Industrial Access Point

AP-800AX

User's Manual

silex technology

WA107720XD

Index

1. Introduction

Thank you for purchasing the industrial Access Point "AP-800AX".
This manual provides information on how to configure and use AP-800AX.
Please read the **1-2. Safety Instructions** carefully before using AP-800AX.

1-1. Introduction

1-1-1. About the Notation

This manual uses the following symbols to indicate specific information for operating AP-800AX.
Be sure to carefully read before using AP-800AX.


TIP : This symbol indicates important information that needs to be observed when operating AP-800AX. Make sure to read this information for safe and proper use.


Note : This symbol indicates information that is useful when using AP-800AX. If you experience difficulties operating AP-800AX, please refer to this information first.

1-1-2. Disclaimers

- The unauthorized transfer or copying of the content of this manual, in whole or in part, without prior written consent is expressly prohibited by law.
- The content of this manual is subject to change without notice.
- This manual was prepared to accurately match the content of each OS, but the actual information shown on the computer monitor may differ from the content of this manual due to future OS version upgrades, modifications, and other changes.
- Although every effort was made to prepare this manual with the utmost accuracy, Silex Technology will not be held liable for any damages as a result of errors, setting examples, or other content.

1-1-3. Trademarks

- AMC Manager®, AMC Cloud® is a registered trademark of Silex Technology, Inc.
- Windows and Microsoft Edge are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Wi-Fi Protected Setup, WPA (Wi-Fi Protected Access), WPA2, WPA3 are trademarks or registered trademarks of Wi-Fi Alliance.
- Google Chrome is a trademark of Google LLC.
- Other brand or product names are registered trademarks or trademarks of their respective owners.

1-1-4. Glossary

The following explains the technical terms used in this manual.

Terms	Explanation
DFS	This is a function that complies with IEEE 802.11h. In order to avoid radio interference with C-band radar, which is mainly used for meteorological observation, AP-800AX detects radar waves, stops radio transmission when it is detected, and moves to another channel. When radar waves are detected, communication of 5GHz band will be disabled during the time regulated for each country.
Multipath	A phenomenon in which a transmitted radio wave is multiplexed through multiple routes due to reflection, etc. In an environment where radio waves are often reflected, wireless communication may not be stable due to the effects of multipath.
Configuration mode	The configuration mode can be turned on by pressing the RESET switch for a specified period of time while AP-800AX is in operation. Web configuration interface of AP-800AX can be accessed without changing the wired LAN network settings of the PC.
AMC Mesh	This is a function of Silex Technology's product that connects Access Points. By connecting multiple Access Points, the distance of wireless communication can be expanded. The connection destination can be changed or fixed depending on the wireless LAN status.
Transmission rate	Amount of data to be sent per second. Also known as data rate. The transmission rate is selected from the data rate specified for each wireless mode when the data is sent over wireless LAN. For IEEE 802.11n/ac/ax, the transmission rate is defined by MCS (Modulation and Coding Scheme). High transmission rate: A large amount of data can be sent at once but data loss is more likely to occur. Low transmission rate: A limited amount of data can be sent at once but the number of data loss is reduced. Since a transmission rate is automatically changed depending on whether radio waves are received or not, an unintended transmission rate may be selected. By using the rate survey function of AP-800AX to perform a communication test on each MCS, you can select an appropriate transmission rate.

1-2. Safety Instructions

This page provides the safety instructions for safe use of AP-800AX.
To ensure safe and proper use, please read the following information carefully before using AP-800AX. The safety instructions include important information on safe handling of AP-800AX and on general safety issues.

< Indication of the warning >

	Danger	"Danger" indicates the existence of an imminent hazard that could result in death or serious injury if the safety instruction is not observed.
	Warning	"Warning" indicates the existence of a hazard that could result in death or serious injury if the safety instruction is not observed.
	Caution	"Caution" indicates the existence of a hazard that could result in serious injury or material damage if the safety instruction is not observed.

< Indication of the symbol >

	This symbol indicates the danger, warning and caution. (Example:  "Danger of the electric shock")
	This symbol indicates the prohibited actions. (Example:  "Disassembly is prohibited")
	This symbol indicates the necessary actions. (Example:  "Remove the AC plug from an outlet")

Product installation

⚠ Danger

* Do not use AP-800AX in areas where flammable or corrosive gases are generated. Doing so may cause fire, electric shock, or malfunction.

⚠ Warning

* Do not place any objects on top of AP-800AX. It may cause fire, electrical shock or malfunction.
* Do not cover or wrap AP-800AX with cloth such as blankets or tablecloths. Accumulated heat may cause fire, accident, or malfunction.

⚠ Caution

* When installing AP-800AX on a wall or in a high place, make sure that it is securely fixed so that it will not fall due to the weight of the cables.

* Do not use or store AP-800AX under the following conditions. It may cause malfunction.
  - Locations subject to vibration or shock
  - Shaky, uneven or tilted surfaces
  - Locations exposed to direct sunlight
  - Humid or dusty places
  - Wet places (kitchen, bathroom, etc.)
  - Near a heater or stove
  - Locations subject to extreme changes in temperature
  - Near strong electromagnetic sources (magnet, radio, wireless device, etc.)

Safe handling

⚠ Danger

* When using the device connected to AP-800AX, strictly observe the warnings and cautions indicated by the manufacturer of that device, and use it in the correct procedure. Failure to do so may result in fire, electric shock, accident or malfunction.
* If your network device has a ground wire, it must be used to prevent electrocution and power surges. Do not connect it to a gas pipe, water pipe, telephone line ground, lightning rod, etc. Doing so may cause malfunction or accident.

* Do not use AP-800AX with the equipment that directly affects the human life (medical equipment such as the life support equipment and operating room equipment) and with the system that has a significant impact on the human safety and the maintenance of public functions (nuclear equipment, aerospace equipment, etc.).

⚠ Caution

* AP-800AX may become hot when it is in operation. Be careful when moving or disconnecting AP-800AX.

Measures for abnormal operations

⚠ Warning

* In the following cases, turn off the connected devices and unplug the AC plug of AP-800AX from a power outlet. If the connected device is a PoE device, unplug the LAN cable. Failure to follow these instructions may cause fire or an electrical shock.
  - When AP-800AX emits a strange smell, smoke or sound or becomes too hot to touch.
  - When foreign objects (metal, liquid, etc.) gets into AP-800AX.
  - When AP-800AX is dropped or the case is broken or cracked.

Ventilation

⚠ Warning

* Do not cover up the vents on AP-800AX. The temperature inside may rise and cause fire or malfunction.

Disassembly and modification are prohibited

⚠ Danger

* Do not disassemble or modify AP-800AX. Failure to do so may cause fire, electric shock, or malfunction.
* Do not disassemble or modify the AC adapter (optionally available). Doing so may cause fire, electric shock, or malfunction.

Notes on using the power supply, power cord, and AC adapter

⚠ Danger

* Be sure to use the specified power supply voltage. Using the power supply voltage other than the specified one may cause fire or electric shock.

⚠ Warning

* Keep the cords and cables away from children. It may cause an electrical shock or serious injury.

* Do not move AP-800AX as long as the AC adapter is connected to. Doing so may damage the AC adapter cable, resulting in fire or electric shock.
* When using the AC adapter, do not put anything on it or cover it. Also, do not use the AC adapter on a heat-retaining or moisture-retaining object (carpet, sponge, cardboard, styrofoam, etc.). There is a risk of overheating, which may cause fire, accident or malfunction.
* Do not roll up or wrap the AC cord. It may cause fire or an electrical shock.
* Do not plug or unplug the AC adapter or any other cables with wet hands. It may cause an electrical shock or malfunction.

⚠ Caution

* Verify all cables are connected properly and safely before using AP-800AX.

* When AP-800AX will not be used for an extended time, disconnect and unplug the power cable. If the connected device is a PoE device, unplug the LAN cable.
* When removing AP-800AX, be sure to unplug the connected device and AP-800AX from the outlet.

* Be sure to use the AC adapter specified by Silex Technology. Failure to do so may cause malfunction.
* Do not place any objects on the cable or bend, twist, or pull it excessively.
* Keep cables and power cords away from the place where people walk by. It may cause injury if they trip over it.
* When unplugging AP-800AX, do not pull on the cord. The cord may break resulting in fire and/or electric shock. Pull only on the plug.

1-3. Notes on Usage

1-3-1. Use of Radio Waves

When using AP-800AX near the medical devices

The radio wave interference may adversely affect the operation of medical devices such as pacemakers. When using AP-800AX near the medical devices that require a high level of safety and reliability, check with the manufacturer or distributor of each medical device about the effects of radio waves.

When using AP-800AX near the following devices

- Microwave oven, industrial/scientific equipment, etc.

The above devices use the same radio frequency band as the wireless LAN. Using AP-800AX near the above devices may cause radio wave interference. As the result, communication may be lost, the speed may slow down, or the operation of the above devices may be adversely affected.
Before using AP-800AX, make sure that no radio wave interference occurs. For example, if there is a microwave oven near AP-800AX, check the proper communication beforehand while actually using the microwave oven.

Do not use AP-800AX near a cellular phone, TV or Radio

A cellular phone, TV and radio use a different radio band than our products. Generally, if they are used near AP-800AX, it will not cause any problems. However, when they approximate AP-800AX, sound or image noise may occur.

If there is reinforced concrete/metal between wireless devices, they may not connect

AP-800AX can connect through wood or glass, but may have troubles connecting through reinforced concrete/metal.

AP-800AX complies with the certification of conformance to technical standards. Please pay attention to the following points:

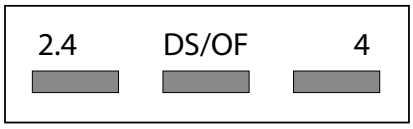
- Please do not disassemble or remodel the product. Such action is prohibited by law.
- Please do not remove the certificate label. Using the product without a label is prohibited.

Wireless devices using 2.4GHz band

The same frequency band of AP-800AX is used for a microwave, industry, science, medical equipment and licensed in room or low power (non-licensed) radio stations.

- Before you use AP-800AX, check that it does not interfere with other devices.
- If interference occurs, stop using AP-800AX or change the wireless band. Please consider to create a wall between these devices to avoid interference. Contact us for possible solution.

* The meaning of the symbols in the bottom of the unit:



2.4	: Wireless devices using 2.4GHz frequency band
DS/OF	: DS-SS or OFDM is used as modulation.
4	: The range of interference is equal to or lower than 40m.
	: All bands can be used to avoid interference.

Notes on using 5GHz band

- Use of 5.2GHz band (W52) and 5.3GHz band (W53) outdoors is prohibited by the radio regulations. Use W56 or W58 channels then.

TIP

- The channels which can actually be used differ by country.

1-3-2. Notes on Security

Because a wireless LAN uses electromagnetic signals instead of a LAN cable to establish communication with network devices, it has the advantage of allowing devices to connect to the network easily. However, a disadvantage of this is that within a certain range, the electromagnetic signals can pass through barriers such as walls, and if security countermeasures are not implemented in some way, problems such as the following may occur.

- Communication is intercepted by a third party
- Unauthorized access to the network
- Leakage of personal information (ID and Card information)
- Spoofing and the falsification of intercepted data
- System crashes and data corruption

Nowadays, wireless LAN cards or access points are equipped with security measures that address such security problems, so that you can enable security-related settings for wireless LAN products in order to reduce the likelihood of problems occurring.
We recommend that you make yourself fully acquainted with the possible implications of what might happen if you use a wireless product without enabling security features, and that you configure security-related settings and use wireless products at your own responsibility.

1-3-3. Standards Compliance

Notice to US Customers

Contains FCC ID : N6C-AP800AX

FCC Rules, Part 15 §15.19(a)(3)
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Rules Part 15
FCC CAUTION
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Rules Part 15 Subpart B §15.105(a)
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio
frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Rules Part 15 Subpart E §15.407(c)
Data transmission is always initiated by software, which is the passed down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets are initiated by the MAC. These are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet.
Therefore, the transmitter will be on only while one of the aforementioned packets is being transmitted. In other words, this device automatically discontinue transmission in case of either absence of information to transmit or operational failure.

FCC Rules Part 15 Subpart E §15.407(g)
Frequency Tolerance: +/-20 ppm

FCC Rules Part 15 Subpart C §15.247(g) / Subpart E
This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Rules Part 15 Subpart C §15.247 and Subpart E
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

Notice to Canadian Customers

This device complies with ISED's licence-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) le dispositif ne doit pas produire de brouillage préjudiciable, et
(2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:
The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:
Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé.
Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

ANTENNA USAGE

The antenna-to-user separation distance must be greater than 15 mm.
To ensure compliance with the Radio Frequency (RF) exposure guidelines, this device must be used at least 15 mm away from your body or nearby persons. Failure to observe this warning could result in the RF exposure levels exceeding the applicable limits.

La distance de séparation antenne-utilisateur doit être supérieure à 15 mm.
Pour garantir la conformité aux directives d'exposition aux radiofréquences (RF), cet appareil doit être utilisé à au moins 15 mm de votre corps ou des personnes à proximité. Le non-respect de cet avertissement peut entraîner des niveaux d'exposition RF dépassant les limites applicables.

Caution

The device for operation in the band 5150-5250 MHz is only for indoor use.

Les appareils fonctionnant dans la bande 5150-5250 MHz sont réservés à une utilisation en intérieur uniquement.

Notice to Chinese Customers

产品名称：接入点
生产商：希来凯思技术有限公司
工厂地址：邮编 619-0237 京都府精華町光台二丁目 3 番地 1

1.
【2.4GHz】
使用频率：2.4 - 2.4835 GHz
■等效全向辐射功率 (EIRP)：
天线增益 < 10dBi 时：≤ 100 mW 或≤ 20 dBm
■最大功率谱密度：
天线增益 < 10dBi 时：≤ 10 dBm / MHz(EIRP)
■载频容限：20 ppm
■带外发射功率 (在 2.4-2.4835GHz 频段以外)
≤ -80 dBm / Hz (EIRP)
■杂散发射 (辐射) 功率 (对应载波 ±2.5 倍信道带宽以外)：
≤ -36 dBm / 100 kHz (30 - 1000 MHz)
≤ -33 dBm / 100 kHz (2.4 - 2.4835 GHz)
≤ -40 dBm / 1 MHz (3.4 - 3.53 GHz)
≤ -40 dBm / 1 MHz (5.725 - 5.85 GHz)
≤ -30 dBm / 1 MHz (其它 1 - 12.75 GHz)

【W52、W53】
■工作频率范围：5150 - 5350 MHz
■等效全向辐射功率 (EIRP)：≤ 200mW
■最大功率谱密度：≤ 10 dBm / MHz
■载频容限：20 ppm
■带外发射功率 (EIRP)：≤ -80 dBm / Hz
■杂散发射 (辐射) 功率：
≤ -36 dBm / 100 kHz (30 - 1000 MHz)
≤ -54 dBm / 100 kHz (48.5 -72.5MHz,76-118MHz,167-223MHz,470-798MHz)
≤ -40 dBm / 1 MHz (2400 - 2483.5 MHz)
≤ -33 dBm / 100 KHz (5150 - 5350 MHz)
≤ -40 dBm / 1MHz (5470 - 5850 MHz)

【W58】
■工作频率范围：5725 - 5850 MHz
■发射功率：≤ 500 mW 和 ≤ 27 dBm
■等效全向辐射功率 (EIRP)：≤ 2 W 和 ≤ 33 dBm
■最大功率谱密度：≤ 13 dBm / MHz 和 ≤ 19 dBm / MHz (EIRP)
■载频容限：20 ppm
■带外发射功率 (EIRP)：≤ -80 dBm / Hz (≤ 5725MHz 或≥ 5850MHz)
■杂散发射 (辐射) 功率：≤ -36 dBm / 100 kHz (30 - 1000 MHz)
≤ -40 dBm / 1 MHz (2400 - 2483.5 MHz)
≤ -40 dBm / 1 MHz (3400 - 3530 MHz)
≤ -33 dBm / 100 kHz (5725 - 5850 MHz)
(注：对应载波 2.5 倍信道带宽以外)
≤ -30 dBm / 1 MHz (其它 1 - 40 GHz)

2. 不得擅自更改发射频率、加大发射功率 (包括额外加装射频功率放大器)，不得擅自外接天线或改用其它发射天线；

3. 使用时不得对各种合法的无线电通信业务产生有害干扰；一旦发现有干扰现象时，应立即停止使用，并采取措施消除干扰后方可继续使用；

4. 必须忍受各种无线电业务的干扰或工业、科学及医疗应用设备的辐射干扰；

5. 不得在飞机和机场附近使用。

6. 本设备包含型号核准代码 (分别) 为 : CMIIT ID: 24J998HR5438 的无线电发射模块。

【W58 微功率短距离无线电发射设备】

（一）符合“微功率短距离无线电发射设备目录和技术要求”的具体条款和使用场景，采用的天线类型和性能，控制、调整及开关等使用方法；

（二）不得擅自改变使用场景或使用条件、扩大发射频率范围、加大发射功率（包括额外加装射频功率放大器），不得擅自更改发射天线；

（三）不得对其他合法的无线电台（站）产生有害干扰，也不得提出免受有害干扰保护；

（四）应当承受辐射射频能量的工业、科学及医疗（ISM）应用设备的干扰或其他合法的无线电台（站）干扰；

（五）如对其他合法的无线电台（站）产生有害干扰时，应立即停止使用，并采取措施消除干扰后方可继续使用；

（六）在航空器内和依据法律法规、国家有关规定、标准划设的射电天文台、气象雷达站、卫星地球站（含测控、测距、接收、导航站）等军民用无线电台（站）、机场等的电磁环境保护区域内使用微功率设备，应当遵守电磁环境保护及相关行业主管部门的规定；

（七）禁止在以机场跑道中心点为圆心、半径 5000 米的区域内使用各类模型遥控器；

（八）微功率设备使用时温度和电压的环境条件。

2. About AP-800AX

2-1. Features

AP-800AX has the following features:

- Stable communication in multipath environment

  It is effective to limit the transmission rate to use according to the environment in order to perform stable communication on the wireless LAN. The rate survey function performs communication tests at each transmission rate. Based on that result, users can select the appropriate transmission rate for stable communication.

- AMC Mesh function

  Since the AMC Mesh function is supported, wide coverage network can be achieved by connecting multiple AMC Mesh compatible devices.

  AP-800AX can operate using a different wireless interface from the one to which the wireless station device is connected. This allows users to connect using both 2.4GHz and 5GHz bands, and maintain a connection even when radio waves of 5GHz band cannot be transmitted due to DFS.

  Note

  - For details on the AMC Mesh compatible products, please visit the Silex Technology's website.

- Giving unlimited locations for your non-wireless devices

  As you do not have to care wiring conditions in order to establish your environment, choices of location greatly expand in any kinds of scenes such as office, factory, school, commercial facility, etc. where frequent and efficient layout change is required.

- Operates as a wireless Access Point that can connect up to 100 devices in the 2.4GHz band and up to 100 devices in the 5GHz band (total 200 wireless station devices).

- Multi SSID

  As Multi SSID is supported, up to 8 wireless interfaces can be used (4 for 2.4GHz and 4 for 5GHz).

- Wall-mountable

  AP-800AX can be mounted on a wall using Bracket Type XI (optionally available) or a DIN rail mounting plate (commercially-available).

- PoE (Power over Ethernet)

  As PoE+ is supported, AP-800AX can receive power by connecting a LAN cable to a PoE+ power supply device such as a PoE HUB or PoE injector, without using an AC adapter. (*PoE is a technology that supplies power via a LAN cable.)

- Easy configuration using the Web page

  It is possible to access the AP-800AX's Web page easily without changing the settings on your PC.

- VLAN (Virtual Local Area Network)

  VLAN feature allows to establish virtual network groups.

- IEEE 802.11a/b/g/n/ac/ax

  AP-800AX supports the IEEE 802.11a/b/g/n/ac/ax wireless standard.
  Since IEEE 802.11ax is supported, the maximum speed of 5GHz is 1.2Gbps (theoretical value). The maximum speed of 2.4GHz is 583Mbps (theoretical value).
  The following authentication and encryption methods are supported.

- Authentication Method / Encryption Mode:

Authentication Method	Encryption Mode
Open	(None)
Enhanced Open	AES
Open/Enhanced Open	(None)/AES
WPA2-Personal	AES/AUTO
WPA3-Personal	AES
WPA/WPA2-Personal	AES/AUTO
WPA2/WPA3-Personal	AES
WPA2-Enterprise	AES/AUTO
WPA3-Enterprise	AES
WPA/WPA2-Enterprise	AES/AUTO
WPA2/WPA3-Enterprise	AES
WPA3-Enterprise 192-bit security	AES

Note
- For WPA3-Personal, AES-128-GCMP(00-0F-AC:8), AES-256-GCMP(00-0F-AC:9), AES-256-CCMP(00-0F-AC:10) are supported.
- For WPA3-Enterprise 192-bit security, AES-256-GCMP(00-0F-AC:9) is supported.

- AMC Manager® (non-free program) / AMC Manager® (free program)
  Integrated device management utility "AMC Manager® Free" (free version) and "AMC Manager®" (paid version) are supported. The following features are available.
  - Remote control and monitoring
  - Bulk configuration and version update
  - Visualization of the AMC Mesh network using Mesh Monitor (option utility)

Note

- For details on AMC Manager® and Mesh Monitor, please visit the Silex Technology's website.

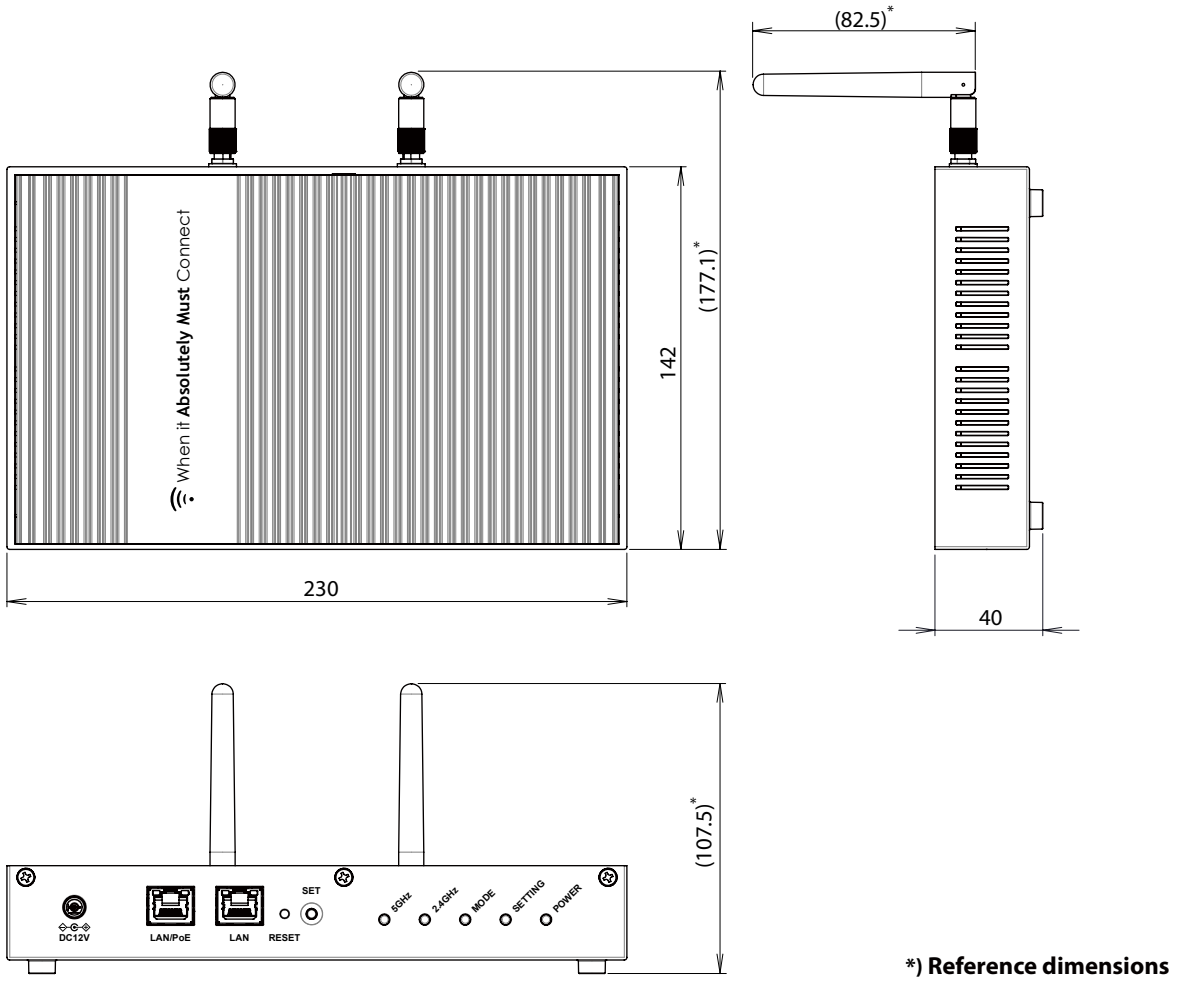
- Supports "AMC Cloud®" the Web application that can operate on the cloud.
  If "AMC Cloud®" is used, the following functions can be used.
  - Shows the operating status for the wireless network to which the AP-800AX belongs
  - Easy configuration, firmware update, restart

Note

- For details on AMC Cloud®, please visit the Silex Technology's website.

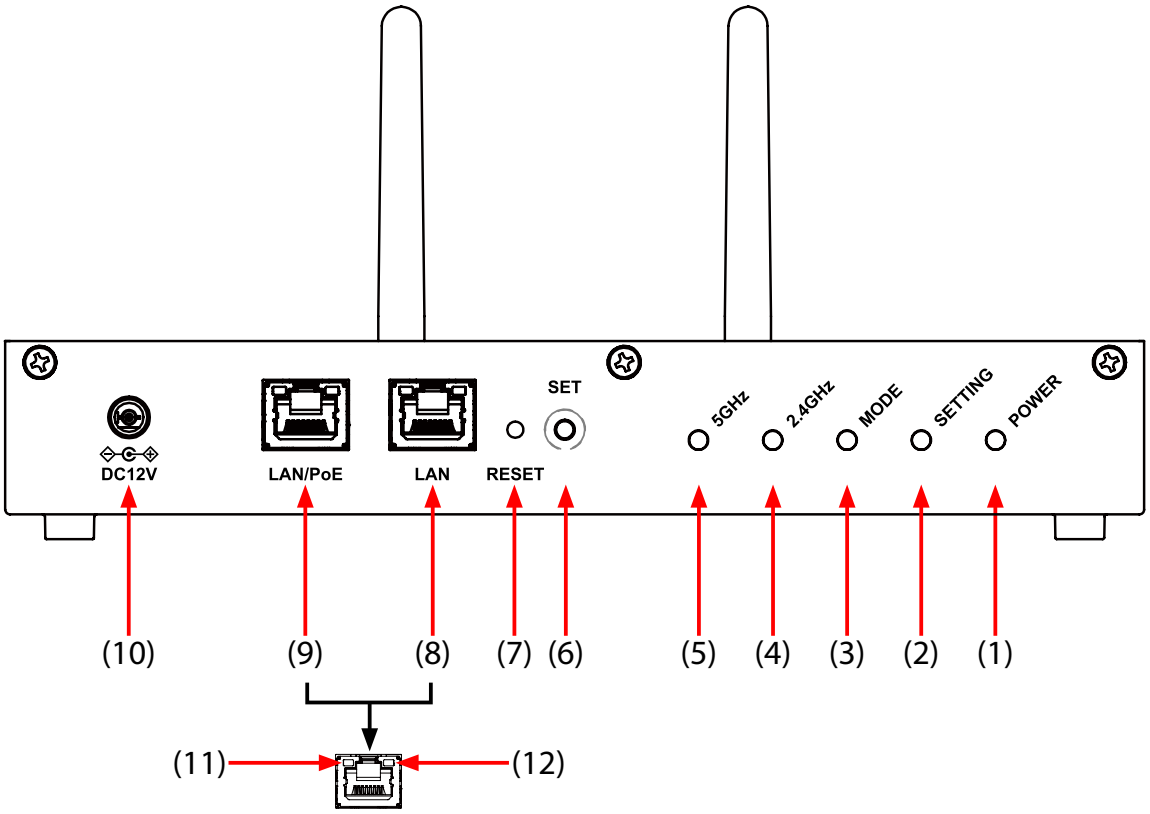
2-2. Parts and Functions

External Dimensions



***) Reference dimensions**

Parts and Functions



(1) POWER LED

Color	Light	Explanation
Green	ON	Powered on
	BLINK	In a process of power-on
Red	ON	Error is occurring.*

* A network loop may occur on AMC Mesh and wired LAN. Check the settings and connections.

(2) SETTING LED

Color	Light	Explanation
Green	BLINK	Has logged in to the Web page (1-second cycle) (*)
	ON	Smart Wireless Setup has been successfully done. (Turns off in 3 minutes) (*)
Orange	ON	In a process of initialization (only when AP-800AX is turned on).
	BLINK	Smart Wireless Setup is in progress (2-second cycle) (*)
Red	ON	Smart Wireless Setup has failed. (Turns off in 3 minutes) (*)

* If Smart Wireless Setup is executed while someone is logging to the AP-800AX's Web page, the priority is given to the login of the Web page.

(3) MODE LED

Color	Light	Explanation
Green	ON	Mesh mode is Repeater mode (*) Connection with the destination RootAP or Repeater is good (RSSI is -60dBm or more).
	BLINK	Mesh mode is RootAP mode (1-second cycle)
Orange	ON	Mesh mode is Repeater mode (*) Connection with the destination RootAP or Repeater is OK (RSSI is -61dBm to -70dBm).
	BLINK	Configuration mode is on. (1-second cycle)
Red	ON	Mesh mode is Repeater mode (*) Connection with the destination RootAP or Repeater is poor (RSSI is -71dBm or less), or connection with the destination RootAP or Repeater is disconnected.
	BLINK	Configuration mode error (500-millisecond cycle)

* When the AMC Mesh function is operating on both 5GHz and 2.4GHz bands, the connection status of 5GHz band is displayed.

TIP

- If all of the POWER LED, SETTING LED and MODE LED turn red together, AP-800AX is malfunctioning. In this case, please contact Silex Technology. For the contact information, refer to **D-2. Customer Support Center**.

(4) 2.4GHz LED

Color	Light	Explanation
Green	ON	2.4GHz band interface in operation
	BLINK	Communicating in 2.4GHz band (Turns off for 100 milliseconds and then turns on)
-	OFF	All 2.4GHz band interfaces are disabled.

(5) 5GHz LED

Color	Light	Explanation
Green	ON	5GHz band interface in operation
	BLINK	Communicating in 5GHz band (Turns off for 100 milliseconds and then turns on)
Red	BLINK	DFS in progress (500-millisecond cycle)
-	OFF	All 5GHz band interfaces are disabled.

(6) Set Switch(SET)

Use this to connect the wireless LAN devices using Smart Wireless Setup.

(7) Reset Switch(RESET)

By using the RESET switch, AP-800AX can be switched to the configuration mode or be reset to the factory default settings. For details, refer to **3-2. Configuration Using AP-800AX's Web Page**, and **9-3. Factory Default Configuration**.

(8) LAN Port(LAN)

Connect a LAN cable.

(9) LAN Port(LAN/PoE)

Connect a LAN cable to connect to a HUB that supports PoE+ power supply.

(10) DC Connector(DC12V)

Connect an AC adapter (optionally available).

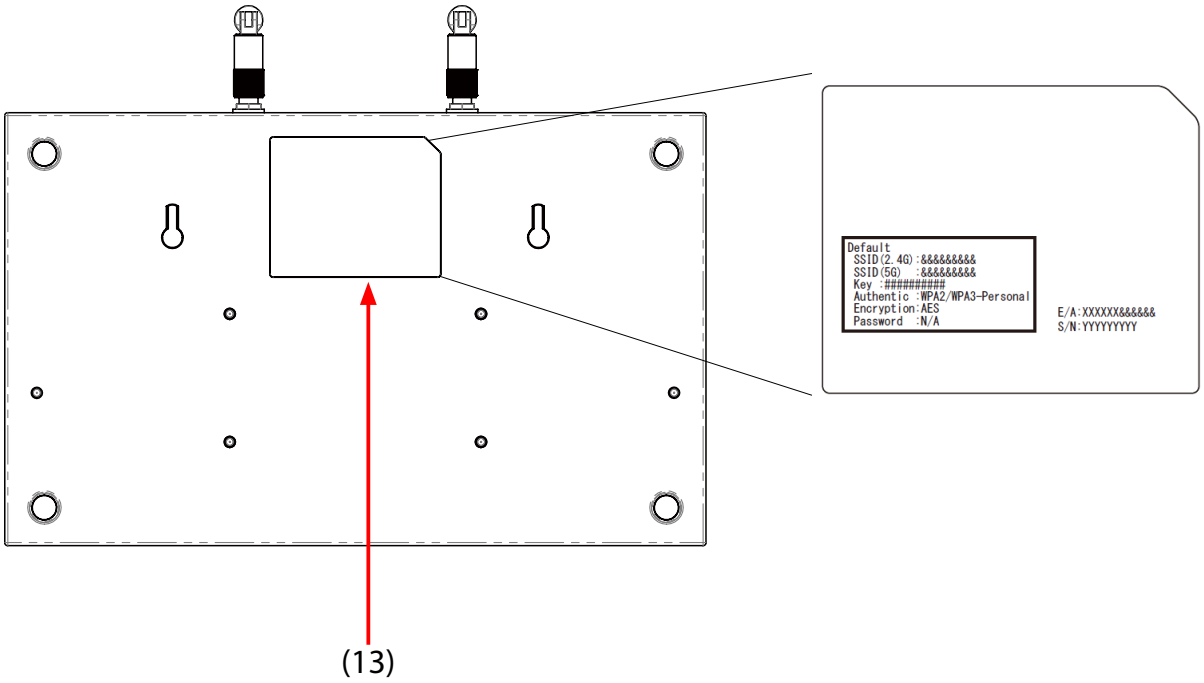
(11) Status LED

Color	Light	Explanation
Green	ON	Link is made up.
	BLINK	Sending/Receiving data when a link is made up.
-	OFF	Link is down.

(12) Link LED

Color	Light	Explanation
Orange	ON	Link is made up.
-	OFF	Link is down.

Bottom



(13) Product label

The following settings are described.

SSID (2.4G)	SSID for 2.4GHz band
SSID (5G)	SSID for 5GHz band
Key	Pre-Shared Key
Authentic	Authentication mode
Encryption	Encryption mode
Password	Login password. By default, no password is set to AP-800AX.
E/A	This is the MAC address of AP-800AX. The format of MAC address is "E/A: 1CBCECXXXXXX". Example) When the MAC address is "1C:BC:EC:00:11:22", it is noted as "1CBCEC001122".
S/N	Serial number of AP-800AX

2-3. Specifications

2-3-1. Hardware Specifications

Memory	RAM	1GByte		
	SPI Flash ROM	32MByte		
	NAND Flash ROM	256MByte		
Antenna	Pole antenna x 2			
Others	Push Switch	Reset Switch	1	
		Set Switch	1	
	LED	LAN Port	4	Status (Green) Link (Orange)
		Unit	5	POWER (Green/Red) SETTING (Green/Red) MODE (Green/Red) 2.4GHz (Green/Red) 5GHz (Green/Red)
Maximum power consumption	15.6W	* When operating using an AC adapter * When PoE is used, the power consumption complies with the PoE standard.		

Power supply	AC adapter	Operating voltage DC12V±5%
		Rated current consumption 3A
	PoE (IEEE 802.3at compliant)	Operating voltage DC48V (DC42.5V-57V⎓)
		Rated current consumption 530mA
Operating environment	Temperature	-20 degrees to 55 degrees
	Humidity	20% - 80%RH (Non-condensing)
Storage environment	Temperature	-30 degrees to 70 degrees
	Humidity	20% to 90%RH (Non-condensing)
EMC	FCC Part15 Subpart B Class-A ICES-003 Class-A	
Radio regulation	FCC part15 Subpart C / Subpart E ISED RSS-247 SRRC	

- AC adapter is not included for operating environment conditions and storage environment conditions.

Wireless network interface

US/Canada

IEEE 802.11a	Bandwidth	5GHz		
	Channel	W52	36, 40, 44, 48	
		W53	52, 56, 60, 64	
		W56	100, 104, 108, 112, 116, 132, 136, 140, 144	
		W58	149, 153, 157, 161, 165	
IEEE 802.11b	Bandwidth	2.4GHz		
	Channel	1-11		
IEEE 802.11g	Bandwidth	2.4GHz		
	Channel	1-11		
IEEE 802.11n	Bandwidth	2.4GHz/5GHz		
	Channel	2.4GHz	1-11	
		5GHz	W52	36, 40, 44, 48
			W53	52, 56, 60, 64
			W56	100, 104, 108, 112, 116, 132, 136, 140, 144
			W58	149, 153, 157, 161, 165
IEEE 802.11ac	Bandwidth	5GHz		
	Channel	W52	36, 40, 44, 48	
		W53	52, 56, 60, 64	
		W56	100, 104, 108, 112, 116, 132, 136, 140, 144	
		W58	149, 153, 157, 161, 165	
IEEE 802.11ax	Bandwidth	2.4GHz/5GHz		
	Channel	2.4GHz	1-11	
		5GHz	W52	36, 40, 44, 48
			W53	52, 56, 60, 64
			W56	100, 104, 108, 112, 116, 132, 136, 140, 144
			W58	149, 153, 157, 161, 165

China

IEEE 802.11a	Bandwidth	5GHz		
	Channel	W52	36, 40, 44, 48	
		W53	52, 56, 60, 64	
		W58	149, 153, 157, 161, 165	
IEEE 802.11b	Bandwidth	2.4GHz		
	Channel	1-11		
IEEE 802.11g	Bandwidth	2.4GHz		
	Channel	1-11		
IEEE 802.11n	Bandwidth	2.4GHz/5GHz		
	Channel	2.4GHz	1-11	
		5GHz	W52	36, 40, 44, 48
			W53	52, 56, 60, 64
			W58	149, 153, 157, 161, 165
IEEE 802.11ac	Bandwidth	5GHz		
	Channel	W52	36, 40, 44, 48	
		W53	52, 56, 60, 64	
		W58	149, 153, 157, 161, 165	
IEEE 802.11ax	Bandwidth	2.4GHz/5GHz		
	Channel	2.4GHz	1-11	
		5GHz	W52	36, 40, 44, 48
			W53	52, 56, 60, 64
			W58	149, 153, 157, 161, 165

Wired network interface

100BASE-TX/1000BASE-T/2.5GBASE-T(auto-sensing) : 2 port Auto MDI/MDI-X IEEE 802.3at (PoE+) (Only one LAN port is supported.)

2-3-2. Software Specifications

TCP/IP	Network layer	ARP IPv4 ICMP
	Transport layer	TCP UDP
	Application layer	DHCP(Client/Server) DNS(Client) NTP(Client/Server) HTTP (Server) HTTPS(Server) SNMP(Server) Syslog(Server) SXSMP(Server)
Recommended Web browser		Microsoft Edge Google Chrome

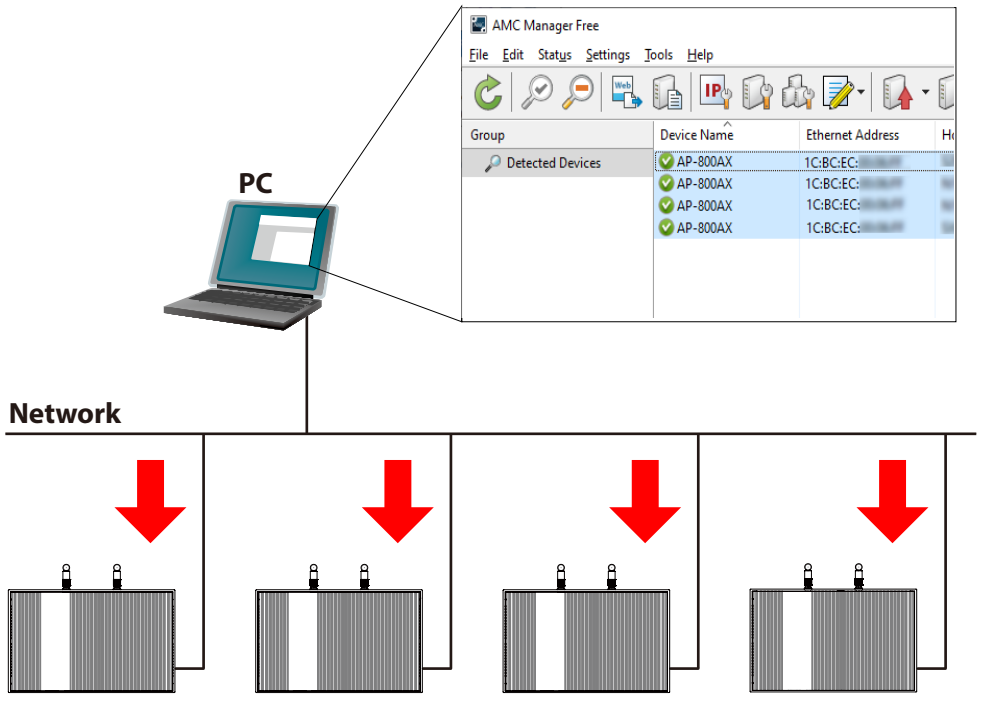
2-4. Configuration Utility

AP-800AX supports the following utilities.
Features of each utility are introduced below.

- AMC Manager®
- Mesh Monitor

2-4-1. AMC Manager®

AMC Manager® is the unified device management utility that provides remote status monitoring and individual/bulk configuration for Silex devices over an IP network. It can display the operating status of AP-800AX on the list and such information can be used conveniently for device management.
This document describes how to configure multiple AP-800AX units at once.
Refer to **3-3-4. Bulk Configuration Using AMC Manager®**.



For AMC Manager®, there are a free version "AMC Manager® Free" and a non-free version "AMC Manager®". When a non-free version is used, more devices can be managed and configured at once and the plug-in utilities such as Mesh Monitor, etc. can be used.

Function	AMC Manager® Free (Free version)	AMC Manager® (Non-free version)
Number of controllable devices	Up to 10 devices	Up to 10,000 devices
Number of devices that can be controlled at a time	Up to 10 devices	Up to 10,000 devices
Number of groups that can be created	Up to 2 devices	Up to 100 devices
Number of devices that can be registered per group	Up to 10 devices	Up to 1,000 devices
Plug-in utility such as Mesh Monitor	Unavailable	Available

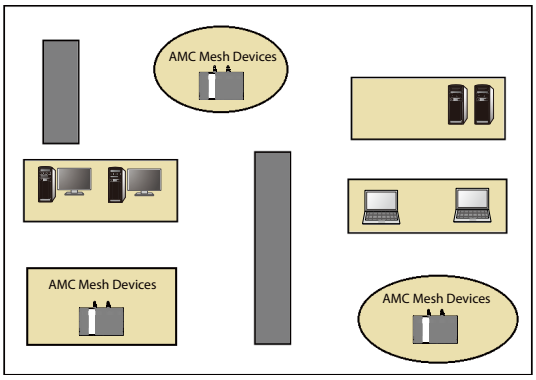

TIP

- To use AMC Manager® (non-free version), the license key needs to be purchased.
- If you are interested in purchasing the license, please contact us. For the contact information, refer to **D-2. Customer Support Center**.

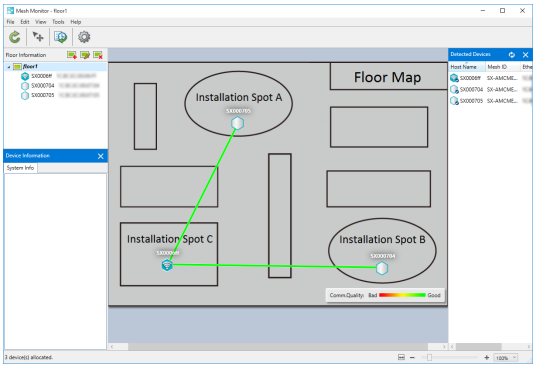
2-4-2. Mesh Monitor

Mesh Monitor is a plug-in utility of AMC Manager®.
The operating status of AMC Mesh device can be visualized and AMC Mesh network can be managed with it.

Actual location of installation



Display on Mesh Monitor



As shown in the image above, the actual installation environment is simulated on Mesh Monitor. The connection line is displayed based on the connection information of AP-800AX.
Also, a history of AMC Mesh network transition and AP-800AX's operating status can be checked, which is useful for identifying the cause of trouble.

TIP

- Mesh Monitor is a plug-in utility of AMC Manager®. To install it, another license key needs to be purchased.
- If you are interested in purchasing the license, please contact us. For the contact information, refer to **D-2. Customer Support Center**.
- For how to use Mesh Monitor, refer to the **Mesh Monitor User's Manual (AMC Mesh)**.

2-5. Power Supply

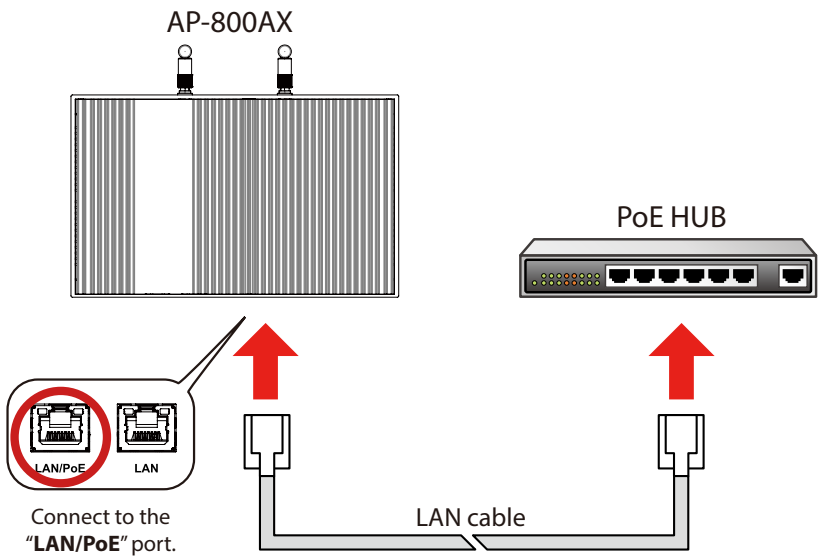
AP-800AX can receive electrical power in the following two ways:
- LAN cable
- AC adapter (optionally available)

AP-800AX can receive electrical power from the IEEE 802.3at compliant power supply unit over a LAN cable. For details, please see the operating manual that came with your power supply device such as a PoE+ compatible HUB (hereinafter referred to as PoE HUB).

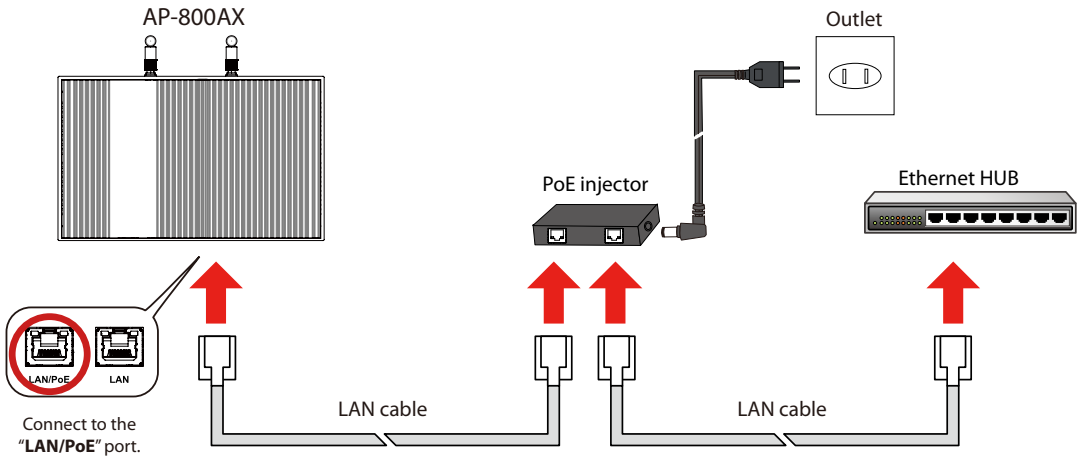
TIP
- To receive power via PoE, connect a LAN cable to the LAN port of "**LAN/PoE**".
- The AC adapter does not come with AP-800AX. It is optionally available.
- Please remember that power is supplied from the AC adapter if it is connected to AP-800AX.

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

Sample connection1: When using a PoE HUB

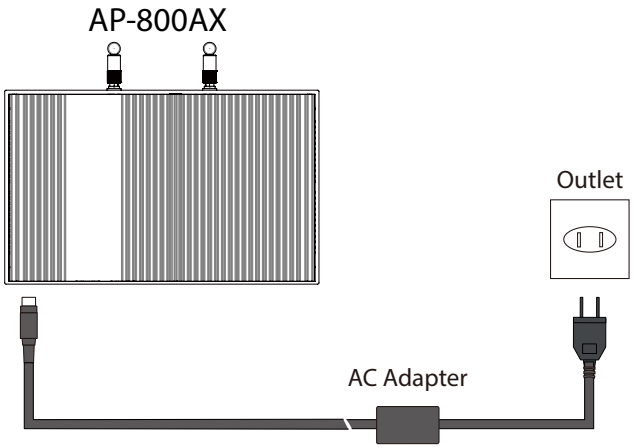


Sample connection2: When using a PoE injector



Sample connection3: When using an AC adapter (option)

Connect the AC adapter to AP-800AX and AC plug to an outlet.



TIP

- Use the AC adapter that you have purchased from Silex Technology.

2-6. DFS Function

AP-800AX supports DFS (Dynamic Frequency Selection) of the IEEE 802.11h wireless standard. When radar waves are detected, the channel will automatically be switched to avoid interference with radar systems (e.g. weather radar, etc.).

If an available channel, instead of **AUTO**, is selected for **Channel**, the channel will be switched to the channel that is checked in the **Available Channel List**.
When there are channels that you want to avoid to use, set them in the **Available Channel List** in advance.
In the following cases, the destination channel will be selected by AP-800AX.

- The destination channel cannot be used as radar waves are detected on it.
- **AUTO** is set for **Channel**

TIP

- When AP-800AX is powered on, it will check whether there are radar waves on the corresponding channels for a certain period of time (*). During that time, it is unable to communicate with AP-800AX using the 5GHz band.
- If radar waves are detected during or after AP-800AX is powered on, the channel needs to be changed in order to avoid wireless interference. Therefore, if DFS channels are selected, the channel may be changed.
- If radar waves are detected, it will be monitored even on the destination channel for a certain period of time (*). During the time, 5GHz band communication will be disabled on AP-800AX. Once radar waves are detected, the channel will not be available for 30 mins.
  (* This time period differs depending on the country.)

Note

- The 5GHz LED flashes red if radar waves are detected when AP-800AX is powered on or is in operation.

If there are no candidates for the destination channel when radar waves are detected, communication using 5GHz band will be disabled for 30 min.
When an available channel is found in 30 min, the channel is switched to that channel.

3. How to Configure

3-1. Configuration Methods

This chapter explains how to configure AP-800AX.
Following configuration methods are available:

- Configure using the AP-800AX's Web page
  Access the AP-800AX's Web page to configure it. If you know the IP address of AP-800AX, you can configure it from your PC without AMC Manager®.

- Configure using AMC Manager®
  Use AMC Manager® to configure AP-800AX. Multiple units of AP-800AX can be configured at once with the configuration file created beforehand. The same file can be used when the similar configuration is required.

Note

- The following is the factory default settings for wired LAN settings.

Item	Default Value
DHCP Client	ENABLE
IP Address	192.168.0.10 (If an IP address is not obtained from DHCP server, a link-local address is used.)
Subnet Mask	255.255.255.0 (If an IP address is not obtained from DHCP server, 255.255.0.0 is used.)
Default Gateway	0.0.0.0 (If an IP address is not obtained from DHCP server, 0.0.0.0 is used.)
DNS Server (Primary)	0.0.0.0 (If an IP address is not obtained from DHCP server, 0.0.0.0 is used.)
DNS Server (Secondary)	0.0.0.0 (If an IP address is not obtained from DHCP server, 0.0.0.0 is used.)

3-2. Configuration Using AP-800AX's Web Page

3-2-1. AP-800AX Web Page

The following explains how to configure the detailed settings of AP-800AX.
For what values to set for the network settings, check with your network administrator in advance.

3-2-2. Displaying the AP-800AX's Web Page

AP-800AX settings can be configured from its Web page.
When AP-800AX has the default settings, the Web page can be displayed by the following methods. Display the Web page using a method appropriate for your environment.

Displaying Web Page Using Configuration Mode

Connect AP-800AX directly to PC using a LAN cable to display the Web page. AP-800AX can be configured one by one.

Displaying Web Page Using Network Connection

Connect AP-800AX and PC via a wired LAN to display the Web page. It is possible to connect two or more AP-800AX units to a wired LAN to configure them at once. Start from this when you connect AP-800AX to your existing wired LAN.

Displaying Web Page by Smart Wireless Setup

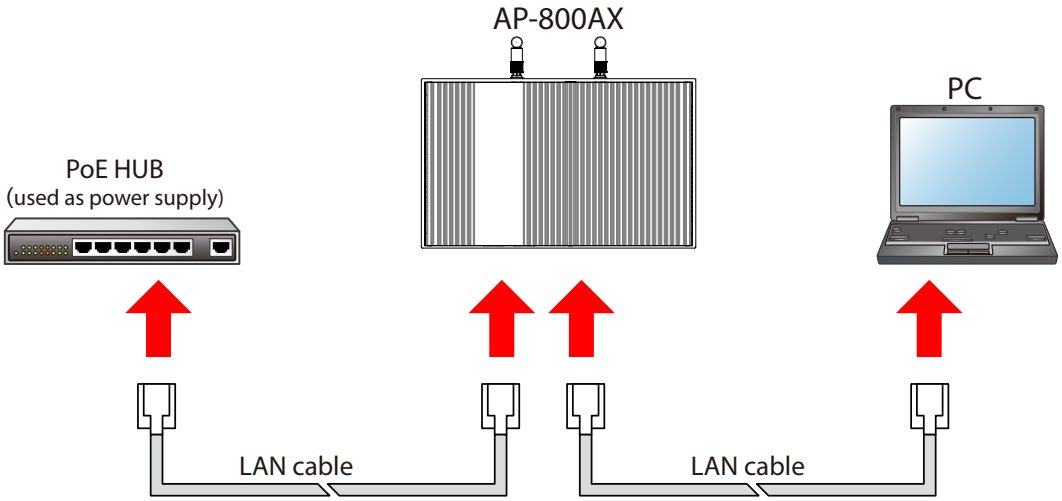
Connect AP-800AX and PC using Smart Wireless Setup to display the Web page.


TIP

- The display of the AP-800AX's Web page may differ depending on your environment and Web browser.

Displaying Web Page Using Configuration Mode

Connect AP-800AX directly to PC using a LAN cable to display the Web page.
AP-800AX can be configured one by one.



The following items are required for this configuration.

- PC (the one supports wired LAN connection)
- LAN cable
- PoE+ HUB or PoE injector
  (When using an AC adapter, use the AC adapter (optionally available).)

TIP

- Use a PoE HUB as the power supply for AP-800AX. Do not connect the PoE HUB to the network when using configuration mode.

