

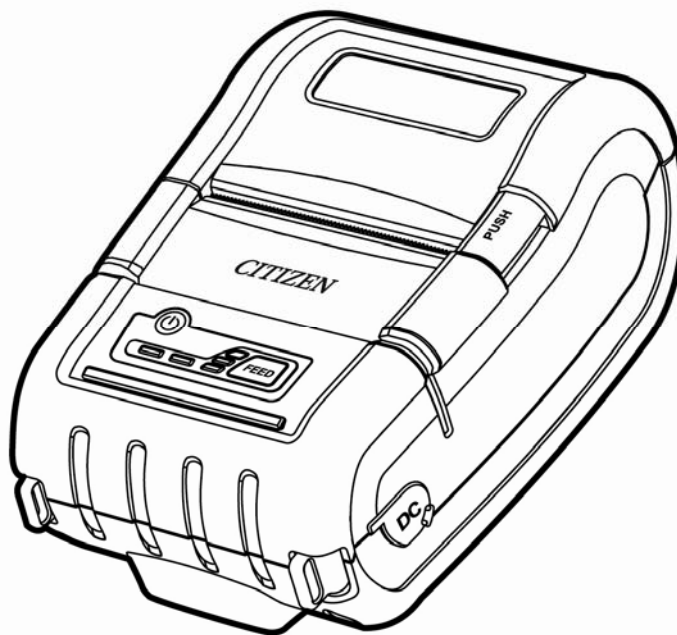


# MOBILE THERMAL PRINTER

MODEL CMP-20 series

Windows Driver User's Manual

Rev. 1.00



**CITIZEN SYSTEMS JAPAN CO., LTD.**

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## **1. Manual guidance.**

This manual describes the Windows Driver installation, uninstallation, special functions, and practical use in your application.

## **2. Operating System.**

This software supports following operating systems.

Microsoft Windows 2000

Microsoft Windows XP(32-Bit and 64-Bit)

Microsoft Windows 2003 Server(32-Bit and 64-Bit)

Microsoft Windows Vista(32-Bit and 64-Bit)

Microsoft Windows 2008 Server(32-Bit and 64-Bit)

Microsoft Windows Embedded for Point Of Service

Microsoft Windows 7(32-Bit and 64-Bit)

### **3. Windows Printer Driver Preparation.**

The utility CD in the unit box includes the Windows Driver and you can also download it from the website.

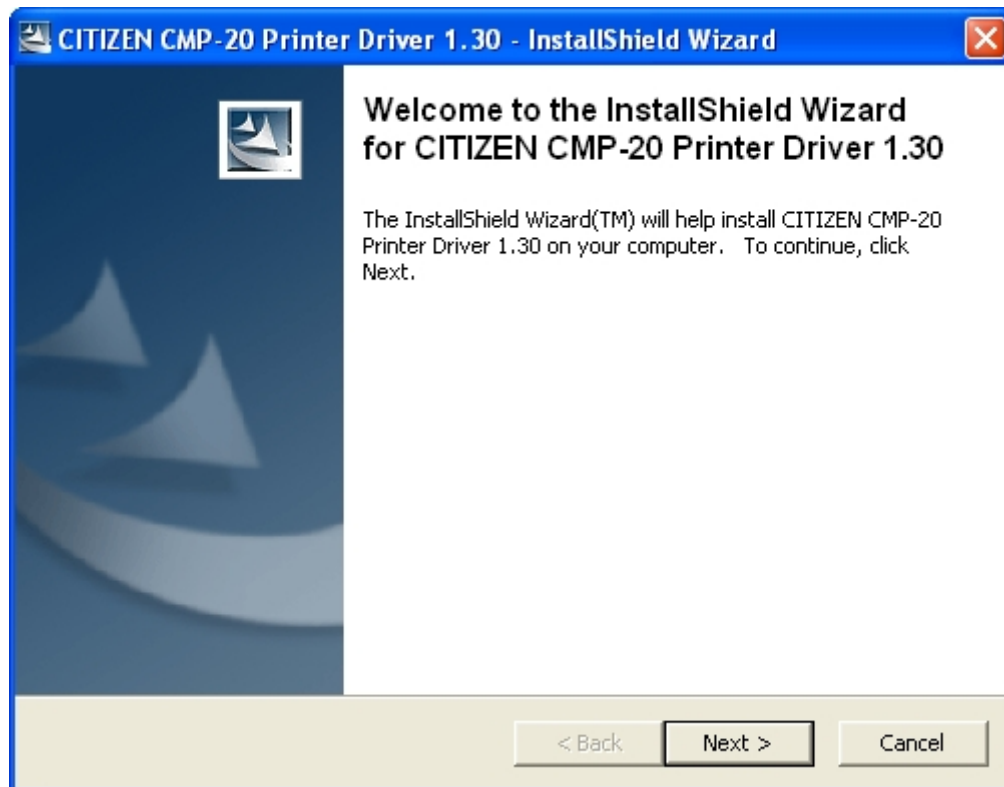
If you have the utility CD, click the CMP-20 installation button and execute CITIZENCMP-20PrinterDriverxxxx.exe file.

Otherwise, download "CITIZENCMP-20xxx.zip" file from the website and execute CITIZENCMP-20PrinterDriverxxxx.exe file.

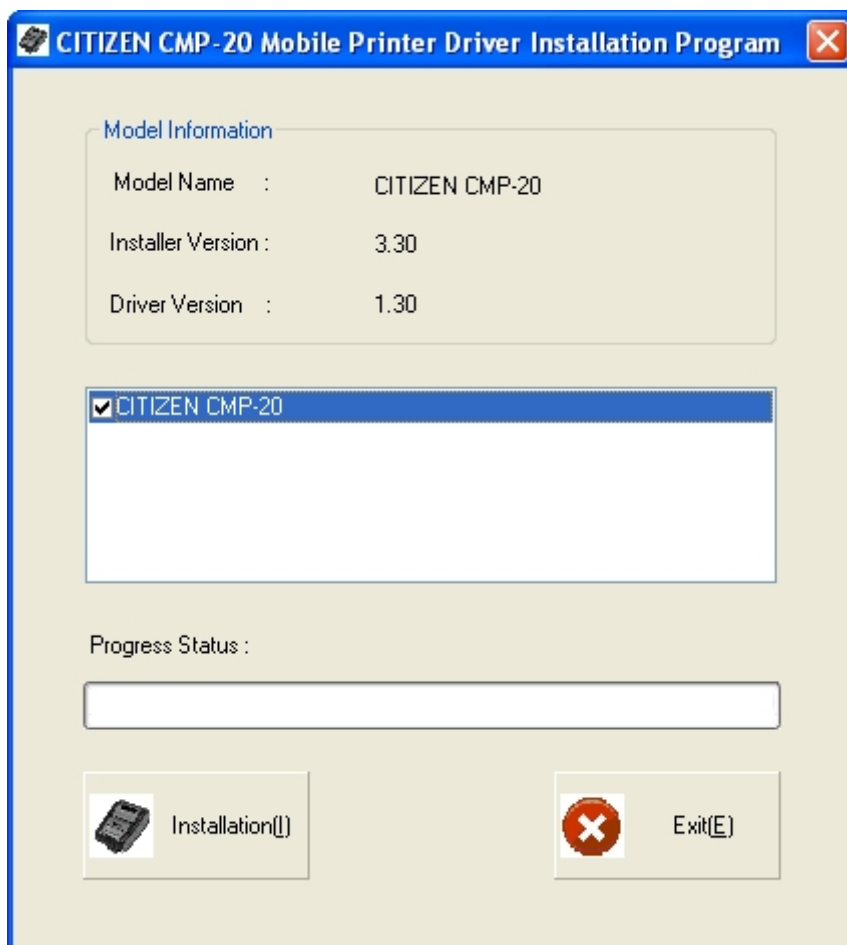
## 4. Installation and Setup.

