

WLAN Connection Manual Mobile Printer

Rev. 1.00 SPP-R200II SPP-R300 SPP-R400

http://www.bixolon.com

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1. Manual Information

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

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. Precautions

- 2-1 The printer has to be within 100m(Out door) from AP(Access point) to connect WLAN. Although 35m is able to communicate in door, WLAN could be affected by environment to be shorten. STATUS LED of printer means WLAN signal strength. When green LED is lit, WLAN signal is enough. When red LED is lit, WLAN signal is not enough.
- 2-2 The maximum separating distance may be shortened if transmission obstacles, such as cement walls, are present
- 2-3 If a device (such as a microwave oven, wireless LAN, etc.) that uses the same frequency is present, transmission may be interrupted. Separate the printer and Bluetooth-enabled device from such interrupting devices by a distance of at least 5m.

3. Specifications

CATEGORIES	FEATURE	IMPLEMENTATION
	Wireless Standard	IEEE802.11b, IEEE802.11g
	Frequency Range	2.412~2.484GHz
	Channels	1 ~ 14 channels
	Max Transmit	802.11b: max. 18dBm(@11Mbps)
	Power	802.11g: max. 15dBm(@54Mbps)
Wireless	Receive	802.11b: min76dBm(@11Mbps)
Specification	Sensitivity	802.11g: min65dBm(@54Mbps)
	802.11b : 1M ~ 11 Mbps (TBD)	
	Data Rates	802.11g : 6M ~ 54 Mbps (TBD)
	Modulation	802.11b – BPSK, QPSK, CCK, DSSS
	Schemes	802.11g – BPSK, QPSK, 16-QAM, 64-QAM, OFDM
	Range	Up to 100m free space (Outdoor)
	Connection Modes	Infrastructure and Ad-hoc (IBSS)
		Open Connection
		Shared Key(WEP encryption 64 and 128 bit options)
		WPA-PSK, WPA2-PSK
Socurity		WPA1/2 Enterprise
Security		(EAP-TLS, EAP-TTLS, PEAP, LEAP, FAST)
		SSL2 / SSL3 / TLS1
	Internet	DHCP Client, HTTP, HTTPS, TELNET, FTP, ARP,
	Internet	ICMP, SNMP, IPv4, TCP, UDP
Operation		Infrastructure Ad bee
Mode		
Management		WLAN Configure tool, HTTP, HTTPS, TELNET, FTP

4. How to Connect

WLAN can be configured through the printer's WLAN interface. Likewise, WLAN can also be configured though the printer's Serial/USB interface.

(1) Connecting Printer

Serial / USB cable
 Connect Serial/USB cable to Printer, PC device.
 When Serial cable use, baudrate between Device and printer should be the same.

2) WLAN

Connect to the AP (Access Point) configured in Infrastructure mode in order to connect to the LAN/wireless network



Infrastructure mode

In order to configure the network between wireless terminals, connect to the terminal in Ad-hoc Mode.







Ad-hoc mode

(2) Checking Network Setting

Self-test



While the printer is turned off, turn on the printer while pressing the feed button. The printer setting values will then be printed.



4-1 Initial Wireless LAN Connection (Windows 2000)

Windows 2000 does not support wireless network stting.

When you use Windows 2000, you need to set the utility option as below after installing utility program related to the wireless lan driver that you use.

- Network mode : Ad-hoc
- SSID : BIXOLON_adhoc
- IP address : 192.168.1.2
- Subneet Mask : 255.255.255.0
- Authentication(Encrpition) : Open(None)

4-2 Initial Wireless LAN Connection (Windows XP)

When wireless utility program is installed, you have to set the wireless control values via the program, otherwise you have to terminate the program in order to do proper setting after following the steps 'Control Panel>>Administrative tools>> Services>>Wireless Zero Configuration>>Start'.



Recession, and select Properties.

2) Select and right click on the Wireless Network Connection, and then select Properties.

Setwork Connections				- D ×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> o	ools Adva <u>n</u> ced <u>H</u> elp			1
🕞 Back 👻 🕥 🕶 🏂 🔎	Search 💫 Folders 🛛 🎹 🗸			
Address 🔇 Network Connections				• 🔁 Go
	Name	Туре	Status	Device Na
Network Tasks 🛛 🛠	LAN or High-Speed Internet			
Create a new connection	Local Area Connection	LAN or High-Speed Inter	Connected	Intel(R) PF
Set up a home or small office network	T wreless Network Connection	LAN OF HIGH-Speed Inter	Not connected	K173 U3D
Change Windows Firewall settings				
See Also 🏾 🕆				
iii Network Troubleshooter				
Other Places 🕆				
🚱 Control Panel				
🧐 My Network Places				
A My Documents	▼ 1			•

3) Select Internet Protocol (TCP/IP), and then click Properties.