Note

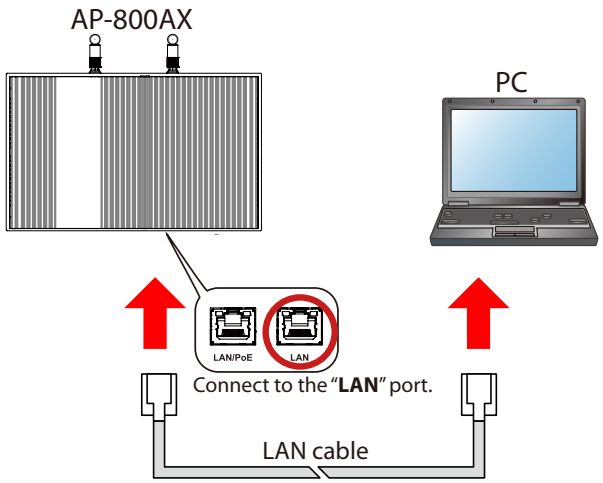
- The configuration mode cannot be used when communication is received from a PC other than the PC you are using for configuration. When the PoE HUB is an intelligent HUB that supports STP, use of configuration mode may not be possible.

1. When a wireless LAN is used on the PC, temporarily disable it.
When not, go on to step **2**.

Note

- If a wireless LAN is enabled on the PC, the Web page may not be displayed.

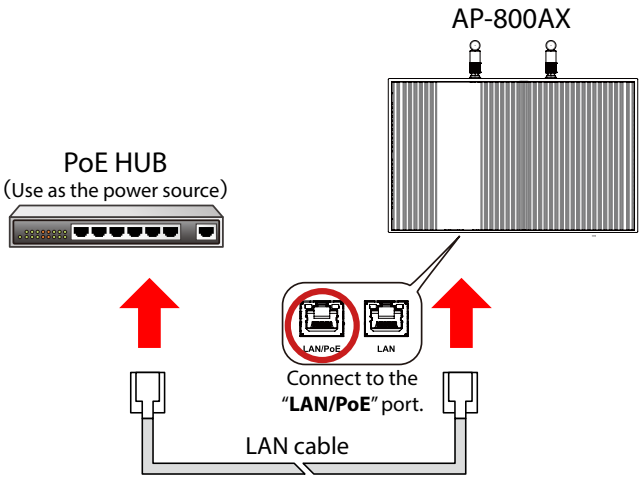
2. Connect one end of LAN cable to the PC and the other end to "**LAN**" port of AP-800AX.



Note

- When an AC adapter is used, you can also connect it to the "**LAN/PoE**" port of AP-800AX.

3. Prepare another LAN cable and connect one end of the LAN cable to PoE HUB and the other end to "**LAN/PoE**" port of AP-800AX.



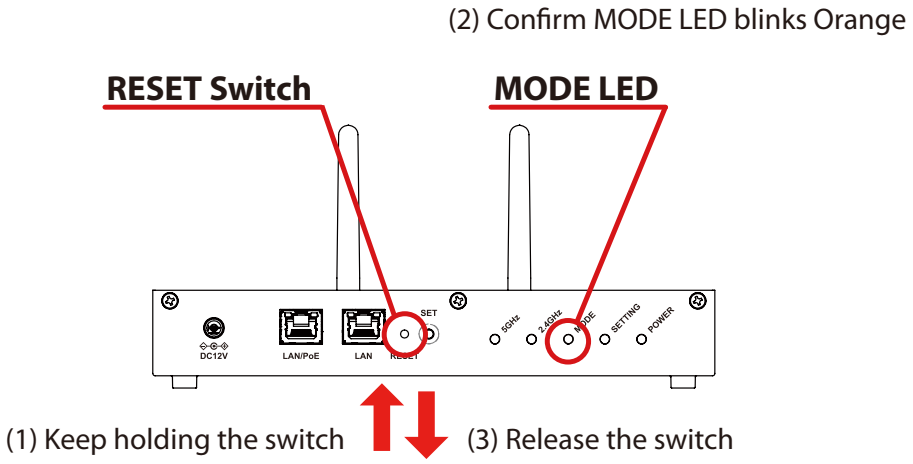
TIP

- Only one PC can be connected during the configuration mode. Do not connect AP-800AX to network when the configuration mode is used.

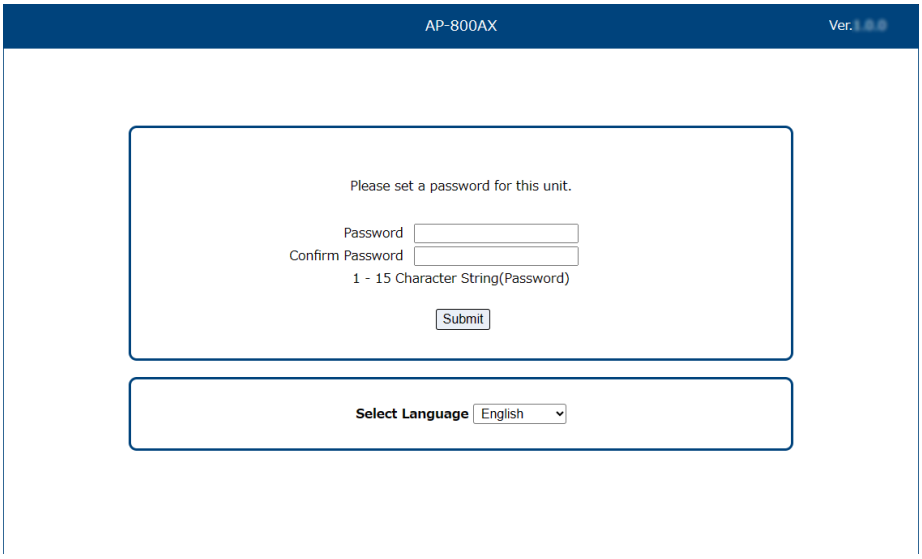
Note

- When using an AC adapter, connect the AC adapter to AP-800AX and the AC adapter's plug to an outlet.

4. After AP-800AX is turned on, press and hold the RESET switch with a pointed object such as a pen.
Keep holding it, and when the MODE LED blinks orange, release the switch (it takes about 5 sec until the MODE LED blinks).
The configuration mode is started, and you can now configure AP-800AX from the PC.



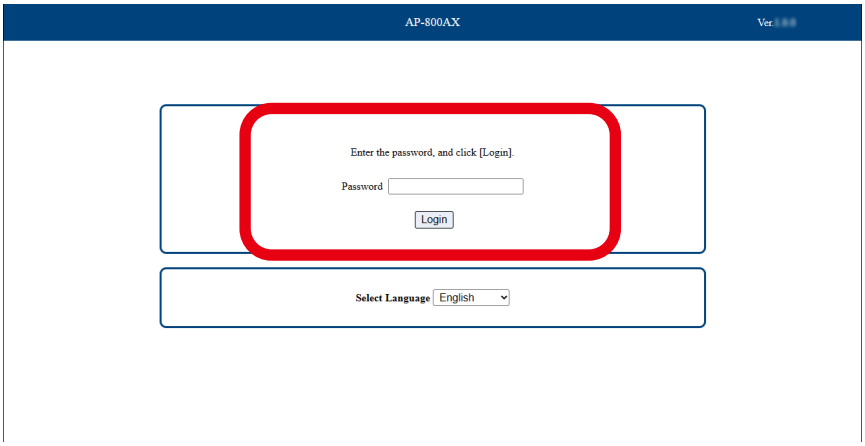
5. Start a Web browser on the PC.
When the login password configuration page appears, enter the password to configure for AP-800AX and click **Submit**.



TIP
- Make a note of the password so that you can refer when you have forgotten it. Without the password, no settings can be changed unless AP-800AX is reset to the factory default settings.

Note
- If the Web page is not displayed, enter "**http://silex**" in the address bar of the Web browser and press the Enter key.
- If the password has already been set, the login page is displayed. Enter the password and click **Login** then.

6. When the login page is displayed, enter the configured password and click **Login**.



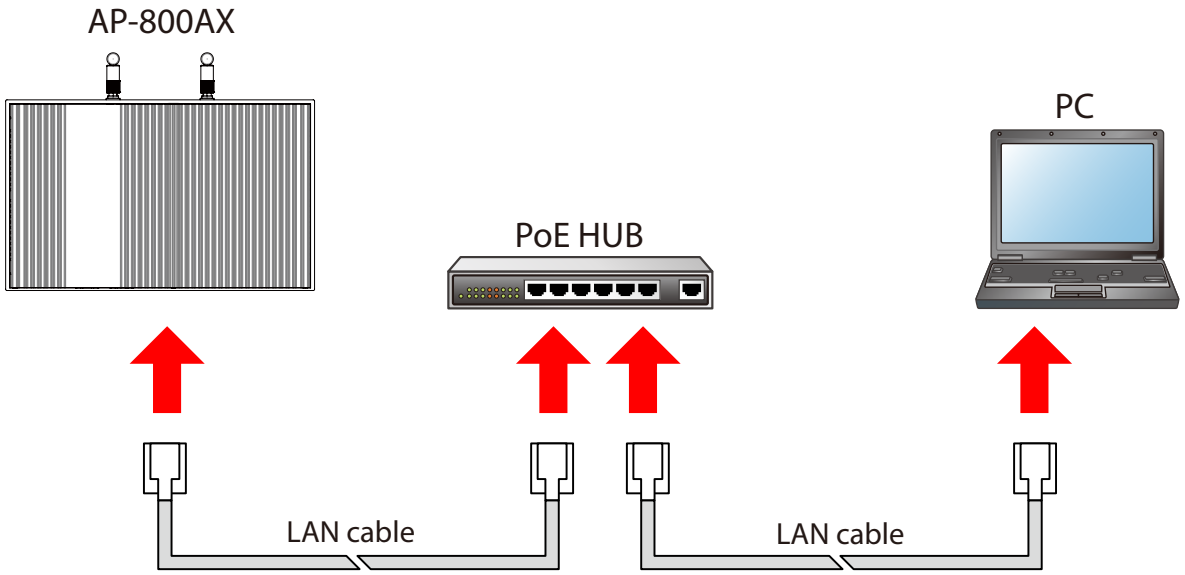
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

Web page has been displayed.
Go on to **3-2-3. Configuration Using AP-800AX's Web Page**.

Displaying Web Page Using Network Connection

Connect AP-800AX and PC via a wired LAN to display the Web page.
It is possible to connect two or more AP-800AX units to a wired LAN to configure them at once.
Start from this when you connect AP-800AX to your existing wired LAN.



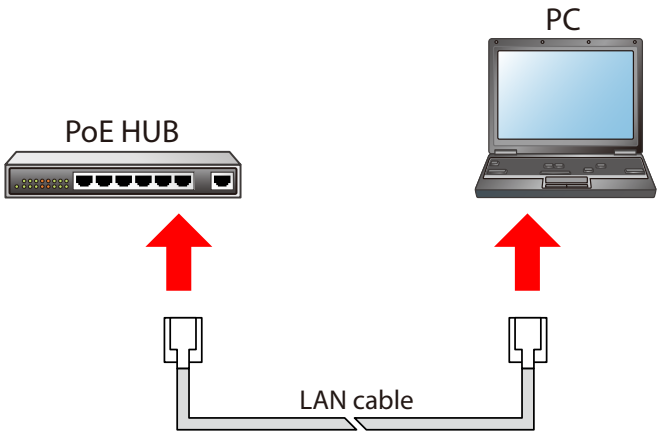
The following items are required for this configuration.

- PC (the one supports wired LAN connection, and AMC Manager® is installed to)
- LAN cable
- PoE+ HUB or PoE injector
  (When using an AC adapter, use the AC adapter (optionally available).)

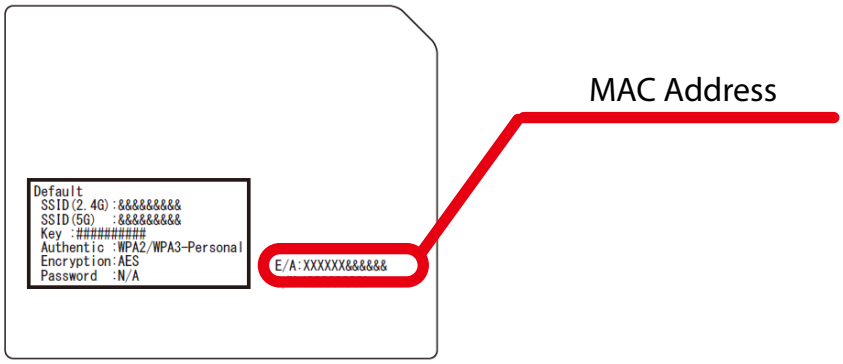
Note

- Use AMC Manager® to find the IP address of AP-800AX.

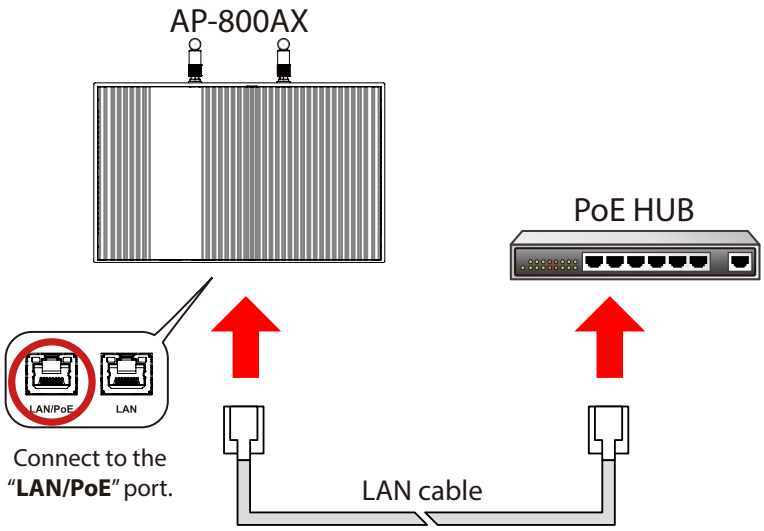
1. Connect the PC and PoE HUB using a LAN cable.



2. Identify the MAC Address of AP-800AX.
The MAC Address is printed on the label.
Make a note of it, as it will be needed during the configuration using AMC Manager®.

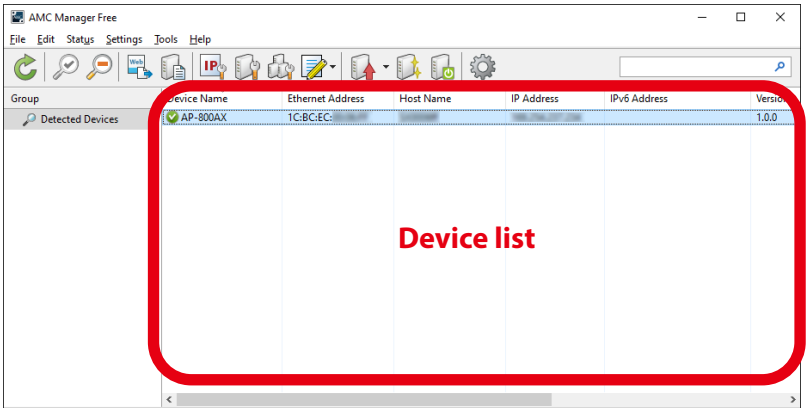


3. Prepare another LAN cable and connect one end of the LAN cable to PoE HUB and the other end to "**LAN/PoE**" port of AP-800AX.



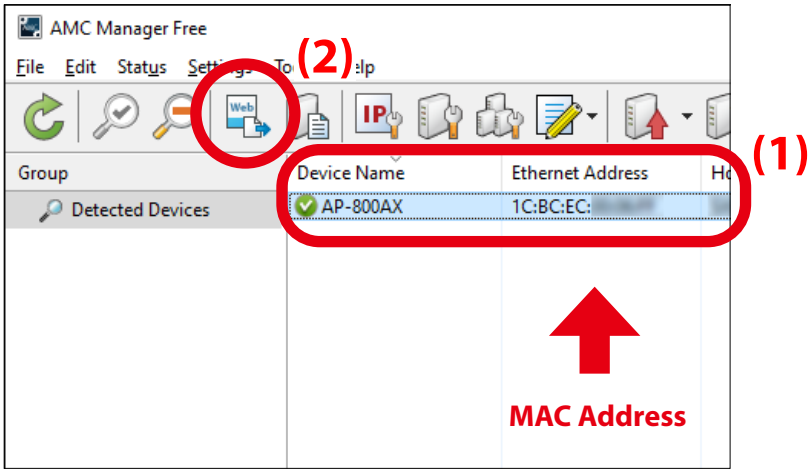
Note
- When using an AC adapter, connect the AC adapter to AP-800AX and the AC adapter's plug to an outlet.
- To connect two or more AP-800AX units, repeat the process at **2**-**3**.

4. Start AMC Manager® in the PC.
The device list of AMC Manager® shows the discovered AP-800AX units.



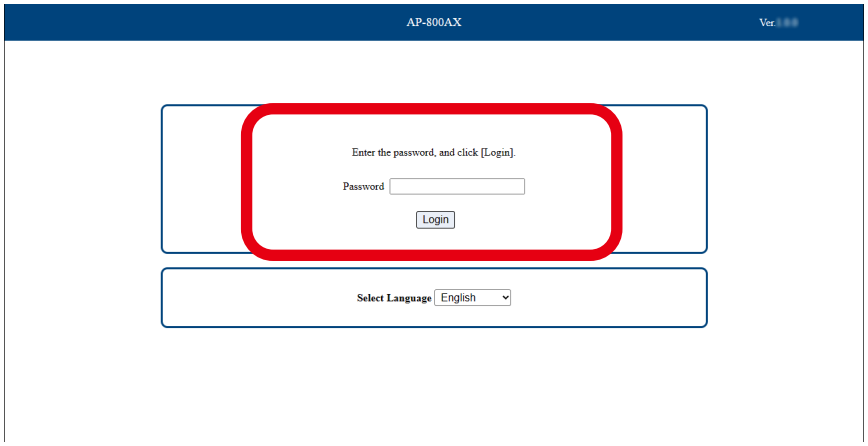
Note
- If the AP-800AX is not displayed on the device list, click the icon **Refresh** ( ).
- It may take approximately 1 min to show them on the device list depending on your environment.

5. Choose AP-800AX to configure, and click the icon **Configure using Web browser**( ).



Note
- Check the MAC Address that you made a note of in step **2** to see if the displayed device is the correct device you want to configure.

6. When the login page is displayed, enter the password and click **Login**.



Note

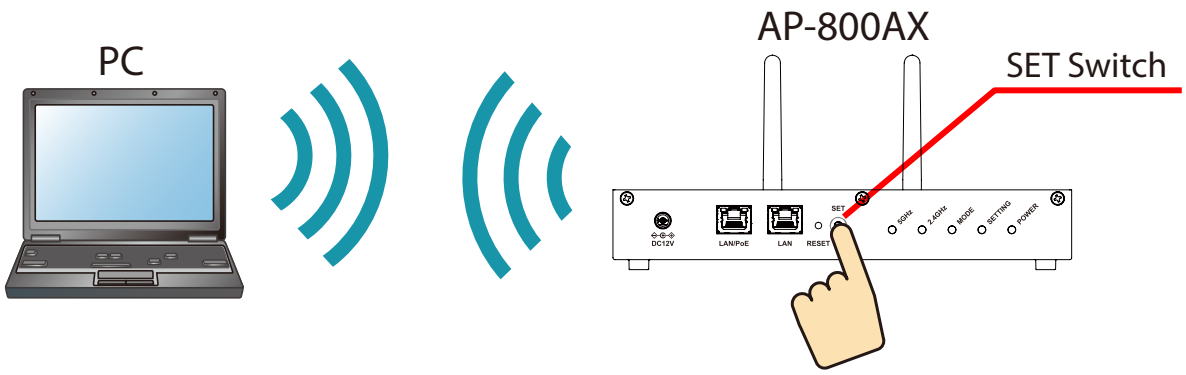
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

Web page has been displayed.

Go on to **3-2-3. Configuration Using AP-800AX's Web Page**.

Displaying Web Page by Smart Wireless Setup

Use the SET switch(Smart Wireless Setup switch) to connect AP-800AX and PC via a wireless LAN as well as display the Web page.



The following items are required for this configuration.

- PC (the one supports wireless LAN connection, and AMC Manager® is installed to)
- LAN cable
- PoE+ HUB or PoE injector
  (When using an AC adapter, use the AC adapter (optionally available).)

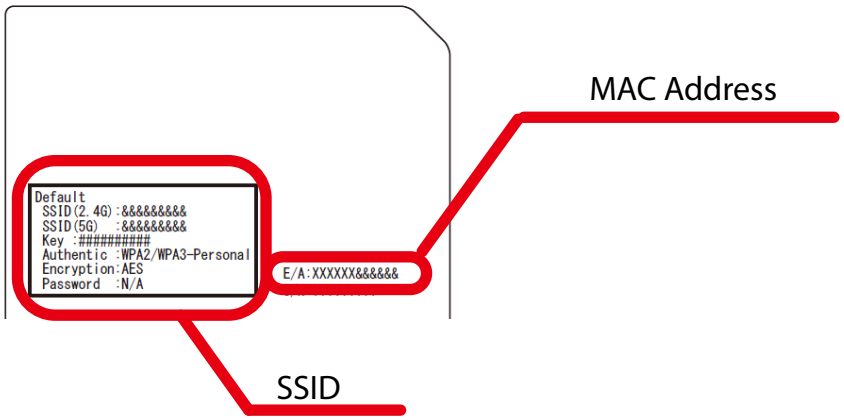
TIP

- Move AP-800AX closer to the PC you are using for configuration so that they can communicate properly.

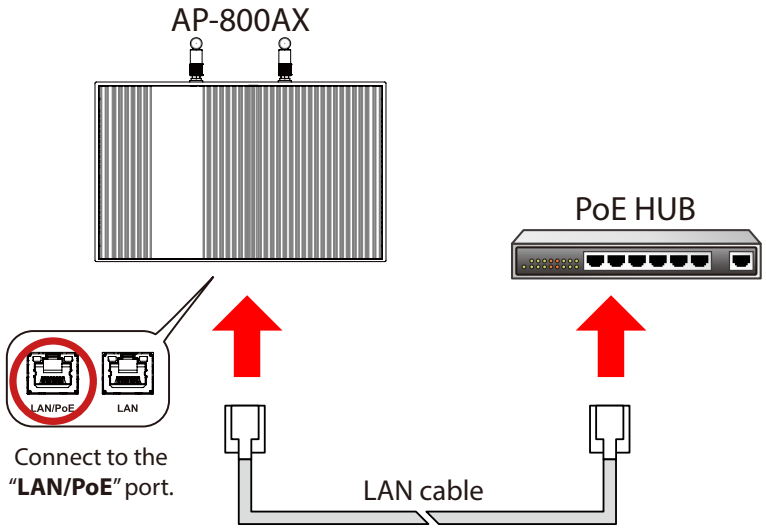
Note

- By default, wireless interface 1 (5GHz) is set as wireless interface that can use Smart Wireless Setup.
- Use AMC Manager® to find the IP address of AP-800AX.

1. Check the SSID and MAC Address of AP-800AX.
The SSID and MAC Address are printed on the label.
Make a note of it, as it will be needed during the configuration.



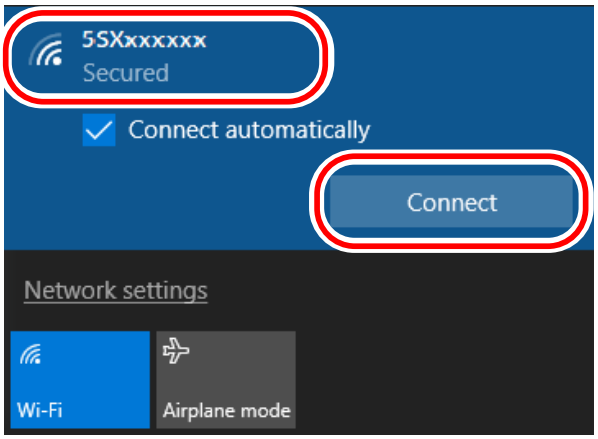
2. Connect one end of the LAN cable to PoE HUB and the other end to "**LAN/PoE**" port of AP-800AX.



Note
- When using an AC adapter, connect the AC adapter to AP-800AX and the AC adapter's plug to an outlet.
- To connect two or more AP-800AX units, repeat the process at **1**-**2**.

3. Click the network icon on the notification area (system tray) of the PC to view the wireless networks.

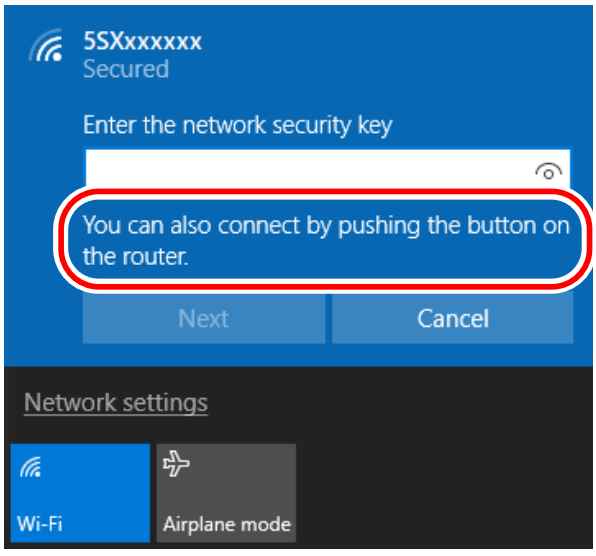
4. Select the SSID configured on AP-800AX from a list and click **Connect**.



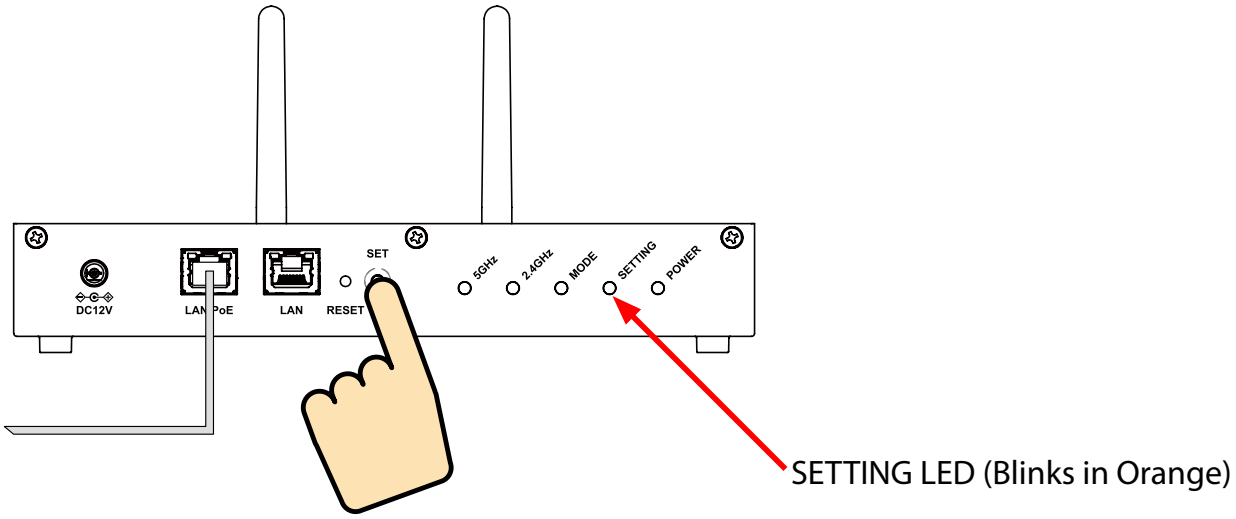
Note

- If **Connect automatically** is checked, your PC will automatically connect to AP-800AX every time it restarts.

5. The message says **You can also connect by pushing the button on the router**.

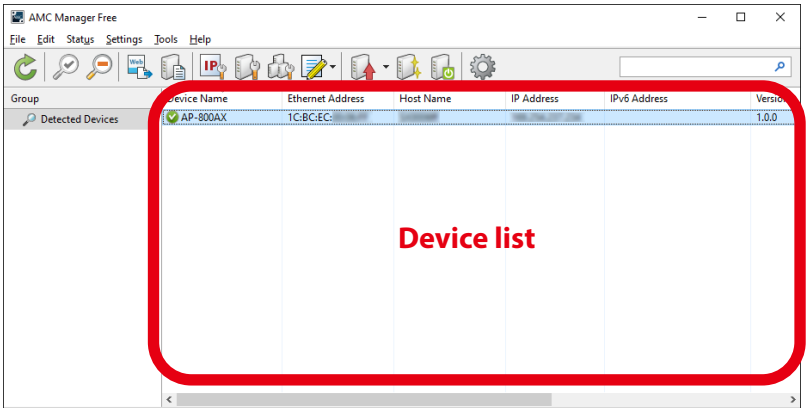


6. Press and hold the SET switch(Smart Wireless Setup switch) of AP-800AX, and release it when the SETTING LED flashes orange.



7. When a message **Do you want to allow your PC to be discoverable by other PCs and devices on this network?** appears, click **No**.

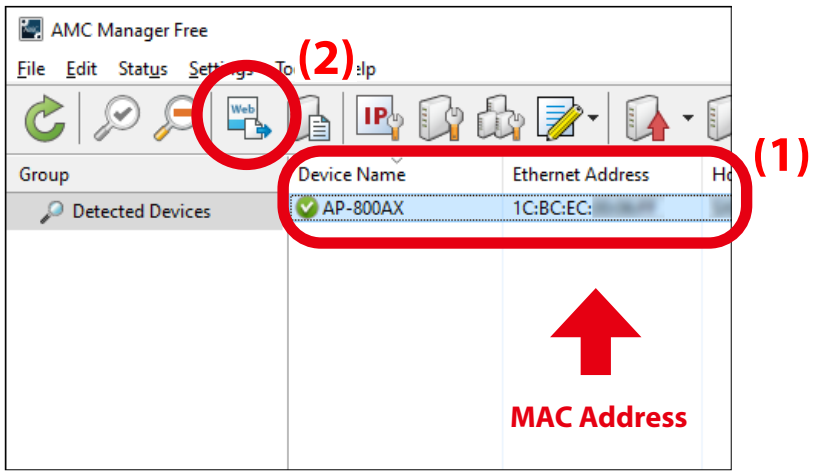
8. Start AMC Manager® in the PC.
The device list of AMC Manager® shows the discovered AP-800AX units.



Note

- If the AP-800AX is not displayed on the device list, click the icon **Refresh** ( ).
- It may take approximately 1 min to show them on the device list depending on your environment.

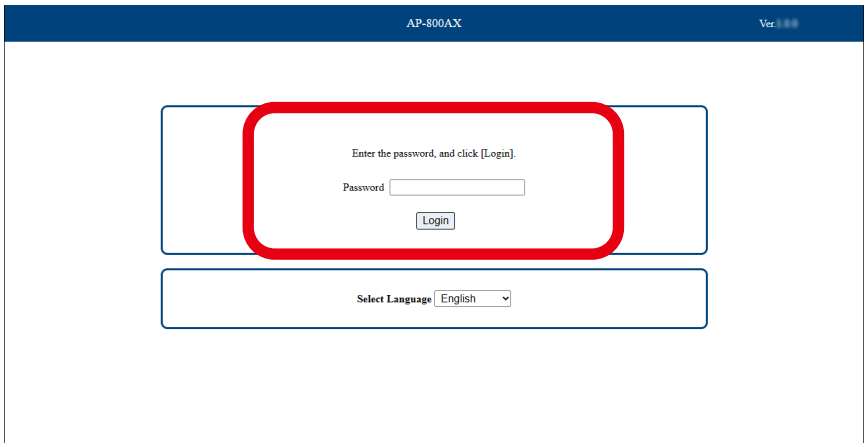
9. Choose AP-800AX to configure, and click the icon **Configure using Web browser**( ).



Note

- Check the MAC Address that you made a note of in step 1 to see if the displayed device is the correct device you want to configure.

10. When the login page is displayed, enter the password and click **Login**.



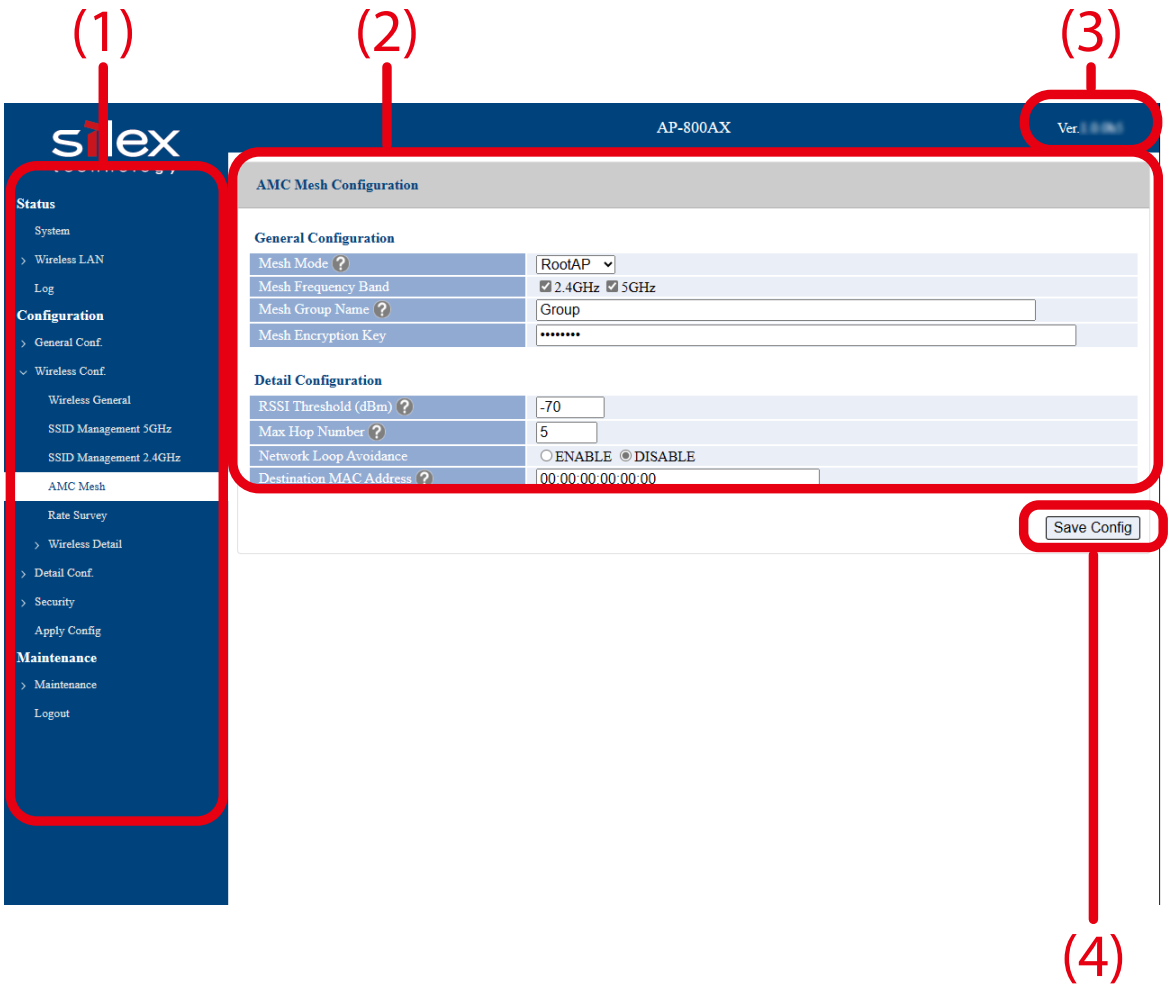
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

Web page has been displayed.
Go on to **3-2-3. Configuration Using AP-800AX's Web Page**.

3-2-3. Configuration Using AP-800AX's Web Page

After login, you can change AP-800AX settings from the Web pages.
The following image shows the page structure for each configuration page.



(1) Page menu

If clicked, the configuration page is changed.

(2) Configuration page

Each setting can be configured.

(3) Firmware version

The firmware version of AP-800AX is displayed.

(4) Save Config button

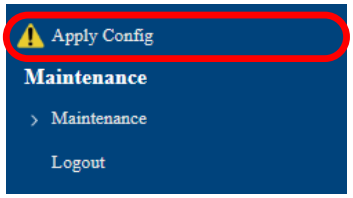
If clicked, the changes you made to the configuration page will be saved. (You may need to scroll-down the screen to find this button.)

TIP

- Be sure to set a password when you connect AP-800AX to a public network.
- Wireless bands for IEEE 802.11b/g or IEEE 802.11n/b/g are often in use by other people because the number of devices supporting these standards is growing rapidly. If these wireless modes are used, you may run into issues with having enough communication bandwidth.

Note

- When the settings are not applied to AP-800AX, the following notes are displayed on top of the configuration page and the menu. Click "**Apply Config**" to go to the configuration page at which you can apply the configuration or restart AP-800AX.



Menu and Settings

Menu			Explanation
Status	System		Shows the system information.
	Wireless LAN	Wireless General	Shows the wireless settings of AP-800AX. The setting of disabled wireless interface is displayed.
		Wireless Station 5GHz	Shows the information of the wireless station devices connected at 5GHz band.
		Wireless Station 2.4GHz	Shows the information of the wireless station devices connected at 2.4GHz band.
		AMC Mesh	Shows the AMC Mesh settings and the information of the devices connected by the AMC Mesh function.
	Log		Shows and downloads the operating logs.

Menu				Explanation
Configuration	General Conf.	Network		Configure the TCP/IP setting and host name.
		Time		Set the time of AP-800AX.
	Wireless Conf.	Wireless General		Set the wireless mode, channel, etc. for each 5GHz band and 2.4GHz band.
		SSID Management 5GHz		Set the SSID, authentication method, etc. for each wireless interface of 5GHz band.
		SSID Management 2.4GHz		Set the SSID, authentication method, etc. for each wireless interface of 2.4 GHz band.
		AMC Mesh		Configure the AMC Mesh settings.
		Rate Survey		Perform a communication test at each transmission rate to see which rate is stable to use.
		Wireless Detail	Security 5GHz	Set the MAC address filter and privacy separator for each wireless interface of 5GHz band.
			Extension 5GHz	Configure the 5GHz band extension setting. QoS setting, transmission rate, etc. can be configured.
			Security 2.4GHz	Set the MAC address filter and privacy separator for each wireless interface of 2.4GHz band.
			Extension 2.4GHz	Configure the 2.4GHz band extension setting. QoS setting, transmission rate, etc. can be configured.
			Smart Wireless Setup	Execute the Smart Wireless Setup (push button method).
	Detail Conf.	Product		Configure the settings about wired LAN and LED management.
		DHCP Server		Configure the settings about DHCP server.
		VLAN		Set the VLAN ID for SSID of AP-800AX's wireless LAN.
		SNMP		Configure the SNMP settings.
		Log Output		Configure the settings to output logs to the Syslog server.
		Cloud		Configure the AMC Cloud® link setting.
	Security	Password		Set the password to log in to AP-800AX.
		Access Control		Enable/Disable the network protocols.
		Server Certificate		Create a server certificate for AP-800AX.
	Apply Config			Apply the configuration change. When the configuration is changed, restart AP-800AX.

Menu				Explanation
Maintenance	Maintenance	Restart		Restarts AP-800AX.
		Initialize Settings		Restores all settings to the factory defaults and restarts AP-800AX.
		Firmware Update		Updates the firmware.
		Save Config	Import Configuration	Imports the setting information of the text file to AP-800AX.
			Export Configuration	Exports the AP-800AX setting information to a text file.
	Logout			Log out of the Web page.

Note

- For details on each configuration item, refer to **A. List of All Settings**.

Refer to **Changing Network Settings** and **Changing Wireless LAN Settings** respectively for how to configure basic settings using the Web page.

Changing Network Settings

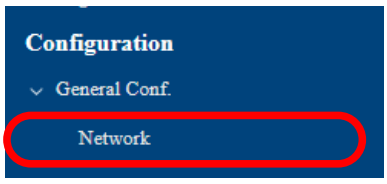
The following explains how to change the TCP/IP setting of AP-800AX that is required to access via wired or wireless LAN.

1. Display the AP-800AX's Web page.

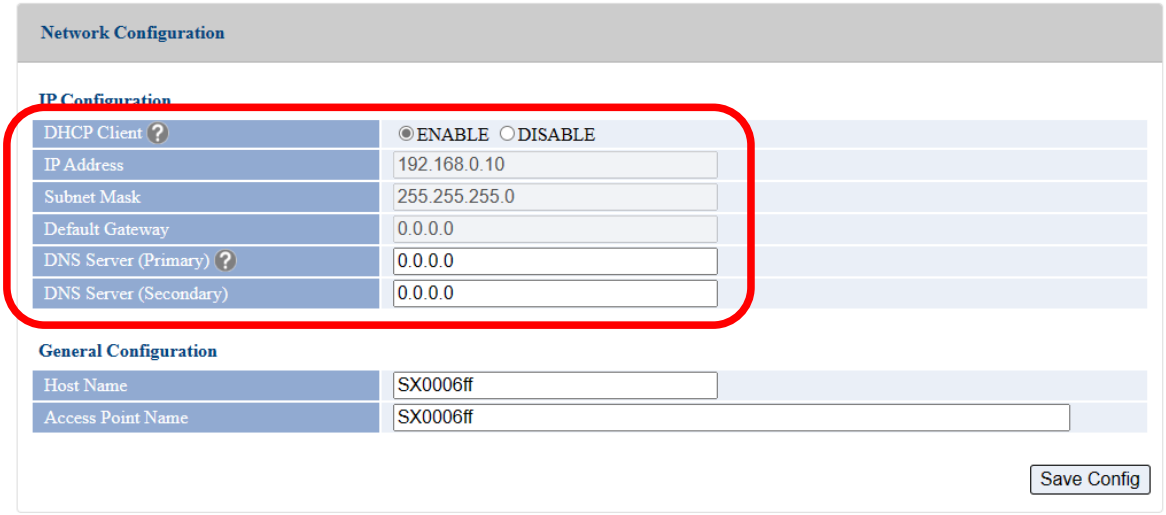
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **General Conf.** - **Network** from the page menu.



3. The Network Configuration page is displayed.
Change the settings at **IP Configuration** appropriately for the network where AP-800AX is installed.



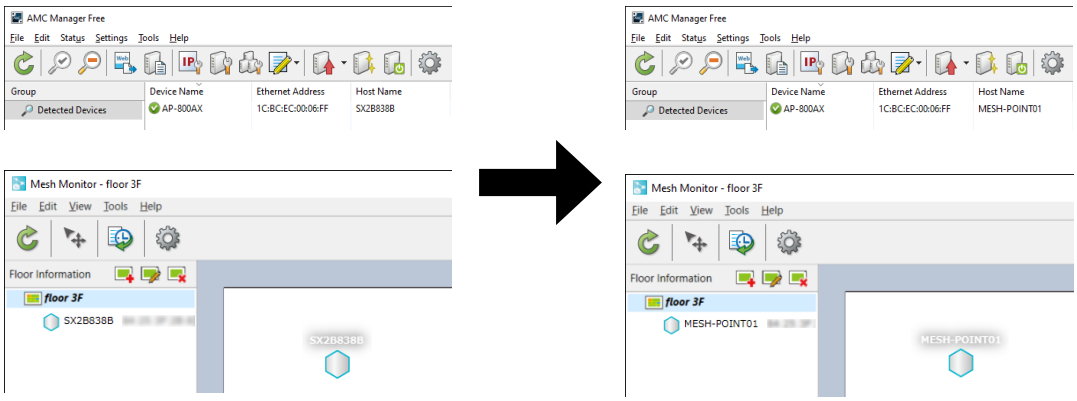
Note

- For details on each configuration item, refer to **A-1-1. Network Configuration**.

4. Change the settings at **Host Name** and **Access Point Name** as necessary.

Note

- If the host name is changed, you can easily identify that unit on AMC Manager® and Mesh Monitor.

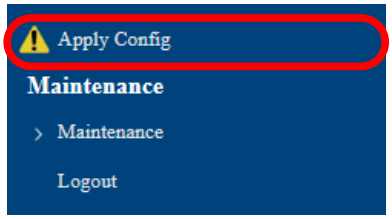


5. When finished entering the settings, click **Save Config** at the bottom right of the page.

TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

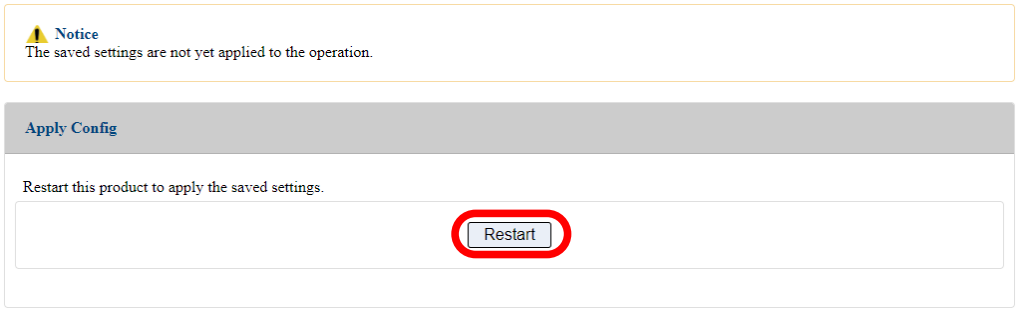
6. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

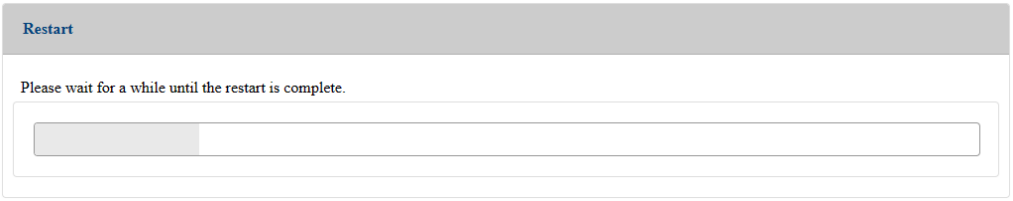
7. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

8. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



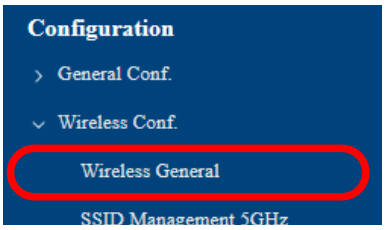
Changing Wireless LAN Settings

The following explains how to configure the wireless LAN settings by using the 5GHz band setting as an example.

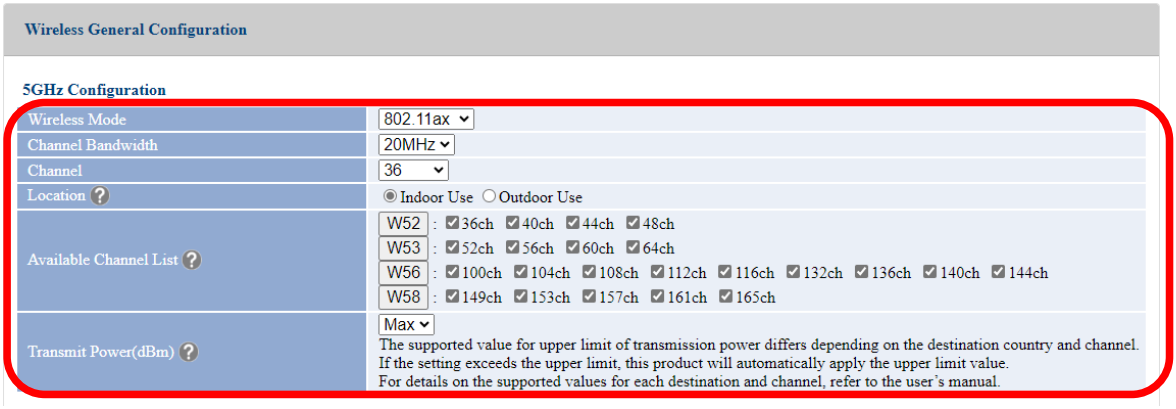
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless General** from the page menu.

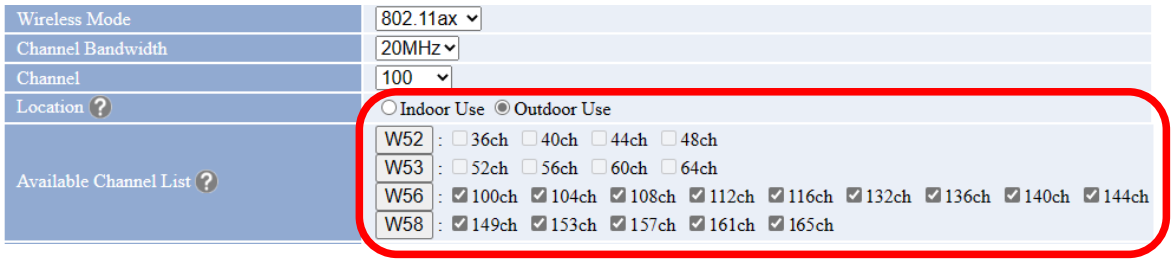


3. The Wireless General Configuration page is displayed.
Change the settings at **5GHz Configuration** appropriately for the network where AP-800AX is connected.

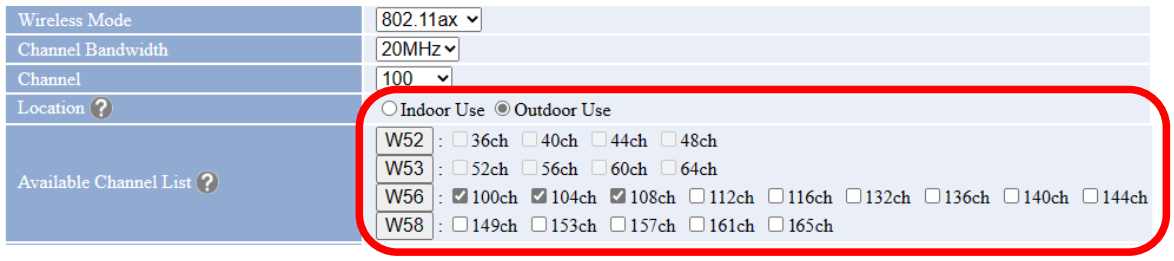


Note
- To change the 2.4GHz band settings, change the settings at **2.4GHz Configuration**.

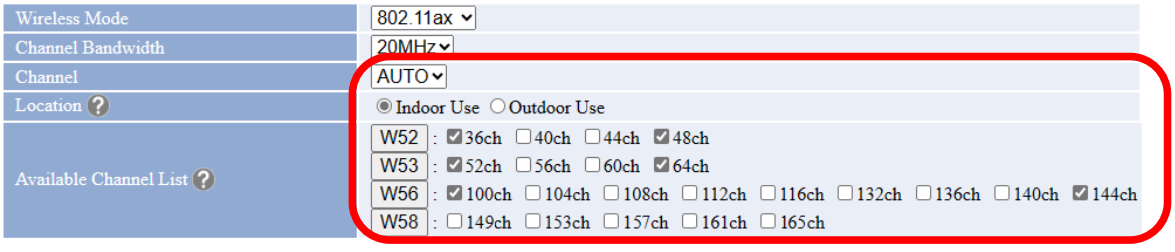
To use AP-800AX outdoors, select **Outdoor Use** for **Location**. Doing so will automatically disable the channels of **Available Channel List** that are not allowed to use outdoors.



If the channels are unchecked in the **Available Channel List**, they will not be selected as destination channels when radar waves are detected and the DFS function is started. It is possible to set unused channels as the destination channels for DFS.
The screen below is an example to use only 100ch, 104ch, and 108ch outdoors.



When the channel is set to **AUTO**, an appropriate channel will be selected when AP-800AX is turned on, but if the channels are unchecked in the **Available Channel List**, they will be excluded from the selection, so that the users can avoid the channels that are used for other purposes.
The screen below is an example to use only the first and last channels of W52, W53, and W56.



Note

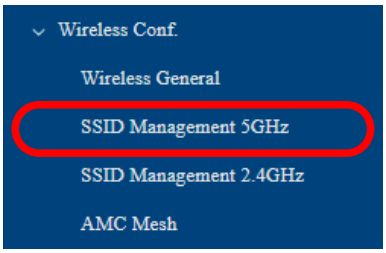
- For the 2.4GHz band, only 1ch, 6ch, and 11ch can be changed.

4. When finished entering the settings, click **Save Config** at the bottom right of the page.

TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

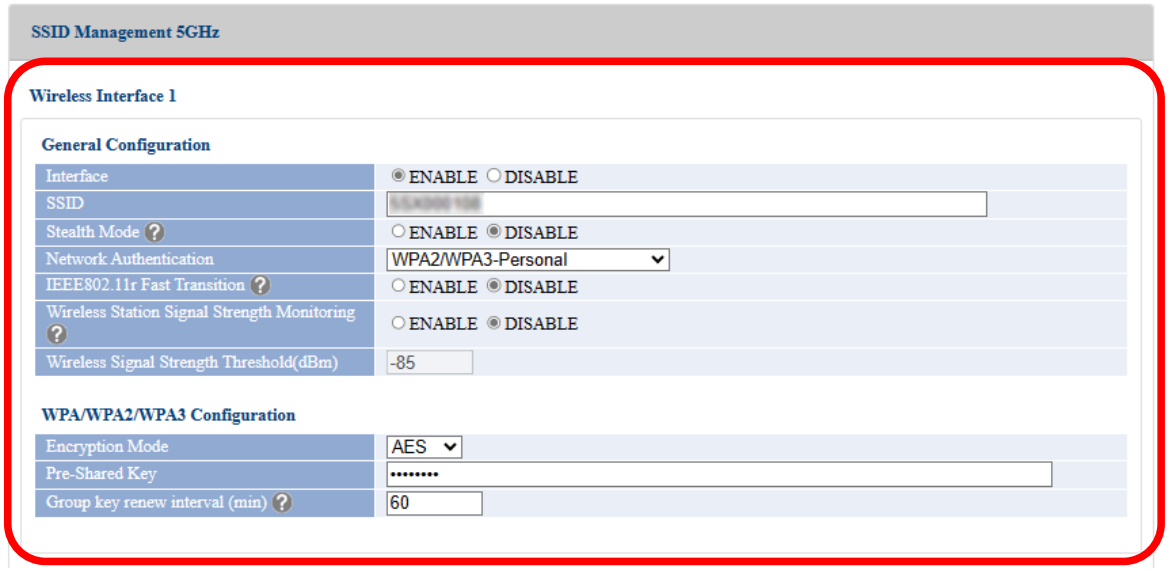
5. Click **Wireless Conf.** - **SSID Management 5GHz** from the page menu.



Note

- To change the 2.4GHz band settings, click **Wireless Conf.** - **SSID Management 2.4GHz**.

6. The SSID Management 5GHz page is displayed.
Configure general settings and authentication settings for each wireless interface.

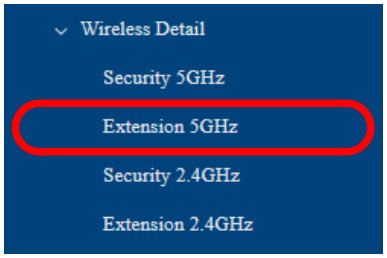


Note

- If **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise**, or **WPA3-Enterprise 192bit-security** is selected for **Network Authentication**, the settings of **RADIUS Server Configuration** are displayed. For details, refer to **7-6. IEEE 802.1X Authentication.**
- If **IEEE 802.11r Fast Transition** is enabled, the settings of **Mobility Domain** are displayed. For details, refer to **7-7. Fast Roaming for Wireless Station Devices**.

