



Net Configuration Tool

PV3/PV4

BARCODE PRINTER
Ver. 1.01

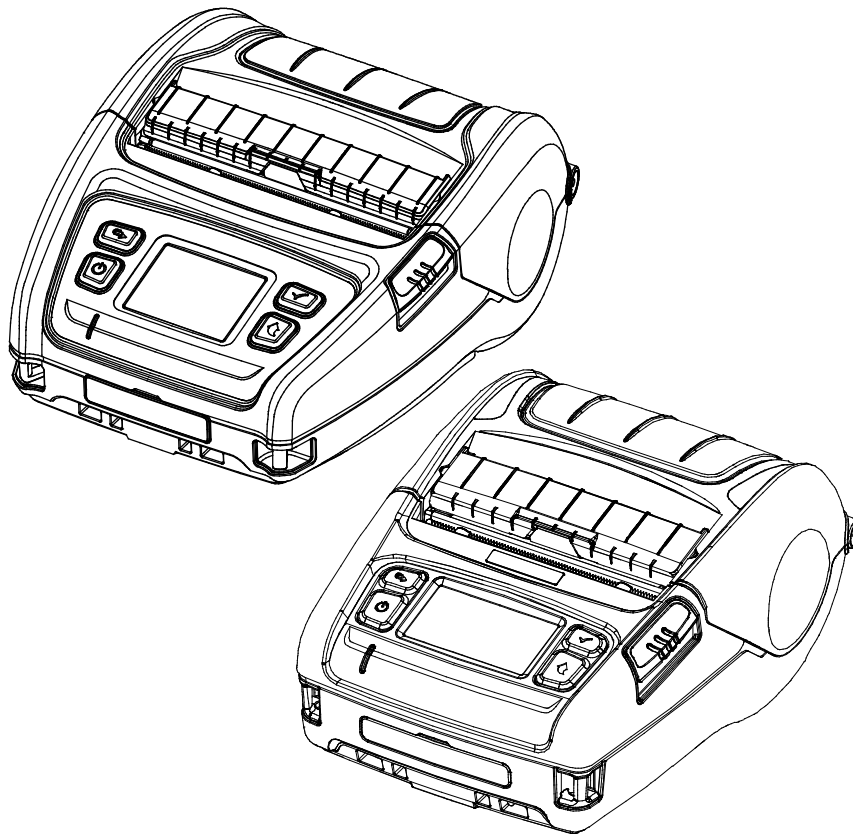


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1. About this manual

This Net Configuration Tool Manual explains how to install and configure the Net Configuration Tool on Windows OS on PC.

It is advisable to read the contents of this manual carefully before using “Net Configuration Tool” utility for the first time.

2. Supported Operating Systems

The following operating systems are supported:

- 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)

3. Supported Printers

“Net Configuration Tool” is available for the following printers.

PV3

PV4

4. Installation & Uninstallation

4-1 Installation on Windows XP / Server 2003

- 1) Double-click the file "Net Configuration Setup V1.x.x.exe".
- 2) Follow the instructions on the screen to complete the installation process.

4-2 Installation on Windows Vista / Server 2008 / 7 / 8 / Server 2012 / 10

- 1) Double-click the file "Net Configuration Setup V1.x.x.exe".
 - ※ Administrator privilege may be required to run the installation file.
- 2) Follow the instructions on the screen to complete the installation process.

4-3 Uninstallation

- 1) Open "Add or Remove Programs" or "Remove Programs" in the Control Panel.
 - ※ XP or Server 2003: Control Panel – Add or Remove Programs
 - ※ Vista or higher OS: Control Panel – Remove Programs
- 2) Select "Net Configuration Setup" and click the "Remove" button to uninstall the Net Configuration Tool on your PC.

5. Configuration

To configure the **LAN settings**, the Ethernet cable should be connected to the printer while the host (PC) and printer are connected to the same network. For configuring the **WLAN settings**, the host and printer should be connected to the same Wi-Fi Access Point or connected to each other using Wi-Fi Direct (P2P).



Note

"Connected to the same network" means that the host and printer are connected to the same router or Wi-Fi Access Point.

