

EPSON OPOS ADK MANUAL

APPLICATION DEVELOPMENT GUIDE

**POSPrinter (TM-J7000/ TM-J7100/ TM-J7500/
TM-J7600)**

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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-J7000, TM-J7100, TM-J7500, TM-J7600, TM-J7500, and TM-J7600 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-J7000 | TM-J7000P | TM-J7000U | TM-J7000E |
| TM-J7100 | TM-J7100P | TM-J7100U | TM-J7100E |
| TM-J7500 | TM-J7500P | TM-J7500U | TM-J7500E |
| TM-J7600 | TM-J7600P | TM-J7600U | TM-J7600E |

Before reading the manual, see the following explanation about the characteristic of the TM-J7000, TM-J7100, TM-J7500, and TM-J7600 models.

- Station: Receipt (Serial Ink Jet 180 dpi X 180 dpi)
 Slip (Serial Ink Jet 180 dpi X 180 dpi)
 Slip endorsement side (Serial Ink Jet 180 dpi X 180 dpi) ^{*1}
- 2-Color Printing ^{*2}

^{*1} Available only for the TM-J7000 and TM-J7100. If the device comes with the endorse printing function, CapSlpBothSidePrint Property is true.

^{*2} Available only for the TM-J7100 and TM-J7600

Hereafter, regardless of I/F, the above models are referred to as TM-J7000, TM-J7100, TM-J7500, TM-J7600, TM-J7500, and TM-J7600. The generic term for TM-J7000, TM-J7100, TM-J7500, and TM-J7600 are also referred to as TM-J7x00.

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-J7x00 printers.

2.1 References of Firmware Versions

Refer to the release notes (Relnote.txt).

2.2 Settings of DIP Switches

Confirm that the following settings have been made correctly.

1) Serial port

DIP-SW1

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

- Do not change the current settings of DIP-SW1-1.
- Set DIP-SW1-2 (Interface condition selection).
- If this DIP Switch is ON, communications settings are set via DIP Switches. If the DIP Switch is OFF, Memory Switches are used.
- 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 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.

2) Parallel Port

DIP-SW1

| No. | Setting | |
|-----|---------|--------------|
| 1 | OFF | Fixed at OFF |
| 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 |

Do not change the current settings of all DIP Switches.

3) USB Port

DIP-SW1

| No. | Setting | |
|-----|---------|--------------|
| 1 | OFF | Fixed at OFF |
| 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 |

Do not change the current settings of all DIP Switches.

4) Ethernet Port

DIP-SW1

| No. | Setting | |
|-----|---------|--------------|
| 1 | OFF | Fixed at OFF |
| 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 |

Do not change the current settings of all DIP Switches.

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 |
| Output buffer length [byte] | 32 to 1024 |
| Output interval time [ms] | 0 to 9999 |

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 |
| Output buffer length [byte] | 1024 |
| Output interval time [ms] | 2500 |

2) Port information when using parallel port

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

| Item | Setting range |
|-----------------------------|---------------|
| Output buffer length [byte] | 32 to 1024 |
| Output interval time [ms] | 0 to 9999 |

The default settings are as shown in the following table.

| Item | Setting range |
|-----------------------------|---------------|
| Output buffer length [byte] | 1024 |
| Output interval time [ms] | 2500 |

3) Port information when using USB port

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

| Item | Setting range |
|---------------------------|---------------|
| Output interval time [ms] | 0 to 9999 |

The default setting is as shown in the following table.

| Item | Setting range |
|---------------------------|---------------|
| Output interval time [ms] | 2500 |

4) Port information when using Ethernet port

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

| Item | Setting range |
|-----------------------------|---------------|
| Output buffer length [byte] | 32 to 1024 |
| Output interval time [ms] | 0 to 9999 |

The default settings are as shown in the following table.

| Item | Setting range |
|-----------------------------|---------------|
| Output buffer length [byte] | 1024 |
| Output interval time [ms] | 2500 |

2.4 Device Settings

The following explanation is about the settings for TM-J7x00.

