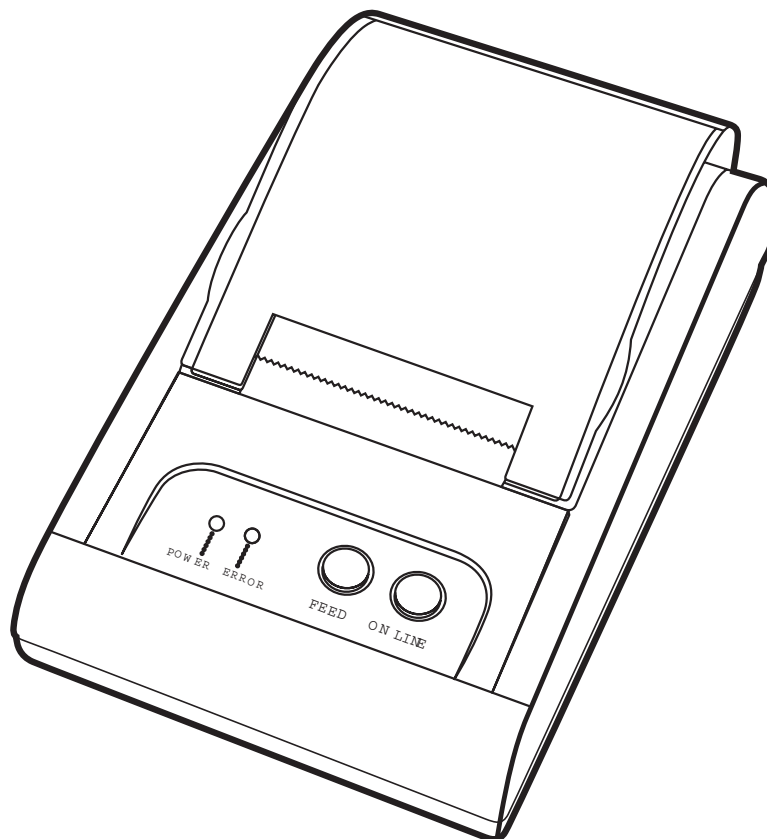


Windows Driver Install Manual

STP-103

Thermal Printer
Rev. 2.03



■ 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 98/ME.....	4
4-2 Installing on Windows 2000	7
4-3 Installing on Windows XP/2003 Server.....	11
5. Detailed Windows Driver Settings.....	15
5-1 Paper Supply Method	15
5-2 Paper Size	17
5-3 Additional Commands.....	18
5-4 Customer Paper Size.....	20
6. Windows Driver Specifications.....	22
6-1 Fonts.....	22
6-2 Special Functions	23
6-3 Barcodes	25
7. Use of Windows Driver	26
7-1 Use of Visual Basic.....	26
7-2 Use of Wordpad	28

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).

2. Operating System (OS) Environment

The following operating systems are supported for usage.

- Microsoft Windows 98 Gold
- Microsoft Windows 98 Second Edition
- Microsoft Windows Millennium Edition
- Microsoft Windows 2000
- Microsoft Windows XP
- Microsoft Windows 2003 Server
- Microsoft Windows Embedded For Point Of Service
- Microsoft Windows VISTA 32-bit

3. Windows Driver Preparation

The Windows Driver is included in the enclosed CD, and can also be downloaded from the Bixolon website.

(www.samsungminiprinters.com)

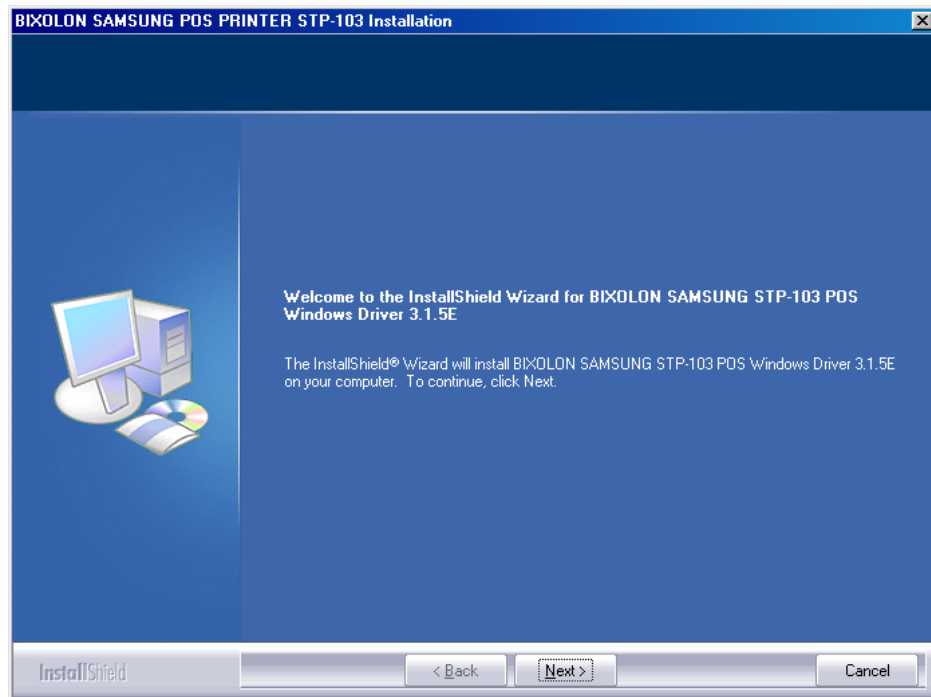
If downloading from the Bixolon website, first download the STP-103_Vx.x.xx.zip file, then unzip the file, and run the STP-103_Vx.x.xx.exe file.

If using the enclosed CD, click the "Windows Driver" button to find and run the Windows Driver installation file (STP-103_Vx.x.xx.exe).

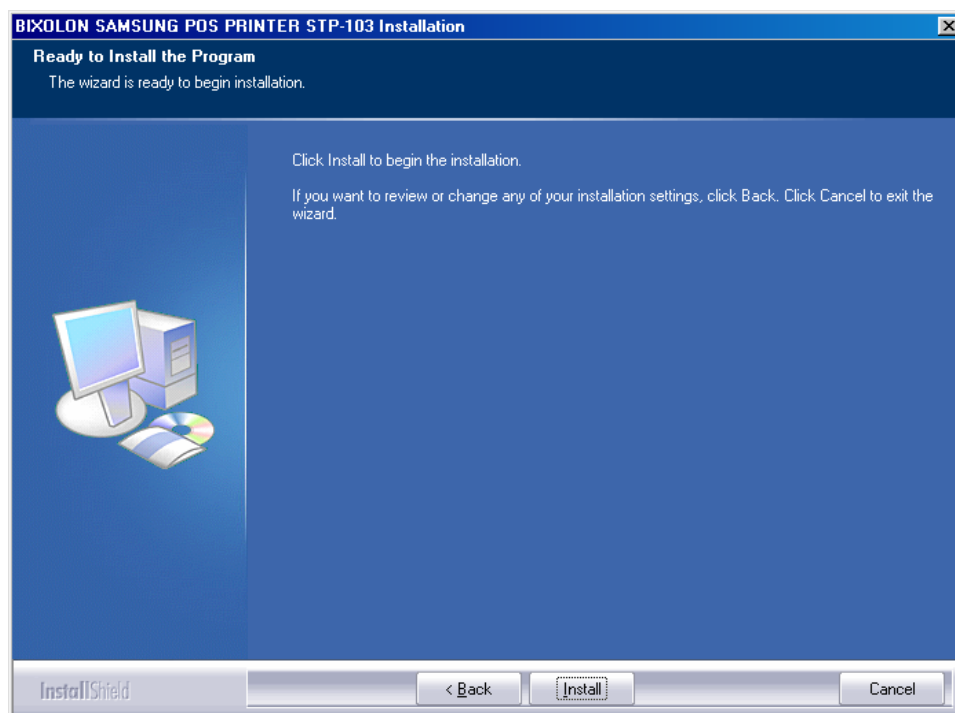
4. Windows Driver Installation

4-1 Installing on Windows 98/ME

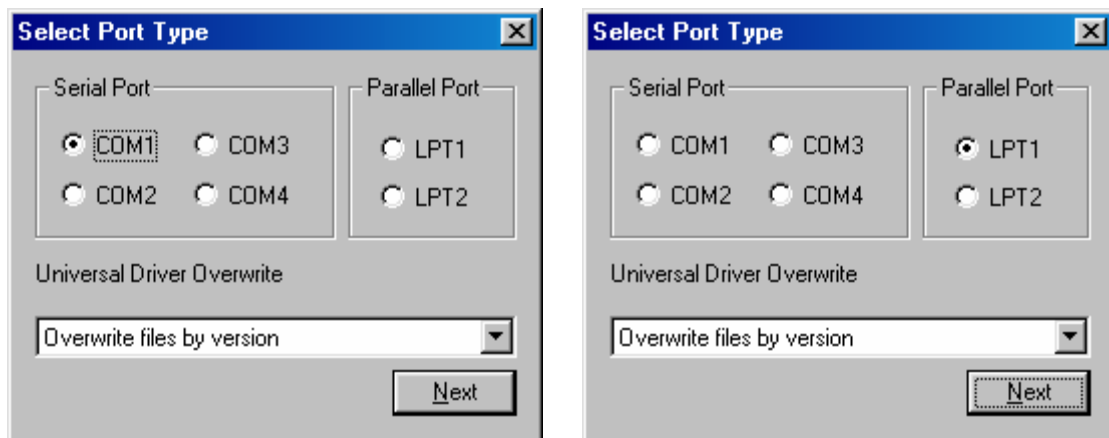
- 1) Double-click the Windows Driver installation file (STP-103_Vx.x.xx.exe).
- 2) Click the “Next” button.