To configure the **advanced settings of the printer's wireless network** (all configurable WLAN settings), the printer must be connected through a USB cable.

The screenshot shows the 'Net Configuration Tool' interface with the 'WLAN (Advanced)' tab selected. It features a table for LAN/WLAN Configuration and a section for Printer Network Information.

| # | IP Address | Mac Address | System Name | Type |
|---|-----------------|-------------------|-------------|-------|
| 1 | 192.168.100.86 | 00:15:04:00:00:00 | - | Wired |
| 2 | 192.168.100.123 | 00:15:04:00:00:00 | - | Wired |
| 3 | 192.168.100.110 | 00:15:04:00:00:00 | - | Wired |
| 4 | 192.168.100.92 | 00:15:04:00:00:00 | - | Wired |

Printer Network Information

MAC Address: 00:15:04:00:00:00
 IP Address: 192.168.100.86
 Subnet Mask: 255.255.255.0
 Gateway: 192.168.100.254
 Port Number: 9100

5-1 LAN/WLAN Basic Configuration

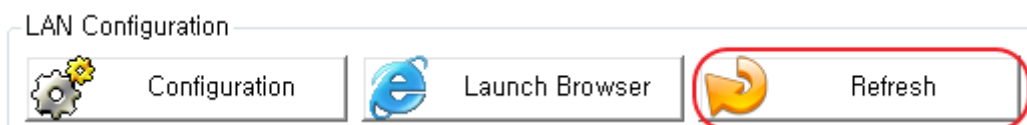
The **LAN/WLAN tab** allows you to search printers connected to the same LAN/WLAN network and configure the printer's network settings required to enable communication between the printer and host. You can also configure the printer's network settings using a web browser.

The following settings can be configured using the Net Configuration Tool. For WLAN, there are other settings beyond those listed below and the available WLAN settings may vary depending on the functions supported by the printer's WLAN module.

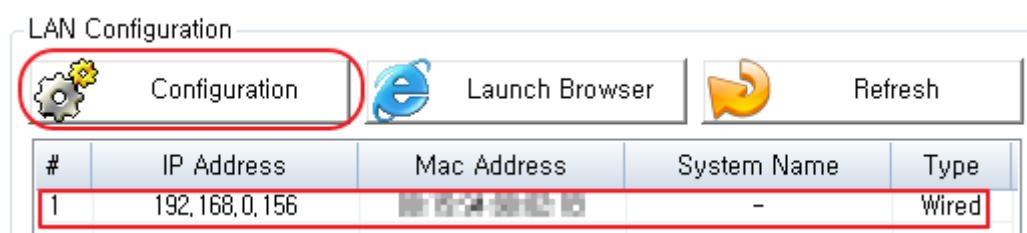
| Settings | Description | | | | | | | | | | | | | | | | |
|------------------------------|---|-------------|-----------------------------------|-------------------|-------|------------------|----------|-----|-------------------|----|------|-----|----------|------------|-------------------|-----|-----------------------------------|
| IP Address Assignment Method | Assign IP address manually or automatically through DHCP. If the network does not support DHCP, you must assign the IP address manually. | | | | | | | | | | | | | | | | |
| IP Address | This information is required for LAN communication and a unique IP address must be entered. The communication port is set to 9100 by default. You have to change the port number via reference below table to use another port. | | | | | | | | | | | | | | | | |
| Subnet Mask | | | | | | | | | | | | | | | | | |
| Gateway | | | | | | | | | | | | | | | | | |
| Port Number | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #D9E1F2;">Port Number</th> <th style="background-color: #D9E1F2;">Description</th> <th style="background-color: #D9E1F2;">TCP/UDP</th> <th style="background-color: #D9E1F2;">Notes</th> </tr> </thead> <tbody> <tr> <td>9100, 6101, 9300</td> <td>Printing</td> <td>TCP</td> <td>Used for printing</td> </tr> <tr> <td>80</td> <td>HTTP</td> <td>TCP</td> <td>Web page</td> </tr> <tr> <td>3337, 9000</td> <td>Device Management</td> <td>UDP</td> <td>PV3, PV4 Device Discovery/Setting</td> </tr> </tbody> </table> | Port Number | Description | TCP/UDP | Notes | 9100, 6101, 9300 | Printing | TCP | Used for printing | 80 | HTTP | TCP | Web page | 3337, 9000 | Device Management | UDP | PV3, PV4 Device Discovery/Setting |
| | Port Number | Description | TCP/UDP | Notes | | | | | | | | | | | | | |
| | 9100, 6101, 9300 | Printing | TCP | Used for printing | | | | | | | | | | | | | |
| | 80 | HTTP | TCP | Web page | | | | | | | | | | | | | |
| 3337, 9000 | Device Management | UDP | PV3, PV4 Device Discovery/Setting | | | | | | | | | | | | | | |
| Inactivity Time | If there is no communication between the host and printer during the set period of time, the connection will be closed automatically. The value can be set between 0 and 3600 seconds (1 hour). If set to 0, this function is disabled. | | | | | | | | | | | | | | | | |

