



EPSON OPOS ADK MANUAL

APPLICATION DEVELOPMENT GUIDE

**POSPrinter (TM-T88VII/
TM-T88VII_MltFont)**

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Section 1. Introduction

This manual describes the method of use and related items, as well as machine-specific precautions, when the EPSON TM-T88VII/ TM-T88VII_MltFont Series POS Printers are used with the EPSON OPOS ADK program.

This manual applies to the following devices.

Device List

Serial	Parallel	USB	Ethernet
TM-T88VII	TM-T88VIIP	TM-T88VIIU	TM-T88VIIE
TM-T88VIIM	TM-T88VIIPM	TM-T88VIIMU	TM-T88VIIME

Before reading the manual, see the following explanation about the characteristic of the TM-T88VII/ TM-T88VII_MltFont models.

- Station: Receipt (Line Thermal 180 dpi X 180 dpi)

Throughout the manual, the various model names will be referred to as TM-T88VII/ TM-T88VII_MltFont.

Compatibility mode

The compatibility mode for upward compatibility was added in OPOS Ver2.60.

For the details of the compatibility mode, please refer to “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE Compatibility Mode”.

Section 2. Details on Settings

This section describes connection configurations and how to make the settings for the TM-T88VII/ TM-T88VII_MltFont Series printers.

2.1 References of Firmware Versions

Refer to the release notes (Relnote.txt).

2.2 Settings of DIP Switches

- Change DIP switch settings only when the power is off.
- Changes in DIP switch settings are enabled only when the printer power is turned on or when the printer is reset by using the interface. If the DIP switch settings are changed after the printer power is turned on, the changes will not take effect until the printer is turned on again or is reset.

2.2.1 Standard I/F Model

1) Serial port

DIP-SW1

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Fixed at OFF
4	OFF	Fixed at OFF
5	OFF	Settable
6	OFF	Settable
7	ON	Settable
8	ON	Settable

DIP-SW2

No.	Setting	
1	OFF	Settable
2	OFF	Fixed at OFF
3	OFF	Settable
4	OFF	Settable
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	OFF	Fixed at OFF

It is possible to change the settings of DIP-SW1-1 (Processing of the data input error) and DIP-SW1-2 (Specification of the received buffer capacity), but it is recommended to leave them OFF.

Set DIP-SW1-3 (Handshake) to DTR/DSR.

Set DIP-SW1-4 (Bit length) to 8 bits.

Set DIP-SW1-5 to DIP-SW1-8 in accordance with the port information.

The described set values are the default values. For the details, refer to the product manual of the POSPrinter. Also, if these settings are changed, make sure to change the port information using the SetupPOS utility.

Set DIP-SW2-2 in accordance with whether or not a customer display is connected. If connected, set ON. If not, set OFF.

Set DIP-SW2-3 and DIP-SW2-4 (Specification of the print density) to match the environment of use.

Make other settings in accordance with the settings described above.

When using with the power saving mode, set DIP-SW2-3 and DIP-SW2-4 to ON.

2) Parallel Port

DIP-SW 1

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Fixed at OFF
4	OFF	Fixed at OFF
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	OFF	Fixed at OFF

DIP-SW 2

No.	Setting	
1	ON	Recommended
2	OFF	Fixed at OFF
3	OFF	Settable
4	OFF	Settable
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	ON	Fixed at ON

It is possible to change the settings of DIP-SW1-1 (Auto line feed) and DIP-SW1-2 (Specification of the received buffer capacity), but it is recommended to leave them OFF.

Set DIP-SW2-3 and DIP-SW2-4 (Specification of the print density) to match the environment of use.

Make other settings in accordance with the settings described above.

When using with the power saving mode, set DIP-SW2-3 and DIP-SW2-4 to ON.

