

POS Thermal Receipt Printer

A11 Prime



Windows Driver Manual

■ Table of Contents

1. Manual Information	3
2. Operating System (OS) Environment	3
3. Windows Driver Preparation	3
4. Windows Driver Installation	4
4-1 Installing on Windows XP / Server 2003	4
4-1-1 Via Serial Port or Bluetooth	4
4-1-2 Via USB Port	7
4-1-3 Ethernet / Wireless LAN Port	9
4-2 Installing on Windows VISTA / Server 2008 / 7 / 8 / Server 2012 / 10	12
4-2-1 Via Serial Port or Bluetooth	12
4-2-2 Via USB Port	15
4-2-3 Ethernet / Wireless LAN Port	17
5. Windows Driver Settings	20
5-1 Layout	20
5-1-1 Paper Size	21
5-1-2 Paper Type	22
5-1-3 Copies	23
5-1-4 Image Rotation	23
5-1-5 Paper Reduction	23
5-1-6 Crop Function	23
5-1-7 Orientation	23
5-2 Document Settings	24
5-2-1 Send Command	25
5-2-2 Cash Drawer / Internal Beep	25
5-2-3 Line Feed	25
5-2-4 Paper Cut	25
5-3 NV Image	26
5-4 Barcode	27
5-4-1 1d Barcodes	28
5-4-2 2d Barcodes	29
5-5 Dithering	30
5-6 Utility	31
5-6-1 Unified POS Utility	32
5-6-2 Special Font Edit Utility	32
5-6-3 Journal Viewer	33
5-6-4 Text-Key Function	34
5-6-5 Print Preview	38
5-7 Bidirectional Communication	39
6. Windows Driver Specifications	40
6-1 Font	40
6-2 Special functions	42
7. Use of Windows Driver	44
7-1 Use of Visual Basic	44
7-1-1 Windows Driver Selection	44
7-1-2 Text Printing	44
7-1-3 Barcode Printing	45
7-2 Use of WordPad	46
7-2-1 WordPad Environment Settings	46
7-2-2 Text Printing	46

1. Manual Information

This Windows Driver Installation Manual provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

We at POSBANK maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Operating System (OS) Environment

The following operating systems are supported by this Windows driver.

Microsoft® Windows XP SP3 (32bit)
Microsoft® Windows XP SP1 or later (64bit)
Microsoft Windows Server 2003 SP1 or later (32bit/64bit)
Microsoft Windows VISTA (32bit/64bit)
Microsoft Windows Server 2008 (32bit/64bit)
Microsoft Windows Server 2008R2 (64bit)
Microsoft Windows 7 (32bit/64bit)
Microsoft Windows 8 (32bit/64bit)
Microsoft Windows Server 2012 (64bit)
Microsoft Windows 10 (32bit/64bit)

* Serial and Bluetooth printer ports do not work on Windows 10 version 1511 (OS Build 105860.104) specific. We recommend you to install the latest Windows 10 update through Windows Update before installing Windows Driver.

You can download and install the Windows Update in the Update & security tab of the Settings menu (■ > Settings > Update & security > Windows Update).

3. Windows Driver Preparation

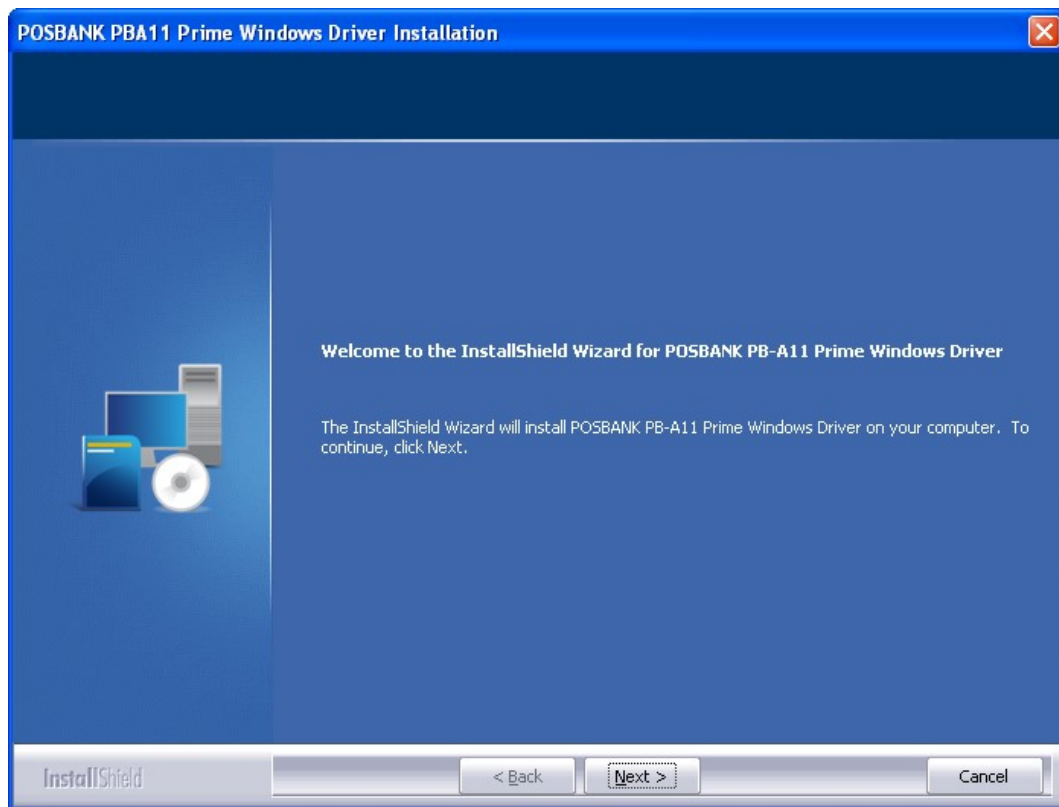
The Windows Driver is included in the enclosed CD, and latest file versions can be downloaded from the POSBANK website. (www.posbank.com)

4. Windows Driver Installation

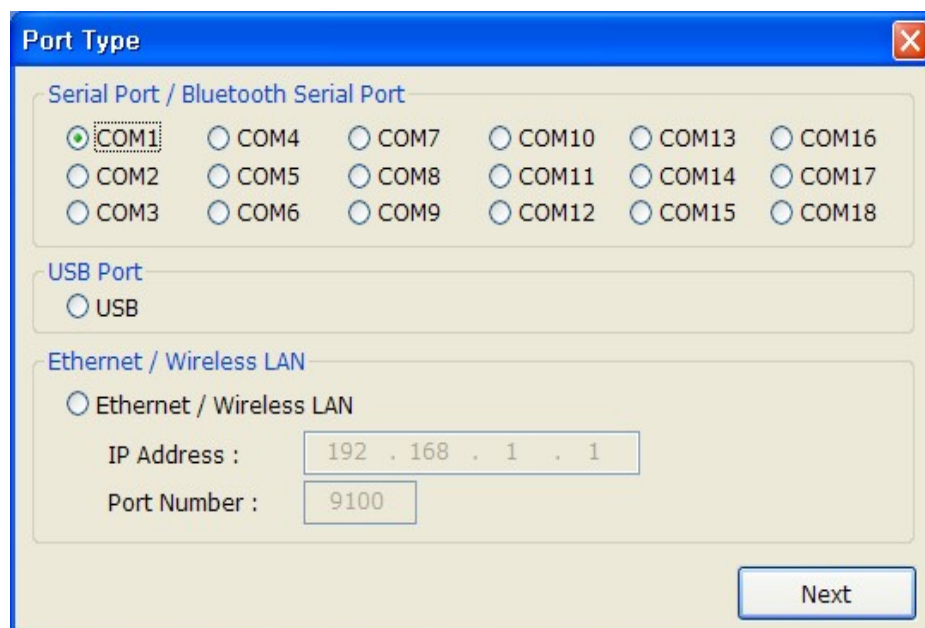
4-1 Installing on Windows XP / Server 2003

4-1-1 Via Serial Port or Bluetooth

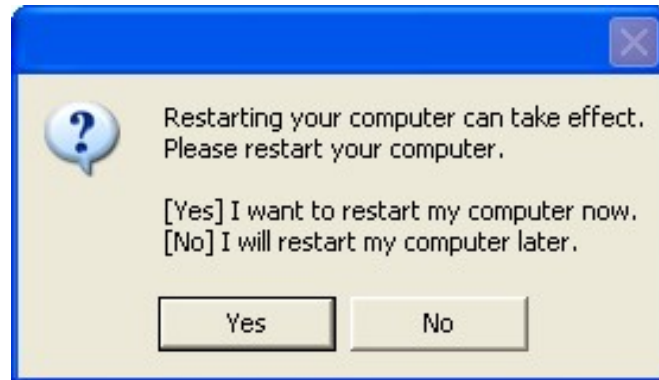
- 1) Double-click the Windows Driver installation file.
- 2) Click **Next**.



- 3) Select a COM port to be used, and then click **Next**.



4) Click **Yes** to reboot the PC.



5) Open the printer properties window in the Windows OS.

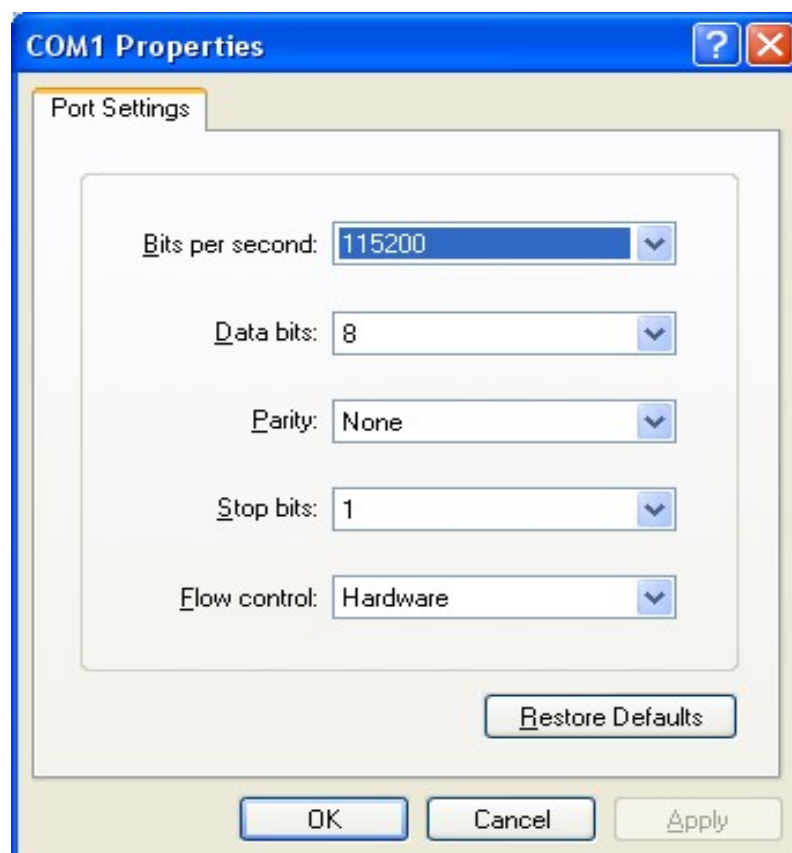
※ Control Panel – Printers and Faxes.

6) In the **Ports** tab, click **Configure Port**.

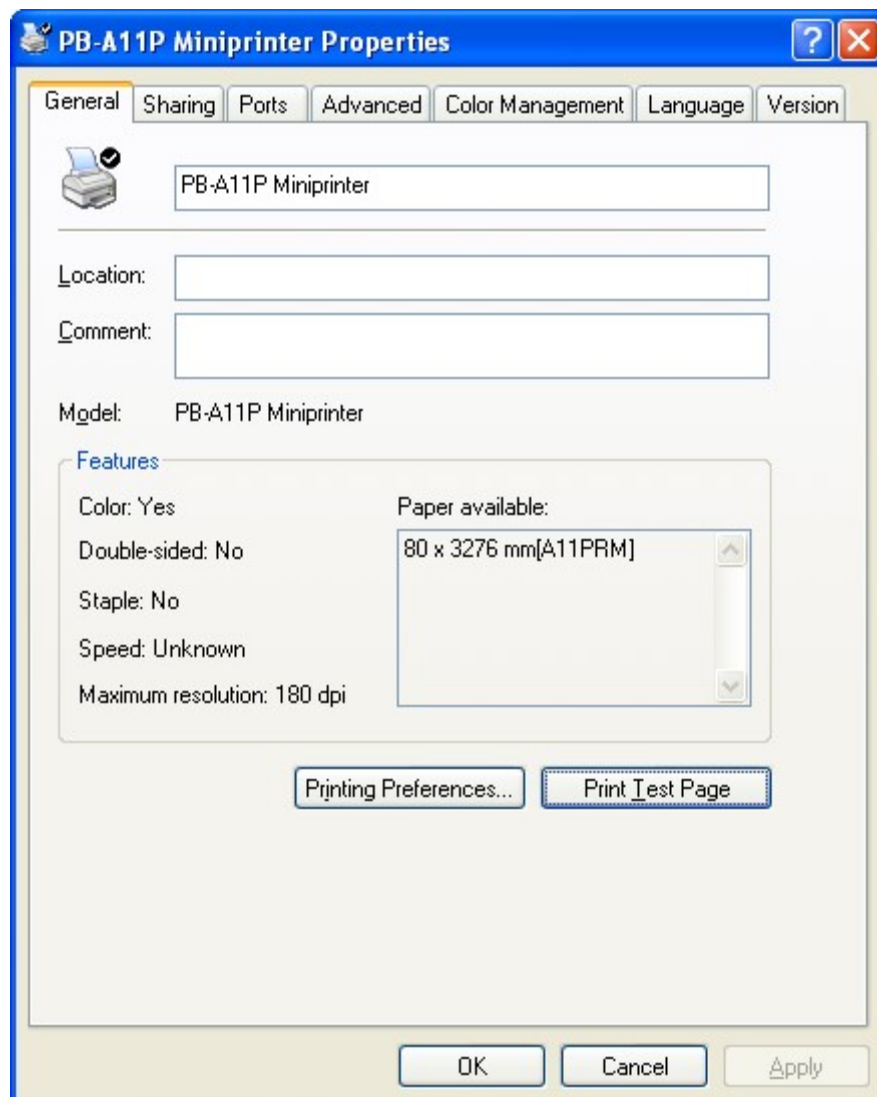
※ Skip this step in case of data communication using Bluetooth.

7) Match the communication settings to those of the printer. The communication settings of the printer can be performed by conducting a self-test.

※ Skip this step in case of data communication using Bluetooth.