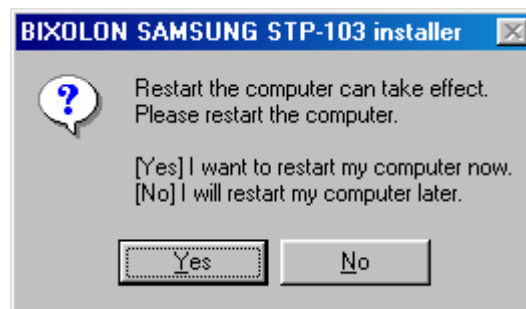
- 3) Click the “Install” button.



- 4) Select the COM or LPT (Which one you want to use) port to be used and click the "Next" button.



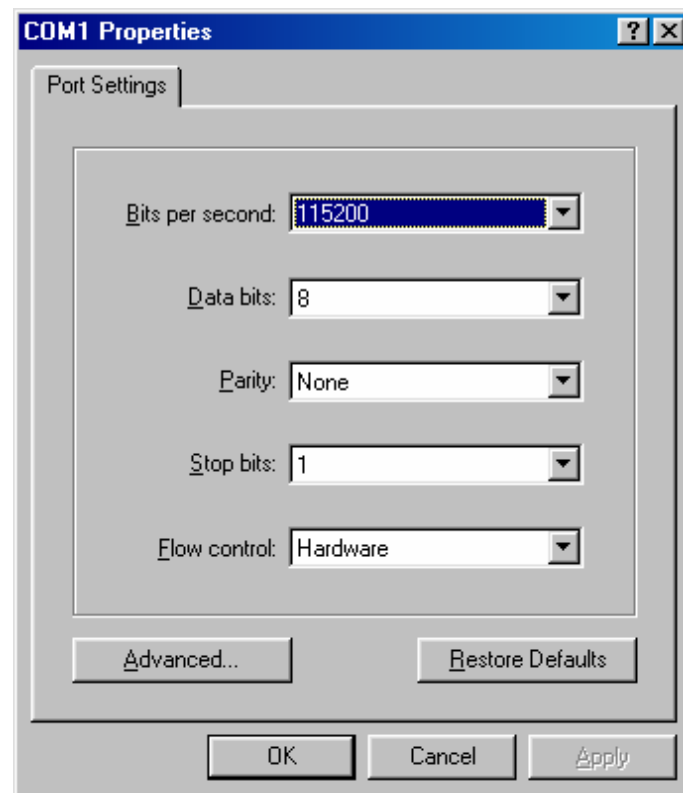
- 5) Click the "Yes" button will reboot the PC.



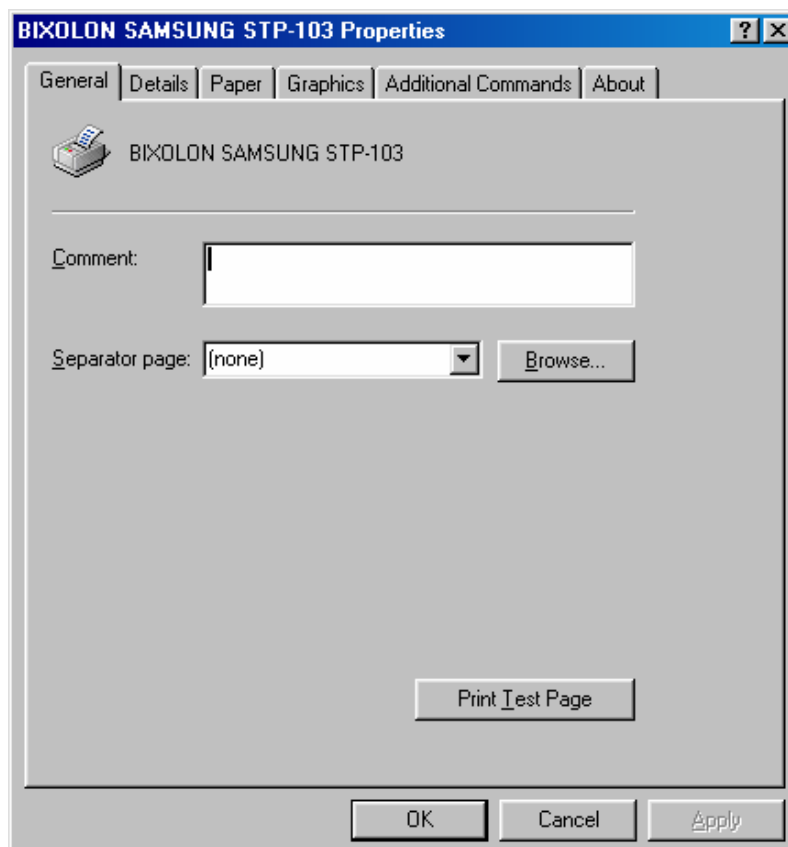
- 6) Open the printer properties window in the Windows OS.

- 7) Click the "Port Settings..." button in the "Details" tab.

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

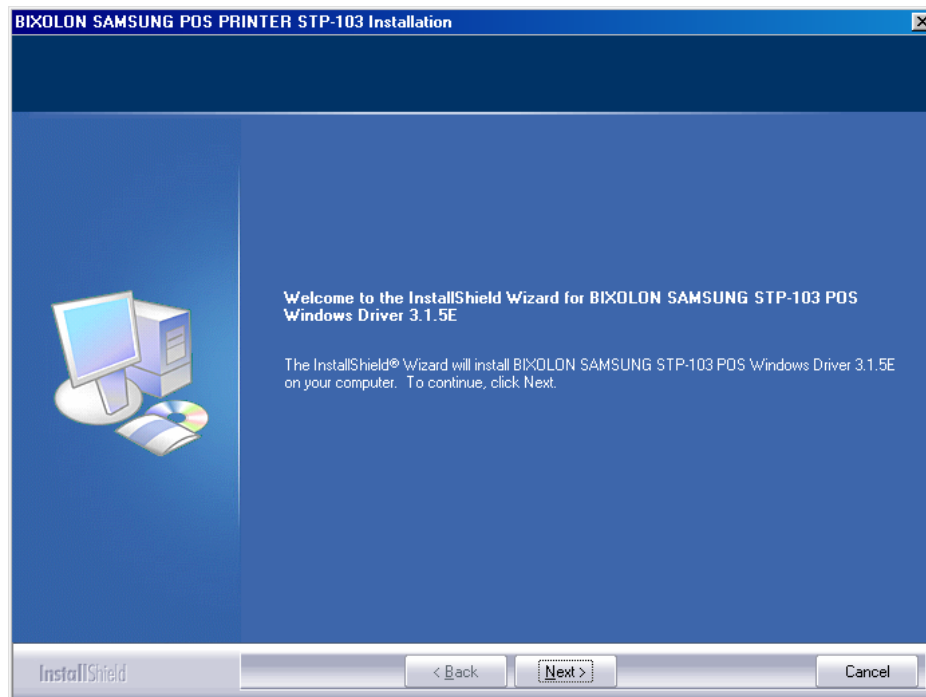


- 9) Click the "Print Test Page" button and check printing status.

