

# TM-T88V

## Software User's Manual

#### Overview

Descriptions of the TM-T88V Software Installer features.

#### Installation

Descriptions of install and uninstall.

#### **Using the Printer Driver**

Descriptions of simple printing and useful functions.

#### **TM-T88V Utility**

Descriptions of the TM-T88V Utility.

#### **Application Development Information**

Describes how to control the printer and necessary information.

#### **Cautions**

- No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation.
- The contents of this document are subject to change without notice. Please contact us for the latest information.
- While every precaution has taken in the preparation of this document, Seiko Epson Corporation assumes no responsibility for errors or omissions.
- Neither is any liability assumed for damages resulting from the use of the information contained herein.
- Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third
  parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of:
  accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this
  product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating
  and maintenance instructions.
- Seiko Epson Corporation shall not be liable against any damages or problems arising from the use of any options or any consumable products other than those designated as Original EPSON Products or EPSON Approved Products by Seiko Epson Corporation.

#### **Trademarks**

EPSON® and ESC/POS® are registered trademarks of Seiko Epson Corporation in the U.S. and other countries.

MS-DOS<sup>®</sup>, Microsoft<sup>®</sup>, Win32<sup>®</sup>, Windows<sup>®</sup>, Windows Vista<sup>®</sup>, Visual Studio<sup>®</sup>, Visual Basic<sup>®</sup>, Visual C++<sup>®</sup>, and Visual C#<sup>®</sup> are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

## 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.

Copyright © 2010 - 2011 Seiko Epson Corporation. All rights reserved.

## 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 provides information on how to use TM-T88V Software & Documents Disc for the product users or development engineers who use the software.

#### **Manual Content**

The manual is made up of the following sections:

Chapter 1 Overview

Chapter 2 Installation

Chapter 3 Using the Printer Driver

Chapter 4 TM-T88V Utility

Chapter 5 Application Development Information

## **Contents**

■ For Safety	3
Key to Symbols	3
■ Restriction of Use	3
■ About this Manual	4
Aim of the Manual	
Manual Content	
■ Contents	5
Overview	
■ TM-T88V Software Installer	9
Drivers and Utilities to be Installed	
■ Support OS	10
■ Restrictions on Using Multiple Drivers on the Same System	11
■ How to Access the Manuals	12
■ Differences Depending on the OS	13
■ Viewing the User's Manual and Software Manual	14
■ Getting the URL of Epson Support Website	15
Installation	
■ Installation Types	17
■ Easy Install	18
Network Address Setting for Ethernet Printer	
Printer's Network Setting for Wireless LAN Connection	
Installing Advanced Printer Driver Ver. 3.04	
Configuring IP Address of the Printer Driver	35
■ Custom Install	36
Displaying the "Select Software" Screen	
Installing the Printer Driver	
Installing the OPOS ADK for .NET	43
Installing the JavaPOS ADKInstalling the Utility	
■ Update Mode	50

■ Uninstallation	52
Uninstalling the Windows Printer Driver	52
Uninstalling the TM-T88V Utility	
Uninstalling theTMNet WinConfig	
Uninstalling the EpsonNet Simple Viewer	
Uninstalling the TM Virtual Port Driver	
Uninstalling the OPOS ADK for .NET	
Uninstalling the JavaPOS ADK	
■ Replacing TM-T88III/IV with TM-T88V	57
Setting Advanced Printer Driver Ver.4.00 to 4.04	57
Using the Printer Driver	59
■ Printer Driver Access Methods and the Application Range	59
Accessing from the Printer Driver's Print menu	
Accessing from the Printer Driver's Properties	
Accessing from the Application's Print Setting Menu	
■ Language for Displaying Properties	
■ Making Printer Settings in an Application	62
■ Printing Characters	64
Printing Characters as a Graphic Image	65
Printing Characters using a Printer Font	
Advanced Font Settings	
■ Printing Printer Fonts in a .NET Environment	73
Substituting Fonts	
Printing Using a Printer Font	
Printing Barcodes/2D Code Fonts	
■ Printing a Barcode	77
Setting Barcode Fonts	
Printing a Barcode	79
■ Printing a 2D Code	80
Setting 2D Code Fonts	80
Printing a 2D Code	82
■ Logo Printing	83
Storing Logos	83
Configuring Logo Print Settings	
Printing a Logo	84
■ Halftone Settings for Image Data	85

■ Electronic Journal	86
Electronic Journal Settings	87
Printing a Stored File	
Searching for a Stored File	
Optional Buzzer	
Buzzer Settings	
■ Cash Drawer	
Opening Drawer with Printer Driver Setting	
■ Autocutter	
Making Autocutter Setting	92
TM-T88V Utility	03
11VI-100 V OIIIII Y	73
■ Overview	93
■ Starting the TM-T88V Utility	94
Starting the TM-T88V Utility	
Adding a Communication Port and Starting the TM-T88V Utility	
■ Current Settings	99
■ Operation Check	102
■ Storing Logos	103
Adding a Logo	105
■ Paper Reduction Settings	109
■ Automatic Paper Cut Settings	111
■ Printing Control Settings	113
■ Font	114
Optional Buzzer	
■ Communication I/F Settings	
Setting Backup/Restore	
Saving the Printer Settings to a File	
Restore the Settings to the Printer	
■ Acknowledgements	

Application Development Information12	
■ How to Control the Printer	125
Driver	125
ESC/POS Commands	126
■ Storing Logos	127
■ Download	128

## Overview

This chapter describes the specifications of TM-T88V Software & Documents Disc.

### TM-T88V Software Installer

TM-T88V Software Installer allows you to install various drivers and utilities for the TM-T88V printer.

#### Drivers and Utilities to be Installed

#### **Drivers**

- ☐ Advanced Printer Driver
  - Windows printer driver. The following versions are provided.
  - Advanced Printer Driver Ver.4.xx
  - Advanced Printer Driver Ver.3.04 (For Windows 2000)
- ☐ 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-T88V Utility
  - Allows you to check and configure the TM-T88V settings. You can also configure the IP address of the printer connected via Ethernet.
- ☐ TMNet WinConfig

This utility is for configuring network settings, such as IP address, of the printer connected to an Ethernet or Wireless LAN.

☐ 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-T88V Utility makes it possible to change the settings of TM-T88V connected to a client computer.

☐ EpsonTM Virtual Port Driver

This allows you to convert TM-T88V from serial/parallel to USB. When your POS application has a serial/parallel port of TM-T88V, and you want to connect TM-T88V via USB, you can use the USB-connected printer from the application as though the printer is serial/parallel 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/parallel port.

## Support OS

The following lists the supported operating systems for running the TM-T88V drivers and utilities.

- ☐ 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 (64 bit \*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 after installing the OPOS ADK.
- \*2 The printer driver for Windows 2000 is Advanced Printer Driver Ver.3.04. The OPOS ADK for .NET and the Epson TM Virtual Port Driver cannot be used under Windows 2000. TM-T88V Utility does not support the USB printer class TM-T88V.
- \*3 EpsonNet Simple Viewer and TMNet WinConfig are not supported.

## Restrictions on Using Multiple Drivers on the Same System

TM-T88V 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.

	TM-T88V Software Installer				
Before TM-T88V driver is installed	Advanced Printer Driver Ver.3.04	Advanced Printer Driver Ver.4.1 ${f x}$	OPOS ADK (TM-T88V)	OPOS ADK for .NET (TM-T88V)	JavaPOS ADK for Windows (TM-188V)
Advanced Printer Driver Ver.3	*	*	<b>A</b>	<b>A</b>	<b>A</b>
Advanced Printer Driver Ver.4.00 to 4.08	<b>A</b>	*	<b>^</b> *	<b>^</b> *	<b>^</b> *
Advanced Printer Driver Ver4.09 or later	<b>A</b>	*	•	•	•
OPOS ADK Ver.2.65 former	<b>A</b>	<b>A</b>	*	•	<b>A</b>
OPOS ADK Ver.2.66 or later	<b>A</b>	•	*	•	<b>A</b>
current OPOS ADK for .NET Ver.1.11.8 former	<b>A</b>	<b>A</b>	•	*	<b>A</b>
OPOS ADK for .NET Ver.1.11.9 or later	<b>A</b>	•	•	*	<b>A</b>
JavaPOS ADK Ver.1.11.8 former	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	*
JavaPOS ADK Ver.1.11.9 or later	<b>A</b>	•	<b>A</b>	<b>A</b>	*
TM-S1000 Driver	<b>A</b>	•	•	•	<b>A</b>
TM-J9000 OPOS ADK	<b>A</b>	•	•	•	<b>A</b>
TM-J9000 Advanced Printer Driver	<b>A</b>	•	•	•	<b>A</b>
TM-J9000 Status API	<b>A</b>	•	•	•	<b>A</b>
TMCOMUSB Ver.2	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
TMCOMUSB Ver.3 and Ver.4. or EpsonTM Virtual Port Driver Ver.5 or later	•	•	•	•	•
Epson InkJet Printer Driver	•	•	•	•	•

Supported

▲ : Not supported

\* : Can not be installed.

\* : TM-T88V 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.

- ☐ OPOS ADK [Start] - [All Programs] - [OPOS] - [Manual]
- ☐ OPOS ADK for .NET [Start] [All Programs] [EPSON OPOS for .NET] [Manual]
- ☐ JavaPOS ADK for Windows
  [Start] [All Programs] [Epson JavaPOS ADK] [Documentation]
- ☐ TM-T88V Utility
  [Start] [All Programs] [EPSON] [TM-T88V Software] [TM-T88V Utility] [User's Manual]
- ☐ TMNet WinConfig [Start] [All Programs] [EpsonNet] [TMNet WinConfig] [User's Guide]
- ☐ EpsonNet Simple Viewer [Start] [All Programs] [EpsonNet] [EpsonNet Simple Viewer] [User's Manual]

## Differences Depending on the OS

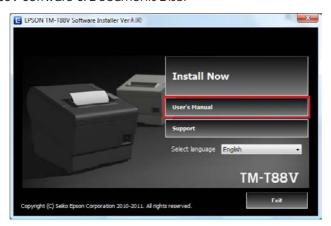
The content of the descriptions of some operations in this book may be different depending on the OS. See the following.

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

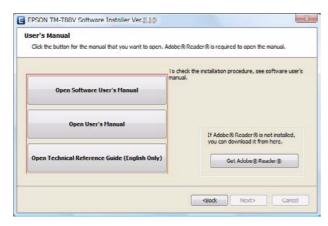
## Viewing the User's Manual and Software Manual

- ☐ User's Manual:
  - Describes how to set up TM-T88V hardware, what are included in the box, how to handle the hardware, compliant safety standards, safety precautions, and so on.
- □ Software User's Manual (this manual): Explains about TM-T88V Software & Documents Disc, how to install the driver, how to use the utilities, and so on.
- ☐ Technical Reference Guide:
  Provides all information necessary to develop, design, and/or install a system that uses TM-T88V, or to develop or design a printer application for TM-T88V.

  The following is how to view the manuals.
- 1 Insert the TM-T88V Software & Documents Disc to the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Install Now) button.
  - When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.



The "User's Manual" screen appears. Click the manual button you want to see.

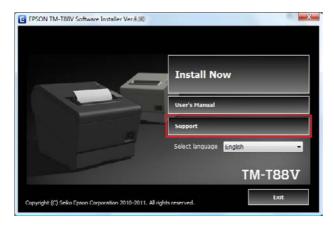


## Getting the URL of Epson Support Website

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

Insert the TM-T88V Software & Documents Disc to the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Support Information) button.

When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.



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



## Installation

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

p. 52



- Install with administrator privileges.
- Close all running applications before the installation.

## Installation Types

You can select the installation type from the following.

☐ Easy Install: p. 18

This is a standard installation, which installs the TM-T88V printer driver and TM-T88V Utility. If you are using an Ethernet / Wireless LAN connection, TMNet WinConfig and EpsonNet Simple Viewer are also installed.

☐ Custom Install: p. 36

You can select printer drivers and utilities you want to install. Select this installation type if you want to install the UPOS driver, JavaPOS driver, the printer driver manual, and sample programs and tools for developing programs.

☐ *Update mode*: → p. 50

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



- When installing, connect just one printer to the computer. Do not connect multiple printers.
- Turn off the printer and then start the installation.
- Insert the TM-T88V Software & Documents Disc into the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Install Now) button.



The displayed language can be changed from (Select language).

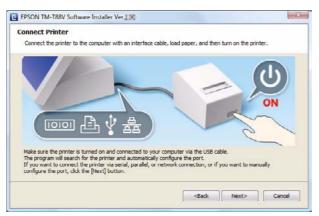
When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.



- The "License Agreement" screen appears. Read the content and select the "I accept the terms in the license agreement". Then click the (Next) button.
- The "Select Installation Type" screen appears. Click the (Easy Install) button.



The "Connect Printer" screen appears. Connect the computer to the printer, and turn the printer on.



When the USB connection between the computer and printer is established, a pop-up message; (Installing device driver software) appears on the task tray, and the setup is automatically started. Proceed to Step 10 when the setting is finished. When you connect the printer using an interface other than USB, or when installing the driver without connecting the printer, click the (Next) button.

The "Select Printer Language (Resident Character)" screen appears. Select the language of your printer and click the (Next) button.



The language can be checked in "Resident Character" that is printed in the self test. To start the self test, turn on the power button while holding down the FEED button with the paper roll cover closed. Continue holding down the FEED button until printing starts.



If you are using a Windows 2000 computer, proceed to Step 10.

The "Communication Port Settings" screen appears. The setting varies depending on the connection method.

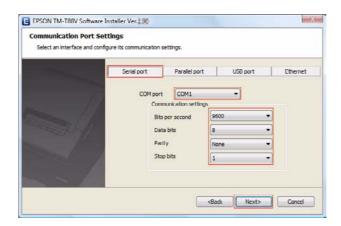
Serial connection	Proceed to Step 7.
Parallel connection	Click the (Parallel port) button. Select the LPT port and click the (Next) button. Proceed to Step 10.
USB connection	Click the (USB port) button, and then click the (Next) button. Proceed to Step 10.
Ethernet / Wireless LAN connection	Proceed to Step 8.