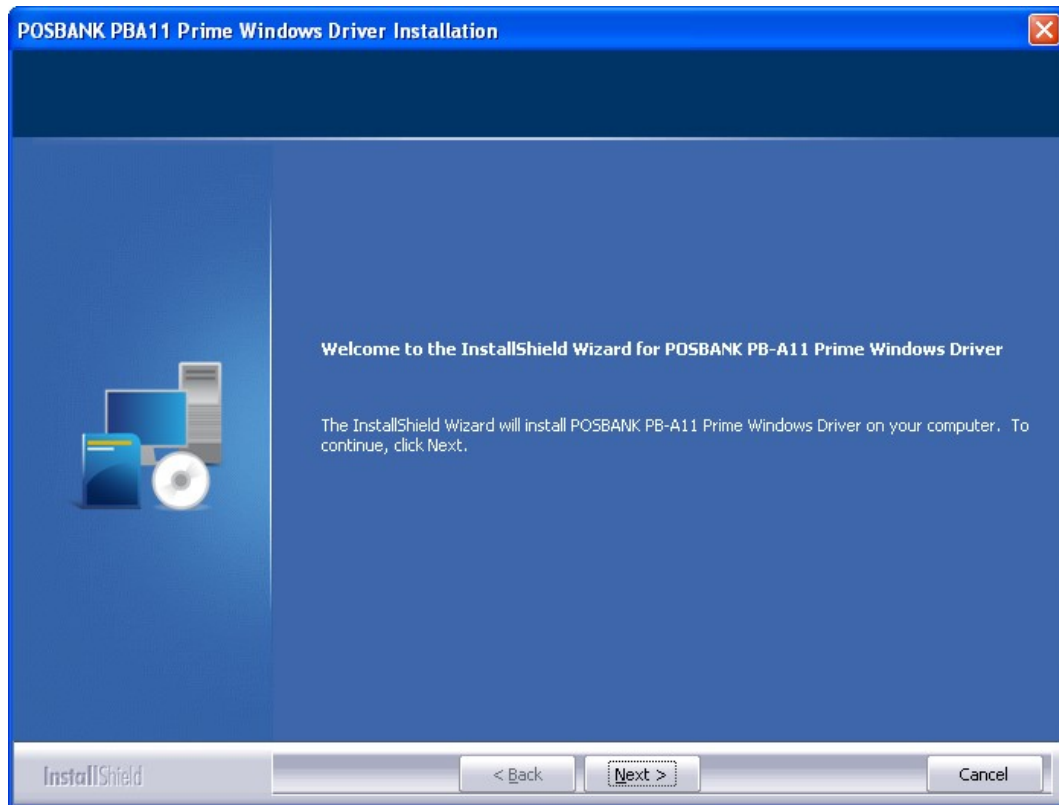


- 8) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

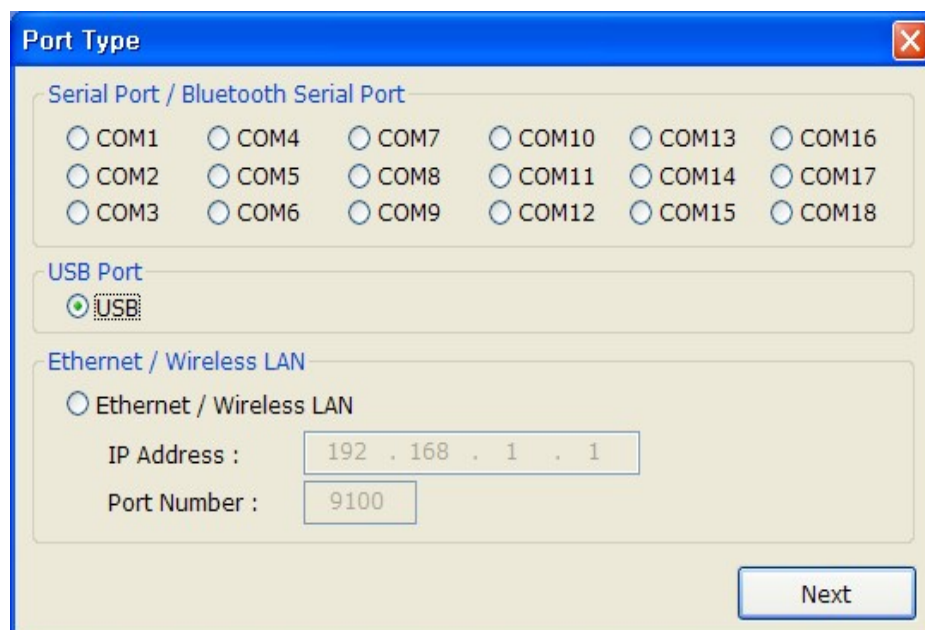


4-1-2 Via USB Port

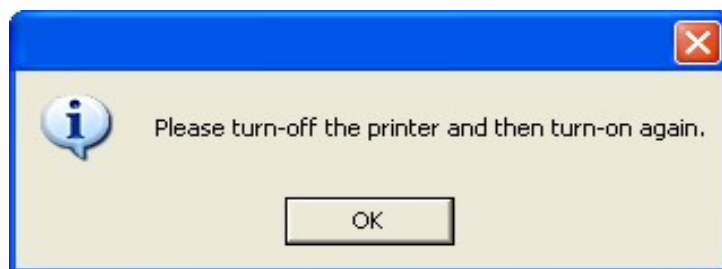
- 1) Double-click the Windows Driver installation file.
- 2) Click **Next**.



- 3) Select **USB** and then click **Next**.



4) Click **OK**.

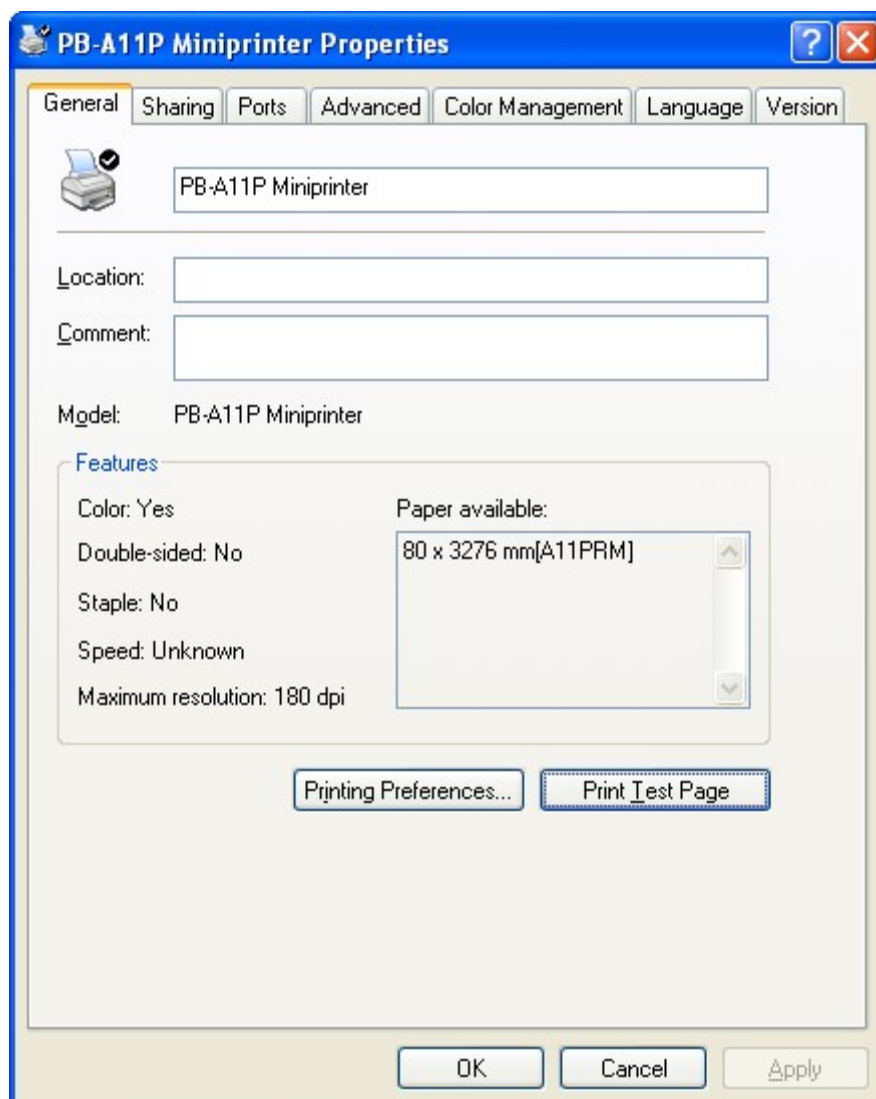


5) Turn off the printer and then turn it on. The printer driver will be installed automatically.

6) Open the printer properties window in the Windows OS.

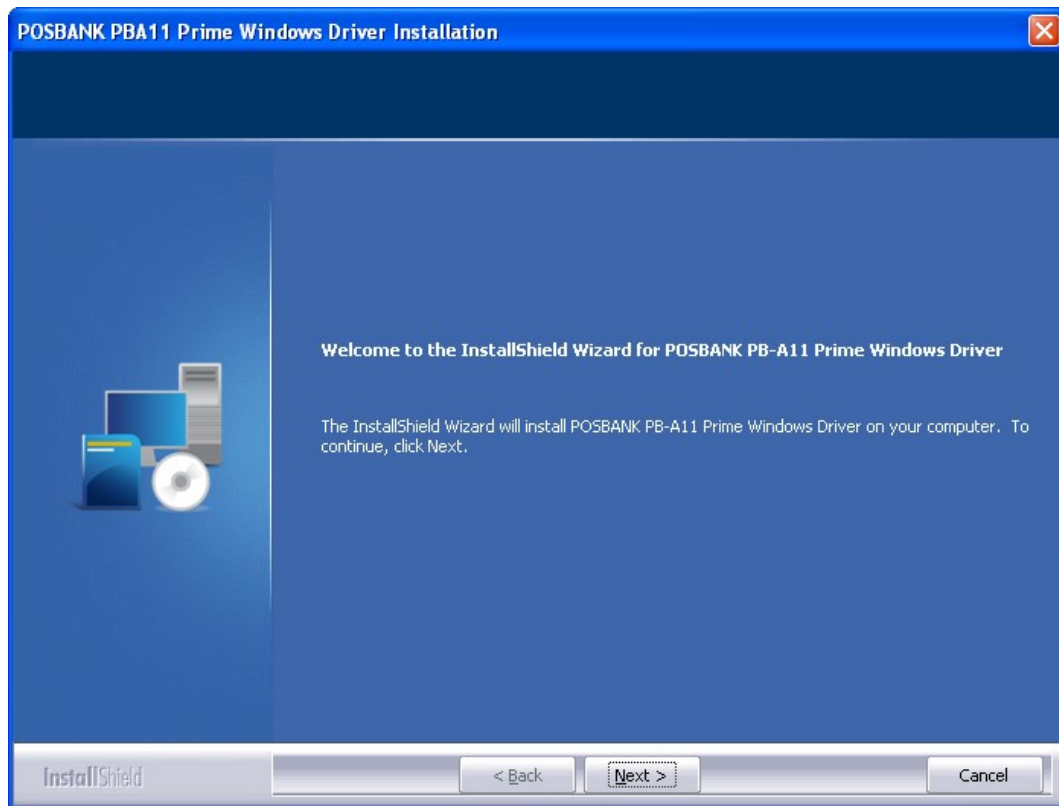
※ Control Panel – Printers and Faxes.

7) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

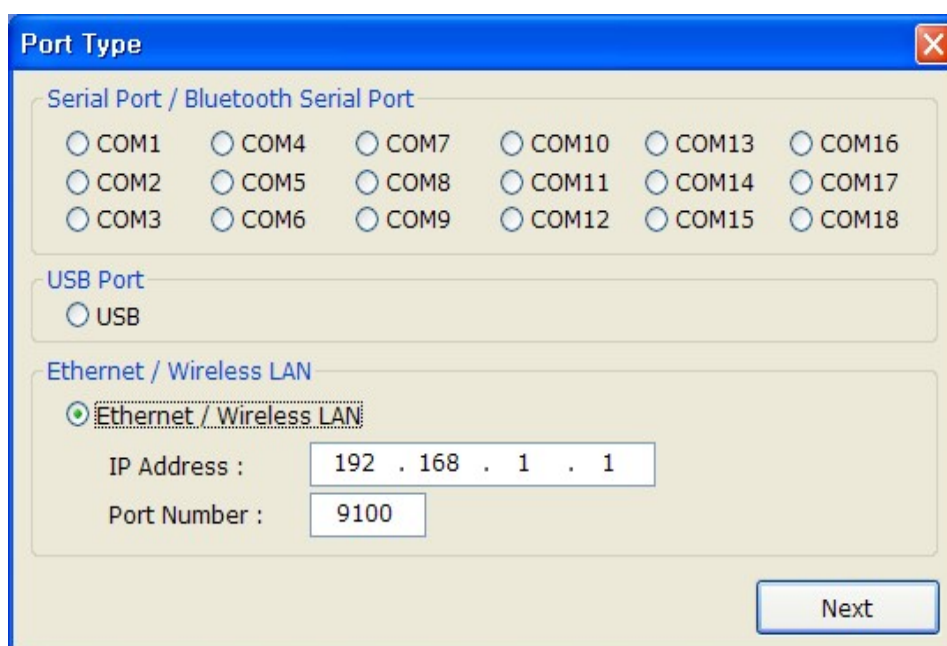


4-1-3 Ethernet / Wireless LAN Port

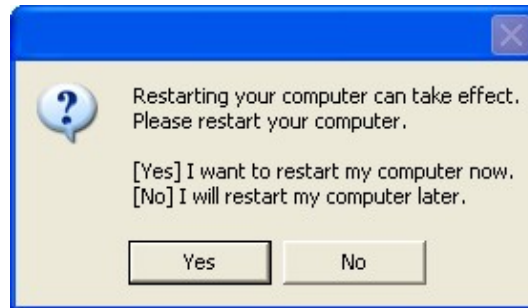
- 1) Double-click the Windows Driver installation file.
- 2) Click **Next**.



- 3) Select **Ethernet / Wireless LAN**.
- 4) Enter the IP address and port number, and then click **Next**.



5) Click **Yes** to reboot the PC.



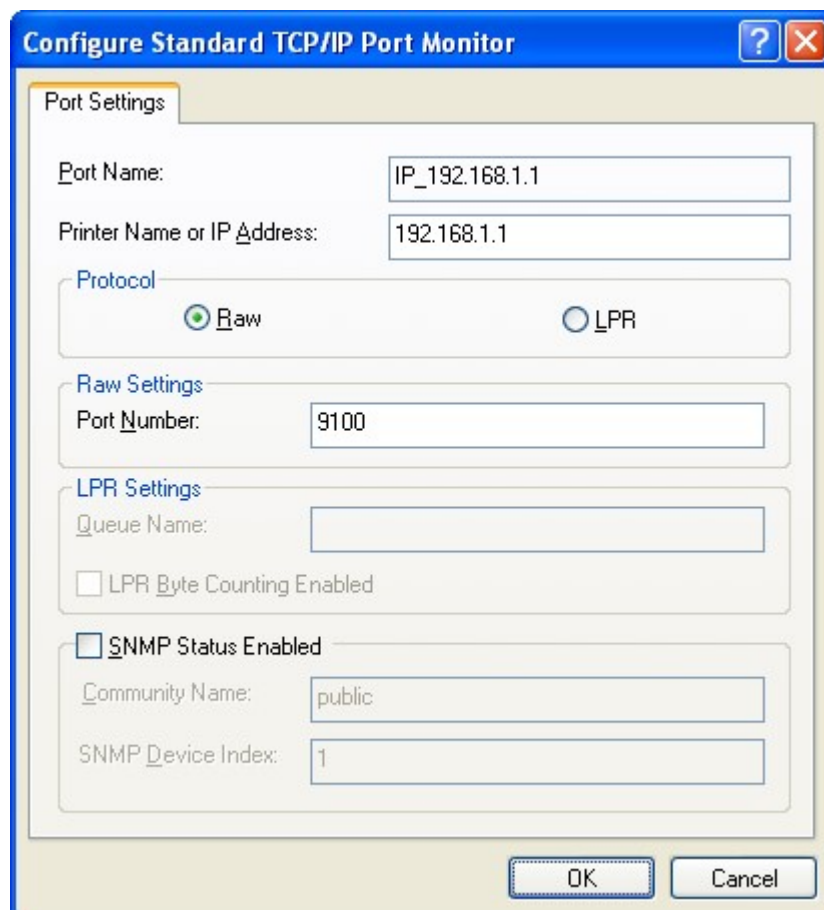
6) Open the printer properties window in the Windows OS.