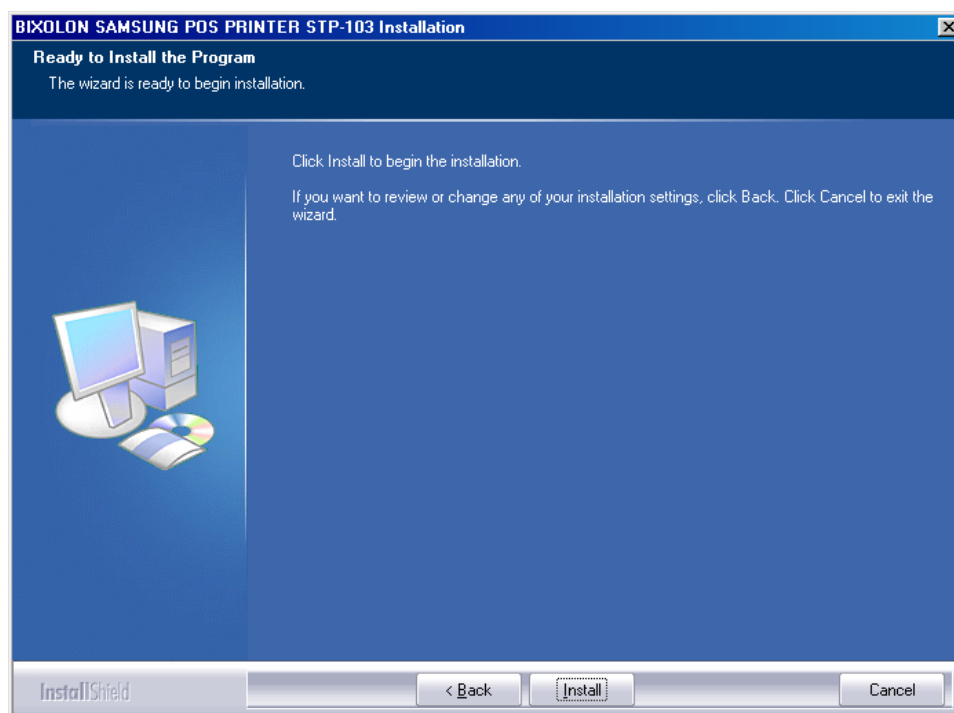


4-2 Installing on Windows 2000

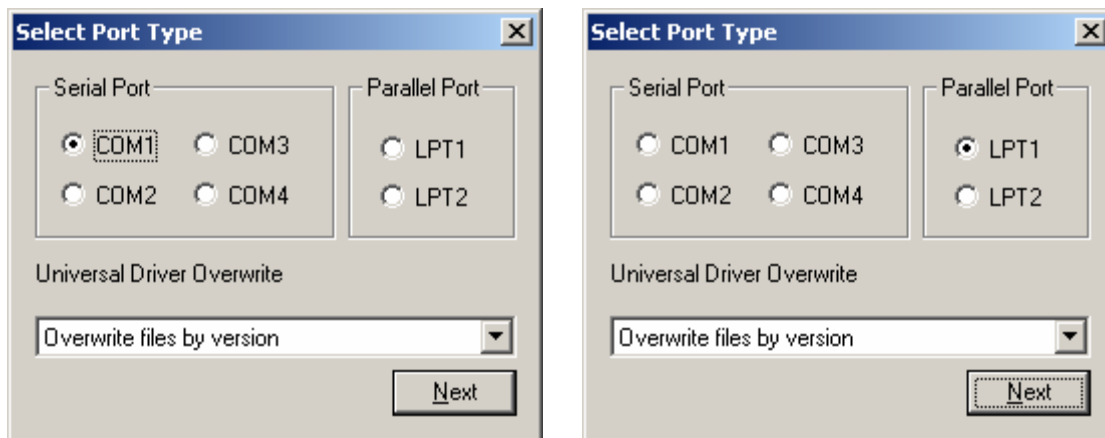
- 1) Double-click the Windows Driver installation file (STP-103_Vx.x.xx.exe).
- 2) Click the “Next” button.



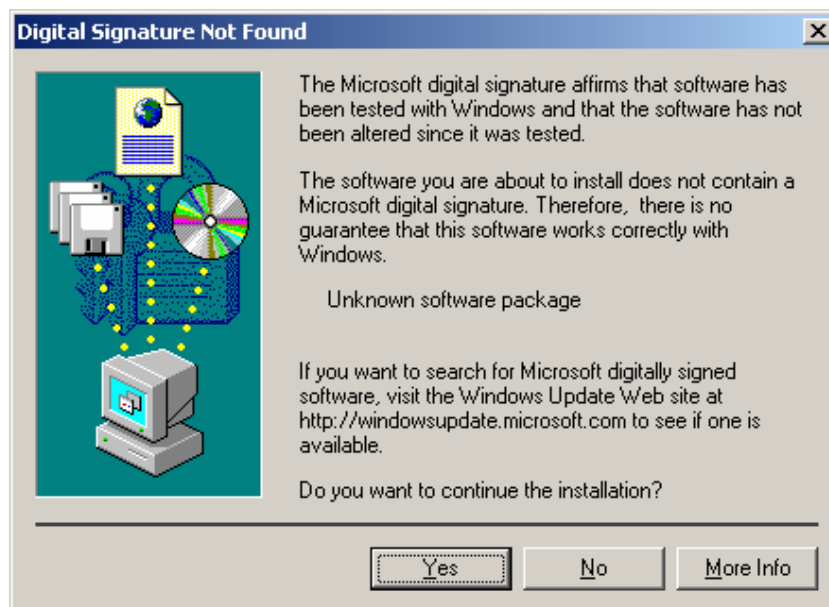
- 3) Click the “Install” button.



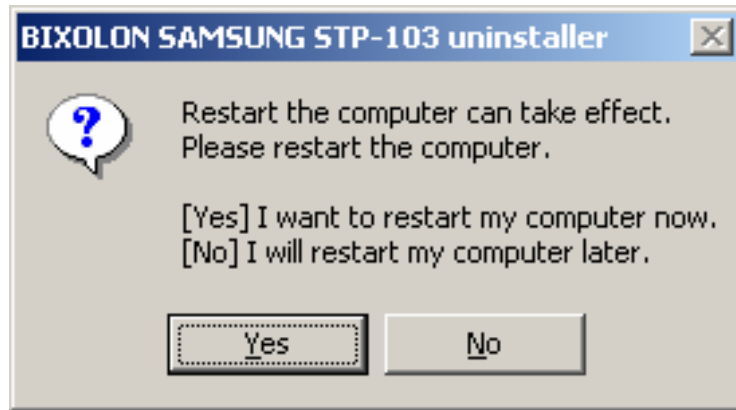
- 4) Select the COM or LPT (Which one you want to use) port to be used and click the “Next” button.



- 5) When the following message box appears, click the “Yes” button.



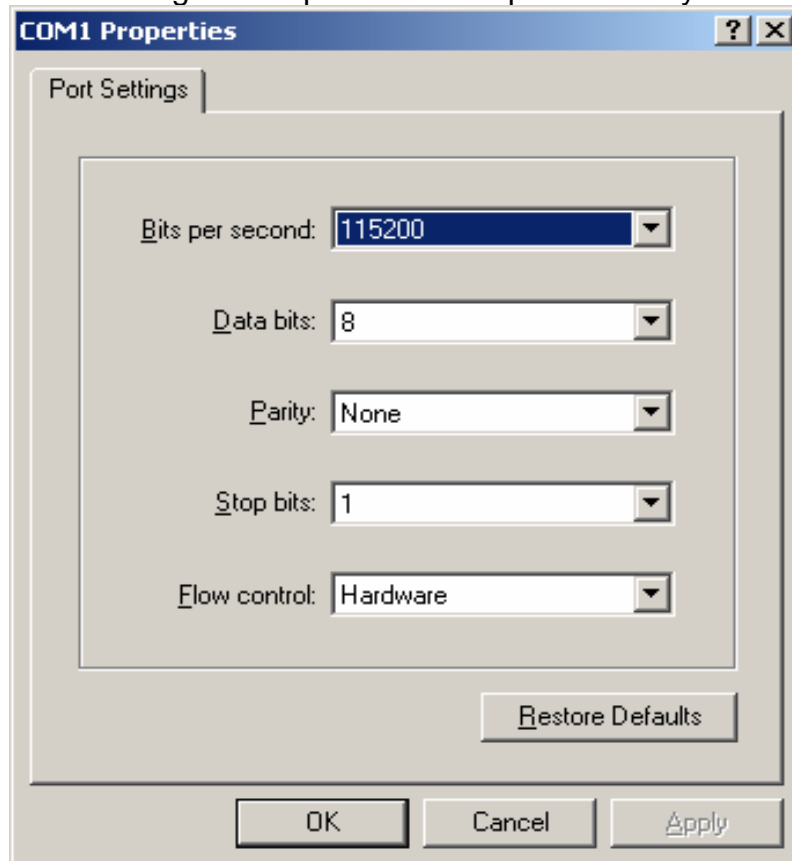
6) Clicking the "Yes" button will reboot the PC.



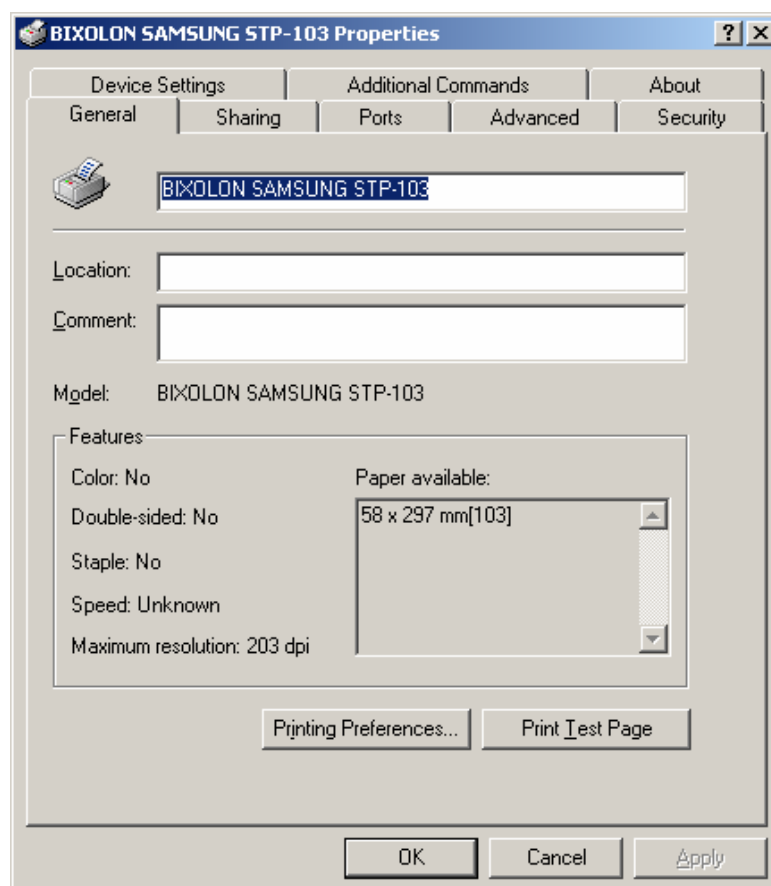
7) Open the printer properties window in the Windows OS.