🚣 Wireless Network Connection Properties 🛛 📍 🗙
General Wireless Networks Advanced
Connect using:
BT73 USB Wireless LAN Card
This connection uses the following items:
🗹 📮 QoS Packet Scheduler 📃
Retwork Monitor Driver
Internet Protocol (TCP/IP)
Install
Install Ininstall Properties
Install Uninstall Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Install Uninstall Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. Image: Control Protocol That provides communication across diverse interconnected networks. Image: Show icon in notification area when connected Image: Notify me when this connection has limited or no connectivity

4) Set the IP settings as shown below, and then click OK.

Internet Protocol (TCP/IP) Properti	es	<u>?</u> ×
General		
You can get IP settings assigned auto this capability. Otherwise, you need to the appropriate IP settings.	matically if your network supports ask your network administrator fo	r
C Obtain an IP address automatica	lly	
Use the following IP address: —		I
<u>I</u> P address:	192.168.1.2	
S <u>u</u> bnet mask:	255 . 255 . 255 . 0	
Default gateway:		
C Obtain DNS server address auto	matically	
Use the following DNS server ad	ldresses:	
Preferred DNS server:		
Alternate DNS server:		
	Ad <u>v</u> anced.	
	OK Can	cel

5) Select the Wireless LAN tab, and then select "Use Windows to configure my wireless network settings."

🚣 Wireless Network Connection Properties	? X
General Wireless Networks Advanced	
Use Windows to configure my wireless network settings	
Available networks: To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.	
View Wireless Network	s
Preferred networks: Automatically connect to available networks in the order lister below: Move up Move dow	d
Add <u>Remove</u> Properties Learn about setting up wireless network Advanced	t
Close Ca	ncel

Click the [Advanced] button.

6) Select "Computer-to-computer (ad hoc) network only."

Advanced	<u>? ×</u>
Networks to access	
C Any available network (access point preferred)	
C Access point (infrastructure) networks only	
Computer-to-computer (ad hoc) networks only	
Automatically connect to non-preferred networks	
Close	•

7) Click the [Add] button.

🚣 Wireless Network Connection Properties	? ×
General Wireless Networks Advanced	
✓ Use Windows to configure my wireless network settings	
Available networks: To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.	
View Wireless Networks	
Automatically connect to available networks in the order listed below: Move.up Move.down	
Add <u>B</u> emove <u>Properties</u> Learn about <u>setting up wireless network</u> Ad <u>v</u> anced configuration.	
Close	el

8) Enter "BIXOLON_adhoc" as the Network name (SSID).
 Select the connection, even if the network is not broadcasted.
 Network Authentication: Select [Open]
 Data Encryption: Select [Disabled]

۷	Vireless network properties	×
	Association Authentication Connection	
	Network name (SSID): BIXOLON_adhoc	
	Wireless network key	
	This network requires a key for the following:	
	Network Authentication: Open	
	Data encryption:	
	Network key:	
	Confirm network key:	
	Key inde <u>y</u> (advanced):	
	The key is provided for me automatically	
	This is a computer-to-computer (ad hoc) network; wireless access points are not used	
	OK Cancel	

Click the [OK] button.

9) Click the "Connect" tab and check "Connect when this network is in range."

BIXOLON_adhoc properties	? ×
Association Authentication Connection	
Automatic connection Whenever this network is detected, Windows can connect to it automatically. Connect when this network is in range	
OK Car	ncel

10) Check whether the settings are updated as shown below, and then click [Close]

🚣 Wireless Network Connection Properties 🏾 🔋
General Wireless Networks Advanced
☑ Use <u>W</u> indows to configure my wireless network settings
Available networks: To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.
View Wireless Networks
Preferred networks: Automatically connect to available networks in the order listed below: BIXOLON_adhoc (Automatic) Move up Move down
Add Remove Properties Learn about setting up wireless network configuration. Adyanced
Close

When the printer is set to the default value (Adhoc mode, SSID: BIXOLON_adhoc), it will automatically connect.

4-3 Initial Wireless LAN Connection (Windows VISTA, Windows 7)

When wireless utility program is installed, you have to set the wireless control values via the program, otherwise you have to terminate the program in order to do proper setting after following the steps 'Control Panel>>Administrative tools>> Services>>Wireless Zero Configuration>>Start'.

1) Click the "Start>>Conftrol Panel".



2) Click the "View network status and tasks".



3) Click the "Change adapter settings".



Click the "wireless network adaptor's Properties".

4) Select Internet Protocol Version 4(TCP/IPv4), and then click Properties.

Wireless Network Connection Properties
Networking Sharing
Connect using:
RT73 USB Wireless LAN Card
Configure This connection uses the following items:
✓ Client for Microsoft Networks ✓ QoS Packet Scheduler ✓ Internet Sharing for Microsoft Networks ✓ Internet Protocol Version 6 (TCP/IPv6) ✓ Internet Protocol Version 4 (TCP/IPv4) ✓ Internet Protocol Version 2 (TCP/IPv4) ✓ Internet Protocol Version 4 (TCP/IPv4)
Install Uninstall Properties
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK Cancel

5) Set the IP settings as shown below, and then click OK.