### 4.1. Windows Driver Installation.

- 1) Double-click Windows Driver installation file (CITIZENCMP-20PrinterDriverxxxx.exe).
- 2) Click Next.



3) Select the Printer model in use and click Install.



4) Set the port and click OK. The Driver will be automatically installed.

**Select OS Information Dialog**


OS Information


<input type="radio"/> Windows NT 3.51	<input type="radio"/> Windows 2000
<input type="radio"/> Windows 95	<input checked="" type="radio"/> Windows XP
<input type="radio"/> Windows 98	<input type="radio"/> Windows 2003
<input type="radio"/> Windows ME	<input type="radio"/> Windows Vista
<input type="radio"/> Windows NT 4.0	<input type="radio"/> Windows 2008
	<input type="radio"/> Windows 7

Processor : 32-Bit OS

Code Page : US (ANSI) (1252)

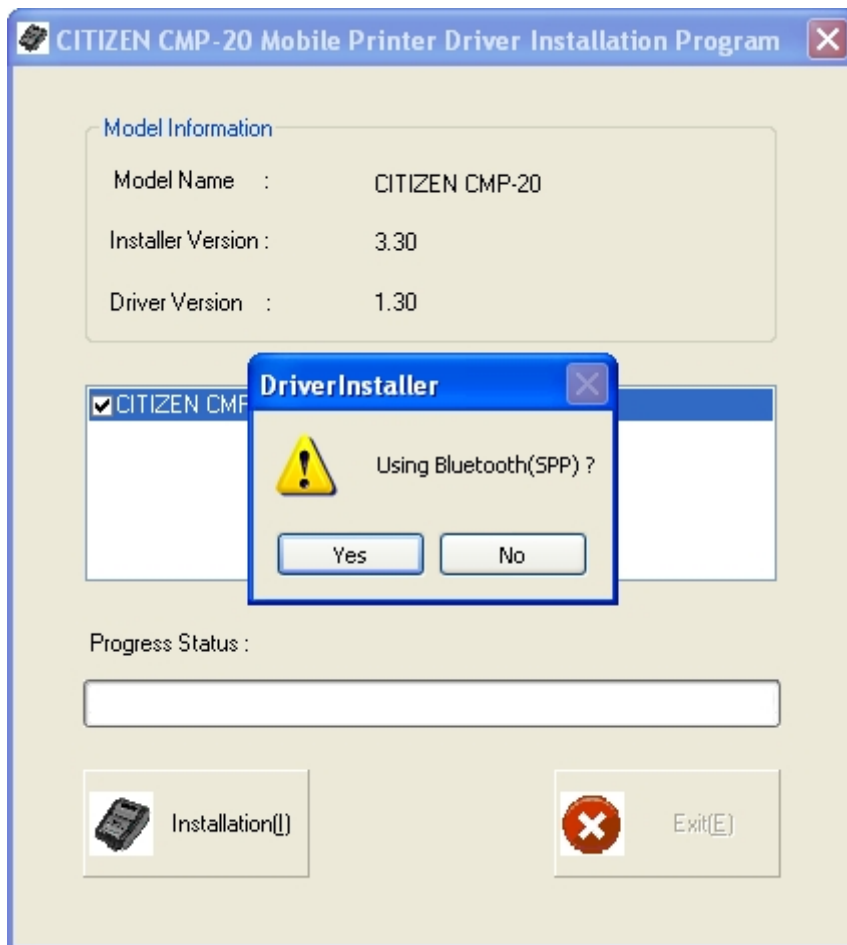
Printer Port : COM1

 OK

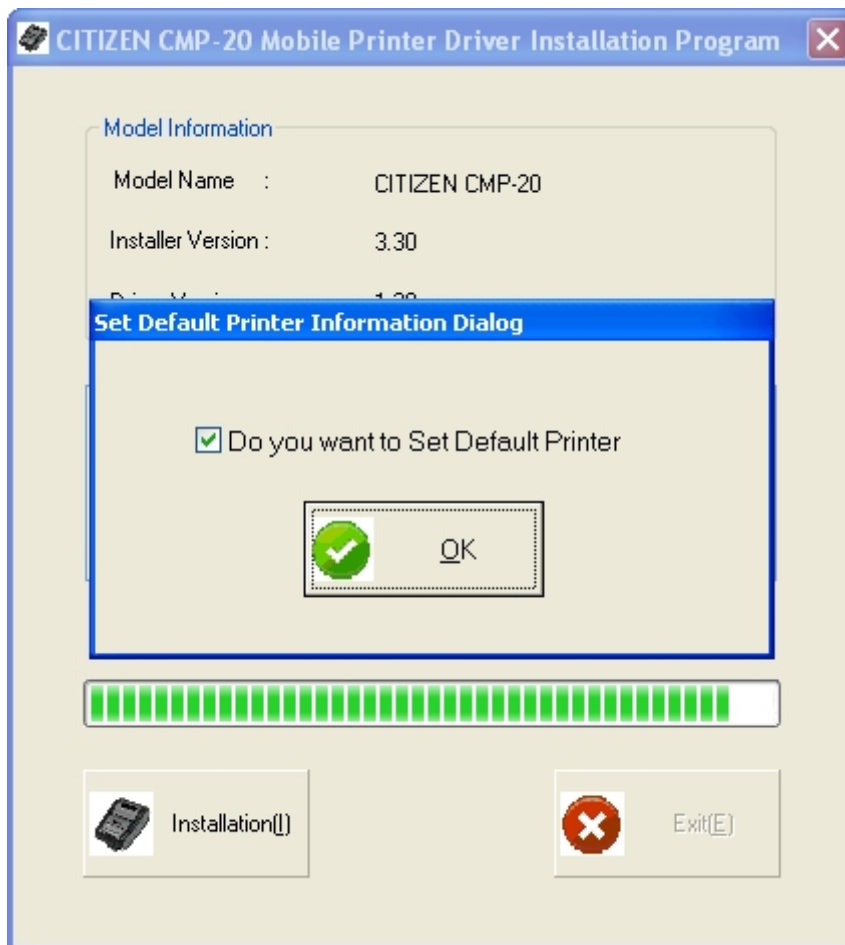
 Exit



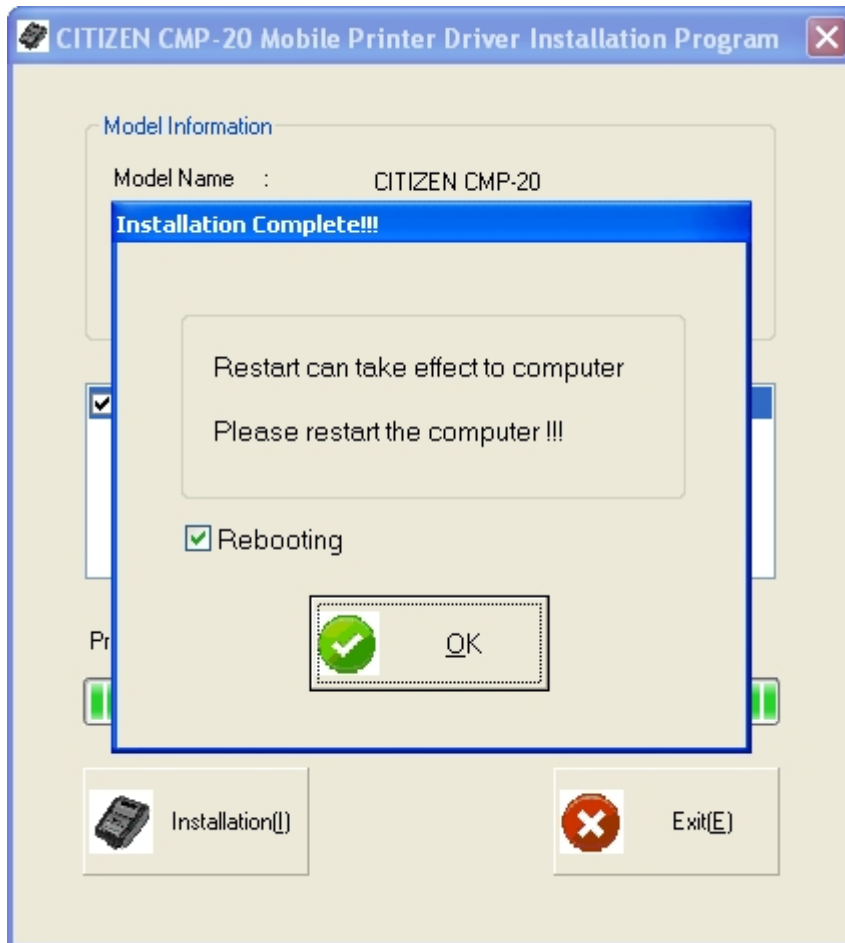
5) Select the Interface to use.



8) Click OK to set default printer.

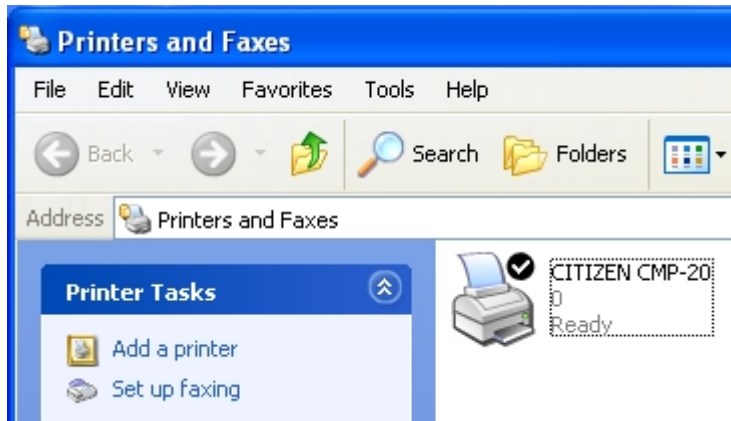


9) After installing, click OK to reboot the system.

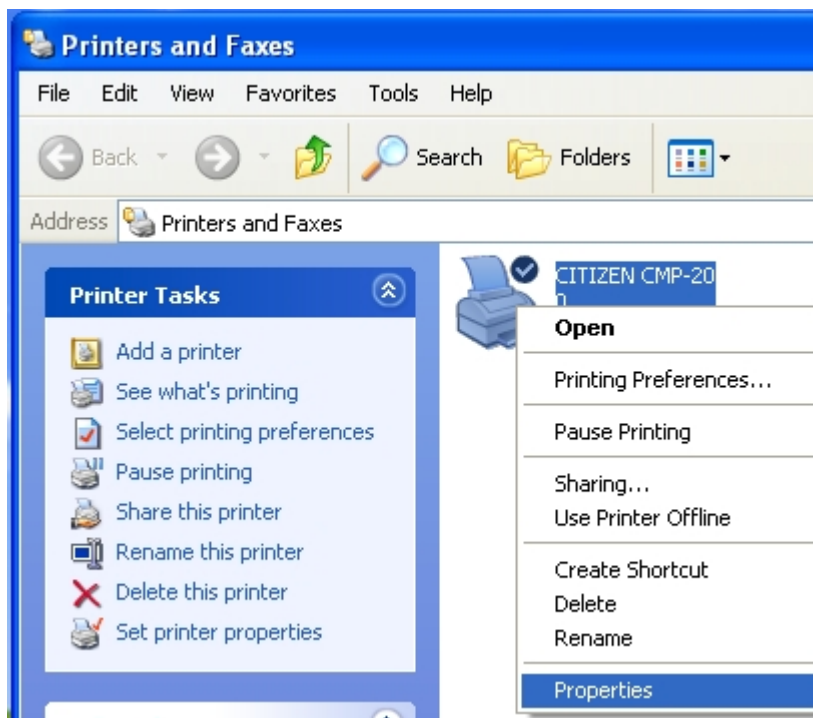


## 4.2. Serial or Bluetooth Interface setup

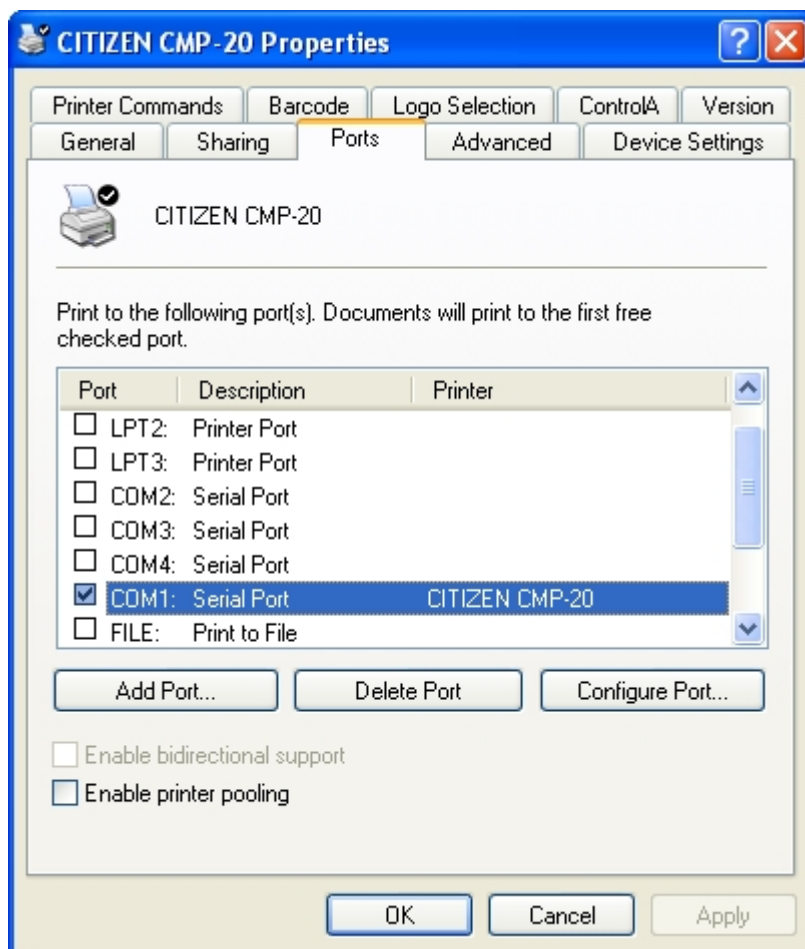
- 1) Move on to printer directory.



