to use, and click the [Next] button.

Setting		Description
Select driver	Select the printer driver to be	installed.
Printer name	The printer driver name. This is changeable.	
	Do not use Unicode/2-byte c	haracters for the name.
Port Type	Select the type of interface to	connect the computer and printer.
	Create a Parallel port:	Proceed to Step 9.
	Create a Serial port:	Proceed to Step 10.
	Create an Ethernet port:	Proceed to Step 11.
	Create a USB port:	Proceed to Step 12.
Set as Default Printer	Check when configuring the Windows applications.	ne printer as that normally used from the

The "Parallel Port Settings" screen appears. Configure the settings of the Parallel port and click the [Next] button. Proceed to Step 12.

Setting	Description
Printer name	The printer name you entered at Step 8 is displayed. This cannot be changed.
LPT Port	Specify the number of parallel port used for connecting the printer. Usually, the port number is automatically displayed and no setting is required.

10 The "Serial Port Settings" screen appears. Configure the settings of the Serial port and click the [Next] button. Proceed to Step 12.

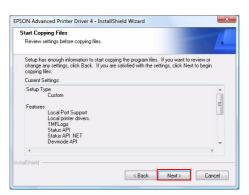
Setting	Description
Printer name	The printer name you entered at Step 8 is displayed. This cannot be changed.
COM Port	Specify the number of serial port used for connecting the printer.
Baud Rate	Specify the baud rate.
Data Bits	Specify the data bits.
Stop Bits	Specify the stop bits.
Flow Control	Specify the method of data flow between the computer and the printer.
Parity	Specify the parity.

11 The "Ethernet Settings" screen appears. Configure the IP Address of the TM printer and click the [Next] button. Proceed to Step 12.

Setting	Description
Printer name	The printer name you entered at Step 8 is displayed. This cannot be
	changed.
IP address	Enter the printer IP address.
	To find the information about IP Address of the TM printer, see the Technical
	Reference Guide of each TM printer.

The display returns to the "Printer Configuration" screen. All the printer drivers, configured between Step 8 to Step 11, appear in the list. To install multiple printer drivers, repeat Step 7 to Step 11. To install the same printer driver multiple times, click the [Copy] button. When the settings of the printer drivers are finished, click the [Next] button.

13 The "Start Copying Files" screen appears. See "Current Settings" to confirm the settings to be installed and then click the [Next] button.



- **14** The APD is installed.
- The "InstallShield Wizard Complete" screen appears. When you click the [Finish] button, the installation ends.

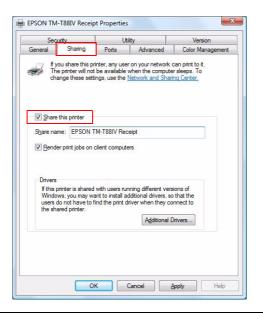
#### Shared Printer

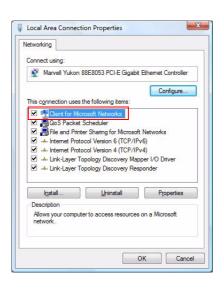
The APD4.xx allows you to share the TM printer with multiple users. This section explains how to install the APD on the computer that uses the printer shared on a network. The uninstallation procedure is also provided.

#### Installation

Before installing the printer to be shared, check the followings.

- Confirm that the printer is set to "Share the printer" on the computer that the printer to be shared is connected with the local connection.
- Confirm that Client for Microsoft Networks is installed on the computer that the printer to be shared is connected with the local connection and computer that the APD is installed.





NOTE

When multiple users on a single computer use the shared printer, the printer driver should be installed for each user account.

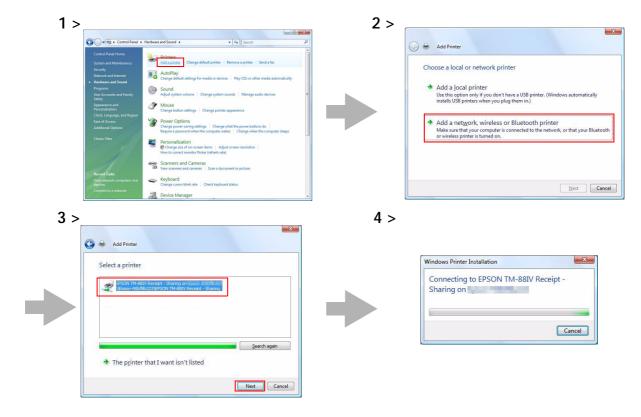
#### Follow the procedure below.