8) Click the "Port Settings" button in the "Ports" tab.

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

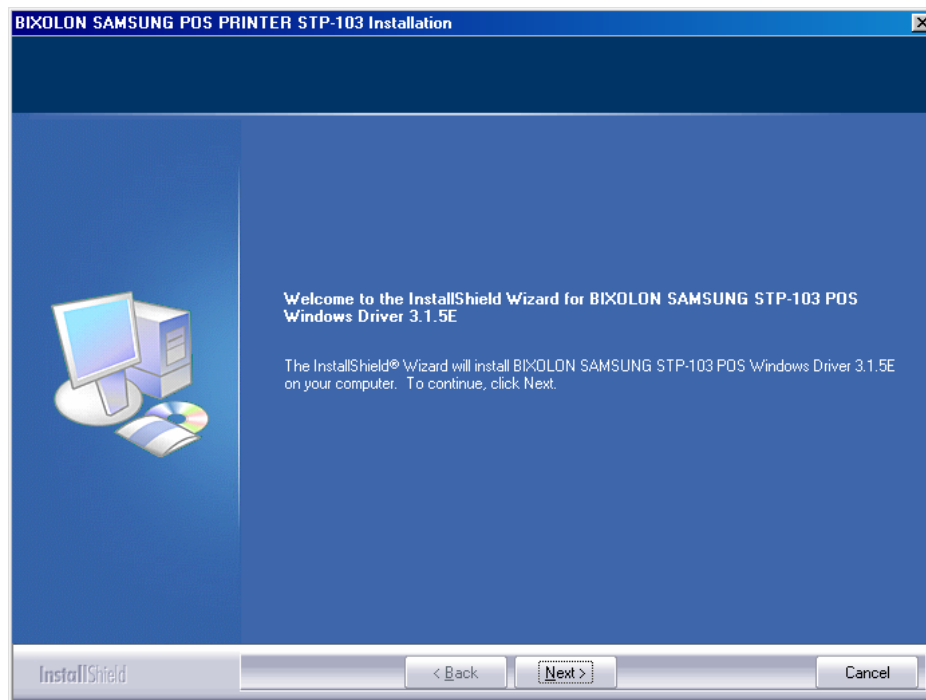


- 10) Click the “Print Test Page” button and check printing status.

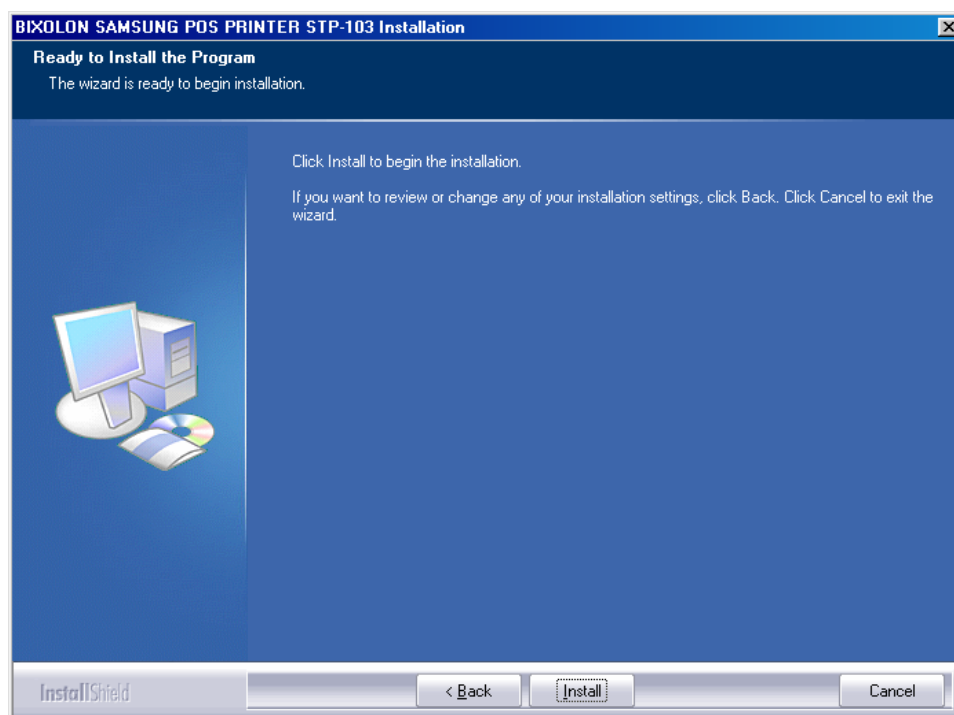


4-3 Installing on Windows XP/2003 Server

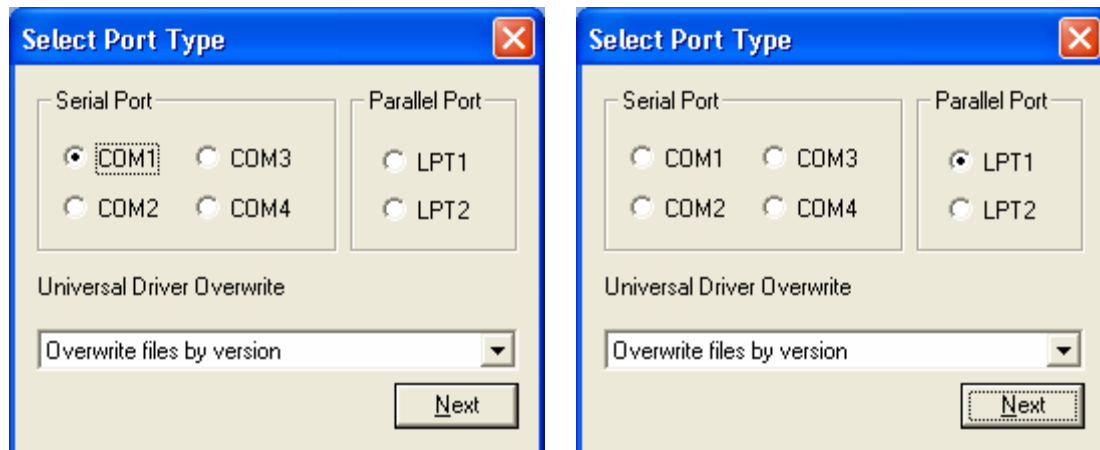
- 1) Double-click the Windows Driver installation file (STP-103_Vx.x.xx.exe).
- 2) Click the “Next” button.



- 3) Click the “Install” button.



- 4) Select the COM or LPT (Which one you want to use) port to be used and click the “Next” button.



- 5) When the following message box appears, click the “Continue Anyway” button.



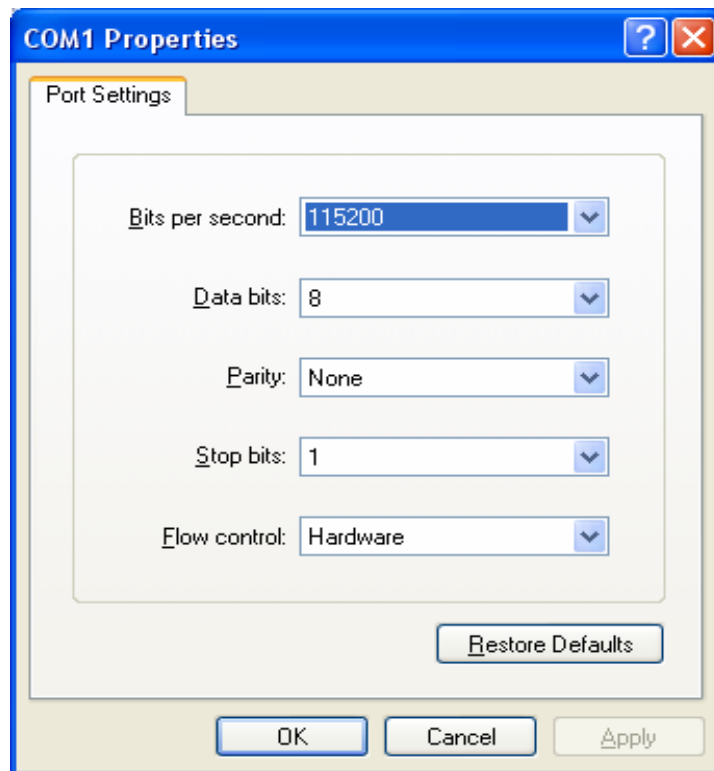
6) Click "Yes" button will reboot the PC.



