

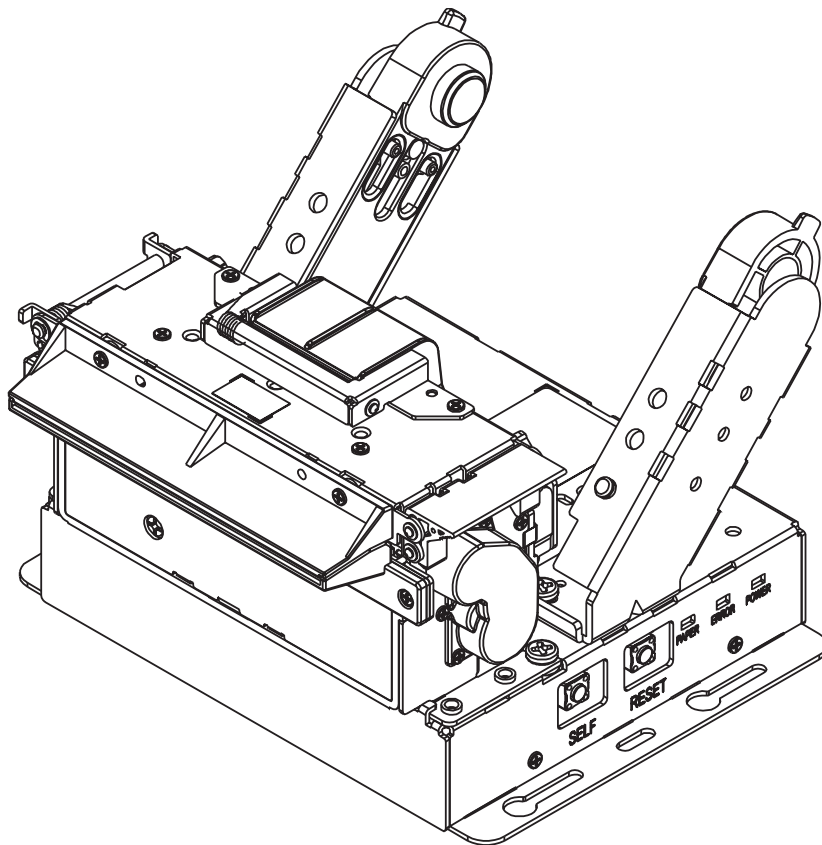
BIXOLON®

Network Connection Manual

BK3-31

KIOSK PRINTER

Ver. 1.00



<http://www.bixolon.com>

Table of Contents

1. Manual Information	3
2. Specifications	3
3. How to Connect	4
3-1 Connecting Printer	4
3-2 Checking Network Setting	4
3-3 LAN Setting Values.....	5
4. Ethernet Test by using Windows Test Page	6
5. Factory Reset	13
5-1 Initializing LAN Setting.....	13
5-2 Factory Reset Values	14
6. Troubleshooting	15

1. Manual Information

This manual provides information on the connection of network with the printer.

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We at BIXOLON 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. Specifications

CATEGORIES	FEATURE	IMPLEMENTATION
LAN Specification	Interface	10/100 Base-T All in one(Auto detection)
	Protocol	DHCP Client, HTTP, ARP, ICMP, IPv4, TCP, UDP

3. How to Connect

To change the printer settings, establish a connection by configuring its LAN and the network settings of the host e.g., PC, PDA.

3-1 Connecting Printer

- Connect the LAN cable to the printer.
Establish a connection with the hub or host using a LAN cable.
For LAN configuration, use “Net configuration tool”.