5-1-1 Using the Configuration Button

1. Check to make sure the printer is switched on.
2. Click the Search/Refresh button to search for printers on the network



3. If the Security Alert message pops up, click either **"Unblock"** or **"Allow access"**.
4. From the search results, click the MAC address (Media Access Control Address) or IP address (Internet Protocol Address) of the printer you want to configure.
5. Click either Configuration button or double-click the item you want to configure.



- Configure the network settings of the printer and click the Save button.

The screenshot shows the 'IP Address Assignment' section of the Net Configuration Tool. It has two radio buttons: 'DHCP (Dynamic Host Configuration Protocol)' and 'Manual'. The 'Manual' option is selected. Below this, there are three rows of input fields: 'IP Address' with the value '192 . 168 . 100 . 153', 'Subnet Mask' with '255 . 255 . 255 . 0', and 'GateWay' with '192 . 168 . 100 . 254'. Below these are two more input fields: 'Port Number' with '9100' and a range '[0 - 32767]', and 'Inactivity Time' with '0' and a range '[0 - 3600] sec.'. At the bottom right, there are two buttons: 'Save' and 'Cancel'. The 'Save' button is highlighted with a red rectangle.

<Network Settings on the Net Configuration Tool>



Note

If DHCP server is not supported, you have to assign IP address manually. Contact your network administrator for the assignable IP address.

When the network settings are configured, it will automatically search for printers connected to the network.

- Use a ping test to check the connection with the printer.



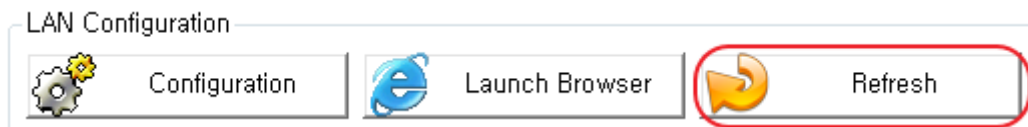
Note

Ping test command: ping <printer's IP address>

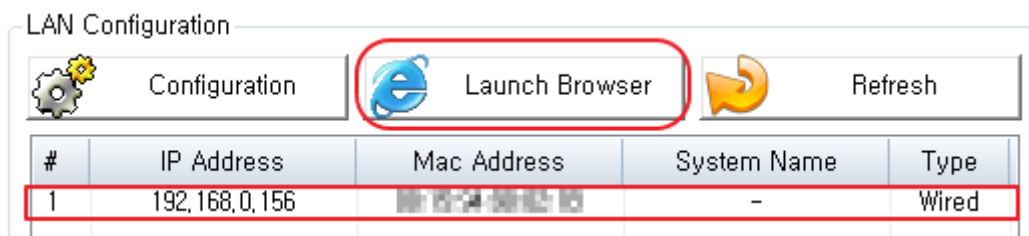
The screenshot shows a Windows command prompt window titled 'Administrator: C:\Windows\system32\cmd.exe'. The text in the window is as follows:
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Matthe> ping 192.168.1.1
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
The command 'ping 192.168.1.1' is circled in red.