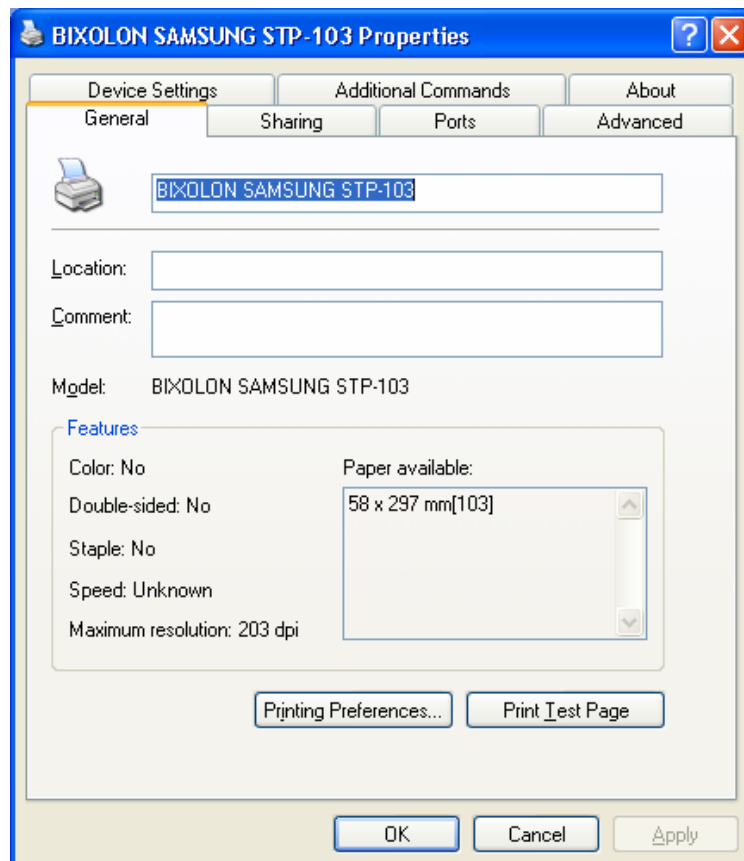
7) Open the printer properties window in the Windows OS.

8) Click the "Port Settings" button in the "Ports" tab.

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



- 10) Click the "Print Test Page" button and check printing status.



5. Detailed Windows Driver Settings

The following functions can be set in detail after the Windows Driver installation is complete.

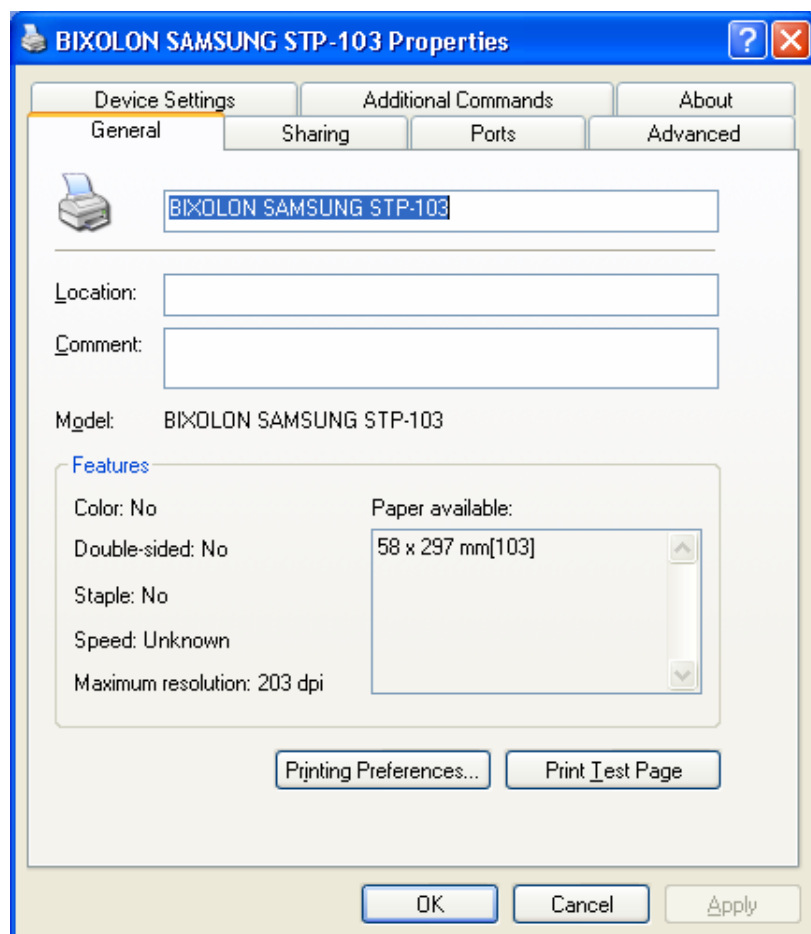
5-1 Paper Supply Method

The printer structure is such that the print head, which carries out printing, and the cutter, which cuts the printing paper, are separated. After printing, the location of the end section can be adjusted as follows.

- Automatically Select: Select the "Receipt" automatically.
- Receipt: Printed text is transferred up to the cutter (manual cutter).
- Receipt [No feed]: Printed text is transferred up to the next line only.
(Minimum transfer: 0x0A)
- Form: For long print jobs, printed text is transferred according to the Receipt option per selected paper size.

Detailed setting can be done as follows.

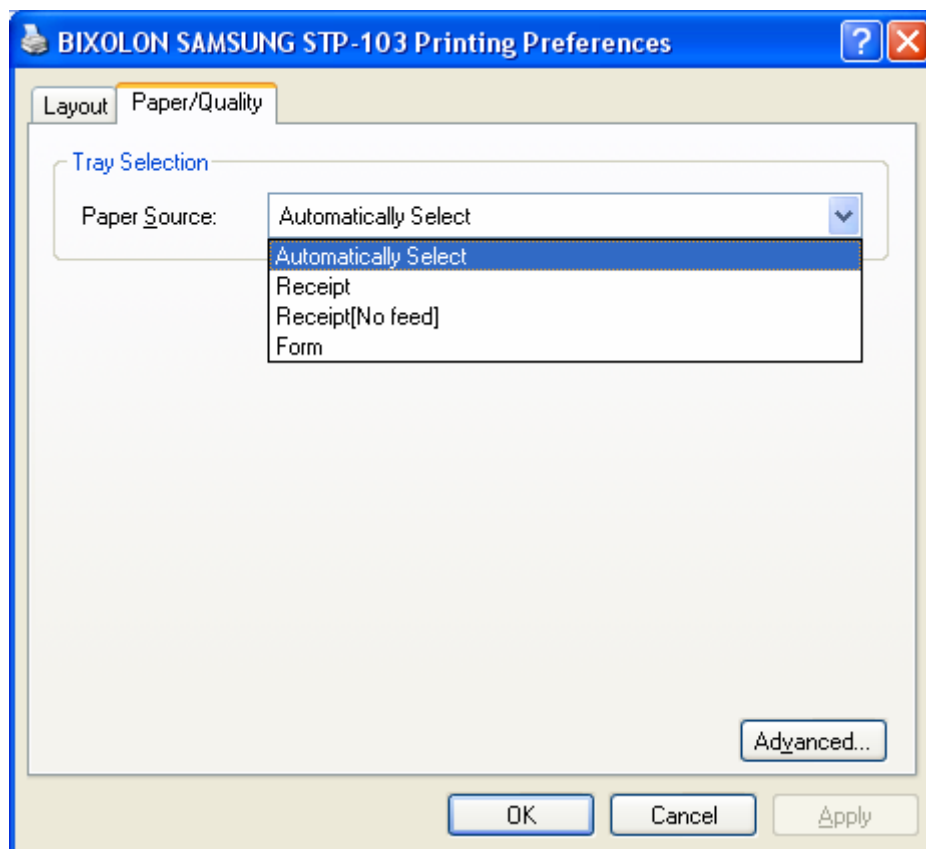
- 1) Open the printer properties window in the Windows OS.



2) Click the "Printing Preferences" button in the "General" tab.
The button name varies by Windows OS. Refer to the following.

- Windows 95/98/ME: "Properties"
- Windows NT4.0: "Document Defaults"
- Windows 2000/XP/2003 Server: "Printing Preferences"
- Windows WEPOS/VISTA: "Printing Preferences"

3) Select the desired setting in the "Paper/Quality" tab.



5-2 Paper Size

The paper sizes available in the Windows Driver are as follows.

- 58 × 40 mm [103]
- 58 × 80 mm [103]
- 58 × 120 mm [103]
- 58 × 160 mm [103]
- 58 × 200 mm [103]
- 58 × 297 mm [103]
- 58 × 3276 mm [103]

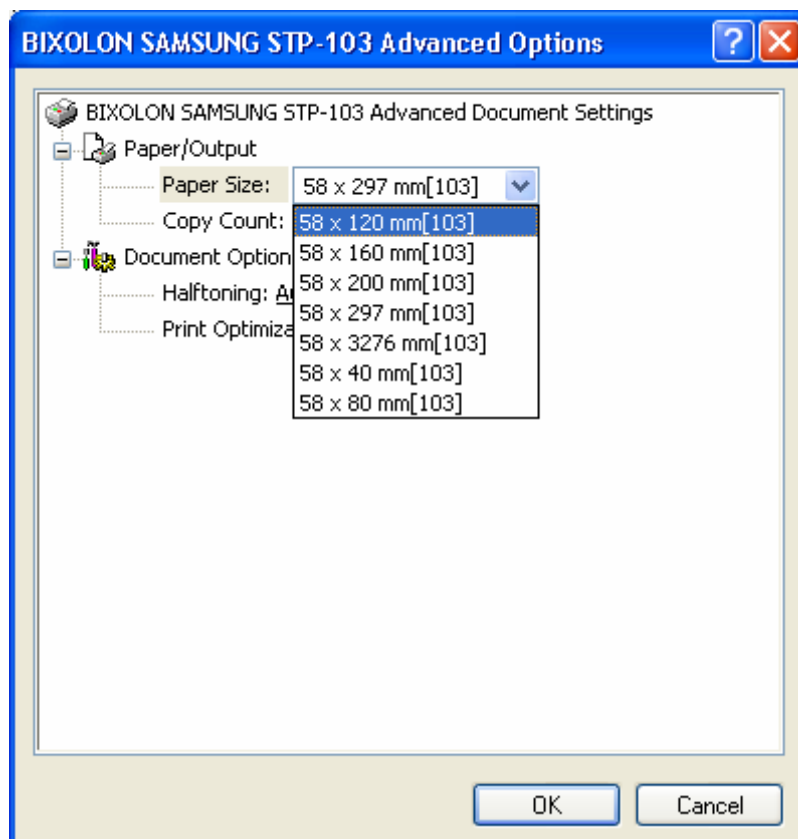
Detailed setting can be done as follows.