7. When finished entering the settings, click **Save Config** at the bottom right of the page.

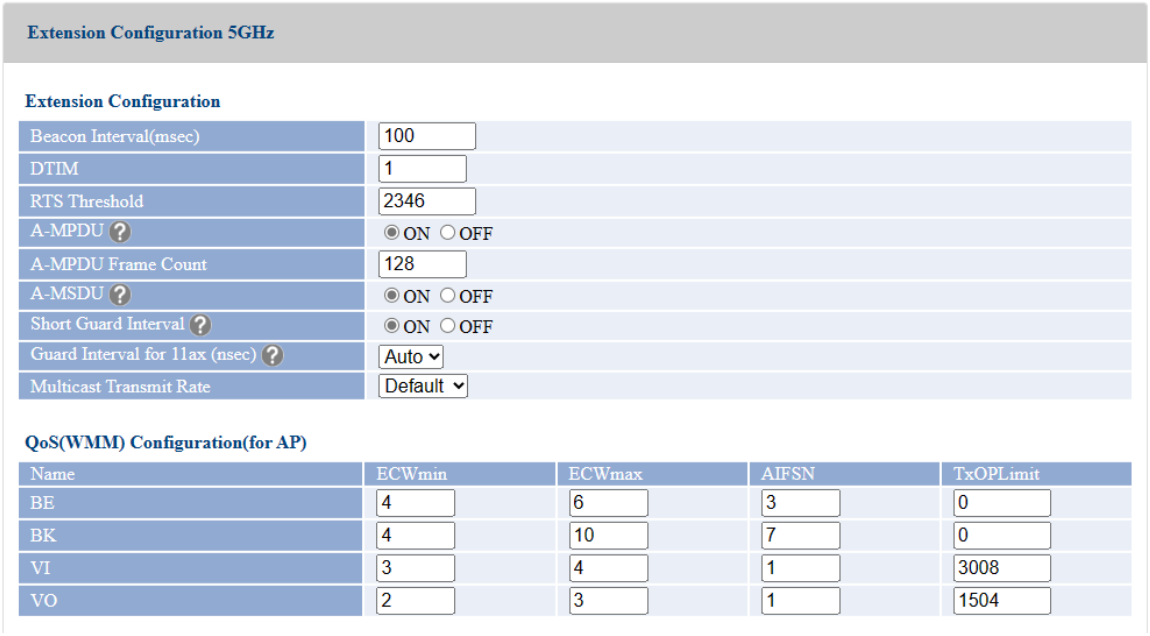
8. Click **Wireless Conf.** - **Wireless Detail** - **Extension 5GHz** from the page menu.



Note

- To change the 2.4GHz band settings, click **Wireless Conf.** - **Wireless Detail** - **Extension 2.4GHz**.

9. The Extension Configuration 5GHz page is displayed.
Configure the settings at **Extension Configuration**, **QoS(WMM) Configuration**, **Unicast Transmit Rate Configuration**, **Spatial Reuse Configuration**.



Extension Configuration 5GHz

Extension Configuration

Beacon Interval(msec)	100
DTIM	1
RTS Threshold	2346
A-MPDU	ON OFF
A-MPDU Frame Count	128
A-MSDU	ON OFF
Short Guard Interval	ON OFF
Guard Interval for 11ax (nsec)	Auto
Multicast Transmit Rate	Default

QoS(WMM) Configuration(for AP)

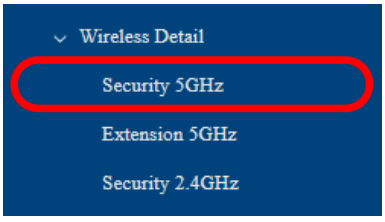
Name	ECWmin	ECWmax	AIFSN	TxOPLimit
BE	4	6	3	0
BK	4	10	7	0
VI	3	4	1	3008
VO	2	3	1	1504

Note

- For details on each configuration item, refer to **A-2-6. Wireless Detail** - **Extension Configuration 5GHz**.

10. When finished entering the settings, click **Save Config** at the bottom right of the page.

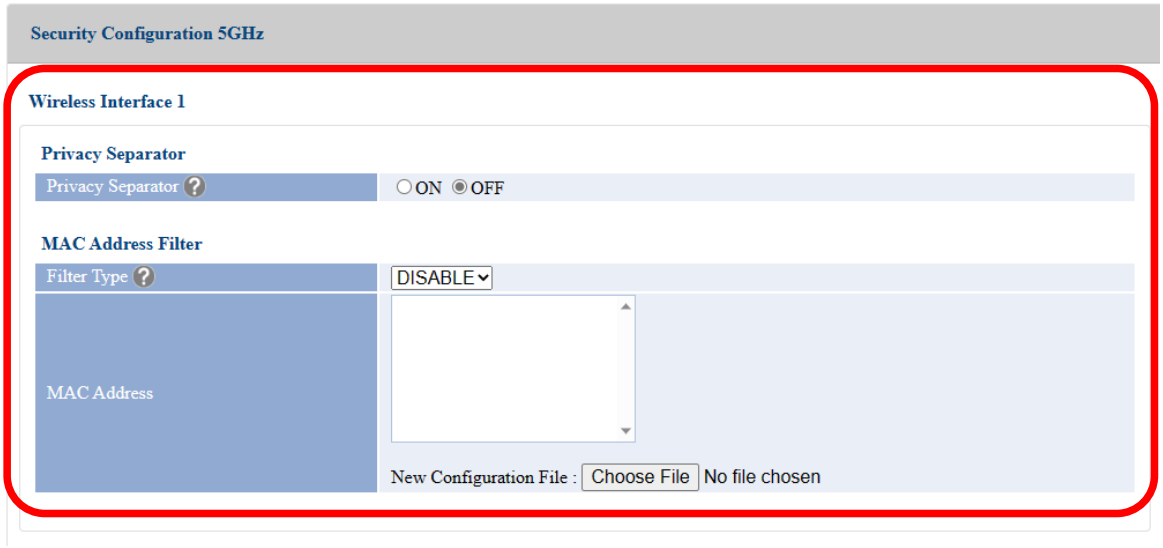
11. Click **Wireless Conf.** - **Wireless Detail** - **Security 5GHz** from the page menu.



Note

- To change the 2.4GHz band settings, click **Wireless Conf. - Wireless Detail** - **Security 2.4GHz**.

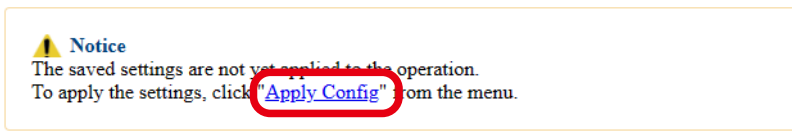
12. The Security Configuration 5GHz page is displayed.
Configure the privacy separator function and MAC address filter for each wireless interface.

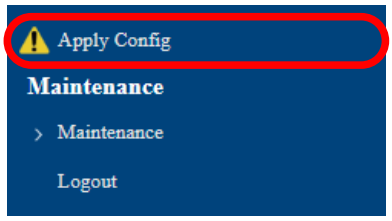


Note
- For details on the privacy separator, refer to **7-9. How to Filter Communication between Wireless Station Devices**.
- For how to configure the MAC Address filter setting, refer to **7-5-1. MAC Address Filter Setting**.

13. When finished entering the settings, click **Save Config** at the bottom right of the page.

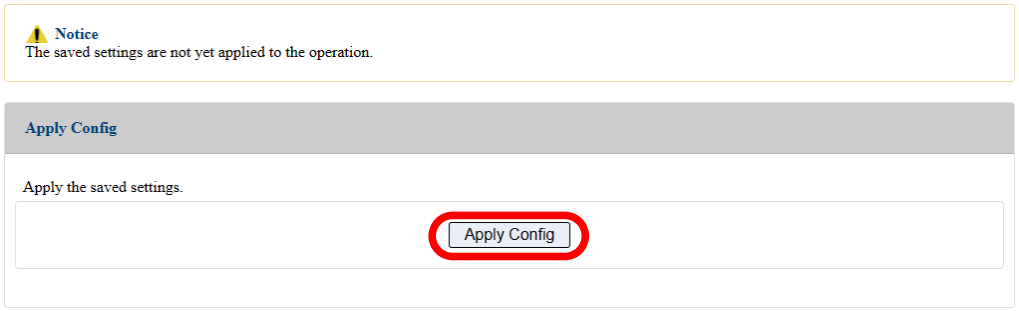
14. Click **Apply Config** at the top of the page or from the page menu.





Note
- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

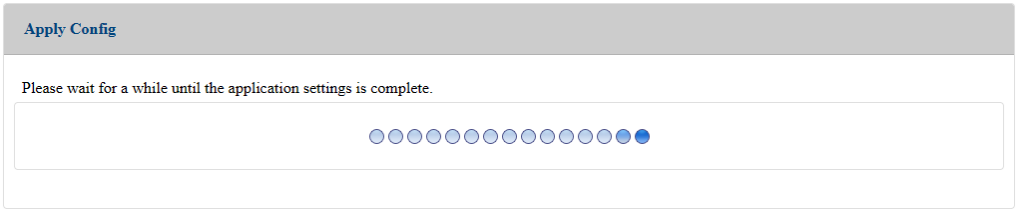
15. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

16. The configuration load message is displayed.
When the screen changes, it is finished.



3-3. Configuration Using AMC Manager®

3-3-1. How to Download AMC Manager®

AMC Manager® can be downloaded from the Silex Technology's website.
Access the URL below to download it.

US / Canadian Customers

https://www.silextechnology.com/

1. When the website is displayed, click **Support Center** in the bottom of the page.
2. Click **Software Download**.
3. In the **Software Download** page, click **AMC Manager®**.
4. Download AMC Manager®.

Chinese Customers

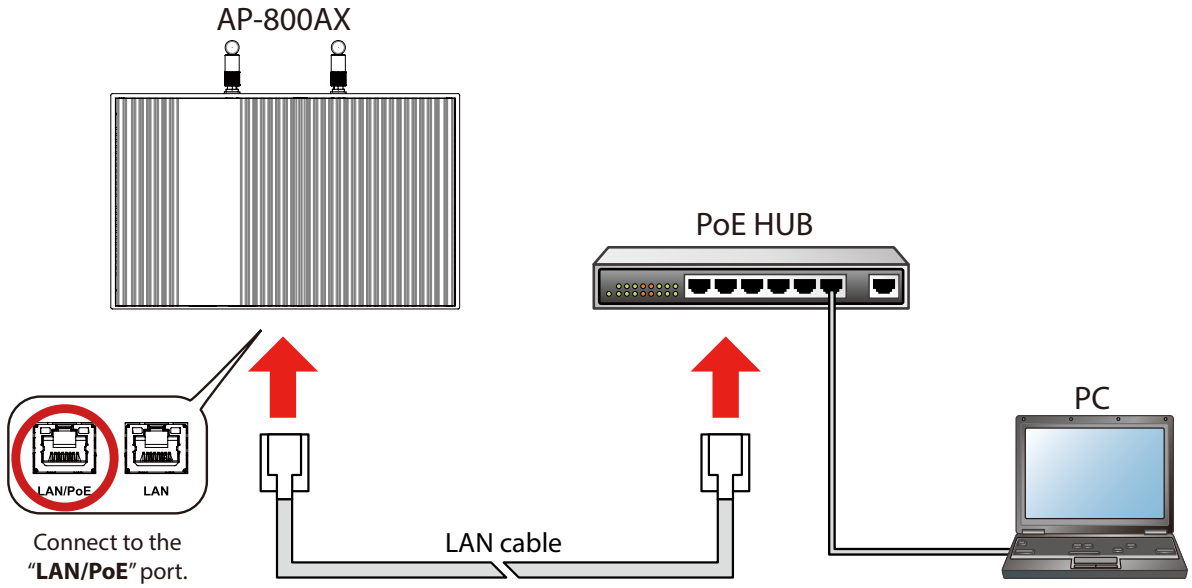
http://www.silex.com.cn/

1. 点选页面上方的菜单 [支持与下载] → [手册·软件下载] 选项。
2. 输入「AMC Manager(R)」，点击［搜索］。
3. 显示软件使用许可合同书页面。
   点击［同意进行下载］。
4. 显示下载页面。下载 AMC Manager® 软件。

3-3-2. Connecting AP-800AX and PC

The following explains how to configure AP-800AX individually.

1. Connect one end of LAN cable to PoE HUB and the other end to "**LAN/PoE**" port of AP-800AX.

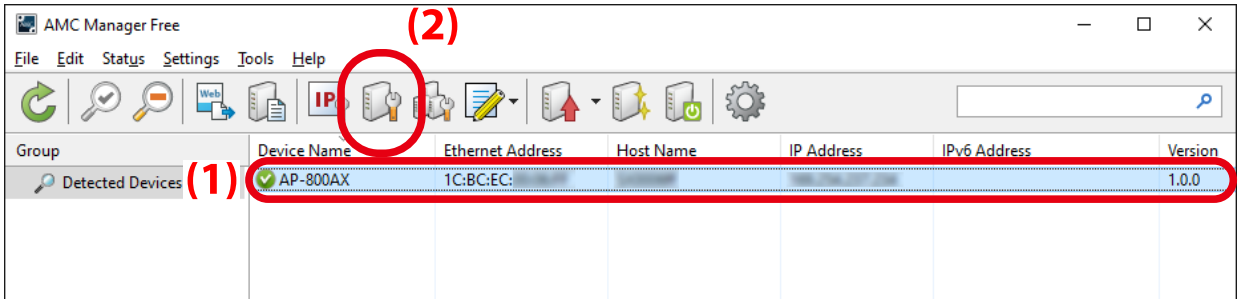


TIP

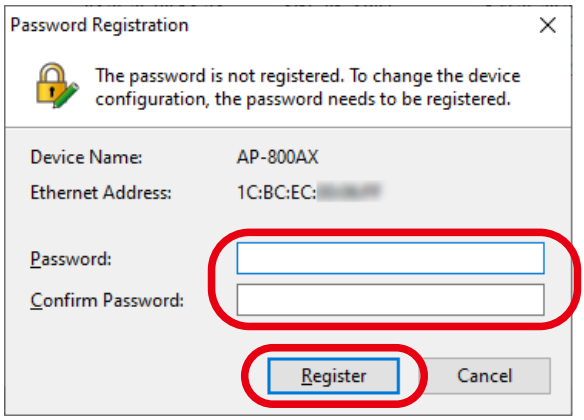
- When **DHCP Client** is set to **DISABLE** on AP-800AX, change the IP address of the PC to the one that is communicable with AP-800AX.
- When **DHCP Client** is set to **ENABLE** on AP-800AX, change the IP address setting of the PC to **Obtain an IP address automatically**.
- In the network setting of the PC, disable all network adapters except for the LAN port that is used for the configuration.
- When using an AC adapter, connect the AC adapter to AP-800AX and the AC adapter's plug to an outlet.

3-3-3. Individual Configuration Using AMC Manager®

1. Start AMC Manager® in the PC.
When AMC Manager® is started, AP-800AX is displayed in a device list. Select AP-800AX (1) and click the icon **Configure the device** ( )(2).



2. The password registration window is displayed.
Enter the login password to configure for AP-800AX and click **Register**.



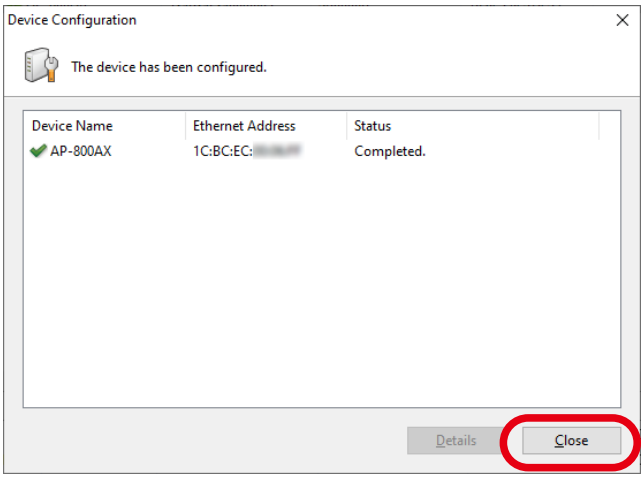
TIP

- Make a note of the password so that you can refer when you have forgotten it. Without the password, no settings can be changed unless AP-800AX is reset to the factory default settings.

Note

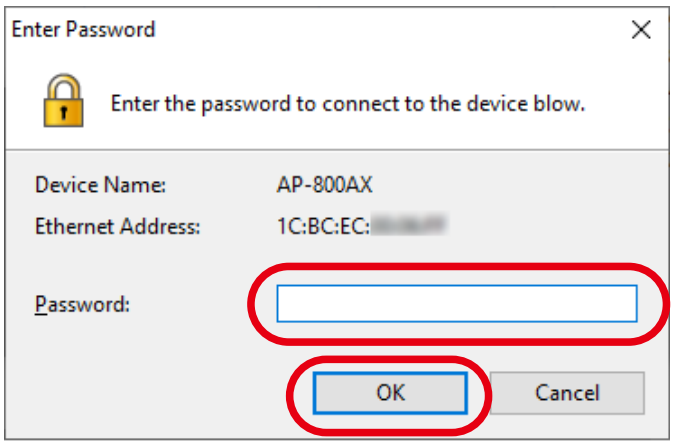
- When the password has already been set, the password registration screen is not displayed. Go on to **5** then.

3. When the password configuration is finished, AP-800AX is restarted.
Click **Close** when the window below appears.

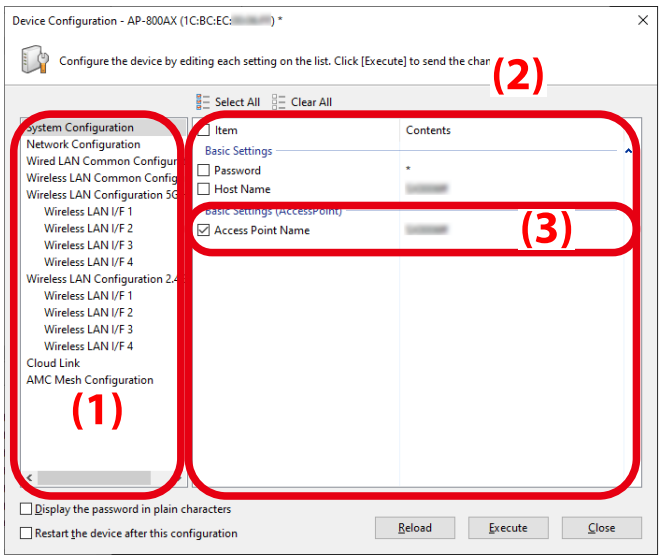


4. From the AMC Manager® main window, select AP-800AX again and click the icon **Configure the device** ( ).

5. When the password entry screen is displayed, enter the password that you have set at **2**, and click **OK**.



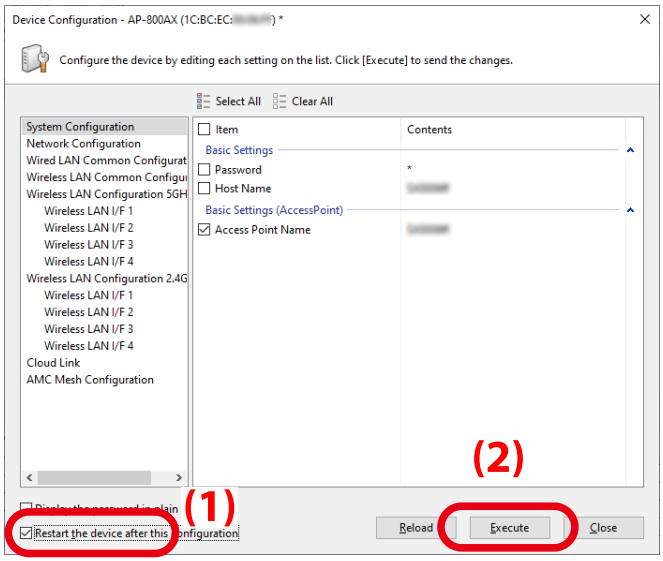
6. The device configuration window appears.
If a configuration category is clicked on the left side of the screen (1), the corresponding setting is displayed on the right side (2).
Check the check boxes of the items to update, and change the values (3).



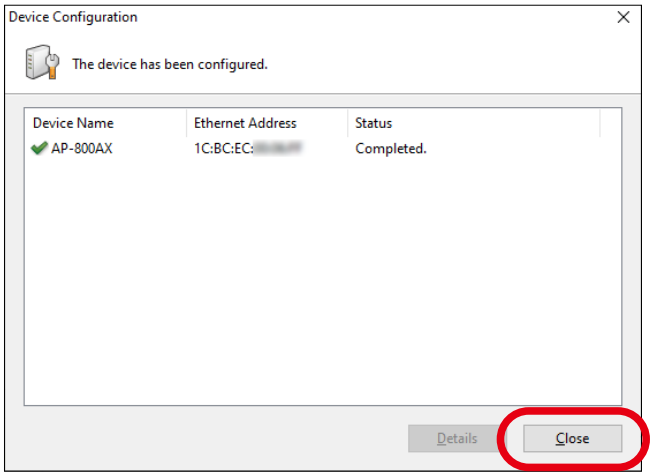
Note

- The setting whose check box is checked will be configured to AP-800AX. For the setting you do not want to change, clear the check box.

7. When the necessary settings are changed, check the check box of **Restart the device after this configuration** (1), and click **Execute** (2).



8. The configuration result is displayed. AP-800AX will automatically restart and operate with the new settings. Click **Close**.



3-3-4. Bulk Configuration Using AMC Manager®

For how to configure multiple AP-800AX units at once using AMC Manager®, refer to **AMC Manager® User's Manual**.

Note

- **AMC Manager® User's Manual** can be downloaded from the Silex Technology's website. For details, refer to **3-3-1. How to Download AMC Manager®**.

4. How to Connect Wireless Station Devices

4-1. Connecting PC

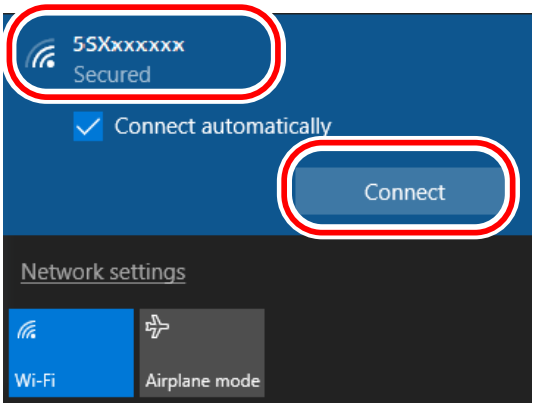
The following explains how to connect your PC to AP-800AX as a wireless station device.

Note

- Before you begin, get the SSID and Pre-Shared Key configured on AP-800AX.
- The following explanation uses Windows 10 for an example. When an operating system other than Windows 10 is used, the procedure may differ.

1. Click the network icon on the notification area (system tray) to view the wireless networks.

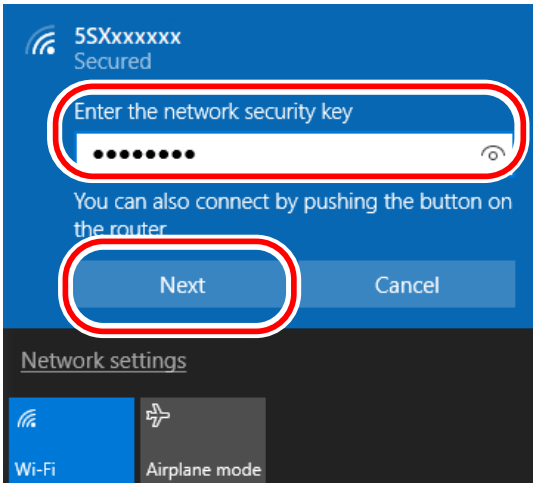
2. Select the SSID configured on AP-800AX from a list and click **Connect**.



Note

- If **Connect automatically** is checked, your PC will automatically connect to AP-800AX every time it restarts.

3. Enter the Pre-Shared key to **Security key** and click **Next**.



4. When a message **Do you want to allow your PC to be discoverable by other PCs and devices on this network?** appears, click **No**.

The Windows PC has been connected.

4-2. Connection Using Smart Wireless Setup

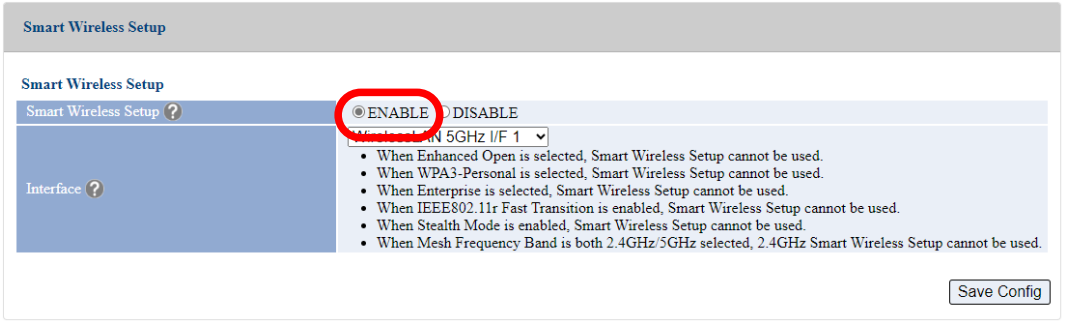
4-2-1. Checking Settings

1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless Detail** - **Smart Wireless Setup** from the page menu.

3. The Smart Wireless Setup page is displayed.
Check that **ENABLE** is selected for **Smart Wireless Setup**.



Note
- If **DISABLE** is selected, change the setting according to the instructions below.
  1) Select **ENABLE** for **Smart Wireless Setup**.
  2) Click **Save Config** on the bottom right of the Web page.
  3) Click **Apply Config** at the top of the Web page or from the page menu.
  4) When the Apply Config page appears, click **Apply Config**.
  5) The configuration load message is displayed. When the page changes, the setting is completed.

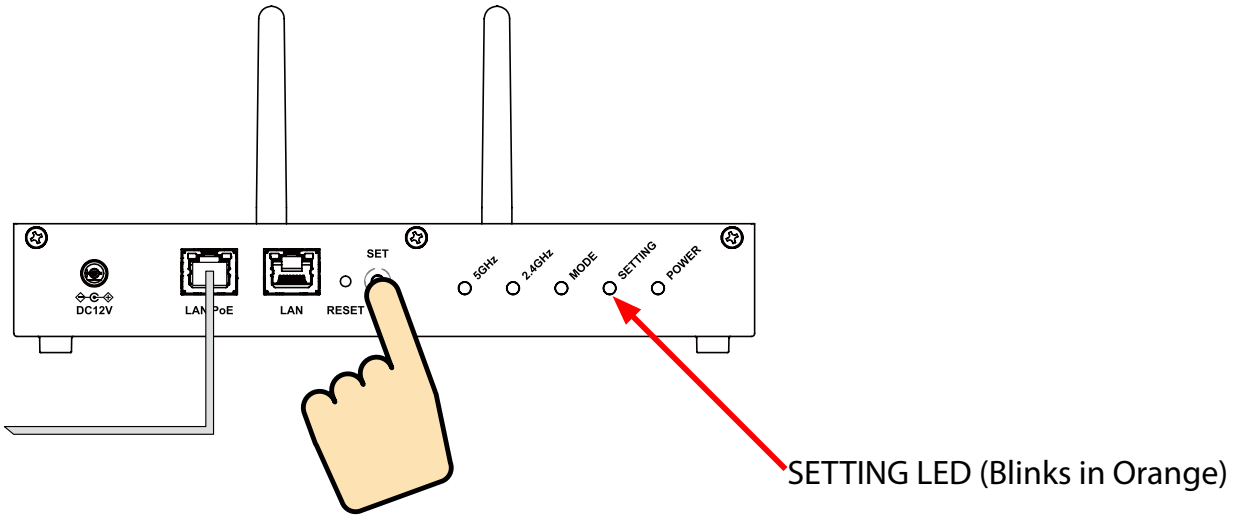
4-2-2. Making a Connection Using SET Switch

The following explains how to connect the wireless station device using the SET switch of AP-800AX.

TIP

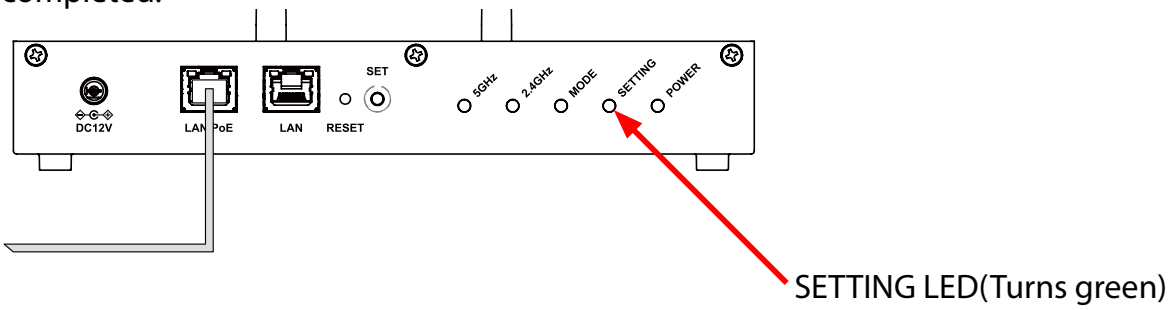
- To use this configuration method, the wireless station device must support Wi-Fi Protected Setup (WPS).

1. Press and hold the SET switch(Smart Wireless Setup switch) of AP-800AX, and release it when the SETTING LED flashes orange.



2. Press the wireless setup switch also on your wireless station device.

3. AP-800AX will start to communicate with your wireless station device and configure the same wireless settings. The SETTING LED will turn green when the connection is completed.



The wireless station device has been connected.

4-2-3. Making a Connection Using AP-800AX's Web Page

The following explains how to connect the wireless station device using the Web page of AP-800AX.

TIP

- To use this configuration method, the wireless station device must support Wi-Fi Protected Setup (WPS).
- This configuration method cannot be used when AP-800AX is operating in Configuration Mode. For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page - Displaying Web Page Using Network Connection**.

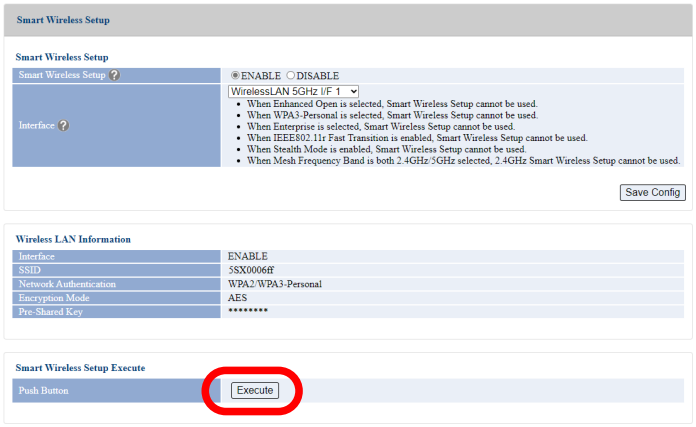
1. Display the AP-800AX's Web page.

Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

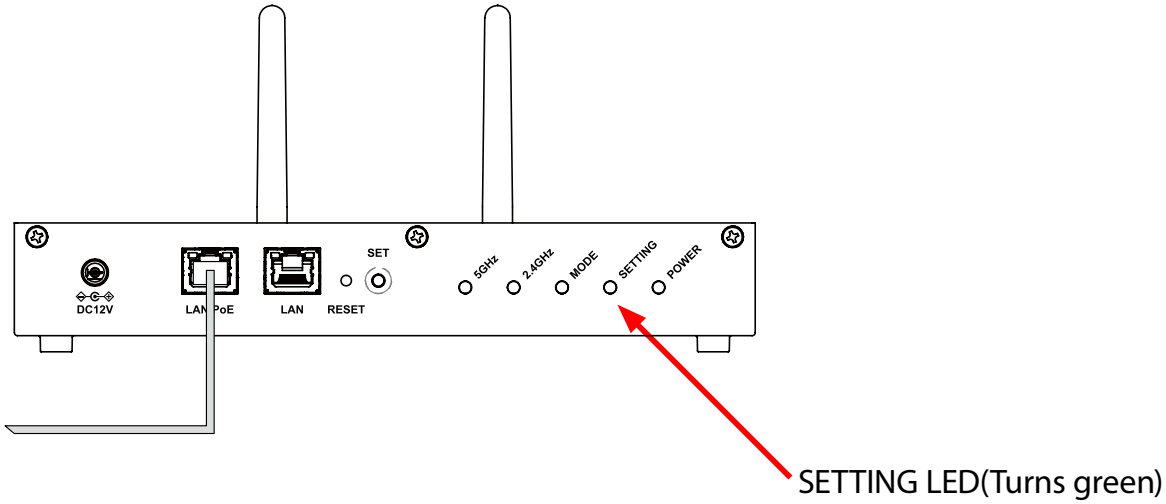
2. Click **Wireless Conf.** - **Wireless Detail** - **Smart Wireless Setup** from the page menu.

3. The Smart Wireless Setup page is displayed.
Click **Execute** at **Push Button**.



4. Press the wireless setup switch also on your wireless station device.

5. AP-800AX will start to communicate with your wireless station device and configure the same wireless settings. The SETTING LED will turn green when the connection is completed.



The wireless station device has been connected.

5. Product Installation

5-1. Installation Methods for Stable Wireless

For stable wireless communication, AP-800AX units need to be installed properly to your environment.
Install AP-800AX units and the wireless station devices in a place without any obstacles between them. Do not place anything that reflects radio waves, such as an iron plate or metal.
AP-800AX can be mounted on the wall using the brackets (optionally available), and DIN rails and screws (commercially available).

TIP

- The installation conditions described in this document are only examples. You may need to adjust it depending on the radio wave status. Temporarily install AP-800AX and measure the reception sensitivity, and if the reception sensitivity is poor, change the antenna orientation or location.

Note

- For how to mount AP-800AX to the wall, refer to **5-2. Mounting AP-800AX to Wall**.
- By limiting the transmission rate of AP-800AX, wireless communication may be improved. For details, refer to **7-3. Transmission Rate Setting for Stable Communication**.

Height of installation
The height should be about 2m from the ground.

Distance between the units
The distance should be about 20m, which is a supported wireless distance of AP-800AX.

TIP

- The wireless distance varies depending on the radio wave status in the surrounding area.

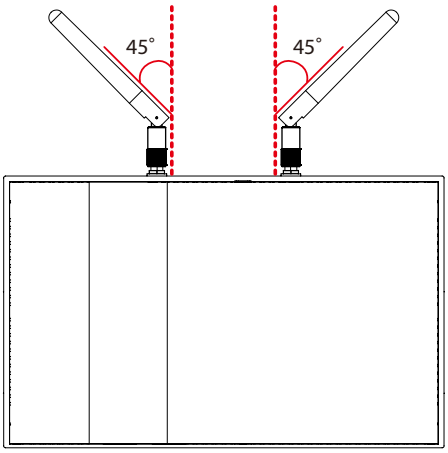
Note

- In the following cases, you may be able to improve wireless conditions by installing additional AP-800AX units and connecting them using the AMC Mesh function. For details, see **6. Network Expansion Using Multiple AP-800AX Units**.
  - When a distance between AP-800AX and the wireless station device is more than 20m.
  - When a distance between AP-800AX and the wireless station device is within 20m, but there are obstacles between them.

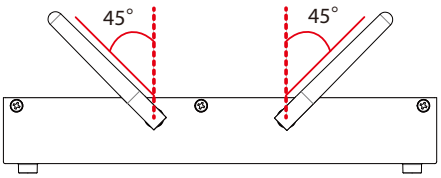
Direction of antenna

By adjusting the direction of the antenna appropriately for the installation location, the wireless communication may be improved. Rotate the antenna about 45 degrees as follows.

When placing AP-800AX vertically



When placing AP-800AX horizontally



TIP

- Do not push the antenna to a wrong direction.

5-2. Mounting AP-800AX to Wall

There are the following methods to mount AP-800AX on the wall.

Recommended methods:
- Mounting the unit using brackets
- Attaching to DIN rails

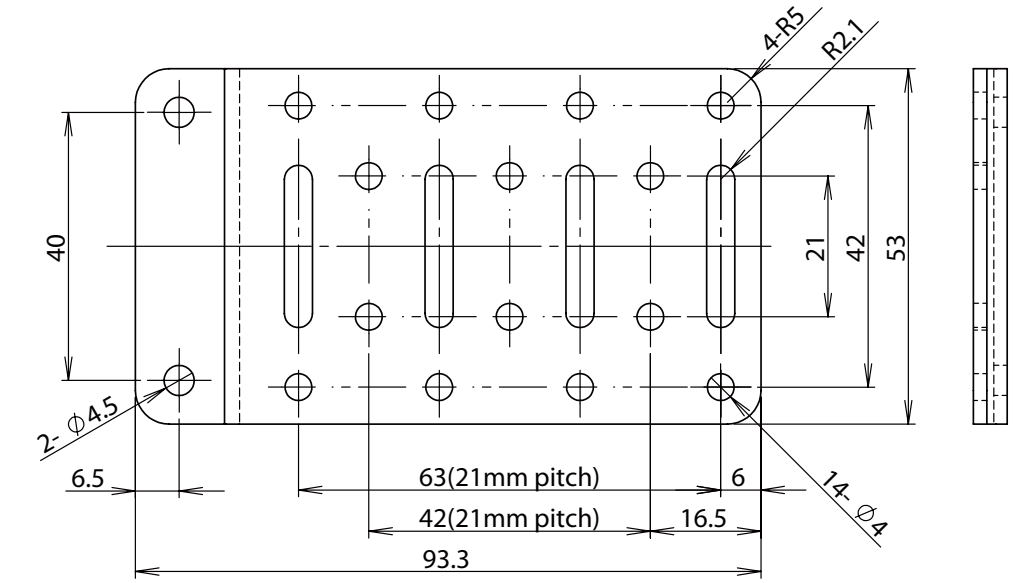
Quick method:
- Attaching the unit using screws

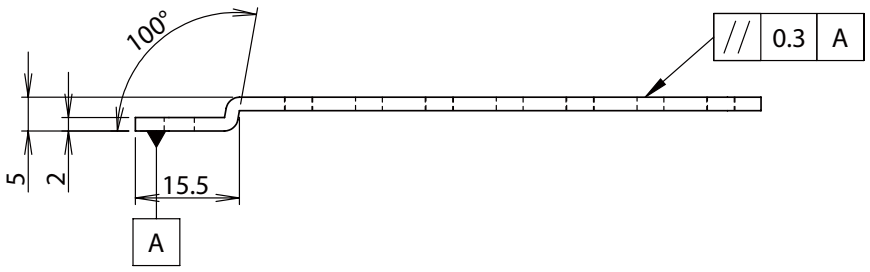
5-2-1. Wall Mounting with Brackets

AP-800AX can be mounted on a wall by attaching two brackets (Bracket Type XI) to the back of the unit.

Dimensions of Bracket

The following is the dimensions of the bracket.

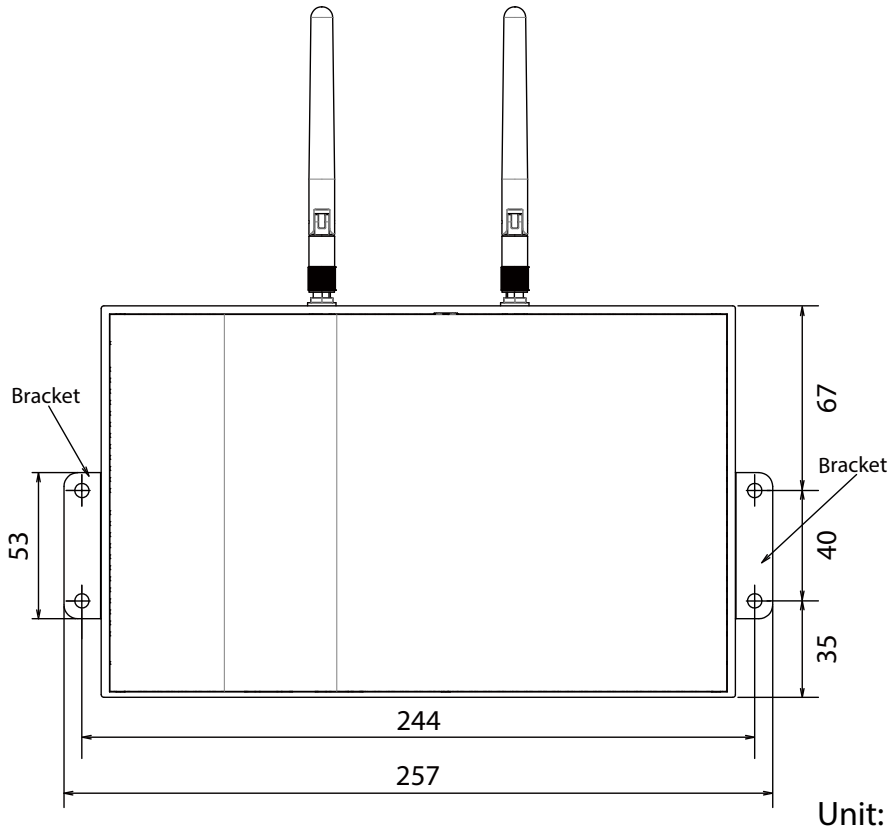




Unit: mm

Dimensions after Attaching Brackets

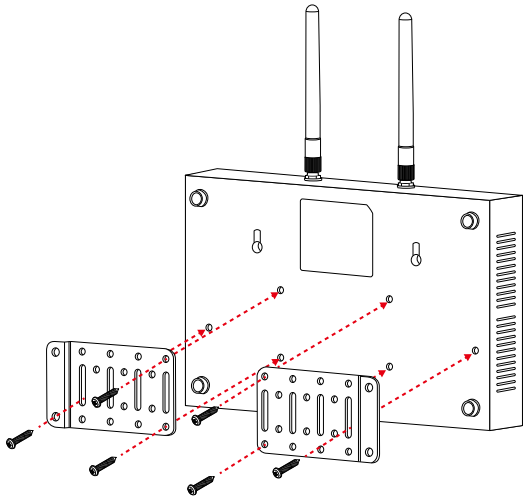
The following is the dimensions after the brackets are attached to AP-800AX.



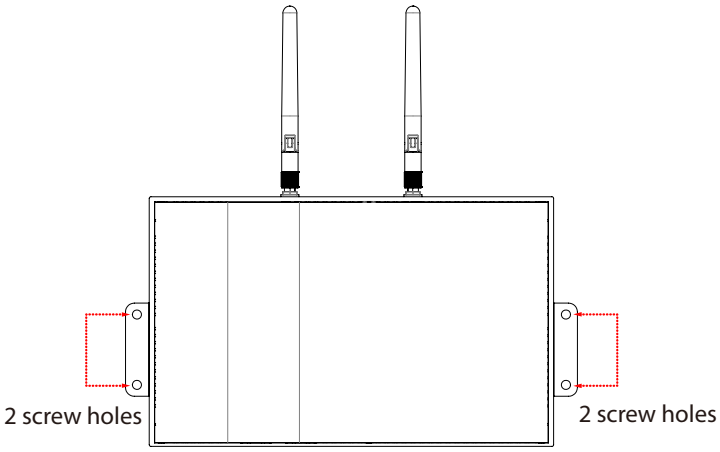
Unit: mm

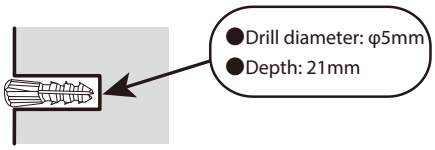
Mounting AP-800AX on Wall with Brackets

1. Align the bracket with the screw holes on the back of AP-800AX and fasten them with screws.



2. After attaching the bracket to AP-800AX, hold it to the wall and mark the positions of the four screw holes. Drill a pilot hole at the marked positions on the wall and insert the anchors.

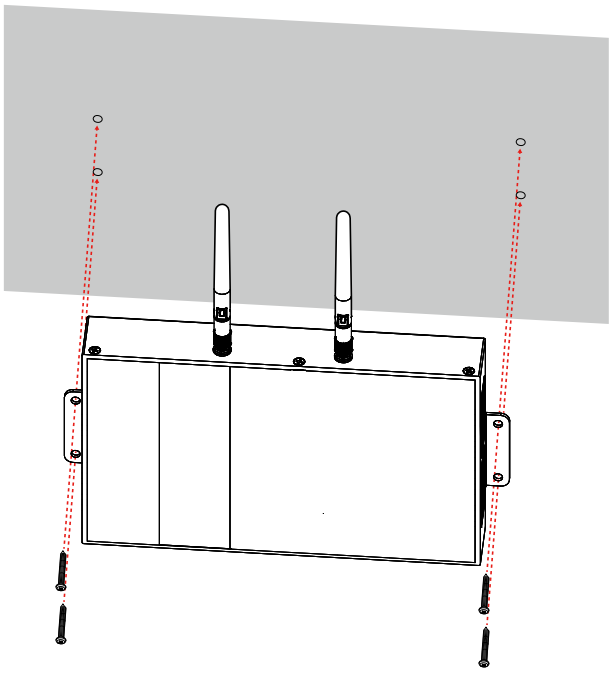




TIP

- Please be careful not to tilt AP-800AX.

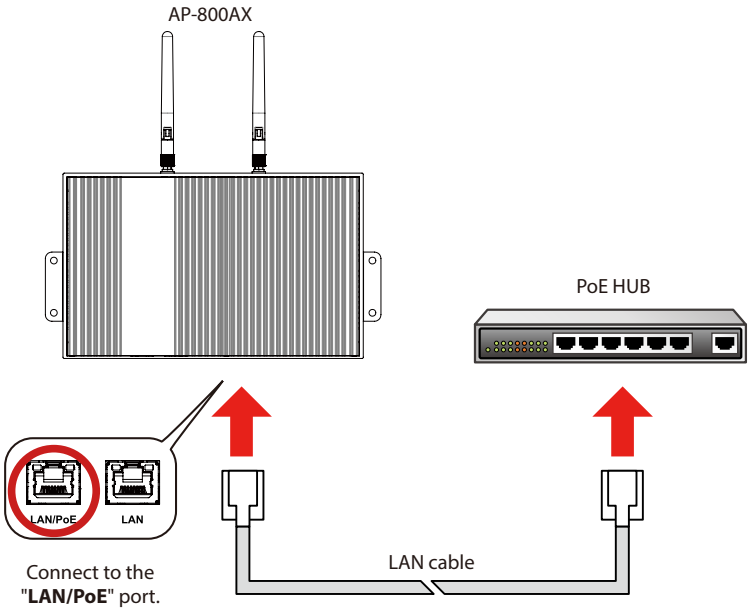
3. Fix the AP-800AX to the wall.
Align the screw holes of the bracket with the anchors inserted at step 2 and screw them.



TIP

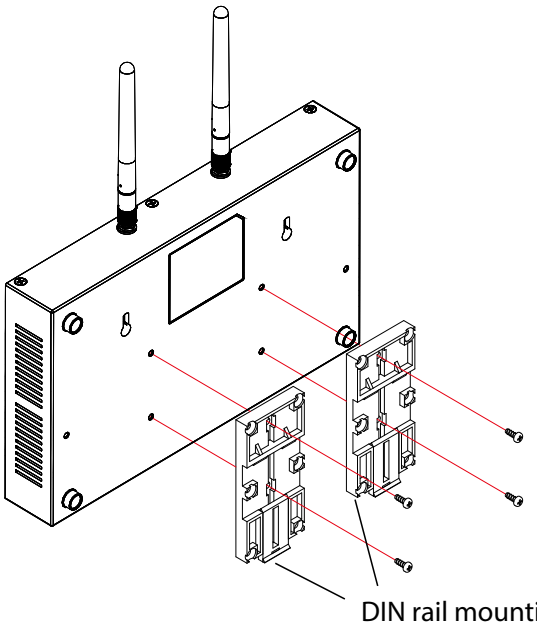
- Silex Technology is not responsible for any damages caused by insufficient mounting. Make sure that AP-800AX is securely fixed to the wall so that it does not fall due to the weight of the product and cables.

4. Connect one end of the LAN cable to PoE HUB and the other end to "**LAN/PoE**" port of AP-800AX.



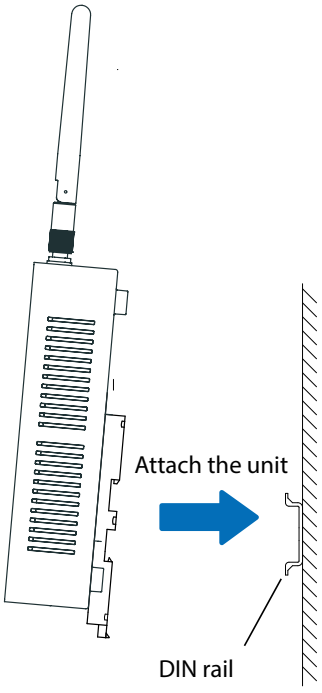
5-2-2. Attaching to DIN Rail

1. Attach DIN rail mounting plates (commercially available) to the back of AP-800AX.



Note
- DIN rail and DIN rail mounting plate are not contained in the product package. They need to be purchased separately.
- Recommended DIN rail : TAKACHI DRA-1

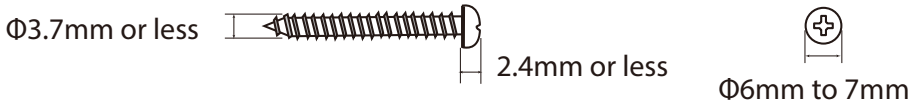
2. Mount AP-800AX (with DIN rail mounting plates) on the DIN rail.



5-2-3. Wall Mounting with Screws

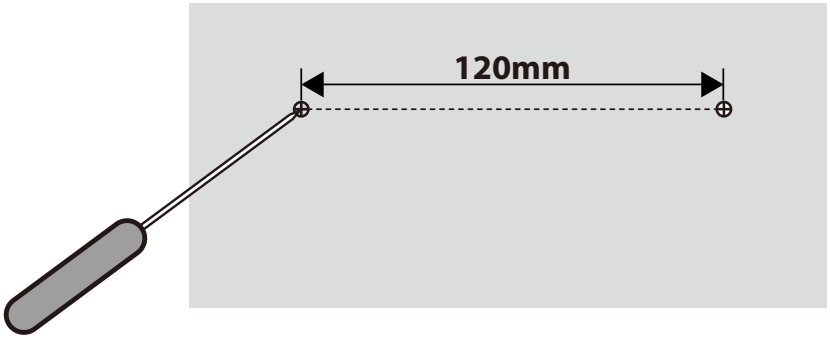
Prepare two screws to attach AP-800AX to the wall.

Screw size



* For the screw length, select it according to the material and thickness of the wall.

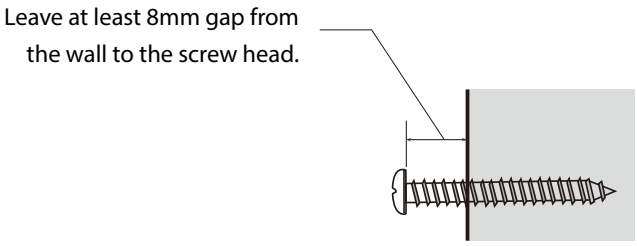
1. Mark the screw hole positions (two positions) on the wall by using an awl or similar tool. The distance between the holes is 120mm.



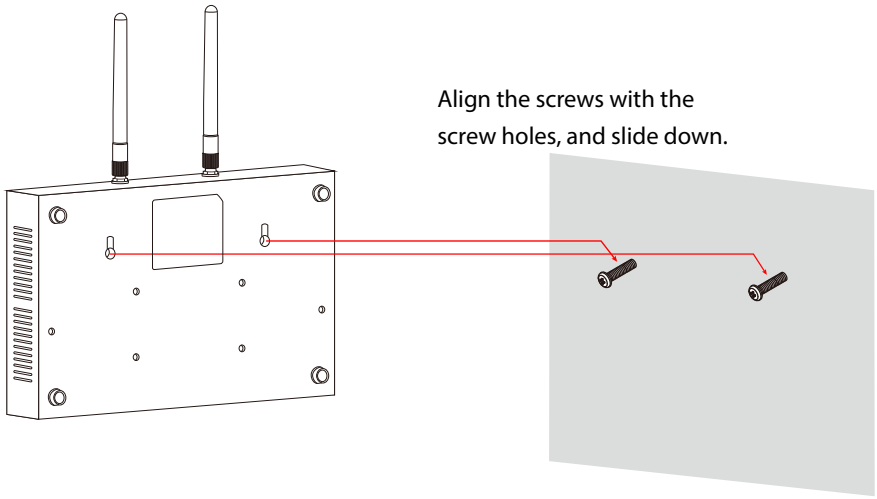
Note

- For gypsum boards or concrete walls where screws cannot be directly tightened, drill a pilot hole at the marked positions and insert anchors (commercially available anchors) that fit the screw.

2. Screw the marked positions (2 positions). Be sure to leave the 8mm gap between the wall and the screw head so that AP-800AX can be hung on it.



3. To mount AP-800AX to the wall, align the screws of the wall with the screw holes of AP-800AX and move the unit down along the wall to fix it.

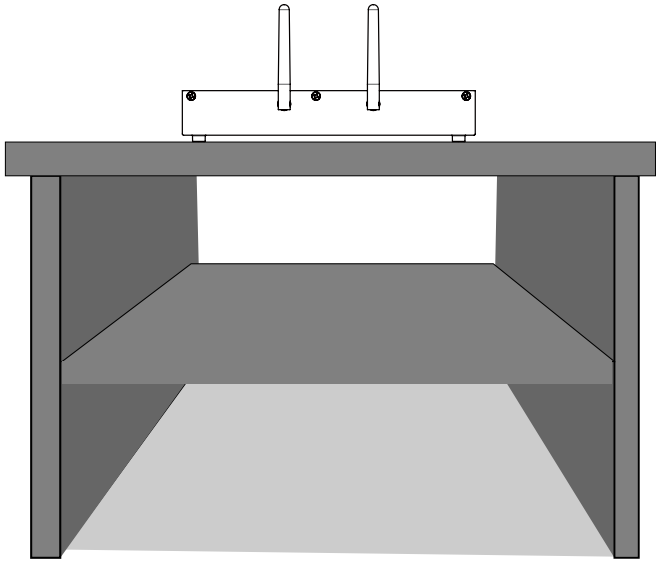


TIP

- Make sure that the unit is firmly attached to the screws. Failure to do so may cause the unit to fall.
- Silex Technology is not responsible for any damage caused by insufficient mounting. Make sure that AP-800AX is securely fixed after the installation so that it does not fall due to the weight of the product and cables.

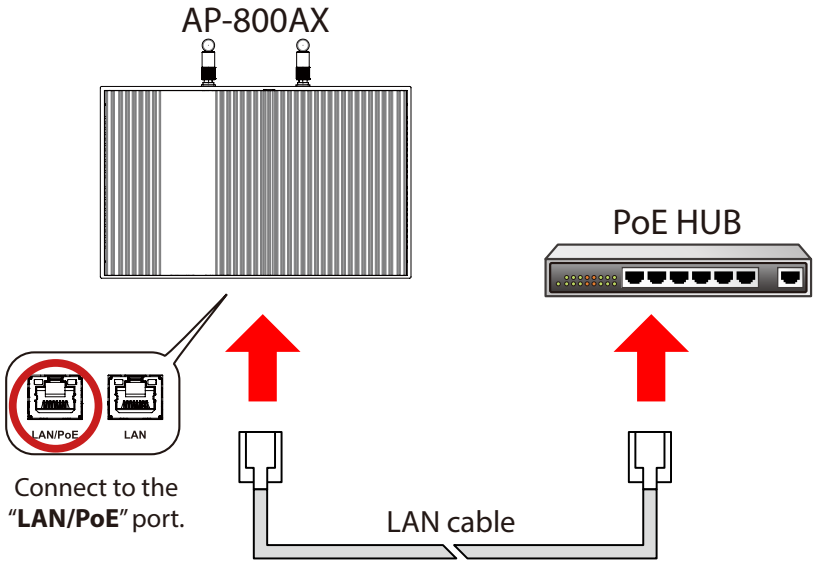
5-3. Placing AP-800AX onto Table

When placing AP-800AX horizontally onto the table, make sure that the table has good sight of view.