Internet Protocol Version 4 (TCP/IPv4)	Properties ? X							
General								
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.								
Obtain an IP address automatically								
• Use the following IP address:								
IP address:	192.168.1.2							
Subnet mask: 255 . 255 . 255 . 0								
Default gateway:								
Obtain DNS server address autom	natically							
O Use the following DNS server add	resses:							
Preferred DNS server:								
<u>A</u> lternate DNS server:	Alternate DNS server:							
Validate settings upon exit								
OK Cancel								

6) Click the "Manage wireless networks".

🕞 🗣 🐕 « Network and Int	ernet Network and Sharing Center	✓ 4→ Searce	ch Control Panel	\$
Control Panel Home Manage wireless networks Change adapter settings Change advanced sharing settings	View your basic network informati	on and set up co vork 2 Access typ Connection k up, ad hoc, or VPN cor wired, dial-up, or VPN otions	Internet Internet Conne e: Internet ns: Internet Local Area Co	See full map ect or disconnec innection router or access n.
See also	Troubleshoot problems			
HomeGroup	Diagnose and repair network proble	ems, or get troublesho	oting information.	
Windows Firewall				

7) Click the "Add".

	x
Good → Image Wireless Networks ✓ 4y Search Manage Wireless Networks	٩
Manage wireless networks that use (Wireless Network Connection) Windows tries to connect to these networks in the order listed below.	
Add Adapter properties Profile types Network and Sharing Center	?
0 items	

8) Click the "Create an ad hoc network".



9) Click the "Next".



- 10) 'Network name' = BIXOLON_adhoc,
 - 'Security type' = Open,

'Save this network' check, and then click the "Next".

		1.41.4	- - x					
🕒 👌 Set Up an Ad Hoc Netwo	ork							
Give your network a name and choose security options								
Ne <u>t</u> work name:	BIXOLON_adhoc							
<u>S</u> ecurity type:	No authentication (Open) 🔹	Help me choose						
S <u>e</u> curity key:		<u>H</u> ide characters						
Save this network]							
		Next	Cancel					

11) Click the "Close".

-		
🕞 📩 Set	Up an Ad Hoc Network	_
The E	BIXOLON_adhoc network is ready to use	
This ne discon to con	etwork will appear in the list of wireless networks and will stay active until everyone nects from it. Give the network name and security key (if any) to people you want nect to this network.	
	Wireless network name: BIXOLON_adhoc	
To sha	re files, open <u>Network and Sharing Center</u> in Control Panel and turn on file sharing.	
Recom	nmended options:	
•	Turn on Internet connection sharing	
Share a	an Internet connection on an ad hoc network	
		<u>C</u> lose

12) After completing configuration, Bixolon_adhoc network will be created.

Coord at a wetwork a	nd Internet 🔸 Manage Wireless Netwo	orks 💌 🐓	Search Manage Wireless Networks					
Manage wireless networks that use (Wireless Network Connection) Windows tries to connect to these networks in the order listed below.								
Add Adapter properties	Profile types Network and Sharing	Center	0					
BIXOLON_adhoc	fy, and reorder (1) Security: Unsecured	Type: Any supported	▲ Manually connect					
1 item								

When the printer is set to the default value (Adhoc mode, SSID: BIXOLON_adhoc), it will automatically connect.

5. Configuration

WLAN Setting Values

Classification	ltem	Remarks	Input Range	
Home		WLAN setting status display		
	Printer Name	Printer Name	0~32 letters	
	Drintor Dort	TCP Raw port that the printer can	0~32767 integers	
	Finiter For	use	(except21,23,25,80,443,3318)	
System	Lloor Nomo	ID to use for ftp, telnet, web-	1.32 lottors	
Gystern	User Maine	server log-in		
	Llear Password	Password to use for ftp, telnet,	1.32 lottors	
		web-server log-in		
	Confirm Password	Confirm Password	1~32 letters	
		Set whether to use HTTPS		
	WebServer SSL	Http cannot be used when using	Enable/Disable	
Protocol		Https		
1 1010001	TELNET	Set whether to use Telnet	Enable/Disable	
	FTP	Set whether to use FTP	Enable/Disable	
	SNMP	Set whether to use SNMP	Enable/Disable	
	Network Mode	Wireless LAN operating mode	Infrastructure/Adhoc	
	Adboc Channel	Channel when creating Adhoc	1~14	
		network		
	SSID	ID of the AP to connect	1~32 letters	
Network	Inactivity Time	TCP connection hold time	0~3600 integer	
Network	IP Assignment	IP Assignment Method	DHCP/Manual	
	Method			
	IP Address	Printer IP	IP Address	
	Subnet Mask	Subnet mask	IP Address	
	Gateway	Default Gateway	IP Address	
	Authentication	Wireless LAN authentication	open, shared,	
	Addition	method	wpa1/2-psk, wpa1/2	
	Cryptograph	Wireless LAN encryption method	none, WEP64/128,TKIP, AES	
	EAP Mode	Authentication method	PEAP, TLS, LEAP, FAST, TLS	
Authentication		Key for WEP encryption method	WEP64 (5 Ascii, 10 Hex)	
	WEI KCy		WEP128 (13 Ascii, 26 Hex)	
	PSK Key	Key for PSK encryption method	1~64 letters	
	Authentication ID	ID for EAP Authentication	1~32 letters	
	Authentication PW	Password for EAP Authentication	1~32 letters	
Wizard		Setting wizard for each step		

5-1 Serial / USB Configuration

Install and excute NetConfiguration.exe involved in CD. (Start>>BIXOLON>>NetConfiguration.exe)

BIXOLON Net Configuration V2.0.1	×
Ethernet Configuration	
WLAN Configuration	
Serial/USB Configuration (For mobile WLAN)	
Exit	

Connect to Serial/USB cable, then click "Serial/USB Configuration".