3-2 Checking Network Setting

- When the printer boots up, use the SELF TEST to check the network settings.
Press the SELF button on the side at the bottom to print the SELF TEST page.

```
                SELF TEST

Model Name : BK3-3E
F/W version : V01.03_STB_030220
USB 2.0 Interface
Serial Interface
- Baud rate   : 115200 bps
- Data bits   : 8bits
- Parity      : None
- Stop Bit    : 1 bit
- Flow control : DTR/DSR
- Receive Err. : Print ?

Ethernet Interface
- MAC Address : 00:15:94:C2:6B:B5
- IP Address  : 192.168. 0.112
- Subnet Mask : 255.255.255. 0
- Gateway     : 192.168. 0. 1
- Port        : 9100
- Inact. Time : 0 (Off)
- DHCP mode   : Enable

                ... ..
```

3-3 LAN Setting Values

Classification	Item	Description	Input Range
Network	Inactivity Time	TCP connection hold time	0~3600 integer
	IP Assignment Method	IP Assignment Method	DHCP/Manual
	IP Address	Printer IP	IP Address
	Subnet Mask	Subnet mask	IP Address
	Gateway	Default Gateway	IP Address

**Note**

For changing network setting values using Net configuration tool, Refer to 'Net configuration tool manual'.

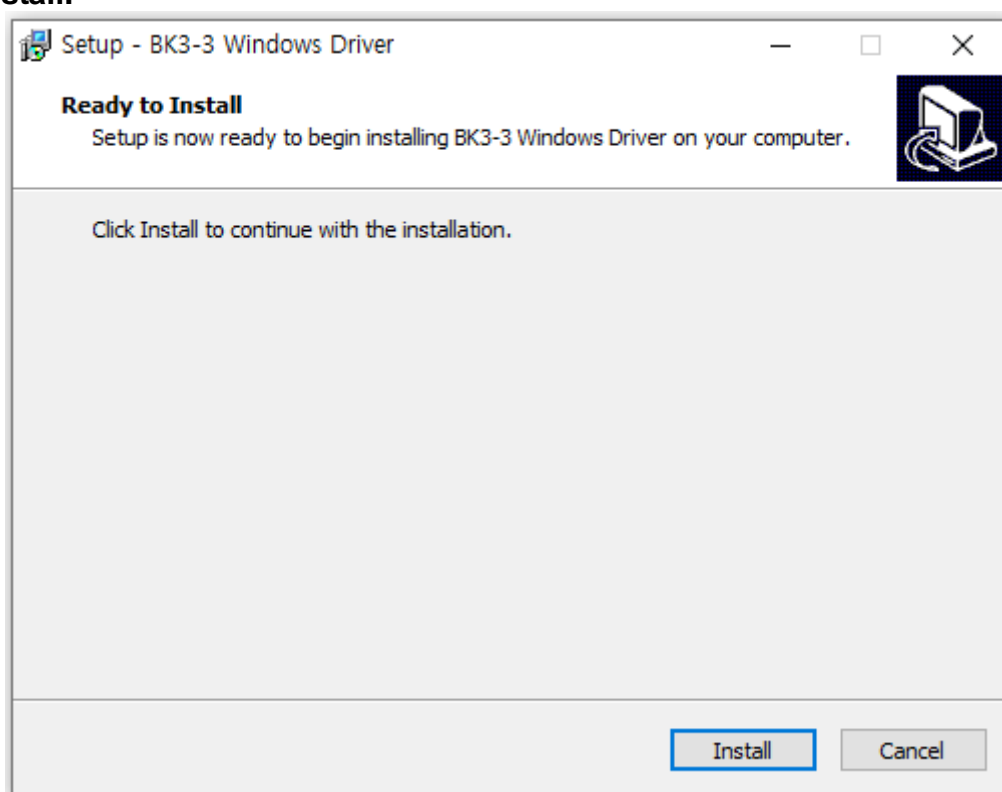
4. Ethernet Test by using Windows Test Page

You can use the Windows printer driver as shown below when there is no test program. Operating systems that allow you to use the Windows printer driver are Windows, XP, Server 2003, VISTA, 2008 Server, 7, 8, 10.