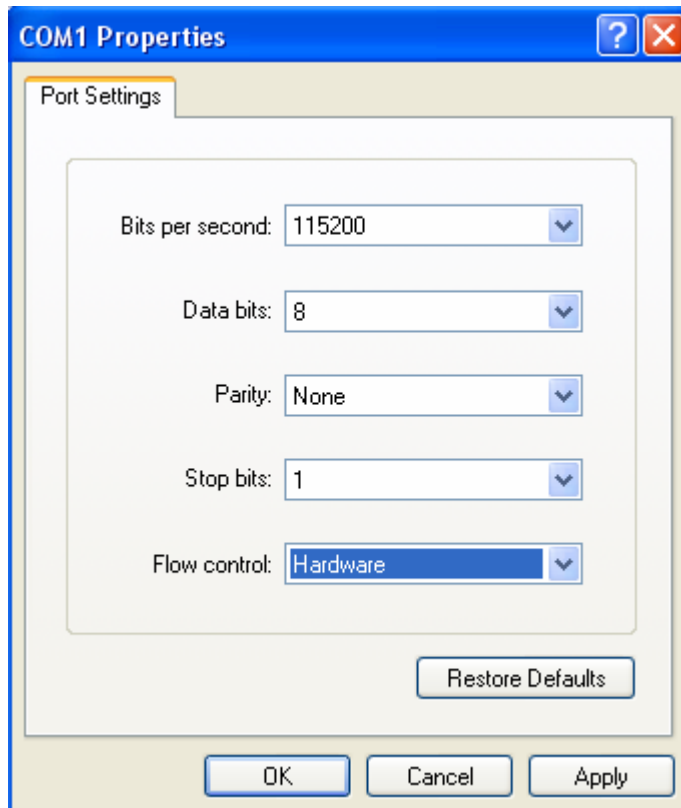
- 2) Click the right button of the mouse and select Properties.



3) Click Ports tab and Configure Port.



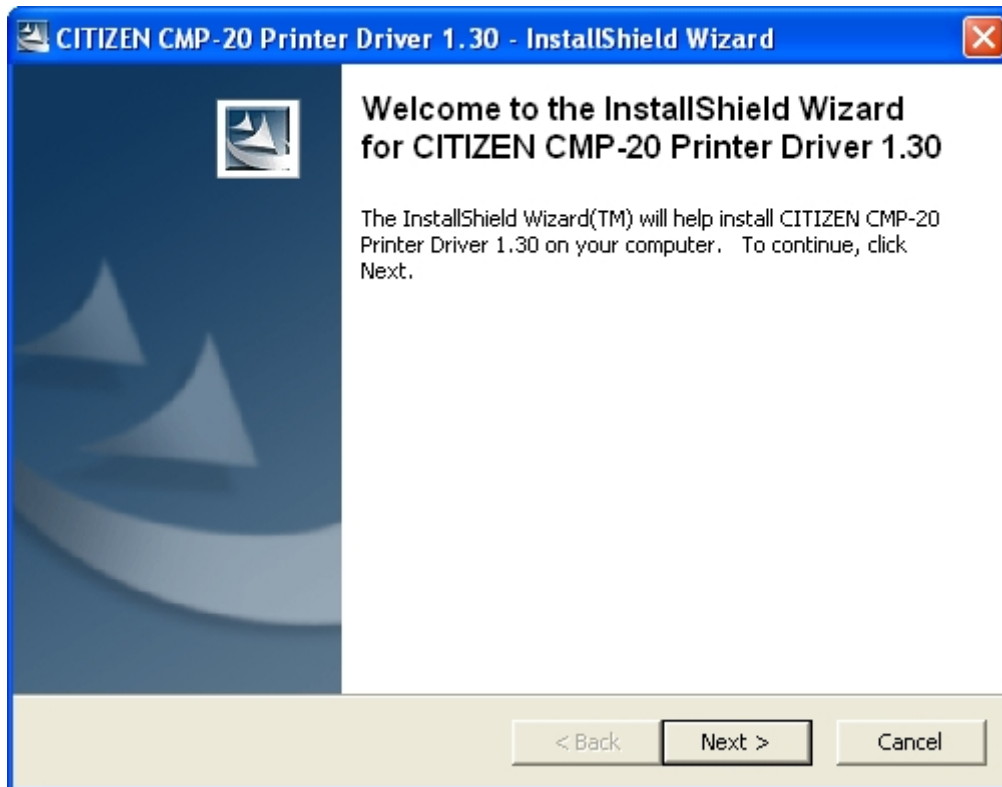
- 4) Set the baudrate, data bit, parity, stop bit and flow control same as the printer. (Check these properties of the printer including the baudrate through the self-test)



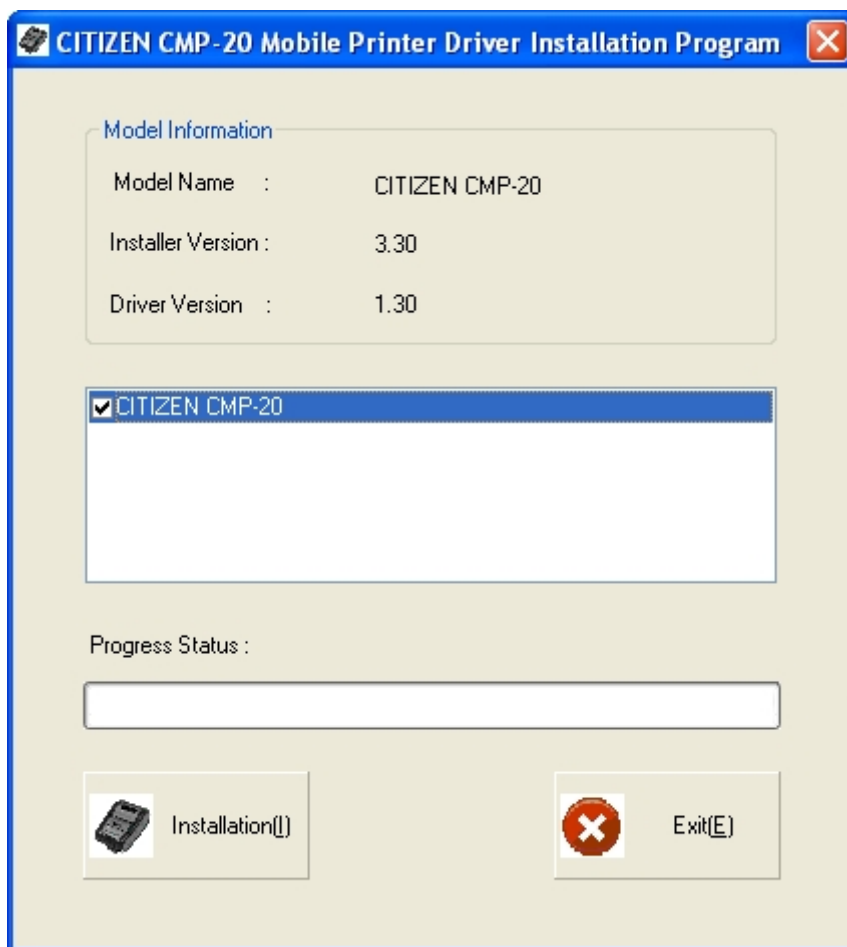
- 5) Click General tab and Print Test Page. If the printout shows the Microsoft Windows logo and Driver information, the Windows Driver is installed properly.

### 4.3. USB Interface setup

- 1) Double-click Windows Driver installation file (CITIZENCMP-20PrinterDriverxxxx.exe).
- 2) Click Next.



3) Select the Printer model in use and click Install.





4) Set USB port and click OK. The Driver will be automatically installed.