7 Click the (Serial port) button. Configure the communication settings, then click the (Next) button. Proceed to Step 10.

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



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

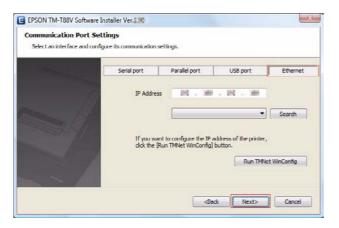


#### Click the (Ethernet) button.

When printer is already networked	Proceed to Step 9.
When using Ethernet	Click the (Run TMNet WinConfig) button and configure the printer's network setting using the TMNet WinConfig.   p. 23
When using Wireless LAN	Click the (Run TMNet WinConfig) button and configure the printer's network setting using the TMNet WinConfig.   p. 25
When configuring the network setting after installing the driver.	Proceed to Step 9.



When the TMNet WinConfig is not installed, the (Cannot start TMNet WinConfig. Do you want to install it now?) message appears. Click the (Yes) button to install it.

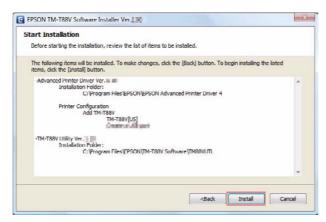


Onfigure the IP address of the printer on (IP Address) and then click the (Next) button. Proceed to Step 10.

When configuring the network setting after installing the driver, assign the printer driver port IP address you configure here to the printer, or change the printer driver port IP address to the one that will be set to the printer.

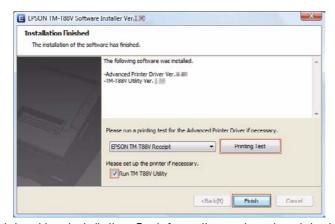
- 10 The "Start Installation" screen appears. The driver and utility to be installed are listed.
  - Advanced Printer Driver Ver. 4.xx
  - TM-T88V Utility Ver. x.xx
  - TMNet WinConfig Ver. x.xx (Only for Ethernet/Wireless LAN connection)
  - EpsonNet Simple Viewer (Only for Ethernet/Wireless LAN connection) Click the (Install) button to start the installation.

If you are using a Windows 2000 computer, installation of Advanced Printer Driver Ver. 3.04 automatically starts after TM-T88V Utility is installed. pp. 33



◀ ¶ 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-T88V Utility). Then click the (Finish) button to end the installation.
When setting the printer using TM-T88V Utility continuously	Check the (Run TM-T88V Utility) checkbox (the box is checked by default). Click the (Finish) button to end the installation. The TM-T88V Utility starts to run. TM-T88V Utility (p.93)



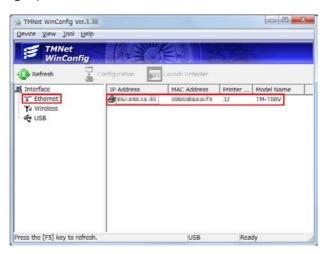
This is the end of the printer driver installation. For information on how to print using the printer driver;

→ Using the Printer Driver (p.59).

### **Network Address Setting for Ethernet Printer**

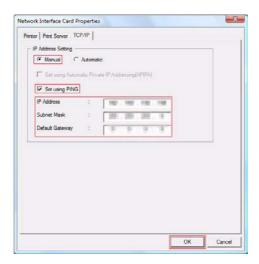
If you are using an Ethernet connection, configure the IP address using the TMNet WinConfig.

- 1 Start the TMNet WinConfig.
  When the TMNet WinConfig is already installed, start it by clicking (Start)-(All Programs)-(EpsonNet)-(TMNet WinConfig)-(TMNet WinConfig Ver. x).
- The "TMNet WinConfig Ver. x.xx" screen appears. Select (Ethernet) from Interface. 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 (Search) button.
- The "Network Interface Card Properties" screen appears. Select the (TCP/IP) tab.
- Configure the printer IP address. Then click the (OK) button.

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



- The confirmation screen appears. Click the (Yes) button.
- 7 The (Password) screen appears. Leave the box blank, and click the (OK) button.
- The configured settings are sent to the printer. After approx. 30 seconds, the completion screen appears.

  Click the (OK) button.



- Confirm the settings on the "TMNet WinConfig Ver. x.xx" screen.
- **10** Quit the TMNet WinConfig.

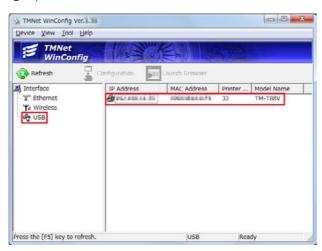
## **Printer's Network Setting for Wireless LAN Connection**

When using a Wireless LAN connection, use the TMNet WinConfig to configure the network setting.



Connect the printer to the computer using the printer's UB-R03 USB connector.

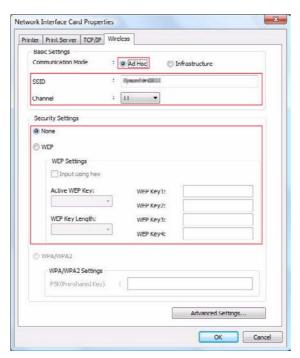
- 1 Start the TMNet WinConfig.
  When the TMNet WinConfig is already installed, start it by clicking (Start)-(All Programs)-(EpsonNet)-(TMNet WinConfig)-(TMNet WinConfig Ver. x)
- The "TMNet WinConfig Ver. x.xx" screen appears. Select (USB) from Interface. Check that the target printer is listed in the screen.



- 3 Select the printer you want to configure, then click the (Configuration) button. When the printer does not appear, click the (Search) button.
- The "Network Interface Card Properties" screen appears. Select the (Wireless) tab.
- **5** Set the wireless LAN.

If the communication mode is Ad Hoc.	Proceed to Step 6.
If the communication mode is Infrastructure	Proceed to Step 7.

When the communication mode is Ad Hoc, the wireless LAN settings are as follows. When finished configuring the settings, go to step 8.



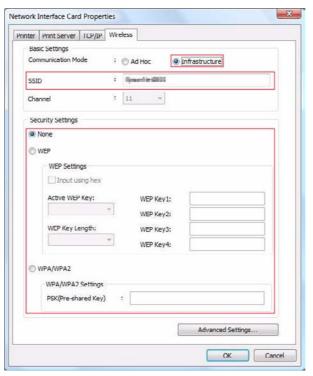
Setting	Description
Communication Mode	Select "Ad Hoc."(Default Setting: Ad Hoc)
SSID	Set the same value as the computer. The maximum is 32 alphanumeric characters. (Default Setting: EpsonNetIBSS)
Channel	Select the channel. (Default Setting: 11)
Security Settings	Select "None" or "WEP" "WPA/WPA2" cannot be used. WEP is recommended for setting. (Default Setting: None)

☐ For "WEP" Security Settings



Setting	Description
Input using hex	Check the checkbox choosing the WEP Key to be input as a hexadecimal number.
Active WEP Key	Select the WEP Key you are using, Key 1 to Key 4
WEP Key Length	Select the length of WEP Key, 64 bit (40 bit)/128 bit (104 bit)
WEP Key 1 to Key 4	Input the WEP Key. The number of characters of WEP Key changes according to the setting. For 64 bit (40 bit), ASCII 5 characters For Hex 64 bit (40 bit), 10 places For 128 bit (104 bit), ASCII 13 characters For Hex 128 bit (104 bit), 26 places

When the communication mode is Infrastructure, the wireless LAN settings are as follows. When finished configuring the settings, go to step 8.



Setting	Description
Communication Mode	Select "Infrastructure."
SSID	Set the same value as the computer. The maximum is 32 alphanumeric characters.
Security Settings	Select one of "None," "WEP," or "WPA/WPA2."

#### ☐ For "WEP" Security Settings



Setting	Description
Input using hex	Check the checkbox choosing the WEP Key to be input as a hexadecimal number.
Active WEP Key	Select WEP Key you are using, Key 1 to Key 4
WEP Key Length	Select the length of WEP Key, 64 bit (40 bit)/128 bit (104 bit)
WEP Key 1 to Key 4	Input the WEP Key. The number of characters of WEP Key depends on the setting. 64 bit (40 bit), ASCII 5 characters Hex 64 bit (40 bit), 10 places 128 bit (104 bit), ASCII 13 characters Hex 128 bit (104 bit), 26 places

#### ☐ For "WPA/WPA2" Security Settings



Setting	Description
PSK (Pre-shared Key)	Input the PSK (Pre-shared Key). ASCII 8 to 63 characters

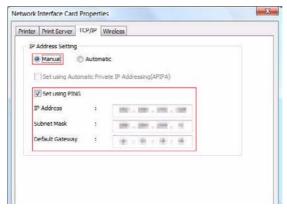
- Select the (TCP/IP) tab.
- **9** TCP/IP settings such as the IP Address.

The setting items are different for Manual and Automatic. Record the IP Address to use for confirming the setting.

When you set the IP Address yourself, select "Manual." When using the IP Address allocated from the router by DHCP, select "Automatic."

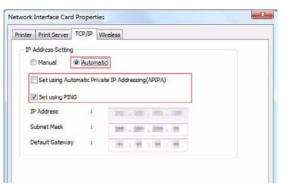
For setting the IP Address Manually	Proceed to Step 10.
For setting the IP Address Automatically	Proceed to Step 11.

1 OSet the IP Address, the Subnet Mask and the Default Gateway. When finished, go to step 12.



Setting	Description
Manual/Automatic	Select "Manual."
Set using PING	When setting the IP Address using the PING command from the network computer, check the (Set using PING) checkbox.
IP Address	Set the IP Address.
Subnet Mask	Set the Subnet Mask.
Default Gateway	Set the Default Gateway.

1 Set the IP Address, the Subnet Mask and the Default Gateway. When finished, go to step 12.



Setting	Description
Manual/Automatic	Select "Automatic." Acquire the IP Address, the Subnet Mask and the Default Gateway from the DHCP server.  Even if you set the Subnet Mask and the Default Gateway, the value acquired from the DHCP is set.
Set using Automatic Private IP Addressing (APIPA)	If the value cannot be acquired from the DHCP server, the IP Address is set automatically by checking the Set using Automatic Private IP Addressing (APIPA) check box. The Subnet Mask and the Default Gateway is set the setting value.
Set using PING	When setting the IP Address using the PING command from the computer of the network, check the (Set using PING) checkbox.
Subnet Mask	Set the Subnet Mask.
Default Gateway	Set the Default Gateway.

- **12** After setting the TCP/IP, click the (OK) button.
- 13 The confirmation screen appears. Click the (Yes) button.
- 1 1 The (Password) screen appears. Leave the box blank, and click the (OK) button.
- 15 The configured settings are sent to the printer. After approx. 30 seconds, the completion screen appears. Click the (OK) button.



- **16**Confirm the settings on the "TMNet WinConfig Ver. x.xx" screen.
- **17** Quit the TMNet WinConfig.

### **Installing Advanced Printer Driver Manual**

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

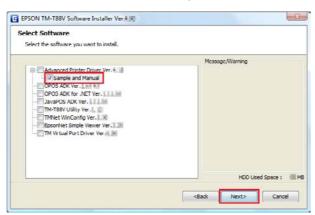
- Insert the TM-T88V Software & Documents Disc into the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Install Now) button.
  - When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.
- The "License Agreement" screen appears. Read the content and select the "I accept the terms in the license agreement". Then click the (Next) button.
- The "Update Software" screen appears. Click the (Next) button.
- The "Select Printer Language (Resident Character)" screen appears. Select the language of your printer and click the (Next) button.



The language can be checked in "Resident Character" that is printed in the self test. To start the self test, turn on the power button while holding down the FEED button with the paper roll cover closed. Continue holding down the FEED button until printing starts.

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.



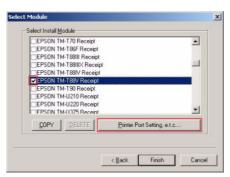
- The "Start Installation" screen appears. Click the (Install) button.
- 7 The "EPSON APD4 Sample&Manual InstallShield Wizard" screen appears, click the (Next) button.

- The "License Agreement" screen appears. Read the content and select the "I accept the terms of the license agreement". Then click the (Next) button.
- The "Select Features" screen appears. Check the checkbox for (Manual) and click the (Next) button. Installation of the manual will start.
- 1 1 The "Ready to Install the Program" screen appears. Click the (Install) to install the sample programs and manual of Advanced Printer Driver.
- ◀ The "InstallShield Wizard Complete" screen appears. Click the (Finish) button.
- **12** The "Installation Finished" screen appears. Click the (Finish) button to finish the installation.

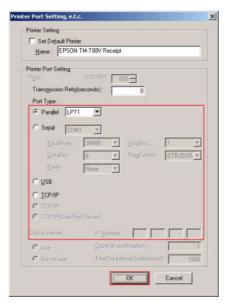
This is the end of the installation of the Advanced Printer Driver manual.

## Installing Advanced Printer Driver Ver. 3.04

- The "License Agreement" screen appears. Read the content and select the (I accept the terms in the license agreement). Then click the (Next) button.
- The "Location to Save Files" screen appears. Specify the location and click the (Next) button. The file will be extracted.
- The "Select OS" screen appears. Your OS and language are automatically detected and selected. Confirm that the selection is correct, and click the (Next) button.
- The "Select Module" screen appears. Check the checkbox for (EPSON TM-T88V Receipt) and click the (Printer Port Setting, e.t.c....) button.



The "Printer Port Setting, e.t.c" screen appears. In (Port Type), Select the port to connect the printer and configure the port setting. Then click the (OK) button.