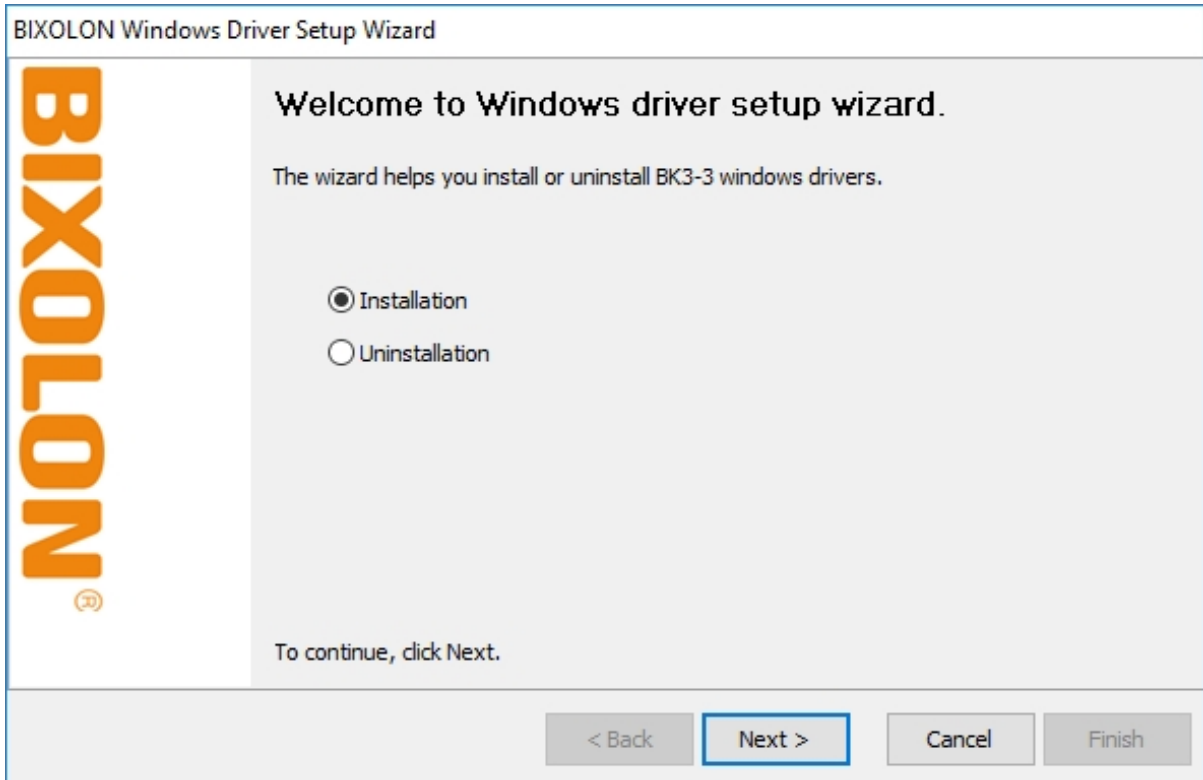
**Note**

You can download the latest version of Windows driver from our home page. (www.bixelon.com)