※ Control Panel – Printers and Faxes.

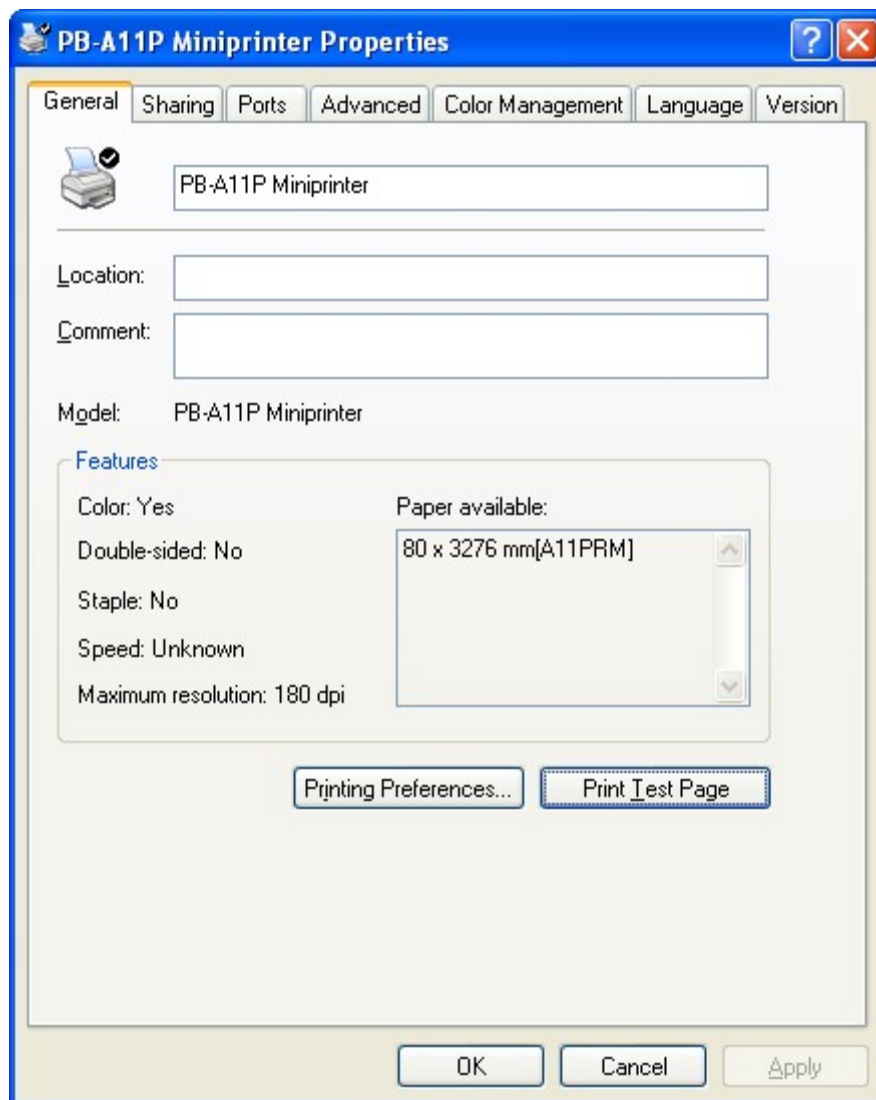
7) In the **Ports** tab, click **Configure Port....**

8) Match the communication settings to those of the printer.

※ The "LPR" protocol is not supported with this printer.



- g) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

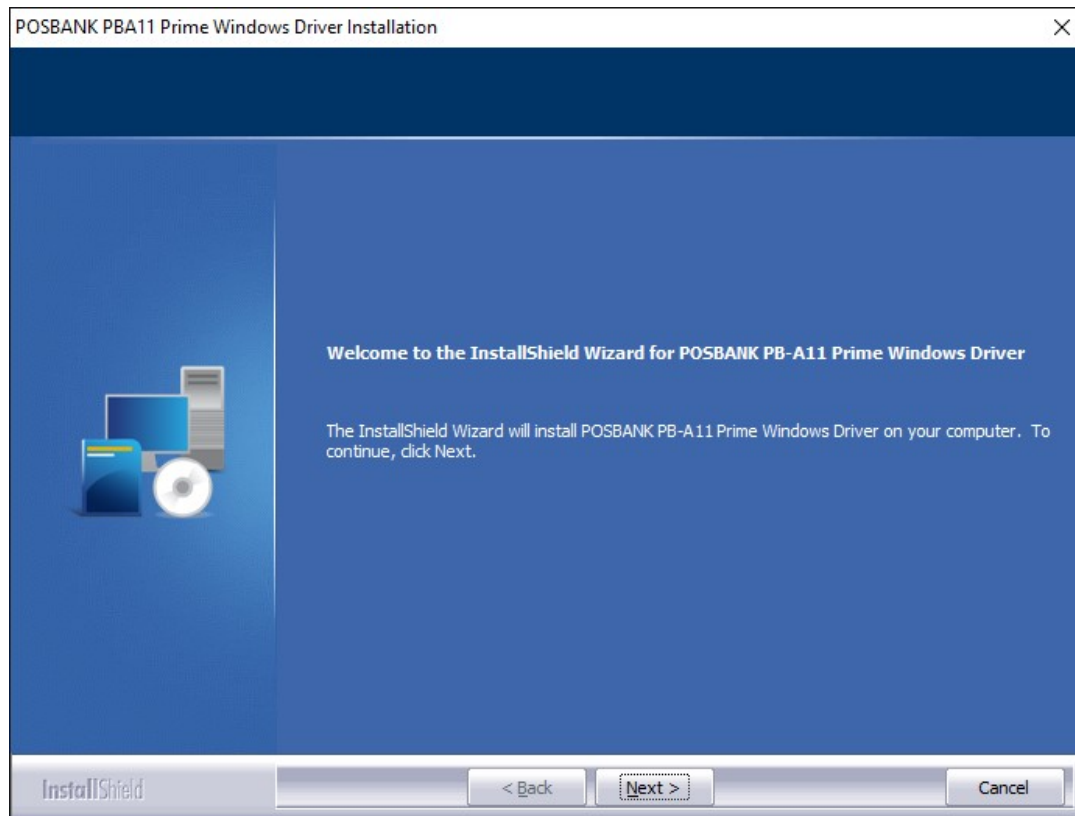


4-2 Installing on Windows VISTA / Server 2008 / 7 / 8 / Server 2012 / 10

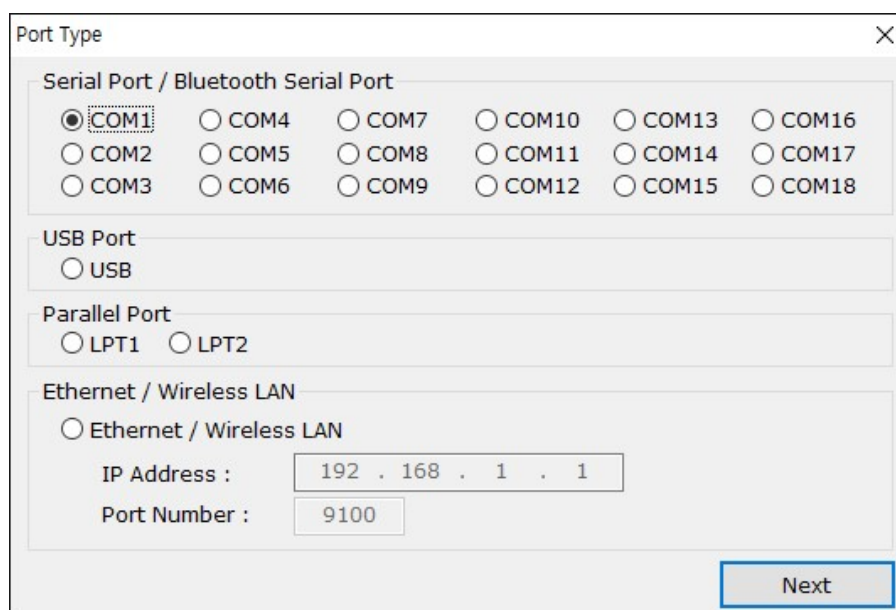
4-2-1 Via Serial Port or Bluetooth

1) Double-click the Windows Driver installation file.

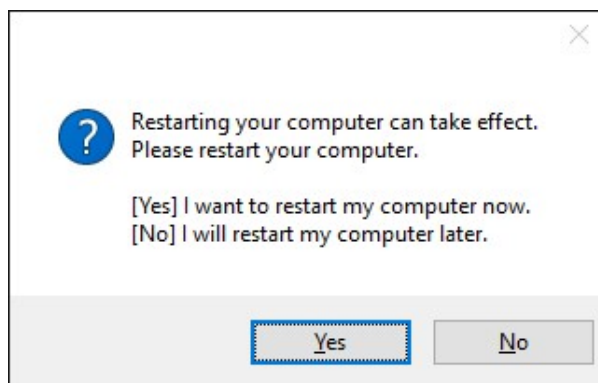
2) Click **Next**.



3) Select a COM port to be used, and then click **Next**.



4) Click **Yes** to reboot the PC.



5) Open the printer properties window in the Windows OS.

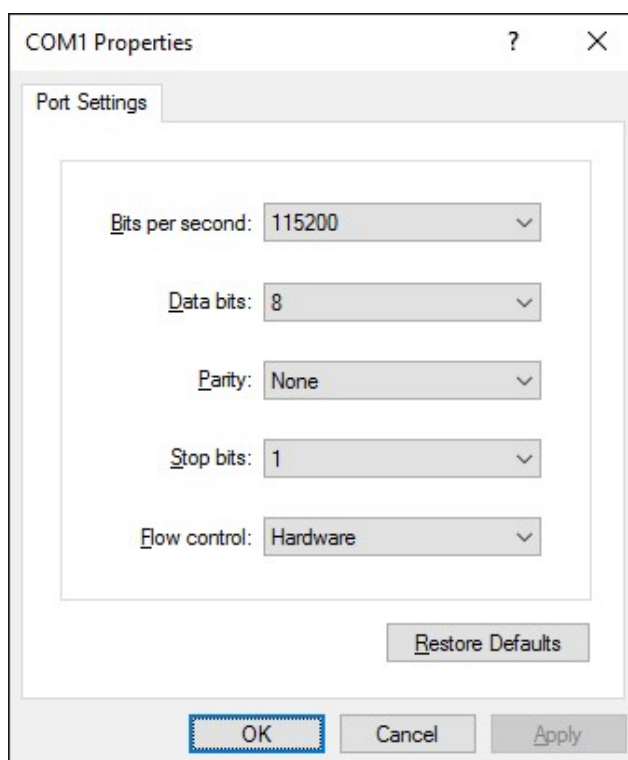
※ Control Panel – Hardware and Sound – Device and Printers.

6) In the **Ports** tab, click **Configure Port**.

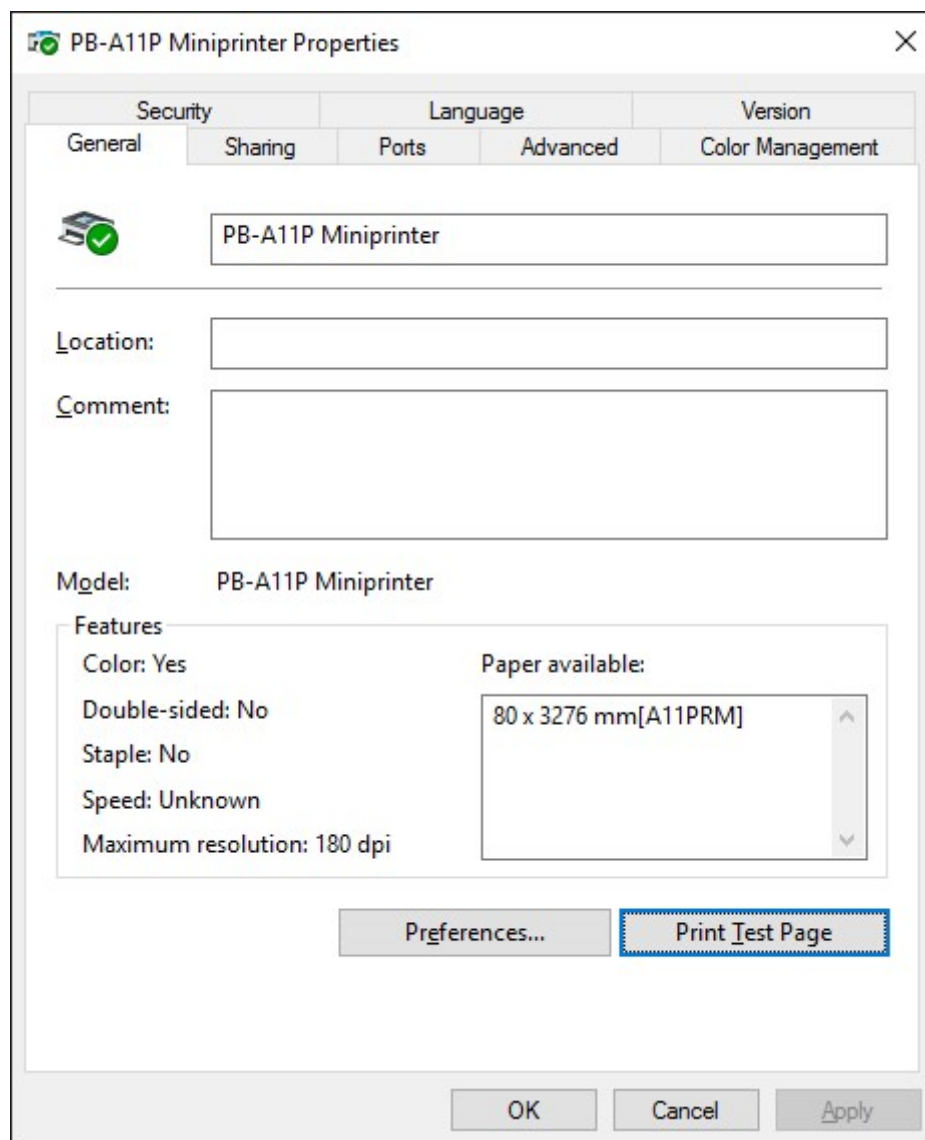
※ Skip this step in case of data communication using Bluetooth.

