

Access Point SX-AP-4800AN Setup Guide

Thank you for purchasing the Access Point SX-AP-4800AN.

SX-AP-4800AN is the Access Point that supports IEEE 802.11a/b/g/n (up to 300Mbps data rate can be achieved) and can be used as a base station to connect your wireless client devices each other. In addition to high performance wireless connectivity, enterprise-level wireless security and power supply via PoE (Power over Ethernet) are supported.

This Setup Guide explains how to setup and use SX-AP-4800AN in a wireless network.



Package Contents

Following items are bundled with SX-AP-4800AN.

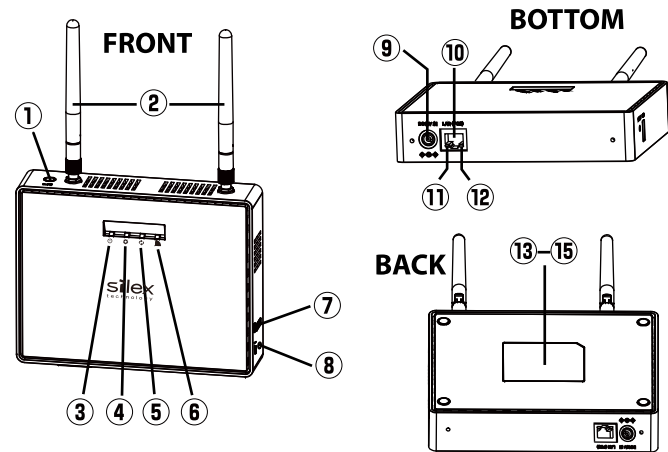
- ☐ SX-AP-4800AN
- ☐ AC adaptor
- ☐ Warranty booklet
- ☐ GPL license notice
- ☐ Wireless LAN antenna (2pcs)
- ☐ Rubber feet (4pcs)
- ☐ Setup Guide (this document)

Necessary Items

Following items are required.

- ☐ Network Cable
- ☐ PC to use for setup

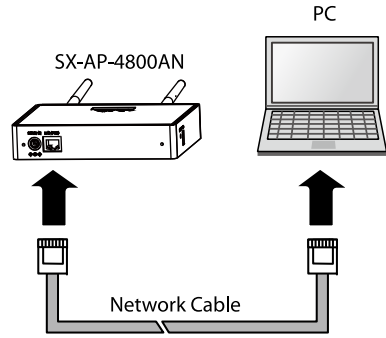
Parts and Function



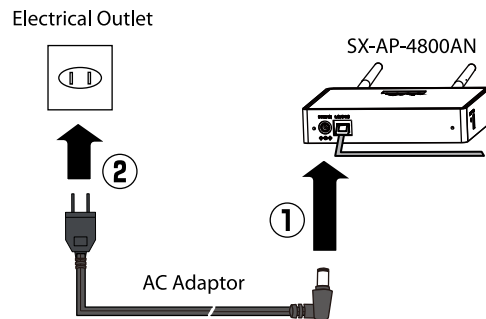
① Smart Wireless Setup Switch (SET2)	When pressed together with the one on your wireless device while SX-AP-4800AN is active, wireless configuration can be performed. (Smart Wireless Setup)
② Wireless LAN Antenna	Wireless antenna for wireless communication
③ Power LED(Green/Orange)	BLINK(Orange): Powering on ON(Green): Ready OFF: Powered off
④ Mode LED(Green/Orange/Red)	BLINK(Orange): Running in Configuration Mode BLINK(Green): Smart Wireless Setup is in progress ON(Green): Smart Wireless Setup is completed (* Turns off in 3 mins) ON(Red): Smart Wireless Setup failed (* Turns off in 3 mins)
⑤ Band LED(Green/Red)	ON(Green): Communicating in 2.4GHz band ON(Red): Communicating in 5GHz band OFF: Wireless communication disabled
⑥ WSTAT LED(Green/Red)	BLINK(Green): Wireless data communication is active BLINK(Red): DFS is running (Communication is disabled then)
⑦ USB Port	Connect a USB cable (A-type connector).
⑧ Push Switch (SET1)	Start in Configuration Mode . Press and hold this switch for more than 3 sec while SX-AP-4800AN is active. Factory default configuration: Press and hold this switch for more than 5 sec while turning on SX-AP-4800AN.
⑨ AC Connector	Connect an AC adaptor.
⑩ Network Port	Connect a network cable.
⑪ Link LED (Green)	Turns on when connected to a wired LAN.
⑫ Status LED(Yellow)	Blinks while communicating in a wired LAN.
⑬ Label (containing default values)	SSID (default value) Key Authentic Encryption PIN Code Password Login password (default value) IP Address (default value)
⑭ E/A	Ethernet Address
⑮ S/N	Serial Number

Step1 Start in Configuration Mode

- 1 Connect SX-AP-4800AN and the PC (to use for setup) using a network cable.