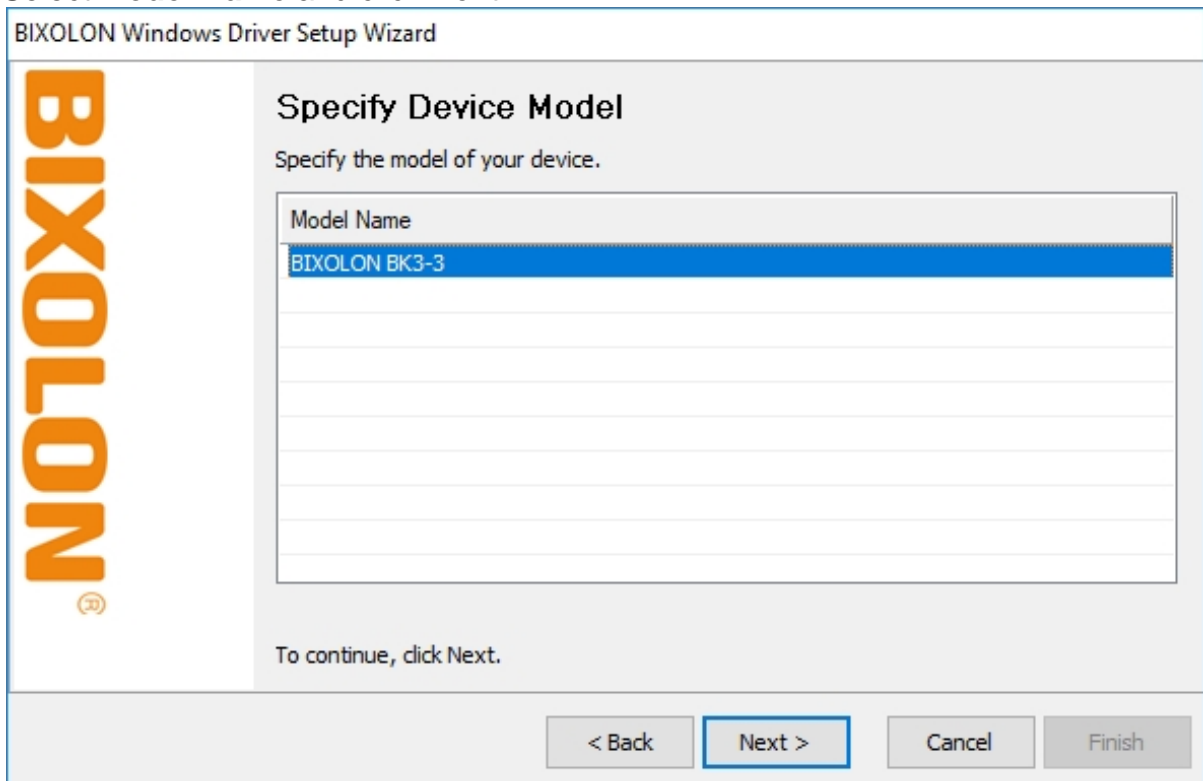
- 1) Double-click the Windows Driver installation file.
- 2) Click **Install**.



3) Select **Installation** and click **Next**..



4) Select **Model Name** and click **Next**.



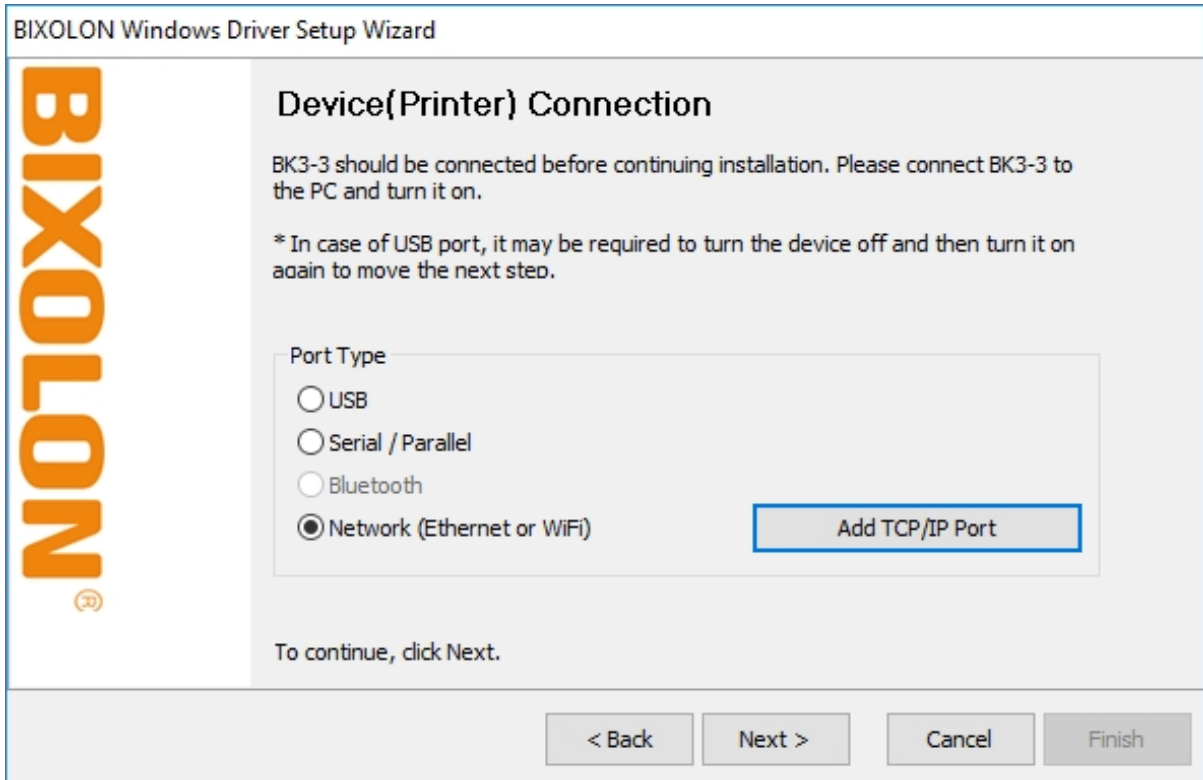
5) Select **Ethernet** and click **Add TCP/IP Port**.