• From [Start] - [Control Panel] - [Hardware and Sound], select [Add a printer].

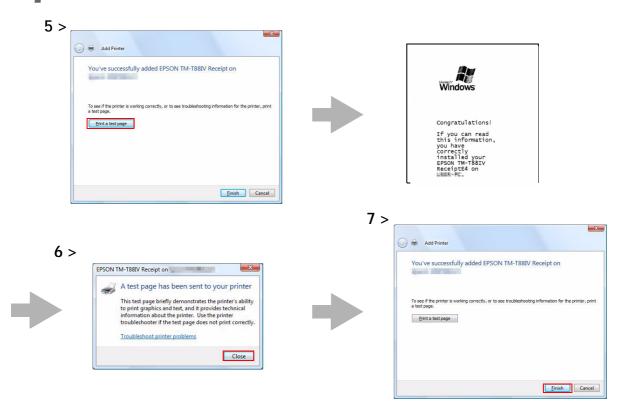
NOTE

The path varies from OS to OS. See the following.

- Windows Vista
   [Start] [Control Panel] [Hardware and Sound] [Add a printer]
- Windows XP [Start] - [Control Panel] - [Add a printer]
- The "Choose a local or network printer" screen appears. Select [Add a network, wireless or Bluetooth printer].
- The "Select a printer" screen appears. Select a printer to be shared on the displayed list, and click the [Next] button.
- ⚠ The selected shared printer is installed.



- Click the [Print a test page] button to check if the printer functions normally.
- The following screen appears. If the test print was output correctly, click the [OK] button. If the test print was not output correctly, click the [Troubleshoot...] button and perform troubleshooting in accordance with the Windows message.
- **7** Click the [Finish] button to finish the installation.



In [Start] - [Control Panel] - [Hardware and Sound] - [Printers], check that the specified printer driver is correctly installed.

#### Uninstallation

Uninstalling the shared printer requires two steps; first by the computer user and the second by the user having administrator privilege.

1. User (deleting the printer) (page 49)

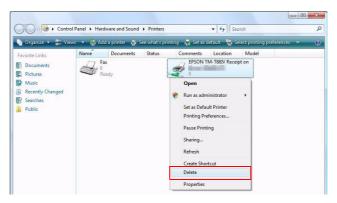


2. Administrator privilege user (uninstalling the APD) (page 50)

#### User (deleting the printer)

Delete the printer driver on the computer. This should be made by each of the users. Follow the procedure below.

- From [Start] [Control Panel] [Hardware and Sound], select [Printers].
- Right click on the printer driver to be deleted and select [Delete].

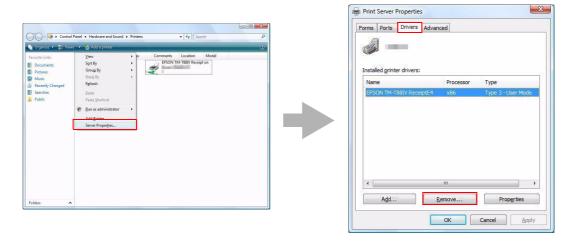


## Administrator privilege user (uninstalling the APD)

Uninstall the APD. This should be made by the user having administrator privilege. For more details about uninstallation, see "Uninstallation" on page 27.

When performing the uninstallation on a computer on which the APD is not installed, delete the printer in the print server property. Follow the procedure below.

- From [Start] [Control Panel] [Hardware and Sound], select [Printers].
- **2** Right click on the screen and select [Server Properties...].
- The "Print Server Properties" screen appears. Select the [Drivers] tab.
- A Right click on the printer driver to be deleted and select [Remove].



# Maintenance after Installing the APD

Maintenance procedures after the APD is installed.

- Adding the printer driver
- Uninstalling the printer driver
- Replacing a printer
- Changing the port settings of the TM printer

#### Adding the printer driver

Follow the procedures below to install the printer driver.



You cannot add the printer drivers directly from [Start] - [Control Panel] - [Hardware and Sound] - [Printers].