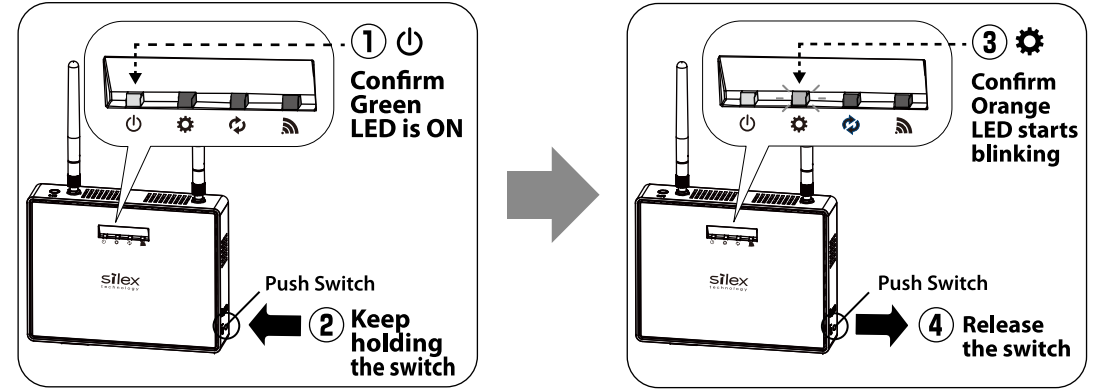


- 2 Connect the AC adaptor to SX-AP-4800AN, and the AC adaptor's plug to an electrical outlet.



* If wireless LAN is enabled on your PC, please disable it.

- 3 When the front Power LED (⏻) starts blinking in Orange and then turns on to Green, press and hold the push switch with a fine tipped object such as a pen or pencil. Release the push switch when Mode LED (⚙️) starts blinking in Orange (It may take 3sec until blinking). SX-AP-4800AN will start running in the **Configuration Mode** and you will be ready to configure SX-AP-4800AN from the PC.



Step2 Setup

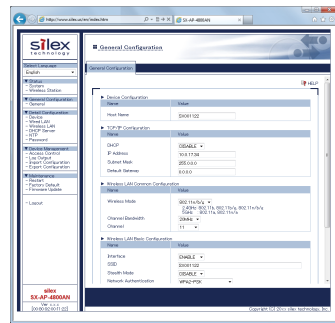
- 1 Check that SX-AP-4800AN can communicate with the PC.

How to check on Windows 7

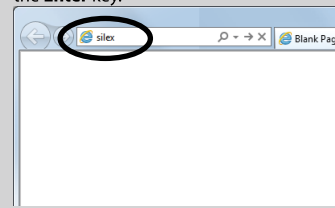
* See the taskbar icon (📶) to check wired LAN is enabled on the PC.

2. Confirm that a wireless LAN is disabled on the PC.

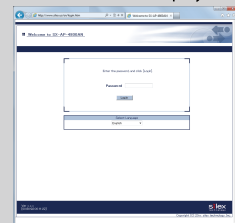
- 2 Start a Web browser (Internet Explorer, Safari, etc) on the PC you are using for the setup. The Web page of SX-AP-4800AN is displayed.



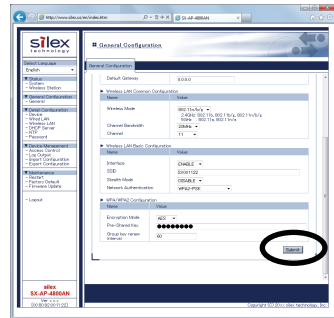
* If the Web page is not displayed, enter "silex" in the address bar of the Web browser and press the **Enter** key.



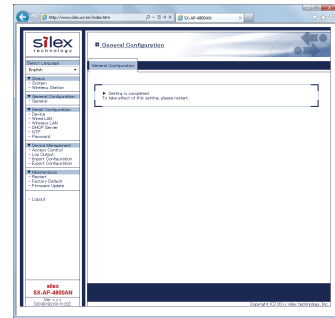
* If a password is set to SX-AP-4800AN, a password entry screen is displayed. Enter the password and click **Login**.
* This screen is not displayed at the initial setup. Go on to **3** then.