3) USB Port

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Fixed at OFF
4	OFF	Fixed at OFF
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	OFF	Fixed at OFF

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Settable
4	OFF	Settable
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	ON	Fixed at ON

It is possible to change the settings of DIP-SW1-1 (Auto line feed) and DIP-SW1-2 (Specification of the received buffer capacity), but it is recommended to leave them OFF.

Set DIP-SW2-3 and DIP-SW2-4 (Specification of the print density) to match the environment of use.

Make other settings in accordance with the settings described above.

When using with the power saving mode, set DIP-SW2-3 and DIP-SW2-4 to ON.

4) Ethernet Port

DIP-SW1

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Fixed at OFF
4	OFF	Fixed at OFF
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	OFF	Fixed at OFF

DIP-SW2

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Settable
4	OFF	Settable
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	ON	Fixed at ON

It is possible to change the settings of DIP-SW1-1 (Auto line feed) and DIP-SW1-2 (Specification of the received buffer capacity), but it is recommended to leave them OFF.

Set DIP-SW2-3 and DIP-SW2-4 (Specification of the print density) to match the environment of use.

Make other settings in accordance with the settings described above.

When using with the power saving mode, set DIP-SW2-3 and DIP-SW2-4 to ON.

2.2.2 Onboard I/F Model

No.	Setting	
1	OFF	Recommended
2	OFF	Fixed at OFF
3	OFF	Settable
4	OFF	Settable
5	OFF	Fixed at OFF
6	OFF	Fixed at OFF
7	OFF	Fixed at OFF
8	ON	Fixed at ON

Set DIP-SW-3 and DIP-SW-4 (Specification of the print density) to match the environment of use.

Make other settings in accordance with the settings described above.

2.3 Port Information

1) Port information when serial port is used

The port information that can be set with the SetupPOS utility is as follows.

Item	Setting range
Baud rate [bps]	2400, 4800, 9600, 19200, 38400, 57600, 115200
Bit length [bit]	8
Parity	NONE, ODD, EVEN
Stop bit [bit]	1
Handshake	DTR/DSR

The default settings are as shown in the following table.

Item	Setting range
Baud rate [bps]	19200
Bit length [bit]	8
Parity	NONE
Stop bit [bit]	1
Handshake	DTR/DSR

2) Port information when using parallel port

Not applicable

3) Port information when using USB port

Not applicable

4) Port information when using Ethernet port

Not applicable

2.4 Device Settings

The following explanation is about the settings for TM-T88VII/ TM-T88VII_MltFont models.

2.4.1 Usable Device Specific Settings

For the TM-T88VII/ TM-T88VII_MltFont models, the following device specific settings are settable by the SetupPOS utility. For the detail, please refer to the corresponding part of the Section 2 of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)”

Tab	Settings
General	Disable panel buttons
	Assume print complete when data output finishes
	Homogenize Error Codes *1
	Ignore firmware version check
	Output complete timeout [s]
Paper	Paper Type
	Paper Width [mm]: LineWidth [dot]: LineCharsList
Bitmap	TMFlogo...
Color Bitmap	Halftone: Method
	Halftone: Brightness
	Color: Primary
	Gradation: Method
Status Log	ERROR
	OFFLINE
	Log file name (full path name)
	Maximum file size [KB]
Default Value *2	Multilingual font
Printing Properties	Receipt Characters per Line
	Receipt Line Spacing [dots]
	CharacterSet [CodePage Number]

*1 The operations differ by the firmware versions. See the corresponding part of the section 2 of this manual.

*2 Available only for the Multilingual character model.

2.4.2 Multilingual font Setting

The TM-T88VII Multilingual character models support the following font type.

- CHINA GB18030
- TAIWAN BIG-5
- VIETNAMESE
- THAI 3 PASS
- THAI 1 PASS

The default paper type is set to CHINA GB18030.

Section 3. Function Details

This section describes the functions of the TM-T88VII/ TM-T88VII_MltFont models printers in details. Supplementary explanation of the parts not described in detail in the "UPOS" is also given here.