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

2) Click the "Printing Preferences" button in the "General" tab.
The button name varies by Windows OS. Refer to the following.

- Windows 95/98/ME: "Properties"
- Windows NT4.0: "Document Defaults"
- Windows 2000/XP/2003 Server: "Printing Preferences"
- Windows WEPOS/VISTA: "Printing Preferences"

3) Select the "Paper/Quality" tab, and click the "Advanced" button.
Select the desired setting.



5-3 Additional Commands

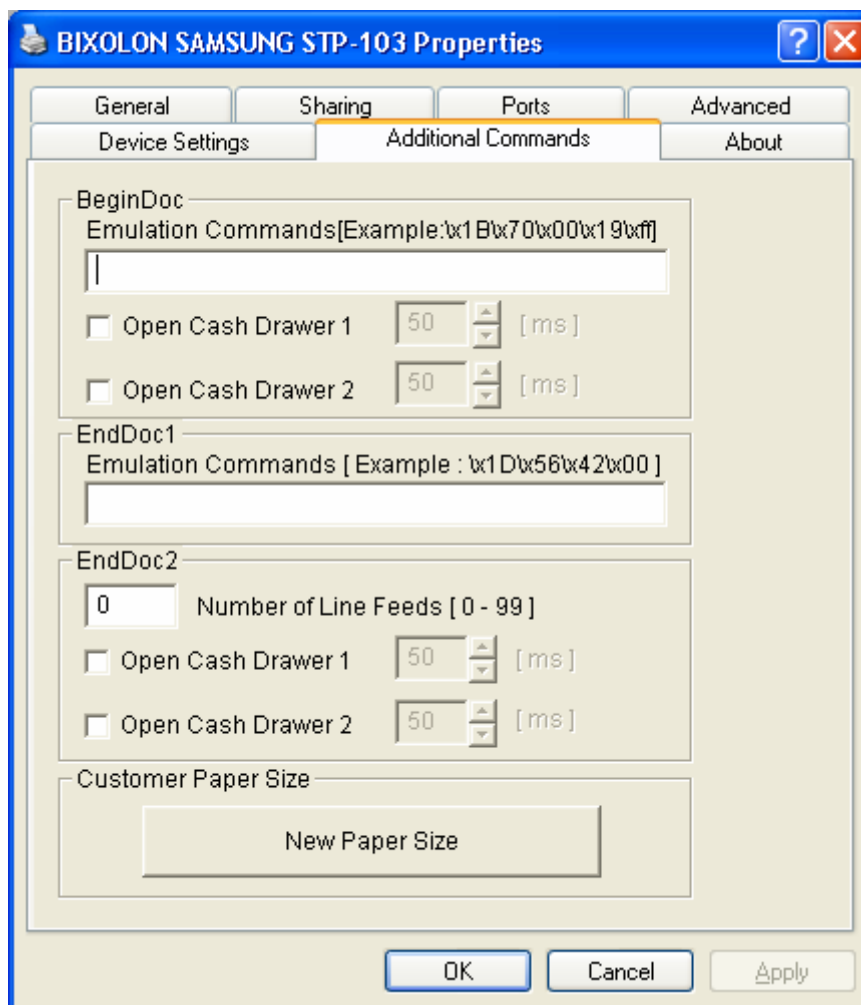
The Windows Driver serves to receive the content for print from an application and send it to the printer. The Additional Commands function allows for the addition of desired commands at the beginning or end of the print content sent to the printer.

The command functions available are as follows.

- BeginDoc: addition of command at the beginning of the print content
- EndDoc1: addition of command at the end of the print content
- EndDoc2: addition of line feeding at the end of the print content

Detailed setting can be done as follows.

- 1) Open the printer properties window in the Windows OS.
- 2) Click the "Additional Commands" tab.



- 3) If the user wishes to open Cash Drawer 1 prior to printing, enter “\x1B\x70\x00\x19\xff” in the “BeginDoc” space and click the “OK” button.

- 4) If the user wishes to open Cash Drawer 1 at the end of printing, enter “\x1B\x70\x00\x19\xff” in the “EndDoc1” space and click the “OK” button.

- 5) If the user wishes to feed three lines at the end of printing, enter “3” in the “EndDoc2” space and click the “OK” button.

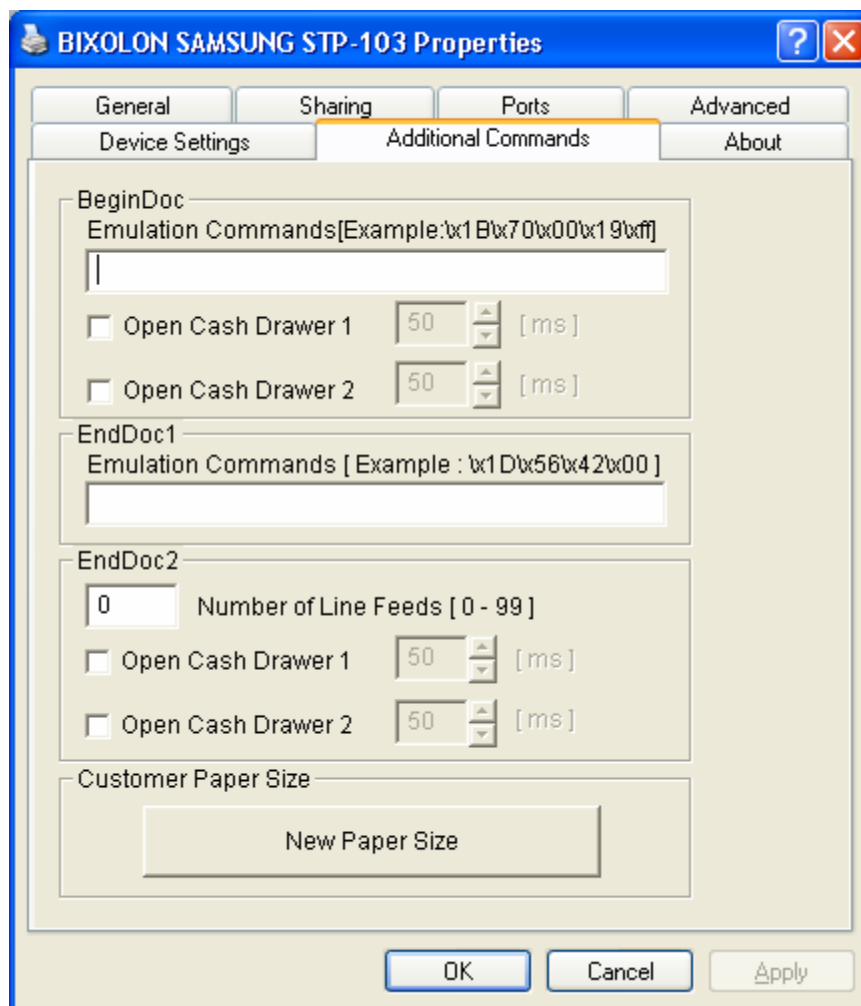
For more information on the hexadecimals that can be entered in “BeginDoc” and “EndDoc1”, refer to the Control Commands Manual.