TIP - Do not place AP-800AX onto a tilted or unstable place.

Connect AP-800AX and PoE HUB using a LAN cable.



TIP - When using an AC adapter, connect the AC adapter to AP-800AX and the plug to an outlet.

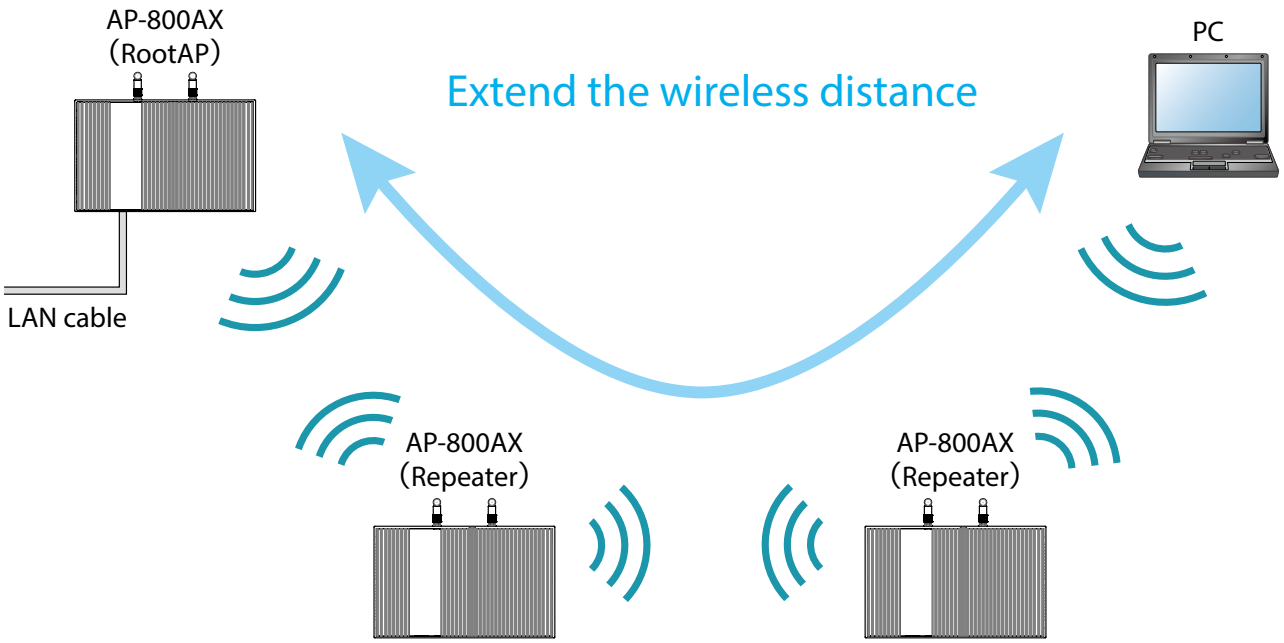
6. Network Expansion Using Multiple AP-800AX Units

6-1. About AMC Mesh

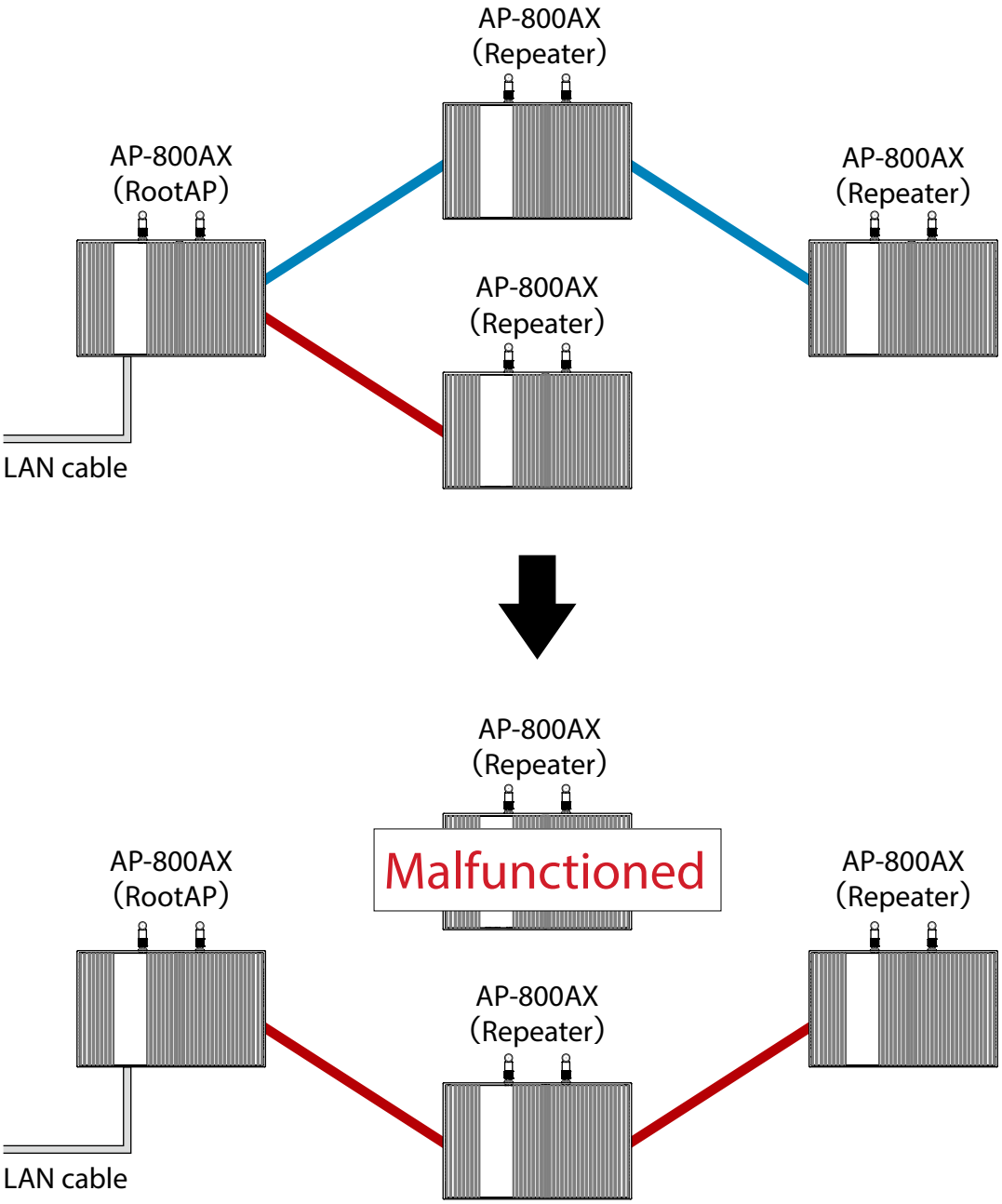
If this function is used, two or more AP-800AX Access Points can communicate each other. By linking several AMC Mesh compatible Access Points (hereinafter referred to as "AMC Mesh devices") wirelessly, wireless distance can be expanded to locations where it is difficult to establish the backbone network.
AP-800AX can connect the AMC Mesh devices using both 5GHz and 2.4GHz bands. Even if the communication of 5GHz band is temporarily disabled due to DFS, the connection will continue using 2.4GHz band.
AMC Mesh is composed of one RootAP (running as a host device) and plural Repeater APs (running as station devices).

TIP

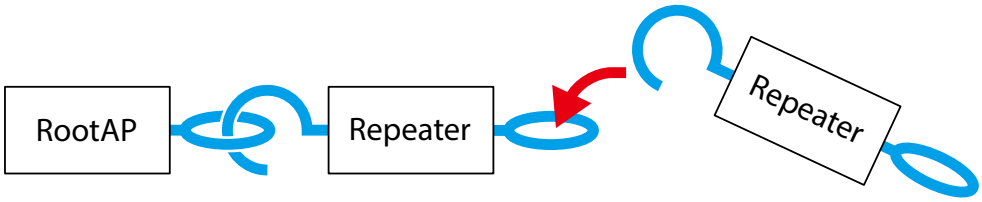
- Please check that all AP-800AX Access Points are running on the same version of firmware.
- To connect the AMC Mesh network, AP-800AX must have the same Mesh group name as that network.
- When both 5GHz and 2.4GHz bands are checked at **Mesh Frequency Band** of the AMC Mesh function, 2.4GHz band connection will be used for redundancy of 5GHz band.
  5GHz band will be used when both bands are available, and 2.4GHz band will be used only when 5GHz band is not available.



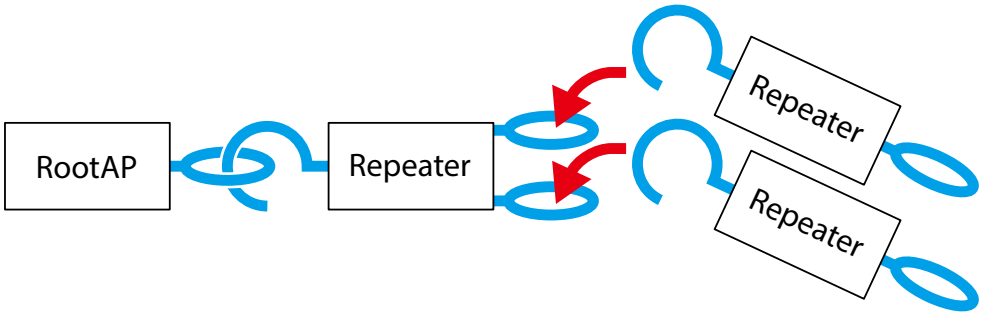
AMC Mesh function supports two ways of communication method; one is to fix the destination by registering the MAC Address, and the other one is to switch the destination automatically according to the wireless status. As shown in the image below, even if the relay device fails, communication can continue by using other relay devices.



The number of Repeater APs as specified at **Max Hop Number** can be connected for each communication route.
For example, if **Max Hop Number** is set to "**3**", up to 3 Repeater APs can be connected.
When connecting Access Points, use the first AP as RootAP and the second or later APs as Repeater APs. As shown in below image, connect APs starting from the RootAP.



Even when connecting multiple Repeater APs to one AP-800AN unit, connect them starting from RootAP.



To create an AMC Mesh network where the destination of AP-800AX changes depending on the network status, see **6-3. Establishing a Network That Changes Communication Route Automatically**.
To create an AMC Mesh network where the destination of AP-800AX is fixed by registering the MAC Address, see **6-4. Establishing a Network That Fixes Communication Route**.

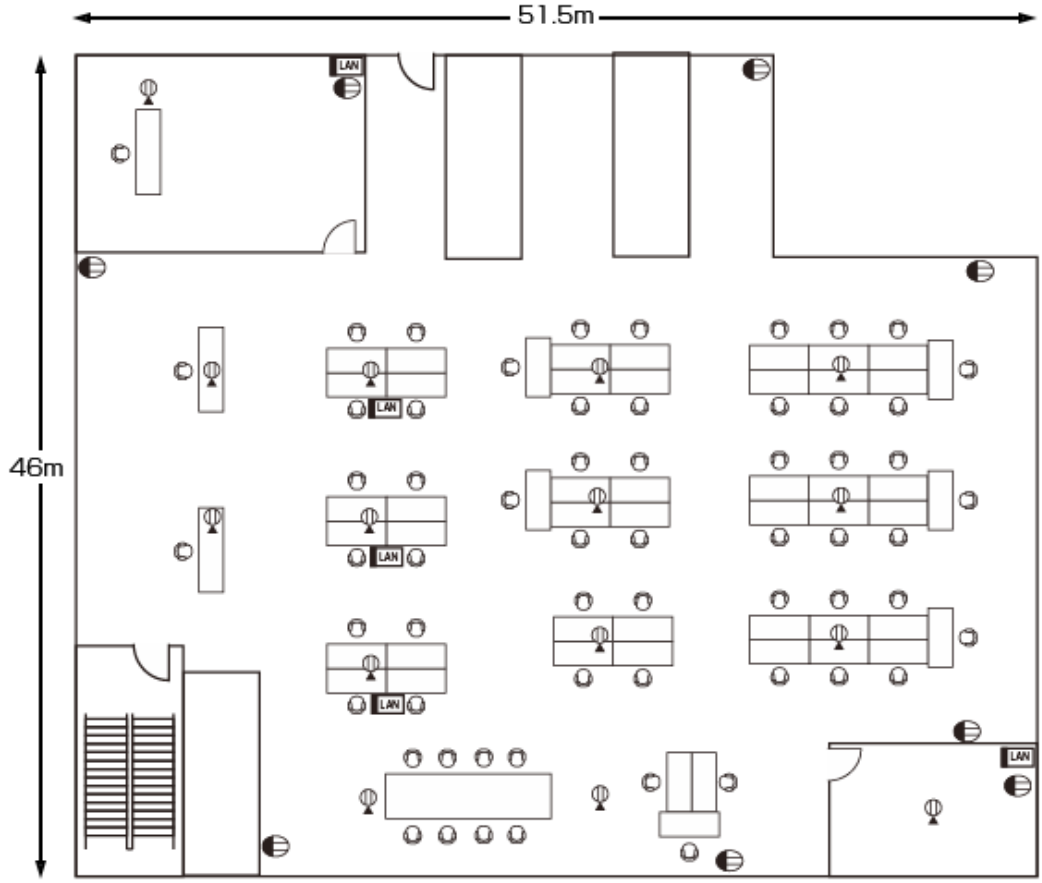
6-2. Necessary Preparations

The following describes what to prepare before establishing an AMC Mesh network using multiple AP-800AX units.
Prepare the followings to proceed the configuration and installation easily.

6-2-1. Preparing Floor Plan Image

Please prepare the floor plan image of the floor where AP-800AX units are to be installed, which meets the following conditions.

- The scale is clearly indicated, or approximate distance / area can be confirmed.
- The spot of connection to the backbone network is specifically located.
- The location of outlet can be identified.

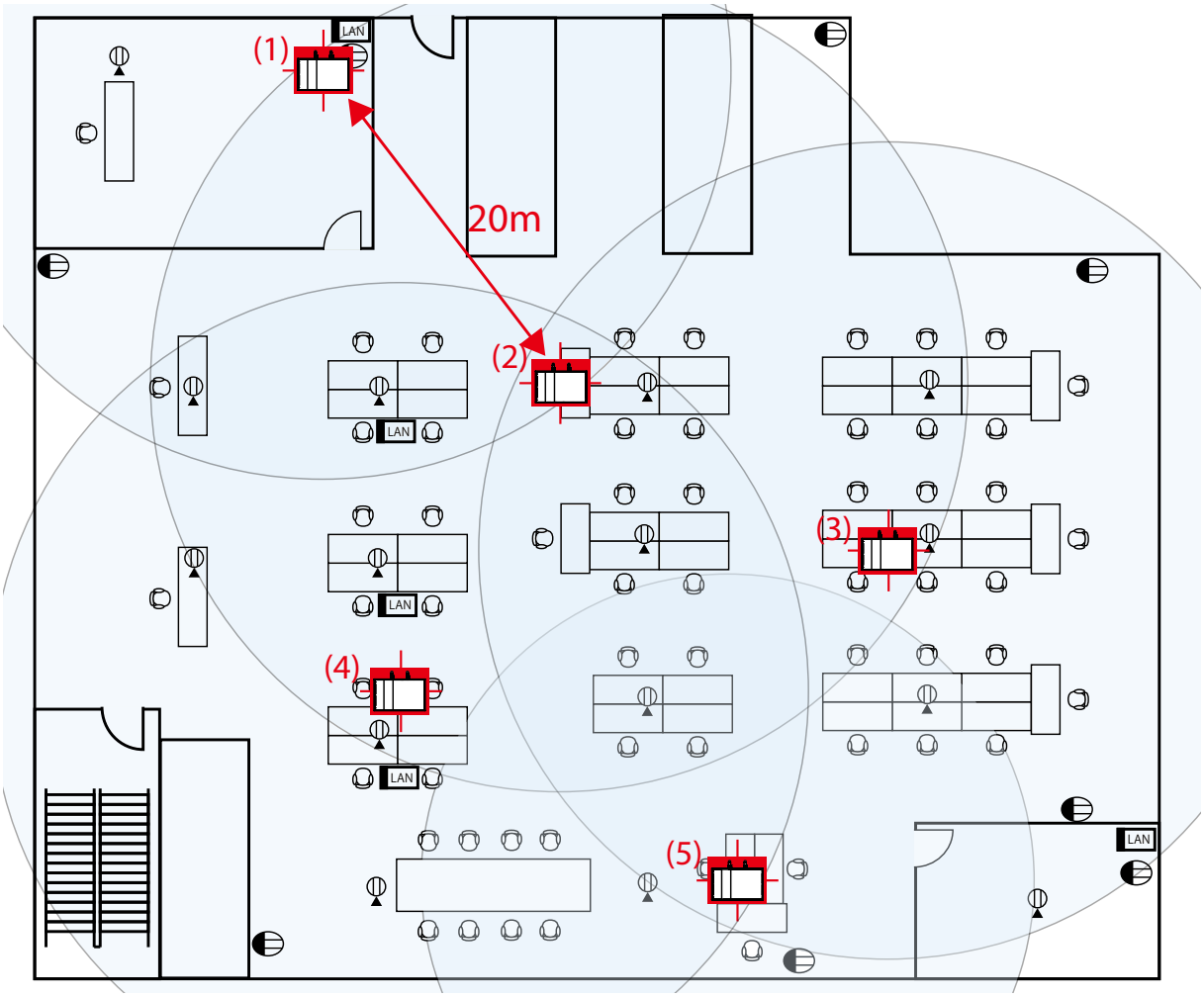


Note

- If you can create an image file of the floor plan using a scanner or camera, you can open it on Windows and use it as the background image. By using the floor plan image on Mesh Monitor, accurate management of each unit location is possible. For how to use the floor plan image as the background image on Mesh Monitor, refer to **Mesh Monitor User's Manual (AMC Mesh)**.

6-2-2. Determination of Unit Locations

First of all, allocate the AP-800AX unit that connects to the backbone network, and then allocate other units by keeping 20m interval starting from the first unit. Make sure that each unit is allocated within a distance of 20m from the other one so that radio signals can reach.

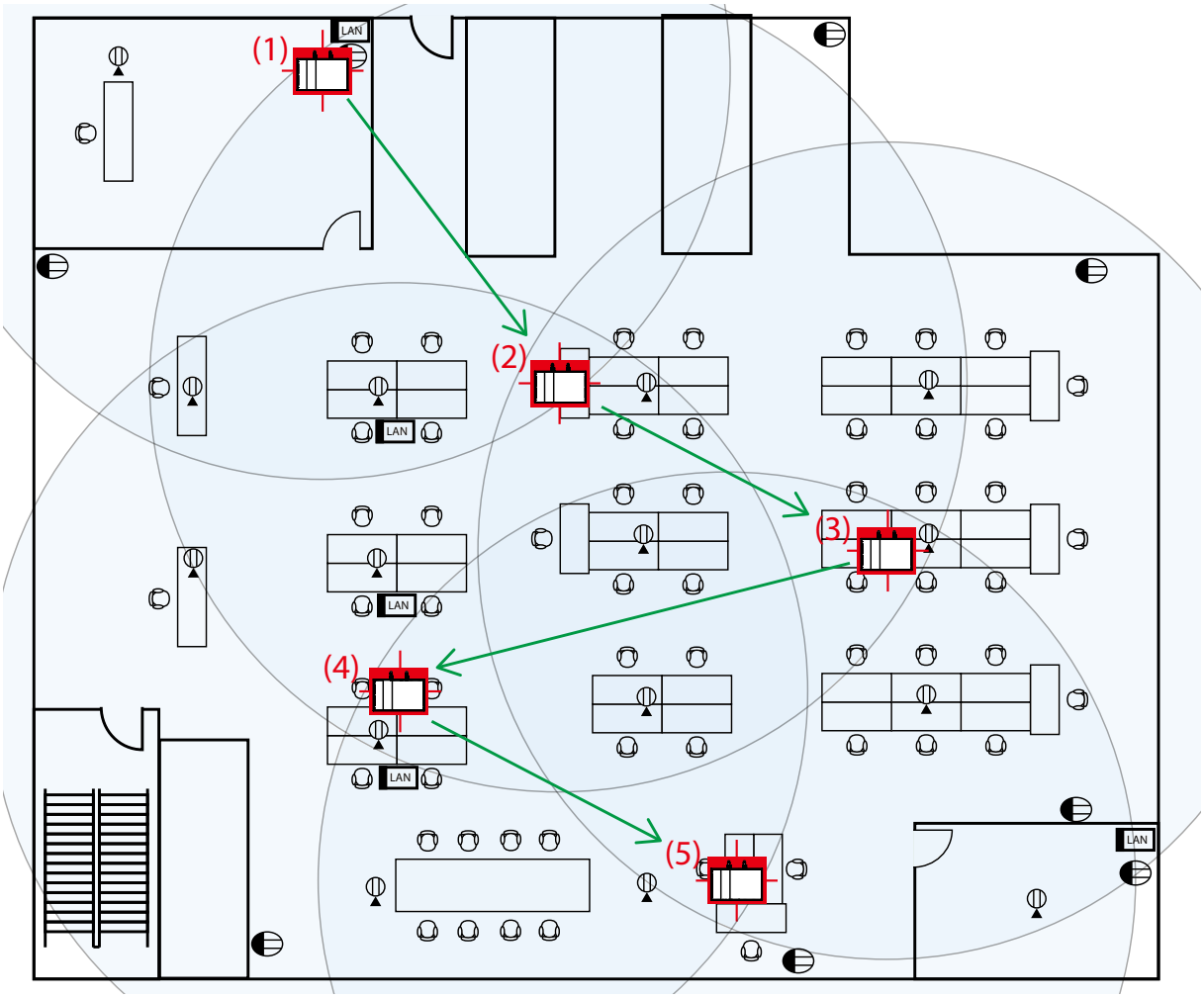


TIP

- When multiple AP-800AX units are connected to the backbone network via wired LAN, they have to be connected to the same subnetwork to configure the AMC Mesh network.
- To install AP-800AX to a different network environment, change the **Mesh Group Name** and create a separate AMC Mesh group.

Note

- First, install AP-800AX that connects to the backbone network, and then install Repeater APs.



6-3. Establishing a Network That Changes Communication Route Automatically

The following describes how to establish an AMC Mesh network that changes the communication route according to the network status.
First, configure the RootAP, and then configure the Repeaters.

TIP

- Since the destination device is not fixed, AP-800AX may connect to an unexpected device if the installation position and communication route are not planned in advance. Refer to **6-2. Necessary Preparations** to determine the installation position in advance.

6-3-1. RootAP Settings

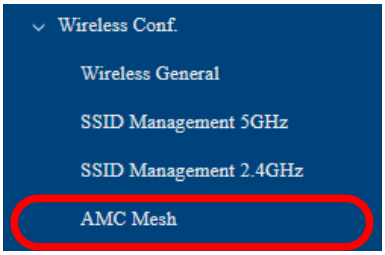
How to configure AP-800AX (first unit) as RootAP is explained.

1. Display the Web page of AP-800AX (first unit).

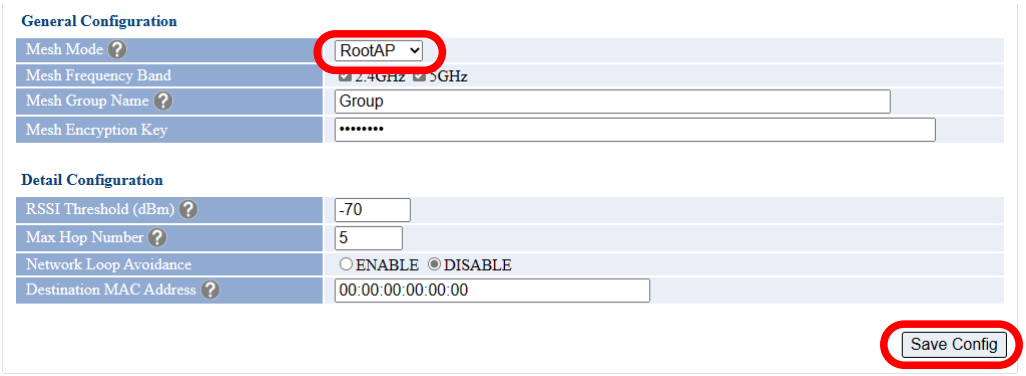
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **AMC Mesh** from the page menu.



3. The AMC Mesh Configuration page is displayed.
Under **General Configuration**, select **RootAP** for **Mesh Mode**, configure each setting and click **Save Config**.



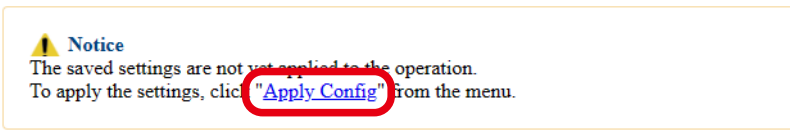
TIP

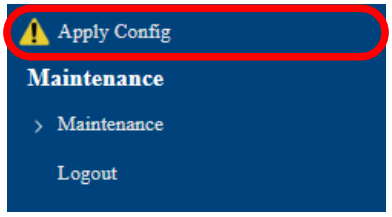
- By selecting **ENABLE** for **Network Loop Avoidance**, it is possible to prevent network troubles that may occur on a wired LAN connection between RootAP and Repeater.
  - If **ENABLE** is selected, the product performance may decrease. The recommended setting is **DISABLE**.
  - When selecting **ENABLE**, select **ENABLE** on all RootAPs and Repeaters.
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

- For details on each configuration item, refer to **A-2-4. AMC Mesh Configuration**.
- The following settings will also be used for the Repeater settings that will come after this. Make a note of these settings.
  - Mesh Group Name
  - Mesh Encryption Key

4. Click **Apply Config** at the top of the page or from the page menu.

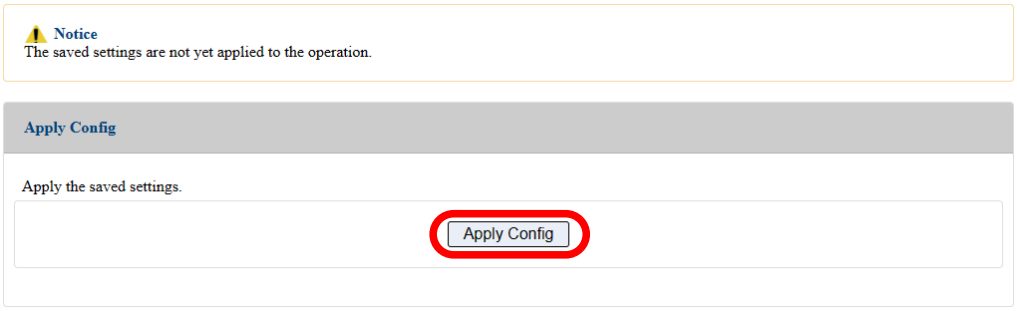




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

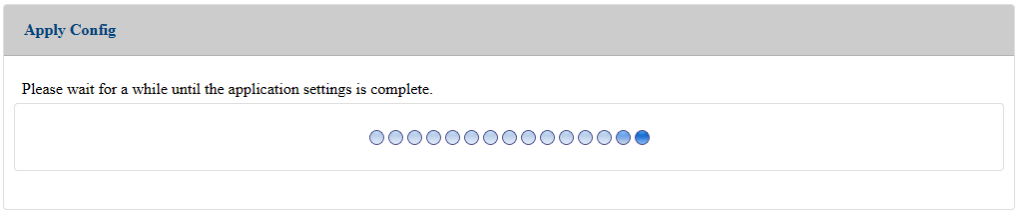
5. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.



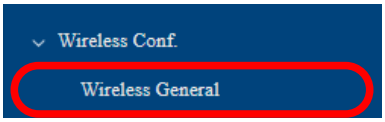
6-3-2. Preparation for Repeater Settings

Before proceeding the Repeater settings, it is necessary to check the settings of destination RootAP.
The following explains the procedure.

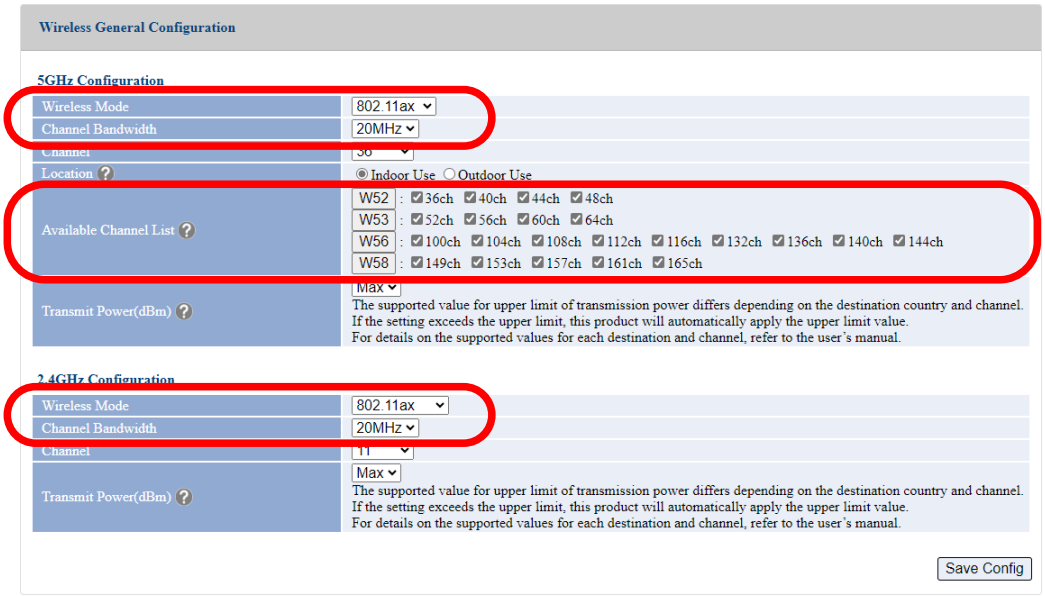
1. Display the Web page of RootAP.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless General** from the page menu.



3. The Wireless General Configuration page is displayed. Make a note of the followings.
- Wireless Mode
- Channel Bandwidth
- Available Channel List



Note
- For details on each configuration item, refer to **A-2-1. Wireless General Configuration**.

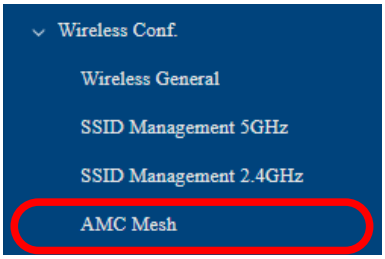
6-3-3. Repeater Settings

The following explains how to configure AP-800AX (second and subsequent units) as a Repeater.

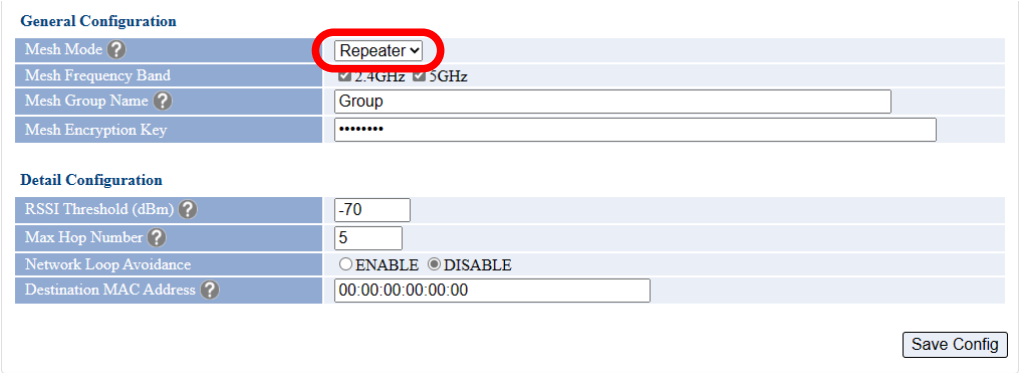
1. Display the Web page of AP-800AX (second and subsequent units).

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **AMC Mesh** from the page menu.

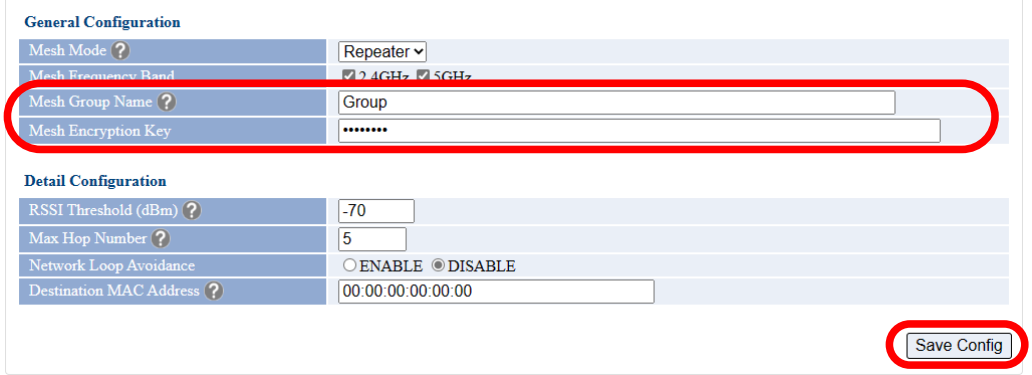


3. The AMC Mesh Configuration page is displayed.
Under **General Configuration**, select **Repeater** for **Mesh Mode**.



4. For the following settings, configure the same setting as the destination RootAP or Repeater (hereafter referred to as 'host AP'), and click **Save Config**.

- Mesh Group Name
- Mesh Encryption Key



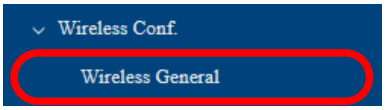
TIP

- By selecting **ENABLE** for **Network Loop Avoidance**, it is possible to prevent network troubles that may occur on a wired LAN connection between RootAP and Repeater.
  - If **ENABLE** is selected, the product performance may decrease. The recommended setting is **DISABLE**.
  - When selecting **ENABLE**, select **ENABLE** on all RootAPs and Repeaters.
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

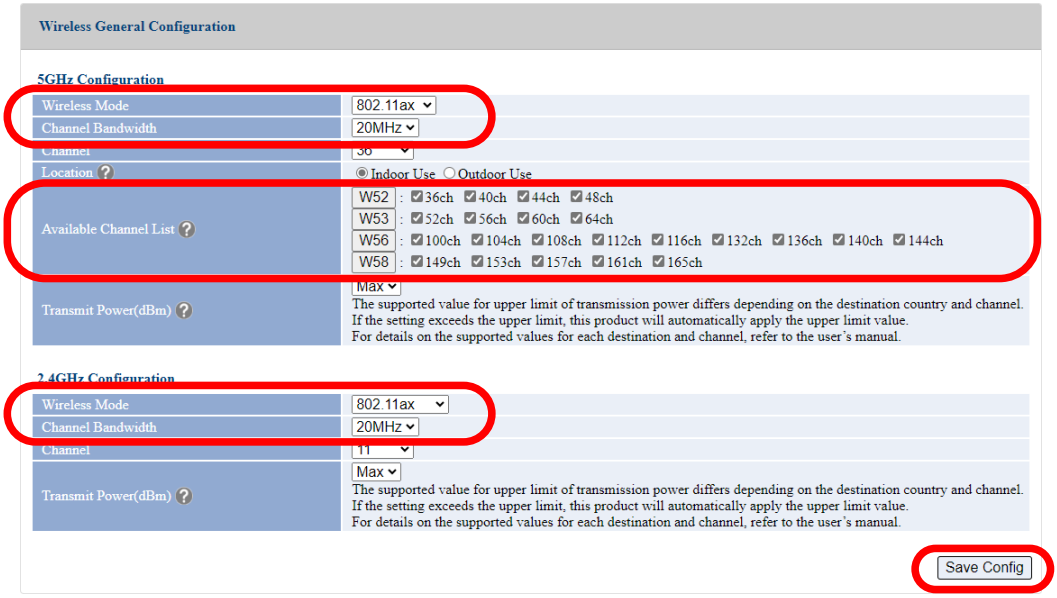
- Configure the same settings as those you have made a note of at the step **3** of **6-3-1. RootAP Settings**.
- For details on each configuration item, refer to **A-2-4. AMC Mesh Configuration**.

5. Click **Wireless Conf.** - **Wireless General** from the page menu.



6. The Wireless General Configuration page is displayed.
For the following settings, configure the same setting as the host AP, and click **Save Config**.

- Wireless Mode
- Channel Bandwidth
- Available Channel List



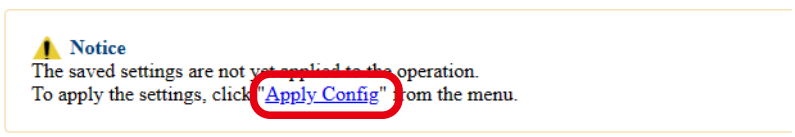
TIP

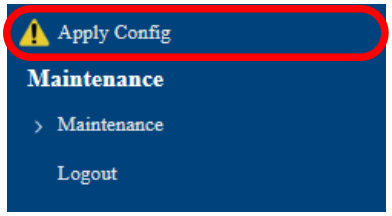
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

- Configure the same settings as those you have made a note of at the step **3** of **6-3-2. Preparation for Repeater Settings**.
- For details on each configuration item, refer to **A-2-1. Wireless General Configuration**.

7. Click **Apply Config** at the top of the page or from the page menu.

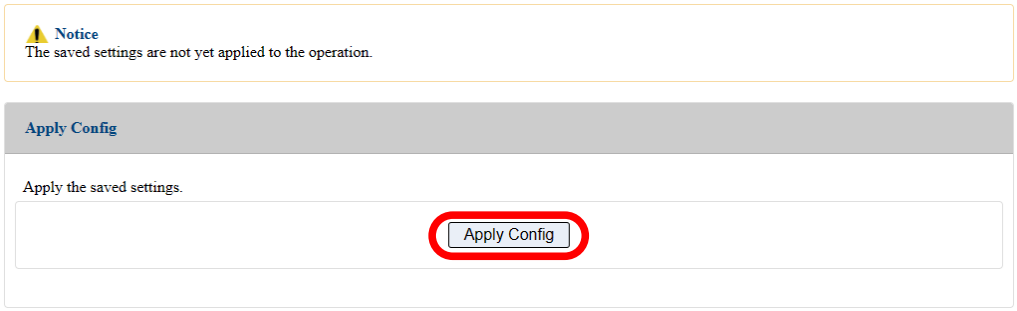




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

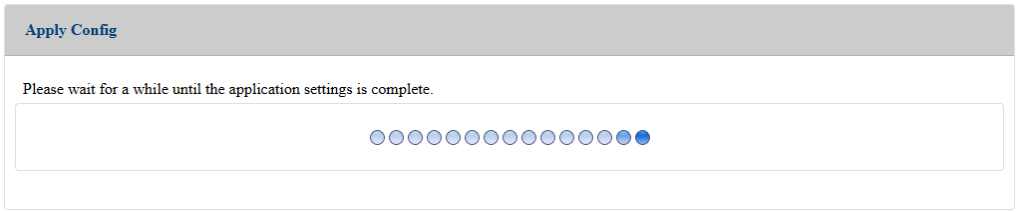
8. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

9. The configuration load message is displayed.
When the screen changes, it is finished.



6-4. Establishing a Network That Fixes Communication Route

The following describes how to establish an AMC Mesh network that fixes communication route. First, configure the RootAP and then configure the Repeater.

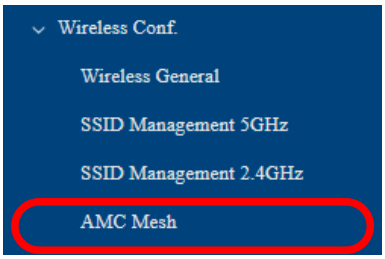
6-4-1. RootAP Settings

How to configure AP-800AX (first unit) as RootAP is explained.

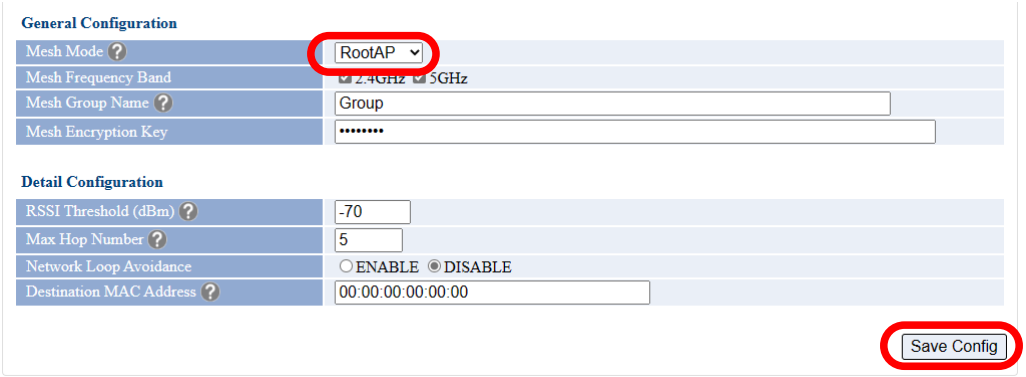
1. Display the Web page of AP-800AX (first unit).

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **AMC Mesh** from the page menu.



3. The AMC Mesh Configuration page is displayed.
Under **General Configuration**, select **RootAP** for **Mesh Mode**, configure each setting and click **Save Config**.



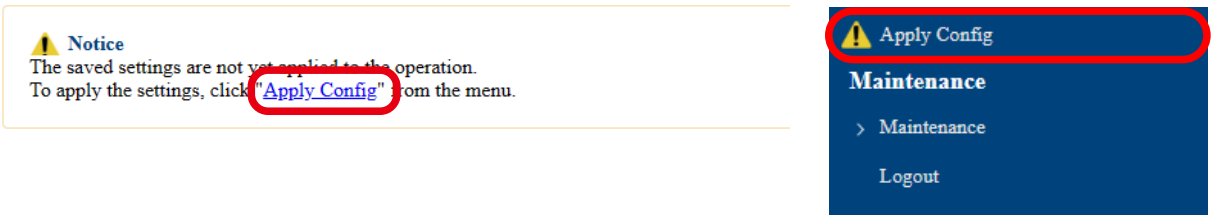
TIP

- By selecting **ENABLE** for **Network Loop Avoidance**, it is possible to prevent network troubles that may occur on a wired LAN connection between RootAP and Repeater.
  - If **ENABLE** is selected, the product performance may decrease. The recommended setting is **DISABLE**.
  - When selecting **ENABLE**, select **ENABLE** on all RootAPs and Repeaters.
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

- For details on each configuration item, refer to **A-2-4. AMC Mesh configuration**.
- The following settings will also be used for the Repeater settings that will come after this. Make a note of these settings.
  - Mesh Group Name
  - Mesh Encryption Key

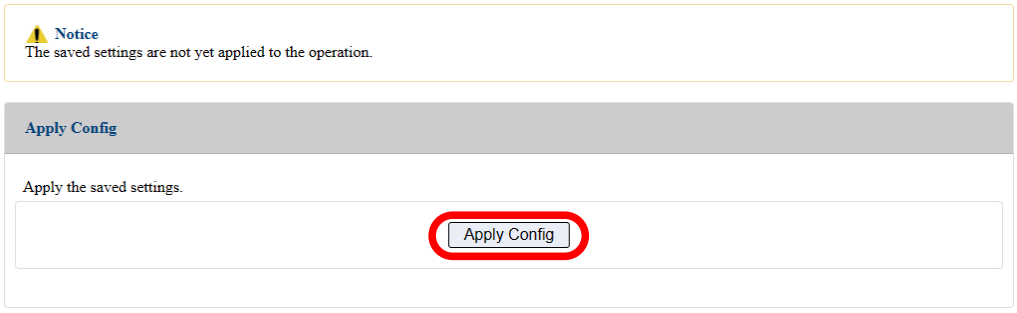
4. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

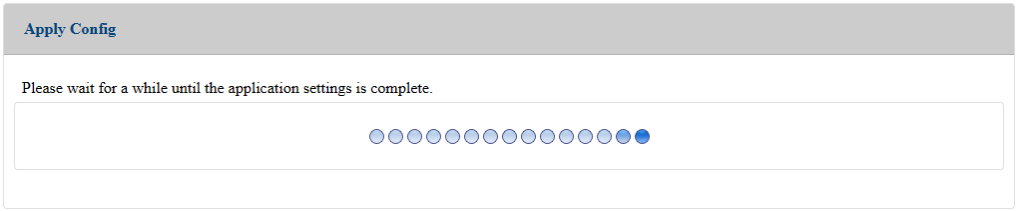
5. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX.
  The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.



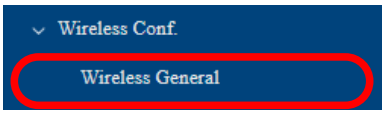
6-4-2. Preparation for Repeater Settings

Before proceeding the Repeater settings, it is necessary to check the settings of destination host AP.
The following explains the procedure.

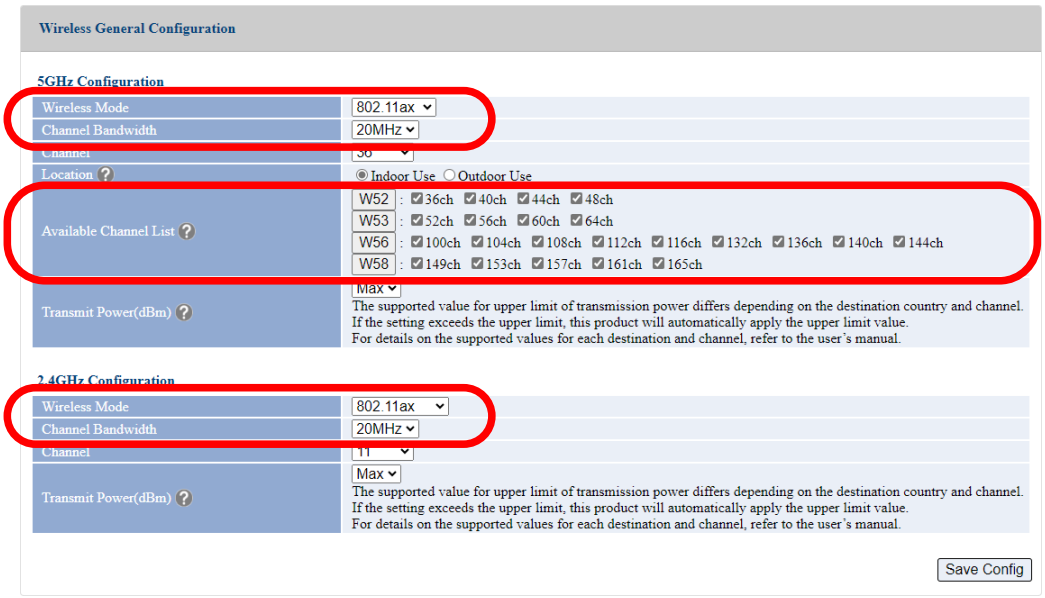
1. Display the Web page of host AP.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless General** from the page menu.



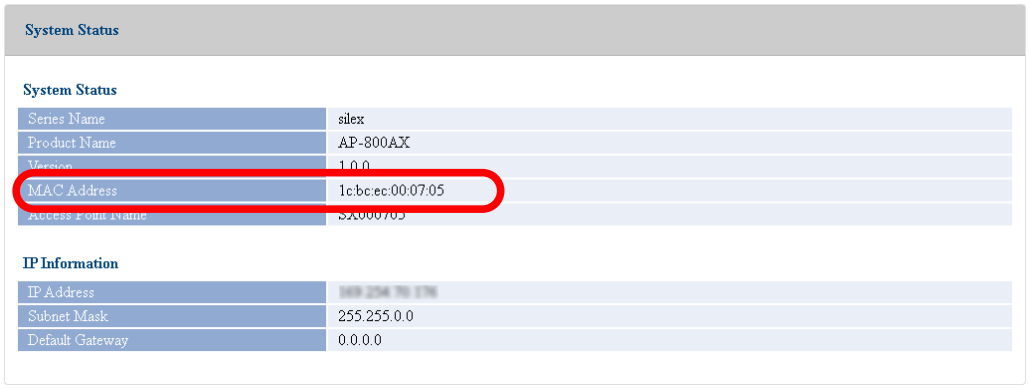
3. The Wireless General Configuration page is displayed. Make a note of the followings.
- Wireless Mode
- Channel Bandwidth
- Available Channel List



Note
- For details on each configuration item, refer to **A-2-1. Wireless General Configuration**.

4. From the page menu, click **System** under **Status**.

5. The System Status page is displayed. Make a note of the followings.
- MAC Address



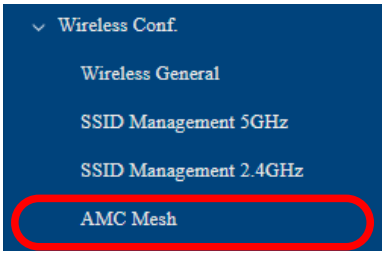
6-4-3. Repeater Settings

The following explains how to configure AP-800AX (second and subsequent units) as a Repeater.

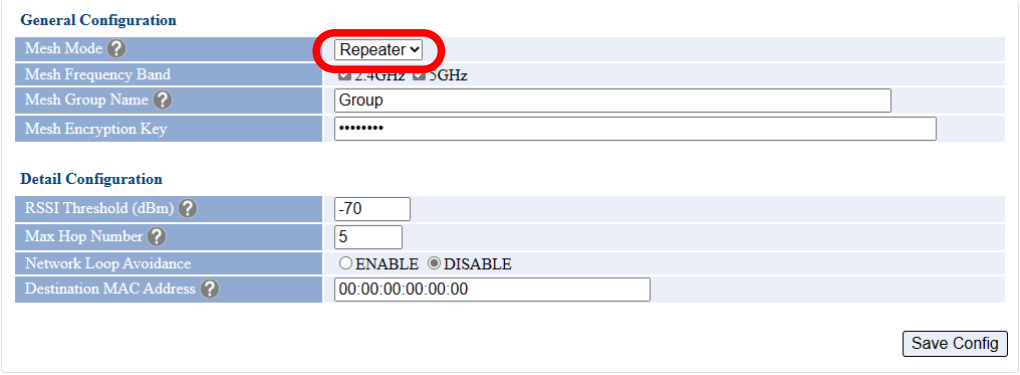
1. Display the Web page of AP-800AX (second and subsequent units).

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **AMC Mesh** from the page menu.

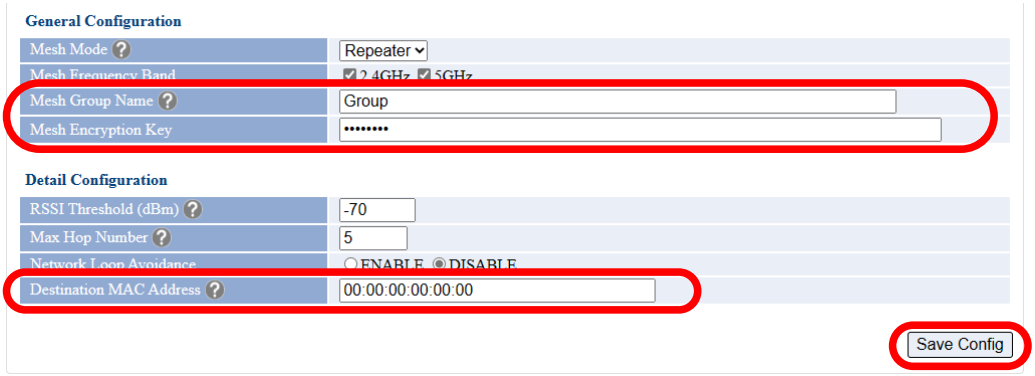


3. The AMC Mesh Configuration page is displayed.
Under **General Configuration**, select **Repeater** for **Mesh Mode**.



4. For the following settings, configure the same setting as the host AP, enter the MAC address of the host AP to **Destination MAC Address** and click **Save Config**.

- Mesh Group Name
- Mesh Encryption Key



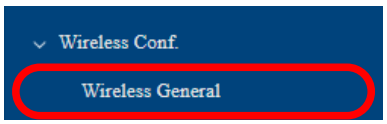
TIP

- By selecting **ENABLE** for **Network Loop Avoidance**, it is possible to prevent network troubles that may occur on a wired LAN connection between RootAP and Repeater.
  - If **ENABLE** is selected, the product performance may decrease. The recommended setting is **DISABLE**.
  - When selecting **ENABLE**, select **ENABLE** on all RootAPs and Repeaters.
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

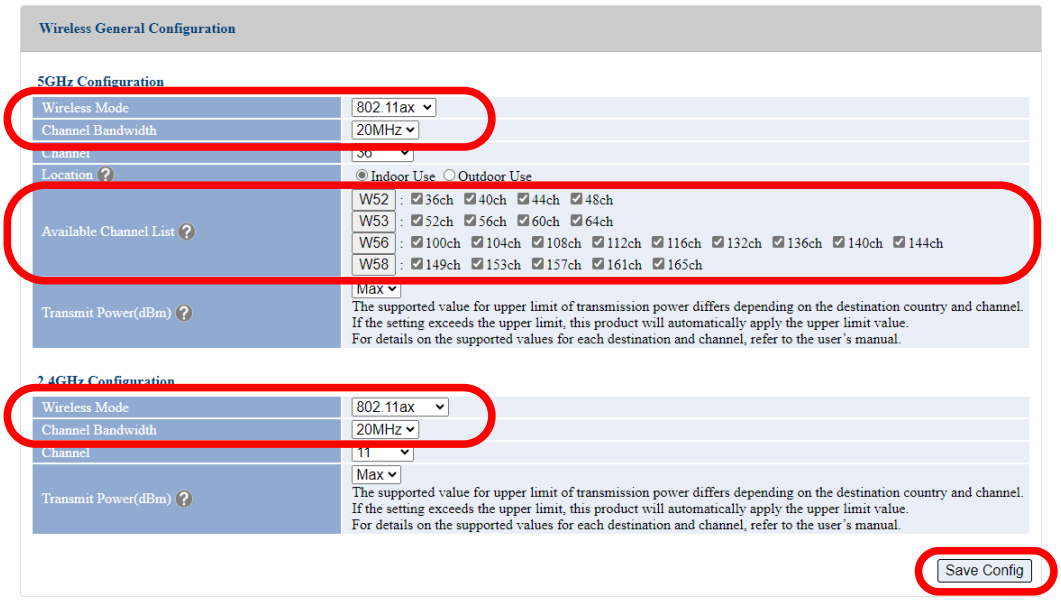
- Configure the same settings as those you have made a note of at the step 3 of **6-4-1. RootAP Settings** and step 5 of **6-4-2. Preparation for Repeater Settings**.
- For details on each configuration item, refer to **A-2-4. AMC Mesh Configuration**.

5. Click **Wireless Conf.** - **Wireless General** from the page menu.



6. The Wireless General Configuration page is displayed.
For the following settings, configure the same setting as the host AP, and click **Save Config**.

- Wireless Mode
- Channel Bandwidth
- Available Channel List



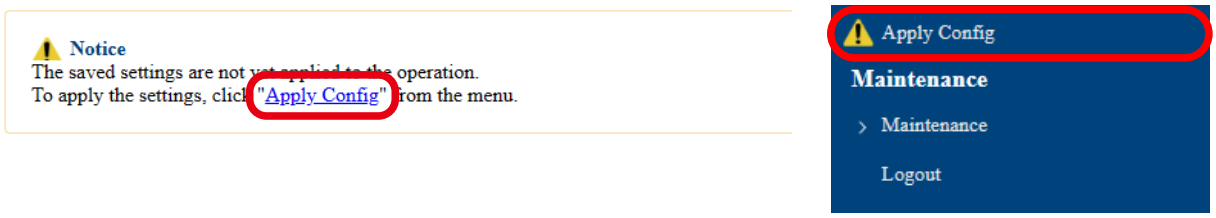
TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

Note

- Configure the same settings as those you have made a note of at the step 3 of **6-4-2. Preparation for Repeater Settings**.
- For details on each configuration item, refer to **A-2-1. Wireless General Configuration**.