BIXOLON Net Configuration V2.0.1	X
BIXOLON Net Configuration V2.0.1 System & Information Protocol BSS Information Network Auth ◀ ▶ System Printer Name Printer Port Num (0 ~ 32767) 9100 User ID User Password Printer Port Num (0 ~ 32767) 9100 User ID Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User ID Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User ID Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User ID Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User ID Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User Password Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) User Password Printer Port Num (0 ~ 32767) 9100 Printer Port Num (0 ~ 32767) Firmware Information Printer Port Num (0 ~ 32767) Printer Port Num (0 ~ 32767) Printer Port Num (0 ~ 32767) Update Date Printer Port Num (0 ~ 32767) Printer Port Num (0 ~ 32767) Printer Port Num (0 ~ 32767) Update Date Printer Port Num (0 ~ 32767) Printer Port Num (0 ~ 32767) Printer Port N	Communication SERIAL OUSB Port COM1 V Connect Disconnect Update
	Quit

Choose the "Port", then click "Connect".

If it is properly connected, "Succeeded to printer connection" will be shown. Then the configuration of the printer will be listed.

1) System & Information

Printer Name Printer Port Num (0 ~ 3 User ID User Password Confirm Password	2767)	SPP-R300 9100 admin ********** ***********	Port COM1
Firmware Version	:	Ver 0.1	
Mag Address	÷	CC-74-20-02-00-52	

Printer Name, Printer Port, User ID, User password can be set.

2) Protocol

BIXOLON Net Configuration V2.0.1		×
System & Information Protocol BSS Information Task State HTTPS Disable TELNET FTP Disable SNMP	on Network Auth () C P Disable () Disable ()	SERIAL C USB ort COM1 C Connect
Community Name (Read): public		Update
Community Name (Write): private		
Trap IP Address 0 . 0	. 0 . 0	
		Quit

You can set HTTPS, TELNET, FTP and SNMP protocol as able or disable. SNMP can be also set.

3) BSS Information

BIX	OLON	Net Configuratio	on V2.0.1				X
S	ystem	& Information P	rotocol BSS Infor	mation Netv	vork Au	ith 💶 🕨	© SERIAL © USB
	No	SSID	BSSID	MODE	RSSI	Sec	Port COM1 -
							Connect Disconnect
							Update
	<					>	
				Get BS	S inform	nation	
							Quit

When you click "Get BSS information", close AP information will be listed.



otocol BSS Information Net	work Authentication Certificate	Communication
Network Mode		SERIAL OUSB
🔿 Infra Network		
Adhoc	Ad Hoc Channel 6	Connect
IP Assignment Method		Disconnect
C Automatic Allocation(DH	CP)	
Manual Allocation		Update
Network Setting		
SSID	BIXOLON_adhoc	
Inactivity Time (0~3600)	0 Sec (Default: 0)	
IP Address	192 . 168 . 1 . 1	
Subnet Mask	255 . 255 . 255 . 0	
Gateway	192 . 168 . 1 . 2	

You can set Infrastructure/Adhoc, SSID, IP, Subnetmask and Gateway.

By setting "Inactivity Time", you can disconnect the printer to host device when the data is not transferred while 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.)

5) Authentication

BIXOLON Net Configuration	n V2.0.1		
BIXOLON Net Configuration Protocol BSS Information Authentication © Open System © WPA2-PSK Cryptograph © NONE © AES	n V2.0.1 n Network Authen C Shared Key C WPA C WEP64/128 C AES + TKIP	tication Certificate C WPA-PSK C WPA2 C TKIP	Communication • SERIAL • USB Port COM1 • Connect Disconnect Update
			Quit

You can set Authentication and Cryptograph.

If it is Infrastructure mode, you need to set Cryptograph with AP for proper connection. Then if it is Adhoc mode, you need to set Cryptograph with host device.

6) Certificate

BIXOLON Net Config	uration V2.0.1		\mathbf{X}
Protocol BSS Info Certificate © CA	rmation Network Auther	C Client PEM	Communication Communication COM1 Connect Disconnect
Open file			Update
		File Upload	Quit

Printer can save the certificate file for EAP-TLS certification.

When you use TLS certification, CA certificate(PEM, Client Key(KEY/PEM), and client certificate(PEM)

file should be uploaded. The key size of certificate recommaned is 512. If the size of certificate is more than 512, it will take some time for EAP certification.