	Setting	Description
Parallel		Select the parallel port to be used.
Serial		Select the serial port to be used.
BaudRate		Sets the BaudRate. (The default is "38400.")
	DataBits	Sets the DataBits. (The default is "8.")
	Parity	Sets the Parity. (The default is "None.")
	StopBits	Sets the StopBits. (The default is "1.")
	FlowControl	Sets the data flow control type to be used between the computer and serial device. (The default is "DTR/DSR.")
USB		There are no items to configure.
TCP/IP		
	IP Address	Enter the printer IP address.

- The "Select Module" screen appears again. Click the (Finish) button. The installation will start.
- When the installation is finished, you will be prompted whether to restart the computer. Click the (No) button.



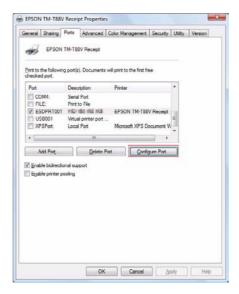
- The "Installation Finished" screen appears. Click the (Finish) button to finish the installation.
- 9 Restart the computer.

This is the end of the installation of Advanced Printer Driver Ver. 3.04.

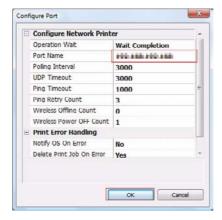
### **Configuring IP Address of the Printer Driver**

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

- Select from (Start) (Control Panel) (Hardware and Sound) and open (Printers) and then right click the target printer driver and select (Properties). → Differences Depending on the OS (p.13)
- The property screen of the printer appears. Select the (Ports) tab and then click the (Configure Port...) button.



The Configure Port screen appears. Set a configure port while referring to the screen and click the (OK) button.



The display returns to the Properties screen. When you click the (OK) button, the changes you made become effective.

## **Custom Install**



- 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-T88V Software & Documents Disc is required for Custom Install.

- Advanced Printer Driver
   Sample and Manual
   OPOS ADK
   OPOS ADK for .NET
- ☐ JavaPOS ADK
- ☐ TM-T88V Utility
- ☐ TMNet WinConfig
- ☐ EpsonNet Simple Viewer
- ☐ TM Virtual Port Driver

### Displaying the "Select Software" Screen

The TM-T88V 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.

Insert the TM-T88V Software & Documents Disc into the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Install Now) button.



The displayed language can be changed from (Select language).

When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.

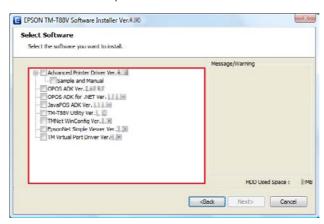
- The "License Agreement" screen appears. Read the content and select the "I accept the terms in the license agreement". Then click the (Next) button.
- The "Select Installation Type" screen appears. Click the (Custom Install) button.
- The "Select Printer Language (Resident Character)" screen appears. Select the language of your printer and click the (Next) button.



The language can be checked in "Resident Character" that is printed in the self test. To start the self test, turn on the power button while holding down the FEED button with the paper roll cover closed. Continue holding down the FEED button until printing starts.

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-T88V 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

☐ Sample and Manual\*

\*Under Windows 2000, the (Sample) is not available. Only the (Manual) is available.

Follow the steps below to execute the printer driver installation.

- Insert the TM-T88V Software & Documents Disc into the computer and follow the steps on p. 37. Display the "Select Software" screen.
- 2 Select the (Advanced Printer Driver Ver. 4.xx). Clear the check box for the items you do not want to install. Click the (Next) button.
- The "Start Installation" screen appears. The driver and utility to be installed are listed. Click the (Install) button to start the installation.
- The "EPSON Advanced Printer Driver 4 InstallShield Wizard" screen appears. Click the (Next) button.
- The "License Agreement" screen appears. Read the content and select the "I accept the terms of the license agreement". Click the (Next) button.
- The "Setup Type" screen appears. Choose one of the installation types, and then click the (Next) button.

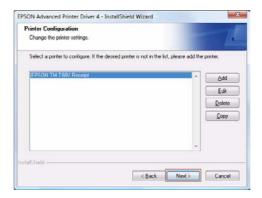
Install type	Printer Driver	Help language	TM-T88V Utility
Minimum	Automatically select according to the OS	Automatically select according to the OS	Not install
Standard	32/64 bit	All languages	Install
Custom	Specify 32 bit and 64 bit	Specify languages	Choose whether or not to install

7 The "Printer Configuration" screen appears. Click the (Add) button.

The "Add Printer" screen appears. Select the printer driver whose language matches with that of the printer from the (Select driver) pull-down menu, and select (Port Type) that matches with your connection method. Click the (Next) button.



The "Printer Configuration" screen appears. The TM-T88V is added in the list. Click the (Next) button.



- 1 The "Start Copying Files" screen appears. Click the (Next) button to start the installation of the printer driver.
- 1 The "InstallShield Wizard Complete" screen appears. Click the (Finish) button.
- 12 The sample programs and manual of Advanced Printer Driver will be installed. When "EPSON APD4 Sample&Manual InstallShield Wizard" screen appears, click the (Next) button.
- **13** The "License Agreement" screen appears. Read the content and select the "I accept the terms in the license agreement". Then click the (Next) button.

- 1 4 The "Select Features" screen appears. Check the checkbox for (Manual) and (Samples) (checked by default), and click the (Next) button.
- 15 The "Ready to Install the Program" screen appears. Click the (Install) to install the sample programs and manual of Advanced Printer Driver.
- ◀ 6The "InstallShield Wizard Complete" screen appears. Click the (Finish) button.
- **17** When the installation is completed, the "Installation Finished" screen appears. When conducting test print:

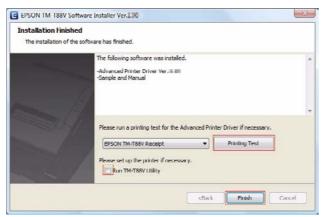
Click the (Printing Test) button. When the test print is finished, click the (Finish) button to end the installation.

When exiting the installation:

Uncheck the (Run TM-T88V Utility) (the box is unchecked by default). Then click the (Finish) button to end the installation.

When setting the printer using TM-T88V Utility continuously:

Check the (Run TM-T88V Utility) checkbox. Click the (Finish) button to end the installation. The TM-T88V Utility starts to run. TM-T88V Utility (p.93)



This is the end of the printer driver installation.

### Installing the OPOS ADK

- Insert the TM-T88V Software & Documents Disc into the computer and follow the steps on p. 37. Display the "Select Software" screen.
- 2 Check the (OPOS ADK Ver. x.xx). Click the (Next) button. Clear the check box for the items you do not want to install. Click the (Next) button.
- The "Start Installation" screen appears. The driver and utility to be installed are listed. Click the (Install) button to start the installation.
- The "EPSON OPOS ADK for TM-T88V Version x.xx xxx" appears. Click the (Next) button.
- 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.
- The "Select Registry File" screen appears. 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.
- The "Start Copying Files" screen appears. Click the (Next) button.
- The "Port selection" screen appears. Select the port. Click the (Next) button to start the installation.
- The "InstallShield Wizard Complete" screen appears. Click the (Finish) button.

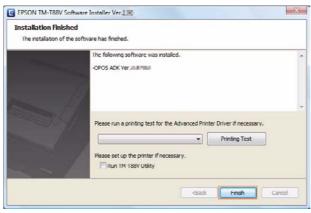
◀ ◀ When the installation is completed, the "Installation Finished" screen appears.

When exiting the installation:

Uncheck the (Run TM-T88V Utility) (the box is unchecked by default). Then click the (Finish) button to end the installation.

When setting the printer using TM-T88V Utility continuously:

Check the (Run TM-T88V Utility) checkbox. Click the (Finish) button to end the installation. The TM-T88V Utility starts to run. TM-T88V Utility (p.93)



This is the end of the OPOS ADK installation.

### Installing the OPOS ADK for .NET

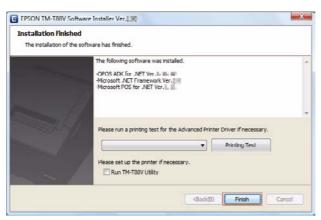


To install the OPOS ADK for .NET, Microsoft .NET Framework and Microsoft POS for .NET are required.

Make sure to install the above software before installing OPOS ADK for .NET.

- Insert the TM-T88V Software & Documents Disc into the computer and follow the steps on p. 37. Display the "Select Software" screen.
- 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.
- The "Start Installation" screen appears. The driver and utility to be installed are listed. Click the (Install) button to start the installation.
- The "EPSON OPOS ADK for .NET x.xx.x InstallShield Wizard" screen appears. Select the language, and then click the (Next) button.
- The "Welcome to the InstallShield EPSON OPOS ADK for .NET x.xx.x" screen appears. Click the (Next) button.
- 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.
- The "Setup Type" screen appears. Select the port and click the (Next) button.
- The "Start Copying Files" screen appears. Click the (Install) button to start the installation.
- **1** The "InstallShield Wizard Complete" screen appears. Click the (Finish) button.

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**



To install the JavaPOS ADK, Java Runtime Environment and Java Advanced Imaging API are required.

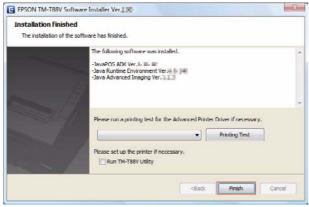
Make sure to install the above software before installing JavaPOS ADK.

- Insert the TM-T88V Software & Documents Disc into the computer and follow the steps on p. 37. Display the "Select Software" screen.
- 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.
- The "Start Installation" screen appears. The driver and utility to be installed are listed. Click the (Install) button to start the installation.
- The "EPSON JavaPOS ADK x.xx.x" screen appears. Select the language and then click the (OK) button.



- The "Introduction" screen appears. Click the (Next) button.
- 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.
- The "Choose Install Set" screen appears. Select (Developer) and then click the (Next) button.

- The "Choose Folder Location" screen appears. Click the (Next) button.
- **1** The "Choose your communication" screen appears. Select the port and click the (Next) button.
- 1 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.
- **1** 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-T88V Software & Documents Disc. Easy Install installs TM-T88V Utility for a serial, parallel or USB connection, and for an Ethernet / Wireless LAN connection, it installs TM-T88V Utility, TMNet WinConfig and EpsonNet Simple Viewer. Custom Install allows you to select utilities you want to install from the following.

- ☐ TM-T88V Utility Ver. x.xx
- ☐ TMNet WinConfig Ver. x.xx
- ☐ EpsonNet Simple Viewer Ver. x.xx
- ☐ TM Virtual Port Driver Ver. x.xx

Follow the steps below to execute the utility installation.

- Insert the TM-T88V Software & Documents Disc into the computer and follow the steps on p. 37. Display the "Select Software" screen.
- 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.
- The "Start Installation" screen appears. The drivers and utilities to be installed are listed. Click the (Install) button to start the installation.
- TM-T88V Utility is installed.

  The installation is started without displaying any other screens.
- TMNet WinConfig is installed.

  The installation is started without displaying any other screens.
- EpsonNet Simple Viewer is installed.

  The installation is started without displaying any other screens.
- Install the 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.



- The "Welcome to the EPSON TM Virtual Port Driver Ver. x.xx Setup Wizard" screen appears. Click the (Next) button.
- The "License Agreement" screen appears. Read the content and select the "I accept the terms of the license agreement". Then click the (Next) button.
- The "Ready to Install the Program" screen appears. Then click the (Install) button.
- ◀ ◀ When the following screen appears, click the (Restart Later) button.



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.

If you restarted the computer, there's no need to proceed to Step 13, but the installation is complete.





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).

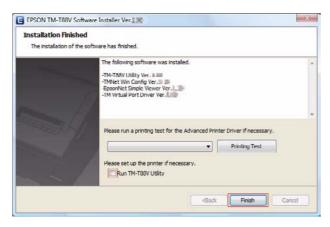
**13** When the installation is completed, the "Installation Finished" screen appears.

When exiting the installation:

Uncheck the (Run TM-T88V Utility) (the box is unchecked by default). Then click the (Finish) button to end the installation.

When setting the printer using TM-T88V Utility continuously:

Check the (Run TM-T88V Utility) checkbox. Click the (Finish) button to end the installation. The TM-T88V Utility starts to run. TM-T88V Utility (p.93)



This is the end of the utility installation.

### **Update Mode**



- 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 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-T88V Software & Documents Disc into the computer. The TM-T88V Software Installer is automatically read and the "EPSON TM-T88V Software Installer" screen appears. Click the (Install Now) button.



The displayed language can be changed from (Select language).

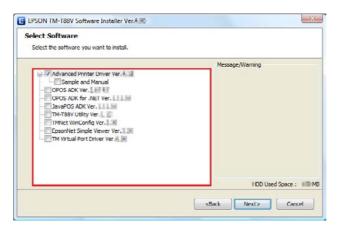
When the TM-T88V Software Installer is not automatically read, double click the (TMInstallNavi.exe) icon in the TM-T88V Software & Documents Disc.

- The "License Agreement" screen appears. Read the content and select the "I accept the terms in the license agreement". Then click the (Next) button.
- The "Update Software" screen appears. The system is checked and existing driver and its version are displayed. Click the (Next) button.
- The "Select Printer Language (Resident Character)" screen appears. Select the language of your printer and click the (Next) button.



The language can be checked in "Resident Character" that is printed in the self test. To start the self test, turn on the power button while holding down the FEED button with the paper roll cover closed. Continue holding down the FEED button until printing starts.

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.



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 7.



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.



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

### Uninstallation

- ☐ Uninstall the Windows printer driver
- ☐ Uninstall the TM-T88V Utility
- ☐ Uninstall the TMNet WinConfig
- ☐ Uninstall the EpsonNet Simple Viewer
- ☐ Uninstall the TM Virtual Port Driver
- ☐ Uninstall the OPOS ADK
- ☐ Uninstall the OPOS ADK for .NET
- ☐ Uninstall the JavaPOS ADK

### **Uninstalling the Windows Printer Driver**



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

Differences Depending on the OS (p.13)

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

- **Q**uit all applications running on the computer.
- 2 Select (Start) (All Programs) (EPSON) -(EPSON Advanced Printer Driver4) (Change or delete APD4, or create a silent installer for APD4.).