7) Match the communication settings to those of the printer. The communication settings of the printer can be performed by conducting a self-test.

※ Skip this step in case of data communication using Bluetooth.

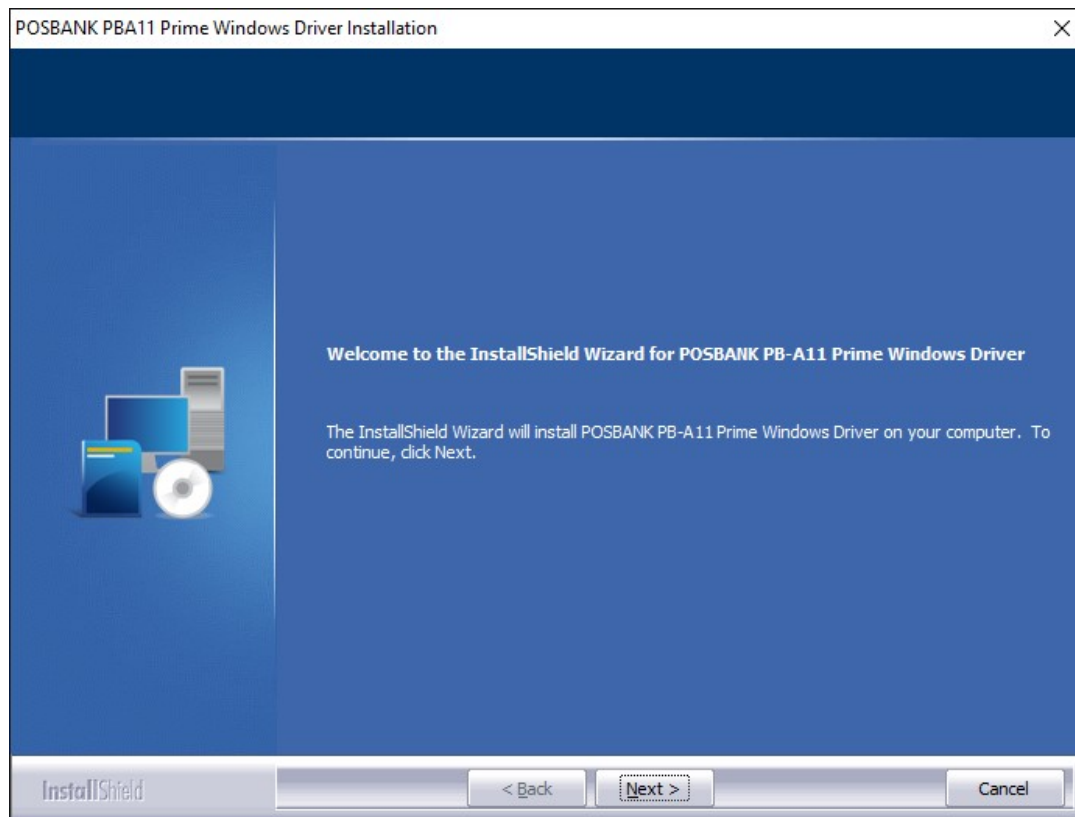


- 8) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

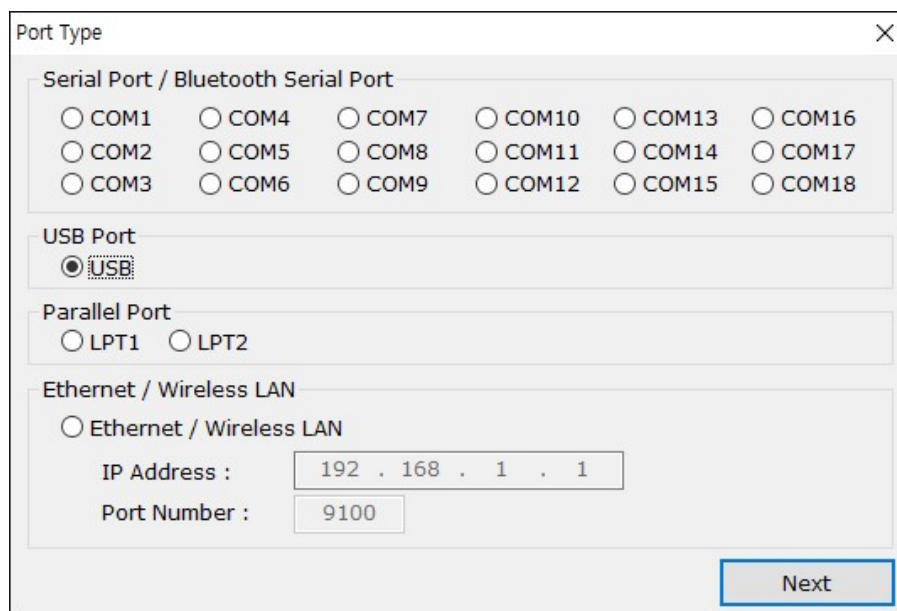


4-2-2 Via USB Port

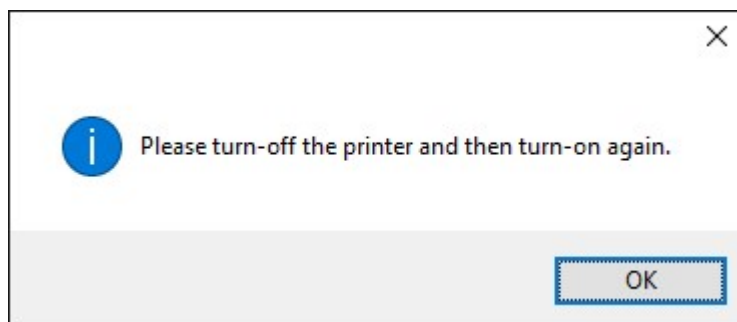
- 1) Double-click the Windows Driver installation file.
- 2) Click **Next**.



- 3) Select **USB** and then click **Next**.



4) Click **OK**.

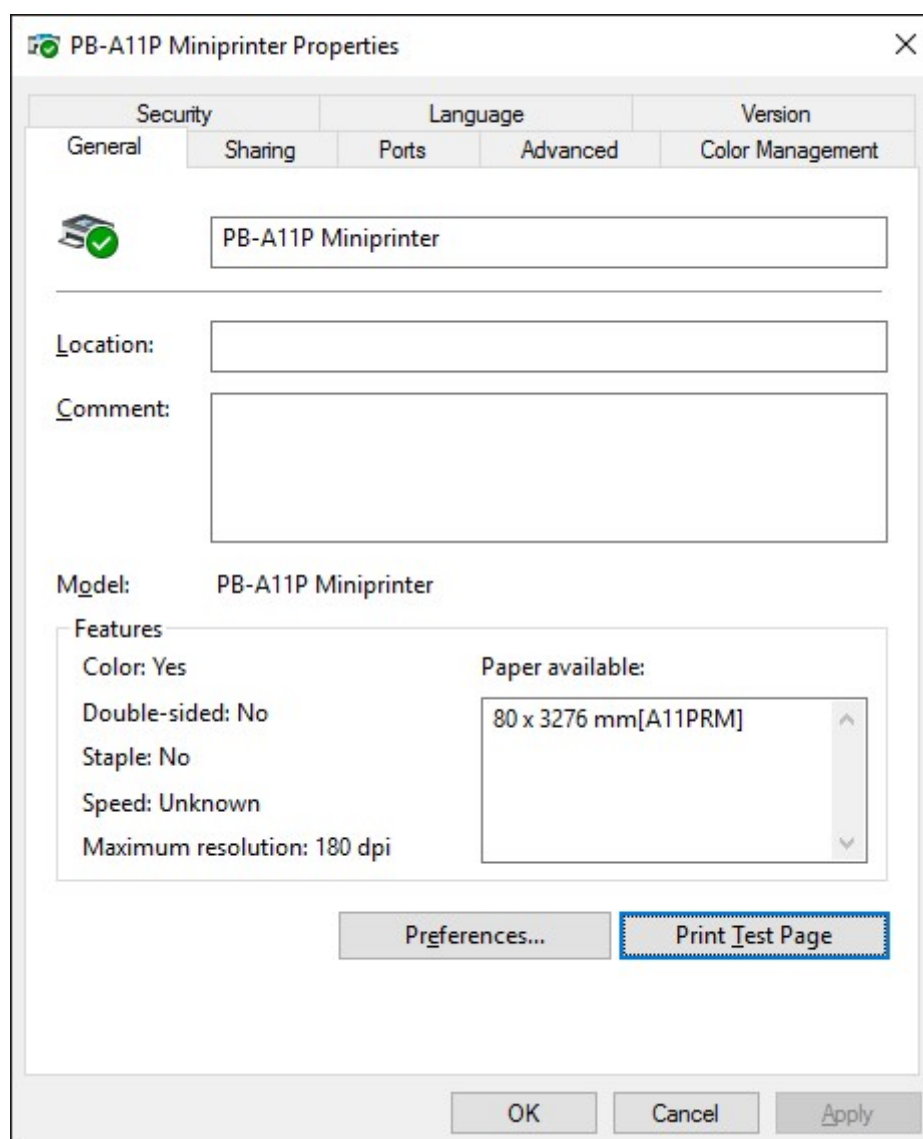


5) Turn off the printer and then turn it on. The printer driver will be installed automatically.

6) Open the printer properties window in the Windows OS.

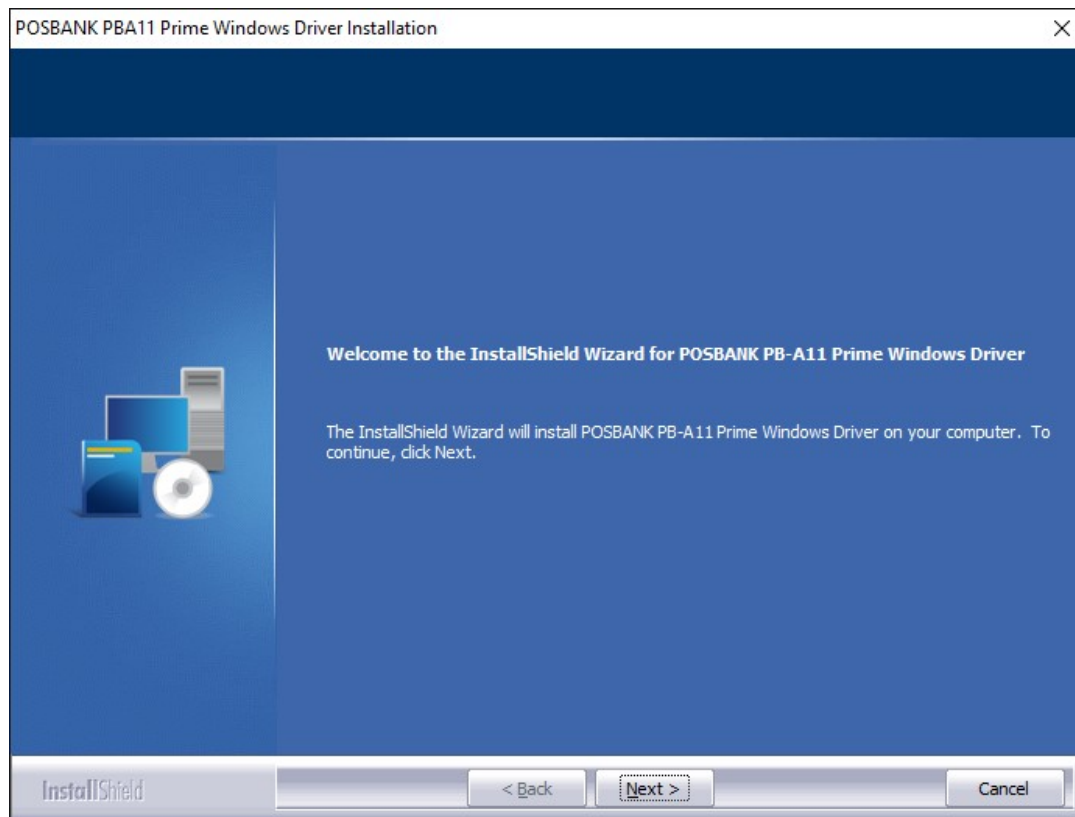
※ Control Panel – Hardware and Sound – Device and Printers.

7) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

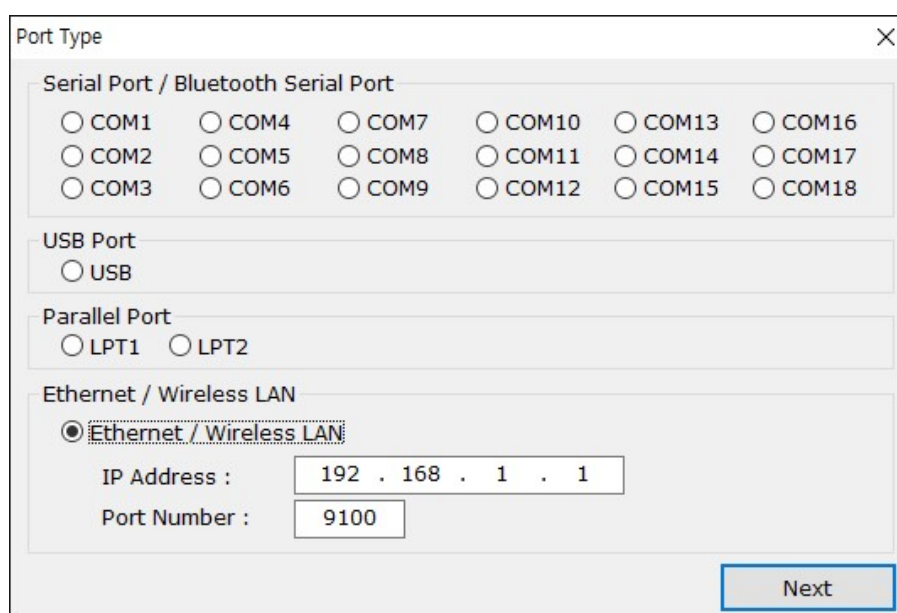


4-2-3 Ethernet / Wireless LAN Port

- 1) Double-click the Windows Driver installation file.
- 2) Click **Next**.



- 3) Select **Ethernet / Wireless LAN**.
- 4) Enter the IP address and port number, and then click **Next**.



Port Type

Serial Port / Bluetooth Serial Port

☐ COM1 ☐ COM4 ☐ COM7 ☐ COM10 ☐ COM13 ☐ COM16
☐ COM2 ☐ COM5 ☐ COM8 ☐ COM11 ☐ COM14 ☐ COM17
☐ COM3 ☐ COM6 ☐ COM9 ☐ COM12 ☐ COM15 ☐ COM18

USB Port

☐ USB

Parallel Port

☐ LPT1 ☐ LPT2

Ethernet / Wireless LAN

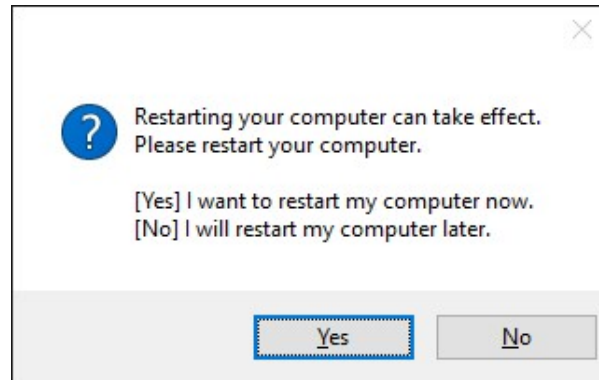
☒ Ethernet / Wireless LAN

IP Address : 192 . 168 . 1 . 1

Port Number : 9100

Next

5) Click **Yes** to reboot the PC.