5-2 WLAN Configuration

To set the WLAN, PC and Printer should be in a same network.

(AP, PC, Printer network mode, SSID, encryption, authentication has to be set the same way)

¢	BIXOLON Net Configuration V2.0.1	×
	Ethernet Configuration	
	WLAN Configuration	
	Serial/USB Configuration (For mobile WLAN)	
	Exit	

When you press the Search button, the mobile printer connected to the network will be shown in the list.

XOLO	N Net Configuratio	n V2.0.1					
No	Mac Address	IP Address	Subnet	Gateway	Port	Version	Search
							Setting
							Configuration(Web
							BSS Info
							Certificate upload
							Exit

BIXO	.ON Net Configuratio	n V2.0.1					×
No 1	Mac Address cc:7a:30:02:00:53	IP Address 192.168.1.1	Subnet 255.255.255.0	Gateway 192.168.1.2	Port 9100	Version 1.0	Search
							Setting
							Configuration(Web)
							BSS Info
							Certificate upload
							[
							Exit

Select the printer from the list and press the [Setting] button, and then the following window for changing the WLAN settings will pop up.

W	LAN Configuration									×
	Network Setting									
	IP Address :	19	2		168		1		1	
	Subnet Mask :	25	5		255		255		0	
	Gateway :	19	2		168		1		2	
	Local Port :			9:	100					
	Inactivity time :		_		0 9	ec	c (De	fau	lt:O)
		ΓD	нс	Ρ	Mode	Э				
	Device Baudrate :	192	00	_		_		_	•	
	Fimware Version :	N/A								
		_								
	Save					C	Cance	el		
			-							_

Enter the proper IP Address, Subnet Mask, and Gateway of the currently used network, and then click the [Save] button to save the settings.

(Device Baudrate setting, which is used for other models, is not necessary for mobile printer.)

OL	ON Net Configuratio	n V2.0.1					
No	Mac Address	IP Address	Subnet	Gateway	Port	Version	Search
1	cc:7a:30:02:00:53	192.168.1.1	255.255.255.0	192.168.1.2	9100	1.0	
							Setting
							Configuration(Wel
							BSS Info
							Certificate uploa
							Exit

Select the printer from the list and press the [Configuration(web)] button, and then the Login window will pop up.

Enter the ID and Password set in the printer, and click OK.

(Default settings are ID: "admin", Password: "password")

6 BIXOLON Configur	ation -		
😋 🕤 👻 🗟 http://1	92, 168, 1, 1/	💌 🗲 🗙 Google	P -
🚖 🎄 🌈 BIXOLON (Configuration		🟠 - *
BIXOLON Configuration			~
Home System Protocol Network Authentication	Sign in with your		
Weard Web Ste		ID LOGIN	
		Copyright BIXOLON. All Rights Reserved	

When you log in, you will see the web browser for changing the WLAN settings as shown below.

BIXOLON Config	juration -				
) 💽 🗸 🙆 http:	//192,168,1,1/		🖌 🗲 🗙 G	oogle	P
🔅 🌈 BIXOLO	N Configuration				- 🟠
IXOLON Configuration					
Home System	System Information				
	Printer Name	Unknown			
	Printer Port Num	9100			
	Protocol Information				
	HTTPS	Disable	FTP	Disable	
	TELNET	Disable	SNMP	Disable	
	Network Information	BIXOLON_adhoc			
	IP Assignment Method	Manual Allocation			
	IP ADDRESS	192.168.1.	1		
	Authentication Information				
	Authentication	Open System	EAP Mode	NONE	
	Cryptograph	NONE			
	Сору	right BIXOLON. All Rights	Reserved		1
	Сору	nght BLXOLON. All Rights	Keserved		

You can search for the information of the wireless network by pressing the BSS Info button.

BIXOL	.ON Net Configuratio	n V2.0.1					E
No	Mac Address	IP Address	Subnet	Gateway	Port	Version	Search
	CC.78.30.02.00.33	192.100.1.1	233,233,233,0	192.100.1.2	9100	1.0	Setting
							Configuration(Web)
							BSS Info
							Certificate upload
							Exit
1							

When you press the BSS Info button, information about the SSID, BSSID, Network Model, and Encryption information of the network in close range will be shown as follows.

BSS Ir	nformation				
No	SSID	BSSID	Mode	RSSI	Security
1	BIXOLON_adhoc10	0E-74-30-02-14-37	Ad hoc	-4	No
2	Unicorn	C8-3A-35-0A-AA-00	Infrastruct	-81	No
3	bixolon3	00-18-E7-D2-D3-05	Infrastruct	-91	WPA
4	BIXOLON_infra	00-1D-73-3A-A2-D3	Infrastruct	-64	No
5	anygate_test	00-02-A8-83-48-30	Infrastruct	-66	WPA
6	iptime_test	00-08-9F-BD-36-B4	Infrastruct	-45	No
7	BIXOLON	00-13-5F-F9-4D-90	Infrastruct	-77	WEP64/WEP
8	bixolon4	1C-BD-B9-B2-5B-16	Infrastruct	-85	WPA
9	portthru	42-70-17-0C-70-C5	Ad hoc	-69	No
10	posfw1	00-0E-2E-DC-00-08	Infrastruct	-67	WEP64/WEP
11	NETGEAR	00-1B-2F-69-C1-10	Infrastruct	-91	No
		Ge	et BSS informati	on	Cancel

5-3 Web browser

Mobile printer supports the security enhanced https protocol as well as http. When SSL of the webserver of printer is enabled, you must enter the address with "https" instead of "http" in the address bar to connect to the web-server.