3.1 Property Set Values and Default Values

The following explanation is about the property set values and the default values.

3.1.1 Capability Set Values

The following values are the Capability set values.

Capability Name	Setting Value
CapTransaction	TRUE
CapCoverSensor	TRUE
CapConcurrentRecSlp	FALSE
CapConcurrentJrnSlp	FALSE
CapConcurrentJrnRec	FALSE
CapConcurrentPageMode	FALSE
CapCharacterSet	PTR_CCS_UNICODE* ¹
CapMapCharacterSet	TRUE* ²
CapJrnUnderline	FALSE
CapJrnNearEndSensor	FALSE
CapJrnItalic	FALSE
CapJrnEmptySensor	FALSE
CapJrnDwideDhigh	FALSE
CapJrnDwide	FALSE
CapJrnDhigh	FALSE
CapJrnColor	0
CapJrnCartridgeSensor	0
CapJrnBold	FALSE
CapJrn2Color	FALSE
CapJrnPresent	FALSE
CapRecPageMode	TRUE
CapRecUnderline	TRUE
CapRecStamp	FALSE
CapRecRotate180	TRUE
CapRecRight90	TRUE
CapRecPapercut	TRUE

CapRecNearEndSensor	TRUE
CapRecMarkFeed	0
CapRecLeft90	TRUE
CapRecItalic	FALSE
CapRecEmptySensor	TRUE
CapRecDwideDhigh	TRUE
CapRecDwide	TRUE
CapRecDhigh	TRUE
CapRecColor	PTR_COLOR_PRIMARY
CapRecCartridgeSensor	0
CapRecBold	TRUE
CapRecBitmap	TRUE
CapRecBarCode	TRUE
CapRec2Color	FALSE
CapRecPresent	TRUE
CapRecRuledLine	FALSE
CapSlpUnderline	FALSE
CapSlpRotate180	FALSE
CapSlpRight90	FALSE
CapSlpNearEndSensor	FALSE
CapSlpLeft90	FALSE
CapSlpItalic	FALSE
CapSlpEmptySensor	FALSE
CapSlpDwideDhigh	FALSE
CapSlpDwide	FALSE
CapSlpDhigh	FALSE
CapSlpColor	0
CapSlpCartridgeSensor	0
CapSlpBothSidesPrint	FALSE
CapSlpBold	FALSE
CapSlpBitmap	FALSE
CapSlpBarCode	FALSE
CapSlp2Color	FALSE
CapSlpFullslip	FALSE
CapSlpPresent	FALSE
CapSlpPageMode	FALSE
CapSlpRuledLine	FALSE

*1 If CHINA GB18030 character model or TAIWAN BIG-5 character model or Thai 1 Pass character model, "PTR_CCS_KANJI" is set.

*2 If CHINA GB18030 character model or TAIWAN BIG-5 character model or Thai 1 Pass character model, "FALSE" is set.

3.1.2 List Properties

The List Properties are explained in the following.

TM-T88VII/ TM-T88VIIM:

List Property	Settings
CharacterSetList	(TM-T88VII, TM-T88VIIM ^{*1*5}) "120, 121, 126, 130, 131, 150, 151, 152, 153, 154, 155, 255, 437, 720, 737, 775, 850, 851, 852, 853, 855, 857, 858, 860, 861, 862, 863, 864, 865, 866, 869, 998, 999, 1098, 1125, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258" (TM-T88VIIM ^{*2}) "120,121,126,130,131,437,997" ^{*3} "437, 874" ^{*4}
RecLineCharsList	79.5mm: (Font A) "42" (Font B) "56" 57.5mm: (Font A) "30" (Font B) "40"
RecBarCodeRotationList	"0, R90, L90, 180"
RecBitmapRotationList	"0, R90, L90, 180"
FontTypefaceList	" "

^{*1} If Multilingual character model, "936" or "950" is added to the list.