  When the "User Account Control" screen appears, click the (Allow) button.
- The "Welcome" screen appears. Select (Uninstall), and click the (Next) button.
- The printer driver uninstallation confirmation screen appears. Click the (Yes) button.
- The uninstallation of the printer driver starts.
- The "Uninstall Complete" screen appears. Click the (Finish) button to finish the uninstallation.

### **Uninstalling the TM-T88V Utility**

- Quit all applications running on the computer.
- 2 Select (Start) (Control Panel) (Uninstall a program) (EPSON TM-T88V Utility). Click "Uninstall".

For information of the differences in screen selections based on the OS versions; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

The TM-T88V Utility uninstallation confirmation screen appears. Click the (Yes) button.

If you do not want to uninstall the TM-T88V Utility, click the (No) button.

- ⚠ The uninstallation of the TM-T88V Utility starts.
- The "Uninstall Complete" screen appears. Click the (Finish) button to finish the uninstallation.

#### **Uninstalling theTMNet WinConfig**

Select (Start) - (Control Panel) - (Uninstall a program) - (EPSON TMNet WinConfig). Click "Uninstall".

For information of the differences in screen selections based on the OS versions; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

- The Virtual Port Driver uninstallation confirmation screen appears. Click the (Yes) button.
- The uninstallation of the TMNet WinConfig starts.
- The "Uninstall Complete" screen appears. Click the (Finish) button to finish the uninstallation.

### **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.

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; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

- The "Uninstall Confirmation" window appears. click on the (Yes) button. This tool will be uninstalled.
- 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.
- The "Uninstall or change a program" window appears. Double-click on (EpsonNet SDK for Windows).
- The "Uninstall Confirmation" window appears. click on the (Yes) button. The EpsonNet SDK for Windows will be uninstalled.
- The "Uninstall Complete" window appears. click on the (Finish) button.

### **Uninstalling the TM Virtual Port Driver**

- Select (Start) (Control Panel) (Uninstall a program) (EPSON TM Virtual Port Driver Ver.x.xx). Click "Uninstall".
  - For information of the differences in screen selections based on the OS versions; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.
- 2 The TM Virtual Port Driver uninstallation confirmation screen appears. Click the (Yes) button.
- 3 The uninstallation of the TM Virtual Port Driver starts.
- 4 When uninstallation is complete, the window automatically closes.

### **Uninstalling the OPOS ADK**

- 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; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

- The EPSON OPOS ADK uninstallation confirmation screen appears. Click the (Yes) button.
- ⚠ The "Information" screen appears. Click the (Yes) button.
- The "ADK Selection" screen appears. Click the (Next) button.
- The "Confirm Deletion" screen appears. Click the (Start) button.
- **7** The uninstallation of the EPSON OPOS ADK starts.
- 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

- Quit all applications running on the computer.
- 2 Select (Start) (Control Panel) (Uninstall a program) (EPSON OPOS ADK for .NET x.x.x.x), Click "Uninstall".

For information of the differences in screen selections based on the OS versions; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

- The EPSON OPOS ADK for .NET uninstallation confirmation screen appears. Click the (Yes) button.
- ⚠ The uninstallation of the EPSON OPOS ADK for .NET starts.
- The completion screen appears. Click the (Finish) button to complete the uninstallation.

### **Uninstalling the JavaPOS ADK**

- Quit all applications running on the computer.
- Select (Start) (Control Panel) (Uninstall a program) (EPSON JavaPOS ADK).
  Click "Uninstall/Change".

For information of the differences in screen selections based on the OS versions; Depending on the OS (p.13). When the "User Account Control" screen appears, click the (Continue) button.

- The "Uninstall Epson JavaPOS ADK" screen appears. Click the (Uninstall) button.
- ⚠ The uninstallation of the EPSON JavaPOS ADK starts.
- 5 The completion screen appears. Click the (Done) button to finish the uninstallation.

# Replacing TM-T88III/IV with TM-T88V

When replacing TM-T88III/IV with TM-T88V, replace the printer keeping the communication setting unchanged if you want to use the TM-T88V printer as TM-T88III/IV. In this case, you do not need to change the existing application and driver settings. The communication settings to be kept unchanged are as follows.

- Serial: Printer communication settings and printer driver port on the computer
- Ethernet: IP address and network settings
- Parallel: Printer driver port on the computer
- USB: USB Class setting

If the TM-T88V has been set to Printer Class, change it to Vender Class using the TM-T88V Utility.

Because the TM-T88V printer will operate as TM-T88III/IV, the print speed will increase, however, the new features of TM-T88V cannot be used. If you use Advanced Printer Driver Ver.4.00 to 4.04, you need to make the special setting.

### **Setting Advanced Printer Driver Ver.4.00 to 4.04**

When you connect the TM-T88V printer to the environment where Advanced Printer Driver Ver.4.00 to 4.04 is installed, you need to change the TM-T88V Printer Model setting using the TM-T88V Printer Model Setting Utility.

File name: T88VPrinterModelSetting.exe
Folder that stores TM-T88V Software & Documents Disc: \Windows\TM-T88V Printer Model Setting
Utility\



Do not connect any other printer to change the setting.

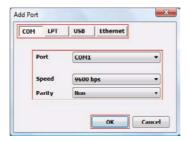
- Connect the TM-T88V printer that you want to change the setting, and turn on the printer.
- Run the T88VPrinterModelSetting.exe of the TM-T88V Software & Documents Disc.



The "TM-T88V Printer Model Setting Utility" screen appears. Click the (Add Port) button.



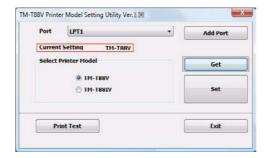
The "Add Port" screen appears. Configure the port to communicate with the printer, and then click the (OK) button.



- The "TM-T88V Printer Model Setting Utility" screen appears again. Click the (Print Test) button and confirm that the test print finishes successfully.
- Click the (Get) button and check the (Current Setting) contents.

  When (TM-T88IV) is displayed as (Current Setting), you do not need to change the setting. Click the (Exit) button to quit the TM-T88V Printer Model Setting Utility.

  When (TM-T88V) is displayed as (Current Setting), proceed to step 7.



- Select (TM-T88IV) in the (Select Printer Model) box, and click the (Set) button.
- When the setting is finished, click the (Exit) button to quit the TM-T88V Printer Model Setting Utility.

# 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.

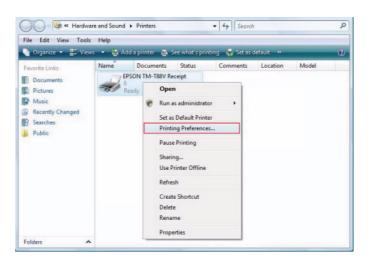
- Accessing the printer driver from the printer driver's Print menu
   The print settings you made on the printer driver are applied to the print settings of the all users configured on the computer. You must have administrative privileges to make the settings.
- Accessing the printer driver from the printer driver's Properties

  The print settings you made on the printer driver are applied to your print settings only.

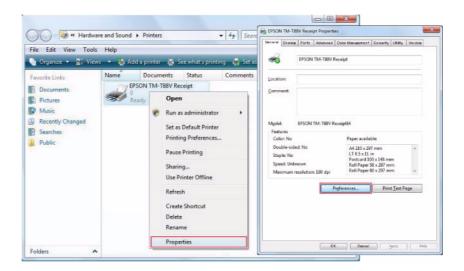
  They are not applied to the settings of other users. This method is recommended.
- Accessing the printer driver from the application's print setting menu

  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.

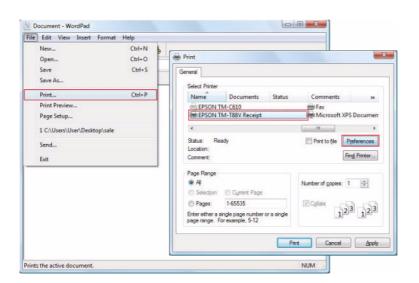
### **Accessing from the Printer Driver's Print menu**



### **Accessing from the Printer Driver's Properties**



### **Accessing from the Application's Print Setting Menu**

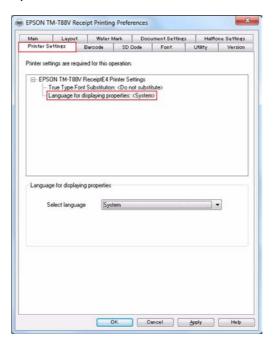


## Language for Displaying Properties

The language used in the Advanced Printer Driver screen 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.

To select a language of the Help, install the Advanced Printer Driver using Custom Install, select (Standard) or (Custom) in the (Setup Type) screen displayed during the installation, and select your desired Help language.

Select the (Printer Settings) tab from Printing Preferences. Select (Language for displaying properties) from the list.



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

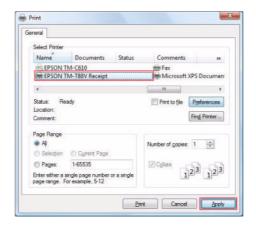
The languages that can be selected are shown below.

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	

# Making Printer Settings in an Application

This section explains about the first setup in a Windows application to print from the TM printer. You need to select the printer model and make the paper setting on the application. The following is the setup procedure using Windows WordPad.

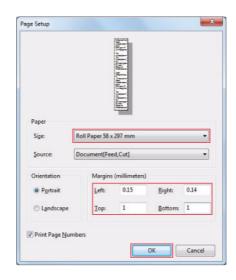
- Select (Start) (All Programs) (Accessories) (WordPad) to start WordPad.
- Select (File) (Print...) to display the Print dialog box.
  Select TM-T88V and click the (Apply) button. Click the (Cancel) button to return to the WordPad screen.



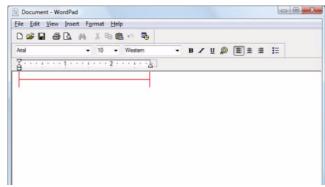
3 Select (File) - (Page Setup) to display the Page Setup dialog box. Select roll paper you use from the (Size) drop-down list, and set (Margins). Click the (OK) button.

Even if the margins on the left and right are set to 0, a little blank space will appear on both sides of pages due to the printer specifications as shown below.

TM printer	Left margin (mm)	Right margin (mm)
79.5 mm model	3.7	3.7
58 mm model	3.7	3.0



⚠ The paper width selected with Page Setup is applied to WordPad.



#### Settings when using Microsoft Word

- □ When using Word 2003 or earlier: Select the [Tools] menu [Options] the [Compatibility] tab and change the target application to "Microsoft Word 6.0/95", or check the check box for "Use printer metrics to lay out document" in [Options] on the same tab.
- When using Word 2007:
  Select [Word Options]-[Advanced]-[Compatibility Options for] and set "Lay out this document as if created in" to "Microsoft Word 6.0/95," or select "Custom," and check the check box for "Use printer metrics to lay out document" in [Layout Options].
- □ When using Word 2010: Select [File]-[Options]-[Advanced]-[Compatibility Options for], select [Microsoft Word 6.0/95] or [Custom] in [Lay out this document as if created in], and make a check in [Use printer metrics to lay out document] in [Layout Options].

### **Printing Characters**

- ☐ Printing characters as a graphic image → p. 65 Uses Windows fonts. The features are as follows:
  - You can apply italic and other character modifications, and freely change the font size.
  - You can print almost exactly what you see on the screen of the application.
  - Because the printer's resolution is 180 dpi, the characters smaller than 10 points may become blurred.
- ☐ Printing characters using a Printer Font → p. 65
  Uses the Printer Font which is the font set built into the TM printer. The features are as follows:
  - There are two types of European fonts; FontA/FontB.

FontB is a narrow width font, so more characters can be placed in a line. FontA12/FontB12 are vertically long fonts, so you can get the characters more noticed than the others without decreasing the number of characters.

Standard	FontA11	FontB11
Double height	FontA12	FontB12
Double width	FontA21	FontB21
Double height / width	FontA22	FontB22

- Supports many code pages p. 67
- Small characters (FontA11/FontB11) do not become blurred. They can be clearly printed.
- They are monospaced fonts. You can calculate how long the character strings go, which helps you determine the layout.

The Printer Fonts are provided by size. Selecting a Printer Font type also selects a font size. The table below shows each Printer Font's character size and available number of characters per line p. 66.

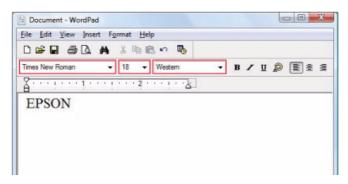
Font name	Font size (point)	Character structure Height x Width (Dot)*	Characters per line on 80mm paper	Characters per line on 58mm paper
FontA11	9.5	12 x 24	42	35
FontB11	7.0	9 x 17	56	40

- Print results may look slightly different from what you see on your application screen.
- Bold and italic settings on your application are not reflected to print results. Underlines are printed but they will not be placed as you specified.
- You cannot use both Printer Font and Barcode (or 2D Code) Font in the same line.
- Under .NET environment, you need to make the True Type Font Substitution setting 

  p. 73. The setting makes the substituted Windows fonts unusable for printing. Vertically or horizontally long fonts such as FontA12/FontA21 cannot be used.

### **Printing Characters as a Graphic Image**

■ Type characters to be printed and specify Font, Point, and Language.



When the setting is finished, print the data.

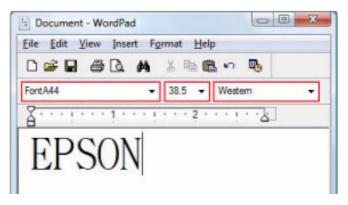


### **Printing Characters using a Printer Font**

Type characters to be printed and specify Printer Font, Point, and Language.

Make sure you specify point size of the selected Printer Font p. 66.

Example: If you select FontA44, specify 38.5 points as the point size, and "Western" as the language.



When the setting is finished, print the data.