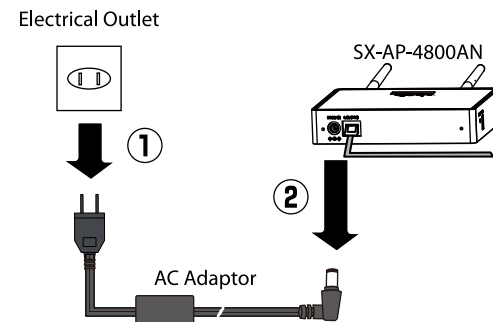
- 3 In the Web page, configure the necessary settings. For details on each setting, see **Basic Configuration** on the backside. When finished, click **Submit**.



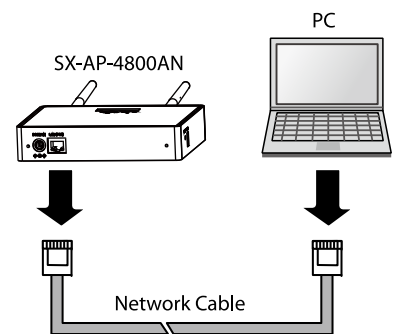
- 4 If "**Setting is completed**" is displayed, the configuration is finished.



- 5 Unplug the AC plug from the outlet and then AC adaptor from SX-AP-4800AN.

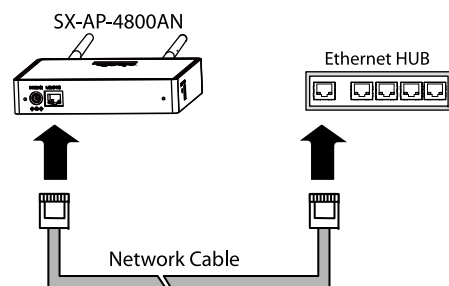


- 6 Unplug the network cable from SX-AP-4800AN and PC.

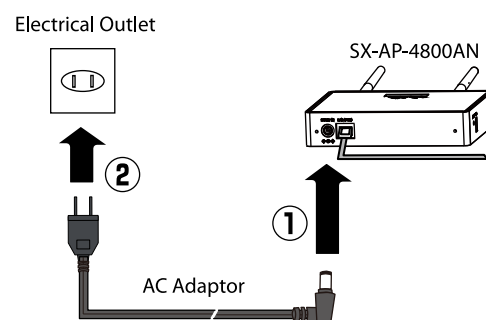


Step3 Connect to Network

- 1 Connect SX-AP-4800AN to the Ethernet Hub using a network cable.



- 2 Connect the AC adaptor to SX-AP-4800AN and the AC adaptor's plug to the electrical outlet.