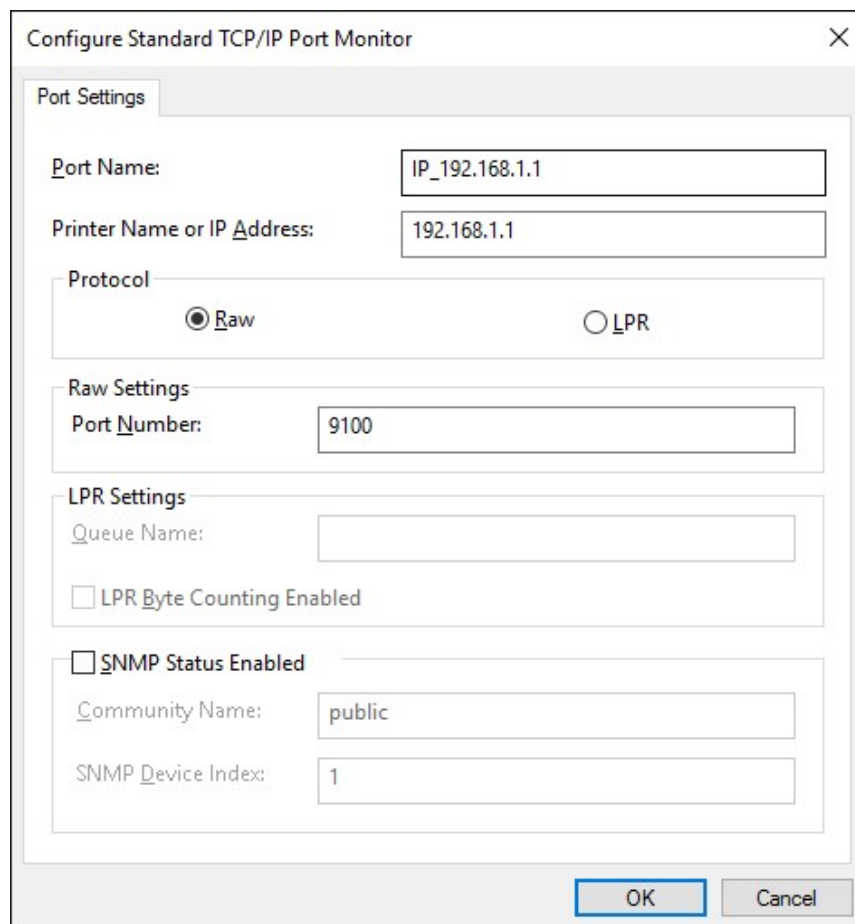
6) Open the printer properties window in the Windows OS.

※ Control Panel – Hardware and Sound – Device and Printers.

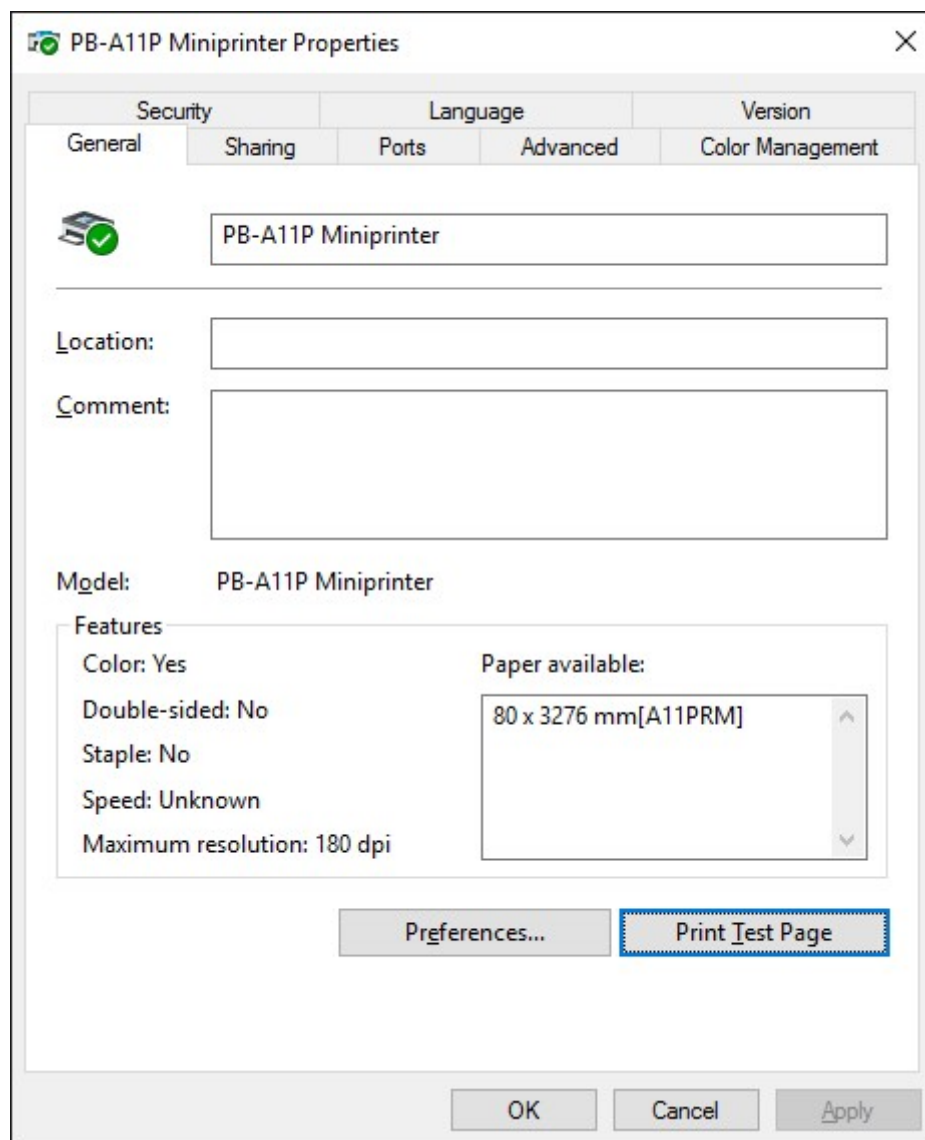
7) In the **Ports** tab, click **Configure Port....**

8) Match the communication settings to those of the printer.

※ The "LPR" protocol is not supported with this printer.



- g) Click **Print Test Page** and check printing status. Proper installation of the driver is indicated if the test page is printed normally.



5. Windows Driver Settings

The following functions can be configured after installing the Windows driver.

5-1 Layout

The screenshot shows the 'Layout' tab of the Windows Driver Settings window. The window has several tabs: 'Layout', 'Document Settings', 'NV Image', 'Barcode', 'Dithering', and 'Utility'. The 'Layout' tab is active and contains the following settings:

- Paper**
 - Paper Size: 80 x 3276 mm (with a dropdown arrow and a button to open the list)
 - Paper Type: Receipt (with a dropdown arrow)
- Number of copies**
 - Copies: 1 (with a spinner control and a range of [1 .. 255])
- Orientation**
 - ☒ Portrait
 - ☐ Landscape
- Image Rotation**
 - ☒ Normal
 - ☐ Rotation by 90 Degrees [CW]
 - ☐ Rotation by 180 Degrees [CW]
 - ☐ Rotation by 270 Degrees [CW]
- Paper Reduction**
 - ☐ Paper Reduction
 - Rate: 100% (with a dropdown arrow and a text input field)
 - ☒ Disable reducing barcode
 - ☐ Enable reducing barcode
- Crop Function**
 - ☐ Top Crop Length: 0 (with a spinner control and a unit of [Pixel])
 - ☐ Bottom Crop Length: 0 (with a spinner control and a unit of [Pixel])

- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences** (Printing Preferences).
- 3) Click the **Layout** tab.

5-1-1 Paper Size

Paper size of **80 x 3276 mm** is selected by default, and the following sizes can be selected.

80 x 40 mm

80 x 3276 mm

A4 210 x 297 mm

If a custom paper size is required, click "..."/>

Paper Width : 25.4 mm (Min) ~ 210.0 mm (Max)

Paper Length : 25.4 mm (Min) ~ 3276.0 mm (Max)

You can choose the new paper size on the **Paper Size** combo-box after adding a paper size.

Delete button : Deletes the paper size selected in the list.

Save button : Adds a new paper size or update the paper size selected in the list if the paper name already exists on the system.

5-1-2 Paper Type

You can choose **Receipt** or **Ticket** as paper types. Receipt allows flexible paper length according to the data length. Ticket print in fixed length even the print data is short. Default setting is **Receipt**.

Receipt : Receipt allows flexible paper length according to the data length.

Ticket : Ticket print in fixed length even the print data is short.

The screenshot shows the 'Document Settings' dialog box with the following settings:

- Paper**
 - Paper Size : 80 x 3276 mm
 - Paper Type : Receipt (dropdown menu is open showing Receipt and Ticket)
- Number of copies**
 - Copies : 1 [1 .. 255]
- Orientation**
 - ☒ Portrait
 - ☐ Landscape
- Image Rotation**
 - ☒ Normal
 - ☐ Rotation by 90 Degrees [CW]
 - ☐ Rotation by 180 Degrees [CW]
 - ☐ Rotation by 270 Degrees [CW]
- Paper Reduction**
 - ☐ Paper Reduction
 - Rate : 100%
 - ☒ Disable reducing barcode
 - ☐ Enable reducing barcode
- Crop Function**
 - ☐ Top Crop Length 0 [Pixel]
 - ☐ Bottom Crop Length 0 [Pixel]

5-1-3 Copies

Copies are printed by specifying the copy count. The copy count is set to 1 by default. Set this value bigger than 1 to set the number of copies to print. The value should be within the range of 1 to 255.

5-1-4 Image Rotation

Image rotation is available for image data only. It means that rotation of device fonts or barcode fonts is not supported.

5-1-5 Paper Reduction

Reduction function reduces the size of the print image to save print paper. If this function is enabled and print-job data includes text data created by using a printer font, device fonts are converted to True Type fonts to make them smaller. The barcode size also can be reduced by selecting "**Enable reducing barcode**".

5-1-6 Crop Function

This function crops the upper and lower end of the printing area by the specified number. It helps reduce the margin at the top and bottom when there is excessive margin. The value should be within the range of 0 to 255.

5-1-7 Orientation

Printing orientation can be set to **Portrait** (which is the default) or **Landscape**. It is not possible to use device fonts and device barcodes in landscape.

Portrait : Printing in the vertical direction.

Landscape : Printing in the horizontal direction.

5-2 Document Settings

Layout Document Settings NV Image Barcode Dithering Utility

Send Command

Start Doc :

Start Page :

End Page :

End Doc :

Example : <1B4A00>

Cash Drawer / Internal Beep

☐ Open before printing #1 50 [ms]

☐ Open before printing #2 50 [ms]

☐ Open after printing #1 50 [ms]

☐ Open after printing #2 50 [ms]

☐ Beep sound before printing 50 [ms]

☐ Beep sound after printing 50 [ms]

Line Feed

Line-feeds after printing : 0 [0 .. 99]

Paper Cut

☐ Page / Job : No Cut / No Cut

☒ Page / Job : No Cut / Partial Cut

☐ Page / Job : Partial Cut / Partial Cut

- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences** (Printing Preferences).
- 3) Click the **Document Settings** tab.

5-2-1 Send Command

The Windows driver serves to receive the content for print from an application and send it to the printer. The "Send Commands" function allows for the addition of desired commands at the start or end of the print content.

Start Doc	:	Addition of command at the beginning of the document.
Start Page	:	Addition of command at the beginning of the page.
End Page	:	Addition of command at the end of the page.
End Doc	:	Addition of command at the end of the document.

For more information about the hexadecimal values that can be entered in "Start Doc", "Start Page", "End Page" and "End Doc", refer to the Commands Manual.

5-2-2 Cash Drawer / Internal Beep

To open a cash-drawer before printing, tick "Open before printing #1" or "Open before printing #2".

To open a cash-drawer after printing, tick "Open after printing #1" or "Open after printing #2".

To make a beep sound when printing, tick "Beep sound before printing" or "Beep sound after printing".

5-2-3 Line Feed

It is possible to set the number of line feeds between 0 and 99 for adding blank lines at the end of printing.

5-2-4 Paper Cut

Paper can be cut at the end of each page or each document (job).

Page/Job : No Cut / No Cut	:	Paper is not cut after printing.
Page/Job : No Cut / Partial Cut	:	Paper is cut at the end of each document (Job).
Page/Job : Partial Cut / Partial Cut	:	Paper is cut at the end of each page.

5-3 NV Image

The screenshot shows the 'NV Image' tab in a printer configuration window. It contains two main sections:

- NV Image Printing:** This section contains four dropdown menus:
 - Start Doc : None
 - Start Page : None
 - End Page : None
 - End Doc : None
- NV Image Command:** This section contains two radio buttons:
 - ☒ GS (L)
 - ☐ FS p

- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences** (Printing Preferences).
- 3) Click the **NV Image** tab.

The position to print NV image stored in the printer can be set at the beginning and/or end of the document and beginning and end of each page. Also, there are two commands for NV Image printing. Take care of selecting one of the two commands because NV images cannot be printed depending on the selected command.

- ※ NV graphics: "FS p"
- ※ NV bit image: "GS (L)"

Start Doc : Insert NV image at the top of the document.
Start Page : Insert NV image at the top of the page.
End Page : Insert NV image at the end of the page.
End Doc : Insert NV image at the end of the document.

5-4 Barcode

The screenshot shows the 'Barcode' tab of a printer's properties window. At the top, there are six tabs: 'Layout', 'Document Settings', 'NV Image', 'Barcode' (which is selected), 'Dithering', and 'Utility'. The main content area is divided into two sections: '1D-Barcodes' and '2D-Barcodes'. Each section contains a 'Font Name' dropdown menu, a 'Type' dropdown menu, and a 'Properties' button. In the '1D-Barcodes' section, the 'Font Name' is set to 'Barcode1' and the 'Type' is set to 'UPC-A'. In the '2D-Barcodes' section, the 'Font Name' is set to '2D-Code1' and the 'Type' is set to 'PDF417'.