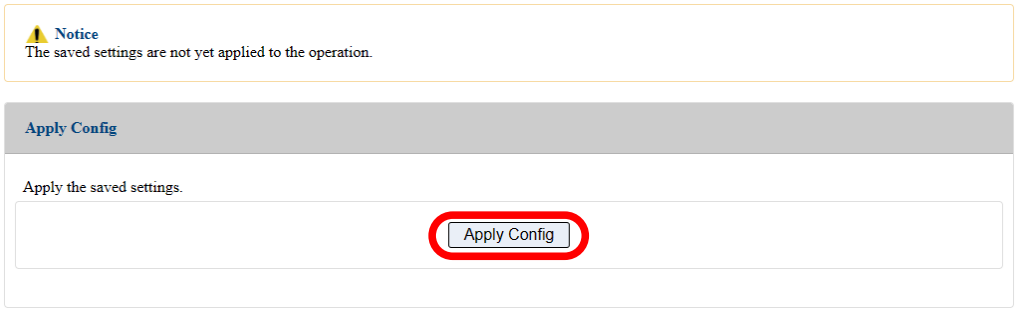
7. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

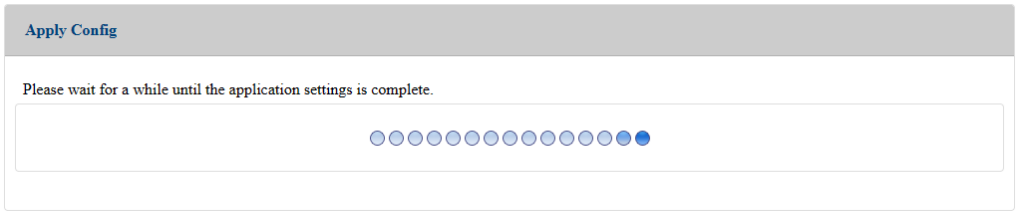
8. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

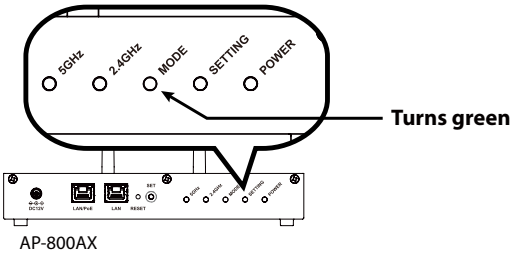
9. The configuration load message is displayed.
When the screen changes, it is finished.



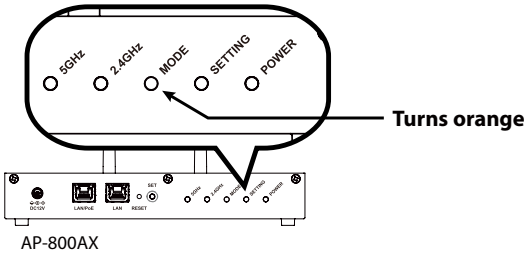
6-5. Checking Connection Status with LED

When an AMC Mesh network is established using multiple AP-800AX units, the connection status can be checked by the MODE LED as follows.

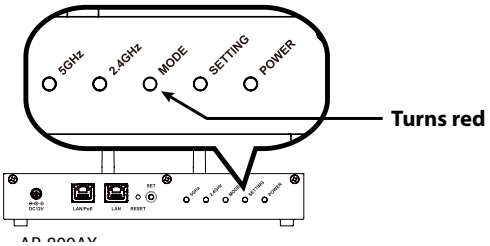
(1) Connection status is good (RSSI is -60dBm or more)



(2) Connection status is ok (RSSI is -61dBm to -70dBm)



(3) Connection status is bad (RSSI is less than -71dBm)



The following explains how to install AP-800AX using this function.

1. First, install AP-800AX (operating as RootAP) that connects to the backbone network, and then install AP-800AX (operating as Repeater) in order of proximity to the RootAP that is connected to the backbone network.

2. Allocate AP-800AX to the determined position, and turn on it.

3. Check the MODE LED of AP-800AX.
The meaning of LED light colors is as described above.

4. To improve the connection status, confirm the followings and change the location of installation if necessary.

- No reinforcing bars, metal and concrete walls or poles are installed in front of the radio emission portion.
- Not too far away from the other AP-800AX units.

5. Repeat **1**-**4** and adjust the unit location one by one. When the adjustment is finished for all units, fix them to the location.

The product installation is now completed.

6-6. What If Connection Fails?

If AP-800AX fails in AMC Mesh connection, one of followings might be the reason:
- The Repeater (hereinafter, "station AP") has a different wireless setting from the host AP.
- Too many devices are connected to the host AP exceeding the limit.
- The value of **RSSI Threshold (dBm)** does not match the environment.

Follow the instructions below to identify the problems on AMC Mesh:

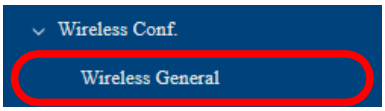
6-6-1. How to check the settings on station AP

The following explains how to check the Repeater settings on the station AP.

1. Display the AP-800AX's Web page.

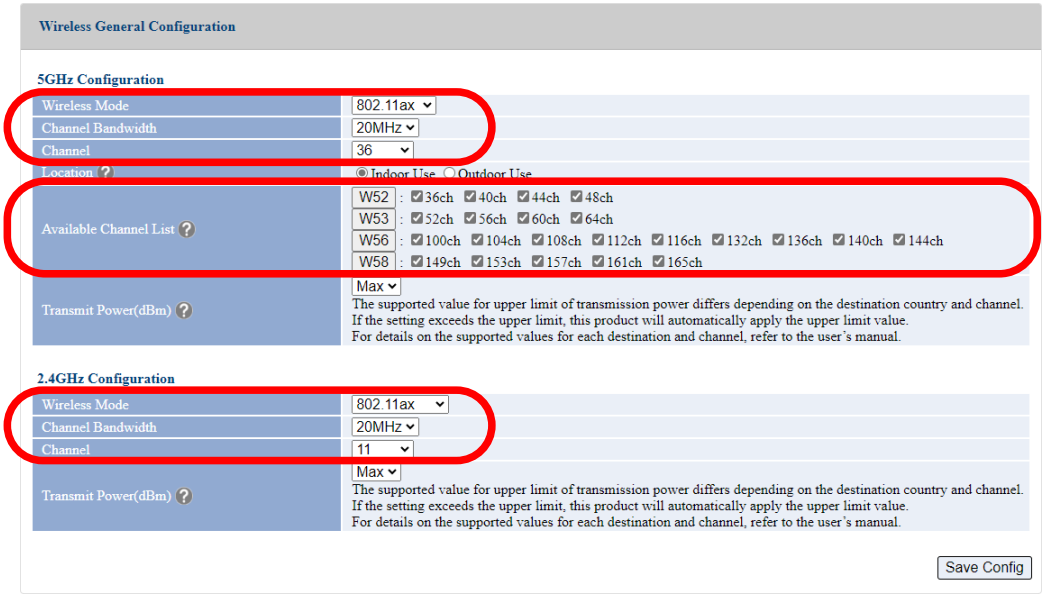
Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless General** from the page menu.



3. The Wireless General Configuration page is displayed. Check the following settings.

- Wireless Mode
- Channel Bandwidth
- Channel
- Available Channel List



6-6-2. How to check the settings on host AP

The following explains how to check the Repeater settings or RootAP settings on the host AP.

TIP

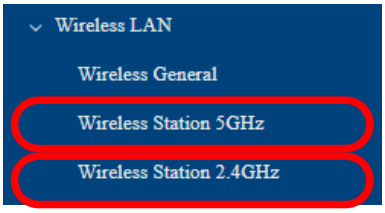
- This method cannot be used when AP-800AX is operating in Configuration Mode. For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page - Displaying Web Page Using Network Connection**.

1. Display the AP-800AX's Web page.

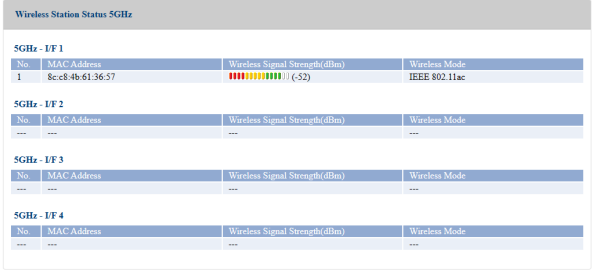
Note

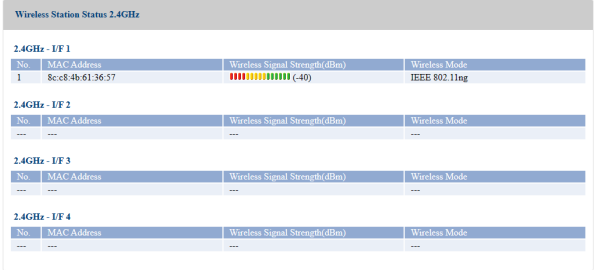
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

2. Click **Wireless LAN** - **Wireless Station 5GHz/Wireless Station 2.4GHz** from the page menu.



3. The Wireless Station Status 5GHz/Wireless Station Status 2.4GHz page is displayed. Check the number of wireless station devices connected to AP-800AX.

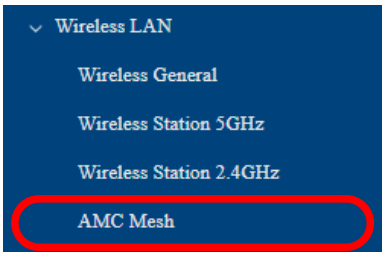




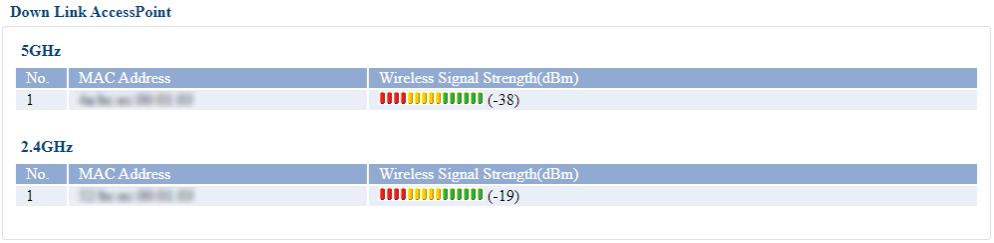
Note

- For details on each configuration item, refer to **8-1. Monitoring Status for Wireless Station Devices**.

4. Click **Wireless LAN** - **AMC Mesh** from the page menu.



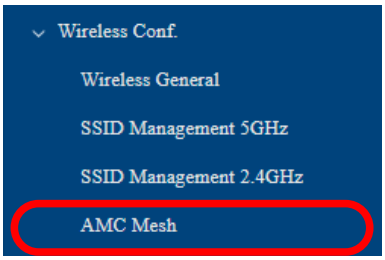
5. The AMC Mesh Status page is displayed.
See the number of station APs that are connected as wireless station devices.
Check that too many wireless station devices and APs are NOT connected, which exceeds the maximum number of connectable devices.



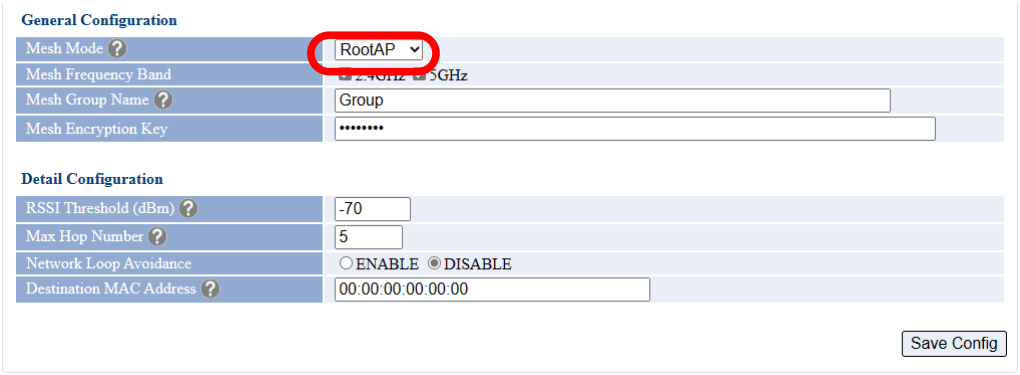
Note

- The host AP (RootAP/Repeater) is not included in the number of connected devices.

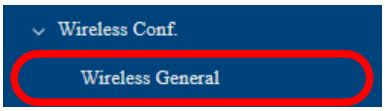
6. Click **Wireless Conf.** - **AMC Mesh** from the page menu.



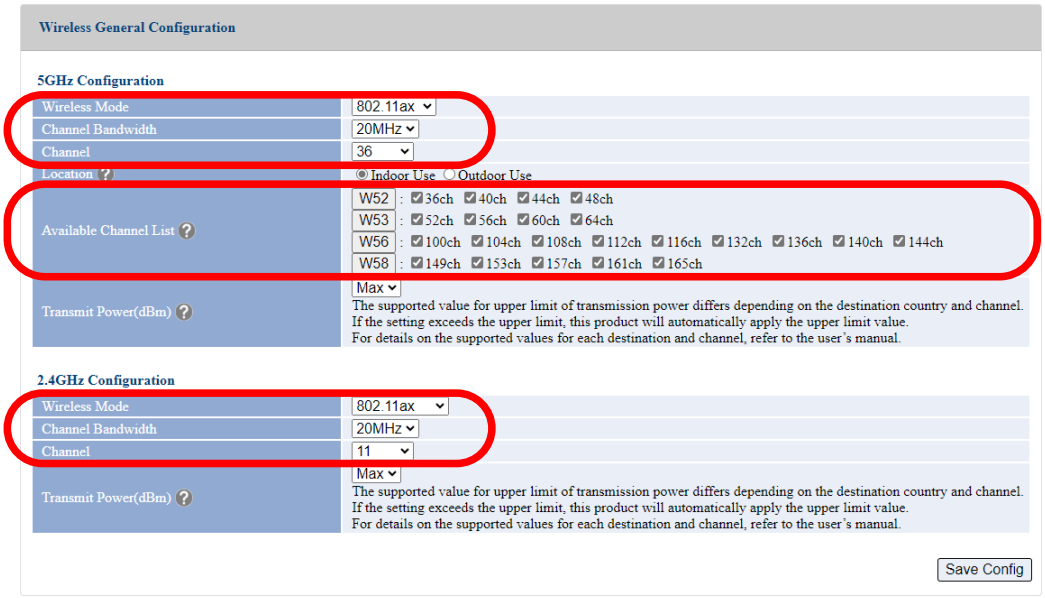
7. The AMC Mesh Configuration page is displayed.
Under **General Configuration**, check that **RootAP** or **Repeater** is selected for **Mesh Mode**.



8. Click **Wireless Conf.** - **Wireless General** from the page menu.



9. The Wireless General Configuration page is displayed. Check the following settings.
- Wireless Mode
- Channel Bandwidth
- Channel
- Available Channel List



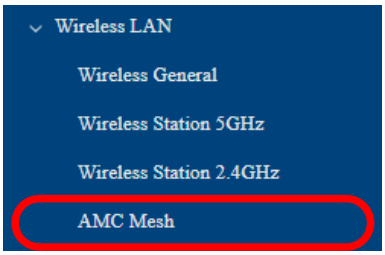
6-6-3. How to change the RSSI threshold setting and check it

The following explains how to change the **RSSI Threshold (dBm)** setting.

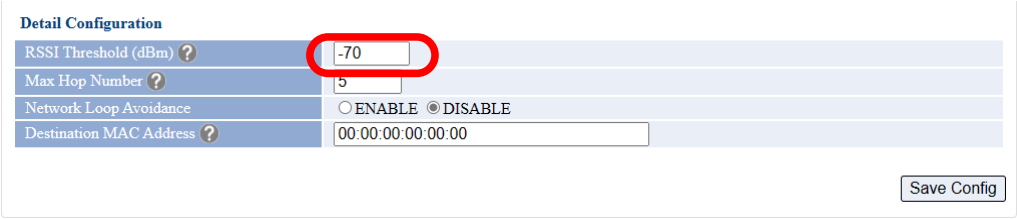
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

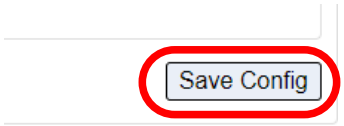
2. Click **Wireless LAN** - **AMC Mesh** from the page menu.



3. The AMC Mesh Configuration page is displayed.
Change the current value to a smaller value for **RSSI Threshold (dBm)** of **Detail Configuration**. For example, if it is "-60", change it to a value below "-70".

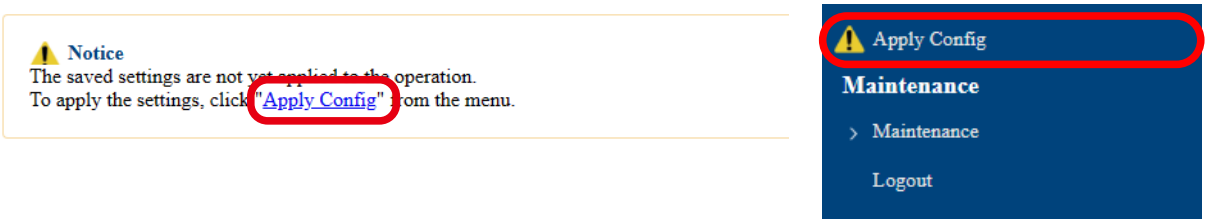


4. Click **Save Config** at the bottom right of the page.



TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config**, to save the current values when you move to the other page.

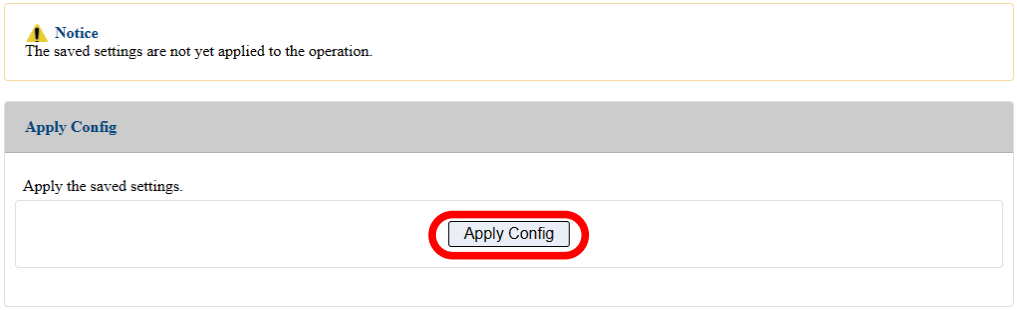
5. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

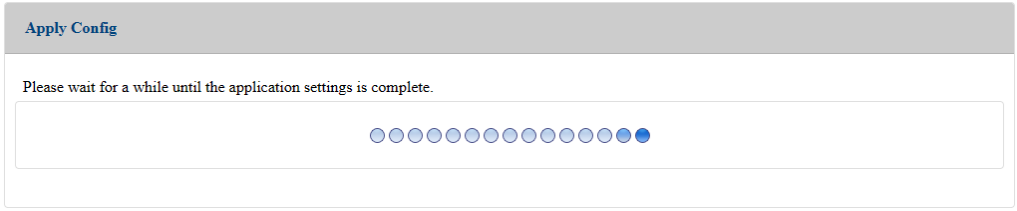
6. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

7. The configuration load message is displayed.
When the screen changes, it is finished.

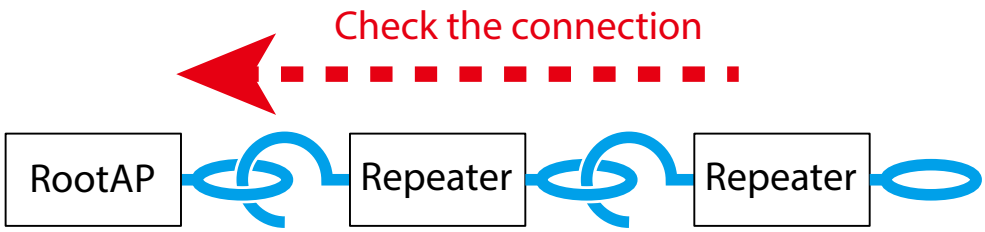


6-7. Checking Connection Status on Web Page

To see if AP-800AX is connected in AMC Mesh mode properly, check the status page on the Web page in the order from the station AP to the host AP.
In the Web page, the host AP connected in AMC Mesh is displayed.

TIP

- This method cannot be used when AP-800AX is operating in Configuration Mode. For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page - Displaying Web Page Using Network Connection**.

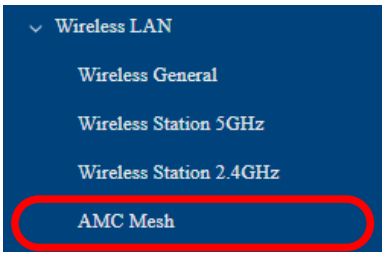


1. Display the AP-800AX's Web page.

Note

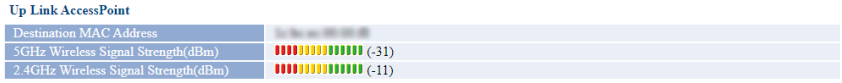
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

2. Click **Wireless LAN** - **AMC Mesh** from the page menu.

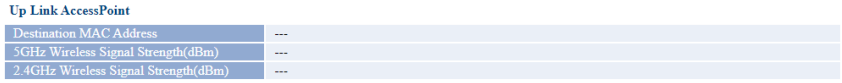


3. In the AMC Mesh Status page, check the **Up Link AccessPoint**.
If **Destination MAC Address** and **Wireless Signal Strength(dBm)** are displayed, the AMC Mesh connection is established successfully.

AMC Mesh Connection Success:



AMC Mesh Connection Failure:



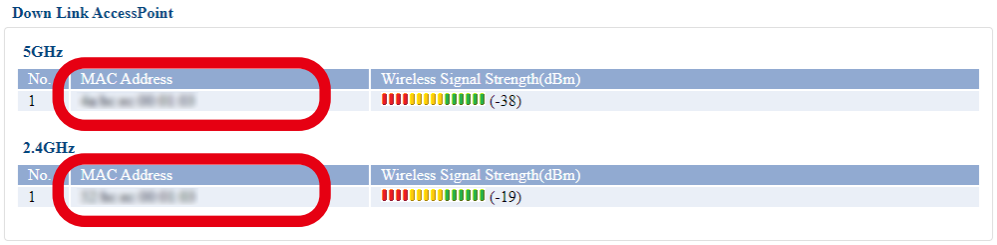
Note

- If **Destination MAC Address** and **Wireless Signal Strength (dBm)** are not displayed, the AMC Mesh connection is not established. In such a case, refer to **6-6. What If Connection Fails?** for possible solutions.
- In the Web page of RootAP, **Up Link AccessPoint** is not displayed.

To continue to see the connection status at the host AP, repeat the same process from Step1-3 at the host AP's Web page.

Note

- AP-800AX uses two MAC Addresses when connected in AMC Mesh. As they are generated based on the MAC Address of AP-800AX, those addresses are different from the one that you can find on the system status page and the product label.
- **MAC Address** of **Down Link AccessPoint** shows the MAC Address that the station AP uses to connect to the host AP.



7. Basic Functions

7-1. IP Address Configuration Using AP-800AX as a DHCP Server

This chapter explains **DHCP Server Function**.

7-1-1. DHCP Server Feature

When there are no network devices with a DHCP server function, the DHCP server function of AP-800AX can be used to easily assign an IP address to PCs and network devices.

TIP

- It is impossible to assign the IP address whose first number is 0-127.

Note

- To assign an IP address to your PC automatically using the DHCP server feature of AP-800AX, your PC must be set to **Obtain an IP address automatically**.

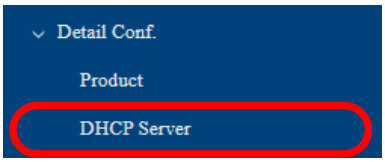
7-1-2. DHCP Server Function Settings

1. Display the AP-800AX's Web page.

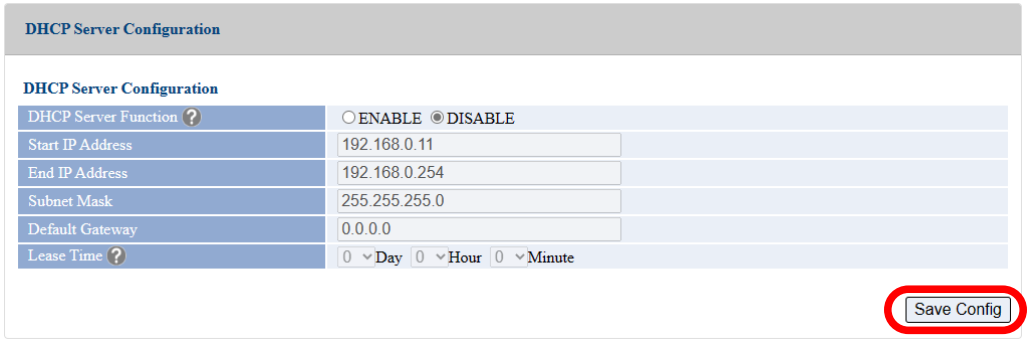
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **DHCP Server** from the page menu.



3. The DHCP Server Configuration page is displayed.
Configure each setting and click **Save Config**.



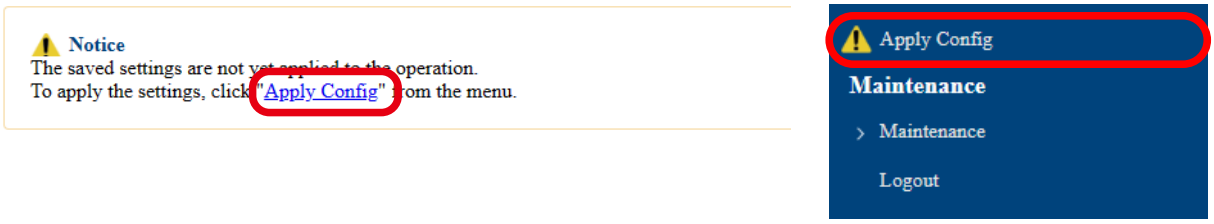
TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

Note

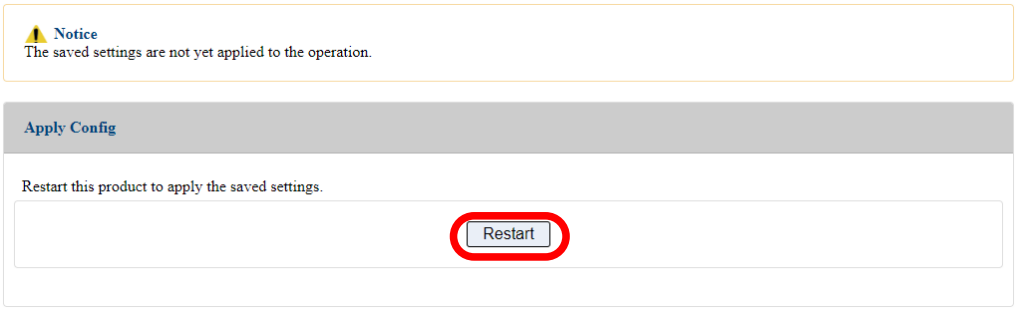
- For details on each configuration item, refer to **A-3-2. DHCP Server Configuration**.

4. Click **Apply Config** at the top of the page or from the page menu.



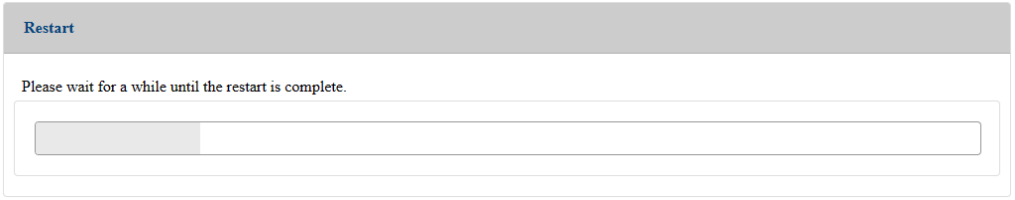
Note - When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note - If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



7-2. Time Settings

This chapter describes how to set the time on AP-800AX.

7-2-1. Time Sync with NTP Server

NTP Feature

AP-800AX can get the time information from the NTP server in the wired LAN network.

Note

- Where an NTP server is not installed, the time of AP-800AX is counted from 2020/01/01 00:00:00.

NTP Settings

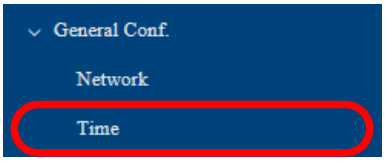
The following describes how to configure the settings to obtain the time from an NTP server.

1. Display the AP-800AX's Web page.

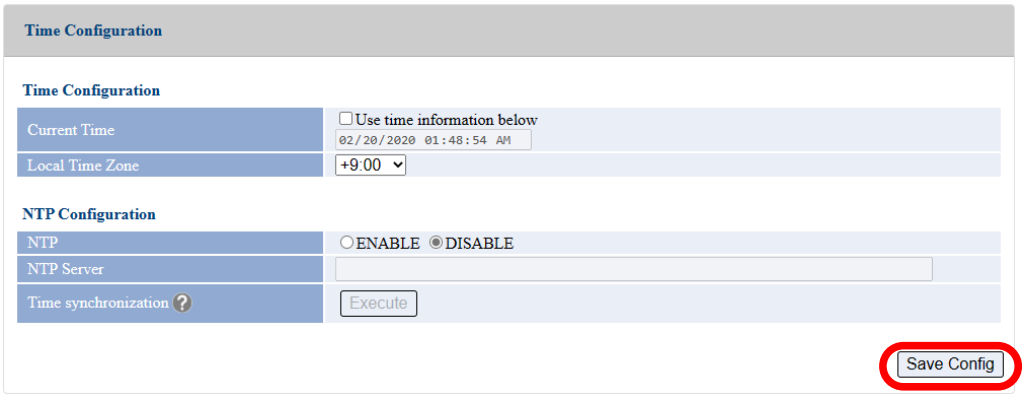
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **General Conf.** - **Time** from the page menu.



3. The Time Configuration page is displayed.
Configure each setting and click **Save Config**.



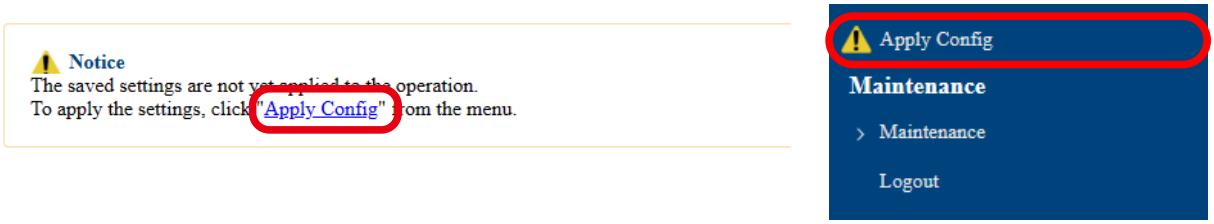
TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

Note

- For details on each configuration item, refer to **A-1-2. Time Configuration**.

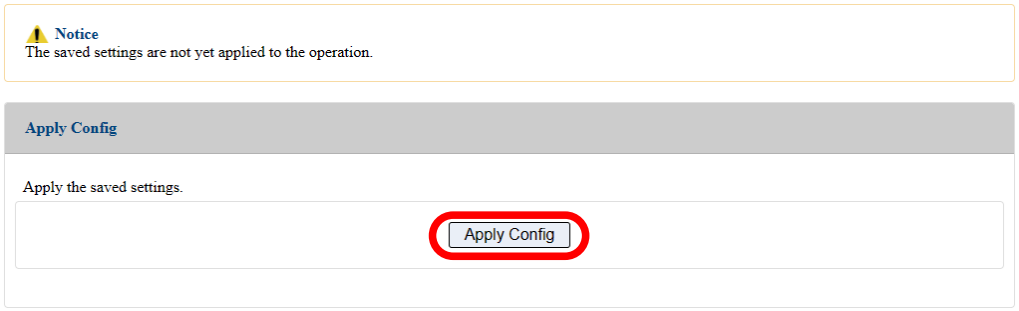
4. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

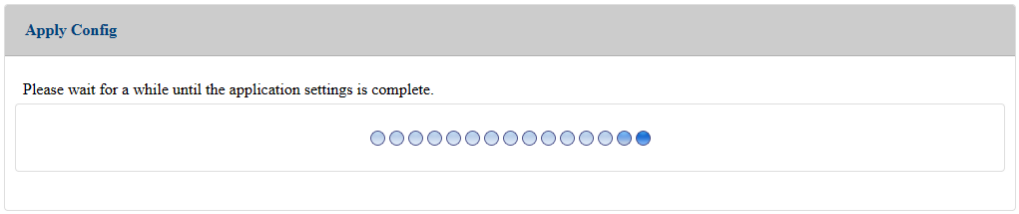
5. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.



7-2-2. Time Setting on Web Page

The time can be set from the AP-800AX's Web page.
Even when there is no NTP server in your environment, the time can be recorded in the log.
The following describes how to set the time using the AP-800AX's Web page.

TIP

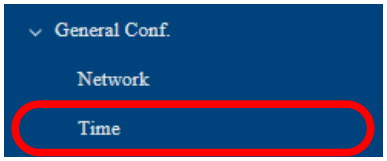
- This method saves the time information to each device, and is different from the method that retrieves the time information from the NTP server. Depending on the environment, the time may differ for each device. To unify the time of devices on the network, refer to **7-2-1. Time Sync with NTP Server** to retrieve the time from the NTP server.

1. Display the AP-800AX's Web page.

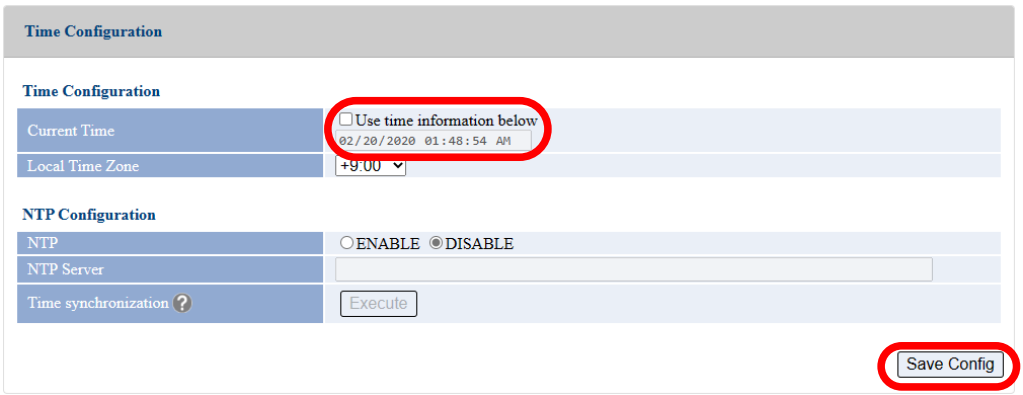
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **General Conf.** - **Time** from the page menu.



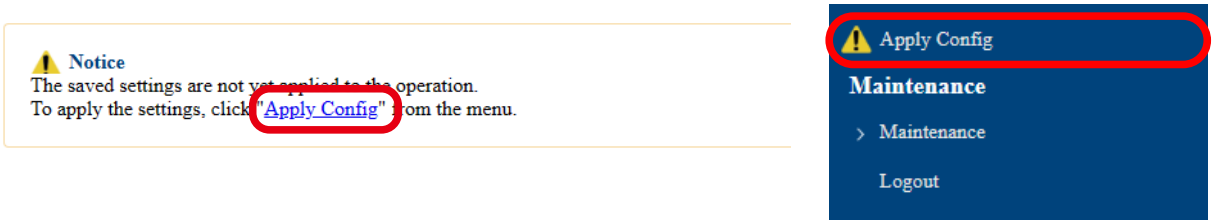
3. The Time Configuration page is displayed.
Check **Use time information below** and set the date and time.
Click **Save Config**.



TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

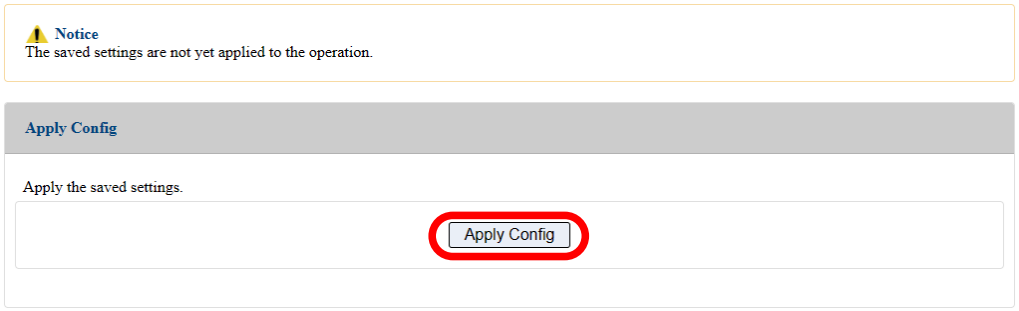
4. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

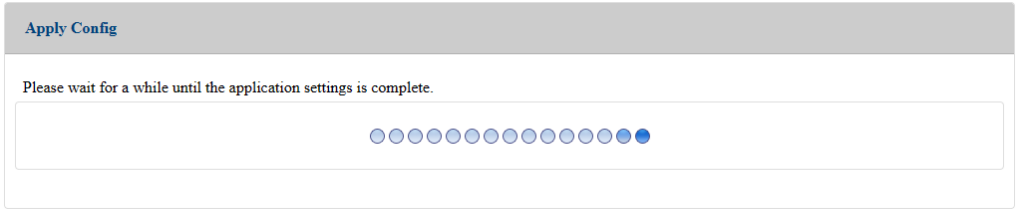
5. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.



7-3. Transmission Rate Setting for Stable Communication

Communication may not be stable and wireless connection may become unstable depending on an environment.
AP-800AX has a rate survey function that can perform a communication test for the connected wireless station devices. By investigating the communication status and transmission rate for stable wireless in the actual environment, an appropriate transmission rate can be selected even in an environment where multipath occurs.

TIP

- To use the rate survey function, make sure that only one wireless station device is connected to AP-800AX.
- When there are other wireless networks that use the same channel as AP-800AX, the rate survey may not work properly.
- The wireless station device must have an IP address that can communicate with AP-800AX.
- When the connected wireless station device supports only IEEE 802.11a/b/g, the rate survey function cannot be used.

7-3-1. Investigating Transmission Rate for Stable Communication

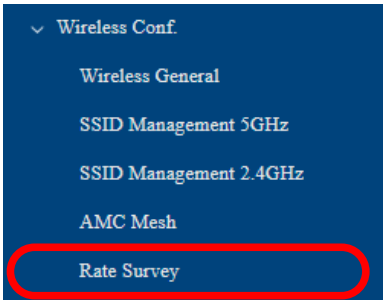
The following describes how to investigate the transmission rate for stable communication. When the wireless station device is not connected, refer to **4. How to Connect Wireless Station Devices** to connect it to wireless LAN in advance.

1. Display the AP-800AX's Web page.

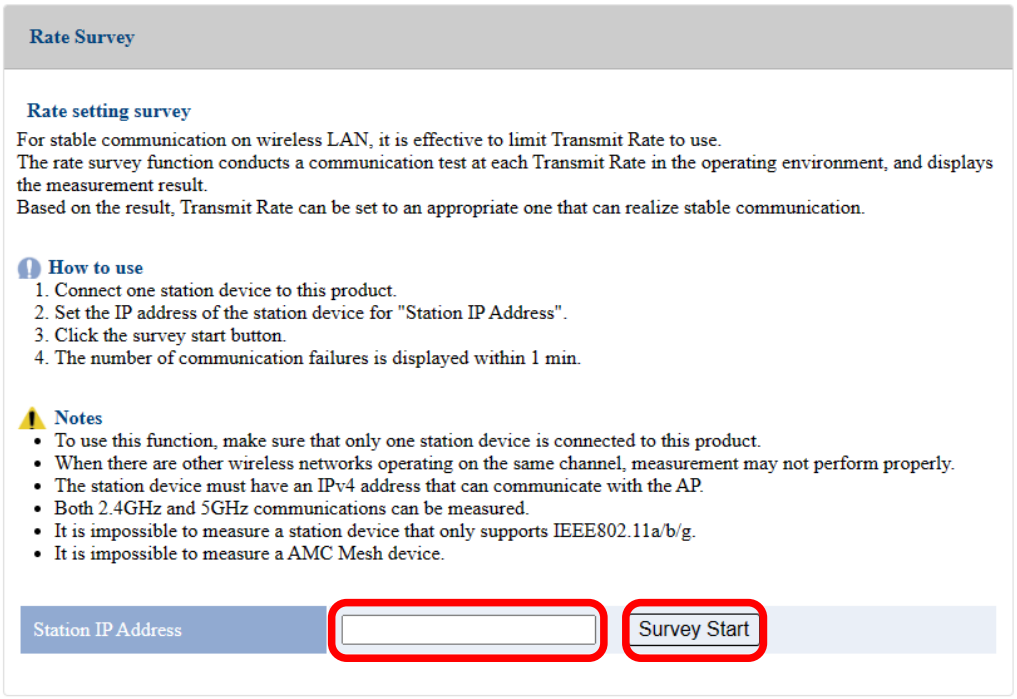
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

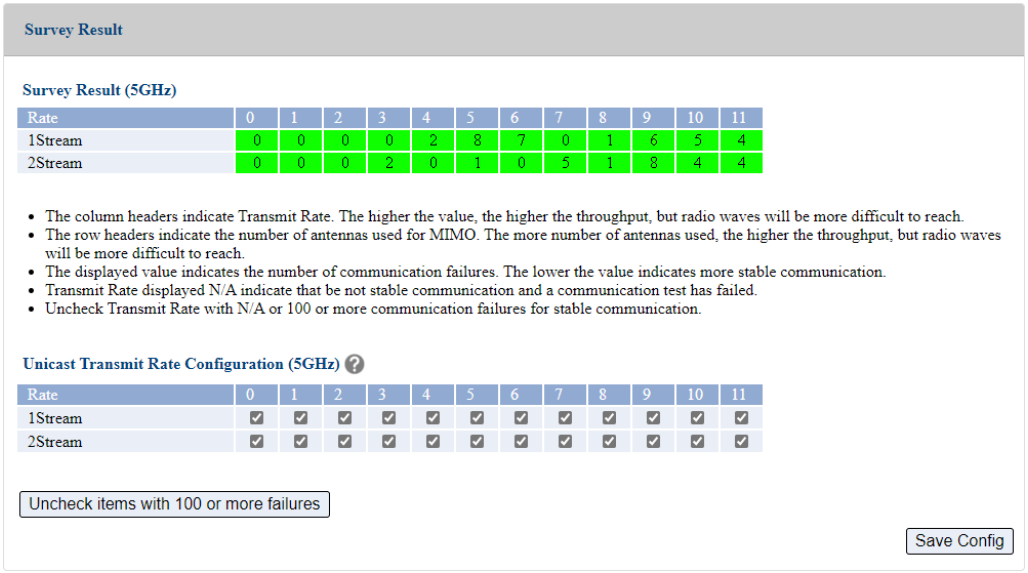
2. Click **Wireless Conf.** - **Rate Survey** from the page menu.



3. The Rate Survey page is displayed.
Enter the IP address of the wireless station device connected to AP-800AX in **Station IP Address** and click **Survey Start**.

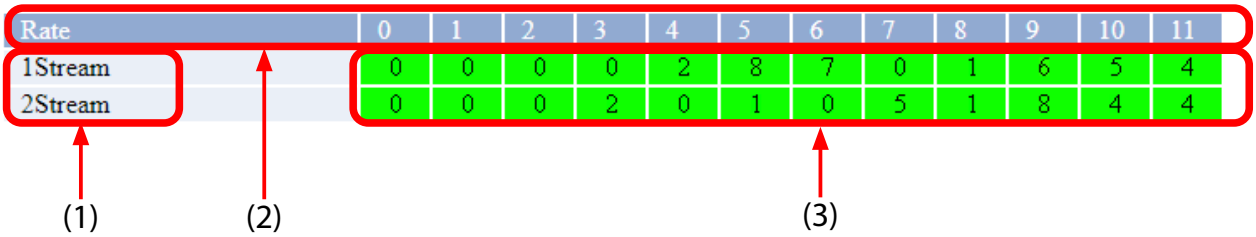


4. The Survey Result page is displayed.
Check the result and set the transmission rate according to the environment.
For details, refer to **7-3-2. Applying Transmission Rate**.



7-3-2. Applying Transmission Rate

The following explains how to adjust the transmission rate based on the results of the rate survey. The rate survey results display the following information.



Rate	0	1	2	3	4	5	6	7	8	9	10	11
1Stream	0	0	0	0	2	8	7	0	1	6	5	4
2Stream	0	0	0	2	0	1	0	5	1	8	4	4

(1) Number of Stream

Indicates the number of antennas used for communication. Since AP-800AX is equipped with two antennas, the rate survey results are displayed for 1Stream, which communicates using one antenna, and 2Stream, which communicates using two antennas.

(2) Rate number

Shows the number of transmission rate. Each number from 0 to 11 corresponds to the MCS Index.

TIP

- The MCS Index, indicated by the rate number, will differ depending on the wireless mode setting.
  802.11ax : The rate numbers correspond to MCS0 to MCS11 for each 1/2 Stream.
  802.11ac : For the rate numbers, 0 to 9 of 1/2 Stream correspond to MCS0 to MCS9 respectively. When only 10 and 11 are checked, it may not be possible to communicate with the wireless station device.
  802.11n/a, 802.11n/b/g : 0 to 7 of 1Stream correspond to MCS0 to MCS7, and 2Stream MCS0 to 7 correspond to MCS8 to MCS15.

(3) Result of rate survey

Displays the number of communication failures for each stream and transmission rate.
The lower the number, the more stable communication can be achieved. The background color changes according to the number.

Note

- It is recommended to use a rate with less than 100 communication failures.
  If there are 100 or more failures for all rates, please check the following points.
  - There are no obstacles between AP-800AX and the wireless station.
  - AP-800AX and wireless station are not too far (recommended distance is 20m or shorter).
  - Available channel and bandwidth setting are properly configured.

This document explains a method for **Disabling the transmission rate causing a large number of failures** as example.

TIP

- The examples described in this document are only examples. Select the rate to disable appropriately for the actual environment.

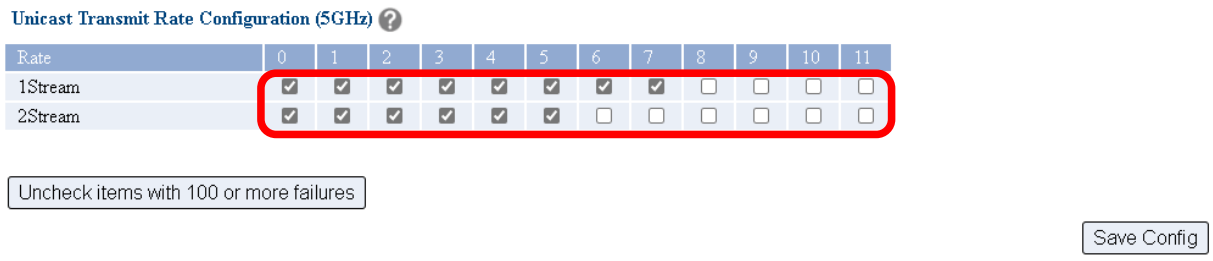
Disabling the transmission rate causing a large number of failures

The procedure for disabling the transmission rate causing a large number of failures is explained by using the below survey result as an example.

Rate	0	1	2	3	4	5	6	7	8	9	10	11
1Stream	0	0	2	0	2	8	7	33	178	232	678	672
2Stream	0	0	0	2	0	1	139	312	712	700	780	671

When wireless communication is performed in this environment, a rate causing many communication failures and a rate causing less communication failures are used. As a result, the response time and communication speed from the destination device will not be constant.

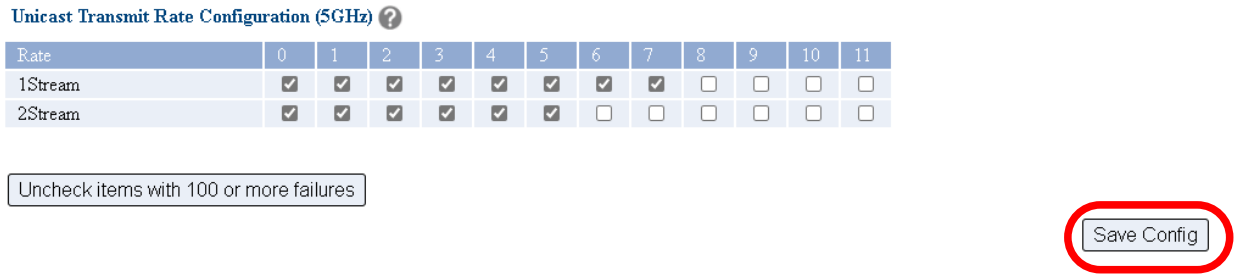
1. At **Unicast Transmit Rate Configuration (5GHz)** under the survey results, uncheck the transmission rates that you do not want to use.
The following example unchecks the transmission rates that causing 100 or more communication failures.



Note

- Click **Uncheck items with 100 or more failures** to uncheck all transmission rates causing 100 or more failures.

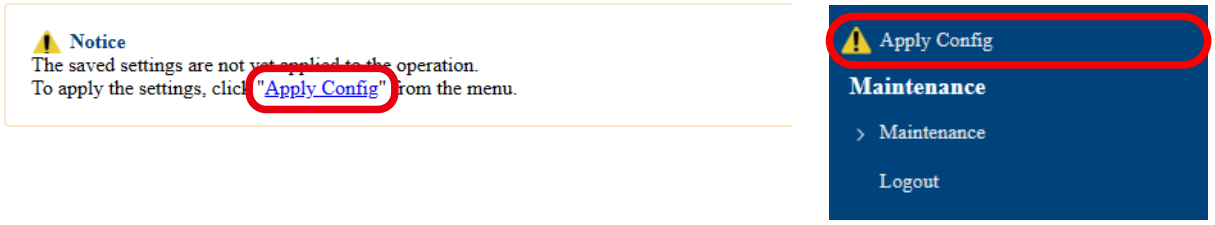
2. Click **Save Config**.



TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

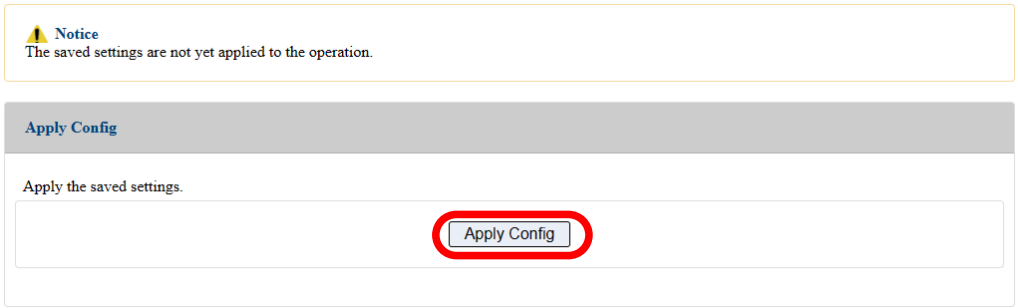
3. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

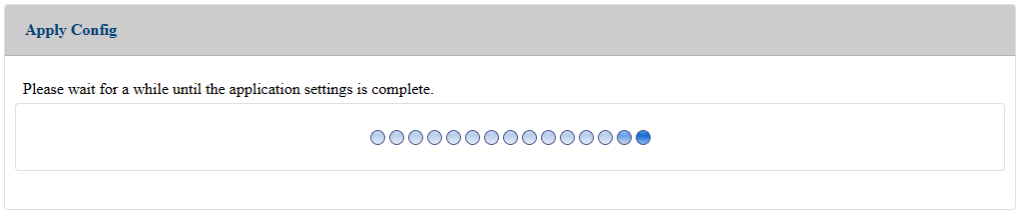
4. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

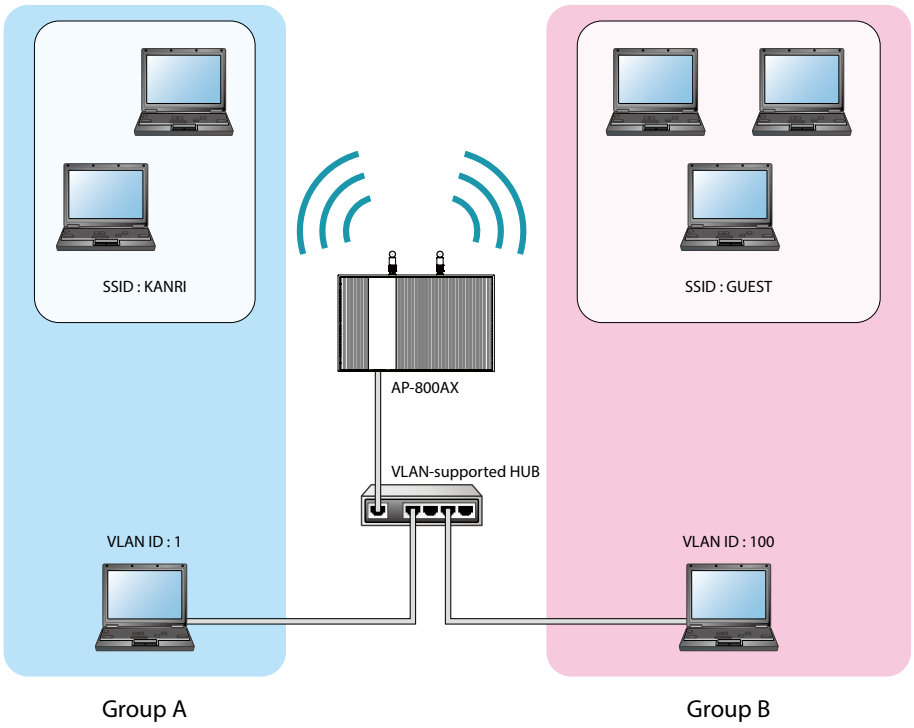
5. The configuration load message is displayed.
When the screen changes, it is finished.



7-4. Network Separation Using VLAN

7-4-1. VLAN Feature

A VLAN ID can be set to the SSID of wireless LAN structured by AP-800AX.
If AP-800AX is used with the switching HUB that supports tagged-VLAN (hereinafter the "VLAN HUB"), you can establish the virtual network groups.
As AP-800AX supports Multi SSID, up to 8 virtual network groups can be established.



Establish the Virtual Network Groups

TIP
- AP-800AX supports the tagged VLAN of IEEE 802.1Q compliant.
- Dynamic VLAN is not included.