5-1-2 Using the Launch Browser Button

1. Check to make sure the printer is switched on.
2. Click the Search/Refresh button to search for printers on the network



3. If the Security Alert message pops up, click either "**Unblock**" or "**Allow access**".
4. From the search results, click the MAC address (Media Access Control Address) or IP address (Internet Protocol Address) of the printer you want to configure.
5. Click the Launch Brower button.



Note

If the printer failed to get an IP address from DHCP Server, or invalid IP address was assigned by users, you cannot access the web page for network configuration from the printer.

6. Configure the LAN/WLAN network settings of the printer on the web browser.
7. Click Apply to save (apply) the changes.
8. Use a ping test to check the connection with the printer.



Note

Ping test command: ping <printer's IP address>

```
C:\> Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Matthe> ping 192.168.1.1


Pinging 192.168.1.1 with 32 bytes of data:

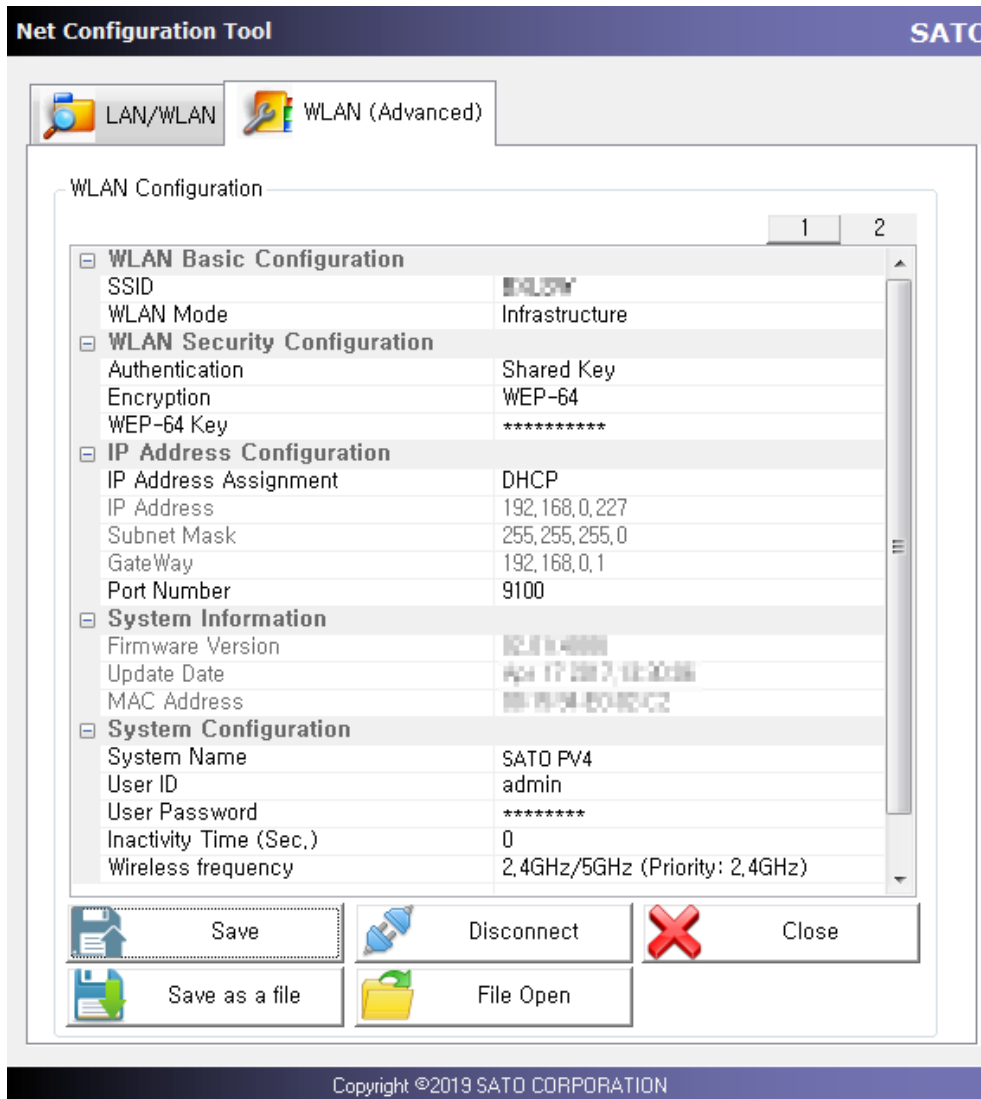
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

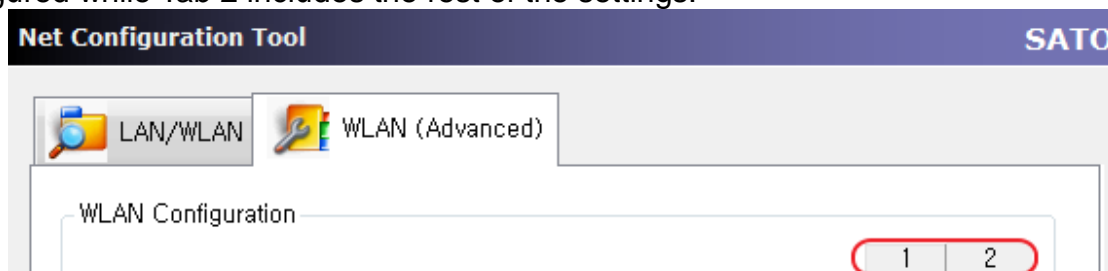

5-2 WLAN Advanced Configuration

The **WLAN (Advanced)** tab allows you to configure the printer's WLAN settings by connecting to the printer with a USB cable.

 **Note** The following models can configure WLAN settings via USB cable.
Models: PV3, PV4



The following WLAN settings can be configured. Tab 1 includes the settings frequently configured while Tab 2 includes the rest of the settings.



| WLAN Basic Configuration | Description |
|---------------------------------|---|
| SSID (Service Set Identifier) | A unique identifier that is included in all data header sent via WLAN. A maximum of 32 characters can be entered. |
| WLAN Mode | Choose one of the following WLAN connection methods: <ul style="list-style-type: none"> - Infrastructure - Ad-Hoc - Wi-Fi Direct - Soft AP(Access Point) ※ Certain models do not support Wi-Fi Direct and Soft AP. |
| Ad-Hoc Channel | Choose between 1 and 14. |
| Wi-Fi Direct Channel | Choose 1, 6 or 11. |
| Wi-Fi Direct PIN Code | Enter 4 or 8 digit number. |

| WLAN Security Configuration | Description |
|------------------------------------|--|
| Authentication | Choose one of the following authentication methods: <ul style="list-style-type: none"> - Open System - Shared Key - WPA-PSK - WPA2-PSK - WPA-EAP - WPA2-EAP |