The screenshot shows the 'BIXOLON Windows Driver Setup Wizard' window. On the left is the BIXOLON logo. The main area is titled 'Device(Printer) Connection'. It contains the following text: 'BK3-3 should be connected before continuing installation. Please connect BK3-3 to the PC and turn it on.' and '* In case of USB port, it may be required to turn the device off and then turn it on again to move the next step.' Below this is a 'Port Type' section with four radio button options: 'USB', 'Serial / Parallel', 'Bluetooth', and 'Network (Ethernet or WiFi)'. The 'Network (Ethernet or WiFi)' option is selected. To the right of these options is a button labeled 'Add TCP/IP Port'. At the bottom of the window, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Finish'. Below the main content area, it says 'To continue, click Next.'

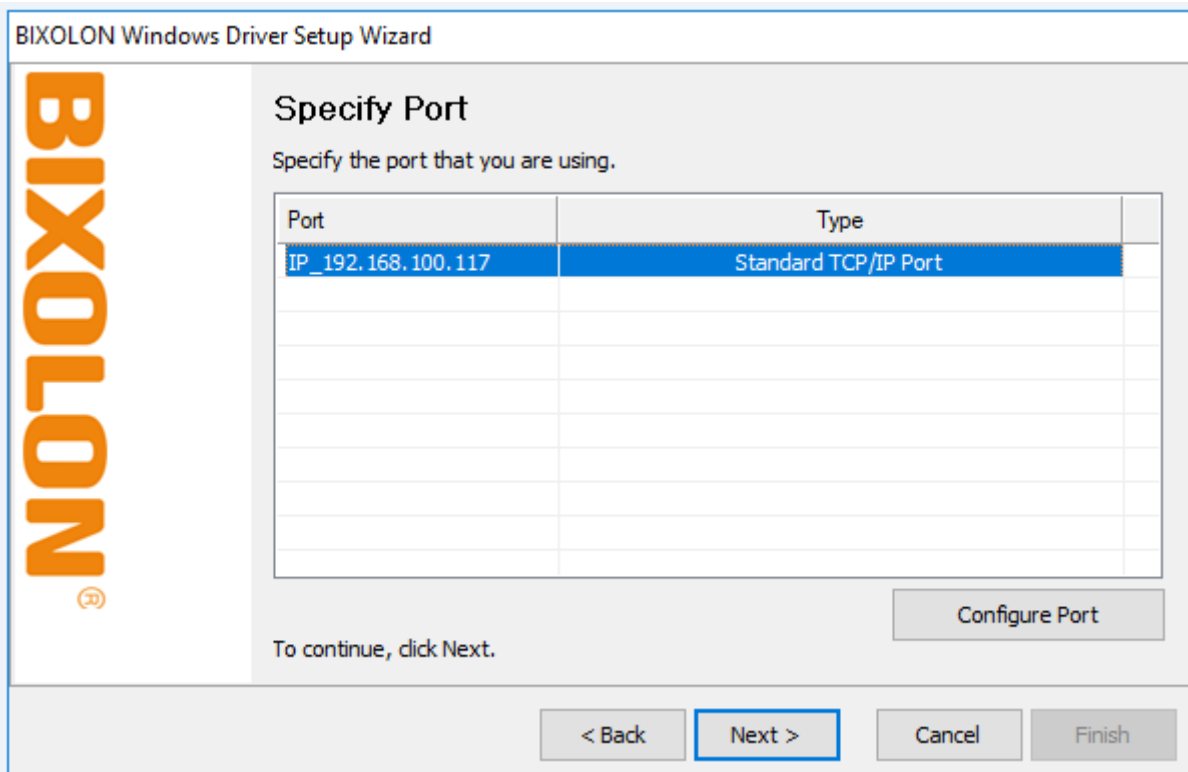
6) Enter the IP address and port number, and then click **Next**.