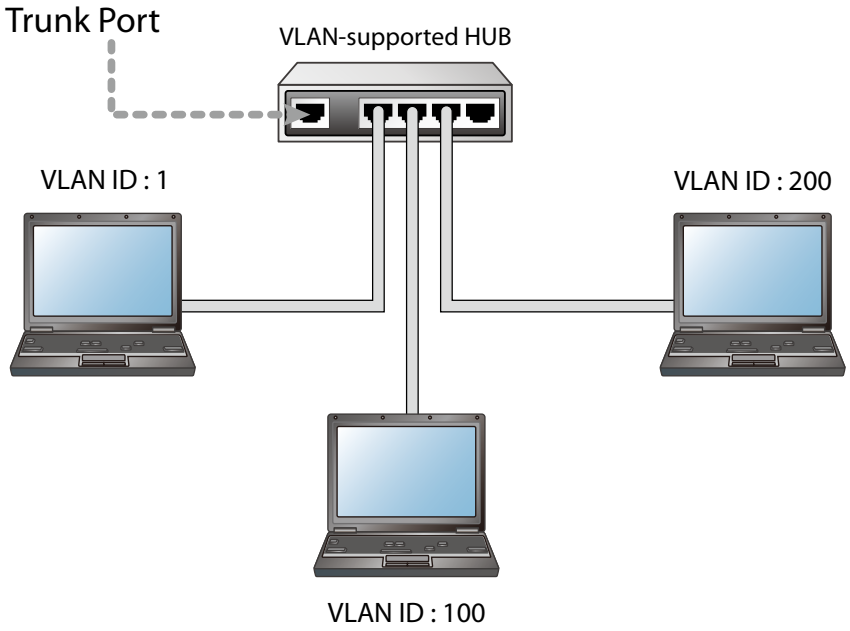
7-4-2. VLAN Configuration

This chapter explains how to install AP-800AX to where network groups have already been established using a VLAN HUB.

How to check the VLAN information on network

Check the information below of the existing network.
For details on the VLAN HUB specifications, please see the operation manual that came with your VLAN HUB.

- Position of a trunk port on the VLAN HUB
- VLAN ID of the native VLAN
- VLAN ID of the devices connected to VLAN HUB



TIP

- If there is no available trunk port on the VLAN HUB, create a new one.
- For details on VLAN HUB specifications, please see the operation manual that came with your VLAN HUB.

Note

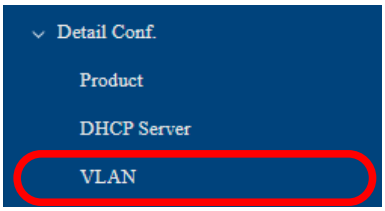
- The native VLAN is also referred to as untagged VLAN.

How to configure the VLAN setting on AP-800AX

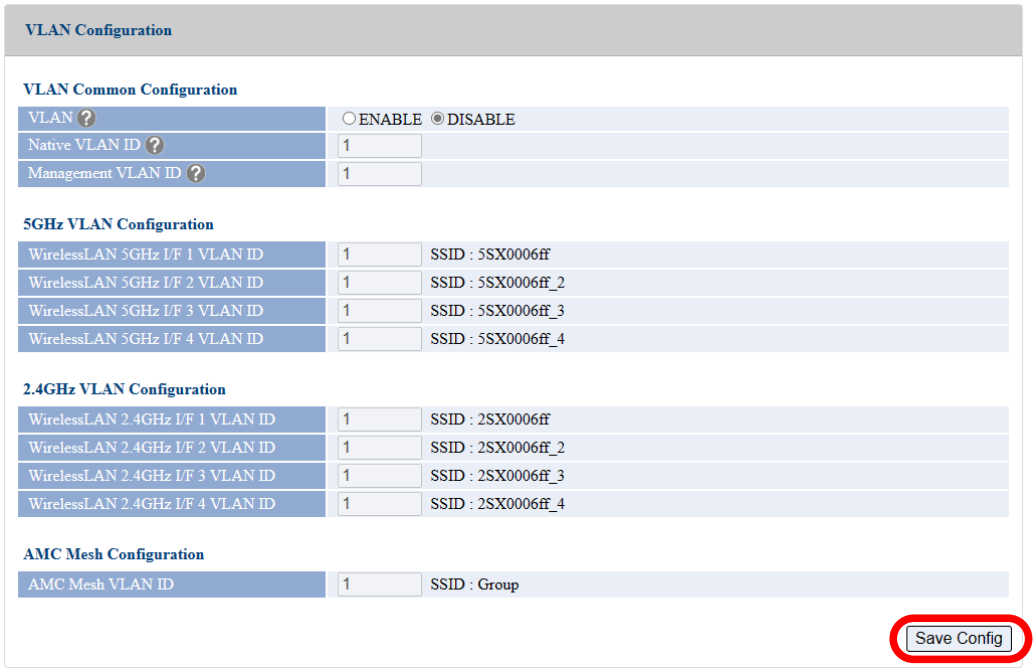
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **VLAN** from the page menu.



3. The VLAN Configuration page is displayed.
Configure each setting and click **Save Config**.



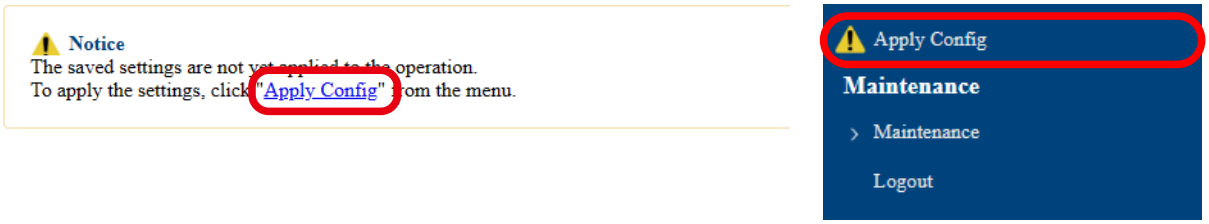
TIP

- For the **Management VLAN ID**, when VLAN feature is enabled and one of following authentication modes is set for **Network Authentication**, enter the same VLAN ID as that of network group where the RADIUS server is installed.
  - **WPA2-Enterprise** - **WPA2/WPA3-Enterprise** - **WPA3-Enterprise**
  - **WPA2/WPA3-Enterprise** - **WPA3-Enterprise 192bit-security**
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

Note

- For details on each configuration item, refer to **A-3-3. VLAN Configuration**.
- For **Native VLAN ID**, enter the native VLAN ID of VLAN HUB that you have checked beforehand.
- For VLAN ID of the **WirelessLAN 5GHz I/F 1** to **4** and **WirelessLAN 2.4GHz I/F 1** to **4**, enter VLAN ID of the devices connected to the HUB that you have checked beforehand.
- After VLAN feature is enabled, you will not be able to configure AP-800AX via the network with a different VLAN ID from management VLAN ID.
- Even when VLAN feature is enabled, access from non-VLAN HUB is accepted if the same VLAN ID is set for both **Native VLAN ID** and **Management VLAN ID**. It is recommended to set a same VLAN ID for both of these.

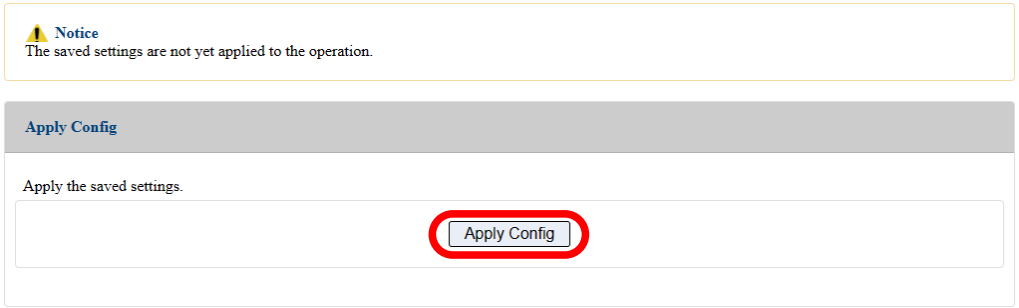
4. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

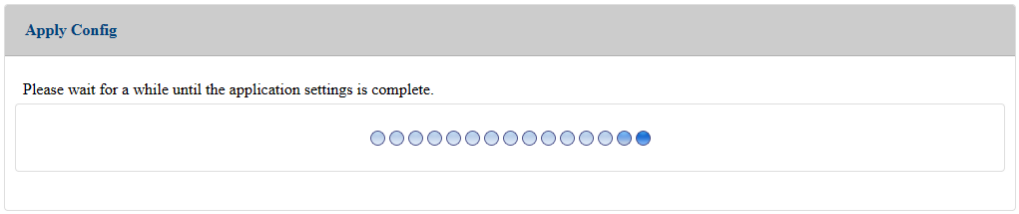
5. When the Apply Config page is displayed, click **Apply Config**.



Note

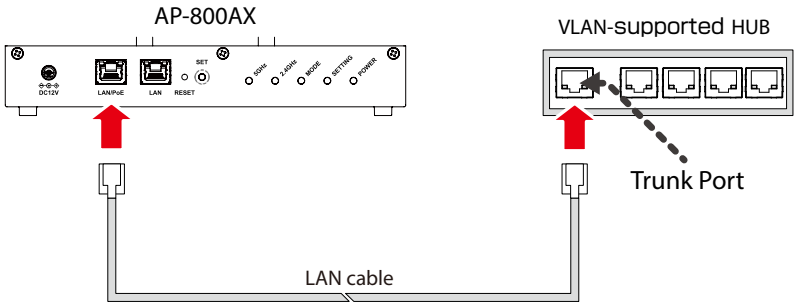
- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.

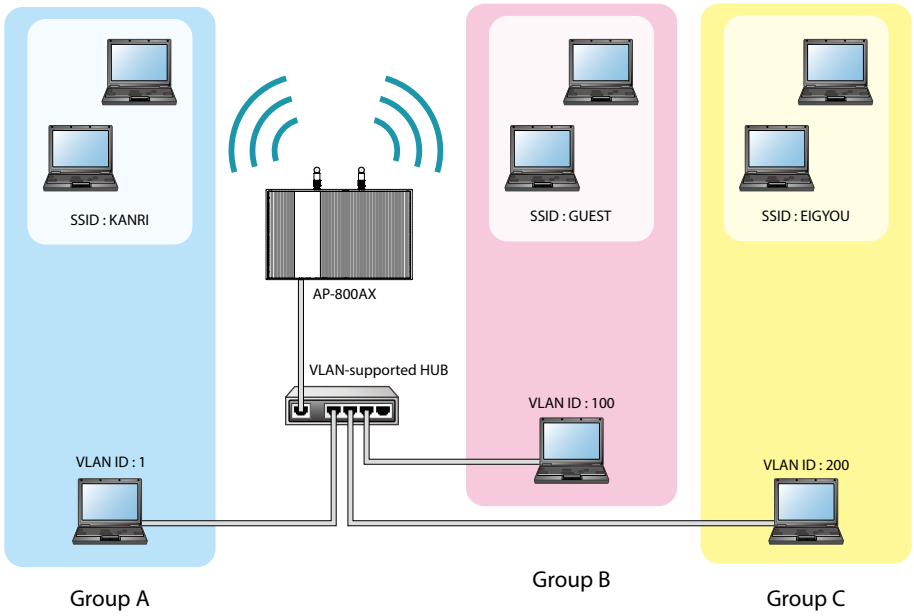


How to connect AP-800AX to a trunk port of VLAN HUB

Connect a wired LAN port of AP-800AX and a trunk port of VLAN HUB (that you have checked beforehand) using a LAN cable.



The VLAN configuration is completed.
The virtual network groups will be active based on the VLAN ID setting you configured.



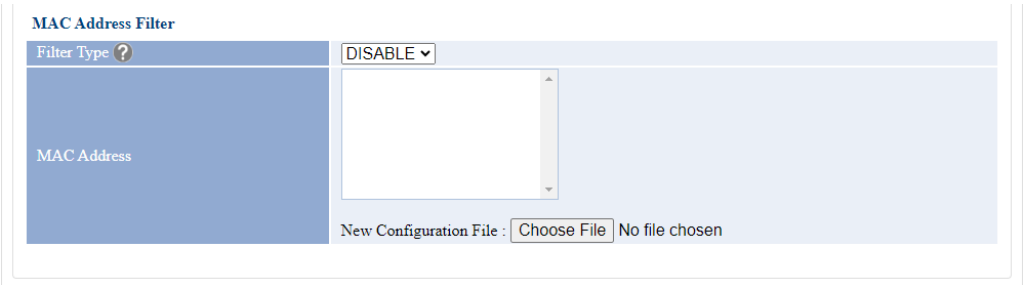
Establish the Virtual Network Groups

TIP

- After the VLAN feature is enabled, you will not be able to configure AP-800AX via the network with a different VLAN ID from management VLAN ID. If you are not sure of the VLAN ID of the management VLAN, you will need to initialize the settings and reconfigure AP-800AX.
- To configure AP-800AX wirelessly from a PC running on VLAN-enabled environment, the VLAN ID configured to SSID of the wireless LAN must be the same as management VLAN ID.

7-5. Device Filter Setting

It is possible to block access from particular devices to AP-800AX.
MAC Address filter can respectively be set for a wireless interface.



7-5-1. MAC Address Filter Setting

Filter Type

By registering the MAC Address to a list, access of devices is allowed or denied based on the filter type below.

Filter Type	Description
DISABLE	Does not use MAC Address filter. All devices are allowed to access.
ALLOW	Allows access only from devices with the registered MAC Address.
DENY	Denies access from devices with the registered MAC Address.

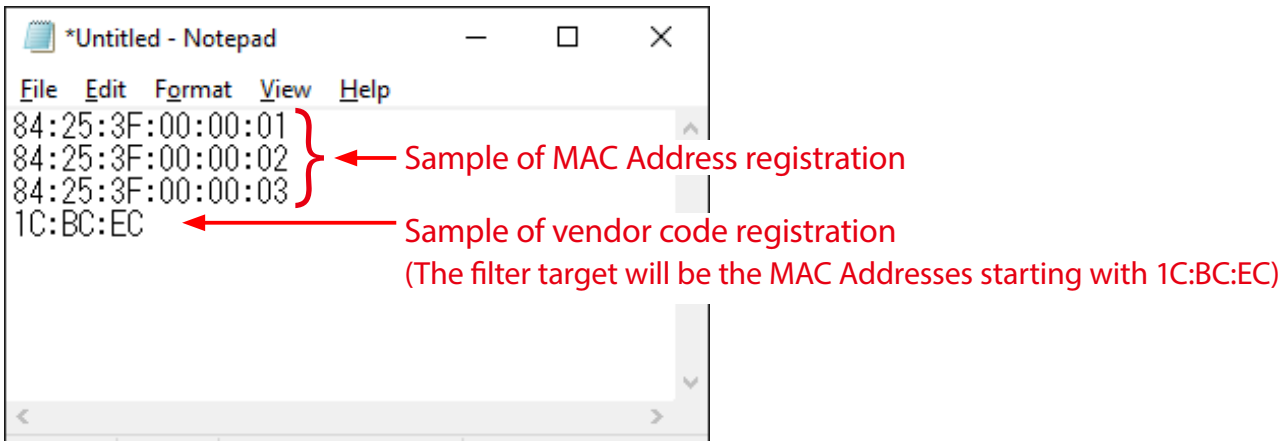
Note

- If Smart Wireless Setup is enabled on the wireless interface, MAC Address filtering cannot be used on that interface. In order to use MAC Address filtering, disable **Smart Wireless Setup** or select the wireless interface which does not have MAC Address filter setting at **Smart Wireless Setup**.

MAC Address List

Register the MAC Address of devices to allow/deny access to AP-800AX.
Up to 254 MAC Addresses can be registered for each wireless interface.
By registering the vendor code portion (first 6 digits) of the MAC Address, it is possible to control access from devices with the registered vendor code.

To register, create a list of MAC Addresses as a text file and import it to AP-800AX from the Web page.



Note
- Create the MAC Address list as a text file using an editor, etc. and save it with any file name.
- In MAC Address list, one MAC Address needs to be described per line.
- For a line feed code, use CR+LF.

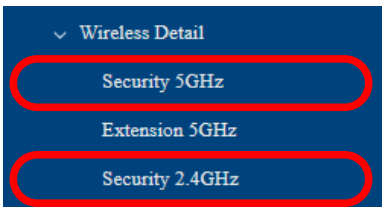
MAC Address Filter Settings

Following explains how to configure the MAC Address filter.

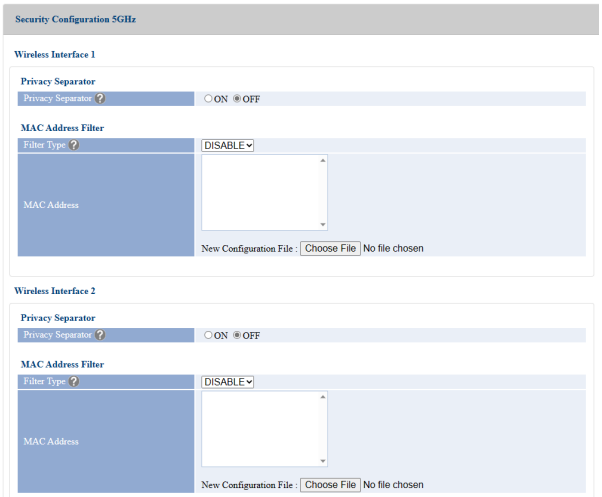
1. Display the AP-800AX's Web page.

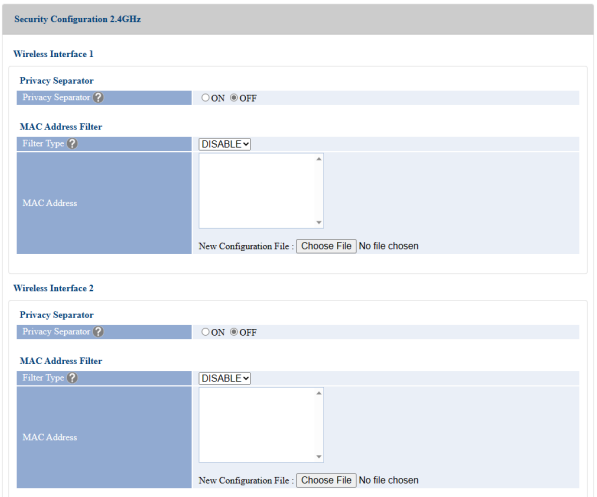
Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless Detail** - **Security 5GHz/Security 2.4GHz** from the page menu.

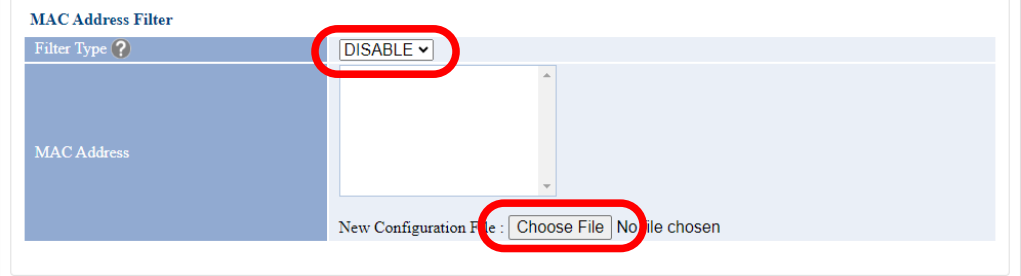


3. The Security Configuration 5GHz/Security Configuration 2.4GHz page is displayed.

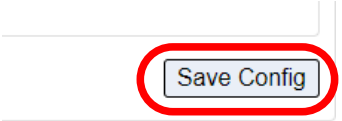




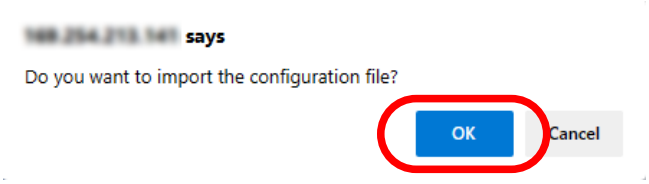
4. Select **Filter Type** for **MAC Address Filter**.
Click **Choose File** and specify a file containing a list of the MAC Addresses.



5. Check the configuration file you have selected is displayed at the **New Configuration File** field. Click **Save Config**.

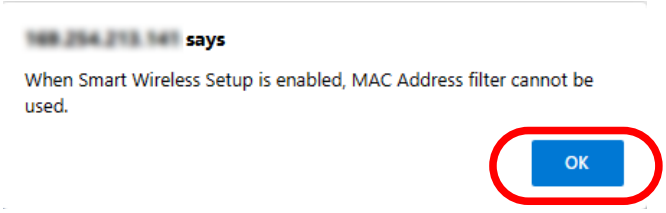


6. A confirmation dialog is displayed. Click **OK**.

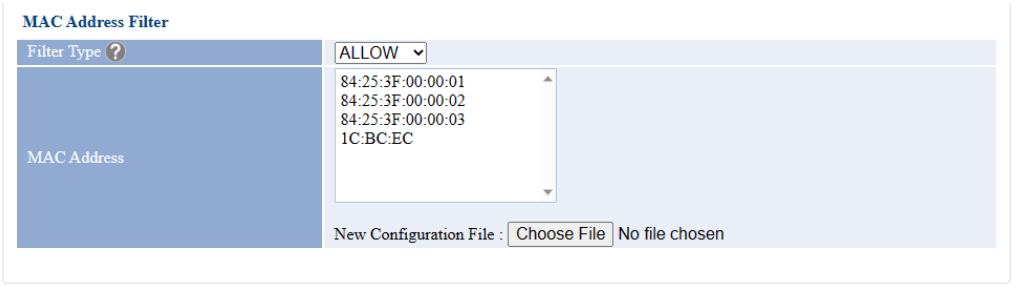


Note

- When Smart Wireless Setup is enabled, the following confirmation dialog is displayed. Click **OK** and disable Smart Wireless Setup. For how to disable Smart Wireless Setup, see **7-8. How to Disable Smart Wireless Setup**.



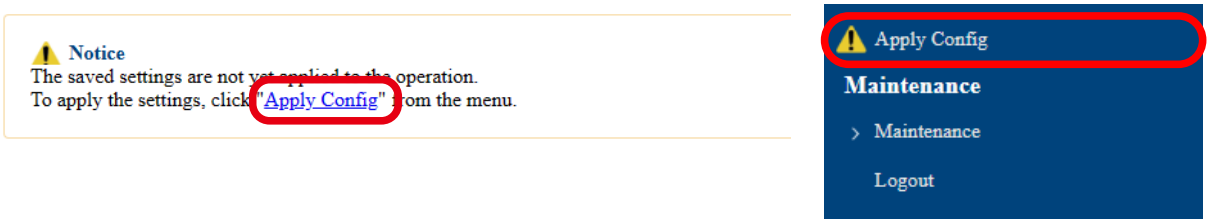
7. MAC Addresses and vendor codes are registered in MAC Address Filter.



Note

- To change the contents of the MAC Address list, update the MAC Address list file accordingly and import it again.

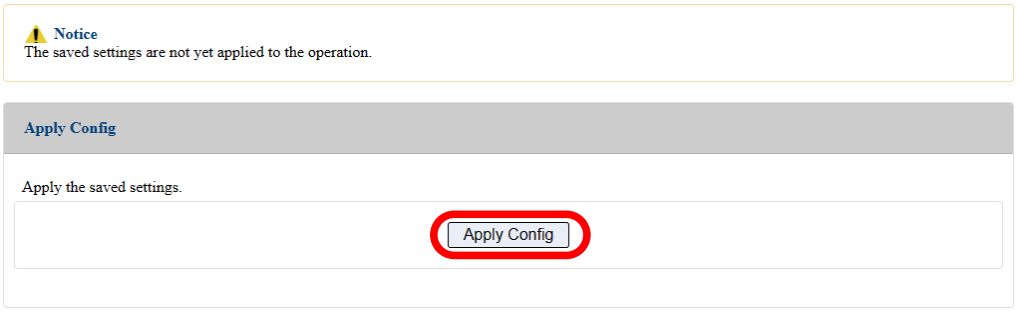
8. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

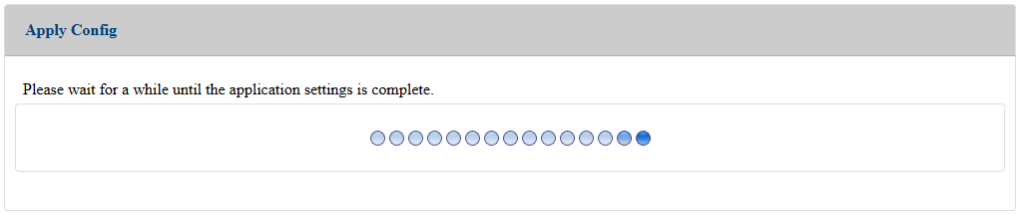
9. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

10. The configuration load message is displayed.
When the screen changes, it is finished.



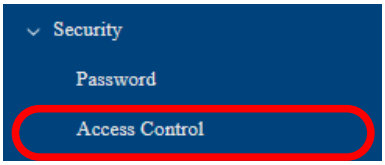
7-5-2. Protocol Filter Setting

The following describes how to filter protocols for wired LAN/wireless LAN.

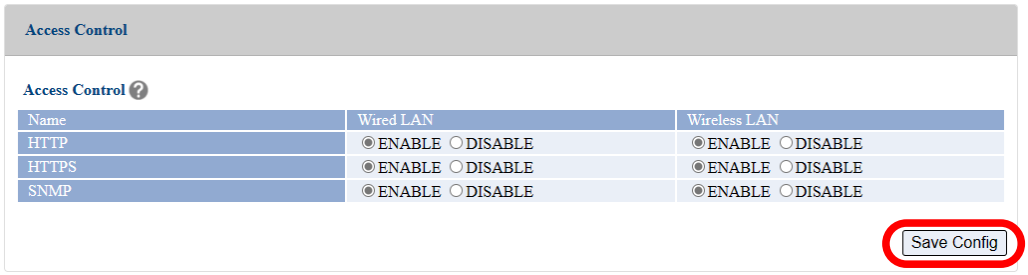
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Security** - **Access Control** from the page menu.



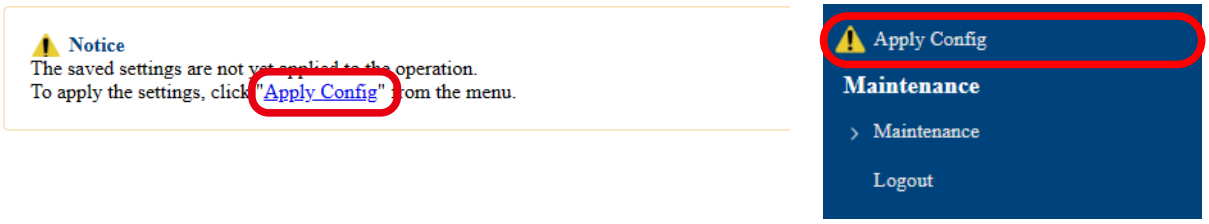
3. The Access Control page is displayed.
Configure each setting and click **Save Config**.



TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

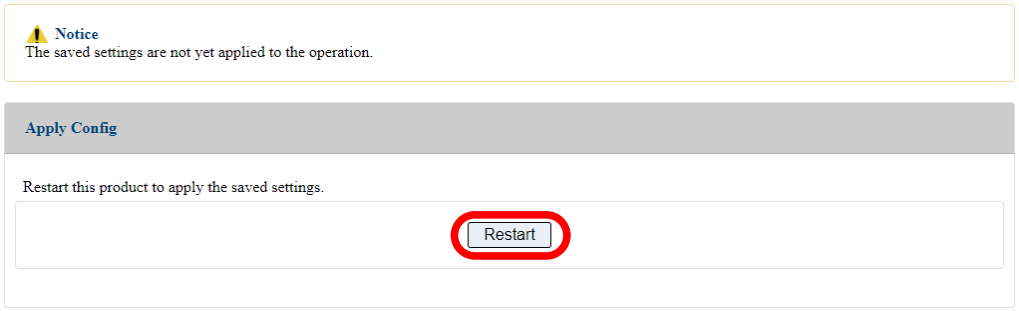
Note
- For details on each configuration item, refer to **A-4-2. Access Control**.

4. Click **Apply Config** at the top of the page or from the page menu.



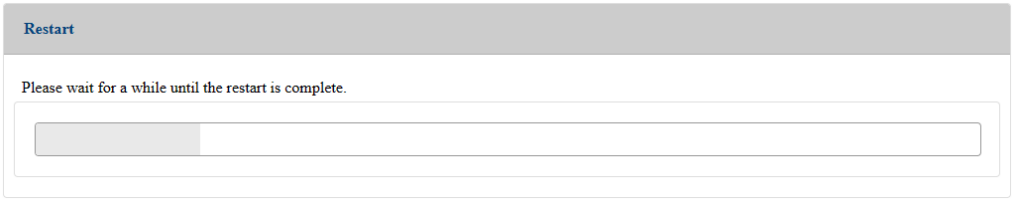
Note - When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note - If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.

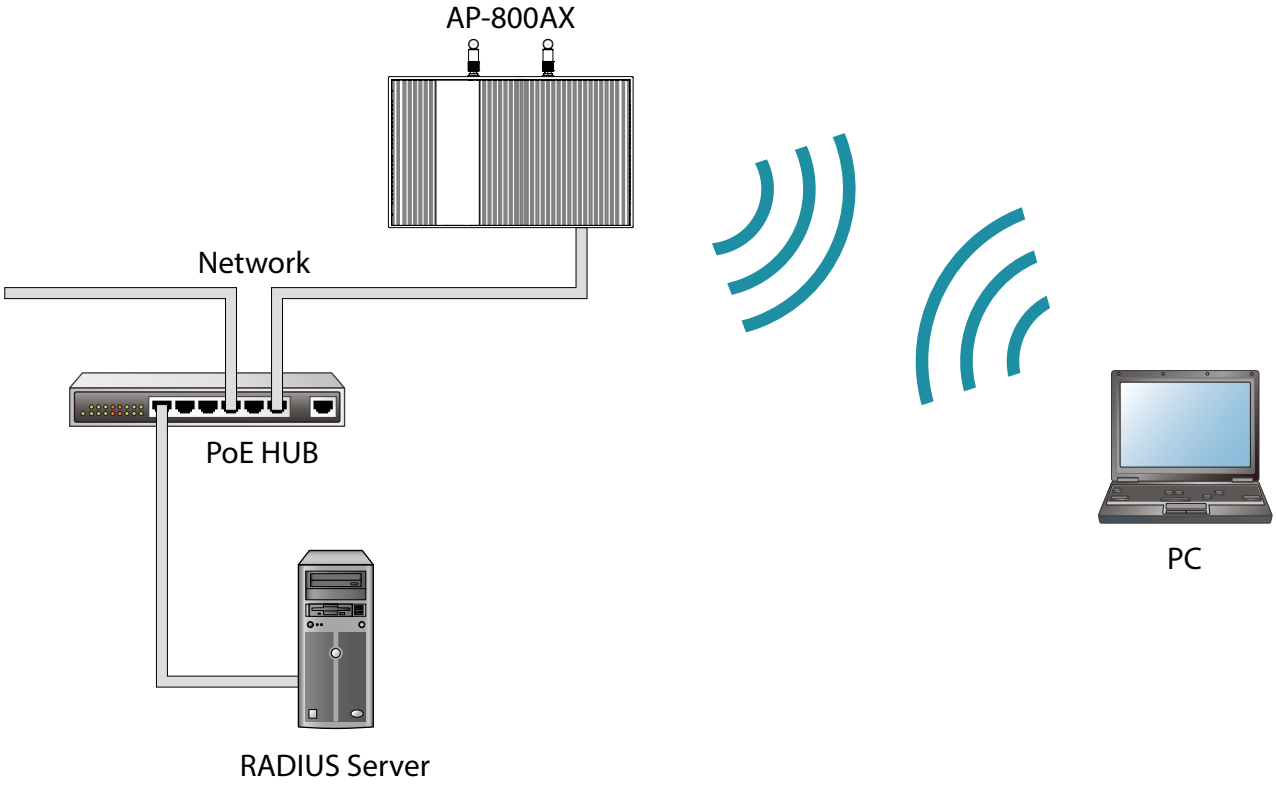


7-6. IEEE 802.1X Authentication

AP-800AX supports the IEEE 802.1X authentication.
To use the IEEE 802.1X authentication, a RADIUS server is needed.

7-6-1. Network Configuration

Connect the AP-800AX to a network as below when you use the IEEE 802.1X authentication.
IP Address of RADIUS server and port number of EAPOL can be set.



7-6-2. IEEE 802.1X Authentication

AP-800AX supports the following IEEE 802.1X authentication methods.

IEEE 802.1X Authentication mode
EAP-TLS
EAP-TTLS
PEAP

- LEAP and EAP-FAST are not supported.

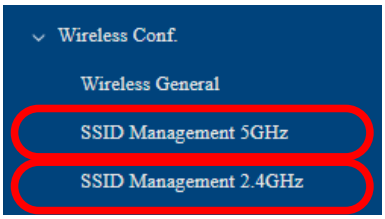
Note

7-6-3. IEEE 802.1X Authentication Settings

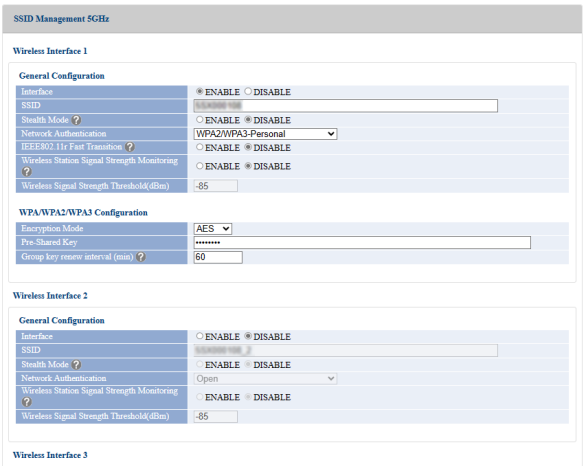
1. Display the AP-800AX's Web page.

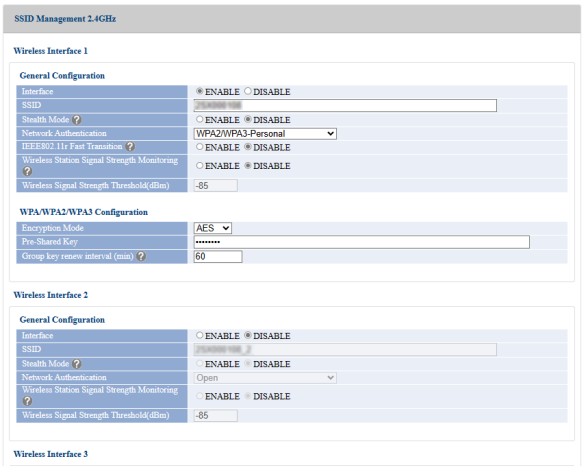
Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **SSID Management 5GHz/SSID Management 2.4GHz** from the page menu.



3. The SSID Management 5GHz/SSID Management 2.4GHz page is displayed.
Configure the following settings for wireless interfaces that use IEEE 802.1X authentication.





Network Authentication

Name	Explanation
WPA2-Enterprise	Uses IEEE 802.1X user authentication and AES/AUTO encryption.
WPA3-Enterprise	The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption.
WPA/WPA2-Enterprise	Uses IEEE 802.1X user authentication and AES/AUTO encryption.
WPA2/WPA3-Enterprise	Uses IEEE 802.1X user authentication and AES encryption.
WPA3-Enterprise 192-bit security	The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption. AES-256-GCMP(00-0F-AC:9) is supported.

RADIUS Server Configuration

Primary Server

Name	Explanation
Server IP	Set the IP Address of RADIUS server (Primary Server).
Port Number	Set the port number used to communicate with RADIUS server (Primary Server).
Shared Secret	Set the secret key used to communicate with RADIUS server (Primary Server).

Secondary Server

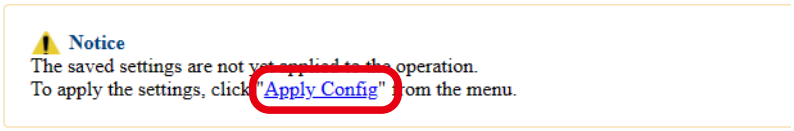
Name	Explanation
Server IP	Set the IP Address of RADIUS server (Secondary Server).
Port Number	Set the port number used to communicate with RADIUS server (Secondary Server).
Shared Secret	Set the secret key used to communicate with RADIUS server (Secondary Server).

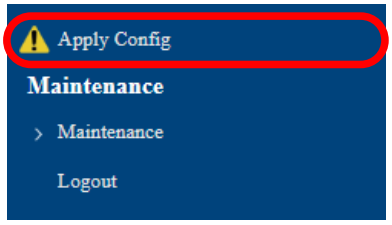
Note

- This setting is valid when network authentication is as follows.
  - WPA2-Enterprise
  - WPA/WPA2-Enterprise
  - WPA3-Enterprise
  - WPA2/WPA3-Enterprise
  - WPA3-Enterprise 192-bit security
- For details on each configuration item, refer to **A-2-2. SSID Management 5GHz** or **A-2-3. SSID Management 2.4GHz**.
- After the secondary server is set, if 'Failover' occurs twice in communication with the primary server, the authentication server will switch to the secondary server.
- After AP-800AX is powered on, it switches the authentication server back to the primary server every 10 minutes. The authentication server is switched to the primary server even if authentication is successfully processed on the secondary server.

4. When finished entering the settings, click **Save Config** at the bottom right of the page.

5. Click **Apply Config** at the top of the page or from the page menu.

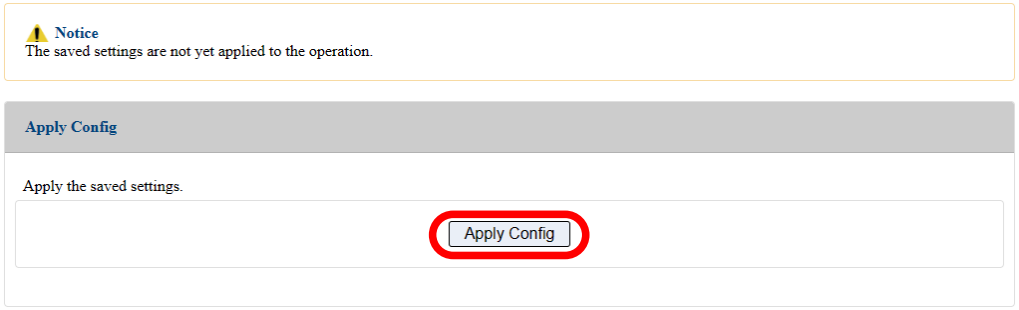




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

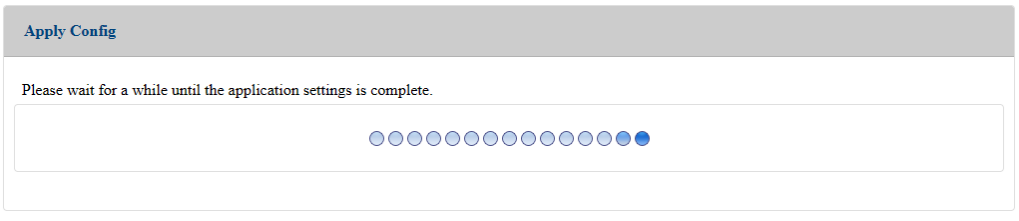
6. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

7. The configuration load message is displayed.
When the screen changes, it is finished.



7-7. Fast Roaming for Wireless Station Devices

AP-800AX supports the fast roaming standard IEEE 802.11r (hereafter, "802.11r").

In 802.11r network, when a wireless station device roams from an Access Point to another Access Point on the same network, a feature called Fast Basic Service Set Transition (hereafter, "FT") is used to simplify the authentication process. This feature allows the wireless station device to quickly roam to another Access Point.

Authentication Method:
- FT-Personal
- FT-Enterprise

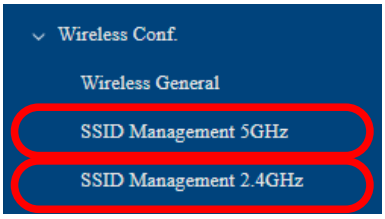
TIP - When the **IEEE 802.11r Fast Transition** is enabled on AP-800AX, wireless connection method using Smart Wireless Setup cannot be used.

7-7-1. IEEE 802.11r Authentication Settings

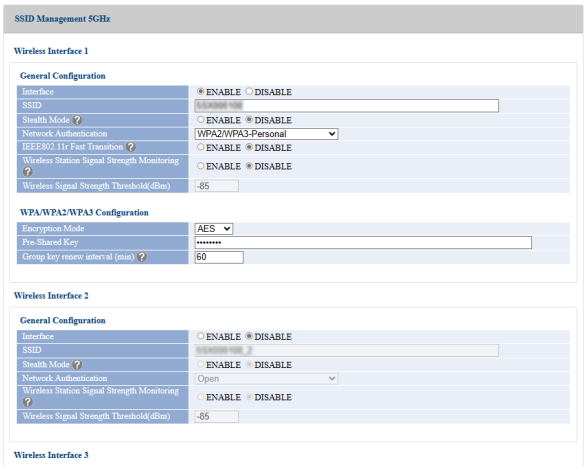
1. Display the AP-800AX's Web page.

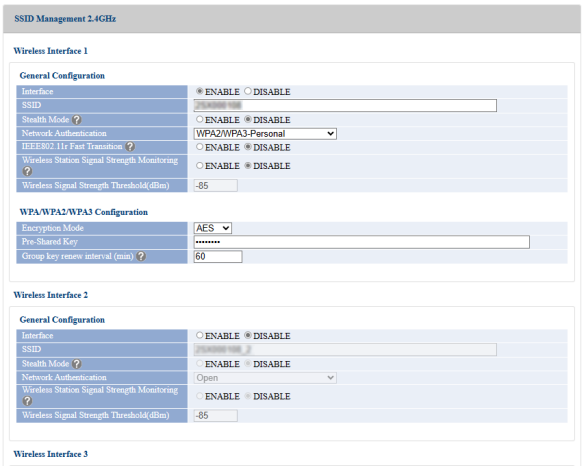
Note - When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **SSID Management 5GHz/SSID Management 2.4GHz** from the page menu.

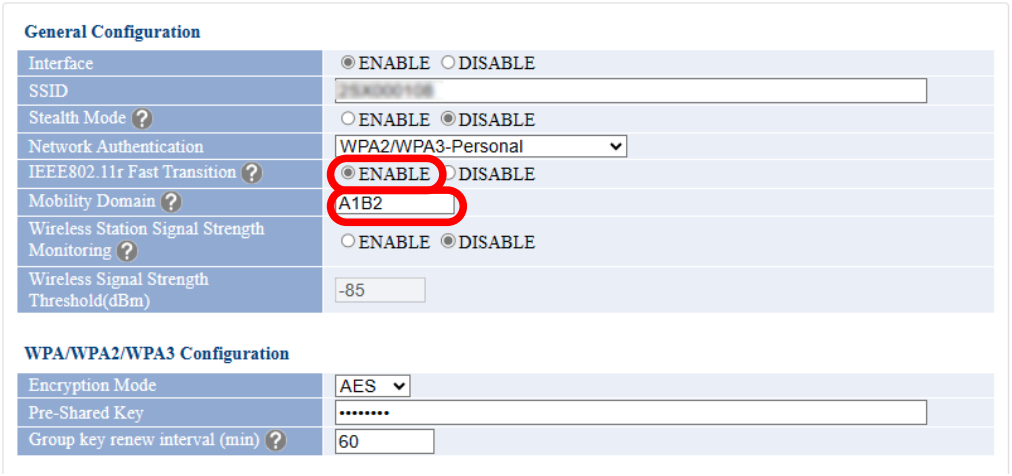


3. The SSID Management 5GHz/SSID Management 2.4GHz page is displayed.





4. Select **ENABLE** for **IEEE 802.11r Fast Transition** and enter the value at **Mobility Domain**.
Setting the same value on multiple AP-800AX units will simplify the authentication process when wireless station device roams between AP-800AX units.

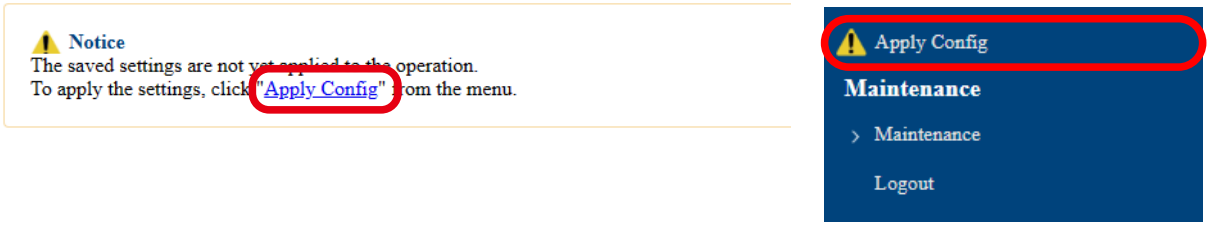


5. When finished entering the settings, click **Save Config** at the bottom right of the page.

TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

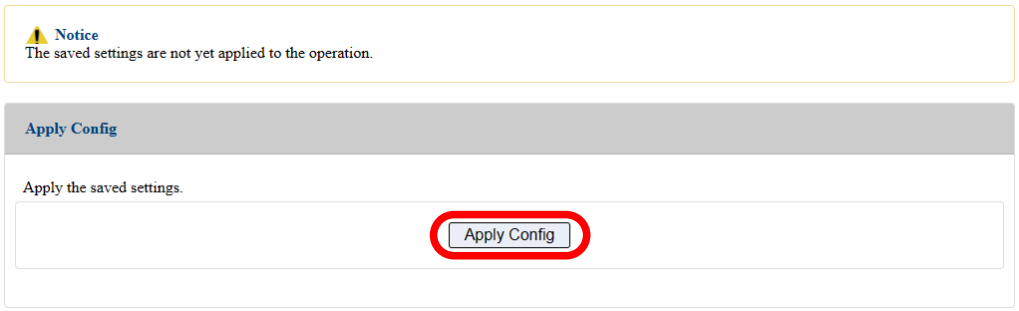
6. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

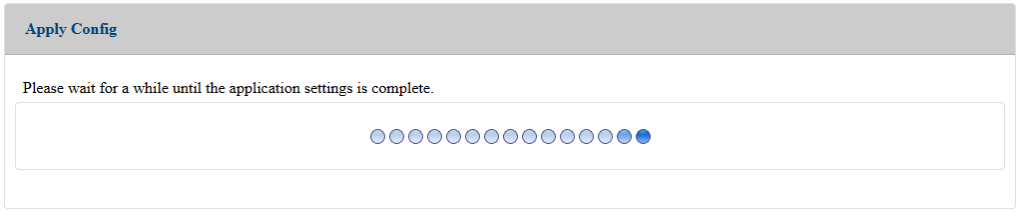
7. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

8. The configuration load message is displayed.
When the screen changes, it is finished.



7-8. How to Disable Smart Wireless Setup

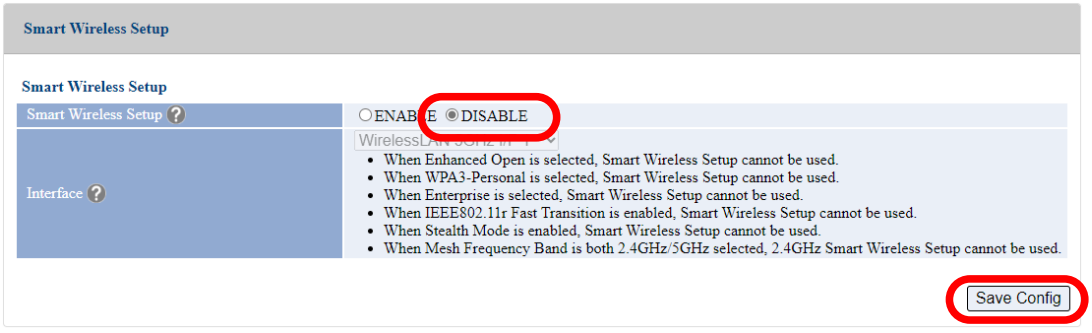
This chapter explains how to disable the Smart Wireless Setup function (e.g. SET switch method to connect to a wireless station device).

1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

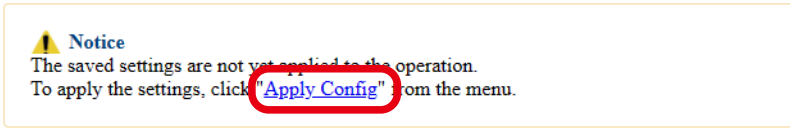
2. Click **Wireless Conf.** - **Wireless Detail** - **Smart Wireless Setup** from the page menu.

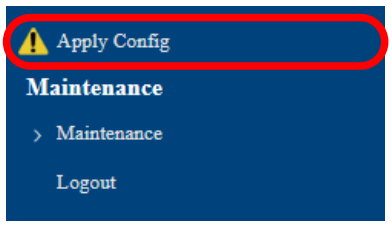
3. Smart Wireless Setup page is displayed.
Select **DISABLE** for **Smart Wireless Setup**, and click **Save Config**.



TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

4. Click **Apply Config** at the top of the page or from the page menu.

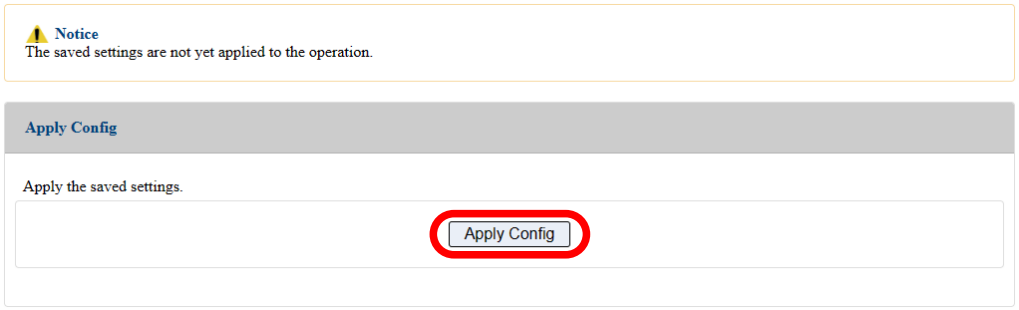




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

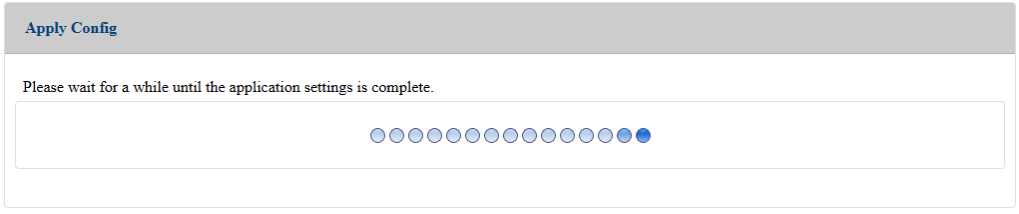
5. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

6. The configuration load message is displayed.
When the screen changes, it is finished.



7-9. How to Filter Communication between Wireless Station Devices

This chapter explains how to block communication among the connected wireless station devices, and to allow only the communication of devices connected on a wired LAN.

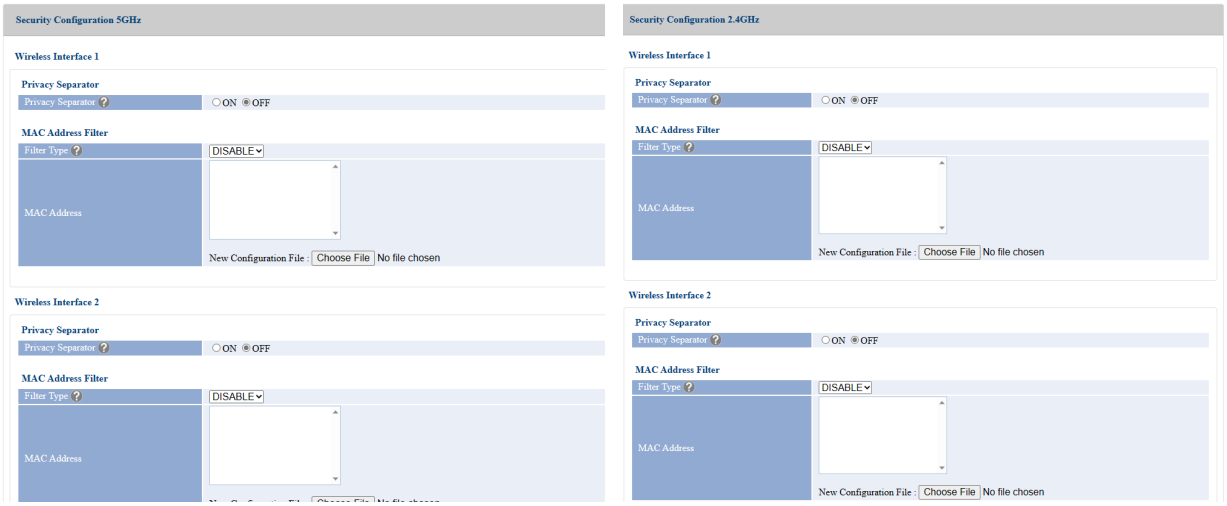
1. Display the AP-800AX's Web page.

Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **Wireless Detail** - **Security 5GHz/Security 2.4GHz** from the page menu.

3. The Security Configuration 5GHz/Security Configuration 2.4GHz page is displayed.



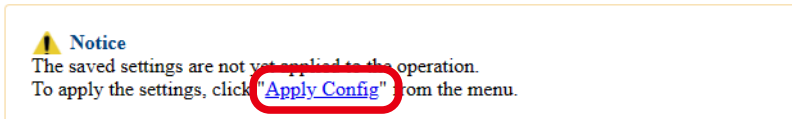
4. Choose **ON** for **Privacy Separator**.

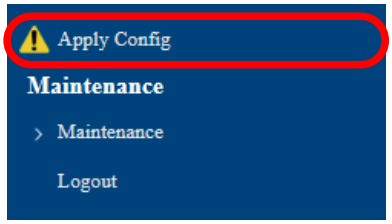
5. Click **Save Config** at the bottom right of the page.

TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

6. Click **Apply Config** at the top of the page or from the page menu.

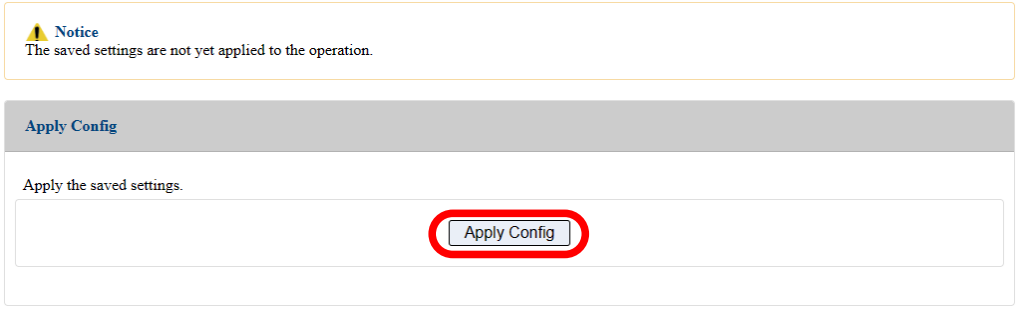




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

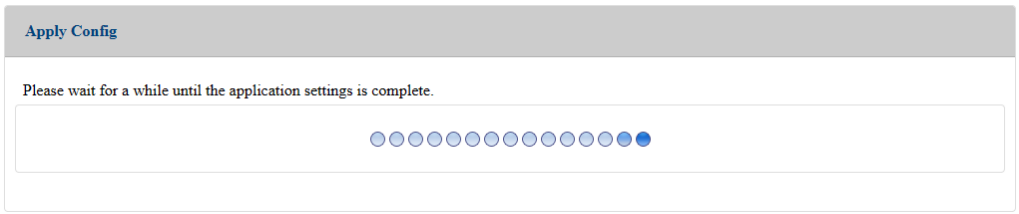
7. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

8. The configuration load message is displayed.
When the screen changes, it is finished.



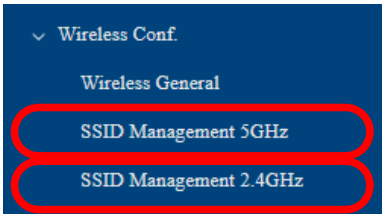
7-10. Disconnecting Wireless Station Devices with Low Reception Signals

AP-800AX can monitor the reception signal strength of the connected wireless station devices. By enabling this function, it is possible to actively disconnect from wireless station devices according to the reception signal strength.
This can make the wireless station devices reconnect to other Access Points when they are having a poor connection, which will help the users to create a stable wireless network.