2.4.1. Usable Device Specific Settings

For the TM-J7x00, the following Device Specific Settings are settable by the SetupPOS utility. For the detail, please refer to 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 |
| | Ignore firmware version check |
| | Homogenize Error Codes |
| | Output complete timeout |
| Paper | Paper Type |
| | Paper Width [mm]: LineWidth [dot]: LineCharsList |
| Bitmap | TMFlogo... |
| | NVRAM |
| Color Bitmap | Method |
| | Brightness |
| | Primary |
| | Secondary ^{*1} |
| Status Log | ERROR |
| | OFFLINE |
| | Log file name (include full path) |
| | Maximum file size [KB] |
| PageMode | PageMode Width ^{*1} |

^{*1} Available only for the TM-J7100 and TM-J7600.

2.4.2. Paper Type Setting

The TM-J7x00 models support the following paper type. After adding the TM-J7x00 by the SetupPOS utility, open the “Device Specific Settings” dialog box. In the “Paper” tab the paper type could be selected.

The settable paper types are as follows:

- Normal

The default paper type is set to Normal.

2.4.3. Paper Width Setting

The models support the following paper width. After adding the TM-J7000, TM-J7100, TM-J7500, TM-J7600 by the SetupPOS utility, open the “Device Specific Settings” dialog box. In the “Paper” tab the paper width could be selected.

The settable paper widths are as follows:

- 76.0 mm [480 dots]
- 82.5 mm [512 dots]
- 69.5 mm [432 dots]
- 57.5 mm [360 dots]

The default paper width is set to 76.0 mm.

2.4.4. Page Mode Setting

On the TM-J7100 or TM-J7600, the print width for 90-degree rotated printing is half of the print width of the TM-J7000 or TM-J7500. This is because the TM-J7100 and TM-J7600 are two-color models and require twice the data area of the TM-J7000 or TM-J7500 for printing.

The print color for 90-degree rotated printing with the TM-J7100 or TM-J7600 can be restricted by using Page Mode Setting. This function allows you to enlarge the print width as wide as the TM-J7000 or TM-J7500.

The following are the available set values.

- Narrow Width, 2 Colors (Half of Monochrome Model)
- Wide Width, 1 Color (Same of Monochrome Model)

The default setting is Narrow Width.

Section 3. Function Details

This section describes the functions of the 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 | Set Value | |
|-----------------------|----------------|------------------|
| | Receipt / Slip | Slip Endorsement |
| CapTransaction | TRUE | |
| CapCoverSensor | TRUE | |
| CapConcurrentRecSlp | FALSE | |
| CapConcurrentJrnSlp | FALSE | |
| CapConcurrentJrnRec | FALSE | |
| CapConcurrentPageMode | FALSE | |
| CapCharacterSet | PTR CCS ASCII | |
| CapMapCharacterSet | FALSE | |
| 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 PTR_COLOR_CUSTOM1 *1 | |
| CapRecCartridgeSensor | PTR_CART_REMOVED PTR_CART_EMPTY PTR_CART_NEAREND PTR_CART_CLEANING | |
| CapRecBold | TRUE | |
| CapRecBitmap | TRUE | |
| CapRecBarCode | TRUE | |
| CapRec2Color | TRUE *1 | |
| CapRecPresent | TRUE | |
| CapSlpUnderline | TRUE | |
| CapSlpRotate180 | TRUE | |
| CapSlpRight90 | TRUE | FALSE |
| CapSlpNearEndSensor | TRUE | FALSE |
| CapSlpLeft90 | TRUE | FALSE |
| CapSlpItalic | FALSE | |
| CapSlpEmptySensor | TRUE | |
| CapSlpDwideDhigh | TRUE | |
| CapSlpDwide | TRUE | |
| CapSlpDhigh | TRUE | |
| CapSlpColor | PTR_COLOR_PRIMARY PTR_COLOR_CUSTOM1 *1 | |
| CapSlpCartridgeSensor | PTR_CART_REMOVED PTR_CART_EMPTY PTR_CART_NEAREND PTR_CART_CLEANING | |
| CapSlpBothSidesPrint | (TM-J7000/TM-J7100) TRUE (TM-J7500/TM-J7600) FALSE | |
| CapSlpBold | TRUE | |
| CapSlpBitmap | TRUE | FALSE |
| CapSlpBarCode | TRUE | |
| CapSlp2Color | TRUE *1 | |
| CapSlpFullslip | TRUE | |
| CapSlpPresent | TRUE | |
| CapSlpPageMode | TRUE | FALSE |

*1 Available only for the TM-J7100 and TM-J7600.