- Select from [Start] [All Programs] [EPSON] [EPSON Advanced Printer Driver 4] and open [Change or delete APD4, or create a silent installer for APD4.]
- The "Welcome" screen appears. Then select "Custom" and click the [Next] button.
- The "Select Features" screen appears. Select the features of the APD you want to install, and then click the [Next] button. The following features are available.

Features	Description
TMfLogo	Installs the TMF logo tool that allows you to save bitmapped images to the TM printer.
0	
Status API .NET	Supports Status API in .NET environment.
Devmode API .NET	Supports Devmode API in .NET environment.
Create shortcut on Start menu.	Shortcut icon to the APD will be added in the Start menu.
	Default setting : checked
Create a silent install script.	Creates a script file for the silent install. For more details, see
	"Silent Installation" on page 57.
	Default setting : unchecked

The "Local Port Support" screen appears. Select the port driver to be installed and then click the [Next] button. For Serial or Ethernet interface, do not select any printer driver and click [Next] button.

Item	Description
Install EPSON parallel port driver.	When this is checked, EPSON Parallel Port Driver for the TM printer equipped with Parallel interface will be installed.
Automatically install detected USB devices.	When this is checked, the Plug and Play function will be enabled for the TM printer equipped with the USB interface. If this is not checked, the printer driver cannot be installed by the Plug and Play function.
Launch StatusViewer on login. (TM-C100 is needed)	When this is checked, the Status Viewer automatically starts to run when you login the computer.

- The "Printer Configuration" screen appears. When installing the printer driver as well as the APD, click the [Add] button.
- The Add Printer screen appears. Configure the printer driver and port to use, and click the [Next] button.

Setting		Description
Select driver	Select the printer driver to be	e installed.
Printer name	The printer driver name. This i	s changeable.
	Do not use Unicode/2-byte o	characters for the name.
Communication	Select the type of interface to connect the computer and printer.	
	Create a Parallel port:	Proceed to Step 7.
	Create a Serial port:	Proceed to Step 8
	Create an Ethernet port:	Proceed to Step 9.
	Create a USB port:	Proceed to Step 10.
Set as Default Printer	Check when configuring t Windows applications.	he printer as that normally used from the

7 The "Parallel Port Settings" screen appears. Configure the settings of the Parallel port and click the [Next] button. Proceed to Step 10.

Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
LPT Port	Specify the number of parallel port used for connecting the printer. Usually, the port number is automatically displayed and no setting is required.

The "Serial Port Settings" screen appears. Configure the settings of the Serial port and click the [Next] button. Proceed to Step 10.

Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
COM Port	Specify the number of serial port used for connecting the printer.
Baud Rate	Specify the baud rate.
Data Bits	Specify the data bits.
Stop Bits	Specify the stop bits.
Flow Control	Specify the method of data flow between the computer and the printer.
Parity	Specify the parity.

The "Ethernet Settings" screen appears. Configure the IP Address of the TM printer and click the [Next] button. Proceed to Step 10.

Setting	Description
Printer name	The printer name you entered at Step 6 is displayed. This cannot be changed.
	changed.
IP address	Enter the printer IP address.
	To find the information about IP Address of the TM printer, see the
	Technical Reference Guide of each TM printer.

- The display returns to the "Printer Configuration" screen. All the printer drivers, configured between Step 6 to Step 9, appear in the list.

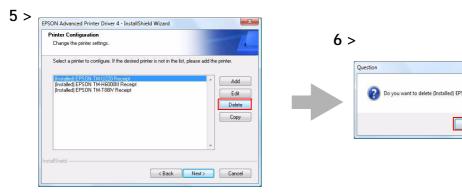
  To install multiple printer drivers, repeat Step 5 to Step 9. To install the same printer driver multiple times, click the [Copy] button.

  When the settings of the printer drivers are finished, click the [Next] button.
- 11 The "Start Copying Files" screen appears. Confirm the printer driver to be installed which is displayed in "Current Settings" and then click the [Next] button.
- 12 The printer driver added in the list at Step 10 is installed.
- The "Maintenance Complete" screen appears. When you click the [Finish] button, the process of installing the printer driver ends.

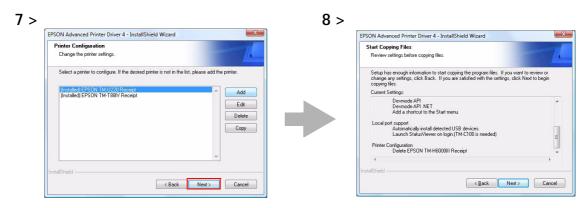
## Uninstalling the printer driver

Follow the procedures below to uninstall the printer driver.