#### **Printer Font List**

Printer Fonts installed in TM-T88V are as follows:

Font name	Font size (point)	Character structure Height x Width (Dot)*	Characters per line 80mm paper	Characters per line 58mm paper
FontA11	9.5	12 x 24	42	30
FontA12	19 double-height	12 x 48	42	30
FontA21	9.5 double-width	24 x 24	21	15
FontA22	19	24 x 48	21	15
FontA24	38.5 double-height	24 x 96	21	15
FontA42	19 double-width	48 x 48	10	7
FontA44	38.5	48 x 96	10	7
FontA48	77 double-height	48 x 192	10	7
FontA84	38.5 double-width	96 x 96	5	3
FontA88	77	96 x 192	5	3
FontB11	7	9 x 17	56	40
FontB12	13.5 double-height	9 x 34	56	40
FontB21	7 double-width	18 x 17	28	20
FontB22	13.5	18 x 34	28	20
FontB24	27 double-height	18 x 68	28	20
FontB42	13.5 double-width	36 x 34	14	10
FontB44	27	36 x 68	14	10
FontB48	54.5 double-height	36 x 136	14	10
FontB84	27 double-width	72 x 68	7	5
FontB88	54.5	72 x 136	7	5

<sup>\*</sup> The width includes two blank dots.

### Code Pages for Installed Fonts

The code pages supported by TM-T88V are as follows:

Supported Code Pages				
PC 437 (USA, Standard Europe)	Katakana	PC737 (Greek)		
772 (Lithuanian)	774 (Lithuanian)	WPC 775		
PC 850 (Multilingual)	PC 851 (Greek)	PC 852 (Latin 2)		
PC 853 (Turkish)	PC 855 (Cyrillic)	PC 857 (Turkish)		
PC 858 (Euro)	PC 860 (Portuguese)	PC861 (Icelandic)		
PC 862 (Hebrew)	PC 863 (Canadian-French)	PC 864 (Arabic)		
PC 865 (Nordic)	PC 866 (Cyrillic #2)	PC869 (Greek)		
WPC 1250	WPC 1251	WPC 1252		
WPC 1253	WPC 1254	WPC 1255		
WPC 1256	WPC 1257	WPC 1258		
ISO 8859-2 (Latin 2)	ISO 8859-7 (Greek)	ISO 8859-15 (Latin 9)		
PC1098: Farsi	PC 720	KZ1048: Kazakhstan		
PC 1125 (Ukrainian)				

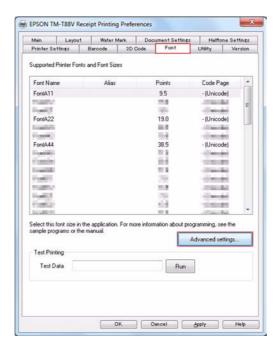
### **Advanced Font Settings**

When developing a print application, fine adjustment of the print layout is often necessary and font names must be changed when the device is changed. By configuring advanced settings for fonts, the desired print results can be obtained with minimal setting changes in the application.

- Alias settings
  - An alias name can be specified for a printer font. This enables printing using the printer font without changing the font name in the application.
- ☐ Printer font substitution
  - This substitutes TrueType fonts for printer fonts. The TrueType fonts are adjusted to the size
    of the printer fonts to minimize disruption of the text layout. Proportional fonts are printed
    as fixed-width fonts. Select this setting when small differences in font sizes cause disruption
    of the layout.
- ☐ Emulation font registration
  - Any font name, font size (height and width in dots), and font design (TrueType font) can be specified. Use these settings when you wish to change a font name and font size.

Follow the steps below to open the "Printer font advanced setting" screen.

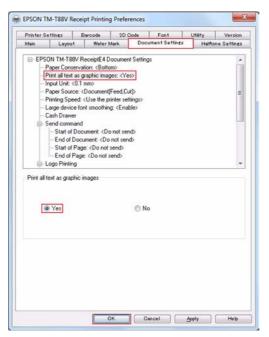
Select the (Font) tab from Printing Preferences. Click the (Advanced Settings...) button.



The "Printer font advanced setting" screen appears.



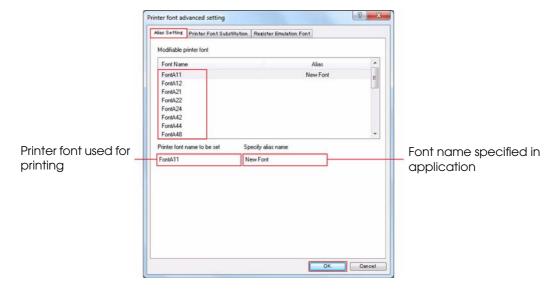
If the (Printer Font Substitution) tab does not appear, select the (Document settings) tab from Printing Preferences and set (Print all text as graphic images) to "Yes".



### Alias Setting

Select the (Alias Setting) tab. Select the font from the (Modifiable printer font) list, and specify the alias name. When finished, click the (OK) button.

For example, by setting an application font name to an alias name for printer font-"FontA11", text can be printed using "FontA11" without changing the application.



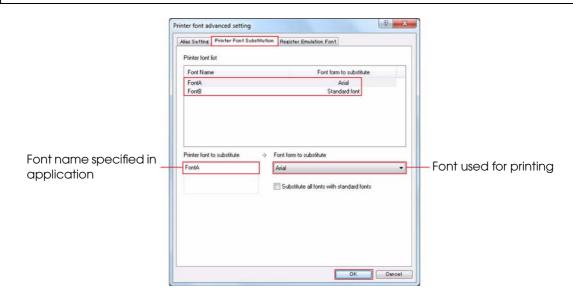
#### **Printer Font Substitution**

Select the (Printer Font Substitution) tab. Select a font from the (Printer font list), and select the font form (TrueType font) that you wish to substitute for it. When finished, click the (OK) button.

For example, when "Arial" is substituted for "FontA", specifying "FontA11" in the application will print text in Arial font at the size of "FontA11". The font size is adjusted to the same size as the printer font. This setting allows a 180 dpi printer to print 46 Arial font characters per line on 80 mm width roll paper.



Substitution of double-byte TrueType fonts is not possible for FontA/FontB.



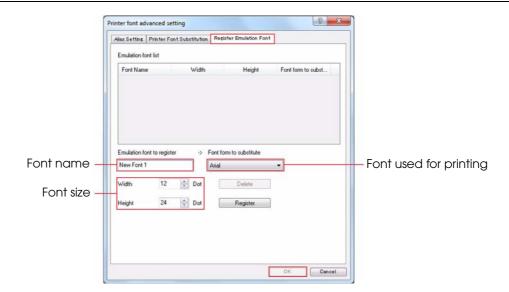
#### Registering an Emulation Font

Select the (Register Emulation Font) tab. Enter the name of the emulation font you wish to register and specify the font form to be substituted (TrueType font). Enter the width and height. When finished, click the (OK) button.

The emulation font registration function makes it easy to adjust the print layout. In addition, when the device is changed in an existing application, printing is possible using the previous text size and layout without changing the application.



If the text size is too small or the height-width ratio is too large, the characters may be blurred. Be sure to check the print result carefully before using this function.



# Printing Printer Fonts in a .NET Environment

.NET Framework supports only TrueType and OpenType fonts. Therefore, the printer's printer fonts cannot be used. In order to make the printer fonts usable under a .NET environment, the printer driver provides a font substitution function. This function also can be used when you want to use the printer fonts from an application that only supports TrueType fonts.

#### **Substituting Fonts**

The printer driver's font substitution function replaces a TrueType font with a printer font. Characters in specified TrueType font on an application are converted into specified printer font and printed. Even after making the substitution setting, the TrueType font specified to be replaced with a printer font does not change on the application screen. The setting is reflected only to the print results.

Note that following TrueType fonts cannot be substituted.

TrueType fonts not available for the substitution			
Marlett	Symbol	MS Outlook	Wingdings 3
Wingdings	Webdings	Wingdings 2	

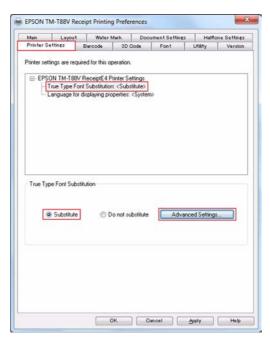


Since proportional fonts have different widths for each character, if replaced with a printer font, characters may overlap each other or the spaces between characters may get wider when printing. It is recommended to substitute them with constant-width fonts. Images on an application screen cannot be printed as they are because printer fonts differ from TrueType fonts in characteristics such as the aspect ratio. You need to confirm print results in advance.



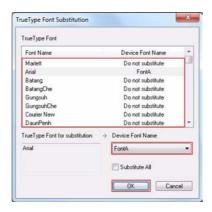
Printer fonts whose horizontal/vertical ratio is different, such as FontA12/FontA21, cannot be printed.

Select the (Printer Settings) tab from Printing Preferences. Select (True Type Font Substitution) from the list, and select (Substitute).



- Click the (Advanced Settings...) button.
- The "TrueType Font Substitution" screen appears. Specify the TrueType font to substitute, and its replacement font, then click the (OK) button.

After selecting the TrueType font to substitute, click the button in (Device Font Name) and select replacement font from the drop-down list.



### **Printing Using a Printer Font**

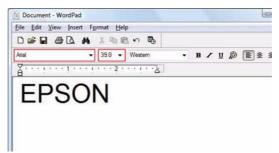
When printing using a printer font, be careful of the following:

- Only printer fonts that has the same scaling in both vertical and horizontal length, such as FontA11/FontA22, can be printed.
- ☐ Characters in any font sizes smaller than the smallest printer font (example: FontB11) cannot be printed.
- ☐ If a point size between those of FontA11 and FontA22 is specified as the point size of the TrueType font, the smaller printer font will be printed.

  Example: If Arial 12 point is specified, FontA11 will be printed.
- □ Bold and italic settings on an application are not reflected to the print results. Underlines are printed but they will not be placed as you specified.
- Substitute the font Substituting Fonts (p.73)

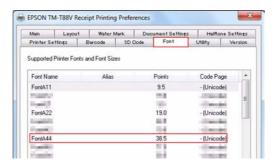
  Once the substitution setting is made, the TrueType font characters will be always printed in the printer font. Select TrueType fonts that you will not use for the other purposes.
- Type characters to be printed. Specify TrueType font, Point, and Language. (In the Point box, specify TrueType font size as described below.)

If characters does not fit in one line and some of them are printed on the next line, decrease the point size of the TrueType font.



Determine the TrueType font point size by adding 1 point to the size in the (Font) tab and dropping the fractional portion of the number.

Example: If the printer font size is 38.5 points, specify 39.0 points.



Example: If you specify "39.0", FontA44 is selected. If you specify "10.0," FontA11 is selected.

When finished the setting, print the data.

Using your application, make sure you can get expected print results.

### **Printing Barcodes/2D Code Fonts**

- Substitute the font Substituting Fonts (p.73)

  Specify a different type of TrueType font for each Barcode 1, 2, and 3.

  When you want to print both Barcode 1 8 and 2D Code 1 8, you must assign a different TrueType font to each of them. You cannot use the specified TrueType fonts for printing other than the barcodes. Even if you type another characters in the TrueType font, nothing will be printed. Make sure you select TrueType fonts that you will not use for the other purposes.
- Type characters to be printed. Specify TrueType font and size for the characters you want to replace with Barcode or 2D Code font.

  Specify a point size specified on the (Barcode) or (2D Code) tab. Otherwise, you cannot get print results with the page layout you specified.
- When finished the setting, print the data.

  Using your application, make sure you can get expected print results.

### Printing a Barcode

- ☐ This printer driver has built-in barcode fonts.
- ☐ You can print barcodes without embedding a barcode encoder in your application or preparing a barcode graphic data.
- ☐ You can print barcodes precisely.
- ☐ When printing in a .NET Environment, you need to configure unicode fonts substitution setting. Substituted unicode fonts cannot be used for printing other than barcodes.

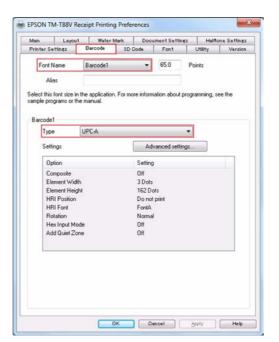


- When used in combination with the (Rotation) setting, set a slow printing speed with the (Document Settings) tab. When the print speed is too fast, the barcode may not be read.
- To slow down the speed to print only pages that include barcodes, specify it on (Speed for printing pages that include a barcode or 2D symbol) in the (Document Settings) tab. However, this does not support the application generating image data.

### **Setting Barcode Fonts**

The barcode font can be used after registering the barcode type and its size. Access the printer driver from the printer driver's Properties, and follow the procedure below.

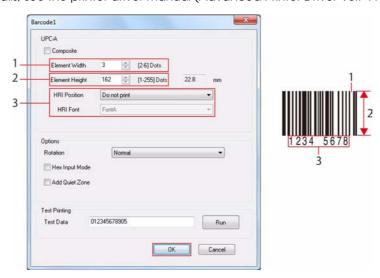
1 Select the (Barcode) tab from Printing Preferences. Select a barcode font from the (Font Name) drop-down list, then select a barcode type from the (Type) drop-down list.



Setting	Description
Font Name	You can configure up to eight barcode fonts (Barcode1 through Barcode8) When programming, specify the font using (Font Name) or (Alias).
Points	The barcode font size is displayed. When printing, specify this size on your application.
Alias	You can make optional settings. You can specify Alias during programming.
Туре	Configures the barcode type. (UPC-A, Code39, etc.).

- Click the (Advanced Settings...) button.
- The advanced settings screen for the barcode appears. Specify the barcode (element) width, height, and whether to print HRI characters. When finished, click the (OK) button.

For more details, see the printer driver manual (Advanced Printer Driver Ver. 4 Printer Setting Guide).