3.1.2. List Properties

The List Properties are explained in the following.

| List Property | Settings |
|---|--|
| CharacterSetList | "255,437,850,852,858,860,863,865,866,998,999,1252" |
| JrnLineCharsList | "" |
| RecLineCharsList (When 82.5 mm is set) | "42,56" / "46,64" *1 |
| RecLineCharsList (When 76 mm is set) | "40,53" / "43,60" *1 |
| RecLineCharsList (When 70 mm is set) | "36,48" / "39,54" *1 |
| RecLineCharsList (When 58 mm is set) | "30,40" / "32,45" *1 |
| SlpLineCharsList | (TM-J7000/TM-J7100)"48,64" / "52,72" *2 (TM-J7500/TM-J7600)"80,106"/"87,120" *2 |
| SlpLineCharsList (Endorsement) | "46,61" / "50,69" *2 |
| RecBarCodeRotationList | "0,R90, L90, 180" |
| RecBitmapRotationList | "0,R90, L90, 180" |
| SlpBarCodeRotationList | "0,180" |
| SlpBitmapRotationList | "0,R90, L90, 180" |
| SlpBarCodeRotationList (Endorsement) | "0,180" |
| SlpBitmapRotationList (Endorsement) | "" |
| FontTypefaceList | (TM-J7000/TM-J7100)"" (TM-J7500/TM-J7600)"OCR-B" |

*1 Memory SW8-7 is set to ON.

*2 Memory SW8-6 is set to ON.

3.1.3. Width and Height Properties

The width and height properties are explained in the following.

| Property | Settings | | |
|---|---|---------------------|---------------------|
| | Default Value | Maximum value [dot] | Minimum value [dot] |
| RecLineSpacing | 30 | 255 | 0 |
| JrnLineSpacing | X | X | X |
| SlpLineSpacing | 30 | 255 | 0 |
| SlpLineHeight [dot] | 24,17 | | |
| RecLineHeight [dot] | 24,17 | | |
| JrnLineHeight [dot] | X | | |
| SlpLineWidth [dot] | (TM-J7000/TM-J7100) 576 (TM-J7500/TM-J7600) 960 | | |
| SlpLineWidth [dot] (Endorsement) | 552 | | |
| RecLineWidth [dot] (When 82.5 mm is set) | 512 | | |
| RecLineWidth [dot] (When 76 mm is set) | 480 | | |
| RecLineWidth [dot] (When 70 mm is set) | 432 | | |
| RecLineWidth [dot] (When 58 mm is set) | 360 | | |
| JrnLineWidth [dot] | X | | |
| RecSidewaysMaxLines (When 82.5 mm is set) | 17 * ⁵ | | |
| RecSidewaysMaxLines (When 76 mm is set) | 16 * ⁵ | | |
| RecSidewaysMaxLines (When 70 mm is set) | 14 * ⁵ | | |
| RecSidewaysMaxLines (When 58 mm is set) | 12 * ⁵ | | |
| RecSidewaysMaxChars (When 82.5 mm is set / Font A) | (TM-J7000/TM-J7500) 69, 75 * ¹ (TM-J7100/TM-J7600) * ² 34, 37 * ¹ | | |
| RecSidewaysMaxChars (When 82.5 mm is set / Font B) | (TM-J7000/TM-J7500) 92, 104 * ¹ (TM-J7100/TM-J7600) * ² 46, 52 * ¹ | | |
| RecSidewaysMaxChars (When 76 mm is set / Font A) | (TM-J7000/TM-J7500) 73, 80 * ¹ (TM-J7100/TM-J7600) * ² 36, 40 * ¹ | | |
| RecSidewaysMaxChars (When 76 mm is set / Font B) | (TM-J7000/TM-J7500) 97, 110 * ¹ (TM-J7100/TM-J7600) * ² 48, 55 * ¹ | | |
| RecSidewaysMaxChars (When 70 mm is set / Font A) | (TM-J7000/TM-J7500) 82, 89 * ¹ (TM-J7100/TM-J7600) * ² 40, 44 * ¹ | | |
| RecSidewaysMaxChars (When 70 mm is set / Font B) | (TM-J7000/TM-J7500) 109, 123 * ¹ (TM-J7100/TM-J7600) * ² 54, 61 * ¹ | | |
| RecSidewaysMaxChars (When 58 mm is set / Font A) | (TM-J7000/TM-J7500) 98, 106 * ¹ (TM-J7100/TM-J7600) * ² 48, 53 * ¹ | | |
| RecSidewaysMaxChars (When 58 mm is set / Font B) | (TM-J7000/TM-J7500) 130, 147 * ¹ (TM-J7100/TM-J7600) * ² 64, 73 * ¹ | | |
| RecLinesToPaperCut | 7 * ³ | | |
| SlpSidewaysMaxLines | (TM-J7000/TM-J7100) 19 * ⁵ (TM-J7500/TM-J7600) 32 * ⁵ | | |