^{*2} Device is limited to South Asia model.

^{*3} Available only for Thai3 Pass mode and Vietnamese.

^{*4} Available only for Thai1 Pass mode.

^{*5} When the CapCharacterSet property is set to "PTR_CCS_UNICODE," "997" is added to the list. When CharacterSet is set to "997," all characters loaded in the device are allocated to Unicode for printing. However, the BinaryConversion property should be set to "OPOS_BC_NONE" when printing with Unicode.

TM-T88VII_MltFont:

List Property	Settings
CharacterSetList	"120, 121, 126, 130, 131, 150, 151, 152, 153, 154, 155, 255, 437, 720, 737, 775, 850, 851, 852, 853, 855, 857, 858, 860, 861, 862, 863, 864, 865, 866, 869, 932, 936, 949, 950, 997, 998, 999, 1098, 1125, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258"
RecLineCharsList	79.5mm: (Font A) "42" (Font B) "56" 57.5mm: (Font A) "30" (Font B) "40"
RecBarCodeRotationList	"0, R90, L90, 180"
RecBitmapRotationList	"0, R90, L90, 180"
FontTypefaceList	" "

3.1.3 Width and Height Properties

The width and height properties are described below.

Property	Settings		
	Default Value	Maximum value [dot]	Minimum value [dot]
RecLineSpacing	30	127	24 ^{*1}
RecLineHeight [dot]		(Font A) 24 (Font B) 17	
RecLineWidth [dot]		(79.5mm) 512 (57.5mm) 360	
RecSidewaysMaxLines		17 ^{*2}	
RecSidewaysMaxChars		(Font A) 138 (Font B) 184	
RecLinesToPaperCut		5 ^{*3}	

X: No settings

^{*1} When Font A is selected. In the case of a line thermal station, the Line Spacing setting is identical with the height of the characters which means that it can be set at up to 17 when Font B is selected.

^{*2} It can be changed by the settings of the RecLineSpacing or the RecLineHeight.

^{*3} It can be changed by the settings of the RecLineSpacing or the character height.

3.1.4 Common Property Strings

The Device information properties are described below.

DeviceName	DeviceDescription
TM-T88VII○	EPSON TM-T88VII○ POS Printer
TM-T88VIIM○	EPSON TM-T88VIIM○ POS Printer
TM-T88VII_MltFont○	EPSON TM-T88VII_MltFont○ POS Printer

I/F indicate the connected interface.

The following is the list of the four connecting interfaces.

S: Serial

P: Parallel

U: USB

E: Ethernet

3.1.5 PageMode Print Properties

The Device information properties are described below.

Property	Station ^{*2}		
	Journal	Receipt	Slip
PageModeArea	-	(79.5mm) "512", "1662" (57.5mm) "360", "1662"	-
PageModeDescriptor ^{*1}	-	BM/BC/BMR/BCR	-

^{*1} Following setting values are used for the PageModeDescriptor property.

BM: Bitmap printing is available.

BC: Barcode printing is available.

BMR: Rotated printing of bitmap is available.

BCR: Rotated printing of barcode is available.

^{*2} If the Station's CapRecPageMode property value is FALSE, the PageModeArea property shall have " " and the PageModeDescriptor property shall have "0" respectively as a setting value.

3.2 Methods

The following explanation is about supported/unsupported Methods, and the detailed information.