Basic Configuration

General	Host Name	Set a Host Name for SX-AP-4800AN. The host name must be a unique name that is not used by other devices.
	DHCP	Enable/Disable the DHCP protocol.To assign an IP address using DHCP, the DHCP server must be running in your subnetnetwork.
	IP Address	Set an IP address. If DHCP is enabled, IP address obtained from it will be applied.
	Subnet Mask	Set a subnet mask. If DHCP is enabled, the subnet mask obtained from it will be applied.
	Default Gateway	Set a gateway address. If "0.0.0.0" is set, this setting is disabled. If DHCP is enabled, the default gateway obtained from it will be applied.
	Wireless Mode	Select a wireless mode from 802.11b, 802.11b/g, 802.11n/b/g, 802.11a, 802.11n/a.
	Channel Bandwidth	Set the frequency bandwidth.This setting is necessary when using 802.11n/b/g or 802.11n/a. In a wireless network, bandwidth is divided up so that more devices can communicate at a time. Each section of bandwidth is called a ' channel ' and each channel has a bandwidth of 20MHz. If 40MHz is selected, larger and faster data transmission can be realized.
	Channel	Set the wireless channel. A channel is the divided frequency bandwidth. In a wireless network, bandwidth is divided up so that more devices can communicate at a time.
	Ext Channel	When the channel bandwidth is set to 40MHz, extended channel is displayed.
	Interface	Enable/Disable each wireless interface.
	SSID	Set an SSID. The SSID is an ID that logically distinguishes one wireless LAN network from another. Wireless devices must have the same SSID to communicate with each other.
	Stealth Mode	Enable/Disable the Stealth Mode.
	Network Authentication	Select a network authentication mode used to communicate with your wireless device. To ensure a secure network, it is recommended to use WPA/WPA2. For IEEE 802.11n, only AES can be used. Open (Open System) : Allows all access without authentication. For encryption mode, WEP can be used. Shared : (Pre-Shared Key) Uses WEP key for encryption and allows access only from those with the same WEP key. For encryption mode, WEP can be used. WPA-PSK : Uses PSK for network authentication. For encryption mode, TKIP/AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless device using a Pre-Shared key. WEP key setting is not used for this mode. WPA2-PSK : Uses PSK for network authentication. For encryption mode, AES can be selected. The encryption key will be generated by communicating with your wireless device using a Pre-Shared key. WEP key setting is not used for this mode. WPA/WPA2-PSK : Uses both WPA-PSK and WPA2-PSK authentication. 802.1x : Uses 802.1x user authentication and WEP encryption. WPA-Enterprise : Uses 802.1x user authentication and TKIP/AES/AUTO encryption. WPA2-Enterprise : Uses 802.1x user authentication and AES encryption. WPA/WPA2-Enterprise : Uses 802.1xuser authentication and AES encryption. * When running in 802.11n, Shared and 802.1x authentication modes and WEP and TKIP encryption modes cannot be used.
	WEP	Enable/Disable the WEP encryption.
	Key Index	Set the number of the WEP key to use (1~4). This setting must be the same as that of your wireless device.
	WEP Key	Set the WEP key for WEP encryption. This setting must be the same as that of your wireless device. A WEP key must be entered using hexadecimal or alphanumeric characters. In most cases, alphanumeric characters are used. Enter 5 characters if the key size is 64bit or 13 characters if the key size is 128bit. For Hexadecimal, a value consists of numbers (0-9) and English letters (A-F). Enter a 10-digit value if the key size is 64bit or a 26-digit value if the key size is 128bit.
Encryption Mode	Set the encryption mode to use for WPA-PSK, WPA2-PSK, WPA/WPA2-PSK, WPA-Enterprise, WPA2-Enterprise, WPA/WPA2-Enterprise. When the network authentication mode is WPA2-PSK, WPA/WPA2-PSK, WPA2-Enterprise or WPA/WPA2-Enterprise, TKIP and AUTO cannot be used.	
Pre-Shared Key	Set the Pre-Shared Key. This setting is necessary when TKIP/AES is used for encryption mode. The Pre-Shared Key is a keyword used to create the encryption key. It is also referred to as ' network key ' or ' password '. In most case, alphanumeric characters are used (8-63 characters). For Hexadecimal, a value consists of numbers (0-9) and English letters (A-F) (64 characters). * This setting must be the same as that of your wireless device.	
Group key renew interval	Set the refresh interval for Pre-Shared Key (min). If 0 is set, this setting is disabled.	
Server IP	Set the IP Address of the RADIUS server. This can be set only when the network authentication is 802.1x, WPA-Enterprise, WPA2-Enterprise or WPA/WPA2-Enterprise.	
Port Number	Set the port number used to communicate with the RADIUS server.	
Shared Secret	Set the secret key used to communicate with the RADIUS server.	

SX-AP-4800AN Specifications

Operating environment	Temperature : +0 C to +40 C , +32 F to +104 F Humidity : 20% to 80%RH (Non-condensing)	
Storage environment	Temperature : -10 C to +50 C , +14 F to +122 F Humidity : 20% to 90%RH (Non-condensing)	
EMI	VCCI Class B FCC Part15 SubPart B Class B EN55022, EN301489-1/-17 ICES-003 Class B	
CPU	32bit RISC CPU	
Memory	RAM : 64MByte FlashROM : 16MByte	
Wired network interface	10BASE-T/100BASE-TX/1000BASE-T (Auto-sensing) : 1 port Auto MDI/MDIX Power over Ethernet(PoE)	
Wireless network interface	IEEE802.11a/b/g/n (For channels you can use, check the regulations in your country.)	
Antenna	Non-directional antenna	
USB interface	USB2.0 Hi-Speed port (A type) : 1 port	
Push Switch	2	For Smart Wireless Setup : 1 For initialization : 1
LED	Front	Power LED (Green/Orange) Mode LED (Green/Orange/Red) Band LED (Green/Red) WSTAT LED (Green/Red)
	Network port	Status LED (Yellow) Link LED(Green)
Max number of devices that can be connected	32 devices	
Multi SSID	4	

PoE Power Supply

SX-AP-4800AN can receive electrical power from the IEEE802.3af compliant power supply unit over a network cable. For details, please see the operating manual that came with your power supply devices.