(Automatic connection will be made when connecting with the configuration tool.)

When SSL of the web-server is enabled,

* a security warning window will pop when you try to connect with https.

Accept the certificate provided by the printer in the warning window and continue.

When SSL of the web-server is disabled,

🕘 http://192, 168, 1, 1/

enter the IP address of the printer in the address bar, and the following login window will pop up.

Enter the ID and Password set for the printer, and then click [OK] (Default setting values are ID: "admin", Password: "password".)

🖉 BIXOLON Configur	ation -		
😋 🕤 👻 🕘 http://1	92, 168, 1, 1/	🖌 🎸 🗙 Google	<mark>،</mark> م
🚖 🎄 🏾 🏉 BIXOLON (Configuration		🙆 - [×]
BIXOLON Configuration			<u>_</u>
Home System Protocol Network Authentication Wizard Web Ste	Sign in with your	D Password LOGIN	
			2

When the ID and Password match the ones registered in the printer, the following window will be opened.

🔅 🌈 BIXOL	ON Configuration				6
XOLON					
Configuration					
Home					
	System Information				
	Printer Name	Unknown			
Network	Printer Port Num	9100			
Authentication	Protocol Information				
Web Site	HTTPS	Disable	FTP	Disable	
	IELNEI	Disable	SNMP	Disable	
	Network Information				
	SSID	BIXOLON_adhoc			
	IP Assignment Method	Manual Allocation			
	IP ADDRESS	192.168.1.	l .		
	Authentication Information				
	Authentication	Open System	EAP Mode	NONE	
	Cryptograph	NONE			
	1				
	Copy	right BIXOLON. All Rights I	Reserved		

WLAN configuration is possible.

Home, System, Protocol, Network (WLAN), and Authentication can be configured from this window, and the wizard mode is also provided for easier step by step configuration.

<u>5-4 FTP</u>

The configuration files will be downloaded and uploaded to and from the current path. In the following case, the current path is "C:\Documents and Settings".

Enter "ftp Printer IP", and enter the ID and Password set for the printer.



Enter the "Is" command to check the file name to download.



Enter "config" to download the configuration file.



You can see that the "config" file is created in the corresponding directory.

Enter "put config" command if you want to upload the configuration file in the corresponding directory for the printer.



The contents of the config file are as follows.

The contents of the coning me are as follows.
 ** Caution!!! ** Do not change the order or contents of the menu. ** Only need to change the settings, please. ** Do not input port 21, 23, 80, 161, 162, 3318 3319, 3337 and 9000 to Printer Port. ** This number is ignored.
 [1] System 1. Printer Name:[SPP-R300] 2. Printer Port Num:[9100] 3. User ID:[admin] 4. User Password:[password]
[2] Protocol 1. Task State 1) HTTPS:[0] 2) TELNET:[1] 3) FTP:[1] 4) SNMP:[0] 2. SNMP 1) Community Name (Read):[public] 2) Community Name (Write):[private] 3) Trap IP Address:[0.0.0] 4) Trap Community:[public]
 [3] Network 1. Network Mode 1) Infra Network(0) / Adhoc(1):[1] 2) Adhoc Channel:[1] 2. SSID:[BIXOLON_adhoc] 3. Inactivity Time:[10] 4. IP Assignment Method:[0] 5. IP Address:[192.168.1.1] 6. SubnetMask:[255.255.255.0] 7. Gateway:[192.168.1.2]
 [4] Authentication 1. Authentication:[0] 2. Cryptograph:[0] 3. EAP Mode:[0] 4. WEP Key:[] 5. PSK Key:[] 6. Authentification ID:[] 7. Authentification Password:[]

* The format of the configuration file is "Configuration item: [Setting value]".

Uploading a file that doesn't have the format shown above will not change the setting values.

5-5 Telnet

Enter "telnet Printer IP".

C:₩WINDOWS₩system3	2₩cmd.exe	_ _ ×
C:#Documents and Settings	telnet 192.168.1.1	

Enter the ID and Password set for the printer.

🛤 192.168.1.1	_ _ ×
🖗 Wireless Configuration SetUp 🖗	
[User ID]: _	

The screen related to the network configuration will then be displayed.

You can select the menu to configure and edit the settings.

🛤 192.168.1.1	- 🗆 🗙
■ WLAN Configuration Main Menu	_
LØJSYSTEM [1]Durstans J	
13 JHULDENT LEATION	
L5 JEXIL	
Lucer.	
	-

6. SNMP

SNMP supports MIB-2

When mobile printer booting, Trap provides Coldstart Trap message transmission function to trap server. To know about SNMP, SNMP should be enable and SNMP server and community name should be same.