| | |
|--|--|
| SlpSidewaysMaxChars (When Font A is selected) | (TM-J7000) 61, 66 * ⁴ (TM-J7100) * ² 30, 33 * ⁴ (TM-J7500) 36, 40 * ⁴ (TM-J7600) * ² 18, 19 * ⁴ |
| SlpSidewaysMaxChars (When Font B is selected) | (TM-J7000) 81, 92 * ⁴ (TM-J7100) * ² 40, 46 * ⁴ (TM-J7500) 48, 55 * ⁴ (TM-J7600) * ² 24, 27 * ⁴ |
| SlpMaxLines | 0 |

X : No settings

*¹ Memory SW8-7 is set to ON.

*² Depends on PageMode in "Device Specific Settings" of the SetupPOS utility

*³ It can be changed by the settings of the RecLineSpacing or the character height.
When the RecLineSpacing is "0", the RecLinesToPaperCut is "-1".

*⁴ Memory SW8-6 is set to ON.

*⁵ It can be changed by the settings of the XxxLineSpacing or the XxxLineHeight.
When the RecLineSpacing is 0, the RecLinesToPaperCut is -1.

3.1.4. Common Property Strings

The Device information properties are described below.

| I/F | DeviceName | DeviceDescription |
|-----|------------|-----------------------------|
| S | TM-J7000 | EPSON TM-J7000 POS Printer |
| | TM-J7100 | EPSON TM-J7100 POS Printer |
| | TM-J7500 | EPSON TM-J7500 POS Printer |
| | TM-J7600 | EPSON TM-J7600 POS Printer |
| P | TM-J7000P | EPSON TM-J7000P POS Printer |
| | TM-J7100P | EPSON TM-J7100P POS Printer |
| | TM-J7500P | EPSON TM-J7500P POS Printer |
| | TM-J7600P | EPSON TM-J7600P POS Printer |
| U | TM-J7000U | EPSON TM-J7000U POS Printer |
| | TM-J7100U | EPSON TM-J7100U POS Printer |
| | TM-J7500U | EPSON TM-J7500U POS Printer |
| | TM-J7600U | EPSON TM-J7600U POS Printer |
| E | TM-J7000E | EPSON TM-J7000E POS Printer |
| | TM-J7100E | EPSON TM-J7100E POS Printer |
| | TM-J7500E | EPSON TM-J7500E POS Printer |
| | TM-J7600E | EPSON TM-J7600E 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.

- TM-J7000

| Property | Station ^{*2} | | |
|----------------------------------|---|-------------------|----------------|
| | Receipt | Slip | Slip (Endorse) |
| PageModeArea | (82.5mm)"512", "832" (76.0mm)"480", "880" (69.5mm)"432", "984" (57.5mm)"360", "1176" | "576", "736" | " " |
| PageModeDescriptor ^{*1} | BM/BC/BMR/BCR | BM/BC/ BMR/BCR | 0 |