Section	Font Name	Type	Properties
1D-Barcodes	Barcode1	UPC-A	Properties
2D-Barcodes	2D-Code1	PDF417	Properties

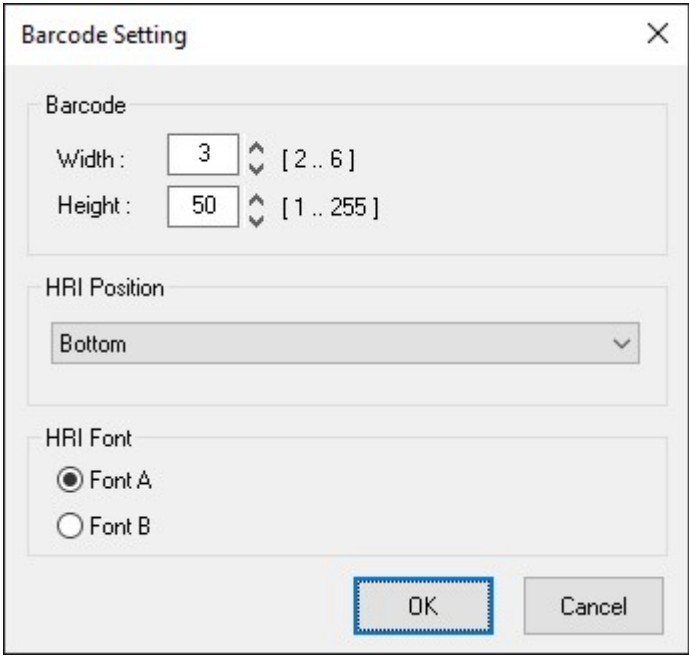
- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences** (Printing Preferences).
- 3) Click the **Barcode** tab.

5-4-1 1d Barcodes

Windows driver supports one-dimensional barcode fonts as shown in the following table. Barcodes can be printed by using following font names.

Font Name	Type (Symbology)	Size (Point)	Supported Characters
Barcode1	UPC-A	20 / 40 / 60 / 80	Numeric: 0~9
Barcode2	UPC-E	20 / 40 / 60 / 80	Numeric: 0~9
Barcode3	JAN13 (EAN)	20 / 40 / 60 / 80	Numeric: 0~9
Barcode4	JAN8 (EAN)	20 / 40 / 60 / 80	Numeric: 0~9
Barcode5	Code39	20 / 40 / 60 / 80	Numeric: 0~9 Symbols: \$, +, -, ., / Letters: A~Z
Barcode6	ITF	20 / 40 / 60 / 80	Numeric: 0~9
Barcode7	Codabar	20 / 40 / 60 / 80	Numeric : 0~9 Symbols: \$, +, -, ., /, : Letters: A~D
Barcode8	Code93	20 / 40 / 60 / 80	ASCII CODE: 0x00 ~ 0x7F
Barcode9	Code128	20 / 40 / 60 / 80	ASCII CODE: 0x00 ~ 0x7F

If you want to change the default value of 1d barcode properties, select a **Font Name** and **Type** of one-dimensional barcode, and then click **Properties**. Click **OK** after changing the values of properties.



The image shows a 'Barcode Setting' dialog box with a close button (X) in the top right corner. It contains three sections: 'Barcode' with 'Width' (3) and 'Height' (50) input fields and their respective ranges [2..6] and [1..255]; 'HRI Position' with a dropdown menu set to 'Bottom'; and 'HRI Font' with two radio buttons, 'Font A' (selected) and 'Font B'. At the bottom are 'OK' and 'Cancel' buttons.

5-4-2 2d Barcodes

Windows driver supports two-dimensional barcode fonts as shown in the following table. Barcodes can be printed on the printer by using following font names.

Font Name	Type (Symbology)	Size (Point)
2D-Code1	PDF417	9.5
2D-Code2	QR Code	9.5

If you want to change the default value of 2d barcode properties, select a **Font Name** and **Type** of two-dimensional barcode, and then click **Properties**. Click **OK** after changing the values of properties for PDF417 or QR Code.

2D-Code Setting

PDF417

Column : 0 [0 .. 30]

Step : 0 [0, 3 .. 90]

Width : 3 [2 .. 8]

Height : 3 [2 .. 8]

Error Correction : Level 0

☐ Set the processing of simplified PDF417 symbol

QR Code

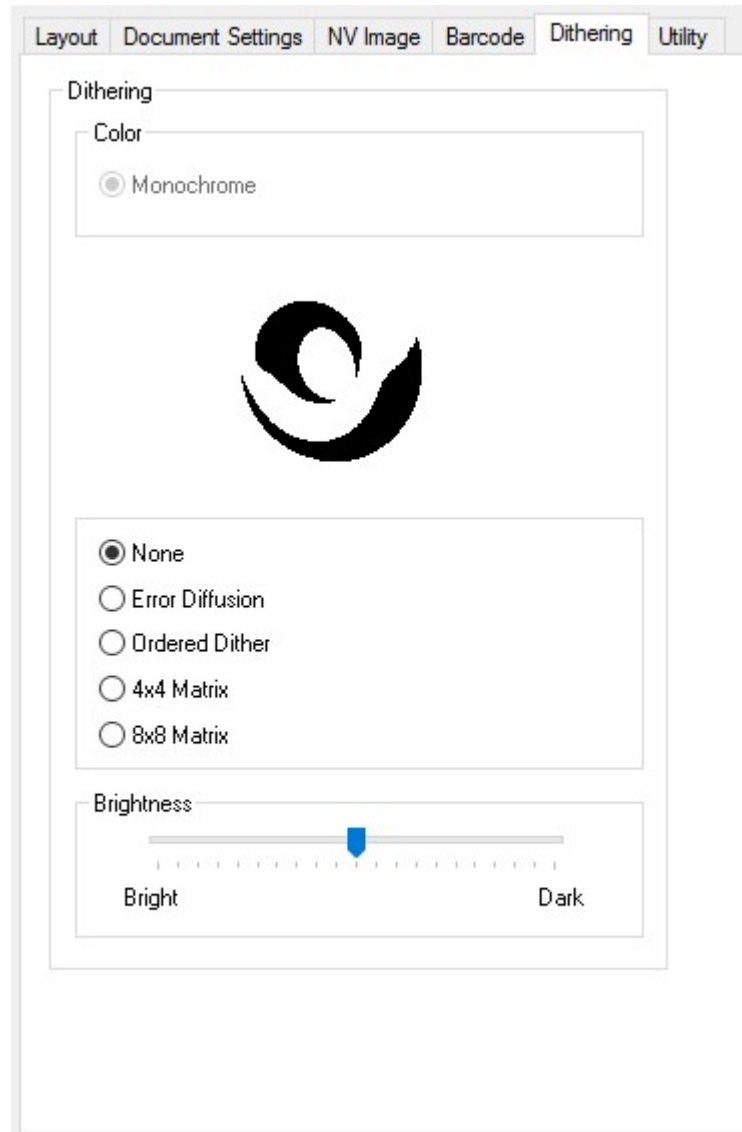
Size : 3 [1 .. 8]

Model : Model 2

Error Correction : Level L

OK Cancel

5-5 Dithering

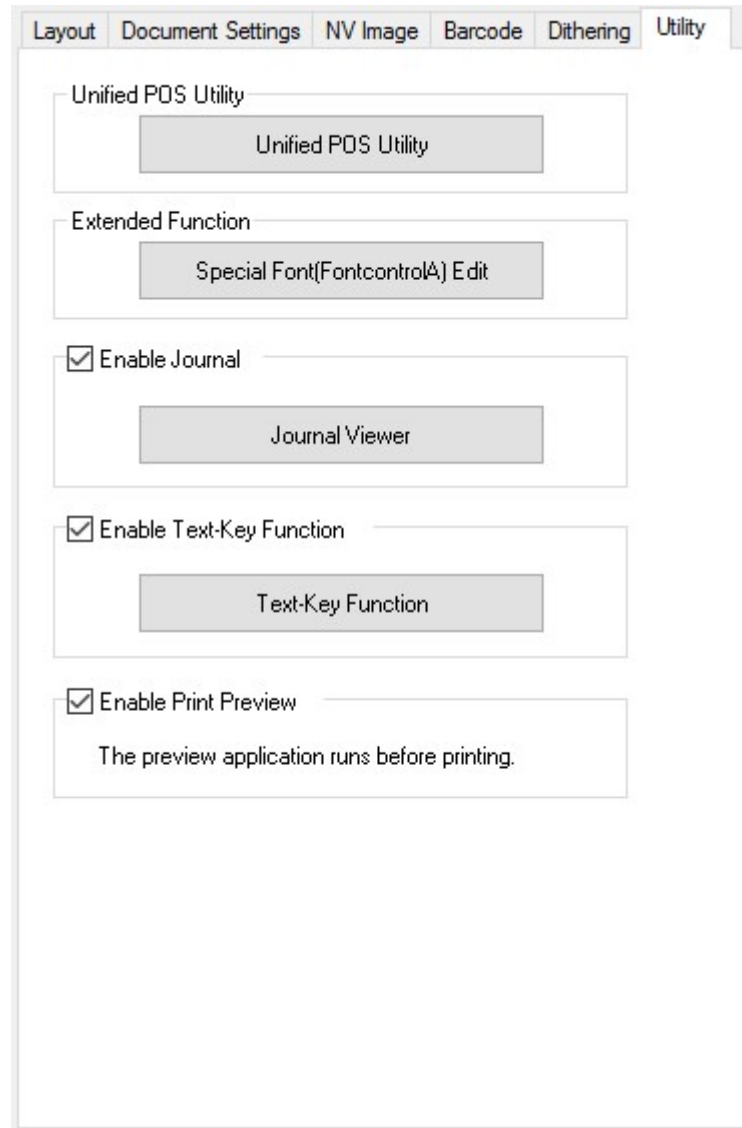


- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences**.
- 3) Click the **Dithering** tab.

This printer model is a black and white printing device including dithering function and brightness level adjustment function to produce a sharper or softer image. The following dithering algorithms can be selected.

- None
- Error Diffusion
- Ordered Dither
- 4x4 Matrix
- 8x8 Matrix

5-6 Utility



- 1) Open the Printer Properties window for the corresponding OS.
- 2) In the **General** tab, click **Preferences** (Printing Preferences).
- 3) Click the **Utility** tab.

5-6-1 Unified POS Utility

Refer to the **Unified POS Utility** manual contained in the CD for details.

5-6-2 Special Font Edit Utility

The purpose of **FontControlA** font is not for text printing. It is used to define the printer command, assign the defined printer command to a specific ASCII character, and send it to the printer. The range of ASCII code that the command can be assigned is from 0x20 to 0x7F, and the command can be easily assigned using this utility.

- 1) Click **Special Font Edit**.
- 2) Select an ASCII code character and enter the print command. All values should be entered in hexadecimal number format.
- 3) Click **Apply** and then click **OK**.

Char	Hex	Command
	20	1B 3D 00
!	21	48 44 48 0A
"	22	
#	23	
\$	24	
%	25	
&	26	
'	27	
(	28	
)	29	
*	2a	
+	2b	
,	2c	
-	2d	
.	2e	
/	2f	
0	30	
1	31	
2	32	
3	33	
4	34	
5	35	
6	36	
7	37	

Char:

Hex:

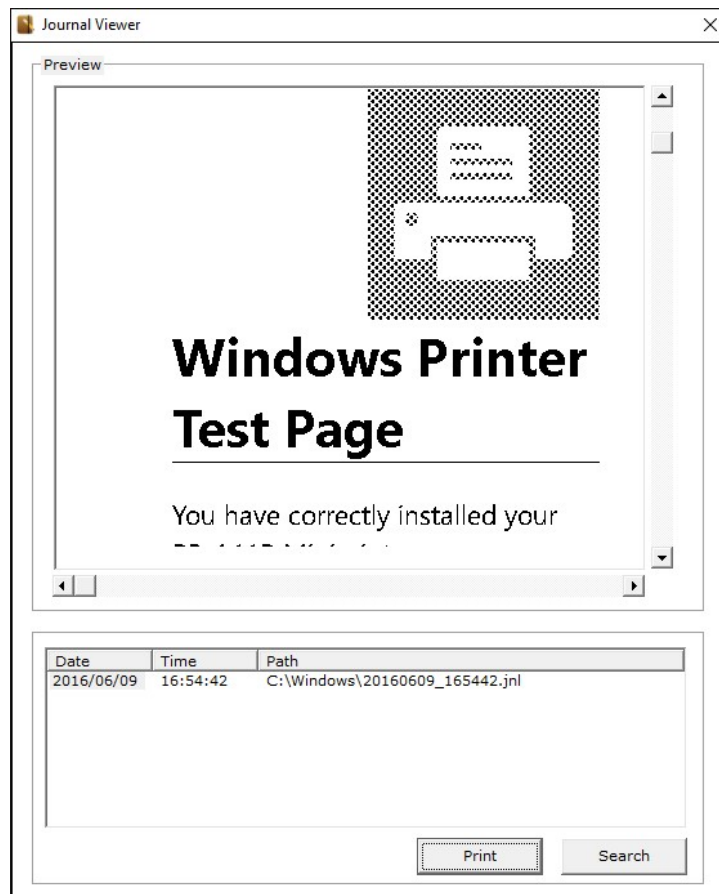
Apply Delete OK Cancel

Edit:

5-6-3 Journal Viewer

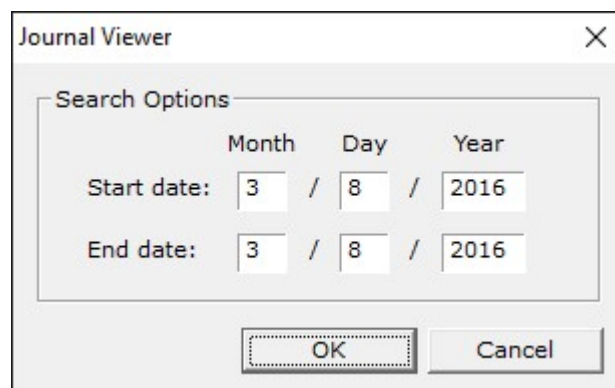
Journal is a function to save a copy of printed receipts. Copies can be saved without using journal printer with this function. Journal saves each printed document in a file and the saved file can be viewed by using this utility.

1) Tick **Enable Journal** to run **Journal Viewer**, and then click **Journal Viewer**.



2) Click **Search** to set search condition, and then enter **Start Date** and **End Date**.

3) Click **OK** to search the files created within the specified period.



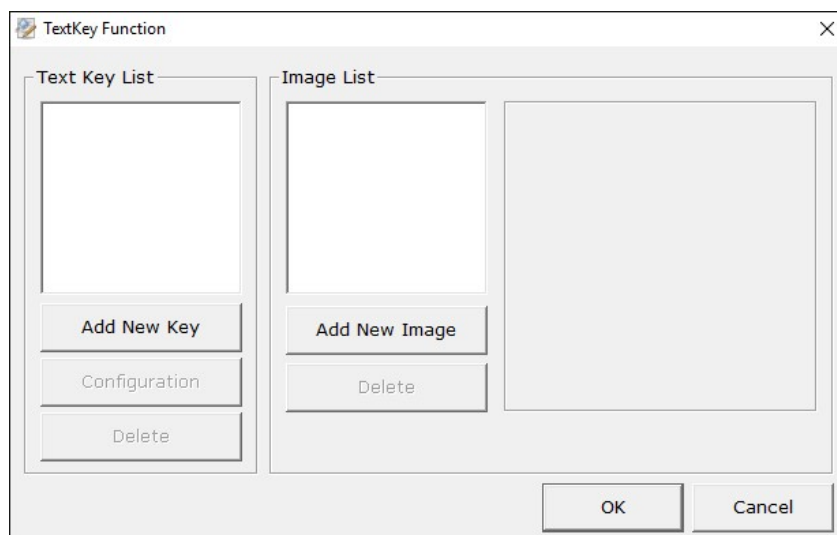
4) Select the file to print from the list and click **Print** to send the data stored in the file to the printer.