**Select OS Information Dialog**



OS Information

<input type="radio"/> Windows NT 3.51	<input type="radio"/> Windows 2000
<input type="radio"/> Windows 95	<input checked="" type="radio"/> Windows XP
<input type="radio"/> Windows 98	<input type="radio"/> Windows 2003
<input type="radio"/> Windows ME	<input type="radio"/> Windows Vista
<input type="radio"/> Windows NT 4.0	<input type="radio"/> Windows 2008
	<input type="radio"/> Windows 7

Processor : 32-Bit OS

Code Page : US (ANSI) (1252)

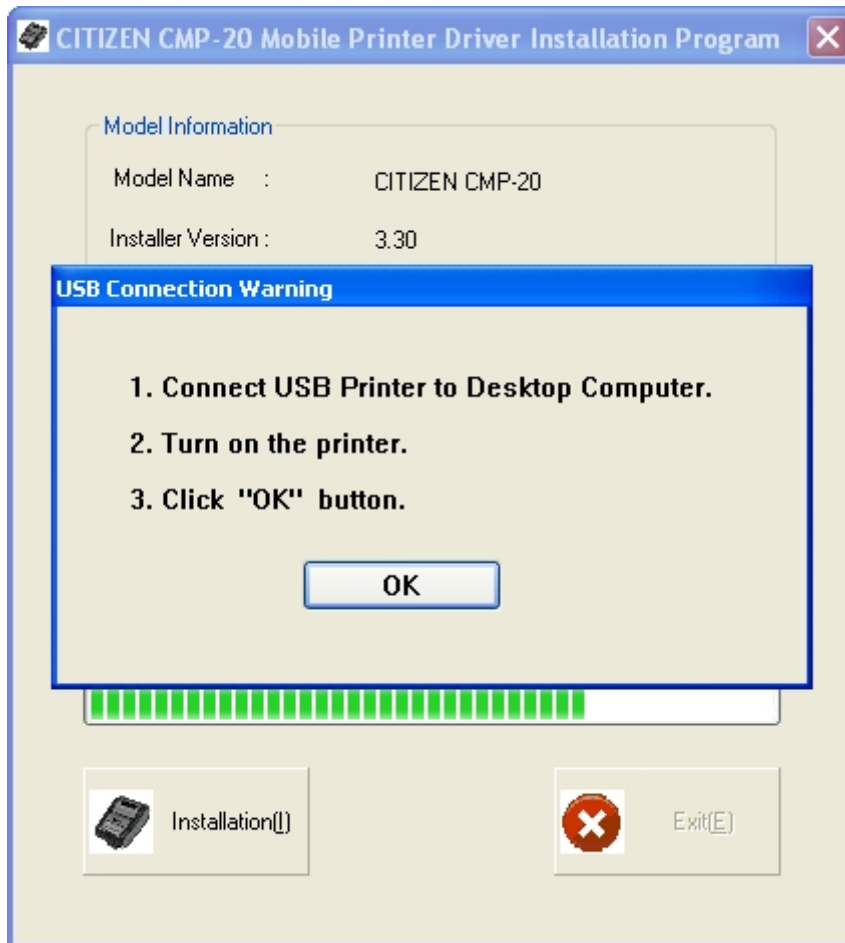
Printer Port : USB

 OK  Exit

5) Click the “Continue Anyway” Button.



6) Once printer Power turns ON and Click OK.



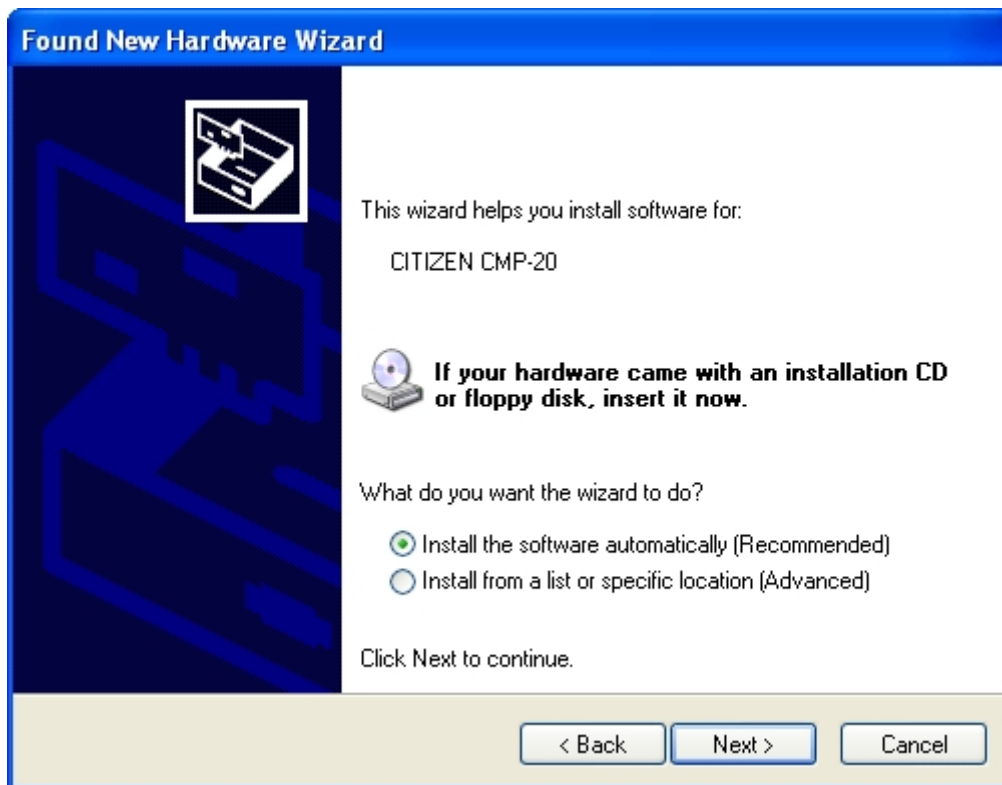
7) When turning on the printer, you can see the Pop-up window from Tray Icon.



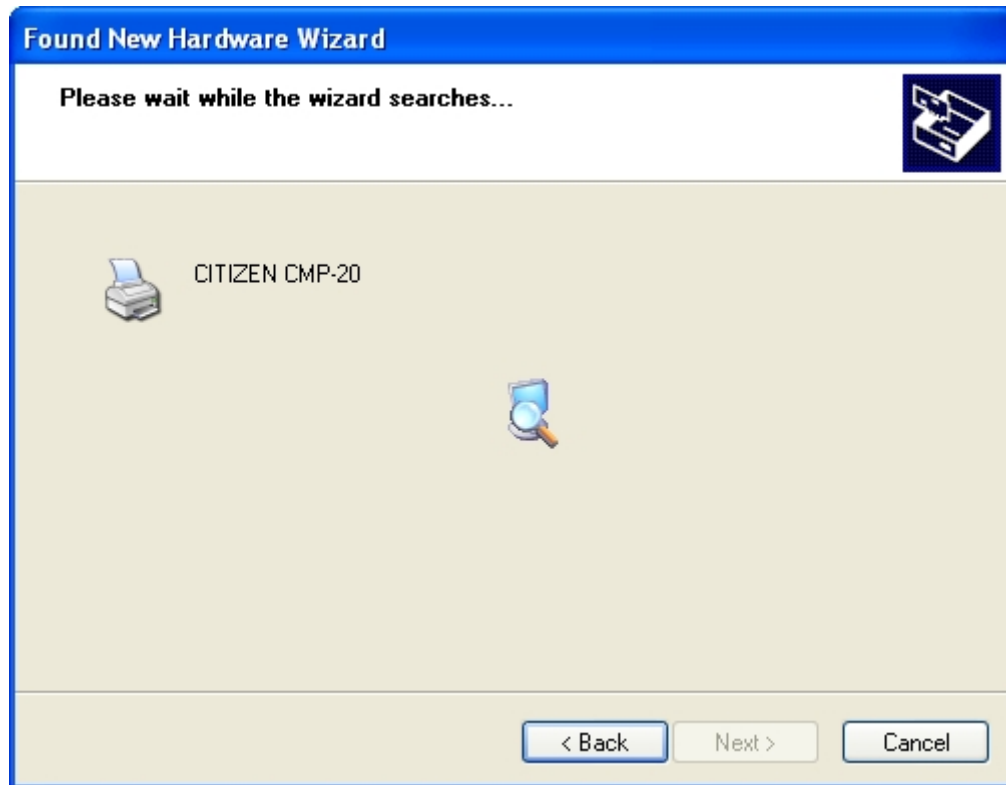
- 8) When the new hardware wizard is appeared for the installation of the windows driver, select the option as shown below and Click the “Next>” button.