Method	Supported/Unsupported	Compatibility with the PageMode printing
PrintNormal	O	O
PrintTwoNormal	X	X
PrintImmediate	O	O ^{*1}
PrintBarCode	O	O ^{*2}
PrintBitmap	O	O ^{*3}
PrintMemoryBitmap	O	O ^{*3}
CutPaper	O (1~100: Cutting with one point of the bottom left corner uncut)	X
MarkFeed	X	X
ChangePrintSide	X	X
ValidateData	O	O
TransactionPrint	O	O
SetLogo	O	O
SetBitmap	O	O
RotatePrint	O	X
EndRemoval	X	X
BeginRemoval	X	X
EndInsertion	X	X
BeginInsertion	X	X
ClearPrintArea	O	O
PageModePrint	O	O
DrawRuledLine	X	X

O : Supported

X : Unsupported

^{*1} If the specified Station is ready to print, the printing data shall not be stored in the PageMode printing buffer but, instead, go straight to printing. If the Station is not ready to print, an error is returned.

^{*2} If other than "LEFT" is specified for the printing position of barcode, the printing shall be done, regardless of the PageModeHorizontalPosition property setting, based on the PageModePrintArea property setting in the horizontal direction.

^{*3} If other than "LEFT" is specified for the printing position of bitmap, the printing shall be done, regardless of the PageModeHorizontalPosition property setting, based on the PageModePrintArea property setting in the horizontal direction.

3.3 Escape Sequences

The following figure is about supported/unsupported Escape Sequences.

Escape Sequence	Supported/Unsupported	Compatibility with the PageMode printing
#P	0~100	X
#fP	0~100	X
#sP	X	X
sL	X	X
#B	O	O
tL	O	O
bL	O	O
[*]#R	O	O
#IF	0~9999	O
#uF Base Pitch [inch]	0~ equiv. 50 cm	O
#rF Maximum [inch]	X	X
[*]#E	0~65535	X
#fT	X	X
[!]bC	O	O
#uC	1~2	O
[!]iC	X	X
#rC	1	O
[!]rvC	O	O
#sC	X	X
#fC	X	X
[!]tbC	X	X
[!]tpC	X	X
1C	O	O
2C	O	O
3C	O	O
4C	O	O
#hC	1~8	O
#vC	1~8	O
cA	O	O ^{*1}
rA	O	O ^{*1}
lA	O	O
[!][#]stC ^{*2}	1	1
*#dL	X	X
N	O	O

O : Supported

X : Unsupported

Numbers: Settable range

^{*1}Regardless of the PageModeHorizontalPosition property setting, center or right adjust what is to be printed based on the PageModePrintArea property setting in the horizontal direction.

^{*2}Only TM-T88VII/ TM-T88VIIM are supported.

3.4 Printable Barcode Type

The TM-T88VII/ TM-T88VII_MltFont models allow the following barcode types.

- Code 128
- Code 128 Parsed
- Code 93
- Codabar
- ITF
- Code 39
- JAN 13 (EAN 13)
- JAN 8 (EAN 8)
- UPC-E
- UPC-A
- PDF417
- QRCODE
- MAXI CODE
- GS1-Data
- GS1-Data Expanded
- GS1-128
- GS1-Data Truncated
- GS1-Data Limited
- GS1-Data Stacked
- GS1-Data Stacked Omnidirectional
- GS1-Data Expanded Stacked
- Composite
- AztecCode
- DataMatrixCode

3.5 Code128/ Code128 Parsed Printing

When printing Code128 or Code128_Parsed symbol,
special characters of Code128 are treated as ASCII character.

3.6 MAXI CODE Printing

When printing MAXI CODE, set the Symbology parameter to one of the following values.

- PTR_BCS_MAXICODE : Print using MAXI mode 2.
- PTR_BCS_OTHER + 0 : Print using MAXI mode 3.
- PTR_BCS_OTHER + 1 : Print using MAXI mode 4 or 5. The mode is set to 4 or 5 automatically depending on the length of the Data parameter. (If the data is long, then the data correction level is lowered for printing.)
- PTR_BCS_OTHER + 2 : Print using MAXI mode 6.

3.7 QR CODE Printing

When printing QR CODE, set the Symbology parameter to one of the following values

- PTR_BCS_QRCODE : Print using QR CODE model 2.
- PTR_BCS_OTHER + 3 : Print using QR CODE model 1 (old specification, used for maintaining compatibility).
- PTR_BCS_OTHER + 4 : Print using QR CODE model 2.