5-6-4 Text-Key Function

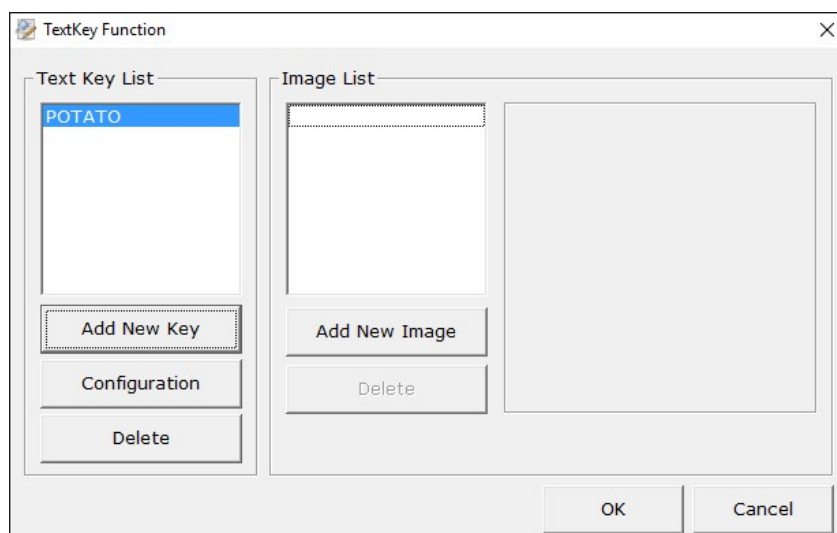
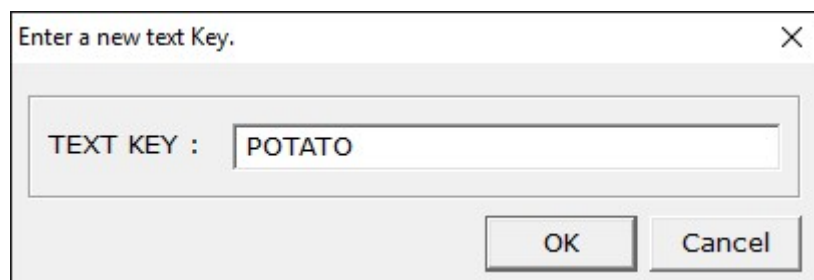
Text-Key Function is a utility to replace specific text (Text-Key) with other texts or graphic images, and to add images to the bottom of receipts. This function can be used only when using device fonts. It has no effect when using TTF fonts (True Type Fonts) or the data for Text-Key does not exist on a Print-Job.

► How to replace Text-Key with other texts.

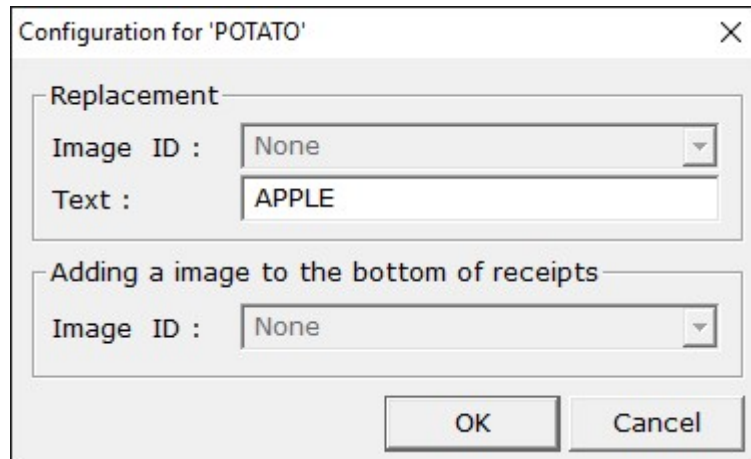
1) Tick **Enable Text-Key Function** and then click **Text-Key Function**.



2) Click **Add New Key**, type a text to be used as Text-Key, and then click **OK**.

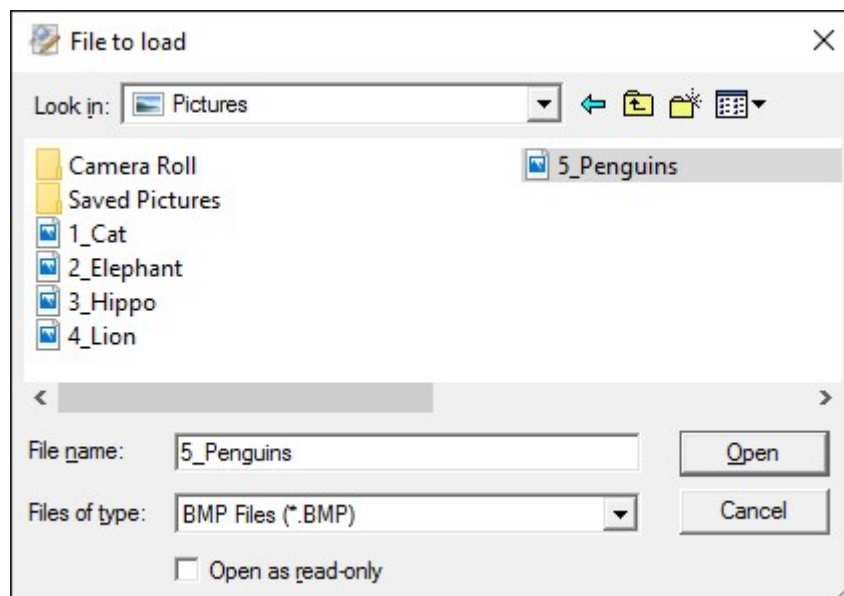


- 3) If the Text-Key is selected, The **Configuration** button is enabled.
- 4) Click **Configuration** to enter a text, which is used to replace the selected Text-Key with the text entered. For example, if you enter "APPLE" in the text box as below, the Text-key, "POTATO" can be replaced with "APPLE".

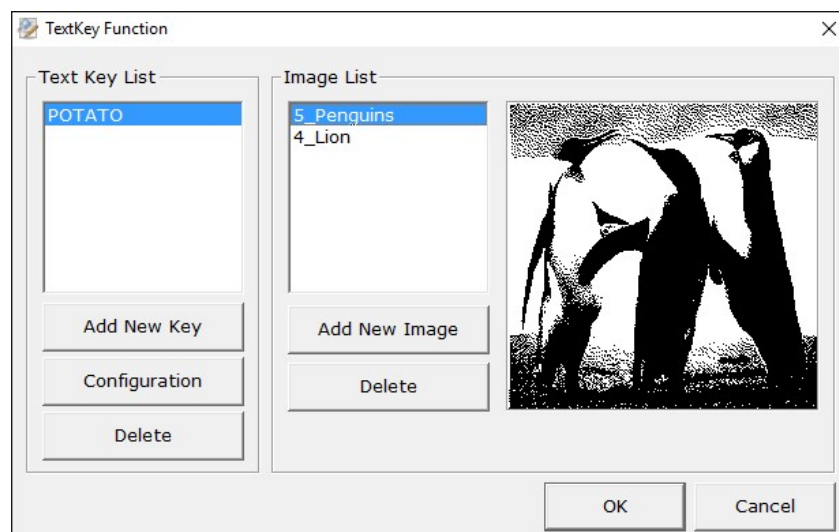
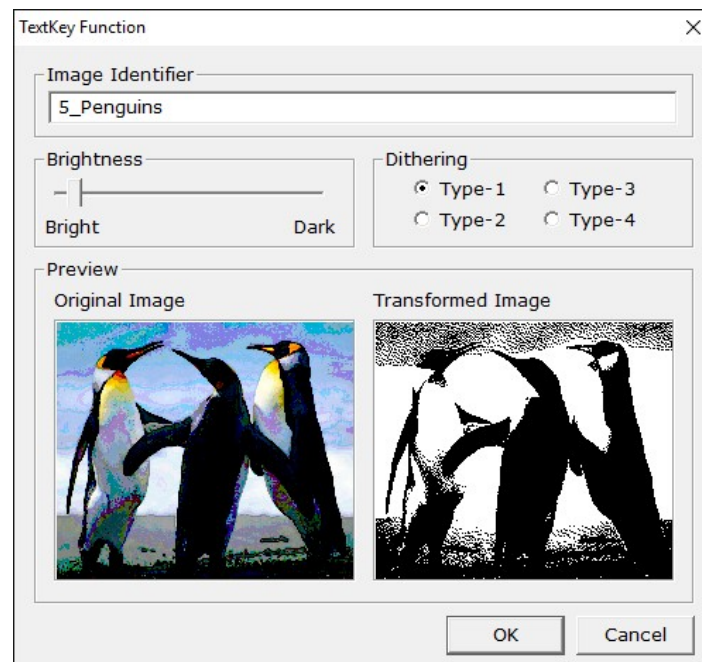


- How to replace Text-Key with a graphic image and to add it to the bottom of receipts.

- 1) This utility can also replace the selected Text-Key with a graphic image instead of texts and can add a graphic image to the bottom of receipts. It is necessary to add images to the image list.
- 2) Click **Add New Image** to browse for an image to add to the list.

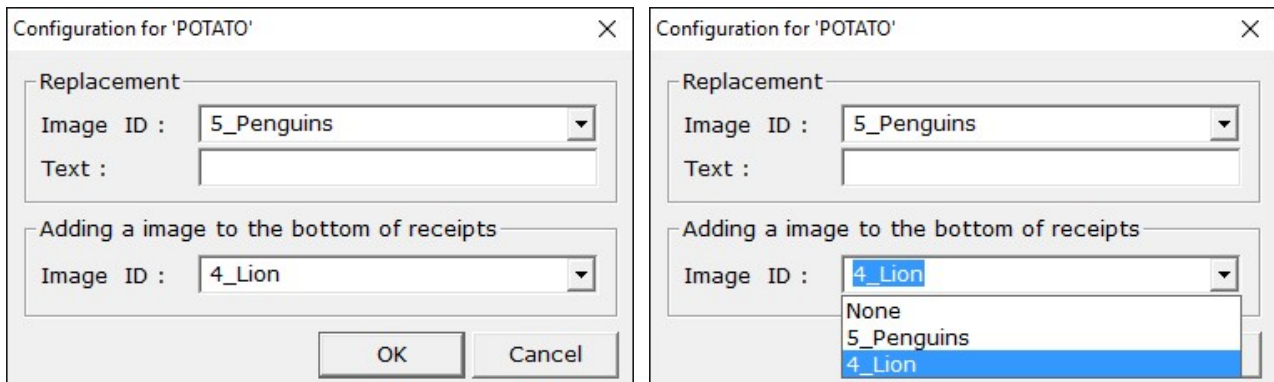


- 3) Enter a unique name to be added, adjust the brightness, select a dithering type, and then click **OK**. Repeat 2 to 3 step to add up to as much as you want.



- 4) Select a Text-Key in the Text-Key list, and then click **Configuration**.

- 5) To replace the selected Text-Key with a graphic image, select one of the available identifier via the combo box under "**Replacement**" label. There are two replacement functions but only one of the two is available.

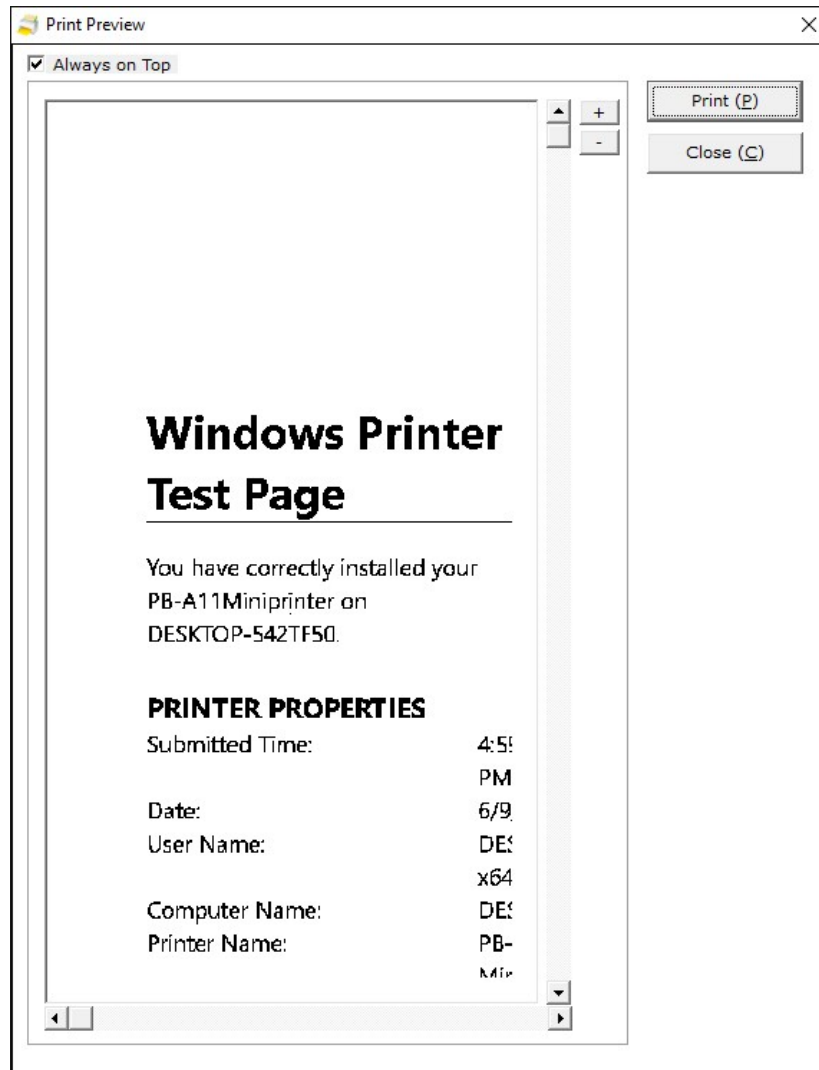


- 6) In order to print a graphic image to the bottom of receipts, select one of the available identifier via the combo box under "**Adding a image to the bottom of receipts**" label. The graphic image for the selected identifier only will be printed if the data for the selected Text-Key were found on a Print-Job.

5-6-5 Print Preview

This application with a preview of a print-job runs, and windows driver does not directly send print-job data to the printer when enabled by clicking "**Enable Print Preview**". Print-job data can only be sent to the printer in the application. The actual output of preview image processed by the application might look a little different.