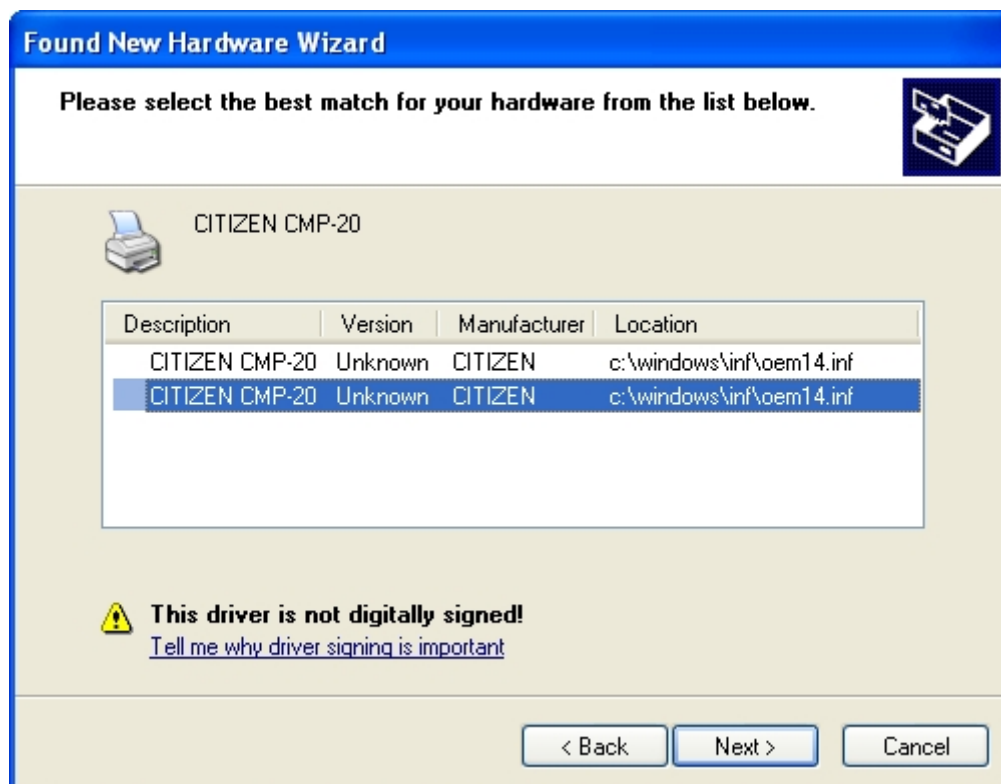
9) Click the "Next>" button.



10) Search process is displayed as shown below.



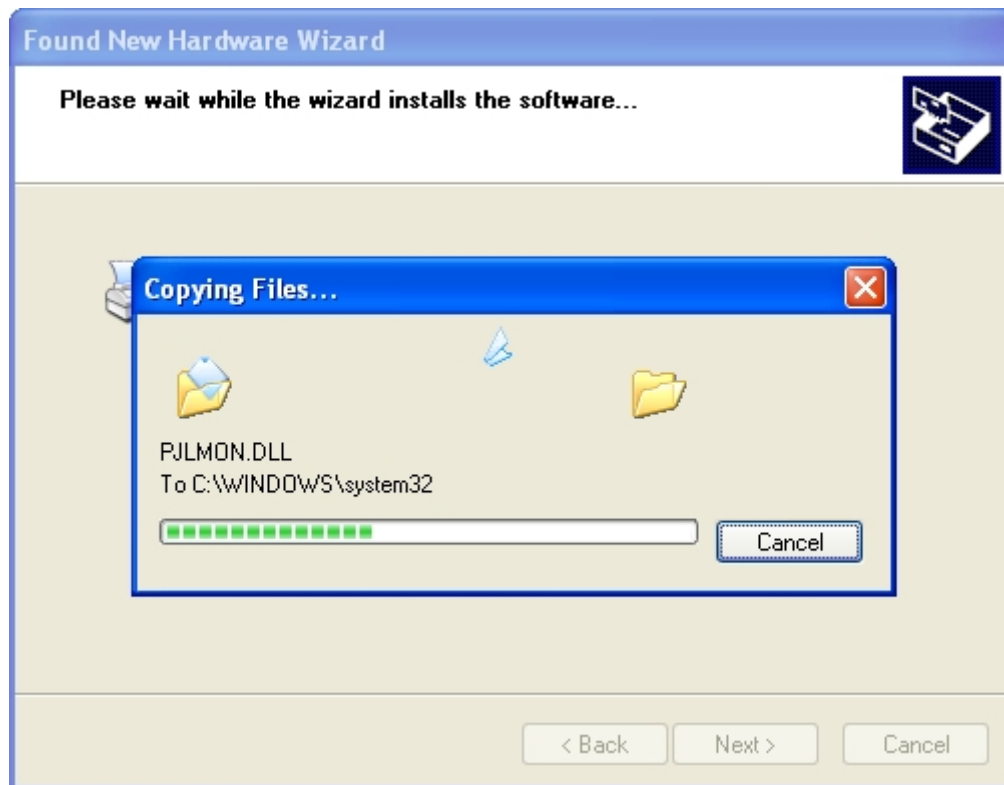
11) Click the "Next>" button.



12) Click the "Continue Anyway" button.



13) Copy process is displayed as shown below.

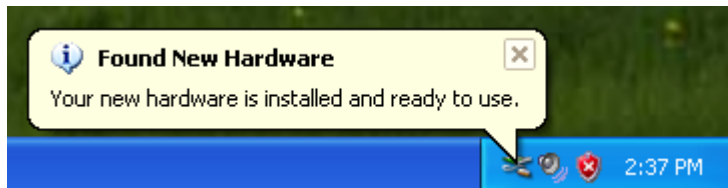


14) Click the "Finish" button.