5-4 Customer Paper Size

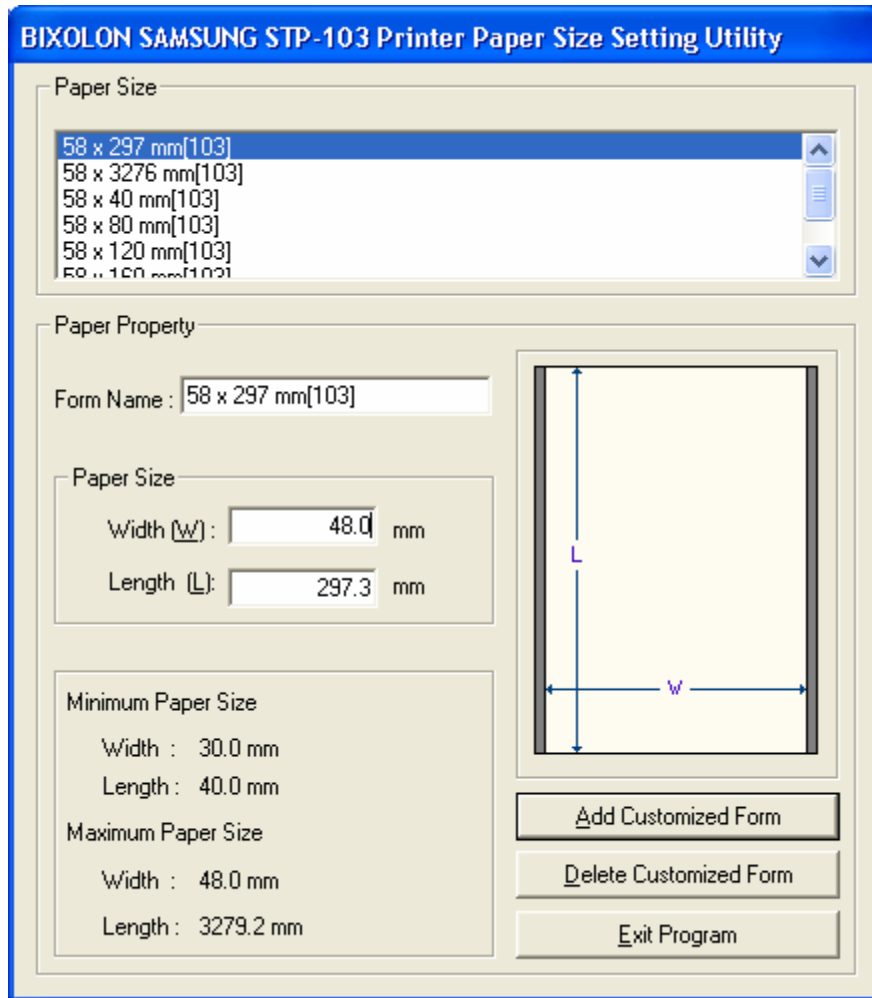
“Customer Paper Size” is a function that facilitates the direct specification of the size of the paper to be printed by the user
(supported only on operating systems of Window 2K or higher).

Detailed setting can be done as follows.

- 1) Open the printer properties window in the Windows OS.
- 2) Click the "Additional Commands" tab



3) Click the “New Paper Size” button and then you can see new Dialog box



4) Enter the name for the new paper to be created in “Form Name”.

5) Enter the paper width in Width, and paper length in Length under “Paper Size”.

6) Click the “Add Customized Form” button.

To delete Paper Size entry, select the paper form to be deleted in the “Paper Size” box and click the “Delete Customized Form” button.

6. Windows Driver Specifications

6-1 Fonts

The Windows Driver of the printer supports the fonts listed below.

Printing is done at faster speed when using the fonts below as opposed to the Windows fonts of the OS.

Printer Fonts			Character size(dot)	Sizes (point)
FontA1x1	FontA1x1[Ext.]	FontA1x1[255]	FontA1x1(12x24)	8.5
FontA1x2	FontA1x2[Ext.]	FontA1x2[255]	FontA1x2(12x48)	17
FontA2x1	FontA2x1[Ext.]	FontA2x1[255]	FontA2x1(24x24)	8.5
FontA2x2	FontA2x2[Ext.]	FontA2x2[255]	FontA2x2(24x48)	17
FontB1x1	FontB1x1[Ext.]	FontB1x1[255]	FontB1x1(9x17)	8.5
FontB1x2	FontB1x2[Ext.]	FontB1x2[255]	FontB1x2(9x34)	17
FontB2x1	FontB2x1[Ext.]	FontB2x1[255]	FontB2x1(18x17)	8.5
FontB2x2	FontB2x2[Ext.]	FontB2x2[255]	FontB2x2(18x34)	17

Printer Fonts are defined as follows.

1) FontA1x2

- ANSI Character code support (Code Page 2: 850)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 17

2) FontA1x2[Ext]

- IBM expansion Character code support (Code Page 0: 437)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 17

3) FontA1x2[255]

- Buyer exclusive code support (Code Page 255)
- Character size (dot): 12 x 48 (double height)
- Sizes (point): 17

6-2 Special Functions

The Windows Driver supports the special functions indicated below.
 These special functions are available when using the characters after the “FontControl” font is selected.

This function is not an ordinary character printing function. Take special care.

Character	Special Function	Note
5	HT is output	
6	LF is output	
7	CR is output	
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)	
p	HRI characters are not added to the bar code	
q	HRI characters are added at the top of the bar code using Font A	
r	HRI characters are added at the bottom of the bar code using Font A	
s	HRI characters are added at the top of the bar code using Font B	
t	HRI characters are added at the bottom of the bar code using Font B	
w	Text is aligned left	
x	Text is centered	
y	Text is aligned 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)	
G	NV bit image No 1 is printed in the Normal mode	
H	NV bit image No 2 is printed in the Normal mode	
I	NV bit image No 3 is printed in the Normal mode	
J	NV bit image No 4 is printed in the Normal mode	
K	NV bit image No 5 is printed in the Normal mode	
[NV bit image No 1 is printed in the Double Height Double Width mode	
]	NV bit image No 2 is printed in the Double Height Double Width mode	
^	NV bit image No 3 is printed in the Double Height Double Width mode	
_	NV bit image No 4 is printed in the Double Height Double Width mode	
`	NV bit image No 5 is printed in the Double Height Double Width mode	

1) Sample Use

If the “FontControl” font is selected and 6 is entered, the “LF” (Line Feeding) operation is activated.

(does not entail the printing of the character “6”)

2) “FontControl” Font Function

Printer Font for Special Function	Function	Size (point/dot)
FontControl	Justification (Left/Center/Right) Output HT, Output LF, Output CR Barcode Printing Print NV Graphic Data	(8.5 / 12x24)

6-3 Barcodes

The Windows Driver supports the barcodes indicated below.
This function is available when entering barcode data after selecting "Printer Font Name".
In addition, the "FontControl" font can be used to add HRI characters.

Printer Font Name	Size	Supported Characters
Codabar	18/35.5/53/71	Numeric: 0~9 Symbols: \$, +, -, ., /, : Letters: A~D
Code39	18/35.5/53/71	Numeric: 0~9 Symbols: \$, +, -, ., / Letters: A~Z
JAN13(EAN)	18/35.5/53/71	Numeric: 0~9
JAN8(EAN)	18/35.5/53/71	Numeric: 0~9
ITF	18/35.5/53/71	Numeric: 0~9
UPC-A	18/35.5/53/71	Numeric: 0~9
UPC-E	18/35.5/53/71	Numeric: 0~9
Code93	18/35.5/53/71	ASCII CODE: 0~127
Code128	18/35.5/53/71	ASCII CODE: 0~127

1) Sample Use

Select "Code39" and Size "18", and then enter "1234".
The barcode corresponding to "1234" is printed.

2) When Using Code128

Select "Code128" and Size "18", and then enter "{B1234".
The barcode corresponding to "1234" is printed.

When using "Code128", characters, such as "{A", "{B", "{C", must be included before the input data.

7. Use of Windows Driver

7-1 Use of Visual Basic

This section explains the use of the Windows Driver with Visual Basic to control the printer (STP-103).

Sample programs are saved together if the Windows Driver is installed. Take note.

7-1-1 Windows Driver Selection

The following code is an example of the selection of the "BIXOLON SAMSUNG STP-103" Windows Driver.

```
For Each prnPrinter In Printers
    If prnPrinter.DeviceName = "BIXOLON SAMSUNG STP-103" Then
        Set Printer = prnPrinter
    Exit For
End If
Next
```

7-1-2 Test Printing

The following code is an example of the printing of Arial Test via the Windows font, and FontA1x1Test via the printer font.

```
'Print in Windows font
Printer.FontSize = 9
Printer.FontName = "Arial"
Printer.Print "Arial Test"

'Print in printer font
Printer.FontSize = 8.5
Printer.FontName = "FontA1x1"
Printer.Print "FontA1x1Test"

Printer.EndDoc
```

7-1-3 Barcode Printing

The following code is an example of the printing of the JAN8 (EAN) barcode.

```
'Print Bar Code.
Printer.FontSize = 18

Printer.FontName = "JAN8 (EAN)"
Printer.Print "1234567"

Printer.EndDoc
```