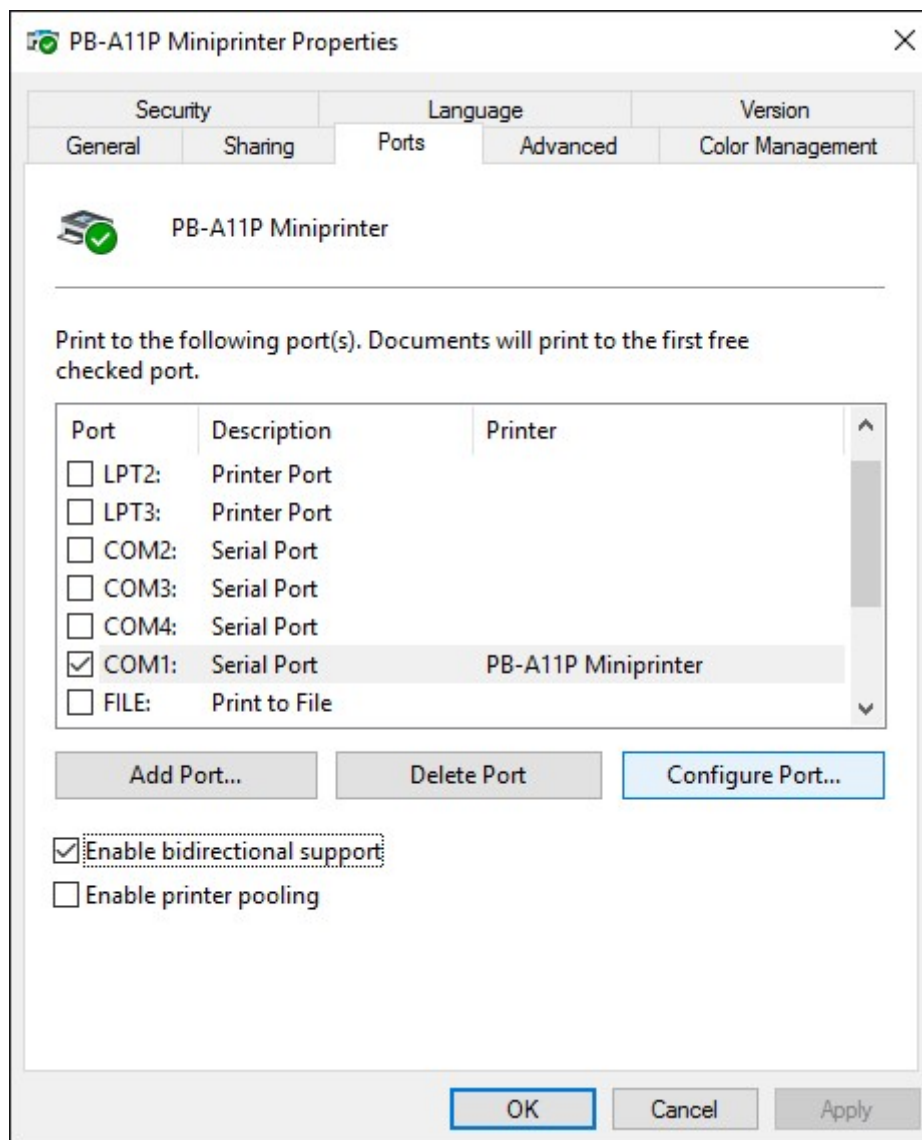
1) Tick **Enable Print Preview** to make Windows Driver ready for running the application.



2) When print-job data are created via Windows Driver, the application runs, and then loads the data to draw the expected output on screen.

3) Click **Print** if you want to print, or click **Close** to exit the application.

5-7 Bidirectional Communication



1) Open the Printer Properties window for the corresponding OS.

2) Click **Ports** tab.

It is necessary to tick **Enable bidirectional support** to get status from the printer. Sample codes contained in the CD can help you get more status information than the status information that OS supplies as standard way.

Printer status that OS support	Printer status that OS does not support
- ONLINE/OFFLINE - COVER OPEN/CLOSE - PAPER EMPTY	- NEAR END PAPER - CASH DRAWER OPEN/CLOSE

6. Windows Driver Specifications

6-1 Font

This Windows driver supports various fonts in the following table. Printing using these fonts is faster than using Windows fonts provided by the operating system.

Printer Font (Device Fonts) Name			Font Size (dot)	Font Size (point)
FontA1x1	FontA1x1[Ext.]	FontA1x1[255]	FontA1x1(12x24)	9.5
FontA1x2	FontA1x2[Ext.]	FontA1x2[255]	FontA1x2(12x48)	19
FontA2x1	FontA2x1[Ext.]	FontA2x1[255]	FontA2x1(24x24)	9.5
FontA2x2	FontA2x2[Ext.]	FontA2x2[255]	FontA2x2(24x48)	19
FontA2x4	FontA2x4[Ext.]	FontA2x4[255]	FontA2x4(24x96)	38.5
FontA4x2	FontA4x2[Ext.]	FontA4x2[255]	FontA4x2(48x48)	19
FontA4x4	FontA4x4[Ext.]	FontA4x4[255]	FontA4x4(48x96)	38.5
FontA4x8	FontA4x8[Ext.]	FontA4x8[255]	FontA4x8(48x192)	77
FontA8x4	FontA8x4[Ext.]	FontA8x4[255]	FontA8x4(96x96)	38.5
FontA8x8	FontA8x8[Ext.]	FontA8x8[255]	FontA8x8(96x192)	77
FontB1x1	FontB1x1[Ext.]	FontB1x1[255]	FontB1x1(9x17)	7
FontB1x2	FontB1x2[Ext.]	FontB1x2[255]	FontB1x2(9x34)	13.5
FontB2x1	FontB2x1[Ext.]	FontB2x1[255]	FontB2x1(18x17)	7
FontB2x2	FontB2x2[Ext.]	FontB2x2[255]	FontB2x2(18x34)	13.5
FontB2x4	FontB2x4[Ext.]	FontB2x4[255]	FontB2x4(18x68)	27
FontB4x2	FontB4x2[Ext.]	FontB4x2[255]	FontB4x2(36x34)	13.5
FontB4x4	FontB4x4[Ext.]	FontB4x4[255]	FontB4x4(36x68)	27
FontB4x8	FontB4x8[Ext.]	FontB4x8[255]	FontB4x8(36x136)	54.5
FontB8x4	FontB8x4[Ext.]	FontB8x4[255]	FontB8x4(72x68)	27
FontB8x8	FontB8x8[Ext.]	FontB8x8[255]	FontB8x8(72x136)	54.5
FontC1x1	FontC1x1[Ext.]	FontC1x1[255]	FontC1x1(9x24)	9.5
FontC1x2	FontC1x2[Ext.]	FontC1x2[255]	FontC1x2(9x48)	19
FontC2x1	FontC2x1[Ext.]	FontC2x1[255]	FontC2x1(18x24)	9.5
FontC2x2	FontC2x2[Ext.]	FontC2x2[255]	FontC2x2(18x48)	19
FontC2x4	FontC2x4[Ext.]	FontC2x4[255]	FontC2x4(18x96)	38.5
FontC4x2	FontC4x2[Ext.]	FontC4x2[255]	FontC4x2(36x48)	19
FontC4x4	FontC4x4[Ext.]	FontC4x4[255]	FontC4x4(36x96)	38.5
FontC4x8	FontC4x8[Ext.]	FontC4x8[255]	FontC4x8(36x192)	77
FontC8x4	FontC8x4[Ext.]	FontC8x4[255]	FontC8x4(72x96)	38.5
FontC8x8	FontC8x8[Ext.]	FontC8x8[255]	FontC8x8(72x192)	77

Printer Fonts are defined as follows.

1) FontA1x2

- ANSI Character code support (Code Page 1252)
- Font size (dot): 12 x 48 (Double height)
- Font size (point): 19

2) FontA1x2 [Ext.]

- IBM expansion Character code support (Code Page 437)
- Font size (dot): 12 x 48 (Double height)
- Font size (point): 19

3) FontA1x2 [255]

- Buyer exclusive code support
- Font size (dot): 12 x 48 (Double height)
- Font size (point): 19

6-2 Special functions

This Windows driver supports the special functions as shown in the following table.

Select **FontControl** font first and use the characters in the table to use the special functions. Take care as this function is not for printing general texts.

Character	Special Function
5	Prints HT (0 x 09)
6	Prints LF (0 x 0A)
7	Prints CR (0 x 0D)
a	Open Drawer 2 (50ms drive pulse width)
b	Open Drawer 2 (100ms drive pulse width)
c	Open Drawer 2 (150ms drive pulse width)
d	Open Drawer 2 (200ms drive pulse width)
e	Open Drawer 2 (250ms drive pulse width)
f	Open Drawer 2 without paper feeding (50ms driver pulse width)
g	Cut Receipt (partial cut) without paper feeding
i	Prints the NV Image saved in the 00 address (double-size)
j	Prints the NV Image saved in the 01 address (double-size)
k	Prints the NV Image saved in the 02 address (double-size)
l	Prints the NV Image saved in the 03 address (double-size)
m	Prints the NV Image saved in the 04 address (double-size)
p	Does not add HRI characters to the barcode
q	Adds HRI characters in Font A above the barcode
r	Adds HRI characters in Font A below the barcode
s	Adds HRI characters in Font B above the barcode
t	Adds HRI characters in Font B below the barcode
u	Turns white/black reverse printing mode on
v	Turns white/black reverse printing mode off
w	Aligns text to the left
x	Aligns text to the center
y	Aligns text to the right
A	Open Drawer 1 (50ms drive pulse width)
B	Open Drawer 1 (100ms drive pulse width)
C	Open Drawer 1 (150ms drive pulse width)
D	Open Drawer 1 (200ms drive pulse width)
E	Open Drawer 1 (250ms drive pulse width)
F	Open Drawer 1 without paper feeding (50ms driver pulse width)
G	Prints the NV bitmap saved in the 00 address
H	Prints the NV bitmap saved in the 01 address
I	Prints the NV bitmap saved in the 02 address
J	Prints the NV bitmap saved in the 03 address
K	Prints the NV bitmap saved in the 04 address
P	Cut Receipt (partial cut)
R	Prints the NV Image saved in the 00 address
S	Prints the NV Image saved in the 01 address
T	Prints the NV Image saved in the 02 address

U	Prints the NV Image saved in the 03 address
V	Prints the NV Image saved in the 04 address
[	Prints the NV bitmap saved in the 00 address (double-size)
]	Prints the NV bitmap saved in the 01 address (double-size)
^	Prints the NV bitmap saved in the 02 address (double-size)
_	Prints the NV bitmap saved in the 03 address (double-size)
`	Prints the NV bitmap saved in the 04 address (double-size)

1) Example

Select **FontControl** font and send 6 for "LF" (Line Feed) operation.
(instead of printing character "6").

2) **FontControl** font functions.

Font Name	Special Functions	Font Size (point/dot)
FontControl	Open Drawer 1/2 Cut receipt Cut receipt(without paper feeding) Justification (Left/Center/Right) Output HT, Output LF, Output CR Barcode Printing Print NV Graphic Data	(9.5 / 12x24)

7. Use of Windows Driver

7-1 Use of Visual Basic

This section contains example codes to control the printer using Windows driver with Visual Basic. Sample programs are included in the CD.

7-1-1 Windows Driver Selection

The following example code explains how to select "PB-11P Miniprinter" Windows driver.

```
For Each prnPrinter In Printers  
  
If prnPrinter.DeviceName = "PB-11P Miniprinter" Then  
  
Set Printer = prnPrinter  
  
Exit For  
  
End If  
  
Next
```

7-1-2 Text Printing

The following example code explains how to print texts using Windows Fonts and Device Fonts.

```
'Print in Windows font  
Printer.FontSize = 9  
Printer.FontName = "Arial"  
Printer.Print "Arial Test"  
  
'Print in printer font  
Printer.FontSize = 9.5  
Printer.FontName = "FontA1x1"  
Printer.Print "FontA1x1 Font"  
  
Printer.EndDoc
```

7-1-3 Barcode Printing

The following example code explains how to print the barcode (JAN8 (EAN)).

```
'Print Bar Code.  
Printer.FontSize = 20  
  
Printer.FontName = "Barcode4"  
Printer.Print "1234567"  
  
Printer.EndDoc
```

The following example code explains how to print the 2D barcode (PDF417).

```
'Print Two-dimensional Codes.  
Printer.FontSize = 9.5  
  
Printer.FontName = "2D-Code1"  
Printer.Print "Print Test PDF417"  
  
Printer.EndDoc
```

7-2 Use of WordPad

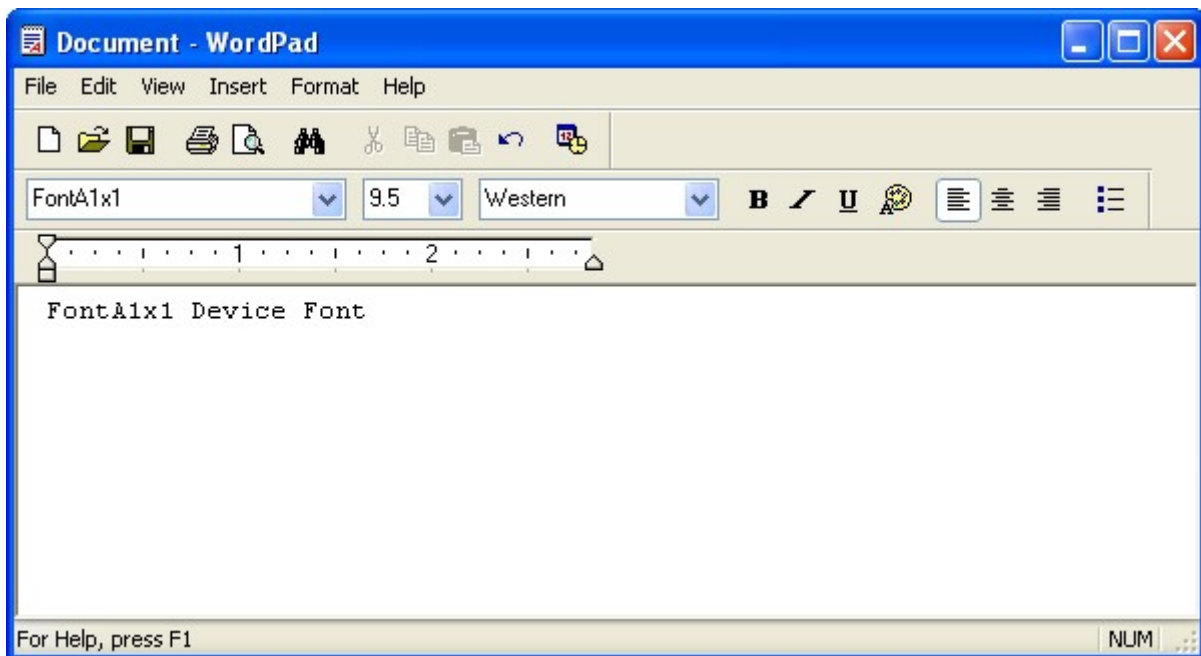
7-2-1 WordPad Environment Settings

Launch WordPad, set the printing related options as follows, and test the printer with WordPad.

- Select printer
Select "Print" from the "File" menu, and select the printer (PB-11P Miniprinter).
- Set paper size, orientation, margin, etc.
Select the "Page Setting" from "File" menu, and set paper size, orientation, and margin.

7-2-2 Text Printing

Print the text from WordPad using the Windows driver of the printer.



- 1) Select the font from the font selection box (FontA1x1).
- 2) Select the point size from the point selection box (9.5).
- 3) Enter the text to print.
- 4) Click the Print icon in the toolbar to print the text.