3.8 GS1 DataBar Printing

When printing GS1 DataBar, set the Symbology parameter to one of the following values.

- PTR_BCS_GS1DATABAR_S : Print using GS1 DataBar Stacked Omnidirectional
- PTR_BCS_GS1DATABAR_E_S : Print using GS1 DataBar Expanded Stacked
- PTR_BCS_OTHER + 7 : Print using GS1 DataBar Stacked.
- PTR_BCS_OTHER + 8 : Print using GS1 DataBar Stacked Omnidirectional.
- PTR_BCS_OTHER + 9 : Print using GS1 DataBar Expanded Stacked.

3.9 COMPOSITE Printing

When printing COMPOSITE, set the Symbology parameter to the following value.

HIWORD : The constant value of PDF417
 LOWORD : The constant value of the barcode that will combine the value of PDF417.

3.9.1 Combinable Barcode

The settable barcode in the ROWORD is as follows.

- UPC-A
- UPC-E (Compressed format)
- UPC-E
- EAN 8
- EAN 13
- GS1 DataBar
- GS1 DataBar Truncated
- GS1 DataBar Stacked
- GS1 DataBar Stacked Omnidirectional
- GS1 DataBar Limited
- GS1 DataBar Expanded
- GS1 DataBar Expanded Stacked
- GS1 DataBar 128

3.10 Synchronous Processing

The TM-T88VII/ TM-T88VII_MltFont models use Process ID to determine output completion.

Use of the Process ID allows multiple print commands to be queued to the printer simultaneously. For this reason, Asynchronous output (AsyncMode = TRUE) gives a performance improvement.

3.11 Printing Positions

The TM-T88VII/ TM-T88VII_MltFont models support the function for setting printing position.

Function	Receipt
Left margin	O
Printing Position	O

O: Supported

X: Unsupported

When the left margin setting function is supported, it is possible to specify the horizontal printing position of the bitmap or barcode by dots unit.

When the printing position settings are supported, it is possible to specify the horizontal printing position of the text, bitmap, or the barcode to the left, center, or the right side of the paper.

3.12 Electronic Logo Function (NVRAM)

The TM-T88VII/ TM-T88VII_MltFont models feature an electronic logo function (NVRAM). To use NVRAM, startup TM-T88VII utility from “Device Specific Settings” of SetupPOS utility and register image files (BMP style) with NVRAM in advance.

For the details of the registration, please refer to the “TM-T88VII Utility User's Manual”.

To print image files registered with NVRAM, please use the either of the following DirectIO:

PTR_DI_FLASH_BITMAP

PTR_DI_FLASH_BITMAP2.

Please refer to the corresponding part of the Section 4 of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)” for detail. The available NVRAM sizes are as follows:

TM-T88VII/ TM-T88VII_MltFont : 393216 bytes

3.13 Printable bitmap types and sizes

The TM-T88VII/ TM-T88VII_MltFont models support the following bitmap commands. For the detail, please refer to the corresponding part of the Section 3 of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)”. The allowance ranges for bitmaps are as follows.

Bitmap command type	Allowance range		
	X (dot)	y (dot)	xy
Download bitmap	1~2040	1~384	<= 98304
Raster bitmap	1~2400	1~4095	
One-line bitmap	No setting range		

3.14 Maintenance Counter

The TM-T88VII/ TM-T88VII_MltFont models feature a maintenance counter function for retaining an operation log of the printer.

The following chart shows the available maintenance counters for the TM-T88VII/ TM-T88VII_MltFont models.