The screenshot shows a 'Standard TCP/IP Port' dialog box. It has a title bar 'Standard TCP/IP Port' and a section titled 'TCP/IP Port'. Inside this section, there are two input fields: 'IP Address : 192 . 168 . 100 . 117' and 'Port Number : 9100'. At the bottom right of the dialog box, there are two buttons: 'OK' and 'Cancel'.

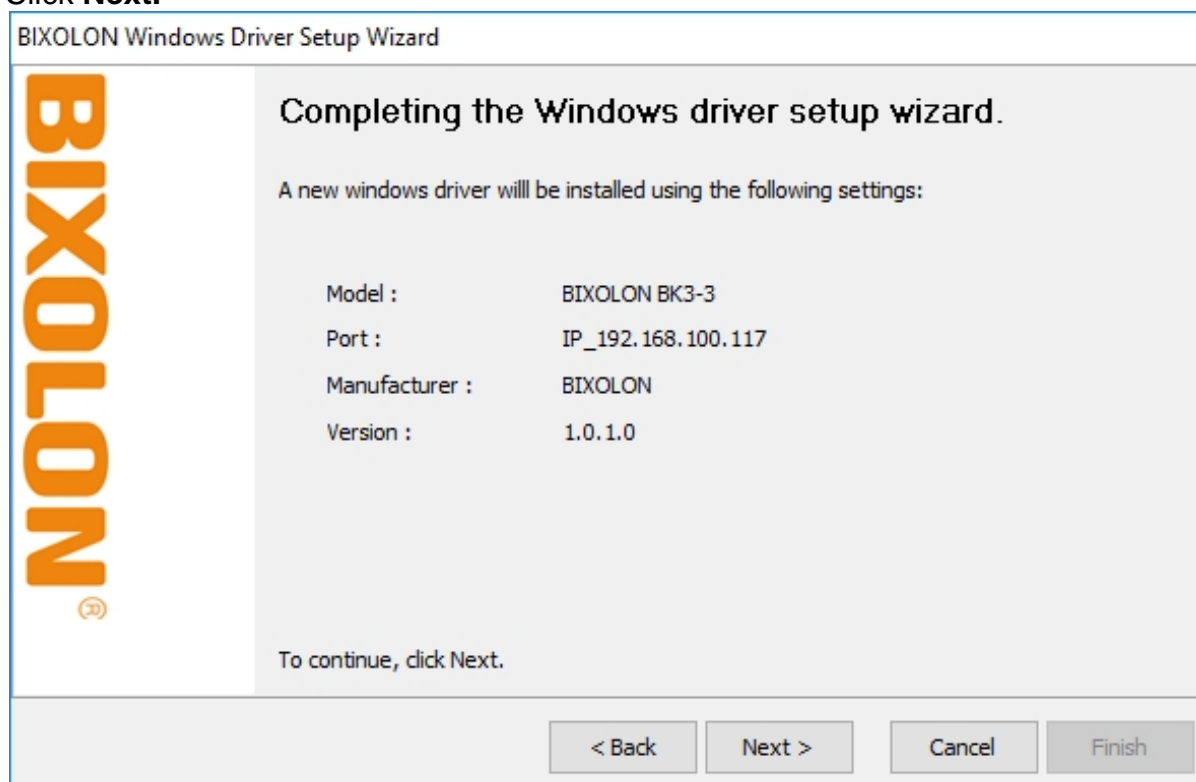
7) Click **Next**.



8) Click **Next**.



9) Click **Next**.



10) Click **Finish**.