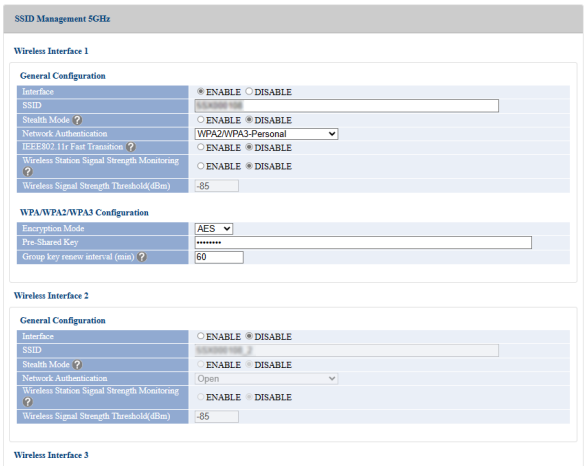
1. Display the AP-800AX's Web page.

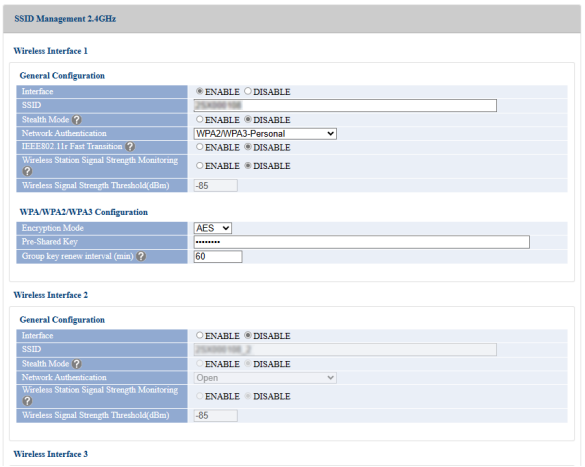
Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Wireless Conf.** - **SSID Management 5GHz/SSID Management 2.4GHz** from the page menu.

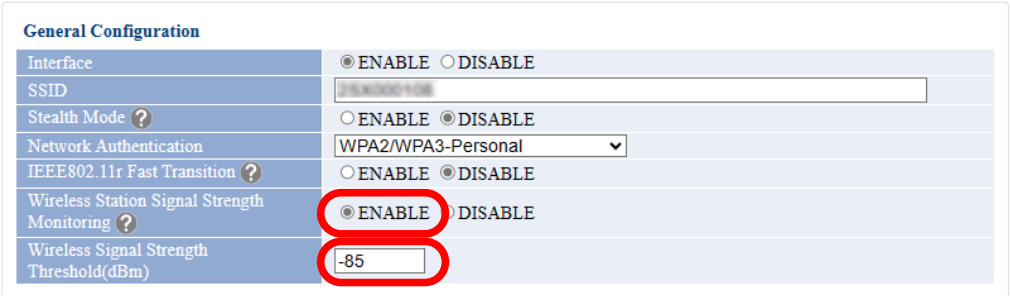


3. The SSID Management 5GHz/SSID Management 2.4GHz page is displayed.





4. Select **ENABLE** for **Wireless Station Signal Strength Monitoring** and set a threshold value for disconnection for **Wireless Signal Strength Threshold (dBm)**.



Note

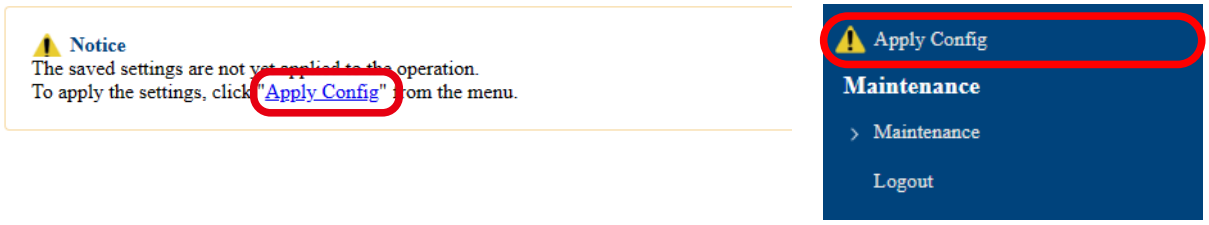
- For details on each configuration item, refer to **A-2-2. SSID Management 5GHz**, **A-2-3. SSID Management 2.4GHz**.

5. Click **Save Config** at the bottom right of the page.

TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

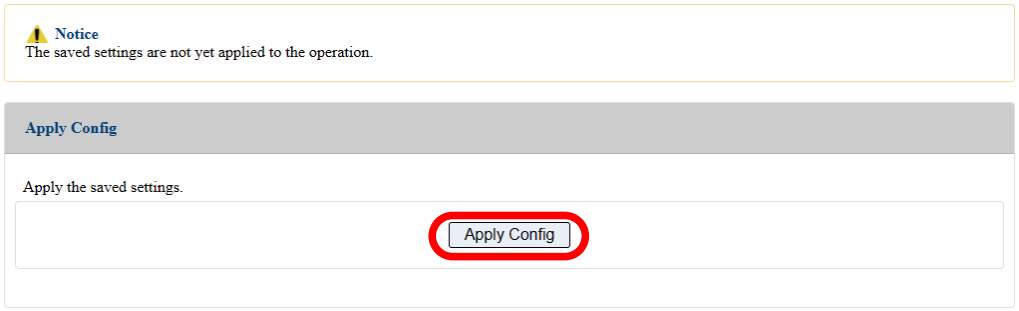
6. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

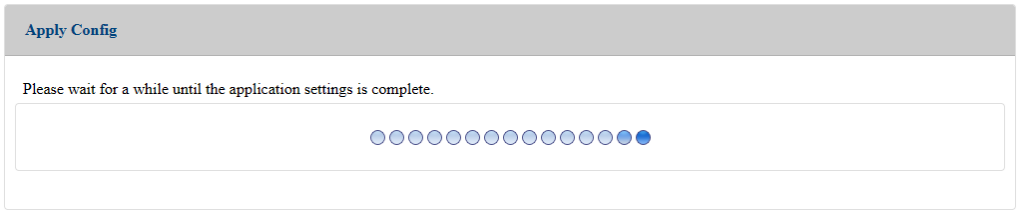
7. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

8. The configuration load message is displayed.
When the screen changes, it is finished.



7-11. Monitoring Operating Status

AP-800AX supports the SNMP function that can retrieve various status information using the SNMP manager. By configuring the SNMP settings, operating status for the SNMP-compatible devices can be monitored.

Note

- AP-800AX supports SNMP v1/v2c/v3.
- MIB supports MIB-2.

7-11-1. Status Information Obtained by SNMP

The following information of AP-800AX can be obtained.

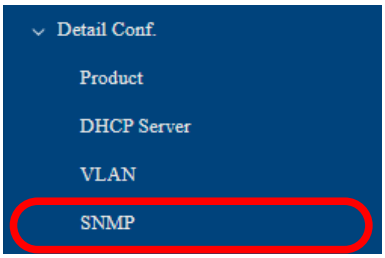
Group	Name	Details
System Group	sysDescr	Description about the device
	sysUpTime	Time elapsed after the power-on
	sysContact	AP-800AX version (e.g. 1.0.0)
	sysName	AP-800AX host name If the host name is empty, "-" is obtained.
	sysLocation	"-" is obtained.
TCP Group	tcpInSegs	Number of TCP segments received.
	tcpOutSegs	Number of TCP segments sent.
UDP Group	udpInDatagrams	Number of datagrams received.
	udpNoPorts	Number of datagrams destined for unsupported ports.
	udpInErrors	Number of datagrams discarded.
	udpOutDatagrams	Number of datagrams sent.

1. Display the AP-800AX's Web page.

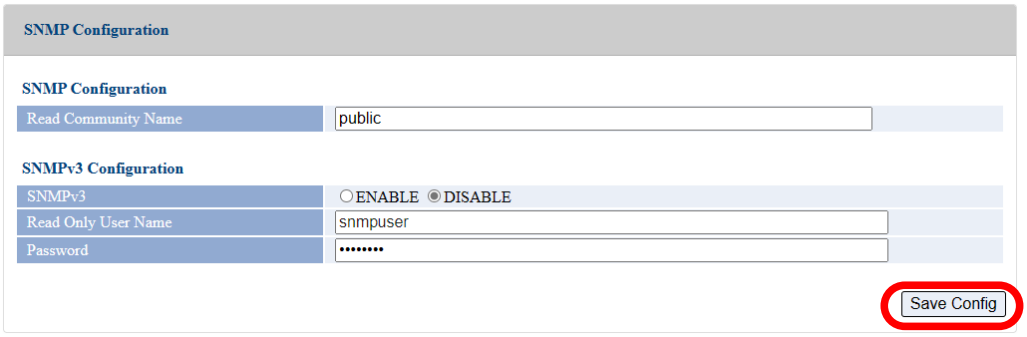
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **SNMP** from the page menu.



3. The SNMP Configuration page is displayed.
Configure each setting and click **Save Config**.



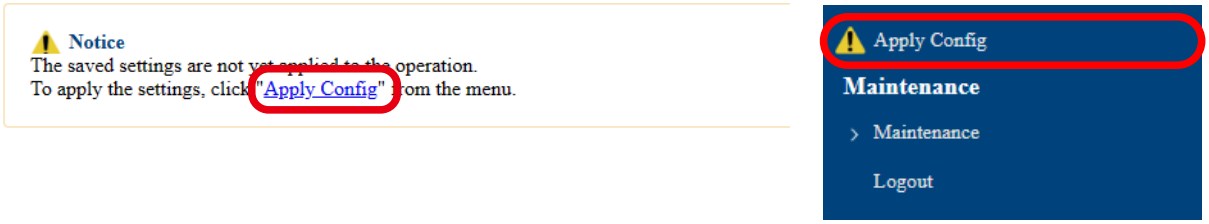
TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

Note

- For details on each configuration item, refer to **A-3-4. SNMP Configuration**.

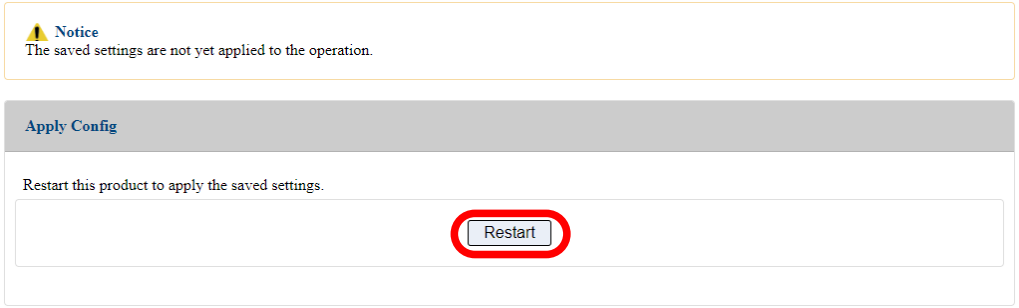
4. Click **Apply Config** at the top of the page or from the page menu.



Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
  Do it later when all necessary settings are configured.

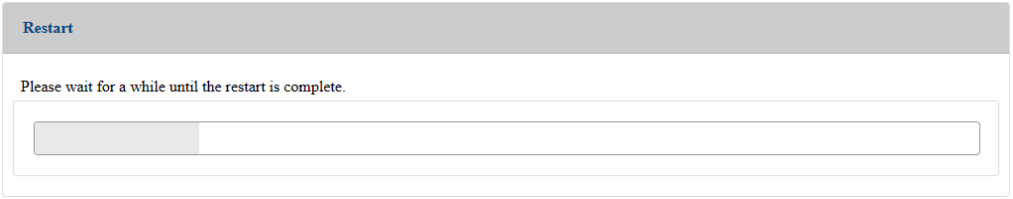
5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



7-12. LED Light OFF Setting

If the LED Off mode is enabled, all LEDs are turned off after AP-800AX is powered on.
By enabling this setting, the power consumption can be reduced when there is no need to check the LED status.

TIP

- Since all LEDs are turned off, operating status of AP-800AX (for AMC Mesh, DFS detection, etc.) cannot be checked by the LED lighting pattern. Instead, the AP-800AX's Web page or AMC Manager can be used for status monitoring and device control.

Note

- If the LED off mode is enabled, the LED of LAN port will also be off.

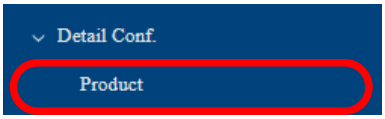
The following describes how to enable the LED Off mode.

1. Display the AP-800AX's Web page.

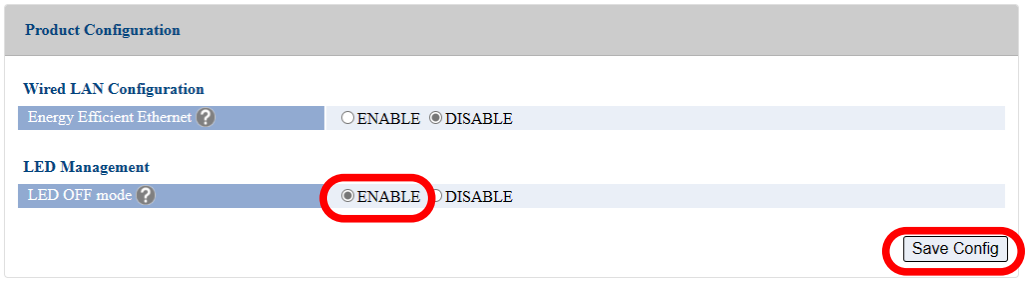
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **Product** from the page menu.



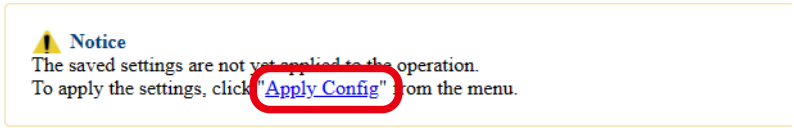
3. The Product Configuration page is displayed.
Select **ENABLE** for **LED OFF mode** under **LED Management** and click **Save Config**.

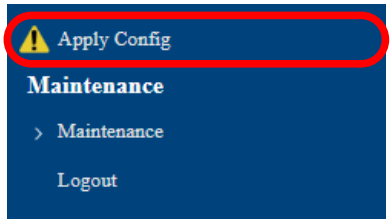


TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

4. Click **Apply Config** at the top of the page or from the page menu.

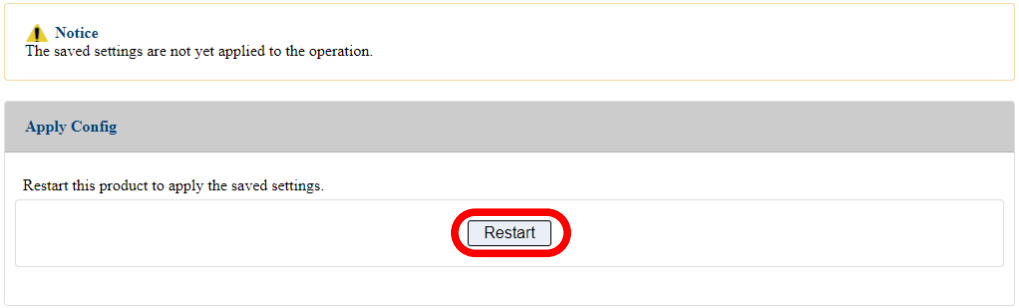




Note

- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are configured.

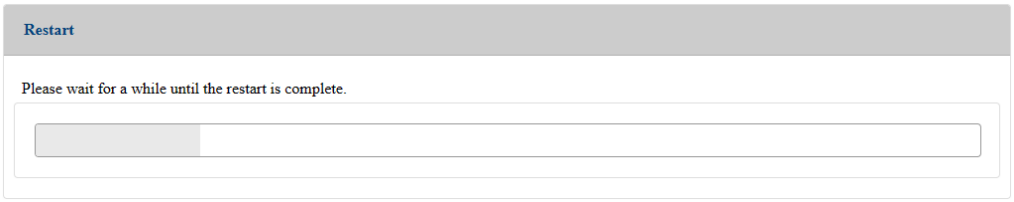
5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



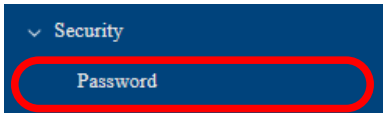
7-13. Login Password Setting

The following explains how to change the AP-800AX's login password.

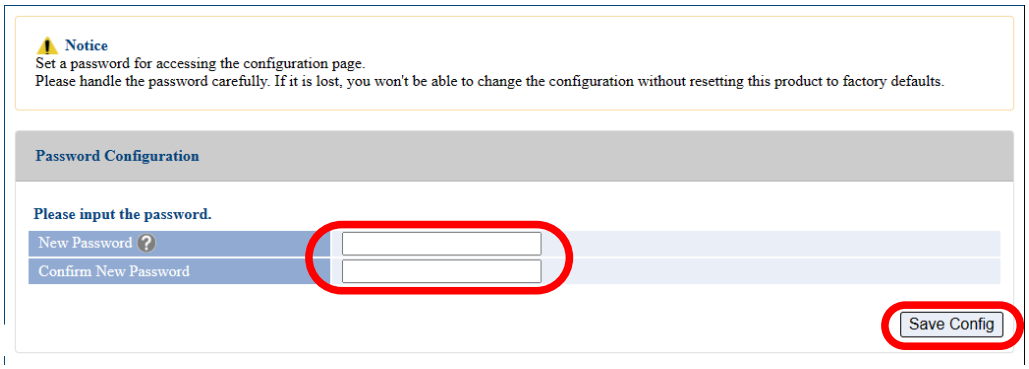
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Security** - **Password** from the page menu.



3. The Password Configuration page is displayed.
Enter the password to both **New Password** and **Confirm New Password** and click **Save Config**.



TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.
- Make a note of the password so that you can refer when you have forgotten it. Without the password, no settings can be changed unless AP-800AX is reset to the factory default settings.

The login password change has been completed.

8. Administrative Functions

8-1. Monitoring Status for Wireless Station Devices

The operating status of the connected wireless station device can be checked on the Web page.
The status includes MAC address of devices and the radio strength.

TIP

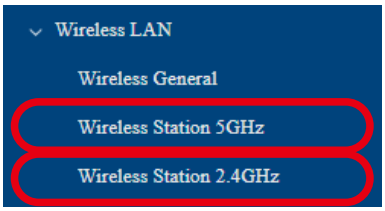
- This method cannot be used when AP-800AX is operating in Configuration Mode. For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page - Displaying Web Page Using Network Connection**.

1. Display the AP-800AX's Web page.

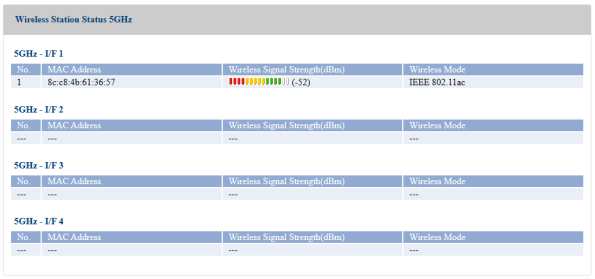
Note

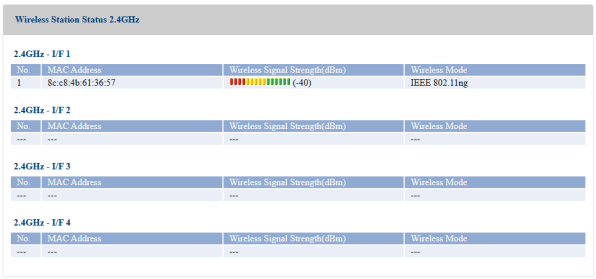
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.

2. Click **Wireless LAN** - **Wireless Station 5GHz/Wireless Station 2.4GHz** from the page menu.



3. The Wireless Station Status 5GHz/Wireless Station Status 2.4GHz page is displayed.





Item	Explanation
MAC Address	Shows MAC addresses of wireless station devices connected to AP-800AX.
Wireless Signal Strength(dBm)	Shows the radio strength of the wireless station devices.
Wireless Mode	Shows wireless mode of wireless station devices connected to AP-800AX.

8-2. Checking the Logs

Various log messages (access logs, etc.) can be output to a Syslog server or text file.
The following describes how to output logs to the Syslog server, how to download logs, and the contents of logs.

TIP

- Display may vary depending on the Web browser.
- The log must record the correct time. For how to set the time of AP-800AX, see **7-2-1. Time Sync with NTP Server**.

8-2-1. Saving the Logs to Syslog Server

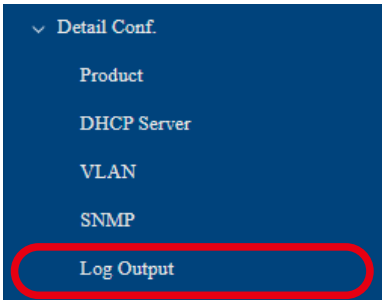
The following describes the procedure for outputting and saving the AP-800AX's event logs to the Syslog server. Place a device that serves as a Syslog server in advance, and configure it to communicate with AP-800AX.

1. Display the AP-800AX's Web page.

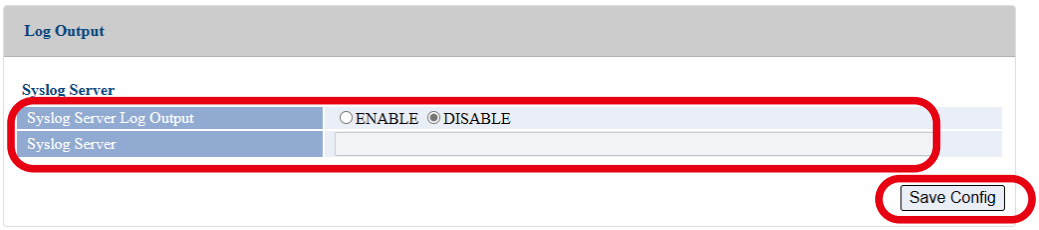
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **Log Output** from the page menu.



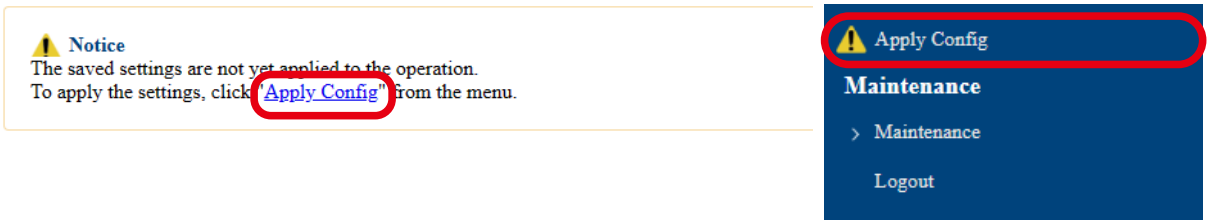
3. The Log Output page is displayed.
Select **ENABLE** for **Syslog Server Log Output**, configure the setting at **Syslog Server** and click **Save Config**.



TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

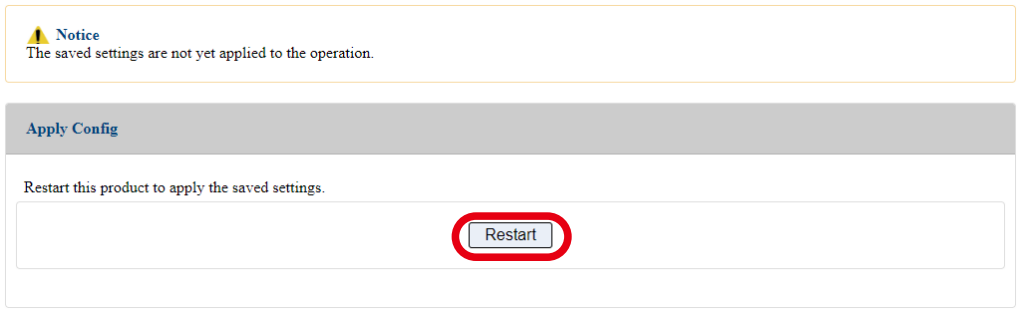
Note
- For details on each configuration item, refer to **A-3-5. Log Output**.

4. Click **Apply Config** at the top of the page or from the page menu.



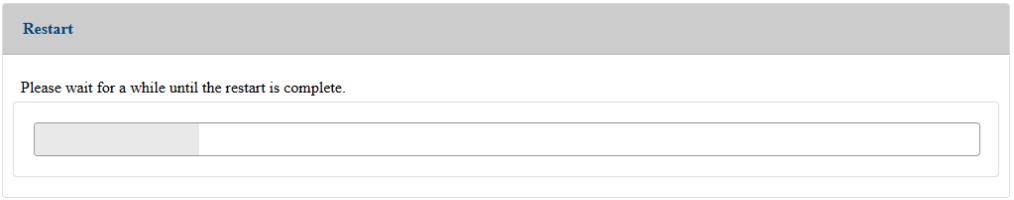
Note
- When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are entered.

5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note - If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



The log output setting is completed.

8-2-2. Downloading the Logs

The saved logs can be obtained from the Web page of AP-800AX.
There are two types of log.
Details of each log are as follows.

System Log

Power-on status, operating status, etc. of AP-800AX are saved as a log file. In case of a network trouble, you can check the operating status by referring the retrieved system logs.

Event Log

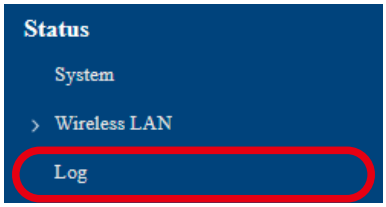
When a new event such as power-on/wireless connection/disconnection occurs, it is saved as a log file.
The log can also be checked on the Web page of AP-800AX.
In case of a network trouble, you can check the status by referring the retrieved event logs.

How to Download System Log

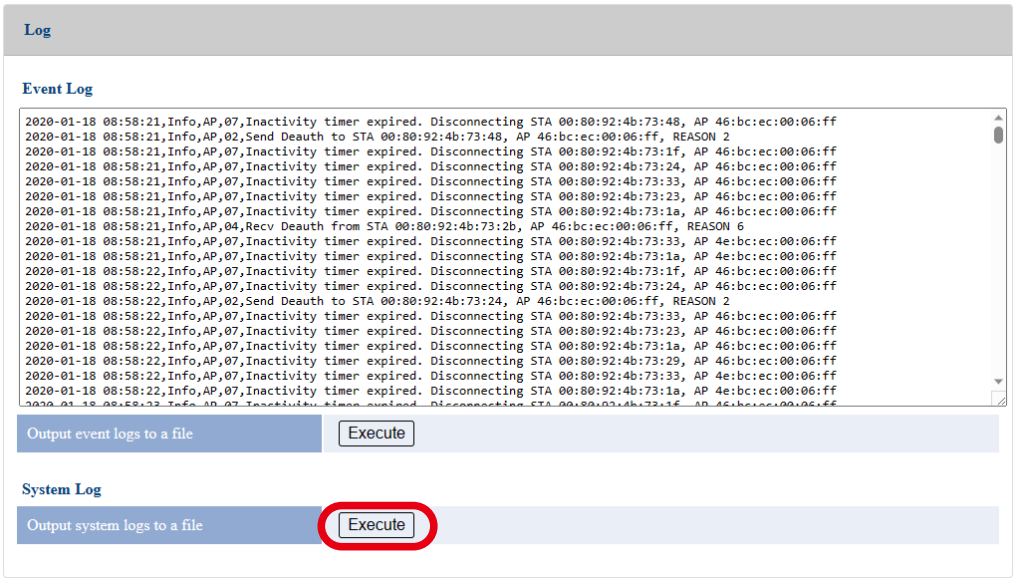
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

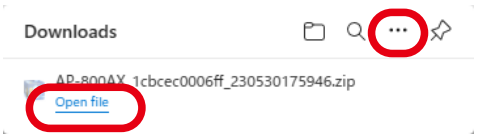
2. Click **Status** - **Log** from the page menu.



3. The Log page is displayed.
Click **Execute** at **Output system logs to a file**.



4. The message for compressed file of all system logs appears.
Click **Open file** or ". . ." for the desired option.



The system logs have been downloaded.

Note

- A compressed file of the system log contains the following text files.

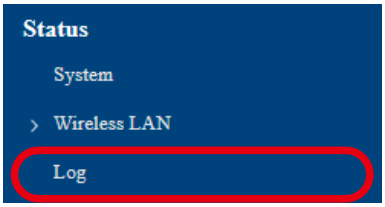
File name	Explanation
config_file.txt	Configuration file This is the same file as the one that can be obtained at **Exporting Configuration File** of **9-4-2. Import/Export from Web Page**.
ethtool_file.txt	Saves the information about the wired LAN interface.
eventlog_file.txt	Event log
iwconfig_file.txt	Saves the information about the wireless LAN interface.
memory_file.txt	Saves the memory information.
process_file.txt	Saves the process information.
status_file.txt	Saves the product information.
syslog_file.txt	Syslog
wlanconfig_list_file.txt	Saves the information of connected wireless station device.

How to Download Event Log

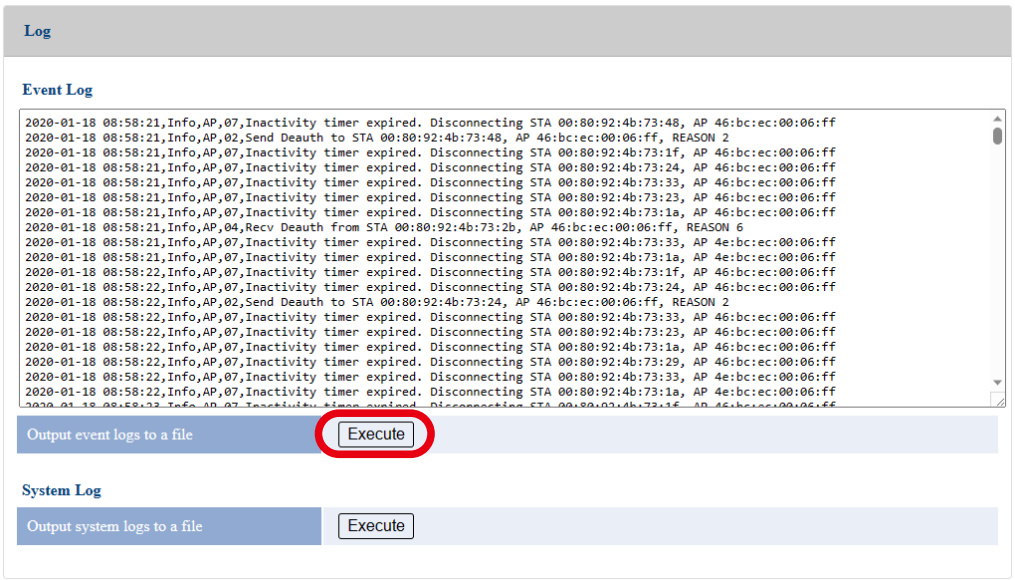
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

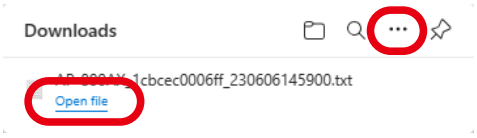
2. Click **Status** - **Log** from the page menu.



3. The Log page is displayed.
Click **Execute** at **Output event logs to a file**.



4. The message for event log file appears.
Click **Open file** or "**. . .**" for the desired option.



The event logs have been downloaded.

8-3. Remote Management by Linking to AMC Cloud®

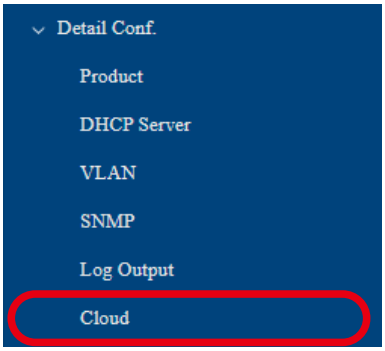
By linking with the Silex Technology's "AMC Cloud®", AP-800AX can be managed remotely. The following describes the settings to link with AMC Cloud®.

8-3-1. Making a Link with AMC Cloud®

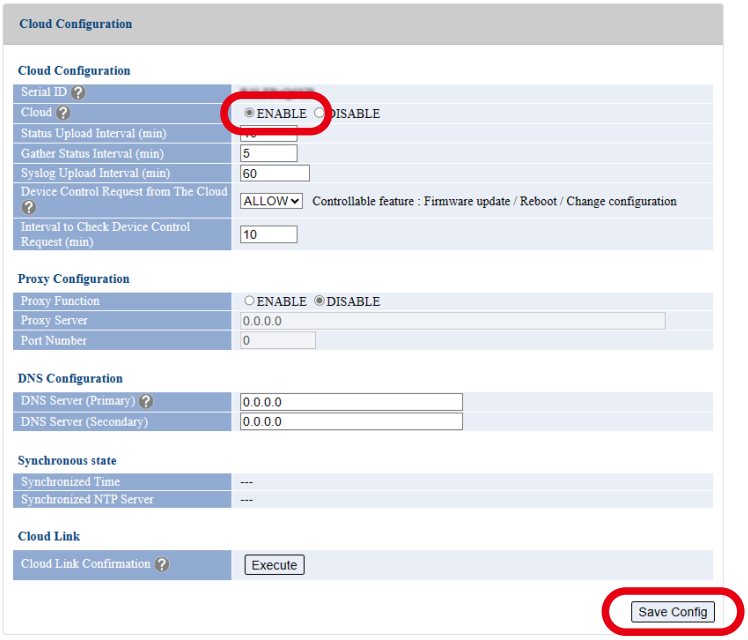
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **Cloud** from the page menu.



3. The Cloud Configuration page is displayed.
Select **ENABLE** for **Cloud**, configure each setting and click **Save Config**.



TIP

- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.
- To perform the following operations, AP-800AX needs to be registered to AMC Cloud® in advance. For registration method, refer to the user's manual of AMC Cloud®.
  - Checking if AP-800AX can be used on AMC Cloud®
  - Uploading the AP-800AX's system logs to AMC Cloud®
  - Changing the AP-800AX's settings from AMC Cloud®
  - Checking the AP-800AX's wireless statistical information on AMC Cloud®

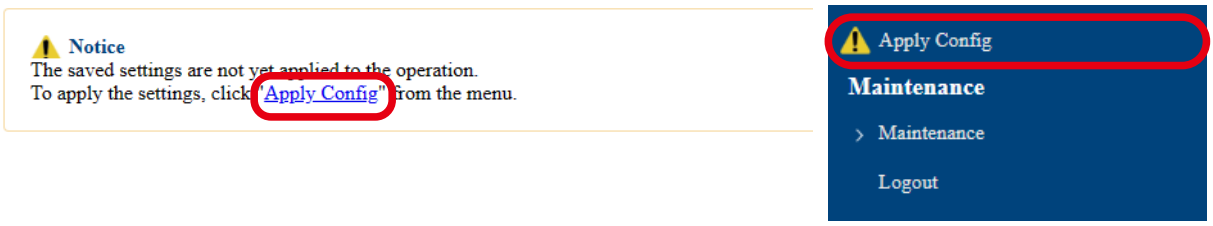
Note

- The serial ID is used to register the device to AMC Cloud®.
- To link AP-800AX with AMC Cloud®, configure the following settings appropriately for your environment.

Setting Item	Explanation
DNS Configuration	This is the necessary setting for AP-800AX to communicate with AMC Cloud®. When **DHCP Client** is set to **ENABLE** and both IP address and DNS server address are distributed from the DHCP server, this setting is not necessary. The **DNS Server (Primary)** and **DNS Server (Secondary)** settings will be the same as those of the network configuration page. If these are changed, it will be applied on both pages.
Proxy Configuration	When a proxy server is used to access the Internet from the network where AP-800AX is installed, this setting is required.
NTP Configuration	It is recommended to configure the NTP setting to get the correct time when AP-800AX has received the data. For the configuration method, refer to **7-2-1. Time Sync with NTP Server**. When AP-800AX synchronizes with the registered NTP server, the current status is displayed in **Synchronous state**.

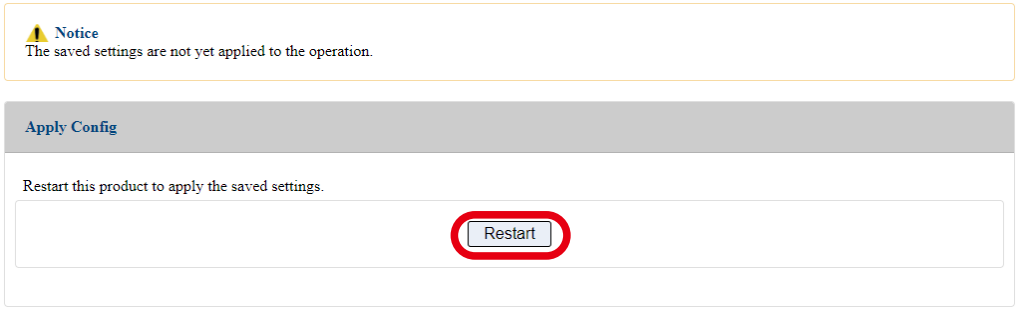
- For details on each configuration item, refer to **A-3-6. Cloud Configuration**.

4. Click **Apply Config** at the top of the page or from the page menu.



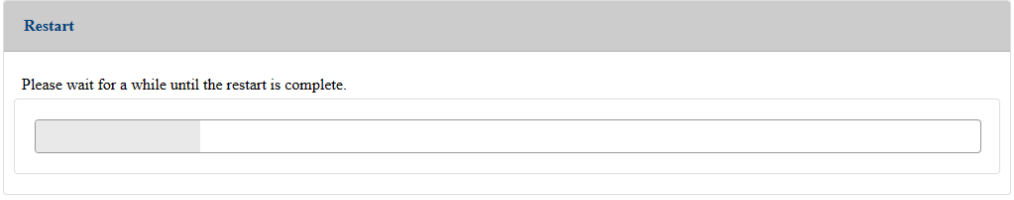
Note - When you are to continue the configuration on other pages, you do not have to click **Apply Config** yet.
Do it later when all necessary settings are entered.

5. When the Apply Config page is displayed, click **Restart**.
The new settings will take effect after AP-800AX is restarted.



Note - If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.

6. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.

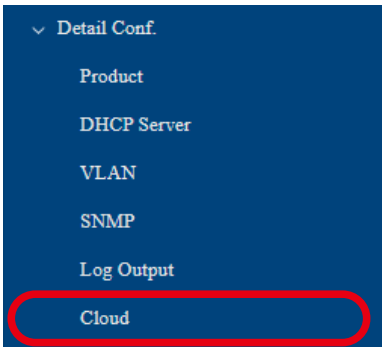


8-3-2. Checking a Link with AMC Cloud®

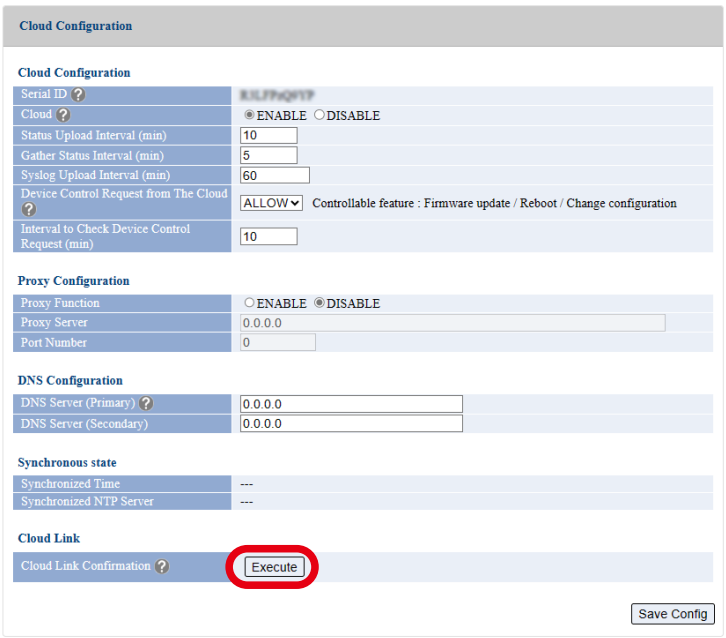
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Detail Conf.** - **Cloud** from the page menu.



3. The Cloud Configuration page is displayed.
Click **Execute**.



Note

- When the connection check is finished, the following message is displayed.

Displayed message	Connection status	AMC Cloud® link status
Cloud has been connected successfully.	Connection success	AP-800AX can communicate with AMC Cloud®.
Cloud connection has failed.	Connection failure	AP-800AX cannot access AMC Cloud®. Check if AP-800AX is connected to the Internet.
Authentication has failed.	Authentication failure	AP-800AX is not registered with AMC Cloud®. Check if the serial ID of AP-800AX is correctly registered to AMC Cloud®.
Cloud connection process has failed. Please try again.	Internal error	An error may have occurred within AP-800AX during the connection process. Click **Execute** again.

- AP-800AX must be registered to AMC Cloud® and the cloud link setting of AP-800AX must be completed in advance. For details, refer to **8-3-1. Making a Link with AMC Cloud®**.

AMC Cloud® connection check is completed.

9. Maintenance Functions

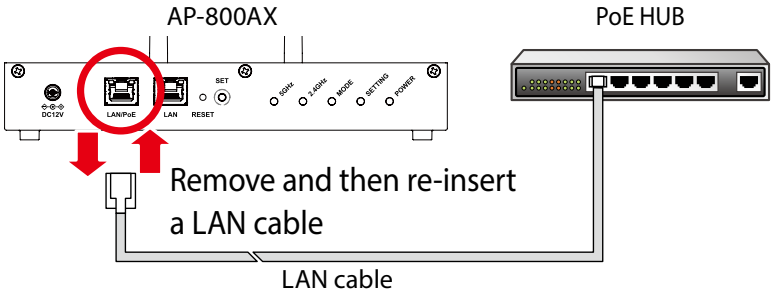
9-1. Restarting

This chapter explains how to restart AP-800AX.

TIP - Before you start, please make sure that no PCs are currently linked.

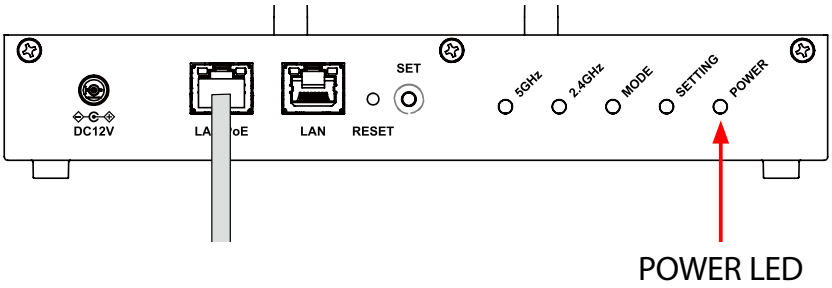
9-1-1. Manual reboot at the unit side

1. Remove a LAN cable (the one connects to PoE HUB) from "LAN/PoE" port of AP-800AX and re-insert it again.



TIP - When the power is supplied using the AC adapter, remove and re-insert the AC adapter.

2. When Power LED starts blinking green and then turns to solid green, the restart is completed.

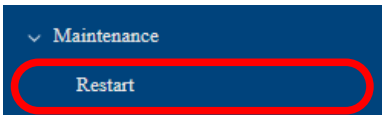


9-1-2. Remote restart from the Web page

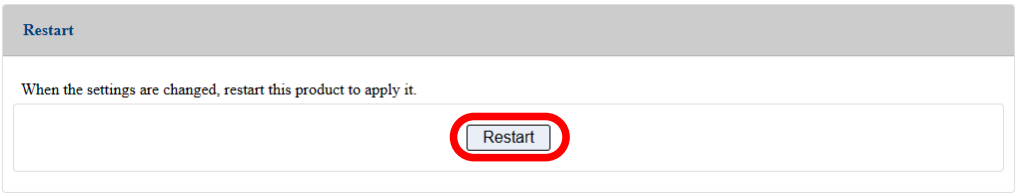
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

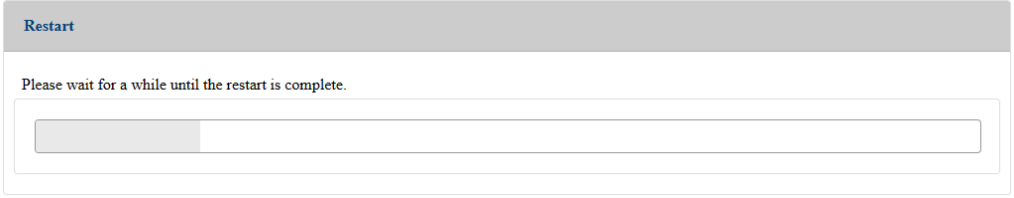
2. Click **Maintenance** - **Restart** from the page menu.



3. The Restart page is displayed.
Click **Restart**.



4. A progress bar appears.
The configuration is complete when the progress bar reaches the right end.



9-2. Updating Firmware

This chapter explains how to update the AP-800AX firmware.

9-2-1. Downloading the Firmware

The latest firmware file can be downloaded from our website.
See the instructions below to download the firmware file.

1. Access our website below.

URL	
USA	https://www.silextechnology.com/
China	http://www.silex.com.cn/

2. Go to the support section and download the firmware file.

9-2-2. Updating the Firmware

TIP

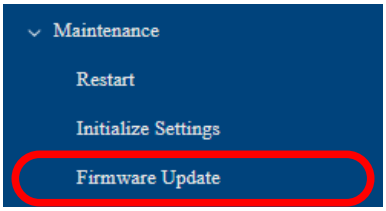
- Before you start, make sure that only the PC you are using for configuration is connected to AP-800AX, and other PC is not connected to AP-800AX.
- Do not turn off AP-800AX while the firmware update is in process.

1. Display the AP-800AX's Web page.

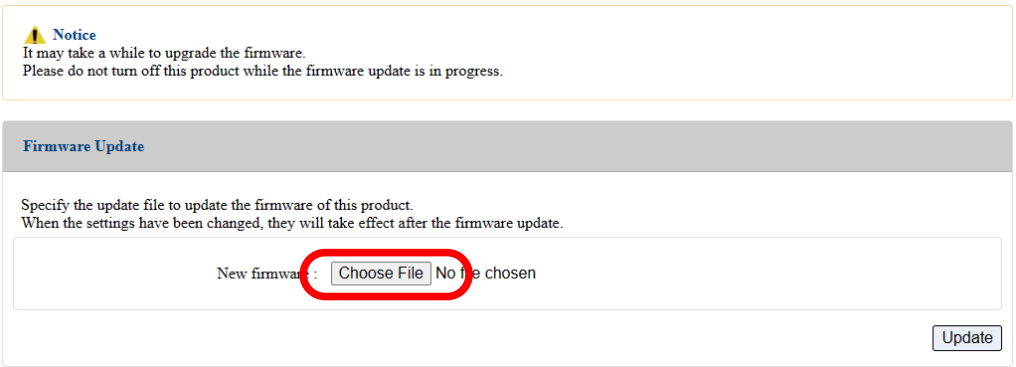
Note

- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

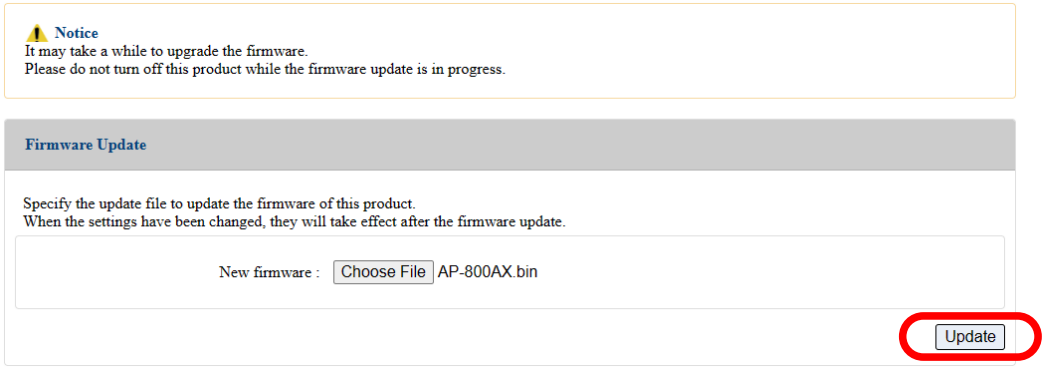
2. Click **Maintenance** - **Firmware Update** from the page menu.



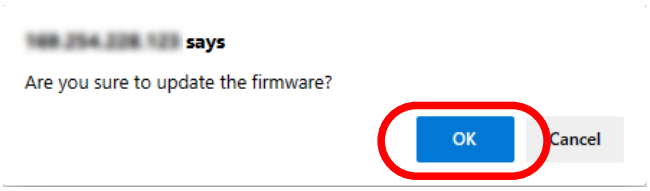
3. Firmware Update page appears.
Click the button to the right of **New firmware**, and select the latest firmware (AP-800AX.bin) that has been downloaded to the PC.



4. Click **Update**.

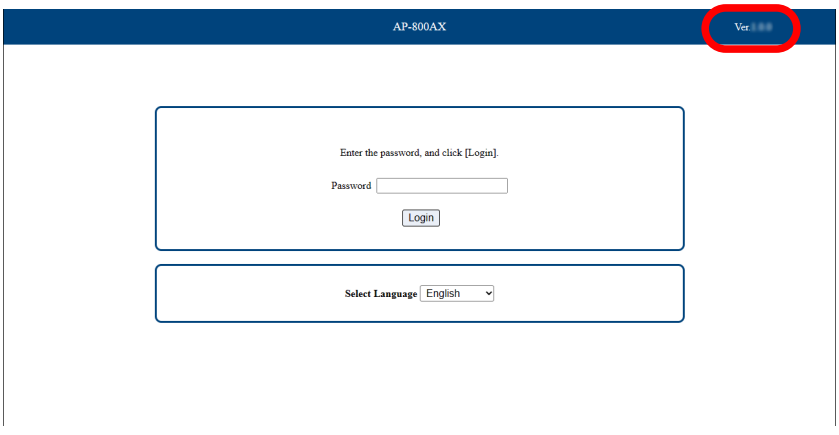


5. A confirmation dialog is displayed. Click **OK**.



6. The firmware update will begin.

7. When the login page is displayed, the firmware update is completed.
See the top right of the login page and check the version information is changed.



9-3. Factory Default Configuration

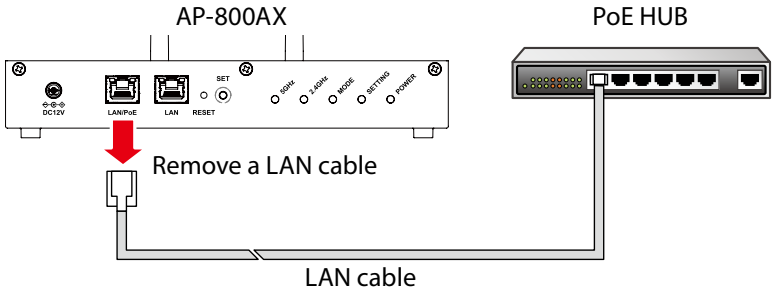
This chapter explains how to reset AP-800AX to the factory default settings.

TIP

- It is recommended to export the current settings beforehand, since all the settings are reset to the factory default once the factory default configuration is done. For details on the setting export, refer to **9-4-2. Import/Export from Web Page** - **Exporting Configuration File**.
- Before you start, make sure that only the PC you are using for configuration is connected to AP-800AX, and other PC is not connected to AP-800AX.
- Do not turn off AP-800AX while resetting to factory default.
- Do not press the RESET switch to turn on AP-800AX again after the factory default configuration.

9-3-1. Initialization Using the RESET Switch on AP-800AX

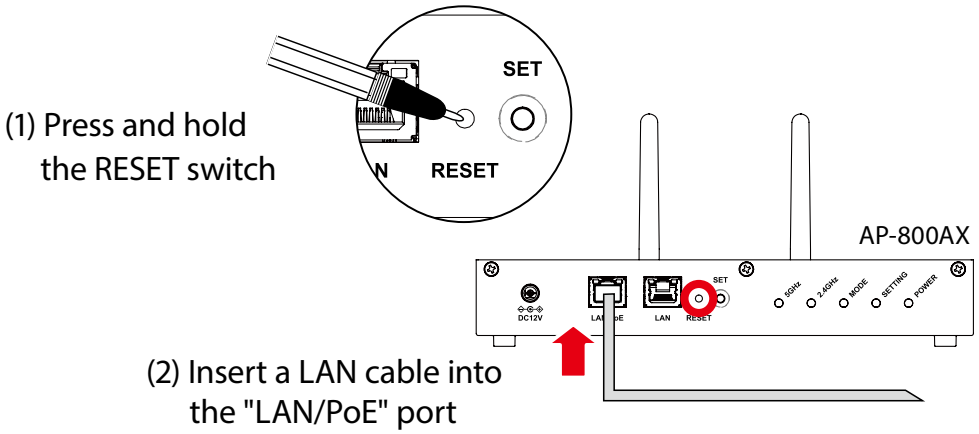
1. Remove a LAN cable (the one connects to PoE HUB) from AP-800AX.



TIP

- When the power is supplied using the AC adapter, remove the AC adapter.

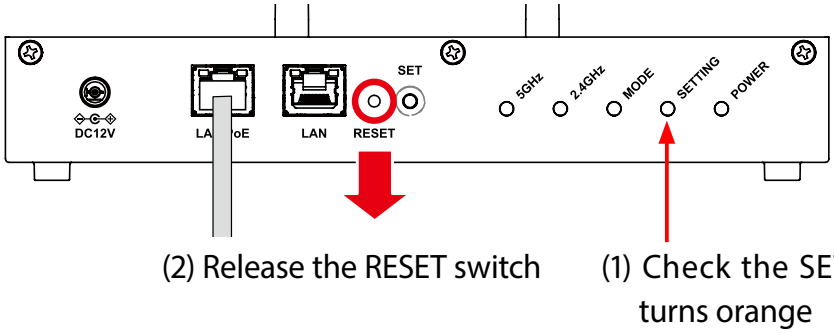
2. While pressing the RESET switch of AP-800AX with a pointed object such as a pen (1), insert the LAN cable into the "**LAN/PoE**" port (2).
Keep pressing the RESET switch.



TIP

- When the power is supplied using the AC adapter, connect the AC adapter to an outlet.

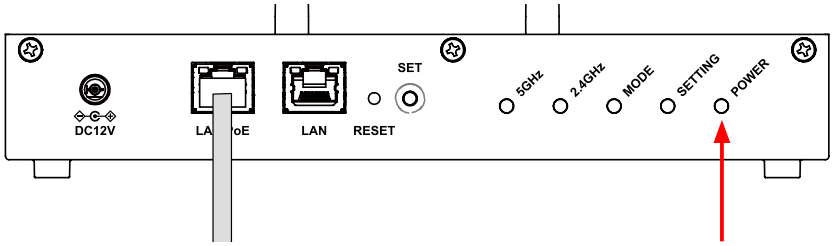
3. When the SETTING LED turns orange (1), release the RESET switch (2).



(2) Release the RESET switch

(1) Check the SETTING LED turns orange

4. The factory default configuration begins. When the POWER LED of AP-800AX turns green, the factory default configuration is completed.



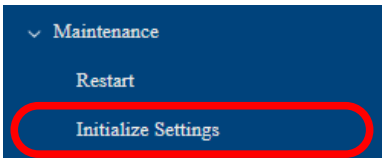
POWER LED

9-3-2. Initialization from the Web Page

1. Display the AP-800AX's Web page.

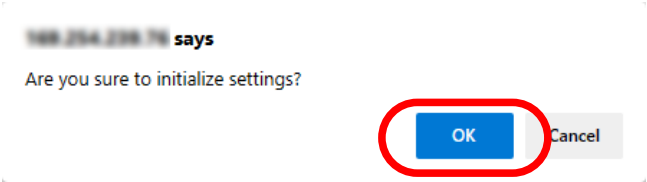
Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Maintenance** - **Initialize Settings** from the page menu.