- Select from [Start] [All Programs] [EPSON] [EPSON Advanced Printer Driver 4] and open [Change or delete APD4, or create a silent installer for APD4.]
- The "Welcome" screen appears. Then select "Custom" and click the [Next] button.
- The "Select Features" screen appears. Click the [Next] button.
- ⚠ The "Local Port Support" screen appears. Click the [Next] button.
- The "Printer Configuration" screen appears. Select the printer diver from the list which you want to remove, and click the [Delete] button.
- A screen appears to confirm the remove action. Click the [Yes] button.



- 7 The display returns to the "Printer Configuration" screen. Click the [Next] button.
- The "Start Copying Files" screen appears. Confirm the printer driver to be removed which is displayed in "Current Settings" and then click the [Next] button.



- The printer driver removed in Step 5 to Step7 will be removed.
- 10 The "Maintenance Complete" screen appears. When you click the [Finish] button, the process of uninstalling the printer driver ends.

## Replacing a printer

When you replace the TM printers equipped with the same interface, beware of the following.

- Set the new TM printer's DIPSW as same as the previous TM printer's settings regardless of interface.
- If the memory switch is changed, see the User's Manual or the Technical Reference Guide of each TM printer.

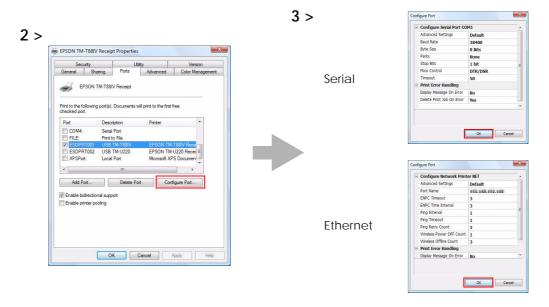
Configure the following settings for each interface.

Interface	Description
Parallel	No configuration is required after replacement.
Serial	With the DIPSW settings, if the settings of the Serial connection is same as previous TM printer, no configuration is required after replacement.
USB	No configuration is required after replacement.
Ethernet	When the new TM printer's IP Address is set as same as the previous TM printer's settings, no configuration is required.

## Changing the port settings of the TM printer

See the procedure below to change the port settings of the TM printer, such as changing serial settings of the serial connection, changing the IP Address of the TM printer connected by Ethernet, and so on. The port settings of the Epson port will be changed in this procedures.

- Select from [Start] [Control Panel] [Hardware and Sound] and open [Printers] and then right click the target printer driver and select [Properties].
- The property screen of the TM printer appears. Select the [Ports] tab and then click the [Configure Port...] button.
- The Configure Port screen appears. Then change the settings and click the [OK] button.



The display returns to the Properties screen. When you click the [OK] button, the changes you made becomes effective.

# Silent Installation

This chapter describes the procedures for the Silent Installation.

#### What Is a Silent Installation?

The silent installation is a method that copies the existing APD setup environment to other computers without user operation. There are the following two ways to perform the silent installation.

- Using the silent installation package (\*.exe)
   Only the corresponding printer driver is installed. On the environment created by this method, silent installation cannot be made.
- Using the APD (APD\_4xxE.exe) and the silent installation script file (\*.inf) Since the other printers are also copied, you can install the printer drivers for them. Silent installation is possible on the environment created by this method.



- To use the silent installation, Internet Explorer version 4.0 or later is required.
- When APD3 or APD4 have been already installed in the target computers, uninstall those before the silent installation.

This method is useful especially in the following cases:

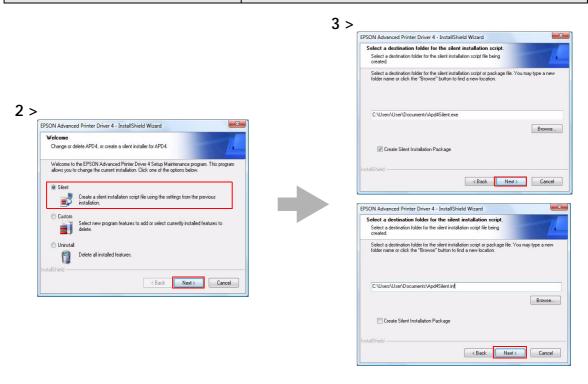
- When you set up multiple POS terminals with the identical settings, you can lighten the work load related to the setup operation.
- Even when any display is not available in the setup environment, you can setup.
- When the print error occurs in the POS terminal, you can recreate its APD environment in another computer by accessing and using its script file, and improve ease of the maintenance.