- TM-J7100

| Property | Station ^{*2} | | |
|----------------------------------|--|-------------------|----------------|
| | Receipt | Slip | Slip (Endorse) |
| PageModeArea | (82.5mm)"512", "416" (76.0mm)"480", "440" (69.5mm)"432", "488" (57.5mm)"360", "584" | "576", "368" | " " |
| PageModeDescriptor ^{*1} | BM/BC/BMR/BCR | BM/BC/ BMR/BCR | 0 |

- TM-J7500

| Property | Station ^{*2} | | |
|----------------------------------|---|-------------------|----------------|
| | Receipt | Slip | Slip (Endorse) |
| PageModeArea | (82.5mm)"512", "832" (76.0mm)"480", "880" (69.5mm)"432", "984" (57.5mm)"360", "1176" | "960", "440" | - |
| PageModeDescriptor ^{*1} | BM/BC/BMR/BCR | BM/BC/ BMR/BCR | - |

● TM-J7600

| Property | Station ^{*2} | | |
|----------------------------------|--|-------------------|-------------------|
| | Receipt | Slip | Slip (Endorse) |
| PageModeArea | (82.5mm)"512", "416" (76.0mm)"480", "440" (69.5mm)"432", "488" (57.5mm)"360", "584" | "960", "216" | - |
| PageModeDescriptor ^{*1} | BM/BC/BMR/BCR | 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 and/or CapSlpPageMode property values are 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: One point remains uncut) | X |
| MarkFeed | X | X |
| ChangePrintSide | O (TM-J7000/TM-J7100) X (TM-J7500/TM-J7600) | X |
| ValidateData | O | O |
| TransactionPrint | O | O |
| SetLogo | O | O |
| SetBitmap | O | O |
| RotatePrint | O | X |
| EndRemoval | O | O |
| BeginRemoval | O | O |
| EndInsertion | O | O |
| BeginInsertion | O | O |
| ClearPrintArea | O | O |
| PageModePrint | O | O |

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 | TM-J7000 | | | TM-J7100 | | |
|--------------------|------------------|------------------|--------------------|------------------|------------------|--------------------|
| | Receipt | Slip | Slip (Endorsement) | Receipt | Slip | Slip (Endorsement) |
| #P | 0~100 | X | X | 0~100 | X | X |
| #fP | 0~100 | X | X | 0~100 | X | X |
| #sP | X | X | X | X | X | X |
| sL | X | X | X | X | X | X |
| #B | O | O | X | O | O | X |
| tL | O | O | O | O | O | O |
| bL | O | O | O | O | O | O |
| #R | O | O | O | O | O | O |
| #IF | 0~9999 | 0~9999 | 0~9999 | 0~9999 | 0~9999 | 0~9999 |
| #uF | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm |
| #rF Maximum [inch] | X | 423 | 423 | X | 423 | 423 |
| #E | 0~65535 | 0~65535 | 0~65535 | 0~65535 | 0~65535 | 0~65535 |
| #fT | X | X | X | X | X | X |
| bC | O | O | O | O | O | O |
| !bC | O | O | O | O | O | O |
| #uC | 1~2 | 1~2 | 1~2 | 1~2 | 1~2 | 1~2 |
| iC | X | X | X | X | X | X |
| !iC | X | X | X | X | X | X |
| #rC | 1 | 1 | 1 | 1~2 | 1~2 | 1~2 |
| rvC | O | O | O | O | O | O |
| !rvC | O | O | O | O | O | O |
| #sC | X | X | X | X | X | X |
| #fC | X | X | X | X | X | X |
| tbC | X | X | X | X | X | X |
| !tbC | X | X | X | X | X | X |
| tpC | X | X | X | X | X | X |
| !tpC | X | X | X | X | X | X |
| 1C | O | O | O | O | O | O |
| 2C | O | O | O | O | O | O |
| 3C | O | O | O | O | O | O |
| 4C | O | O | O | O | O | O |
| #hC | 1~8 | 1~8 | 1~8 | 1~8 | 1~8 | 1~8 |
| #vC | 1~8 | 1~8 | 1~8 | 1~8 | 1~8 | 1~8 |
| cA | O | O | O | O | O | O |
| rA | O | O | O | O | O | O |
| !A | O | O | O | O | O | O |
| N | O | O | O | O | O | O |