| Encryption | Choose one of the following encryption methods: <ul style="list-style-type: none"> - None - WEP-64 - WEP-128 - TKIP - AES - AES + TKIP |
| WEP-64 Key | Enter 5-letter key or 10-digit hexadecimal number. ※ Only characters that can be entered on the ASCII code table are allowed. |
| WEP-128 Key | Enter 13-letter key or 26-digit hexadecimal number. ※ Only characters that can be entered on the ASCII code table are allowed. |
| PSK Key | Enter at least 8-letter key. ※ Only characters that can be entered on the ASCII code table are allowed. A maximum of 63 characters can be entered. |
| EAP Mode | Choose one of the following EAP Modes: <ul style="list-style-type: none"> - EAP-PEAP - EAP-TTLS - EAP-TLS - EAP-LEAP - EAP-FAST |
| EAP ID | Enter a maximum of 32 characters for EAP ID. |
| EAP Password | Enter a maximum of 32 characters for EAP password. |

| IP Address Configuration | | Description | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--------------------|-----------------------------------|--|-------------|-------------|---------|-------|------------------|----------|-----|-------------------|----|------|-----|----------|------------|-------------------|-----|-----------------------------------|
| IP Address Assignment | Assign the IP address manually or automatically through DHCP. If the network does not support DHCP, you have to assign IP address manually. | | | | | | | | | | | | | | | | | | | |
| IP Address | This information is required for LAN/WLAN communication and unique IP address must be entered. The communication port is set to 9100 by default. You have to change the port number via reference below table to use another port. | | | | | | | | | | | | | | | | | | | |
| Subnet mask | | | | | | | | | | | | | | | | | | | | |
| Gateway | | | | | | | | | | | | | | | | | | | | |
| Port Number | <table border="1"> <thead> <tr> <th>Port Number</th> <th>Description</th> <th>TCP/UDP</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>9100, 6101, 9300</td> <td>Printing</td> <td>TCP</td> <td>Used for printing</td> </tr> <tr> <td>80</td> <td>HTTP</td> <td>TCP</td> <td>Web page</td> </tr> <tr> <td>3337, 9000</td> <td>Device Management</td> <td>UDP</td> <td>PV3, PV4 Device Discovery/Setting</td> </tr> </tbody> </table> | | | | Port Number | Description | TCP/UDP | Notes | 9100, 6101, 9300 | Printing | TCP | Used for printing | 80 | HTTP | TCP | Web page | 3337, 9000 | Device Management | UDP | PV3, PV4 Device Discovery/Setting |