# Creating a Package or Script file

#### Create the file as follows:

- Select from [Start] [All Programs] [EPSON] [EPSON Advanced Printer Driver 4] and open [Change or delete APD4, or create a silent installer for APD4.]
- The "Welcome" screen appears. Select "Silent", then click the [Next] button.
- 3 The "Select a destination folder for the silent installation script." screen appears.
  - Specify the file type, file name, and the location to save the file, then click the [Next] button.

Setting	Description
Location to save the file and file name	Select where to save the created file.
Create silent installation package	Check this checkbox to create a package file.
	Uncheck this checkbox to create a script file.

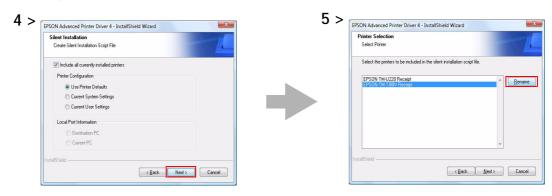


The "Silent Installation" screen appears. Select the configuration to be copied, and click the [Next] button.

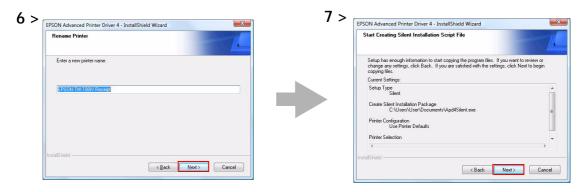
Description
Specify the printer driver to be copied. Proceed to Step 7 if you check
this checkbox. If not, proceed to Step 5.
Select the printer driver setting to be copied.
The Printing Defaults and the Printing Preferences (user settings) are the default settings.
• To access the Printing Defaults, select the [Advanced] tab in the property and click the [Printing Defaults] button.
• To access the Printing Preferences, select the [General] tab in the property and click the [Printing Preferences] button.
The property settings are the settings of the environment where the script file is created, and the Printing Preferences are the default settings. This copies the Printing Defaults to the copy destination
The property settings and the Printing Preferences are the settings of the environment where the script file is created. This copies the Printing Preference to the copy destination.

The "Printer Selection" screen appears. Select the printer driver to be copied. When you want to change the printer driver name, click the [Rename] button.

When not changing the printer driver name, click the [Next] button. Go to step 7.



- The "Rename Printer" screen appears. Change the printer driver name, and click the [Next] button.
- **7** The "Start Creating Silent Installation Script File" screen appears. The items you specified are displayed in the "Current Settings" box. Confirm them and click the [Next] button to create a script file.



The "Maintenance Complete" screen appears. Click the [Finish] button. The created script file for silent installation is stored in the location you specified at Step 3.

# Installer settings

With the following methods, the APD is automatically installed.

- Executing the silent installation command from a package file, an installer of application into which a script file and the APD are incorporated, or a batch file.
- Executing a package file.
- Executing the silent installation command from the command prompt after the script file and the APD installer are copied to another computer.

#### Package File

Use the following command to perform silent installation using a package file.

```
>[Package File Name(specified with the full path)]
```

Ex: D:\APD>Apd4Silent.exe

When checking the result of silent installation using a package file, check that the specified printer driver is correctly installed in [Start] - [Control Panel] - [Hardware and Sound] - [Printers].

## Script File

Use the following command to perform silent installation using a script file and the APD.

```
>[APD_4xxE.exe (specified with the full path)] [/s /f1 "Apd4Silent.inf (specified with the full path)"]
```

```
Ex: D:\APD>APD_400E.exe /s /f1"D:\APD\Apd4Silent.inf"
```

The result of silent installation using a script file can be checked by "Result Code" in a setup.log file created in the same location with the script file. The meanings of "Result Code" are as follows.

Result Code	Description
0	Completed successfully
-3	The APD has already been installed.
2	The files needed for silent installation could not be found.
1151	The OS does not support the APD.
1223	The silent installation was cancelled by the user.