Setting	Description
Element Width	Specifies the narrowest width of the thin lines of the barcode. The unit of width is the minimum dot of the TM printer. The element height and width determines the point size of the barcode font.  The width of the barcode is determined by this setting and the number of characters in the barcode. If the width of the barcode is greater than print area on the paper, the barcode will not be printed or will be cut off.
Element Height	Specifies the barcode height. The unit of height is the minimum number of dots of the TM printer. The element height and width determine the point size of the barcode font.
HRI Position	Sets whether to print HRI characters or not, and their position.
HRI Font	Specifies the font for HRI characters.
Rotation	Sets whether to independently rotate the barcode.  If you have set to rotate entire pages on the (Layout) tab, and make the barcode rotation setting here, the barcode will be rotated by the degrees that combine the both rotation settings.  Example: If you specify (Rotate by 90 degrees) in the (Layout) tab, and also specify (Rotate by 90 degrees) using this setting, the barcode will be rotated 180 degrees.
Hex Input Mode	Allows the barcode characters to be entered in binary.
Add Quiet Zone	Adds quiet zone (blank margin required to read the barcode) on either side of the barcode.

4 Click the (Apply) button to register the barcode.

### **Printing a Barcode**

Type characters to be printed. Specify Barcode font, Point, and Language.

Make sure you specify point size of the selected barcode font. If you are not sure about the size, check it on the (Barcode) tab of Printing Preferences. Setting Barcode Fonts (p.77)

Example: If you specify Barcode1, the point size should be 65, and the language should be Western.



**9** When the setting is finished, print the data.



# Printing a 2D Code

- ☐ This printer driver has built-in 2D Code fonts.
- ☐ You can print 2D Codes without preparing 2D Code graphic data.
- ☐ You can print 2D Codes precisely.
- ☐ When printing in a .NET Environment, you need to configure unicode font substitution setting. Substituted unicode fonts cannot be used for printing other than 2D Codes.

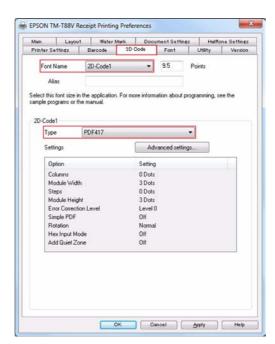


- Set a slow Printing Speed with the (Document Settings) tab. When the print speed is too fast, the symbols may not be read.
- To slow down the speed to print only pages that include 2D symbols, specify it on (Speed for printing pages that include a barcode or 2D symbol) in the (Document Settings) tab. However, this does not support the application generating image data.

### **Setting 2D Code Fonts**

A 2D Code font can be used after registering the 2D Code type and its size. Access the printer driver from the printer driver's Properties, and follow the procedure below.

Select the (2D Code) tab from Printing Preferences. Select a 2D Code font from the (Font Name) drop-down list, then select a 2D Code type from the (Type) drop-down list.

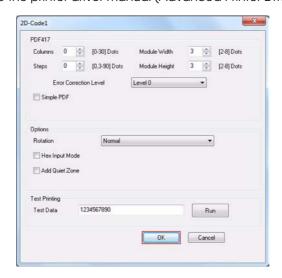


Setting	Description
Font Name	You can configure up to eight 2D Code fonts (2D Code1 through 2D Code8) When programming, specify the font using "Font Name" or "Alias".
Points	The 2D Code font size is displayed. When printing, specify this size on your application.

Setting	Description
Alias	You can make optional settings. You can specify Alias during programming.
Туре	Configures the 2D Code type. (QR Code, FDF417, etc.)

- Click the (Advanced Settings...) button.
- The advanced settings screen for the 2D Code appears. Specify the details of the 2D Code. When finished, click the (OK) button.

For more details, see the printer driver manual (Advanced Printer Driver Ver. 4 Printer Setting Guide).



Setting	Description
Advanced settings	Allows you to specify the 2D Code size, Error Correction Level, and so on. Setting contents vary by 2D Code type.
Rotation	Sets whether to independently rotate the 2D Code.  If you have set to rotate entire pages on the (Layout) tab, and make the 2D Code rotation setting here, the 2D Code will be rotated by the degrees that combines the both rotation settings.  Example: If you specify (Rotate by 90 degrees) in the (Layout) tab, and also specify (Rotate by 90 degrees) using this setting, the 2D Code will be rotated 180 degrees.
Hex Input Mode	Allows the 2D Code characters to be entered in binary.
Add Quiet Zone	Adds quiet zone (blank margin required to read the 2D Code) on either side of the 2D Code.

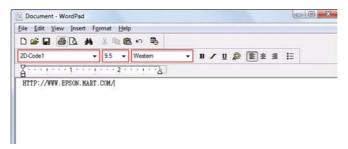
4 Click the (Apply) button to register the 2D Code.

### **Printing a 2D Code**

- Type characters to be printed. Specify 2D Code font, Point, and Language.

  Make sure you specify point size of the selected 2D Code font. If you are not sure about the size, check it on the (2D Code) tab of Printing Preferences.
  - → Setting 2D Code Fonts (p.80)

Example: If you specify 2D Code1, the point size should be 9.5, and the language should be Japanese.



**9** When the setting is finished, print the data.



### **Logo Printing**

- ☐ Logos can be printed at the beginning or the end of each page.
- ☐ You can store your logos in the printer's memory, so you can read them from the printer to print them.
- ☐ Suitable for printing a graphic image such as a shop's logo.
- ☐ TM-T88V Utility allows you to store BMP, JPEG, GIF, or PNG files in the printer.
- ☐ The maximum size of a logo that can be stored is 2047 x 831 dots (width x height).
- ☐ Preparing logo file

When you want to print a 50 mm-width and 15 mm-height logo, calculate the logo size by the following formula.

Formula: Dots = Length (cm) / 2.54 (one inch) x TM printer resolution (dpi)

Width:  $5.0 / 2.54 \times 180 = 354$  dots Height:  $1.5 / 2.54 \times 180 = 106$  dots

In this case, create a 354 x 106 dots image as the logo file.

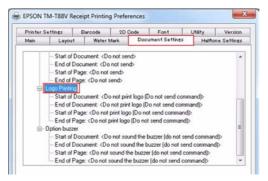
### **Storing Logos**

TM-T88V Utility stores logo files in the NV memory (non volatile memory) of the TM printer. The stored files are not erased even when the printer is turned off.

→ Storing Logos (p.103)

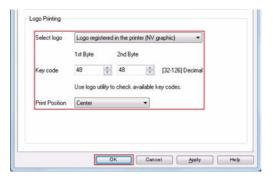
### **Configuring Logo Print Settings**

Select the (Document Settings) tab from Printing Preferences. Select (Logo Printing) from the list.



2 Select where the logo will be printed.
Select from (Start of Document) / (End of Document) / (Start of Page) / (End of Page).

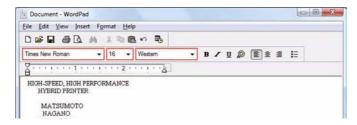
3 Select the logo to be printed and the print position of the logo. When finished, click the (OK) button.



Setting	Description
Select logo	Select (Logo registered in the printer).
Key code	Set the key code to specify the logo to be printed. For the key codes that can be used, see Storing Logos in the TM-T88V Utility.  Storing Logos (p.103)  Example: If logos are stored as shown below in Storing Logos in the TM-T88V Utility, (48, 48) / (48, 49) / (48, 50) can be set for the key code.  Storing Logos  First Key-code Selection Mode
	Key-code   Image File   Size (Byte)
Print Position	Set the print position of the logo. Select from (Left) / (Center) / (Right).

### **Printing a Logo**

Type characters to be printed. No specific setting for printing a logo is needed here because the logo type and the print position or the like are already set by the TM-T88V Utility.



Print the data. The logo is printed at the location specified by the TM-T88V Utility.

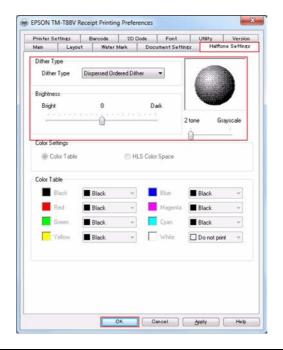


# Halftone Settings for Image Data

The halftone settings can be used to improve the appearance of image data. The following settings can be configured:

- ☐ Dither Type
- □ Brightness
- ☐ 2 tone / Multi-tone

Select the (Halftone Settings) tab from Printing Preferences. Select dither, brightness, and mulit-tone settings, and then click the (OK) button.

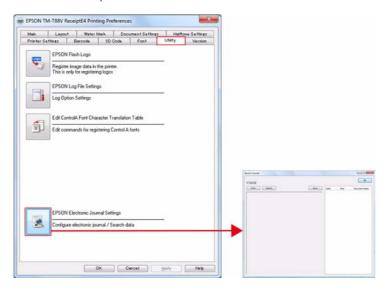


Setting	Description
Dither Type	This defines the dither algorithm. The image will show the pattern of the dot array according to the selected dither type. Select from (Dispersed Ordered Dither) / (Clustered Ordered Dither) / (Error Diffusion) / (Threshold).
Brightness	Set the brightness of the image data. The image will show the dot array with the selected brightness setting.
2 tone / Multi-tone	Set the color shade. When "Multi-tone" is selected, the color tones are expressed in smooth gradations. Do not select "Multi-tone" when the interface is not a USB interface. The image data cannot be printed normally. When "Multi-tone" is selected on a USB interface, the print speed will slow automatically when the image data is printed.

### **Electronic Journal**

The electronic journal stores a copy of a printed receipt as an image file (jpeg). This allows copies to be stored even without a journal printer. Because the copies are stored as electronic data, paper is not used. The electronic journal stores a file for each printed document. A stored file can be viewed in the viewer, printed, and searched for by date.

Select the (Utility) tab in the Printing Preferences and click the (EPSON Electronic Journal Settings) button. The Electronic Journal screen will open.

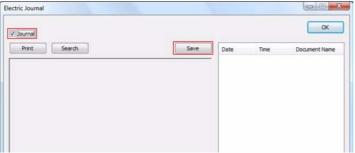


### **Electronic Journal Settings**

To enable the electronic journal function, select the (Journal) checkbox.



To create an electronic journal, set (Print all text as graphic images) to "Yes" on the (Document Settings) tab.



Once the checkbox is selected, printed data will be saved as a file (jpeg). If you need to change the file storage location, click the (Save) button and change the location. The default location is shown below.

OS	Storage location
Windows XP	C:\Documents and Settings\All Users\Application Data
Windows 7/Vista	C:\ProgramData



If the file cannot be saved in the folder you specified, it will be saved in the default location.

#### File Storage

After the electronic journal function is enabled, a file is automatically saved when the printer prints. The stored file can be viewed from the electronic journal list. The filename of the printed file is registered in (Document Name).

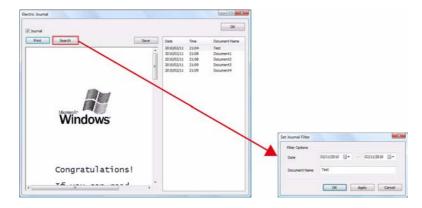
# **Printing a Stored File**

Select the file that you wish to print from the list on the right side of the Electronic Journal screen. The file will appear in the viewer. Click the (Print) button to print the file.

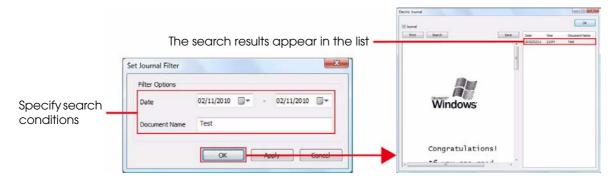


### Searching for a Stored File

1 Click the (Search) button in the Electronic Journal screen to open the search screen.



2 Specify a date in (Date) in the search screen or enter a filename in (Document Name). Click the (OK) button. You will return to the Electronic Journal screen, and the search results will appear in the list on the right side of the screen.

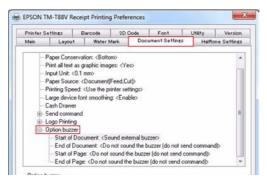


# Optional Buzzer

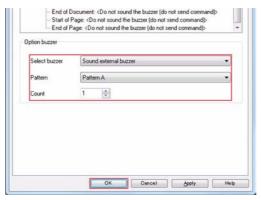
- ☐ The optional built-in buzzer or external buzzer can be sounded.
- ☐ For the external buzzer, the tone and the number of times it sounds can be set.

### **Buzzer Settings**

1 Select the (Document Settings) tab from the Printing Preferences. Select (Option buzzer) from the list.



- Select when the buzzer will sound.
  Select from (Start of Document) / (End of Document) / (Start of Page) / (End of Page).
- 3 Set the buzzer. When finished, click the (OK) button.



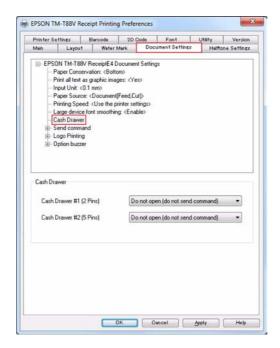
	Setting	Description
Se	lect buzzer	Select the buzzer setting.
	Do not sound the buzzer	Do not sound the buzzer.
	Sound built-in buzzer	Sound the optional built-in buzzer.
	Sound external buzzer	Sound the optional external buzzer.
Pc	ittern	Set the buzzer tone from five patterns, A to E. (Only appears when "Sound external buzzer" is selected.)
Count		Select the number of times the buzzer sounds. (Only appears when "Sound external buzzer" is selected.)

### Cash Drawer

- ☐ You can set to open the cash drawer connected to the device before or after printing.
- ☐ When closing the drawer, close it manually.

### **Opening Drawer with Printer Driver Setting**

Select Printing Preferences - (Document Settings) tab. Click on (Cash Drawer) on the displayed list.



2 Configure the cash drawer. When finished, click the (OK) button. The following is the setting to open an EPSON cash drawer.