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| 80 | HTTP | TCP | Web page | | | | | | | | | | | | | | | | | |
| 3337, 9000 | Device Management | UDP | PV3, PV4 Device Discovery/Setting | | | | | | | | | | | | | | | | | |

| System Configuration | | Description | | | | | | | | | | | |
|-------------------------------------|--|--------------------|--|--|--------|-------------------------------|--------|-------------------------------|-------------------------------------|---|-------------------------------------|---|--|
| System Name | This string indicates the WLAN printer. A maximum of 64 characters can be entered. ※ This string may not be shown in certain printers. | | | | | | | | | | | | |
| User ID | User ID and Password are used to access a printer from a web browser. A maximum of 32 characters can be entered. | | | | | | | | | | | | |
| User Password | | | | | | | | | | | | | |
| Inactivity Time | If there is no communication between the host and printer during the set period of time, the connection will be closed automatically. The value can be set between 0 and 3600 seconds (1 hour) by a unit of second. If set to 0, this function is disabled. | | | | | | | | | | | | |
| Wireless Frequency | <table border="1"> <tbody> <tr> <td>2.4GHz</td> <td>2.4GHz is used for frequency.</td> </tr> <tr> <td>5.0GHz</td> <td>5.0GHz is used for frequency.</td> </tr> <tr> <td>2.4GHz/5.0GHz (Priority: 2.4GHz)</td> <td>Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.)</td> </tr> <tr> <td>2.4GHz/5.0GHz (Priority: 5.0GHz)</td> <td>Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.)</td> </tr> </tbody> </table> | | | | 2.4GHz | 2.4GHz is used for frequency. | 5.0GHz | 5.0GHz is used for frequency. | 2.4GHz/5.0GHz (Priority: 2.4GHz) | Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.) | 2.4GHz/5.0GHz (Priority: 5.0GHz) | Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.) | ※ You may not be able to choose frequency in certain printers. |
| 2.4GHz | 2.4GHz is used for frequency. | | | | | | | | | | | | |
| 5.0GHz | 5.0GHz is used for frequency. | | | | | | | | | | | | |
| 2.4GHz/5.0GHz (Priority: 2.4GHz) | Both 2.4GHz/5.0GHz are used. (2.4GHz has a higher priority.) | | | | | | | | | | | | |
| 2.4GHz/5.0GHz (Priority: 5.0GHz) | Both 2.4GHz/5.0GHz are used. (5.0GHz has a higher priority.) | | | | | | | | | | | | |

| Protocol | | Description | | | |