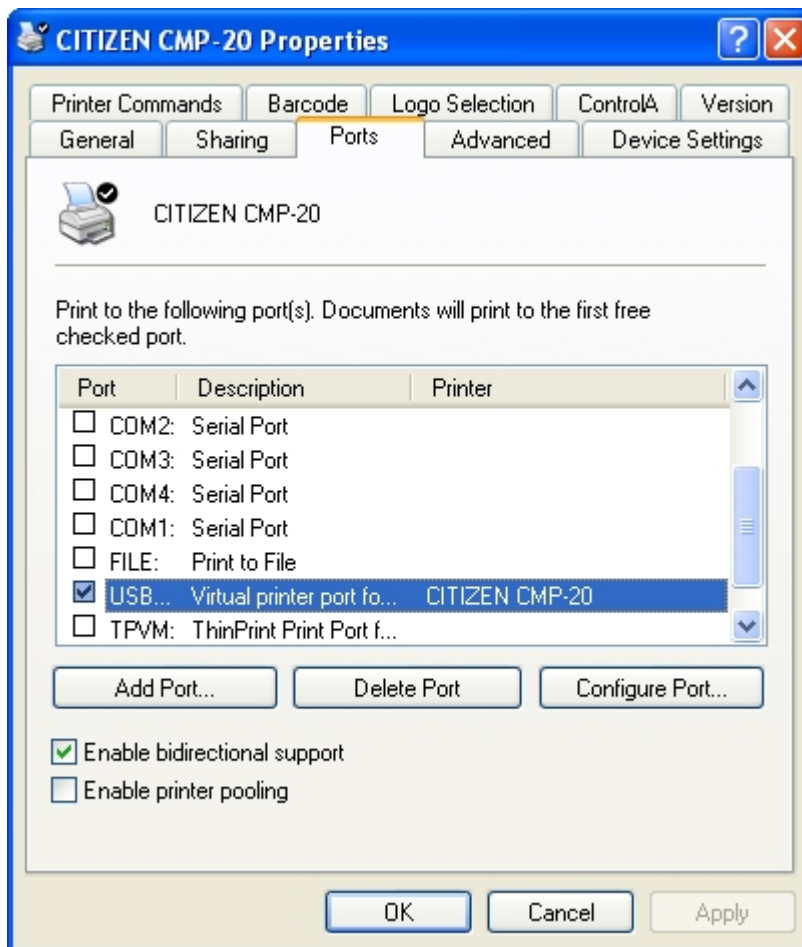




15) Pop-up window is displayed as shown below form the Tray Icon.



16) You will see the USB Port has been selected in the Windows Driver properties.



## 5. How to setup Windows Printer Driver Settings.

After installing the Windows Driver, you can use following functions.

### 5.1. Printer Commands.

- You can input additional commands to Begin Document or End Document when printing it.

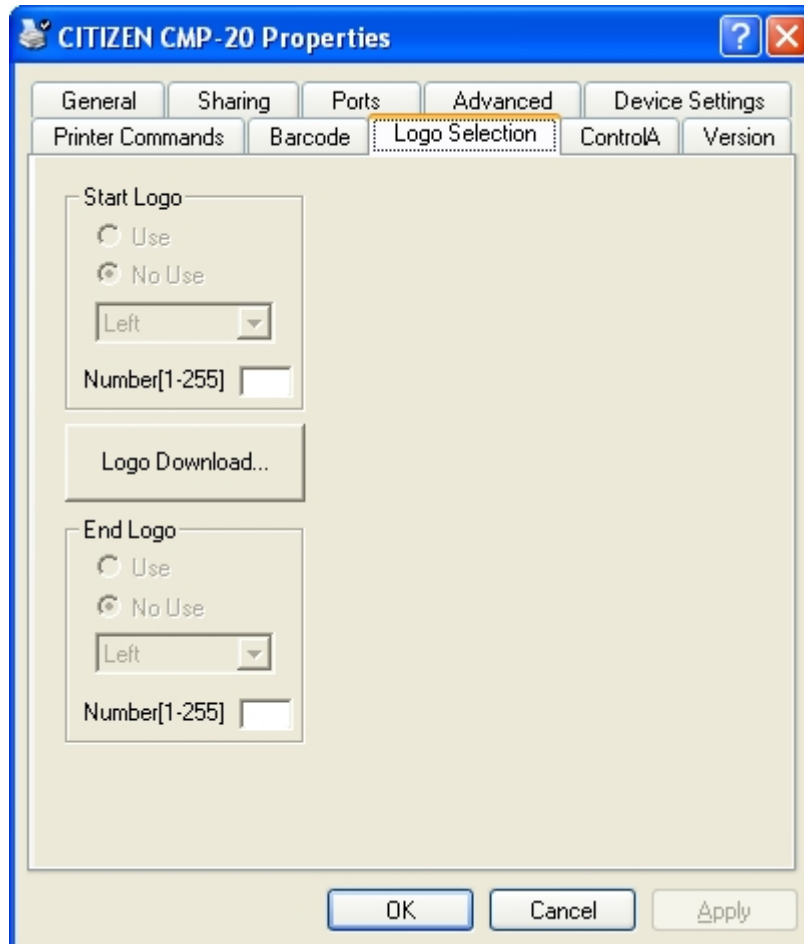
The screenshot shows the 'CITIZEN CMP-20 Properties' dialog box with the 'Printer Commands' tab selected. The dialog has a blue title bar with a question mark and a close button. Below the title bar are several tabs: 'General', 'Sharing', 'Ports', 'Advanced', 'Device Settings', 'Printer Commands', 'Barcode', 'Logo Selection', 'ControlA', and 'Version'. The 'Printer Commands' tab is active, showing three sections for inputting commands:

- Begin Document:** A text box labeled 'Emulation Commands[Example:\x1b\x70\x00]' with a cursor at the end of the example text.
- End Document #1:** A text box labeled 'Emulation Commands[Example:\x1b\x70\x00]' which is currently empty.
- End Document #2:** A section with a text box containing '0' and a label 'Number of Line Feeds[ 0 - 99 ]'.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

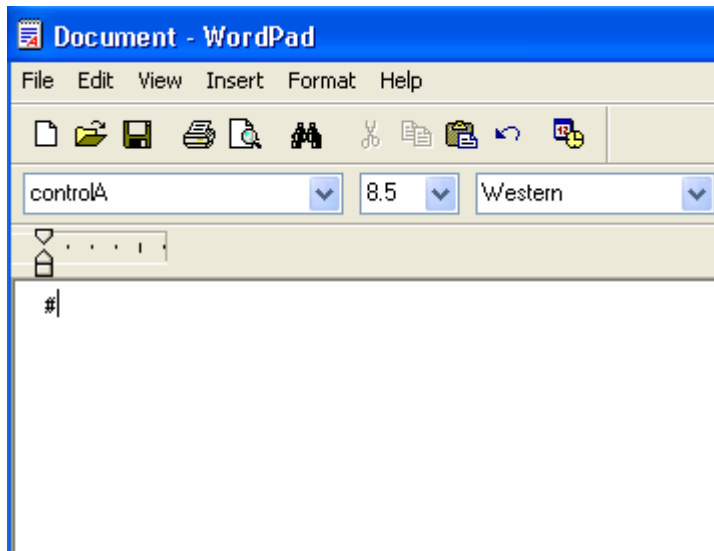
## 5.2. Logo Selection.

- It functions of printing out the downloaded logo(image file) on the printer.
- The logo download tool is provided separately.