O : Supported

X : Unsupported

Numbers: Settable range

| Escape Sequence | TM-J7500 | | TM-J7600 | |
|--------------------|------------------|------------------|------------------|------------------|
| | Receipt | Slip | Receipt | Slip |
| #P | 0~100 | X | 0~100 | X |
| #fP | 0~100 | X | 0~100 | X |
| #sP | X | X | X | X |
| sL | X | X | X | X |
| #B | O | O | O | O |
| tL | O | O | O | O |
| bL | O | O | O | O |
| #R | O | O | O | O |
| #IF | 0~9999 | 0~9999 | 0~9999 | 0~9999 |
| #uF | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm | 0~ approx. 50 cm |
| #rF Maximum [inch] | X | 423 | X | 423 |
| #fT | 0~1 | 0~1 | 0~1 | 0~1 |
| bC | O | O | O | O |
| !bC | O | O | O | O |
| #uC | 1~2 | 1~2 | 1~2 | 1~2 |
| iC | X | X | X | X |
| !iC | X | X | X | X |
| #rC | 1 | 1 | 1~2 | 1~2 |
| rvC | O | O | O | O |
| !rvC | O | O | O | O |
| #sC | X | X | X | X |
| #fC | X | X | X | X |
| tbC | X | X | X | X |
| !tbC | X | X | X | X |
| tpC | X | X | X | X |
| !tpC | X | X | X | X |
| 1C | O | O | O | O |
| 2C | O | O | O | O |
| 3C | O | O | O | O |
| 4C | O | O | O | O |
| #hC | 1~8 | 1~8 | 1~8 | 1~8 |
| #vC | 1~8 | 1~8 | 1~8 | 1~8 |
| cA | O | O | O | O |
| rA | O | O | O | O |
| !A | O | O | O | O |
| N | O | O | O | O |

O: Supported

X: Unsupported

Numbers: Settable range

3.3.1. Compatibility with the PageMode printing

| Escape Sequence | TM-J7000/ TM-J7100/ TM-J7500/ TM-J7600 |
|-----------------------|--|
| #P | X |
| #fP | X |
| #sP | X |
| sL | X |
| #B | O |
| tL | O |
| bL | O |
| #R | O |
| #IF | O |
| #uF Base Pitch [inch] | O |
| #rF Maximum [inch] | X |
| #E | X |
| #fT | X |
| [!]bC | O |
| #uC | O |
| [!]iC | X |
| rC | O |
| [!]rvC | O |
| #sC | X |
| #fC | X |
| [!]tbC | X |
| [!]tpC | X |
| 1C | O |
| 2C | O |
| 3C | O |
| 4C | O |
| #hC | O |
| #vC | O |
| cA | O ^{*1} |
| rA | O ^{*1} |
| IA | O |
| N | 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.

3.4 Printable Barcode type

The TM-J7x00 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
- PDF 417

For the PDF 417 type, the maximum height is limited to 831 dots.

3.5 Power Condition Reports

The TM-J7x00 models support Power Condition Reports as follows.

Powered on reporting: Supported.

Powered off reporting: Unsupported.

3.6 Synchronous Processing

The TM-J7x00 models support the Process ID for the Synchronous Processing.

3.7 Printing Positions

The TM-J7x00 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.

3.8 Electronic Logo Function (NVRAM)

TM-J7x00 models feature an electronic logo function (NVRAM). There are two ways of using NVRAM explained as follows:

1. Using TMFlogo Utility

Start up TMFlogo utility from “Device Specific Settings” dialog box of SetupPOS utility, and register image files (BMP style) with NVRAM in advance. For the details of the registration, please refer to the “Help” of “TMFlogo utility” and/or “EPSON OPOS ADK MANUAL User’s Manual TMFlogo Utility”.

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 Section 4 of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)” for detail.

2. Using SetBitmap Method

Checking “NVRAM” check box on “Bitmap” tab in “Device Specific Settings” dialog box of SetupPOS utility enable to register image files with NVRAM using SetBitmap method.

Regarding the details of image files registration with NVRAM using SetBitmap method, please refer to “Appendix - B: Using NVRAM with SetBitmap method” of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)”

An available NVRAM size for TM-J7x00 is 393216 bytes.