You can use the web browser, telnet, or ftp to enable the SMTP.

(Refer to Configuration)

Using Web Browser

Connect to the printer web-server. (Enter the IP address of the printer in the address bar.) Select LAN or WLAN configuration, and then select the Protocol tab.

🖉 BIXOLON Configu	iration -				
😋 🕤 👻 🕘 http://	'192, 168, 1, 1/Protocol, cgi	i Google	P -		
🚖 🏘 🌈 BIXOLON	Configuration		🐴 - »		
BIXOLON Configuration					
Home	Function	Set-up			
System	HTTPS	Disable 💌			
Protocol	TELNET	Disable 🖌			
Authentication	FTP	Disable 💌			
Wizard Web Site	SNMP	Enable Community Name (Read) : public Community Name (Write) : private Trap IP Address : 192 168 1 2 Trap Community : public			
	-	SUBMIT			
Copyright BIXOLON. All Rights Reserved					
			M		

7. Ethernet/WLAN 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, 2003 Server, VISTA, 2008 Server, 7.

1) Install the Windows printer driver.

[Note]

-The Windows driver is included in the CD, and you can download the latest version from our home page.

(www.bixolon.com)

2) Click the Start button, and then select "Printers and Faxes."



3) Select and right click on the corresponding model, and then select "Properties."

Open
Set as Default Printer Printing Preferences
Pause Printing
Sharing Use Printer Offline
Create Shortcut Delete Rename
Properties

4) Select the "Ports" tab from the "Properties" window.

💩 BIXOLON SPP-R300 Proper	ties ? 🔀			
Device Settings Add	<mark>ditional C</mark> ommands About			
General Sharing P	orts Advanced Security			
BIXOLON SPP-R300				
Location:				
Comment:				
Model: BIXOLON SPP-R300				
Features				
Color: No	Paper available:			
Double-sided: No	80 x 297 mm[R300]			
Staple: No				
Speed: Unknown				
Maximum resolution: 203 dpi	~			
Printing F	Preferences) Print <u>T</u> est Page			
OK Cancel Apply				

5) Click "Add Port..."

🞍 BIXOLON SPP-R300 Properties 🛛 🔹 🔀				
Device Set General	ttings Sharing DLON SPP-R30 owing port(s). D	Additional Ports 10 ocuments w	Commands Advanced	About Security free
Port LPT2: LPT3: COM2: COM3: COM4: COM5: COM6:	Description Printer Port Printer Port Serial Port Serial Port Serial Port Serial Port Serial Port	P	inter	
Add Port Delete Port Configure Port				
		OK	Cancel	Apply

6) Select "Standard TCP/IP Port" and click "New Port..."

Printer Ports	<u>? ×</u>
<u>Available port types:</u>	
Local Port	
Standard TCP/IP Port	
New Port Type	New Port Cancel

7) Click the [Next] button in the "Add Standard TCP/IP Printer Port Wizard" window.



8) Enter the IP address assigned to the printer in the "Printer Name or IP Address" field in the "Add Port" pop up window, and then click the [Next] button.

Add Standard TCP/IP Printer Port	Wizard	×
Add Port For which device do you want	to add a port?	
Enter the Printer Name or IP ac	ldress, and a port name for the desired device.	
Printer Name or IP <u>A</u> ddress:	192.168.192.168	
Port Name:	IP_192.168.192.168	
	< <u>B</u> ack <u>N</u> ext>	Cancel

[Note]

- Enter the same IP address entered during the installation of the interface card. Only enter the "Printer name or IP address." 9) Click the [Next] button in the "Additional Port Information Required" window.

Add Standard TCP/IP Printer Port Wizard
Additional Port Information Required The device could not be identified.
 The device is not found on the network. Be sure that: The device is turned on. The network is connected. The device is properly configured. The address on the previous page is correct. If you think the address is not correct, click Back to return to the previous page. Then correct the address and perform another search on the network. If you are sure the address is correct, select the device type below.
Device Type
Standard Generic Network Caro
C <u>C</u> ustom <u>Settings</u>
< <u>B</u> ack <u>N</u> ext > Cancel

[Note]

- Click the [Next] button to proceed without any changes.
- 10) Click the [Finish] button at the "Completing the Add Standard TCP/IP Printer Port Wizard" window.



11) Click the "Cancel" button in the Printer Port window, closing the window.

Printer Ports		<u>?</u> ×
<u>Available port types:</u>		
Local Port		
Standard TCP/IP Port		
New Port Type	New Port	Cancel

12) Click the "Configure Port..." button in the "Properties" window.