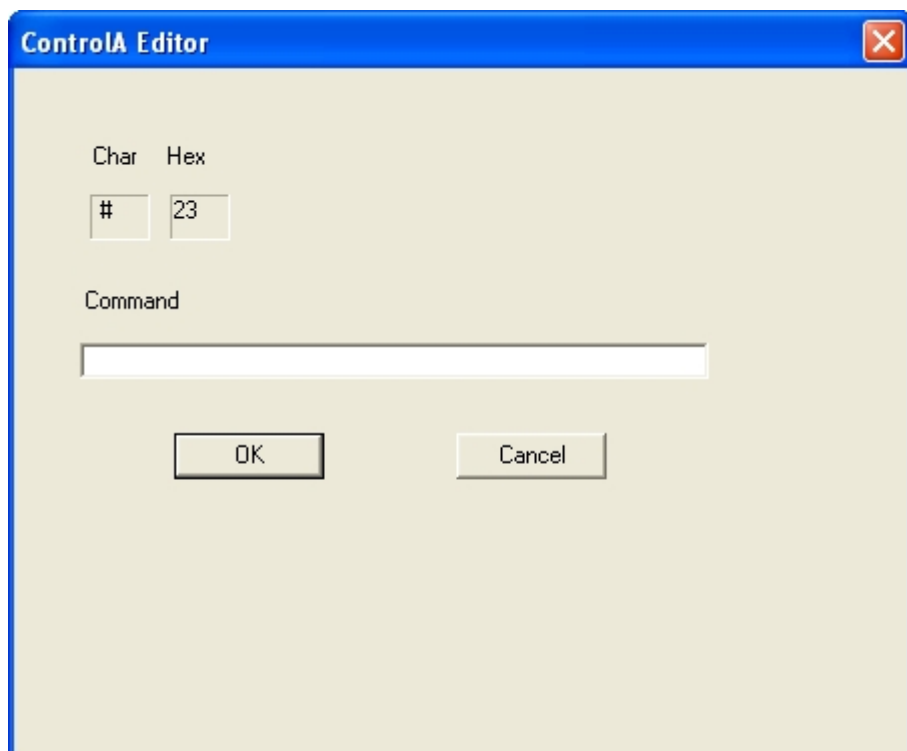
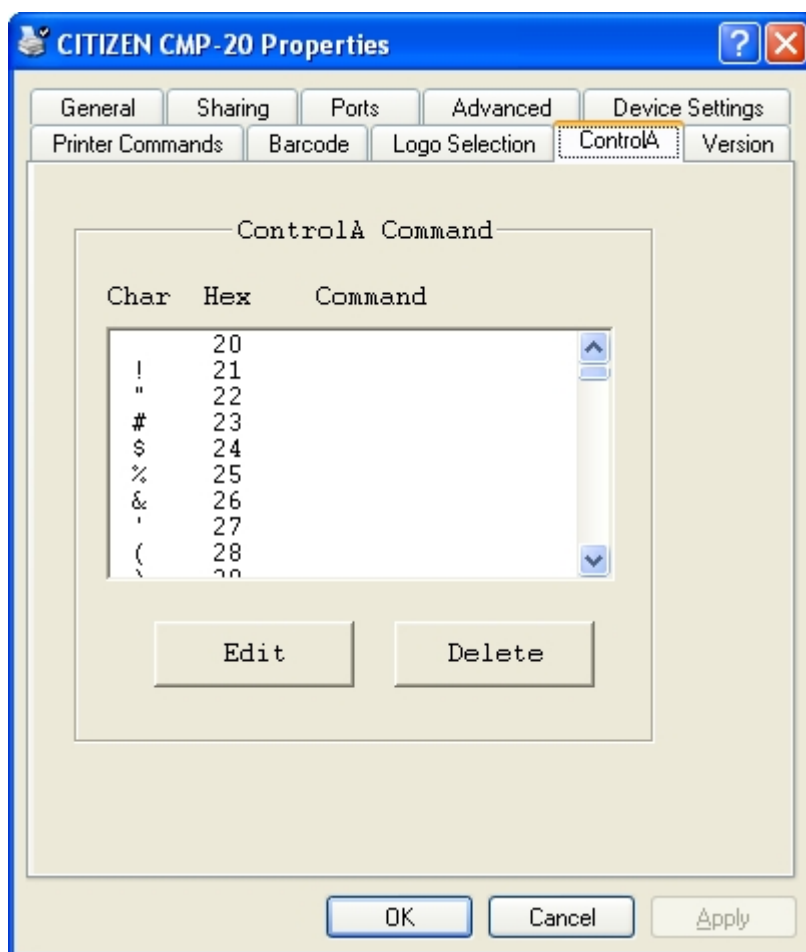


### 5.3. ControlA.

- This function is to generate and send the separate commands to the printer using Device fonts supported by the Windows Driver.[Device Font Name : ControlA]



For example, if you type the above character, the driver does not print it but converts to the corresponding control code to send the data to the printer.



## 6. Windows Printer Driver Specification.

### 6.1. Fonts

- The Windows Driver supports following device fonts.
- The device fonts get the printer performed high speed printing.

#### 6.1.1. Standard Fonts

Printer Fonts	Size (Dot)	Size (Point)	Description
FontA1x1/FontA1x1[...]	(24 X 24)	8.5	Basic device font
FontA1x2/FontA1x2[...]	(24 X 48)	8.5	Vertical double enlargement
FontA2x1/FontA2x1[...]	(48 X 24)	17	Horizontal double enlargement
FontA2x2/FontA2x2[...]	(48 X 48)	17	Vertical-horizontal double enlargement
FontA2x4/FontA2x4[...]	(48 X 96)	17	Horizontal double enlargement Vertical quadruple enlargement
FontA4x2/FontA4x2[...]	(96 X 48)	34	Horizontal quadruple enlargement Vertical double enlargement
FontA4x4/FontA4x4[...]	(96 X 96)	34	Horizontal quadruple enlargement Vertical quadruple enlargement
FontA4x8/FontA4x8[...]	(96 X 192)	34	Horizontal quadruple enlargement Vertical octuple enlargement
FontA8x4/FontA8x4[...]	(192 X 96)	68	Horizontal octuple enlargement Vertical quadruple enlargement
FontA8x8/FontA8x8[...]	(192 X 192)	68	Horizontal octuple enlargement Vertical octuple enlargement
FontB1x1/FontB1x1[...]	(24 X 24)	8.5	Basic device font
FontB1x2/FontB1x2[...]	(24 X 48)	8.5	Vertical double enlargement
FontB2x1/FontB2x1[...]	(48 X 24)	17	Horizontal double enlargement
FontB2x2/FontB2x2[...]	(48 X 48)	17	Vertical-horizontal double enlargement
FontB2x4/FontB2x4[...]	(48 X 96)	17	Horizontal double enlargement Vertical quadruple enlargement
FontB4x2/FontB4x2[...]	(96 X 48)	34	Horizontal quadruple enlargement Vertical double enlargement
FontB4x4/FontB4x4[...]	(96 X 96)	34	Horizontal quadruple enlargement Vertical quadruple enlargement
FontB4x8/FontB4x8[...]	(96 X 192)	34	Horizontal quadruple enlargement Vertical octuple enlargement
FontB8x4/FontB8x4[...]	(192 X 96)	68	Horizontal octuple enlargement Vertical quadruple enlargement
FontB8x8/FontB8x8[...]	(192 X 192)	68	Horizontal octuple enlargement Vertical octuple enlargement

## 6.2. Bar codes.

- Following device barcode fonts are supported by the Windows Driver.

Select the device barcode font corresponding to the bar code type and input data to print it out.

Printer font name for bar code	Font size(Point)	Description
Codabar(NW7)	18/35.5/53/71	Codabar
Code128	18/35.5/53/71	Code 128
Code39	18/35.5/53/71	3 Of 9
Code93	18/35.5/53/71	Code 93
ITF	18/35.5/53/71	Interleaved 2 of 5
JAN13(EAN13)	18/35.5/53/71	JAN(EAN)13
JAN8(EAN8)	18/35.5/53/71	JAN(EAN)8
UPC-A	18/35.5/53/71	UPC-A
UPC-E	18/35.5/53/71	UPC-E

### 6.3. Device Control Fonts

- The Windows Driver supports following control fonts.

The characters in below table are not printed out as it is provided just to support special functions of the printer.

Character	Description
1	Print to journal.
2	Print to receipt.
3	Print to receipt and journal.
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)
f	Cut Receipt (full cut) without paper feeding.
g	Cut Receipt (partial cut) without paper feeding.
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.
u	Smoothing enabled.
v	Smoothing disabled.
w	Text is aligned left.
x	Text is centered.
y	Text is aligned right.
z	Cut Receipt with black mark.
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	Cut Receipt (full cut).
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.
P	Cut Receipt (partial cut)
[	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.
!	Print stamp.



## **7. How to use the Windows Driver in the application.**

This utility includes the Sample to guide how to use the Windows Driver on the Visual Basic.

You can check the details through the Visual basic sample program.