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

(1) Installing on Windows XP / Server 2003

※ Control Panel – Printers and Faxes.

(2) Installing on Windows VISTA / Server 2008 / 7 / 8 / Server 2012 / 10

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

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

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

Configure Standard TCP/IP Port Monitor

Port Settings

Port Name: IP_192.168.100.117

Printer Name or IP Address: 192.168.100.117

Protocol

Raw LPR

Raw Settings

Port Number: 9100

LPR Settings

Queue Name:

LPR Byte Counting Enabled

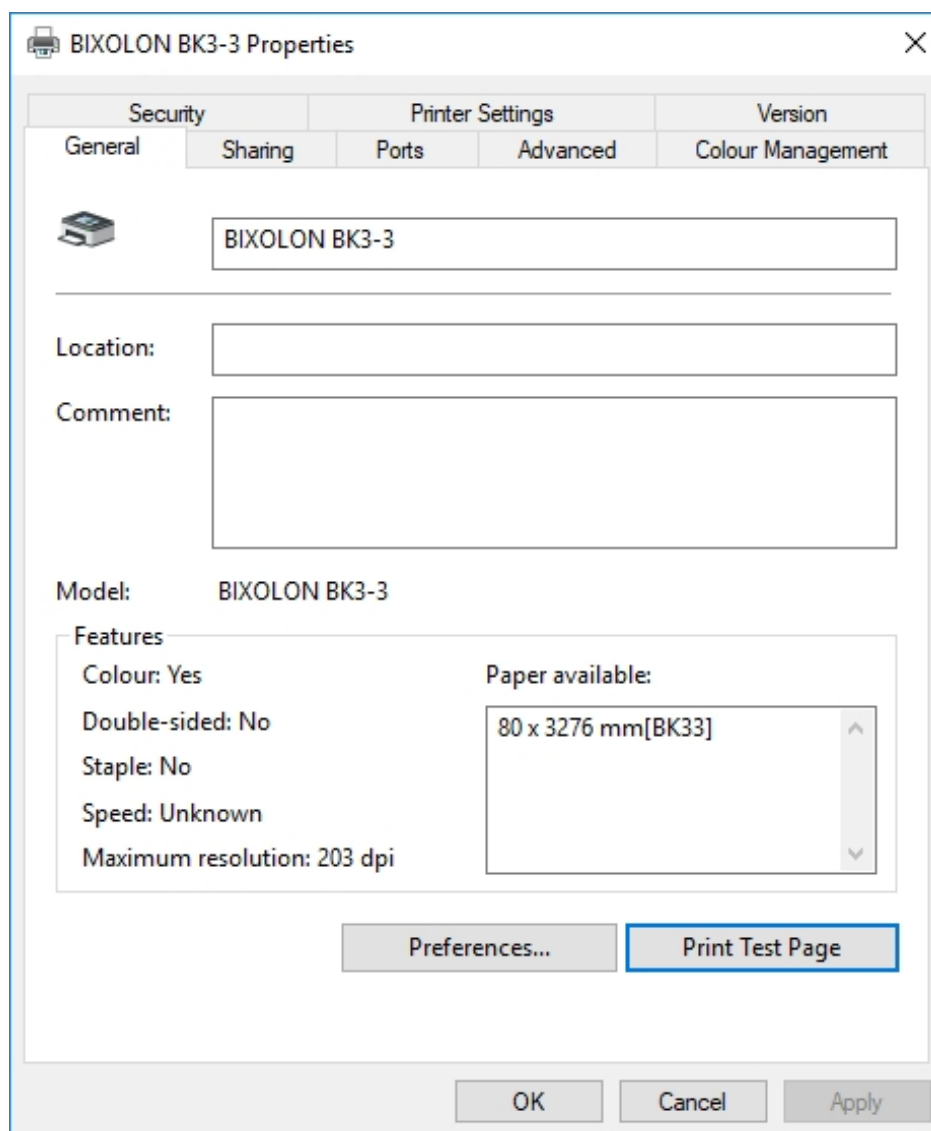
SNMP Status Enabled

Community Name: public

SNMP Device Index: 1

OK Cancel

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



5. Factory Reset

5-1 Initializing LAN Setting

- This function changes the LAN settings of the printer to the initial factory settings.