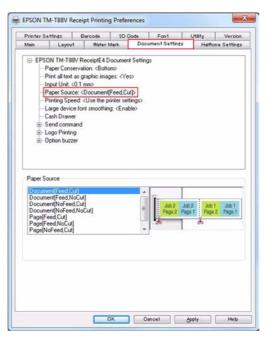
	Setting	Description
(	Cash Drawer #1 (2 Pins)	Sets the drawer to "Do not open (do not send command)".
(	Cash Drawer #2 (5 Pins)	Sets the cash drawer to open.
	Open before printing	The cash drawer opens before printing.
	Open after printing	The cash drawer opens after printing.

# **Autocutter**

You can set when to cut paper with the autocutter.

### **Making Autocutter Setting**

1 Select Printing Preferences - (Document Settings) tab. Click on (Paper Source) on the displayed list.



Make the autocutter setting. When finished, click the (OK) button.

Setting	Description
Document(Feed,Cut)	The paper is advanced and cut each time a print job is finished.
Document (Feed, No Cut)	The paper is advanced, but not cut each time a print job is finished.
Document (No Feed, Cut)	The paper is cut, but not advanced each time a print job is finished. Because of the space between the autocutter and the print head (1 to 2 cm, depends on the TM printer model), a minimum top margin is provided even if you set the top margin to 0 (zero). To avoid the waste, this setting allows you to print the top of the next page (e.g., store logos) on the bottom of the previous page and then cut the paper without advancing it. In this way, the top margin created by the physical space of the TM printer can be used.
Document (No Feed, No Cut)	The paper is not advanced and not cut each time a print job is finished.
Page(Feed,Cut)	The paper is advanced and cut each time a page is printed.
Page(Feed,No Cut)	The paper is advanced, but not cut each time a page is printed.
Page(No Feed,Cut)	The paper is cut, but not advanced each time a page is printed.
Custom	Makes custom settings. When this setting is selected, the custom setting screen appears.

# TM-T88V Utility

This chapter explains how to use the TM-T88V Utility that configures this printer.

### Overview



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

TM-T88V Utility provides the following functions.

- ☐ For general users
  - Operation Check **→** p. 102
  - Storing Logos p. 103
  - Paper Reduction Settings p. 109
  - Automatic Paper Cut Settings p. 111
- ☐ For printer administrators
  - Printing Control Settings p. 113
  - Font Settings p. 114
  - Optional Buzzer p. 115
  - Communication I/F Settings p. 116
  - Setting Backup/Restore p. 116

# Starting the TM-T88V Utility

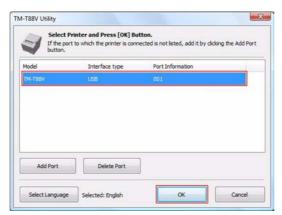
### Starting the TM-T88V Utility

Activate the TM-T88V Utility as follows.

If you have checked (Run TM-T88V Utility) at Step 10 of Easy Install procedure, start from Step 2.

- Select (Start) (All Programs) (EPSON) (TM-T88V Software) (TM-T88V Utility).
- 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-T88V Utility, click the (Select Language) button.

If the printer is not displayed, click the (Add Port) button. Then go to the following section; Adding a Communication Port and Starting the TM-T88V Utility (p.96).



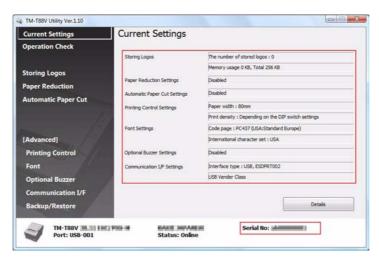


- Click the [Add Port] button when you want to newly configure a port of the printer.
  - → Adding a Communication Port and Starting the TM-T88V Utility (p.96)
- To delete a port, select the port and click the [Delete Port] button.

The TM-T88V 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.

When executing TM-T88V 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.

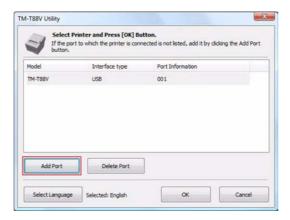
To recognize the connected printer when connected via USB, run the (Test Printing) after running TM-T88V Utility, or check the serial number on one of the sides of the printer and the serial number of TM-T88V Utility.



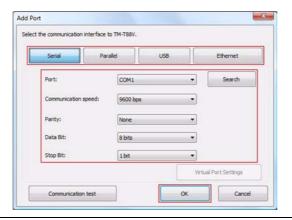
### Adding a Communication Port and Starting the TM-T88V Utility

Add a communication port as follows:

- Select (Start) (All Programs) (EPSON) (TM-T88V Software) (TM-T88V Utility).
- The following screen appears. Click the (Add Port) button.

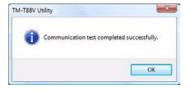


The (Add Port) screen appears. Configure the port to be added. Then, click the (OK) button.





- If the communication with the port failed, an error message appears. In such case, you cannot add
  the port. Check the connection to the printer, the DIP Switch status, or the port settings on the
  driver.
- 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

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.



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.

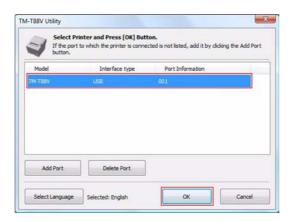
#### ☐ Ethernet

Setting	Description
IP Address:	Configures the IP address of the printer you use.
Search	Searches for the TM-T88V printers on the network and displays their IP addresses.
Advanced settings (TMNet WinConfig)	Activates the TMNet WinConfig. Make the network settings of the printer using the TMNet WinConfig.
Communication test	Runs a communication test.

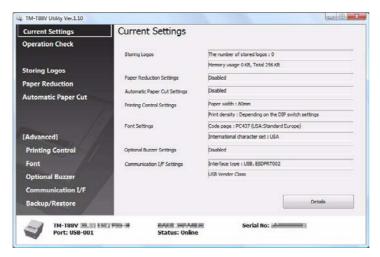


If no TM-T88V with its IP address configured is displayed even after clicking the (Search) button, enter the IP address of TM-T88V directly to "IP Address:".

The following screen appears again. Select the added port and click the (OK) button.

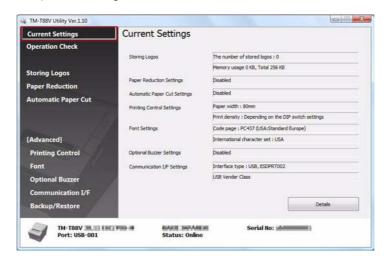


The TM-T88V Utility is started.



# **Current Settings**

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



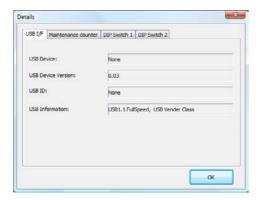
Setting	Description
Storing Logos	Displays the number of stored logos and their sizes.
Paper Reduction Settings	Displays the paper reduction settings.
Automatic Paper Cut Settings	Displays the settings of the automatic paper cut function.
Printing Control	Displays the paper width and the print density 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 the information of USB or Ethernet interface, maintenance counters, and dip switches. Details (p.100)

#### **Details**

#### Interface Information



When a serial or parallel connection is used, interface information does not appear. The maintenance counters and dip switches settings are displayed instead.



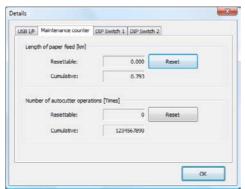
#### □ USB I/F

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.

#### 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]

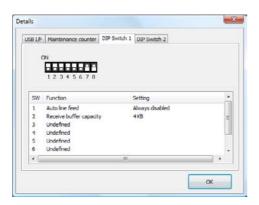
#### DIP Switch 1, 2

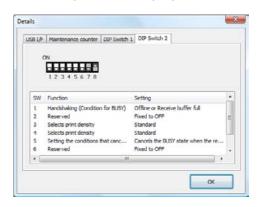
Allows you to check dip switch 1 and 2 settings obtained from the printer.

The images of the dip switches whose setting could not be obtained are grayed out.

Dip switch 2-7 and 2-8 images are always grayed out because their settings cannot be obtained from the printer.

When the printer is offline, the settings previously obtained from the printer are displayed.

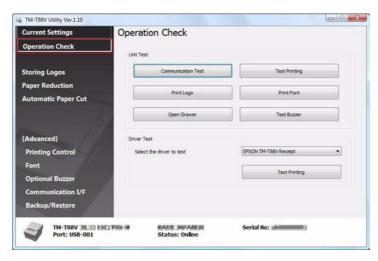




# **Operation Check**

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

Click the (Operation Check) menu.



- 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.

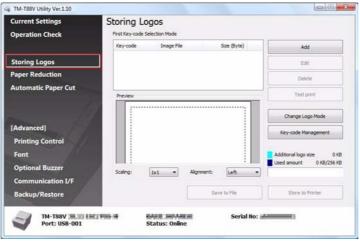


For Windows 2000, the Test Printing is not available.

# Storing Logos

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

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 chapter 5, "Storing Logos".



(Storing Logos) has the following functions.

Setting  Key Code List	Description  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.  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 to allow you to change the setting mode of the (Storing Logos). The current setting is displayed below (Storing Logos).  Select Mode for Storing Logo  Moxde  First Key code Selection Mode  32
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.

Setting	Description
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	You can check the Key-code of the logo stored in the printer, or delete the logos.  Key-code Remarks Top Logo Delete All  Get Key-code OK
Get KeyCode	Obtains registered Key-code numbers.
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.

### **Adding a Logo**

When storing multiple logos, it is recommended to add them to the printer altogether at once. When saving the logo to be stored to the printer setting file, see Setting Backup/Restore (p.121).

Add a logo as follows.

Click the (Add) button.

If the logo mode is (Advanced Printer Driver Control Font Setting Mode), select a Key-code to register the logo, then click the (Add) button.



Specify the image data to be used as a logo.

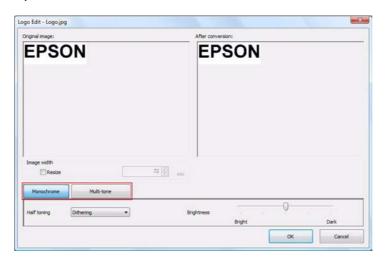
A file size of 2047 (W) x 831 (H) pixels (dots) or less can be specified, and the format can be bmp, jpeg, gif, or png. If the logo width is greater than the paper width (greater than 512 dots for 80 mm width, or greater than 360 dots for 58 mm width), a warning message will appear. Click the (OK) button and reduce the logo size in the (Logo Edit) screen of step 3.



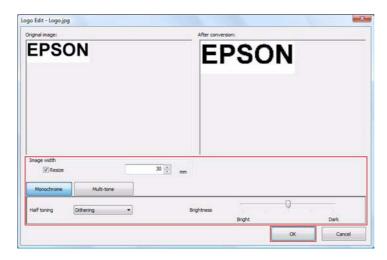
The (Logo Edit) screen appears. Click the (Monochrome) or (Multi-tone) button to select the format of the image to be printed.

The (Multi-tone) button does not appear when the mode for storing logo is set to (Key-code Nonuse Mode (not recommended)).

Colors are reduced to 2 colors with (Monochrome) selected and to 16 colors (shades) in grayscale with (Multi-tone) selected.



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.

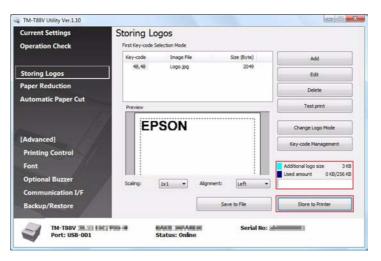
Setting	Description
Image width	Specifies the width to which the image is resized (in mm).
Resize	Specifies whether or not the image is resized. If the image width is greater than the paper width and resizing is not specified, the part of the image that exceeds the paper width will be cut off.
Half toning	Configures the halftone setting of the image. Select from (Dithering) / (Error diffusion) / (None) when (Monochrome) is selected in Step 3 and from (Dithering) / (None) when (Multi-tone) is selected.
Brightness	Configures the brightness of the image. Select from 5 levels when (Monochrome) is selected in Step 3 and from 15 levels when (Multi-tone) is selected.

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.

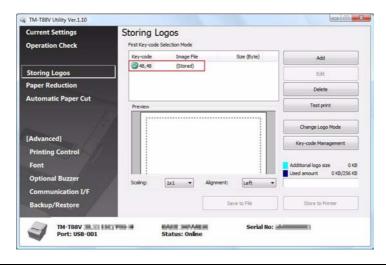
If the logo mode other than (First Key-code Selection Mode) is selected or (Automatically set the keycode for the logo to be stored.) is turned on, the "Key-code Settings" screen is not displayed.



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



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.

- Prepare all the logo data to add to the printer.
- Delete all the logo already stored on the printer. See ► Storing Logos (p.103).
- 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 (p.105).

## Paper Reduction Settings



The paper reduction settings may not reduce paper usage as specified when you print images such as logos or coupon tickets, or print in page mode.

The followings are examples that the paper reduction settings are not reflected.

☐ Windows printer driver: Printing with the settings that enable [Print all text as graphic images], such as

rotation setting, watermark setting, and barcode rotation setting\*

Mac printer driver:
 Linux printer driver:
 All printing using the Mac printer driver.\*
 All printing from the Linux printer driver.\*

☐ UPOS: Printing in page mode, printing with rotation setting, printing with bitmap

Images/Barcode/Characters horizontally aligned, and so on.

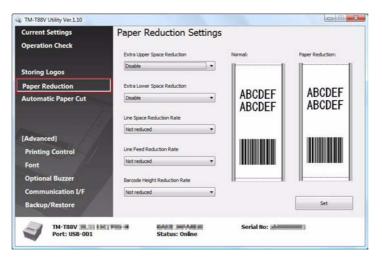
☐ ESC/POS command: Printing images such as logos or coupon tickets, printing in page mode, printing

with rotation setting, and so on.

\* The printer drivers have a function that allows you to reduce the top and bottom margins. Use the function if you want to save paper. For more details, see the manual of the printer driver.

Allows you to configure the paper reduction settings. Configure as follows.

Click the (Paper Reduction) menu.



Configure the following items referring to the preview on the right portion of the screen.