💩 BIXOLON SPP-R300	Properties		? 🗙
Device Settings	Additional Comman	ids Ab	out
General Sharing	Ports Ad	vanced Se	curity
BIXOLON SPP-R300 Print to the following port(s). Documents will print to the first free			
checked port.			
Port	Description	Printer	
IP_192.168.1.1	Standard TCP/IP Port		
☐ COM48:	Local Port		
	Local Port		
Ш СОМ66:	Local Port		
COM135:	Local Port		
СОМ10:	Local Port		<u> </u>
<			>
Add Port	Delete Port	Configure Por	t
☑ Enable bidirectional su ☐ Enable printer pooling	ipport		
	Close	Cancel	<u>A</u> pply

13) Enter the same number as the local port number set during the installation of the interface card in the "Port Number" field in the Raw Settings.

Configure Standard TCP/IP Port Monitor				
Port Settings				
Port Name:	IP_192.168.1.1			
Printer Name or IP <u>A</u> ddress:	192.168.1.1			
Protocol	O⊥PR			
Raw Settings Port <u>N</u> umber: 9100				
LPR Settings				
LPR Byte Counting Enabled				
<u>SNMP Status Enabled</u>				
Community Name: public				
SNMP <u>D</u> evice Index: 1				
	OK Cancel			

[Note]

- Do not change any other items except the RAW Settings.

14) Click [OK] when you finish entering the required values, and then click the [Apply] button.

Configure Standard TCP/IP Port Monitor 🛛 🛛 🛛 🤶				
Port Settings				
Port Name:	IP_192.168.1.1			
Printer Name or IP <u>A</u> ddress:	192.168.1.1			
Protocol <u> Raw</u>	O⊥PR			
Raw Settings Port <u>N</u> umber: 9	100			
LPR Settings				
LPR Byte Counting Ena	LPR Byte Counting Enabled			
SNMP Status Enabled				
Community Name: p	ublic			
SNMP Device Index: 1				
	OK Cancel			

15) Select the "General" tab in the Properties window, and then select the "Print Test Page" to check the printing status.

💩 BIXOLON	SPP-R300 Prop	erties		? 🗙
Device S	Settings /	Additional C	ommands	About
General	Sharing	Ports	Advanced	Security
	BIXOLON SPP-R30	00		
Location:				
<u>C</u> omment:				
M <u>o</u> del:	BIXOLON SPP-R30	10		
- Features-				
Color: No		Paper a	vailable:	
Double-si	ded: No	80 x 29	17 mm[R300]	~
Staple: N	0			
Speed: U	nknown			
Maximum	resolution: 203 dpi			~
Printing Preferences) Print <u>I</u> est Page				
OK Cancel Apply				

8. Facroty Reset

This function changes the WLAN settings of the printer to the initial factory settings.

Method

To set Factory reset mode, printer should be in Hexa Dump mode.

1) Hex dump mode

After turning off the power, open the cover.



Turn on the printer while holding down the feed button like self test mode. Then close the cover to enter hexa dump mode. The below message is printed.

Hexadecimal Dump

To change WLAN setting values factory default Press POWER button three times!!

To terminate hexadecimal dump Press FEED button three times!!

Push the Power button 3tiems, WLAN setting will be reset as a factory default and below message is printed.

```
    *** WLAN Factory Reset Completed! ***
    *** Please Reboot Printer ***
    < Online Hex Dump Completed >
```

After turning off the printer and on, WLAN setting will be factory default.

Factory Reset Values

Printer Name	Printer Name	*Printer model (SPP-R200II, R300, R400)		
	Printer Port Num	9100		
	User ID	admin		
	User Password	password		
	FTP	Disable		
	TELNET	Disable		
	HTTPS	Disable		
Protocol		Disable		
FIOLOCOI		Community Name(Read) : "public"		
	SNMP	Community Name(Write) : "private"		
		Trap IP Address : 192.168.1.2		
		Trap Community : "public"		
Authoptication	Open System	None		
Aumentication	Shared key	None		
	Network Mode	Ad-hoc, channel 1		
	SSID	BIXOLON_adhoc		
Network	Inactivity time	10		
	IP Assignment Method	manual		
		IP : 192.168.1.1		
	IP, Subnet, Gateway	Subnet : 255.255.255.0		
		Gateway : 192.168.1.2		

9. Troubleshooting

When printing doesn't work

Check network setting

Check the wireless network setting of the AP and the printer.

(Refer to Configuration for checking/changing the printer settings)

- SSID

Check whether the SSID of the printer matches with the one in AP (or wireless terminal)

802.11 mode
 Check whether AP supports 802.11b or 802.11g.
 BIXOLON printer supports 802.11b/g, and 802.11a is not supported.

Network Mode Check the network mode of the printer. Network mode must be set to "Infrastructure" to connect to AP and "Ad-hoc" to connect between wireless terminals.

- IP Address

Check the band of the IP Address.

Check whether the band 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.

Authentication / Encryption Check the authentication/encryption setting status. Check whether the settings of the printer and the AP (wireless terminals) are the same.

PING Check

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

- Turn off the printer.
- Select "Run" from the Windows Start menu, and then enter "cmd".
- Enter "ARP –d" and delete ARP table.
- Enter "ping {printer IP}".
- ARP –d, ping {IP address}



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

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.

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 = Oms, Maximum = Oms, Average = Oms	
C:₩Documents and Settings>_	
	-

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