1) When the printer boots up, select the “VMSM selection mode” through SELF TEST. Then select “8:LAN Factory Reset” in the “VMSM selection mode”.

<p style="text-align: center;">SELF TEST</p> <p>Model Name : BK3-3E F/W version : V01.03_STB_030220</p> <p style="text-align: center;">... ..</p> <p>Ethernet Interface</p> <ul style="list-style-type: none"> - MAC Address : 00:15:94:C2:6B:B5 - IP Address : 192.168.100.117 - Subnet Mask : 255.255.255. 0 - Gateway : 192.168.100.254 - Port : 9100 - Inact. Time : 0 (Off) - DHCP mode : Disable <p style="text-align: center;">... ..</p> <p>Press the button continuously with below number, You can enter the mode what you want. (Procedure off If no touching over 2 sec)</p> <p>1 : VMSM selection mode 2 : Hexdecimal dump mode 3 or more : Exit</p>	<p style="text-align: center;">*** VMSM Selection ***</p> <p>0 : Exit and reboot printer 1 : Print current settings 2 : Set Serial Interface 3 : Set Print Density 4 : Set Print Speed 5 : Set Cutting mode 6 : Set Print width 7 : Factory Reset 8 : LAN Factory Reset 9 or more : Nore</p> <p>Select Modes by SELF Button control as below.</p> <p>Step 1. Short-press as many times as the mode number to choose</p> <p>Step 2. Long-press over 1 second</p> <p>* e.g. To choose Mode 2, press SELF Button 3 times. (short-short-long)</p>
---	---

2) Once the message displays as shown in the following image, select “YES” (hold the SELF button for at least 1 second).

*** Do you really want to reset
The LAN setting?**

1. YES :
Push the SELF button 1 second or more

2. NO :
Push the SELF button less than 1 second

3) After displaying the following messages, the printer will reboot automatically.

LAN Factory Reset OK! Reboot Printer.

5-2 Factory Reset Values

LAN	Network	Inactivity time	0
		IP Assignment Method	Automatic(DHCP)
		Local Port	9100

6. Troubleshooting

<p>Check network setting (Refer to Configuration for checking/changing the printer settings)</p>	<ul style="list-style-type: none">- IP Address Check the band of the IP Address. Check whether the bands of the printer and the AP (or wireless terminals) are the same. The first three digits of the four digit value of the IP address must be the same.- Subnet Mask Check whether the subnet mask of the printer matches the one in AP (or wireless terminal).- Port Check whether the port configured in the printer and the host (PC, PDA) are the same.
<p>PING Check</p>	<ul style="list-style-type: none">- Checking IP collision When entering IP address manually without using DHCP, you must check whether the corresponding IP address is used by other equipment. The printer may not work normally when there is a collision in the IP address. When the printer is turned off, carry out the Ping Test to the printer IP.- Ping TEST<ol style="list-style-type: none">1) Turn off the printer.2) Select “Run” from the Windows Start menu, and then enter “cmd”.3) Enter “ARP -d” and delete ARP table.4) Enter “ping {printer IP}”.5) ARP -d, ping {IP address}

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings>arp -d

C:\Documents and Settings>ping 192.168.1.111

Pinging 192.168.1.111 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.111:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings>
    
```

When you see “Request timed out.” as shown below, it means that there is no collision. The corresponding IP can be used.

```

C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings>ping 192.168.1.111

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.111: bytes=32 time<1ms TTL=64
Reply from 192.168.1.111: bytes=32 time<1ms TTL=64
Reply from 192.168.1.111: bytes=32 time<1ms TTL=64
Reply from 192.168.1.111: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.111:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings>_
    
```

On the other hand, if there is a reply as shown below, then the corresponding IP is used by another network terminal and it cannot be used for the printer IP.

Inactivity Time

If multiple host devices are used with one printer, “Inactivity Time” is Recommended. (Other host devices are restricted to use a printer if one host device keep connecting to a printer.) ex) 5sec