7-2 Use of Wordpad

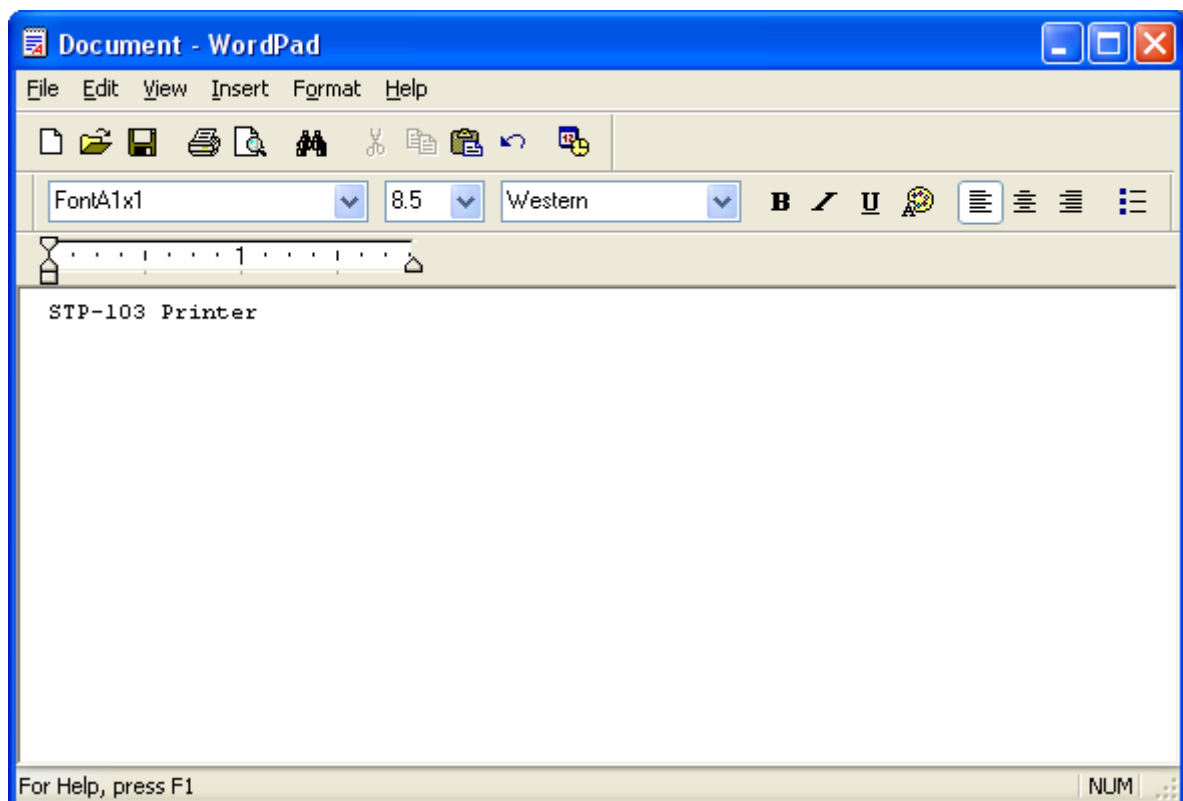
7-2-1 Wordpad Environment Settings

After running Wordpad and setting the following conditions, conduct a test.

- Select Printer
After selecting "Print" from the "File" tab, select the printer (BIXOLON SAMSUNG STP-103).
- Select Paper Size, Orientation, and Margins
After selecting "Page Settings" from the "File" tab, select the paper size, orientation, and margins.

7-2-2 Text Printing

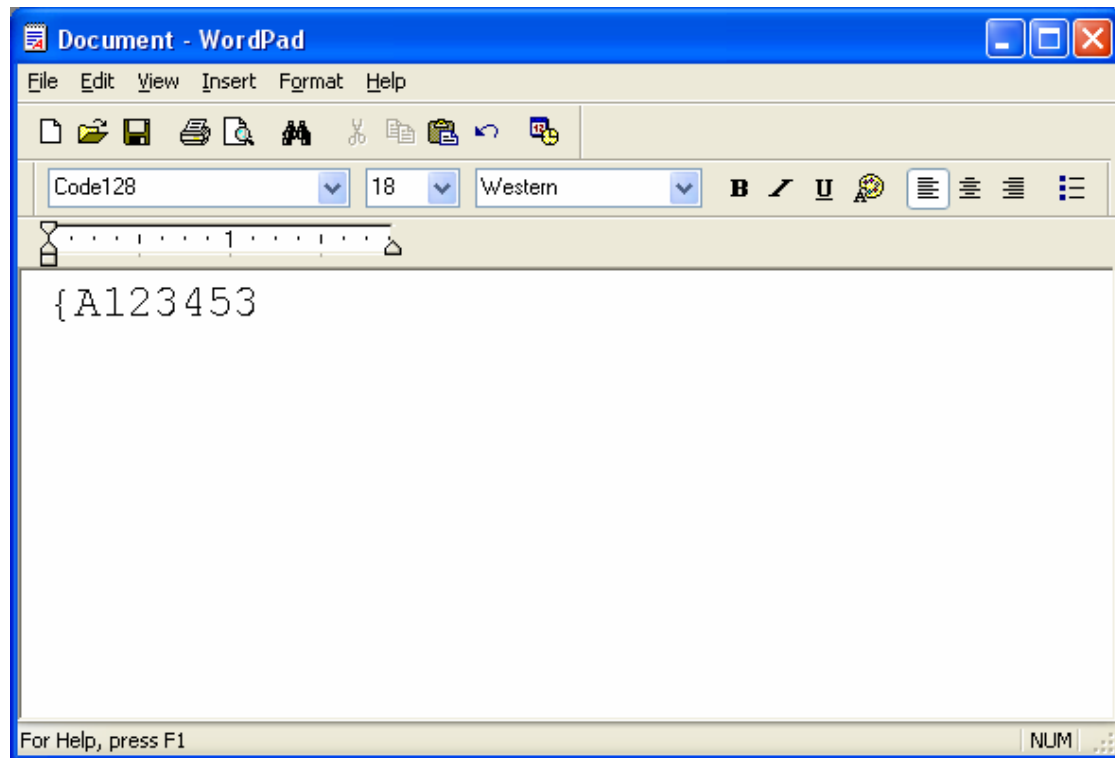
Use the Windows Driver of the printer to run a test.



- 1) Select the desired font from the Font menu (FontA 1x1).
- 2) Select the desired font size (8.5).
- 3) Enter the text to be printed in Wordpad.
- 4) Click the Print button in the toolbar to print.

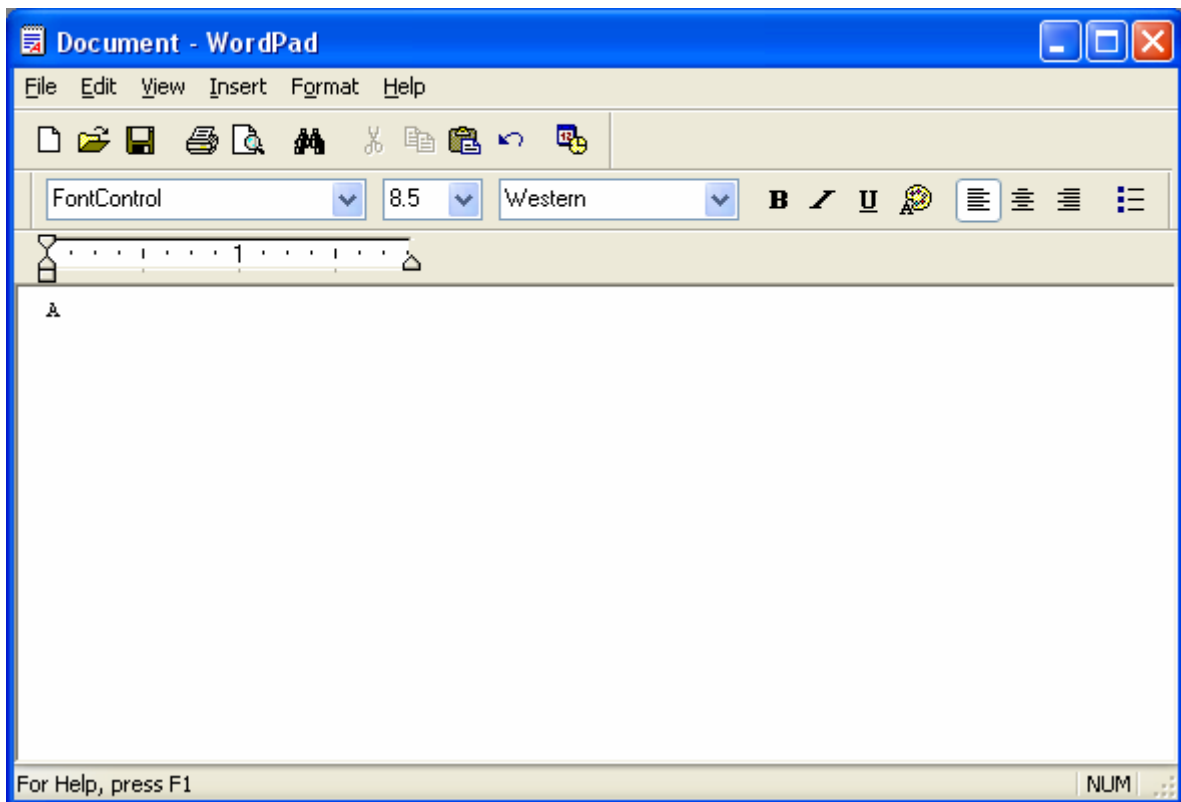
7-2-3 Barcode Printing

Use the Windows Driver of the printer to print the barcode.



- 1) Select the desired barcode from the Font menu (Code128).
- 2) Select the desired font size (18).
- 3) Enter "{A123435" in Wordpad.
- 4) Click the Print button in the toolbar to print.

7-2-4 Opening the Cash Drawer



- 1) Select the "FontControl" font from the font list.
- 2) Set the font size to 8.5
- 3) Type an "A" into the WordPad text-input area.
- 4) Open the File menu, and click on Print.

Clicking on Print will cause cash drawer #1 to open at a drive speed of 50ms. By changing the character that you input at Step 3, you can select a different drive speed.