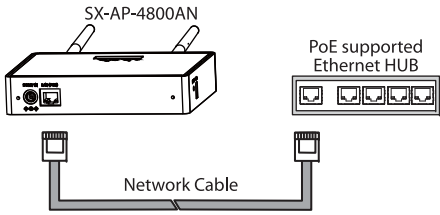
What is PoE (Power over Ethernet) ?

PoE is a technology to supply electrical power over Ethernet cable (Category 5 or above).
This technology allows you to connect your PoE supported devices to the Ethernet even in a location without electrical outlet nearby.

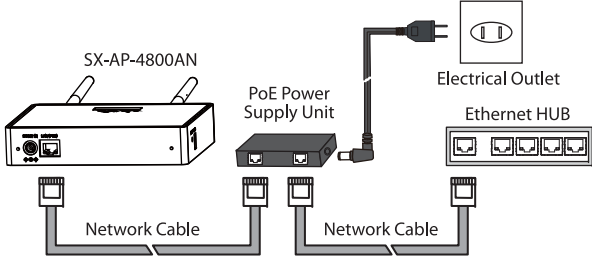
* When receiving power over Ethernet, you do not have to use the AC adaptor that came with SX-AP-4800AN.

* Please remember that power is supplied from the AC adaptor if it is connected to SX-AP-4800AN.


Sample connection1: When using a PoE supported HUB



Sample connection2: When using a PoE power supply unit



FCC / IC Notice



Federal Communication Interference Statement (United States only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This radio module and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

Canadian Department of Communications Industry Canada Notice (Canada only)

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC Rules, Part 15 / Industry Canadian

This device complies with Part 15 of FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
This device may not cause harmful interference, and
This device must accept any interference, including interference that may cause undesired operation of this device.

Le présent appareil est conforme aux la partie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
l'appareil ne doit pas produire de brouillage, et
l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated with the radiator at least 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement no contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition dans le Supplément C à OET65 et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le dispositif rayonnant et le corps (à l'exception des extrémités : mains, poignets, pieds et chevilles).

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter 4908B-SXPCEAN has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio 4908B-SXPCEAN a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.


For product available in the USA/Canada market, only channels 1~11 can be operated. Selection of other channels is not possible. If this device is to be operated in the 5.15~5.35GHz frequency range, it is restricted to indoor environment only.

Antenna information: Sleeve Antenna: 1.5dBi (2.4GHz), 2.1dBi (5GHz)
Frequency Tolerance: +/-20ppm

WARNING:

The FCC / Industry Canada regulations provide that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE Notice



How to download user's guide and utilities:

The user's guide and utilities can be downloaded from our website :

USA:

http://www.silexamerica.com/

Europe:

http://www.silexeurope.com/

Please go to the support section after you access the website.

User Registration

After finishing the configuration for SX-AP-4800AN, please go on to the user registration on our home page. User registration is highly recommended to assure you better support for your product. For user registration, please visit our website at:

Global Site	http://www.silex.jp/register/
USA Site	http://www.silexamerica.com/us/regist/index.html
Europe Site	https://www.silexeurope.com/euro/regist/index.html

* For user registration, a serial number is required.

Customer Support Center

Silex will support you by e-mail and phone to solve your problems.

Customer Support Center information

	Phone	E-mail
USA	+1-801-748-1199	support@silexamerica.com
Europe	+49-(0)2151-65009-0	support@silexeurope.com

Tips on Troubleshooting

This section explains the troubleshooting procedures to resolve possible problems you may experience while installing SX-AP-4800AN. Please also refer to the FAQ and the latest information about SX-AP-4800AN at the Silex website.

Q: An error message is displayed when accessing the Web page.

A1: Please confirm SX-AP-4800AN is running in **Configuration Mode**.
If SX-AP-4800AN is running in **Configuration Mode**, Mode LED () should blink in Orange.
For how to start in **Configuration Mode**, refer to **Step1 Start in Configuration Mode**.

A2: Please check the IP address is properly configured to the PC you are using for the configuration.
If you are using Mac OS and Safari, it may be necessary to disable **Web Proxy (HTTP)** at Mac OS network settings, depending on the Safari version.

How to check on Windows 7:
See the tasktray icon to check the wired LAN is enabled on the PC.

A3: Please confirm the wireless LAN setting is disabled on the PC you use for configuration.

A4: While SX-AP-4800AN is running in **Configuration Mode**, restart the PC you used for the configuration and access the Web page again.

* Please contact our customer support in case your problem is not listed here, or cannot be resolved by the given information.