A Printer is able to register up to 9 NV Bitmaps. If 9 NV Bitmaps are registered already with the printer, this function is not used with execution of SetBitmap method. If you wish to add new bitmaps, delete registered NV Bitmaps first, then re-execute SetBitmap method.

3.9 Printable Bitmap Types and Sizes

The TM-J7x00 models support the following bitmap commands. For the detail, please refer to the Section 3 of “EPSON OPOS ADK MANUAL APPLICATION DEVELOPMENT GUIDE POSPrinter (TM Series)”. The allowance ranges for bitmaps are as follows.

- TM-J7000 and TM-J7500

| Bitmap command type | Allowance range | | |
|----------------------|-----------------|--------|----|
| | x | y | xy |
| NV bitmap | 1~8192 | 1~2304 | |
| Download bitmap | 1~8192 | 1~2304 | |
| Column Format bitmap | 1~2048 | 1~64 | |

- TM-J7100 and TM-J7600

| Bitmap command type | Allowance range | | |
|----------------------------|-----------------|--------|----|
| | x | y | xy |
| NV bitmap | 1~8192 | 1~2304 | |
| Download bitmap | 1~8192 | 1~2304 | |
| Column Format Color bitmap | 1~2048 | 1~64 | |

3.10 Color Bitmap Printing

The TM-J7x00 models support color bitmap printing.

If a 16-color or a 256-color bitmap file is supplied, the image may be printed using 2 colors. If the original file is a 2-color bitmap, it will be printed in monochrome. The halftone method may be set using the “Device Specific Settings” dialog box.

3.11 Maintenance Counter

The TM-J7x00 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-J7x00.

| Counter number Hexadecimal | Counter | Unit | Max. Value | Counter Type |
|-------------------------------|---|-------|---------------|-----------------|
| 1E | Number of line feeds | Lines | 143,165,576 | Resettable |
| 1F | Average number of head shots (color 1) | Shots | 4,294,967,295 | Resettable |
| 20 ^{*1} | Average number of head shots (color 2) | Shots | 4,294,967,295 | Resettable |
| 21 | Number of carriage operations | Times | 4,294,967,295 | Resettable |
| 22 | Number of pump operations | Times | 4,294,967,295 | Resettable |
| 23 | Paper feed in number of lines: Slip | Lines | 178,956,970 | Resettable |
| 32 | Number of auto-cutter operations | Times | 4,294,967,295 | Resettable |
| 3C | Number of check paper readings | Times | 4,294,967,295 | Resettable |
| 3D | Number of Endorse mechanism operations | Times | 4,294,967,295 | Resettable |
| 46 | Uptime of product | Hours | 71,582,788 | Resettable |
| 9E | Number of line feeds | Lines | 143,165,576 | Cumulative |
| 9F | Average number of head shots (color 1) | Shots | 4,294,967,295 | Cumulative |
| A0 ^{*1} | Average number of head shots (color 2) | Shots | 4,294,967,295 | Cumulative |
| A1 | Number of carriage operations | Times | 4,294,967,295 | Cumulative |
| A2 | Number of pump operations | Times | 4,294,967,295 | Cumulative |
| A3 | Paper feed in number of lines: Slip | Lines | 178,956,970 | Cumulative |
| B2 | Number of auto-cutter operations | Times | 4,294,967,295 | Cumulative |
| BC | Number of check paper readings | Times | 4,294,967,295 | Cumulative |
| BD | Number of Endorse mechanism operations | Times | 4,294,967,295 | Cumulative |
| C6 | Uptime of product | Hours | 71,582,788 | Cumulative |

^{*1} Available only for the TM-J7100 and TM-J7600.

3.12 Automatic Recovery Function

The TM-J7x00 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.

3.13 OCR-B Font Printing

The `FontTypefaceList` property is guaranteed correct after the device is claimed. The TM-J7000, TM-J7100, TM-J7500, TM-J7600 and TM-J7600 can switch to the OCR-B font using the Escape sequence.