Counter number Hexadecimal	Counter	Unit	Max. Value	Counter Type
14	Paper feed in number of lines: Roll paper	Lines	143,165,576	Resettable
15	Number of times head timing pulse: Roll paper	Times	4,294,967,295	Resettable
32	Number of auto-cutter operations	Times	4,294,967,295	Resettable
46	Uptime of product	Hours	71,582,788	Resettable
94	Number of paper feed lines: Roll paper	Lines	143,165,576	Cumulative
95	Number of times head timing pulse: Roll paper	Times	4,294,967,295	Cumulative
B2	Number of auto-cutter operations	Times	4,294,967,295	Cumulative
C6	Uptime of product	Hours	71,582,788	Cumulative

3.15 Automatic Recovery Function

The TM-T88VII/ TM-T88VII_MltFont models feature a function for automatic recovery when the power is turned on again after an interruption of power. Recovery processing is performed automatically when the printer's power is turned on again after an interruption. The recovery processing restores the printer to the condition it was in before the power was turned off.

3.16 Output without Flow Control on the USB/Ethernet Interfaces

The TM-T88VII/ TM-T88VII_MltFont models support outputting without flow control on the USB/Ethernet interfaces. The operations differ by the firmware versions. See the corresponding part of the section 2 of this manual.

Section 4. MultiFont Printing

4.1 Overview

This function enables multilingual printing. The function is enabled by selecting “TM-T88VII_MltFont” with SetupPOS.

4.2 Supported Device

- TM-T88VII

Connect the above model, select “TM-T88VII_MltFont” with SetupPOS, and register.

4.3 Supported Methods

- **PrintNormal**
- **PrintImmediate**
- **SetLogo**

4.4 Supported Languages

- Alphanumeric
- Japanese
- Simple Chinese
- Traditional Chinese
- Korean
- Thai

4.5 Details of function

4.5.1 Priority Font

TM-T88VII_MltFont searches the print character code points in the following priority order.

The following is the default analysis priority of the language font of TM-T88VII_MltFont.

Language Font	Analysis priority
ANK Font	1: priority: High
Japanese Font	2:
Korean Font	3:
Traditional Chinese Font	4:
Simple Chinese Font	5: priority: Low

Thai is treated the same as ANK font.

Therefore, even if the code point is the same, the typeface for each language may differ as shown below.

CodePoint	Japanese	Simple Chinese	Traditional Chinese	Korean
U+9AA8	骨	骨	骨	骨

As a result, depending on the analysis priority of the language font, printing may be performed in a typeface different from the typeface assumed by the application developer.

To avoid this, change the CharacterSet property in your application. Priority Font can be set as follows.

	932 Japanese	936 Simple Chinese	949 Korean	950 Traditional Chinese	Other
First priority Font	Japanese Font	Simple Chinese Font	Korean Font	Traditional Chinese Font	ANK Font
Second priority Font	ANK Font	ANK Font	ANK Font	ANK Font	Japanese Font

4.5.2 Precautions and Restrictions

- When using the following functions, set the same value as the character code value specified in SetupPOS to the CharacterSet property.
 - RotatePrint
 - PageModePrint
 - Specify a character string that combines multiple ESC | IA, ESC | cA, and ESC | rA in one PrintNormal method.

If the settings are incorrect, the following phenomena will occur.

- The margin on the right edge becomes wider
- Line breaks at unintended positions
- Strikethrough function of escape sequence (ESC | #stC) is not supported.
- If you want to use "U + 005C" as a half-width yen sign instead of a backslash, set the printer's international character set to "Japan" with the utility.
- The "Print using multiple interfaces" function cannot be used.

Section 5. Warnings

This section describes precautions in use of TM-T88VII/ TM-T88VII_MltFont models.

- When using the network connection, always use a build-in Ethernet Interface or OT-WL02/05, UB-R04, UB-R05 interface board. If a device is connected via other interface board, Epson will not be responsible for any consequences.
- Thai1 Pass mode printing:
If print data remains in the printer buffer when printing is executed (i.e. The line feed for the print data was not completed), it is possible that the result will not be printed correctly.