Setting	Description
Extra Upper Space Reduction:	Selects whether to reduce the upper margin or not. Enable this to cut out the extra upper margin that is created before the first print data is printed.
Extra Lower Space Reduction:	Selects whether to reduce the lower margin or not. Enable this to cut out the lower margin that is created from the time the last line is printed until the paper is automatically cut.
Line Space Reduction Rate:	Selects a reduction ratio of line spacing during printing. The minimum pitch is two dots. If reduction results in a line spacing of less than 2 dots, the line spacing will be reset to 2 dots.

Setting	Description
Line Feed Reduction Rate:	Selects a reduction ratio of line spacing of blank lines. This setting is ignored for the portion set to be cut out by the Extra Upper Space Reduction setting.  When you advance the paper by inserting line feeds in order to cut the paper manually, you may not be able to advance the paper until the last line reaches the cut position because of this reduction setting.
Barcode Height Reduction Rate:	Selects a reduction ratio of barcode height. The barcode height cannot be reduced to less than 30-dots height.  This setting can cause the barcode size to fall outside the barcode standards.

3 Click the (Set) button. The settings are reflected to the printer.

# **Automatic Paper Cut Settings**

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

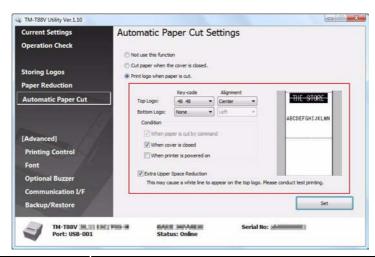
Click the (Automatic Paper Cut) menu.



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.

Configure the (Print logo when paper is cut.).



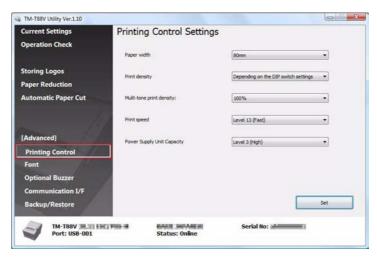
Setting	Description
Top Logo	Sets the logo that is printed at the top of the paper.  Left Wey-code: Selects the Key-code of the logo to be printed.  Alignment: Selects the logo print position.
Bottom Logo	Sets the logo that is printed at the bottom of the paper.   Key-code: Selects the Key-code of the logo to be printed.  Alignment: Selects the logo print position.
Condition	<ul> <li>Sets the condition for top logo printing.</li> <li>When paper is cut by command: The checkmark cannot be removed from this checkbox.</li> <li>When cover is closed: Sets whether the top logo is printed when the cover is closed.</li> <li>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.</li> </ul>
Extra Upper Space Reduction:	Selects whether to reduce the top margin when printing the logo configured at (Top Logo). Selecting this may cause a white line appear on the top logo (13 mm away from the top of the logo). Run the Test Printing to see if the logo is printed properly. Selecting this may cause a white line 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.

Click the (Set) button. The settings are reflected to the printer.

# **Printing Control Settings**

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

Click the (Printing Control) menu.



Configure the following printing control items.

Setting	Description
Paper width:	Selects the paper width.
Print density:	Selects the print density.
Multi-tone print density:	Selects the multi-tone print density level.
Print speed:	Selects the print speed.
Power Supply Unit Capacity:	Selects the capacity level of the power supply unit connected to the printer.



- 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 [Power Supply Unit Capacity] level. If the trouble still occurs, lower the [Print speed].



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
- Click the (Set) button. The settings are reflected to the printer.

## **Font**

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



- 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.
- Click the (Font) menu.



Configure the following.

Setting	Description
Code-page:	Selects the Code Page of the printer font.
International character set:	Selects an international character set.
Font A Replacement:	Font A can be replaced with Font B. When the paper width is changed, this enables the layout to be maintained without making changes in your application.

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.

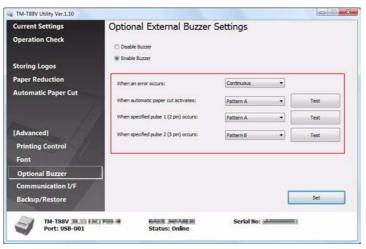
← Click the (Optional Buzzer) menu.



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.

Specify when the external buzzer sounds and the buzzer pattern.



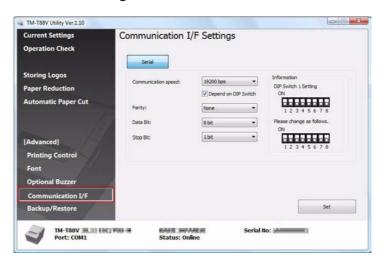
Setting	Description
When an error occurs:	Configure the buzzer setting when an error occurs.
When automatic paper cut activates:	Configure the buzzer setting when automatic paper cutting takes place. To test the buzzer sound, click the (Test) button.
When specified pulse 1 (2 pin) occurs:	Configure the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



Make the communication settings.

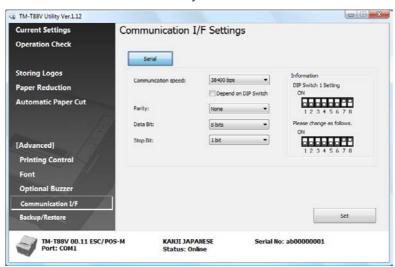
Serial	Configures the serial communication.	<b>→</b> p. 117
USB	Configures the USB communication.	<b>p</b> . 118
Ethernet	Configures the IP address.	<b>p</b> . 120

Click the (Set) button. The settings are reflected to the printer.

#### Serial

Configures the serial communication.

- ☐ When the communication speed is 38400 bps or lower Referring to the preview on the right of the screen, change the DIP switch setting on the printer. Turn off the printer power when changing DIP switch settings.
- ☐ When the communication speed is 38400 bps or higher Turn off the printer power. After turning on the printer DIP switches 1 7 and 1 8, turn the printer back on. Then start TM-T88V Utility.



Setting	Description
Communication speed:	Selects the communication speed. The available settings vary depending on whether (Depend on DIP Switch) is selected or not.
Depend on DIP Switch	Selects which communication speed setting to use between DIP switch setting and memory switch setting. Place a checkmark to use the DIP switch setting. Deselect it to use the memory switch setting.
Parity:	Configures the parity.
Data Bit:	Configures the data bit.
Stop Bit:	Configures the stop bit.

#### **USB**

Configures the USB class.



- When using the UPOS or Advanced Printer Driver Ver. 3.04, select [Vender Class].
- When you do not need to use the [Printer Class], using [Vender Class] is recommended.
- To change to [Printer Class], the Built-in USB and USB Plus Power must have been installed.



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

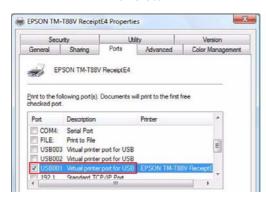
Description: Virtual printer port for USB

• Vender Class

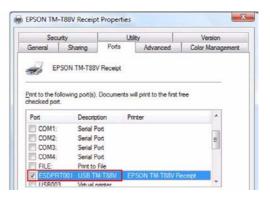
Port: ESDPRTxxx

Description: USB TM-T88V

Printer Class

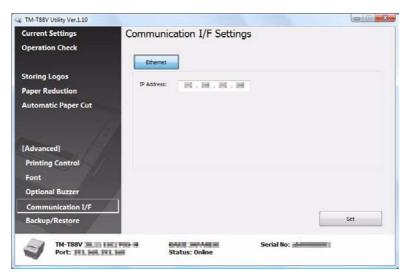


Vender Class



### **Ethernet**

Changes the printer's IP address.



#### ☐ IP Address:

Type a new IP address to be set to the printer.

Changing the printer IP address causes a communication error between the printer and the computer. After the setting, change the setting of the printer driver and UPOS to the same as that you made on the printer.

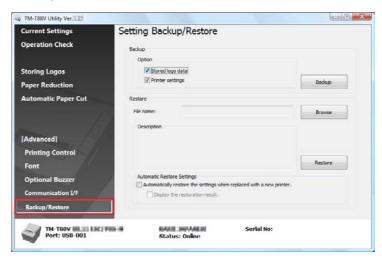
## Setting Backup/Restore

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

## Saving the Printer Settings to a File

Save the settings as follows:

← Click the (Backup/Restore) menu.

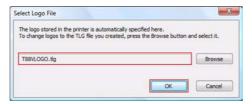


- Select the setting items to be saved as a file from the (Option).
- □ Stored logo data: Saves the logo data stored on the printer. In this step, data is not acquired from the printer, but the data in the logo store file (TLG file) is saved. See ▶ Logo Store File (p.108) for the details.
- ☐ Printer settings: Saves all the set values of the printer.
  - Font settings (font replacement, code page, and international character set settings)
  - Print control settings (paper width, print speed, density, etc.)
  - Paper save setting
  - Automatic cutting setting
- 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.

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.

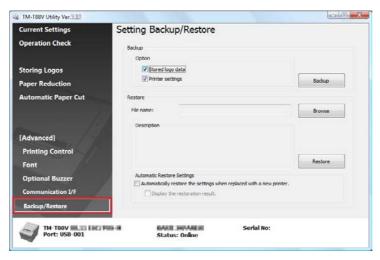


5 Specify the filename and backup location in the next screen and save the file.

## **Restore the Settings to the Printer**

Restore the settings as follows:

Click the (Backup/Restore).

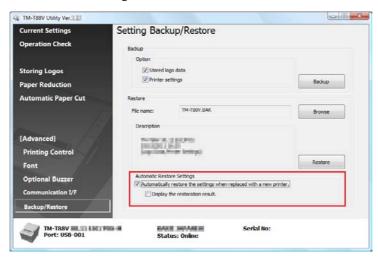


- Click the (Browse) button, and specify the printer setting file to be restored.
- 3 Click the (Restore) button. A restore confirmation message will appear. Click the (Yes) button.
- If the restore is successful, the message below will appear.



## **Automatic Restore Settings**

Configures the automatic restore settings.



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 the restoration result.	To display the success/failure result on the screen when automatic restore is executed.

## **Acknowledgements**

"TM-T88V Utility" incorporate compression code from the Info-ZIP group.

\_\_\_\_\_

This is version 2007-Mar-4 of the Info-ZIP license.

The definitive version of this document should be available at ftp://ftp.info-zip.org/pub/infozip/license.html indefinitely and a copy at http://www.info-zip.org/pub/infozip/license.html.

Copyright (c) 1990-2007 Info-ZIP. All rights reserved.

For the purposes of this copyright and license, "Info-ZIP" is defined as the following set of individuals:

Mark Adler, John Bush, Karl Davis, Harald Denker, Jean-Michel Dubois, Jean-loup Gailly, Hunter Goatley, Ed Gordon, Ian Gorman, Chris Herborth, Dirk Haase, Greg Hartwig, Robert Heath, Jonathan Hudson, Paul Kienitz, David Kirschbaum, Johnny Lee, Onno van der Linden, Igor Mandrichenko, Steve P. Miller, Sergio Monesi, Keith Owens, George Petrov, Greg Roelofs, Kai Uwe Rommel, Steve Salisbury, Dave Smith, Steven M. Schweda, Christian Spieler, Cosmin Truta, Antoine Verheijen, Paul von Behren, Rich Wales, Mike White.

This software is provided "as is," without warranty of any kind, express or implied. In no event shall Info-ZIP or its contributors be held liable for any direct, indirect, incidental, special or consequential damages arising out of the use of or inability to use this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the above disclaimer and the following restrictions:

- 1. Redistributions of source code (in whole or in part) must retain the above copyright notice, definition, disclaimer, and this list of conditions.
- 2. Redistributions in binary form (compiled executables and libraries) must reproduce the above copyright notice, definition, disclaimer, and this list of conditions in documentation and/or other materials provided with the distribution. The sole exception to this condition is redistribution of a standard UnZipSFX binary (including SFXWiz) as part of a self-extracting archive; that is permitted without inclusion of this license, as long as the normal SFX banner has not been removed from the binary or disabled.
- 3. Altered versions--including, but not limited to, ports to new operating systems, existing ports with new graphical interfaces, versions with modified or added functionality, and dynamic, shared, or static library versions not from Info-ZIP--must be plainly marked as such and must not be misrepresented as being the original source or, if binaries, compiled from the original source. Such altered versions also must not be misrepresented as being Info-ZIP releases--including, but not limited to, labeling of the altered versions with the names "Info-ZIP" (or any variation thereof, including, but not limited to, different capitalizations), "Pocket UnZip," "WiZ" or "MacZip" without the explicit permission of Info-ZIP. Such altered versions are further prohibited from misrepresentative use of the Zip-Bugs or Info-ZIP e-mail addresses or the Info-ZIP URL(s), such as to imply Info-ZIP will provide support for the altered versions.
- 4. Info-ZIP retains the right to use the names "Info-ZIP," "Zip," "UnZip," "UnZipSFX," "WiZ," "Pocket UnZip," "Pocket Zip," and "MacZip" for its own source and binary releases.

# 5

# 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.4 for further details on using the driver and how to develop an application using the Status API functions.

- Install Manual
- TM Printer Manual
- Printer Specification
- Status API Manual
- Devmode API / PRINTERINFO Manual
- Sample Programs

#### **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-T88V 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 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-T88V)

• 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.

In order to use the ESC/POS commands, you must sign our non-disclosure contract and get ESC/POS application programming guide. For more details, please contact your dealer.

# Storing Logos

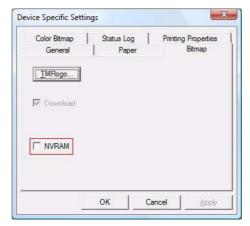


- You cannot store OPOS SetBitmap logos and logos configured using TM-T88V Utility in the same printer.
- When a SetBitmap logo is stored, it overwrites and deletes an existing TM-T88V Utility logo.

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

- ☐ When using the Advanced Printer Driver only Use TM-T88V Utility to store logos.
- ☐ When using the OPOS and Advanced Printer Driver on the same system
  - 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-T88V 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:

http://www.epson-pos.com/

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