When printing the "OCR-B" font, use the Escape sequence (ESC|#fT) is used. The # indicates the font number. If the font number is 0, then the font is the default font, and when the font number is 1, it switches to the "OCR-B" font if available. After switching to the "OCR-B" font, the values for the `XxxLineChars` property and `XxxLineHeight` property will not match the actual printing results.

| Character | Code (HEX) |
|-----------|------------|
| SP | 20 |
| + | 2B |
| , | 2C |
| — | 2D |
| 0 | 30 |
| 1 | 31 |
| 2 | 32 |
| 3 | 33 |
| 4 | 34 |
| 5 | 35 |
| 6 | 36 |
| 7 | 37 |
| 8 | 38 |
| 9 | 39 |
| < | 3C |
| > | 3E |

Any character codes in 20H~FFH which are other than the above are treated as spaces.

3.14 Output without Flow Control on the USB/Ethernet Interfaces

The TM-J7x00 models support outputting without flow control on the USB/Ethernet interfaces.

Section 4. Warnings

This section describes precautions in use of TM-J7000, TM-J7100, TM-J7500, TM-J7600, TM-J7500 and TM-J7600.

- Due to hardware limitations and the position of the Slip, it is not possible to change the printing side and then search for the position where printing should start. In this case, OPOS_E_ILLEGAL (OPOS_EX_INVALIDMODE) is returned.
- The hardware specifications allow you to change the print side only once. If you try to change the print side twice, OPOS_E_ILLEGAL (OPOS_EX_INVALIDMODE) is returned.
- Before switching the printing side, the Transaction data and the data for 90-degree rotated printing are printed on the current printing side, and Transaction is automatically set to PTR_TP_NORMAL and Rotate is set to PTR_RP_NORMAL.
This is because different functions are used for the two printing sides (the print head is different) and this factor may cause an improper result if the data is not printed on the printing side selected when the printing command is issued. Because this processing is performed before the position of the Slip is checked in order to take the above mentioned restrictions into consideration, there may be instances where the above error is generated after the buffered data is printed, or the printing side may not be switched.
- In the SetBitmap method, a data set to print on the face side cannot be printed on the backside.

- When printing a bitmap rotated 180 degrees on the front side of the slip, the maximum printable area is equal to the maximum printing area in page mode.

Printing area in page mode (the front side of the slip)

| | Allowance range | | |
|----------|-----------------|-------|--------|
| | x | y | xy |
| TM-J7100 | 1~576 | 1~368 | 211968 |
| TM-J7000 | 1~576 | 1~736 | 423936 |
| TM-J7600 | 1~960 | 1~216 | 207360 |
| TM-J7500 | 1~960 | 1~440 | 422400 |

With TM-J7100, printing area in the page mode can be enlarged as large as that of TM-J7000. This setting is able to be done on the “Device Specific Setting” dialog box of SetupPOS utility.

Also with TM-J7600, printing area in the page mode can be enlarged as large as that of TM-J7500 with the above setting method.

If you try to set bitmap which is bigger than the specified size, OPOS_E_EXTENDED (OPOS_EPTR_TOOBIG) is returned.

- With TM-J7100 and TM-J7600, 2-color data (bitmaps, etc.) cannot be printed when the print width for 90-degree rotated printing is enlarged using the PageMode setting of Device Specific Settings. The print data specified by the second color is printed using the first color (black).
- The maximum sheet width for the slip endorsement is 101.6 mm. If a sheet exceeding 101.6 mm width is inserted and the print side is switched to PTR_PS_SIDE2 using the ChangePrintSide method, this will cause paper jam. Use sheets with width of 101.6 mm or less for the slip endorsement.
- The Memory SW value is checked at a claim. Therefore, if you use Memory SW8-7 and 8-6 set to ON, check the XXXLineCharsList property and the XXXSidewaysMaxChars property after the claim.
- Due to hardware specifications, it is not possible to smooth double height/width characters even where XXXLetterQuality property is set TRUE.
- After the BeginInsertion() method is executed, the device enters the Slip paper insertion standby state. In this state, you cannot perform any printing operation.
- Be sure to call the BeginInsertion() and EndInsertion() methods in pair when you insert the Slip paper.
- When parallel I/F is used with Windows 2000, Windows XP or Windows Vista, please set Busy Condition of Memory SW1-3 to ON (Buffer full).