|-----------------|---|--------------------|--|--|--|
| HTTPS | HTTPS (Hypertext Transfer Protocol over Secure Socket Layer) is a security enhanced version of HTTP. You can configure WLAN settings using the HTTPS protocol on a web browser. | | | | |
| TELNET | Using the TELNET protocol, you can configure WLAN settings by TELNET interaction. | | | | |
| FTP | Using the FTP protocol, you can configure WLAN settings by editing the file related to WLAN information. | | | | |
| SNMP | MIB-2 (management information base-2) information can be read and written. | | | | |

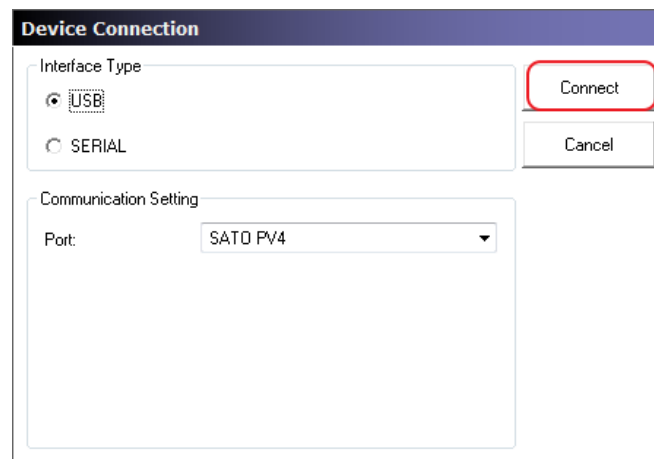
| SNMP | | Description |
|-----------------------------|--|--|
| SNMP Community Name (Read) | | This string indicates the name for trap reading. |
| SNMP Community Name (Write) | | This string indicates the name for trap writing. |
| SNMP Trap Community | | This string indicates the name for trap community. |
| SNMP Trap IP Address | | This string indicates IP address for trap Server. |

| Certificate Upload | | Description |
|---------------------------|--|--|
| Certificate Type | | Select the type of certificate to download to the printer. - CA (Certificate Authority) - Client Key - Client PEM |
| Certificate File | | Start downloading by selecting the type of certificate to download to the printer. |

| Certificate Name | | Description |
|-------------------------|--|---|
| CA | | A string representing the name of each downloaded certificate. Each certificate name is a file name used to download the certificate. |
| Client Key | | |
| Client PEM | | |

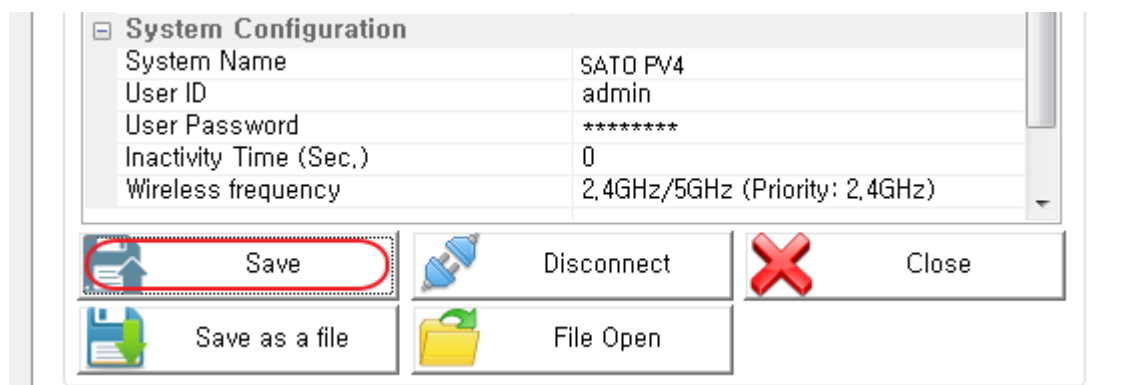
5-3 Configuration

1. Check to make sure the printer is switched on. Connect the host to the printer using a USB cable.
2. Click the Connect button in the WLAN (Advanced) tab.
3. Choose the Interface Type on the Device Connection window and click the Connect button.



<USB Interface>

4. Check the WLAN settings imported from the printer and make necessary changes according to your operating environment.
5. Click the Save button to apply the WLAN settings. The message will show up on the screen when the WLAN settings are changed successfully.



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In the following, product specifications and/or user manual content may be changed without prior notice.

Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer "OFF", before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer "OFF".