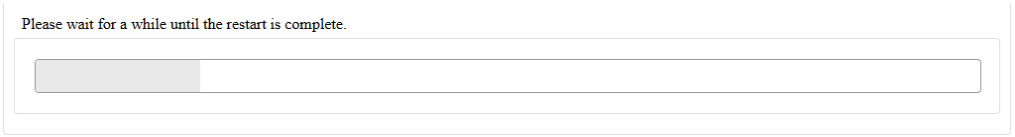


3. The Initialize Settings page is displayed.
Click **Initialize**.

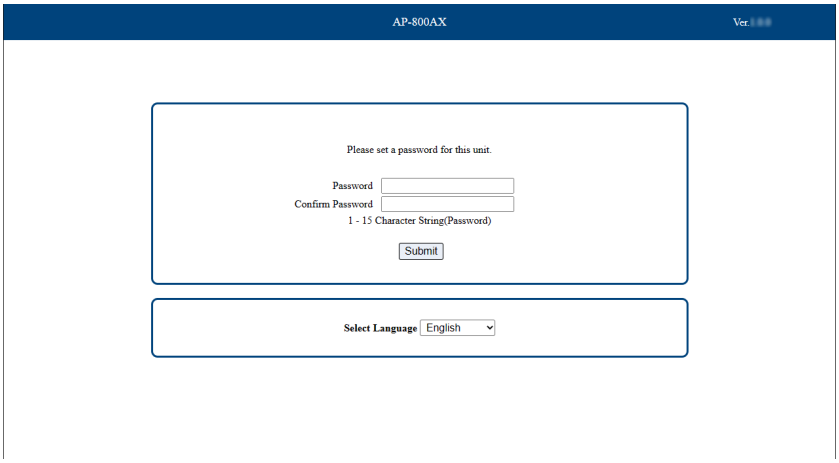
4. A confirmation dialog is displayed. Click **OK**.



5. After the factory default configuration is executed, AP-800AX will restart.



6. When the password configuration page is displayed, the factory default configuration is complete.



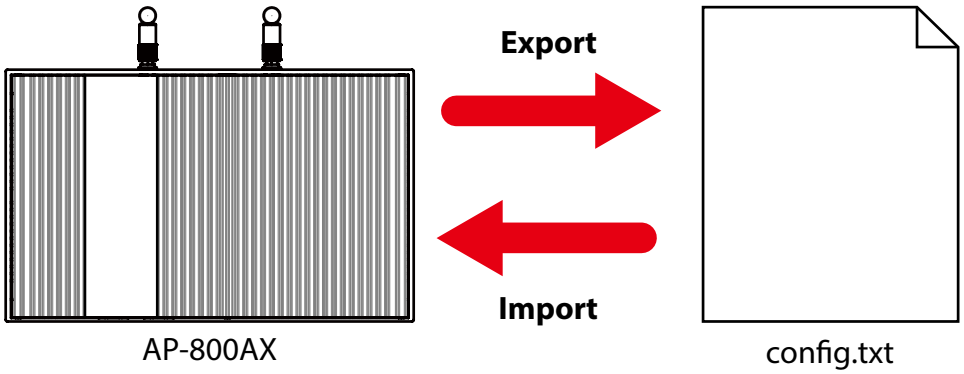
TIP

- Since the IP address of AP-800AX is also reset to the default one when the factory default configuration is finished, the password configuration page may not be displayed correctly on the PC.
  In such a case, change the IP address of AP-800AX or of the PC so that they can communicate each other.

9-4. Configuration Import/Export Using Configuration File

9-4-1. Configuration Import/Export

By exporting the configuration, the current settings (configuration file) can be saved on to an external device. Once the configuration is saved, it can be imported back to AP-800AX anytime to restore the settings.
The configuration can be imported or exported using the Web page of AP-800AX.



TIP

- The configuration file you can import to AP-800AX must be the one you had exported from AP-800AX.
- After the configuration file is exported, please do not change the file name as well as edit the information. If the file is altered, you may not be able to import.
- If there are differences in firmware versions on AP-800AX between the one exporting the configuration file and the one importing the configuration file, the file may not be imported correctly.

9-4-2. Import/Export from Web Page

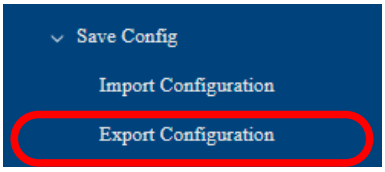
The following explains how to import/export the settings from the AP-800AX's Web page.

Exporting Configuration File

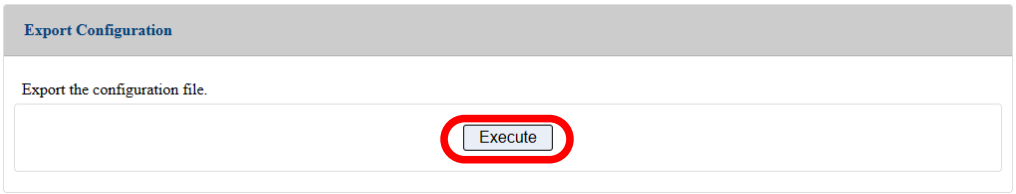
1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

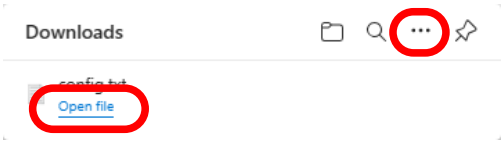
2. Click **Maintenance** - **Save Config** - **Export Configuration** from the page menu.



3. The Export Configuration page is displayed.
Click **Execute**.



4. The message for setting data file (config.txt) appears.
Click **Open file** or ". . ." for the desired option.



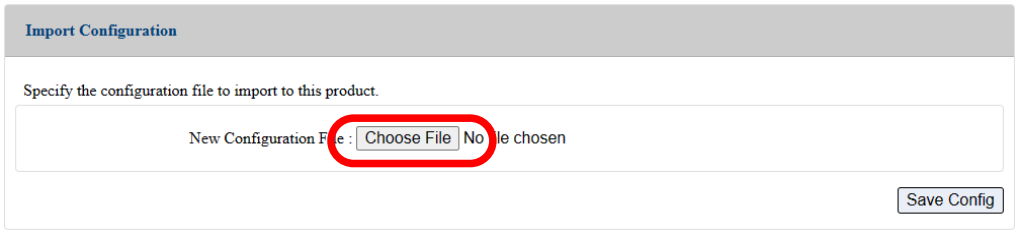
Importing Configuration File

1. Display the AP-800AX's Web page.

Note
- When AP-800AX has the factory default settings, the password configuration page is displayed. Enter the password and click **Submit**.
- For how to display the AP-800AX Web page, see **3-2-2. Displaying the AP-800AX's Web Page**.

2. Click **Maintenance** - **Save Config** - **Import Configuration** from the page menu.

3. The Import Configuration page is displayed.
Click **Choose File** and specify the imported configuration file (**config.txt**).

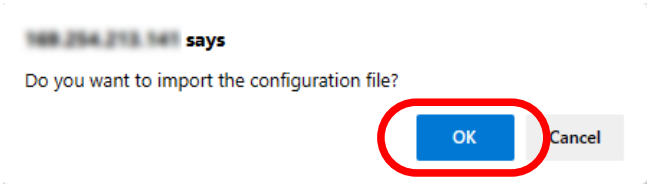


Note
- The configuration file you can import to AP-800AX must be the one you had exported from AP-800AX.

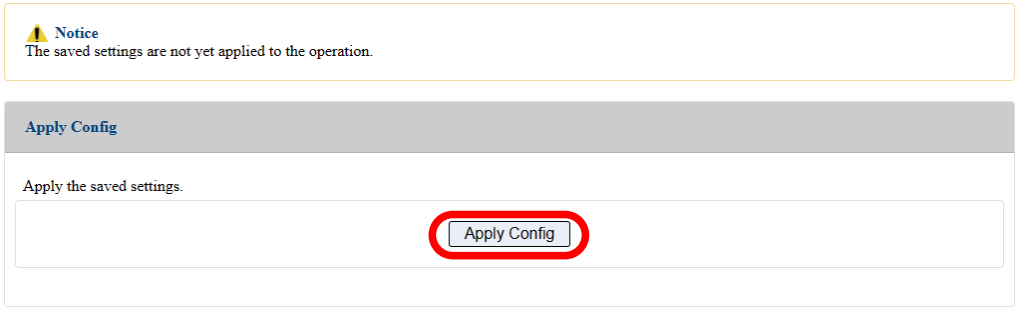
4. Check the configuration file you have selected is displayed at the **New Configuration File** field. Click **Save Config**.

TIP
- If other settings are clicked from the left menu before clicking **Save Config**, the entered values will be cleared. Be sure to click **Save Config** to save the current values when you move to the other page.

5. A confirmation dialog is displayed. Click **OK**.



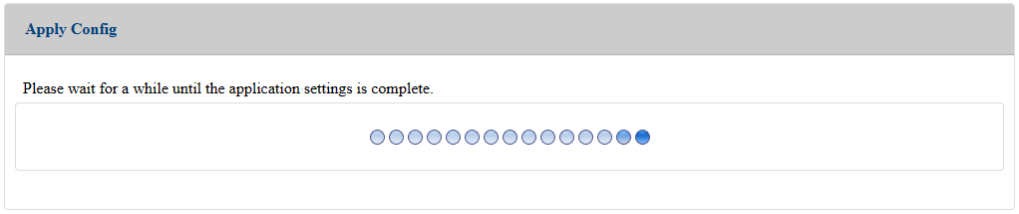
6. When the Apply Config page is displayed, click **Apply Config**.



Note

- If you do not want to apply the configuration change, reset it to the previous settings and click **Save Config** at the bottom right of the Web page. Remember that the changes will take effect after the restart.
- If the other settings have been changed in the previous steps, a restart confirmation message may appear. In that case, click **Restart** on the message to restart AP-800AX. The configuration is complete when the restart progress bar reaches the right end.

7. The configuration load message is displayed.
When the screen changes, it is finished.



List of All Settings

A-1. General Configuration

The following describes the basic setting items that can be configured on the Web page.

A-1-1. Network Configuration

IP Configuration

Item	DHCP Client
Details	When this setting is enabled, an IP address is automatically obtained from a DHCP server. To assign an IP address using DHCP, the DHCP server must be running in your subnetwork. * If the DHCP server is not running, a link-local address is assigned.
Range	ENABLE/DISABLE
Default Value	ENABLE
Item	IP Address
Details	Set the IP address when the DHCP Client is disabled. If the DHCP Client is enabled on your network, the IP Address obtained from it will be applied.
Range	0.0.0.0 to 255.255.255.255
Default Value	192.168.0.10
Item	Subnet Mask
Details	Set the subnet mask when the DHCP Client is disabled. If the DHCP Client is enabled on your network, the Subnet Mask obtained from it will be applied. When set to "0.0.0.0", a subnet mask appropriate for the IP address is automatically assigned.
Range	0.0.0.0 to 255.255.255.255
Default Value	255.255.255.0
Item	Default Gateway
Details	Set the gateway address when the DHCP Client is disabled. If the DHCP Client is enabled on your network, the Default Gateway obtained from it will be applied. When set to "0.0.0.0", this setting is disabled.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0

Item	DNS Server (Primary)
Details	Set a primary DNS server address. When DHCP Client is enabled, the DNS server address obtained by DHCP will be applied.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0
Item	DNS Server (Secondary)
Details	Set a secondary DNS server address. When DHCP Client is enabled, the DNS server address obtained by DHCP will be applied.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0

General Configuration

Item	Host Name
Details	Set the host name. Be sure to use a unique name that is not used by other devices.
Range	Up to 15 characters
Default Value	SXxxxxxx (xxxxxx is a last 6-digit of the MAC Address)
Item	Access Point Name
Details	Set the Access Point name. Be sure to use a unique name that is not used by other devices.
Range	1 to 15 characters
Default Value	SXxxxxxx (xxxxxx is a last 6-digit of the MAC Address)

A-1-2. Time Configuration

Time Configuration

Item	Current Time
Details	Change the time setting of AP-800AX. Check the **Use time information below** check box and specify the time.
Range	2020/01/01 00:00:00 to 2036/01/01 00:00:00
Default Value	- * Displays the time when the time configuration page is accessed.
Item	Local Time Zone
Details	Set the local time zone.
Range	-12:00 to +12:00
Default Value	+9:00

NTP Configuration

Item	NTP
Details	Enable/Disable the NTP protocol.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	NTP Server
Details	Set the domain name or IP Address for NTP server when the NTP is enabled.
Range	Up to 128 characters
Default Value	(None)
Item	Time synchronization
Details	By clicking the **Execute**, the time information can be synchronized with the NTP server when the NTP is enabled.
Range	-
Default Value	-

A-2. Wireless Configuration

The following describes the wireless setting items that can be configured on the Web page.

A-2-1. Wireless General Configuration

5GHz Configuration

Item	Wireless Mode
Details	Select the IEEE 802.11 wireless mode.
Range	802.11ax : Uses IEEE 802.11ax, IEEE 802.11ac, IEEE 802.11n or IEEE 802.11a. 802.11ac : Uses IEEE 802.11ac, IEEE 802.11n or IEEE 802.11a. 802.11n/a : Uses IEEE 802.11n or IEEE 802.11a. 802.11a : Uses IEEE 802.11a.
Default Value	802.11ax
Item	Channel Bandwidth
Details	Set the frequency bandwidth. This setting can be changed when Wireless Mode is **802.11ax**, **802.11ac**, or **802.11n/a**. A channel is the divided frequency bandwidth. In a wireless network, bandwidth is divided up so that more devices can communicate at a time. Each channel has a bandwidth of 20MHz. If 40MHz or 80MHz is selected, larger and faster data transmission can be realized. The configurable setting will differ depending on the Wireless Mode.
Range	When Wireless Mode is 802.11ax : 20MHz / 40MHz / 80MHz When Wireless Mode is 802.11ac : 20MHz / 40MHz / 80MHz When Wireless Mode is 802.11n/a : 20MHz / 40MHz When Wireless Mode is 802.11a : 20MHz
Default Value	20MHz

Item	Channel
Details	Set the wireless channel.
Range	(US/Canada) W52 : 36 / 40 / 44 / 48 W53 : 52 / 56 / 60 / 64 W56 : 100 / 104 / 108 / 112 / 116 / 132 / 136 / 140 / 144 W58 : 149 / 153 / 157 / 161 / 165 AUTO (China) W52 : 36 / 40 / 44 / 48 W53 : 52 / 56 / 60 / 64 W58 : 149 / 153 / 157 / 161 / 165 AUTO * If your network becomes unstable due to interference with other wireless devices, it could be improved by changing the channel. The channel you can use will differ depending on the country. * If W53 or W56 channels are used when AP-800AX is turned on or a particular radar is detected, wireless communication is lost for certain period of time (*). (*) The time duration differs depending on the country.
Default Value	36

Item	Location
Details	Select the location where AP-800AX is used. When **Outdoor Use** is selected, the channels, prohibited by law, are automatically disabled.
Range	Indoor Use / Outdoor Use
Default Value	Indoor Use

Item	Available Channel List
Details	When the **channel** is **AUTO**, set candidate channels for automatic selection. When the **channel** is not **AUTO**, set candidate channels to use when radar waves are detected. Clicking **W52**, **W53**, **W56**, **W58** will check/uncheck the checkboxes of all corresponding channels at once.
Range	Following channels can be selected. (US/Canada) W52 : 36ch, 40ch, 44ch, 48ch W53 : 52ch, 56ch, 60ch, 64ch W56 : 100ch, 104ch, 108ch, 112ch, 116ch, 132ch, 136ch, 140ch, 144ch W58 : 149ch, 153ch, 157ch, 161ch, 165ch (China) W52 : 36ch, 40ch, 44ch, 48ch W53 : 52ch, 56ch, 60ch, 64ch W58 : 149ch, 153ch, 157ch, 161ch, 165ch
Default Value	All channels are selected.

Item	Transmit Power(dBm)
Details	Set the transmission strength for wireless LAN. Lower transmission strength narrows the radio wave range of AP-800AX and reduces interference with other wireless networks.
Range	Max 1 to 23 * This range is a theoretical value. Actual transmission power strength be limited depending on a combination of transmission strength, wireless mode, bandwidth and channel. For details, refer to **B-1. Upper Limit for Transmission Strength**.
Default Value	Max

2.4GHz Configuration

Item	Wireless Mode
Details	Select the IEEE 802.11 wireless mode.
Range	802.11ax : Uses IEEE 802.11ax, IEEE 802.11n, IEEE 802.11b or IEEE 802.11g. 802.11n/b/g : Uses IEEE 802.11n, IEEE 802.11b or IEEE 802.11g. 802.11b/g : Uses IEEE 802.11b or IEEE 802.11g. 802.11b : Uses IEEE 802.11b.
Default Value	802.11ax
Item	Channel Bandwidth
Details	Set the frequency bandwidth. This setting can be changed when Wireless Mode is 802.11ax, 802.11n/b/g. A channel is the divided frequency bandwidth. In a wireless network, bandwidth is divided up so that more devices can communicate at a time. Each channel has a bandwidth of 20MHz. If 40MHz is selected, larger and faster data transmission can be realized. The configurable setting will differ depending on the Wireless Mode.
Range	When Wireless Mode is 802.11ax : 20MHz / 40MHz When Wireless Mode is 802.11n/b/g : 20MHz / 40MHz When Wireless Mode is 802.11b/g : 20MHz When Wireless Mode is 802.11b : 20MHz
Default Value	20MHz
Item	Channel
Details	Set the wireless channel.
Range	(US/Canada/China) 1 to 11 AUTO * If your network becomes unstable due to interference with other wireless devices, it could be improved by changing the channel. The channel you can use will differ depending on the country.
Default Value	11
Item	Ext Channel
Details	Shows the extended channel to use when Channel Bandwidth is **40MHz**.
Range	The Ext Channel setting depends on the Channel.
Default Value	7

Item	Available Channel List
Details	When the **channel** is **AUTO**, set candidate channels for automatic selection. Clicking **2.4GHz** will check/uncheck the checkboxes of all corresponding channels at once. * This setting is not displayed when the communication channel is not **AUTO**.
Range	Following channels can be selected. 2.4GHz : 1ch, 6ch, 11ch
Default Value	All channels are selected.

Item	Transmit Power(dBm)
Details	Set the transmission strength for wireless LAN. Lower transmission strength narrows the radio wave range of AP-800AX and reduces interference with other wireless networks.
Range	Max 1 to 26 * This range is a theoretical value. Actual transmission strength may be limited depending on a combination of transmission strength, wireless mode, bandwidth and channel. For details, refer to **B-1. Upper Limit for Transmission Strength**.
Default Value	Max

A-2-2. SSID Management 5GHz

General Configuration

Item	Interface
Details	Enable/Disable the wireless LAN interface.
Range	ENABLE/DISABLE
Default Value	Wireless Interface 1 : ENABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE
Item	SSID
Details	Set the SSID of the wireless network when the Interface is enabled. The SSID is an ID that distinguishes a wireless LAN network from others. For wireless devices to communicate with each other on a wireless network, they must share the same SSID
Range	1 to 32 characters
Default Value	Wireless Interface 1 : 5SXxxxxxx Wireless Interface 2 : 5SXxxxxxx_2 Wireless Interface 3 : 5SXxxxxxx_3 Wireless Interface 4 : 5SXxxxxxx_4 (xxxxxx is the last 6 digits of the MAC Address.)
Item	Stealth Mode
Details	Enable/Disable the Stealth Mode when the Interface is enabled. If the Stealth Mode is enabled, AP-800AX is not discovered by the Access Point search. * Also, the Smart Wireless Setup function cannot be used.
Range	ENABLE/DISABLE
Default Value	Wireless Interface 1 : DISABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE

Item	Network Authentication
Details	Select the network authentication mode that will be used to connect to your wireless devices when the Interface is enabled. To ensure a secure network, it is recommended to use WPA/WPA2/WPA3. For IEEE 802.11n/802.11ac/802.11ax, only AES can be used.
Range	Open (Open System) : Allows all access without authentication. Enhanced Open : This is an authentication method that enables encryption using a connection procedure equivalent to Open. Uses AES for encryption. Open/Enhanced Open : This looks like Open SSID, but if the wireless station device supports Enhanced Open, it can be connected using Enhanced Open. When connecting a wireless station device that does not support Enhanced Open, Open can be used to connect it. WPA2-Personal : Uses Pre-Shared Key for network authentication. For encryption mode, AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA3-Personal : The authentication complies with WPA3-SAE. Uses Pre-Shared Key for network authentication. For encryption mode, AES can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA/WPA2-Personal : Uses both WPA-Personal and WPA2-Personal authentication. For encryption mode, AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA2/WPA3-Personal : Uses both WPA2-Personal and WPA3-Personal authentication. For encryption mode, AES can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA2-Enterprise : Uses IEEE 802.1X user authentication and AES/AUTO encryption. WPA3-Enterprise : The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption. WPA/WPA2-Enterprise : Uses IEEE 802.1X user authentication and AES/AUTO encryption. WPA2/WPA3-Enterprise : Uses IEEE 802.1X user authentication and AES encryption. WPA3-Enterprise 192-bit security : The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption. AES-256-GCMP(00-0F-AC:9) is supported.

Default Value	Wireless Interface 1 : WPA2/WPA3-Personal Wireless Interface 2 : Open Wireless Interface 3 : Open Wireless Interface 4 : Open
Item	IEEE 802.11r Fast Transition
Details	Enable/Disable the IEEE 802.11r fast roaming function when the Network Authentication is **WPA2-Personal** / **WPA3-Personal** / **WP2/WPA3-Personal** / **WPA2-Enterprise** / **WPA3-Enterprise** / **WPA2/WPA3-Enterprise**. This is the function to realize high-speed roaming. The roaming time can be shortened by omitting the key information exchange when the IEEE 802.11r compatible wireless station devices handle roaming. * Be sure to set the same value for both Access Points; the one to roam from and the other one to roam to.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Mobility Domain
Details	Set the mobility domain that works as a network identifier for fast roaming (4-digit hexadecimal value) when the **IEEE 802.11r Fast Transition** is enabled. * Be sure to set the same value for both Access Points; the one to roam from and the other one to roam to.
Range	0000 to FFFF hexadecimal digits
Default Value	A1B2
Item	Wireless Station Signal Strength Monitoring
Details	When **ENABLE** is selected, the reception signal strength of the connected wireless station devices is checked regularly. If the reception signal strength of the wireless station device falls below the threshold, the connection will be disconnected.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Wireless Signal Strength Threshold(dBm)
Details	Set a threshold value for disconnecting the wireless station devices when the Wireless Station Signal Strength Monitoring function is operating.
Range	-95 to -30
Default Value	-85

WPA/WPA2/WPA3 Configuration

This needs to be set only when the network authentication is **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WP2/WPA3-Personal**, **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise** or **WPA3-Enterprise 192bitsecurity**.

Item	Encryption Mode
Details	Select the encryption mode to use for **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WPA2/WPA3-Personal**, **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192-bit security** authentication.
Range	AES/AUTO * When the network authentication mode is **WPA3-Personal**, **WPA2/WPA3-Personal**, **WPA3-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192bit-security**, **AUTO** cannot be used.
Default Value	Wireless Interface 1 : AES Wireless Interface 2 : AES Wireless Interface 3 : AES Wireless Interface 4 : AES

Item	Pre-Shared Key
Details	Set the Pre-Shared Key when the Network Authentication is **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WPA2/WPA3-Personal**. The Pre-Shared Key is a keyword used to create the encryption key. It is also referred to as '**security key**' , '**network key**' or '**password**'.
Range	8 to 63 characters * In most cases, alphanumeric characters are used. This setting must be the same as that of your wireless devices.
Default Value	Wireless Interface 1 : xxxxxxxx Wireless Interface 2 : xxxxxxxx Wireless Interface 3 : xxxxxxxx Wireless Interface 4 : xxxxxxxx (xxxxxxxx is the sequence of numbers generated by a particular rule based on the MAC Address.)

Item	Group key renew interval(min)
Details	Set the renew interval for encryption key (mins). If 0 is set, no update will be made.
Range	0 to 1440
Default Value	Wireless Interface 1 : 60 Wireless Interface 2 : 60 Wireless Interface 3 : 60 Wireless Interface 4 : 60

RADIUS Server Configuration (Primary Server / Secondary Server)

This needs to be set only when the network authentication is **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192-bit security**.

Item	Server IP
Details	Set the IP Address of RADIUS server.
Range	Primary Server : 0.0.0.1 to 255.255.255.255 Secondary Server : 0.0.0.0 to 255.255.255.255
Default Value	Wireless Interface 1 : 0.0.0.0 Wireless Interface 2 : 0.0.0.0 Wireless Interface 3 : 0.0.0.0 Wireless Interface 4 : 0.0.0.0
Item	Port Number
Details	Set the port number used to communicate with RADIUS server.
Range	0 to 65535
Default Value	Wireless Interface 1 : 1812 Wireless Interface 2 : 1812 Wireless Interface 3 : 1812 Wireless Interface 4 : 1812
Item	Shared Secret
Details	Set the secret key used to communicate with RADIUS server.
Range	Up to 255 characters
Default Value	Wireless Interface 1 : (None) Wireless Interface 2 : (None) Wireless Interface 3 : (None) Wireless Interface 4 : (None)

A-2-3. SSID Management 2.4GHz

General Configuration

Item	Interface
Details	Enable/Disable the wireless LAN interface.
Range	ENABLE/DISABLE
Default Value	Wireless Interface 1 : ENABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE
Item	SSID
Details	Set the SSID of the wireless network when the Interface is enabled. The SSID is an ID that distinguishes a wireless LAN network from others. For wireless devices to communicate with each other on a wireless network, they must share the same SSID.
Range	1 to 32 characters
Default Value	Wireless Interface 1 : 2SXxxxxxx Wireless Interface 2 : 2SXxxxxxx_2 Wireless Interface 3 : 2SXxxxxxx_3 Wireless Interface 4 : 2SXxxxxxx_4 (xxxxxx is the last 6 digits of the MAC Address.)
Item	Stealth Mode
Details	Enable/Disable the Stealth Mode when the Interface is enabled. If the Stealth Mode is enabled, AP-800AX is not discovered by the Access Point search. * Also, the Smart Wireless Setup function cannot be used.
Range	ENABLE/DISABLE
Default Value	Wireless Interface 1 : DISABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE

Item	Network Authentication
Details	Select the network authentication mode that will be used to connect to your wireless devices when the Interface is enabled. To ensure a secure network, it is recommended to use WPA/WPA2/WPA3. For IEEE 802.11n/802.11ax, only AES can be used.
Range	Open (Open System) : Allows all access without authentication. Enhanced Open : This is an authentication method that enables encryption using a connection procedure equivalent to Open. Uses AES for encryption. Open/Enhanced Open : This looks like Open SSID, but if the wireless station device supports Enhanced Open, it can be connected using Enhanced Open. When connecting a wireless station device that does not support Enhanced Open, Open can be used to connect it. WPA2-Personal : Uses Pre-Shared Key for network authentication. For encryption mode, AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA3-Personal : The authentication complies with WPA3-SAE. Uses Pre-Shared Key for network authentication. For encryption mode, AES can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA/WPA2-Personal : Uses both WPA-Personal and WPA2-Personal authentication. For encryption mode, AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA2/WPA3-Personal : Uses both WPA2-Personal and WPA3-Personal authentication. For encryption mode, AES can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WPA2-Enterprise : Uses IEEE 802.1X user authentication and AES/AUTO encryption. WPA3-Enterprise : The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption. WPA/WPA2-Enterprise : Uses IEEE 802.1X user authentication and AES/AUTO encryption. WPA2/WPA3-Enterprise : Uses IEEE 802.1X user authentication and AES encryption. WPA3-Enterprise 192-bit security : The authentication complies with WPA3-SAE. Uses IEEE 802.1X user authentication and AES encryption. AES-256-GCMP(00-0F-AC:9) is supported.

Default Value	Wireless Interface 1 : WPA2/WPA3-Personal Wireless Interface 2 : Open Wireless Interface 3 : Open Wireless Interface 4 : Open
Item	IEEE 802.11r Fast Transition
Details	Enable/Disable the IEEE 802.11r fast roaming function when the Network Authentication is **WPA2-Personal** / **WPA3-Personal** / **WP2/WPA3-Personal** / **WPA2-Enterprise** / **WPA3-Enterprise** / **WPA2/WPA3-Enterprise**. This is the function to realize high-speed roaming. The roaming time can be shortened by omitting the key information exchange when the IEEE 802.11r compatible wireless station devices handle roaming. * Be sure to set the same value for both Access Points; the one to roam from and the other one to roam to.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Mobility Domain
Details	Set the mobility domain that works as a network identifier for fast roaming (4-digit hexadecimal value) when the **IEEE 802.11r Fast Transition** is enabled. * Be sure to set the same value for both Access Points; the one to roam from and the other one to roam to.
Range	0000 to FFFF hexadecimal digits
Default Value	A1B2
Item	Wireless Station Signal Strength Monitoring
Details	When **ENABLE** is selected, the reception signal strength of the connected wireless station devices is checked regularly. If the reception signal strength of the wireless station device falls below the threshold, the connection will be disconnected.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Wireless Signal Strength Threshold(dBm)
Details	Set a threshold value for disconnecting the wireless station devices when the Wireless Station Signal Strength Monitoring function is operating.
Range	-95 to -30
Default Value	-85

WPA/WPA2/WPA3 Configuration

This needs to be set only when the network authentication is **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WP2/WPA3-Personal**, **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise** or **WPA3-Enterprise 192bitsecurity**.

Item	Encryption Mode
Details	Select the encryption mode to use for **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WPA2/WPA3-Personal**, **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192-bit security** authentication.
Range	AES/AUTO * When the network authentication mode is **WPA3-Personal**, **WPA2/WPA3-Personal**, **WPA3-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192bit-security**, **AUTO** cannot be used.
Default Value	Wireless Interface 1 : AES Wireless Interface 2 : AES Wireless Interface 3 : AES Wireless Interface 4 : AES
Item	Pre-Shared Key
Details	Set the Pre-Shared Key when the Network Authentication is **WPA2-Personal**, **WPA3-Personal**, **WPA/WPA2-Personal**, **WPA2/WPA3-Personal**. The Pre-Shared Key is a keyword used to create the encryption key. It is also referred to as '**security key**' , '**network key**' or '**password**'.
Range	8 to 63 characters * In most cases, alphanumeric characters are used. This setting must be the same as that of your wireless devices.
Default Value	Wireless Interface 1 : xxxxxxxx Wireless Interface 2 : xxxxxxxx Wireless Interface 3 : xxxxxxxx Wireless Interface 4 : xxxxxxxx (xxxxxxxx is the sequence of numbers generated by a particular rule based on the MAC Address.)
Item	Group key renew interval(min)
Details	Set the renew interval for encryption key (mins). If 0 is set, no update will be made.
Range	0 to 1440
Default Value	Wireless Interface 1 : 60 Wireless Interface 2 : 60 Wireless Interface 3 : 60 Wireless Interface 4 : 60

RADIUS Server Configuration(Primary Server / Secondary Server)

This needs to be set only when the network authentication is **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise** or **WPA3-Enterprise 192bitsecurity**.

Item	Server IP
Details	Set the IP Address of RADIUS server.
Range	Primary Server : 0.0.0.1 to 255.255.255.255 Secondary Server : 0.0.0.0 to 255.255.255.255
Default Value	Wireless Interface 1 : 0.0.0.0 Wireless Interface 2 : 0.0.0.0 Wireless Interface 3 : 0.0.0.0 Wireless Interface 4 : 0.0.0.0
Item	Port Number
Details	Set the port number used to communicate with RADIUS server.
Range	0 to 65535
Default Value	Wireless Interface 1 : 1812 Wireless Interface 2 : 1812 Wireless Interface 3 : 1812 Wireless Interface 4 : 1812
Item	Shared Secret
Details	Set the secret key used to communicate with RADIUS server.
Range	Up to 255 characters
Default Value	Wireless Interface 1 : (None) Wireless Interface 2 : (None) Wireless Interface 3 : (None) Wireless Interface 4 : (None)

A-2-4. AMC Mesh Configuration

General Configuration

Item	Mesh Mode
Details	Set the AMC Mesh operation mode to make communication between the Access Points. The AMC Mesh network consists of one RootAP (host) and plural Repeater APs (station). For details, refer to **6-1. About AMC Mesh**.
Range	DISABLE: Does not use AMC Mesh. RootAP: Runs as RootAP for AMC Mesh. Bridges a traffic between Repeater, wired LAN and wireless station device. Repeater: Runs as Repeater for AMC Mesh Bridges a traffic of RootAP, Repeater, wired LAN and wireless station device after connected to host AP.
Default Value	DISABLE
Item	Mesh Frequency Band
Details	Set the frequency band to use for AMC Mesh when Mesh Mode is **RootAP** or **Repeater**.
Range	2.4GHz, 5GHz
Default Value	2.4GHz, 5GHz
Item	Mesh Group Name
Details	Set the common group name for AMC Mesh network when Mesh Mode is **RootAP** or **Repeater**.
Range	1 to 32characters
Default Value	Group
Item	Mesh Encryption Key
Details	Set the encryption key to use for AMC Mesh network when Mesh Mode is **RootAP** or **Repeater**.
Range	8 to 63characters
Default Value	AMC Mesh Pass

Detail Configuration

Item	RSSI Threshold (dBm)
Details	Set the RSSI threshold when Mesh Mode is **Repeater**. In AMC Mesh network, connection will be made to AMC Mesh devices with higher received signal strength than this threshold.
Range	-90 to 0
Default Value	-70
Note	This setting is not necessary when **Mesh Mode** is **RootAP**.
Item	Max Hop Number
Details	When **Mesh Mode** is **Repeater**, set the maximum number of Repeaters that are allowed to communicate in order to reach RootAP. This number is including the Repeater you are currently configuring. The larger the maximum number of hops, the larger the maximum number of Repeaters in the communication path, which can extend the communication distance but the transfer speed will decrease.
Range	1 to 10
Default Value	5
Note	This setting is not necessary when **Mesh Mode** is **RootAP**.
Item	Network Loop Avoidance
Details	Set the network loop avoidance when Mesh Mode is **RootAP** or **Repeater**. When ENABLE is selected, the AMC Mesh function will stop to avoid a network loop when it is detected on AMC Mesh and wired LAN. When this function works, the POWER LED turns red.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Destination MAC Address
Details	When Mesh Mode is **Repeater**, enter the MAC Address of the host AP (RootAP or Repeater) to connect in the AMC Mesh network. Only the device with registered MAC Address will be connected. When you do not want to specify the destination, enter "00:00:00:00:00:00".
Range	00:00:00:00:00:00 to FF:FF:FF:FF:FF:FF
Default Value	00:00:00:00:00:00
Note	This setting is not necessary when **Mesh Mode** is **RootAP**.

A-2-5. Rate Survey

Rate setting survey

Item	Station IP Address
Details	Enter the IP Address of the connected wireless station device. When **Survey Start** is clicked, a communication test will perform for the IP Address that you have entered.
Range	0.0.0.0 to 255.255.255.255
Default Value	(None)

A-2-6. Wireless Detail

Security Configuration 5GHz

Privacy Separator

Item	Privacy Separator
Details	It is possible to deny/allow communication between wireless station devices connected to AP-800AX. When a privacy separator is enabled on a wireless interface, wireless frames are forwarded only to wired LAN interface, not to other wireless interfaces.
Range	ON/OFF
Default Value	Wireless Interface 1 : OFF Wireless Interface 2 : OFF Wireless Interface 3 : OFF Wireless Interface 4 : OFF

MAC Address Filter

Item	Filter Type
Details	Set the security type of MAC address filter for wireless LAN.
Range	If a filter type is **DISABLE**, access from all wireless station devices is allowed. If a filter type is **DENY**, access from the wireless station devices registered to MAC Address filter list is denied. If a filter type is **ALLOW**, only access from the wireless station devices registered to MAC Address filter list is allowed.
Default Value	Wireless Interface 1 : DISABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE
Item	MAC Address
Details	Set the MAC Address filter for a wireless LAN (up to 254 addresses for each SSID). By registering the MAC Address filter, access via a wireless LAN can be controlled. By registering the vendor code portion (first 6 digits) of the MAC address, it is possible to control access from devices with the registered vendor code. To register, create a list of MAC Addresses as a text file and import it to AP-800AX from the Web page.
Range	00:00:00:00:00:01 to FF:FF:FE:FF:FF:FF or 00:00:00 to FF:FF:FE
Default Value	Wireless Interface 1 : (None) Wireless Interface 2 : (None) Wireless Interface 3 : (None) Wireless Interface 4 : (None)

Extension Configuration 5GHz

Extension Configuration

Item	Beacon Interval(msec)
Details	Set the beacon transmission interval (millisec).
Range	20 to 1000
Default Value	100
Item	DTIM
Details	Set the DTIM interval for a wireless LAN.
Range	1 to 255
Default Value	1
Item	RTS Threshold
Details	Set the RTS threshold value.
Range	1 to 2346
Default Value	2346
Item	A-MPDU
Details	Enable/Disable the A-MPDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/a, 802.11ac or 802.11ax.
Range	ON/OFF
Default Value	ON
Item	A-MPDU Frame Count
Details	Set the number of A-MPDU frames to aggregate at once when A-MPDU is enabled.
Range	1 to 128
Default Value	128
Item	A-MSDU
Details	Enable/Disable the A-MSDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/a, 802.11ac or 802.11ax.
Range	ON/OFF
Default Value	ON
Item	Short Guard Interval
Details	Enable/Disable the Short Guard Interval (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/a or 802.11ac.
Range	ON/OFF
Default Value	ON

Item	Guard Interval for 11ax (nsec)
Details	Set the Guard Interval (nanoseconds). When 800 (nsec) is set, throughput can improve. When 3200 (nsec) is set, multipath resistance may improve.
Range	Auto / 800 / 1600 / 3200
Default Value	Auto

Item	Multicast Transmit Rate
Details	Set the transmission rate for multicast.
Range	Default / 6Mbps / 9Mbps / 12Mbps / 18Mbps / 24Mbps / 36Mbps / 48Mbps / 54Mbps
Default Value	Default

QoS (WMM) Configuration (for AP)

Item	BE
Details	Change the QoS setting for BE(Best Effort) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 6 AIFSN : 3 TxOPLimit : 0
Item	BK
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 7 TxOPLimit : 0
Item	VI
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 3 ECWmax : 4 AIFSN : 1 TxOPLimit : 3008
Item	VO
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 2 ECWmax : 3 AIFSN : 1 TxOPLimit : 1504

QoS (WMM) Configuration (for Station)

Item	BE
Details	Change the QoS setting for (BE: Best Effort) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 3 TxOPLimit : 0 ACM : OFF

Item	BK
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 7 TxOPLimit : 0 ACM : OFF

Item	VI
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 3 ECWmax : 4 AIFSN : 2 TxOPLimit : 3008 ACM : OFF

Item	VO
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 2 ECWmax : 3 AIFSN : 2 TxOPLimit : 1504 ACM : OFF

Unicast Transmit Rate Configuration

Item	1Stream
Details	Set the unicast transmission rate for 1Stream. This uses the transmission rate whose check box is checked. This can be set only when the Wireless Mode is 802.11n/a, 802.11ac or 802.11ax.
Range	Following transmission rates can be selected. MCS0,MCS1,MCS2,MCS3,MCS4,MCS5,MCS6,MCS7,MCS8,MCS9,MCS10,MCS11
Default Value	All transmission rates
Item	2Stream
Details	Set the unicast transmission rate for 2Stream. This uses the transmission rate whose check box is checked. This can be set only when the Wireless Mode is 802.11n/a, 802.11ac or 802.11ax.
Range	Following transmission rates can be selected. MCS0,MCS1,MCS2,MCS3,MCS4,MCS5,MCS6,MCS7,MCS8,MCS9,MCS10,MCS11
Default Value	All transmission rates

Spatial Reuse Configuration

Item	Spatial Reuse
Details	This is the function to transmit radio waves from AP-800AX without handling carrier sensing, when other IEEE 802.11ax compatible devices have signal strength lower the threshold. Chances of transmission can be increased even in congested wireless network, which leads to improvements on throughput. This can be set only when the Wireless Mode is 802.11ax.
Range	ENABLE/DISABLE
Default Value	ENABLE
Item	Spatial Reuse Threshold (dBm)
Details	Set the Spatial Reuse threshold for transmission. When other IEEE 802.11ax compatible devices have an RSSI lower than the threshold, AP-800AX does not stop transmission and allows simultaneous communication.
Range	-82 to -62
Default Value	-82

Security Configuration 2.4GHz

Privacy Separator

Item	Privacy Separator
Details	It is possible to deny/allow communication between wireless station devices connected to AP-800AX. When a privacy separator is enabled on a wireless interface, wireless frames are forwarded only to wired LAN interface, not to other wireless interfaces.
Range	ON/OFF
Default Value	Wireless Interface 1 : OFF Wireless Interface 2 : OFF Wireless Interface 3 : OFF Wireless Interface 4 : OFF

MAC Address Filter

Item	Filter Type
Details	Set the security type of MAC address filter for wireless LAN.
Range	If a filter type is **DISABLE**, access from all wireless station devices is allowed. If a filter type is **DENY**, access from the wireless station devices registered to MAC Address filter list is denied. If a filter type is **ALLOW**, only access from the wireless station devices registered to MAC Address filter list is allowed.
Default Value	Wireless Interface 1 : DISABLE Wireless Interface 2 : DISABLE Wireless Interface 3 : DISABLE Wireless Interface 4 : DISABLE
Item	MAC Address
Details	Set the MAC Address filter for a wireless LAN (up to 254 addresses for each SSID). By registering the MAC Address filter, access via a wireless LAN can be controlled. By registering the vendor code portion (first 6 digits) of the MAC address, it is possible to control access from devices with the registered vendor code. To register, create a list of MAC Addresses as a text file and import it to AP-800AX from the Web page.
Range	00:00:00:00:00:01 to FF:FF:FE:FF:FF:FF or 00:00:00 to FF:FF:FE
Default Value	Wireless Interface 1 : (None) Wireless Interface 2 : (None) Wireless Interface 3 : (None) Wireless Interface 4 : (None)

Extension Configuration 2.4GHz

Extension Configuration

Item	Beacon Interval(msec)
Details	Set the beacon transmission interval (millisec).
Range	20 to 1000
Default Value	100
Item	DTIM
Details	Set the DTIM interval for a wireless LAN.
Range	1 to 255
Default Value	1
Item	RTS Threshold
Details	Set the RTS threshold value.
Range	1 to 2346
Default Value	2346
Item	A-MPDU
Details	Enable/Disable the A-MPDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/b/g, 802.11ax.
Range	ON/OFF
Default Value	ON
Item	A-MPDU Frame Count
Details	Set the number of A-MPDU frames to aggregate at once when A-MPDU is enabled.
Range	1 to 128
Default Value	128
Item	A-MSDU
Details	Enable/Disable the A-MSDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/b/g, 802.11ax.
Range	ON/OFF
Default Value	ON

Item	Short Guard Interval
Details	Enable/Disable the Short Guard Interval (ON/OFF). If this is enabled (ON), higher throughput could be achieved. This can be set only when the Wireless Mode is 802.11n/b/g.
Range	ON/OFF
Default Value	ON
Item	Guard Interval for 11ax (nsec)
Details	Set the Guard Interval (nanoseconds). When 800 (nsec) is set, throughput can improve. When 3200 (nsec) is set, multipath resistance may improve.
Range	Auto / 800 / 1600 / 3200
Default Value	Auto
Item	Multicast Transmit Rate
Details	Set the transmission rate for multicast.
Range	Default / 1Mbps / 2Mbps / 5.5Mbps / 6Mbps / 9Mbps / 11Mbps / 12Mbps / 18Mbps / 24Mbps / 36Mbps / 48Mbps / 54Mbps
Default Value	Default

QoS (WMM) Configuration(for AP)

Item	BE
Details	Change the QoS setting for BE(Best Effort) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 6 AIFSN : 3 TxOPLimit : 0
Item	BK
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 7 TxOPLimit : 0
Item	VI
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 3 ECWmax : 4 AIFSN : 1 TxOPLimit : 3008
Item	VO
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 2 ECWmax : 3 AIFSN : 1 TxOPLimit : 1504

QoS (WMM) Configuration(for Station)

Item	BE
Details	Change the QoS setting for (BE: Best Effort) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 3 TxOPLimit : 0 ACM : OFF
Item	BK
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 4 ECWmax : 10 AIFSN : 7 TxOPLimit : 0 ACM : OFF
Item	VI
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 3 ECWmax : 4 AIFSN : 2 TxOPLimit : 3008 ACM : OFF

Item	VO
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.
Range	ECWmin : 1 to 15 ECWmax : 1 to 15 AIFSN : 1 to 15 TxOPLimit : 0 to 8192 ACM : ON/OFF * TxOPLimit must be a multiple of 16.
Default Value	ECWmin : 2 ECWmax : 3 AIFSN : 2 TxOPLimit : 1504 ACM : OFF

Unicast Transmit Rate Configuration

Item	1Stream
Details	Set the unicast transmission rate for 1Stream. This uses the transmission rate whose check box is checked. This can be set only when the Wireless Mode is 802.11n/b/g, 802.11ax.
Range	Following transmission rates can be selected. MCS0,MCS1,MCS2,MCS3,MCS4,MCS5,MCS6,MCS7,MCS8,MCS9,MCS10,MCS11
Default Value	All transmission rates
Item	2Stream
Details	Set the unicast transmission rate for 2Stream. This uses the transmission rate whose check box is checked. This can be set only when the Wireless Mode is 802.11n/b/g, 802.11ax.
Range	Following transmission rates can be selected. MCS0,MCS1,MCS2,MCS3,MCS4,MCS5,MCS6,MCS7,MCS8,MCS9,MCS10,MCS11
Default Value	All transmission rates

Spatial Reuse Configuration

Item	Spatial Reuse
Details	This is the function to transmit radio waves from AP-800AX without handling carrier sensing, when other IEEE 802.11ax compatible devices have signal strength lower the threshold. Chances of transmission can be increased even in congested wireless network, which leads to improvements on throughput. This can be set only when the Wireless Mode is 802.11ax.
Range	ENABLE/DISABLE
Default Value	ENABLE
Item	Spatial Reuse Threshold (dBm)
Details	Set the Spatial Reuse threshold for transmission. When other IEEE 802.11ax compatible devices have an RSSI lower than the threshold, AP-800AX does not stop transmission and allows simultaneous communication.
Range	-82 to -62
Default Value	-82

Smart Wireless Setup

Smart Wireless Setup

Item	Smart Wireless Setup
Details	Enable/Disable the Smart Wireless Setup.
Range	ENABLE/DISABLE
Default Value	ENABLE
Item	Interface
Details	Select the wireless interface to use for Smart Wireless Setup. * Smart Wireless Setup cannot be used when the network authentication is **WPA3-Personal**, **WPA2-Enterprise**, **WPA3-Enterprise**, **WPA/WPA2-Enterprise**, **WPA2/WPA3-Enterprise**, **WPA3-Enterprise 192-bit security**.
Range	WirelessLAN 5GHz I/F 1 / WirelessLAN 5GHz I/F 2 / WirelessLAN 5GHz I/F 3 / WirelessLAN 5GHz I/F 4 WirelessLAN 2.4GHz I/F 1 / WirelessLAN 2.4GHz I/F 2 / WirelessLAN 2.4GHz I/F 3 / WirelessLAN 2.4GHz I/F 4
Default Value	WirelessLAN 5GHz I/F 1

Smart Wireless Setup Execute

This is not displayed when AP-800AX is operating in Configuration Mode.

Item	Push Button
Details	Click **Execute** to start the Smart Wireless Setup.
Range	-
Default Value	-

A-3. Detail Configuration

The following describes the detailed setting items that can be configured on the Web page.

A-3-1. Product Configuration

Wired LAN Configuration

Item	Energy Efficient Ethernet
Details	When this setting is enabled, power consumption can be reduced by partially de-energizing the device when communication is idle.
Range	ENABLE/DISABLE
Default Value	DISABLE

LED Management

Item	LED OFF mode
Details	When this setting is enabled, all LEDs of AP-800AX turn off. As the result, power consumption can be reduced. * AP-800AX needs to be restarted after this setting is enabled. * Since all LEDs are turned off, operating status of AP-800AX cannot be checked by the LED lighting pattern. Instead, the AP-800AX's Web page or AMC Manager® can be used for status monitoring or device control.
Range	ENABLE/DISABLE
Default Value	DISABLE

A-3-2. DHCP Server Configuration

DHCP Server Configuration

Item	DHCP Server Function
Details	Enable/Disable the DHCP server function. Select **ENABLE** to run AP-800AX as a DHCP server to automatically assign an IP address to the PC. Select **DISABLE** if you already have a DHCP server on the network.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Start IP Address
Details	Set the start IP address used for DHCP Server Function to assign the address. * It is impossible to assign an IP address whose first number is 0-127.
Range	0.0.0.0 to 255.255.255.255
Default Value	192.168.0.11
Item	End IP Address
Details	Set the end IP address used for DHCP Server Function to assign the address. * It is impossible to assign an IP address whose first number is 0-127.
Range	0.0.0.0 to 255.255.255.255
Default Value	192.168.0.254
Item	Subnet Mask
Details	Set the subnet mask for IP addresses to be assigned when the DHCP Server Function is enabled. When set to "0.0.0.0", this setting is disabled and a subnet mask appropriate for the start IP address is automatically used.
Range	0.0.0.0 to 255.255.255.255
Default Value	255.255.255.0
Item	Default Gateway
Details	Set the gateway address when the DHCP Server Function is enabled. When set to "0.0.0.0", this setting is disabled and default gateway address is not assigned by DHCP.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0
Item	Lease Time
Details	Set the lease time when the DHCP Server Function is enabled. If this is set to 0 days + 0 hours + 0 mins, the lease period will be 10 days.
Range	0 days 0 hours 0 mins to 44 days 23 hours 59 mins
Default Value	0 Day 0 Hour 0 Minute

A-3-3. VLAN Configuration

VLAN Common Configuration

Item	VLAN
Details	Enable/Disable the VLAN tagging function complaint with IEEE 802.1Q. When VLAN is enabled, a tagged VLAN is established by using wired LAN as a trunk port and wireless LAN as an access port. A tag (IEEE 802.1Q compliant) is added to the packet frame when the packets are relayed from wireless LAN to wired LAN. Packets from wired LAN can only be received on the wireless LAN that has the same VLAN ID as the attached tag.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Native VLAN ID
Details	Set the native VLAN ID of the wired LAN port (Port VLAN ID) when the VLAN is enabled. When a packet without a VLAN tag is received on wired LAN, it is regarded as a packet of native VLAN ID.
Range	1 to 4094
Default Value	1
Item	Management VLAN ID
Details	Set the management VLAN ID to access AP-800AX when the VLAN is enabled. When the VLAN function is enabled, AP-800AX can be accessed only from the network groups with the management VLAN ID.
Range	1 to 4094
Default Value	1

5GHz VLAN Configuration

Item	WirelessLAN 5GHz I/F 1 VLAN ID to WirelessLAN 5GHz I/F 4 VLAN ID
Details	Set the VLAN ID to use for 5GHz wireless interface when the VLAN is enabled.
Range	1 to 4094
Default Value	1

2.4GHz VLAN Configuration

Item	WirelessLAN 2.4GHz I/F 1 VLAN ID to WirelessLAN 2.4GHz I/F 4 VLAN ID
Details	Set the VLAN ID to use for 2.4GHz wireless interface when the VLAN is enabled.
Range	1 to 4094
Default Value	1

AMC Mesh Configuration

Item	AMC Mesh VLAN ID
Details	Set the VLAN ID to use for wireless interface of AMC Mesh when the VLAN is enabled.
Range	1 to 4094
Default Value	1

A-3-4. SNMP Configuration

SNMP Configuration

Item	Read Community Name
Details	Set the SNMP community name to use for reading the AP-800AX information.
Range	1 to 31 alphanumeric characters
Default Value	public

SNMPv3 Configuration

Item	SNMPv3
Details	Enable/Disable the SNMPv3.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Read Only User Name
Details	Set the read only user name.
Range	1 to 31 alphanumeric characters.
Default Value	snmpuser
Item	Password
Details	Set the read only user's password.
Range	8 to 32 alphanumeric characters.
Default Value	snmppass

Authentication Configuration

Configure the followings when the SNMP3 is enabled.

Item	Authentication
Details	Enable/Disable the Authentication.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Hash
Details	Set the Hash when the Authentication is enabled.
Range	MD5/SHA1
Default Value	MD5

Privacy Configuration

Configure the followings when the authentication is enabled.

Item	Privacy
Details	Enable/Disable the Privacy.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Encryption
Details	Set the Encryption when the Privacy is enabled.
Range	DES/AES
Default Value	DES

A-3-5. Log Output

Syslog Server

Item	Syslog Server Log Output
Details	Enable/Disable the event log output to Syslog server.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Syslog Server
Details	Set the domain name or IP Address of Syslog server when the Syslog Server Log Output is enabled.
Range	Up to 128 characters or 0.0.0.0 to 255.255.255.255
Default Value	(None)

A-3-6. Cloud Configuration

Cloud Configuration

Item	Serial ID
Details	This is a string to use for registering AP-800AX to AMC Cloud®. The value cannot be changed.
Range	-
Default Value	Unique to each device
Item	Cloud
Details	Enable/Disable the cloud link function. When this setting is enabled, AP-800AX communicates with AMC Cloud® at regular intervals.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Status Upload Interval (min)
Details	Set the interval for AP-800AX to upload the collected wireless status information to AMC Cloud® (in minutes) when the Cloud is enabled.
Range	10 to 60
Default Value	10
Item	Gather Status Interval (min)
Details	Set the interval for AP-800AX to collect the wireless status information from the device (in minutes) when the Cloud is enabled.
Range	5 to 60
Default Value	5
Item	Syslog Upload Interval (min)
Details	Set the interval for uploading the AP-800AX's syslog to AMC Cloud® (in minutes) when the Cloud is enabled.
Range	60 to 1440
Default Value	60
Item	Device Control Request from The Cloud
Details	Set whether to allow or deny a request of operation from AMC Cloud® when the Cloud is enabled. The requested operation is firmware update, restart, or configuration change. Even if a request is received, it will not be executed until the time of **Interval to Check Device Control Request** passes.
Range	ALLOW/DENY
Default Value	ALLOW

Item	Interval to Check Device Control Request (min)
Details	Set the interval to check a request of operation from AMC Cloud® when the Cloud is enabled. When there is a request, that operation will be executed.
Range	5 to 60
Default Value	10

Proxy Configuration

Item	Proxy Function
Details	Enable/Disable communications through a proxy server.
Range	ENABLE/DISABLE
Default Value	DISABLE
Item	Proxy Server
Details	Set the domain name or the IP address of proxy server to use when the Proxy Function is enabled.
Range	Up to 128 alphanumeric characters or 0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0
Item	Port Number
Details	Set the port number of proxy server to use when the Proxy Function is enabled.
Range	0 to 65535
Default Value	0

DNS Configuration

Item	DNS Server (Primary)
Details	Set a primary DNS server address. When DHCP Client is enabled, the DNS server address obtained from it will be given higher priority.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0
Item	DNS Server (Secondary)
Details	Set a secondary DNS server address. When DHCP Client is enabled, the DNS server address obtained from it will be given higher priority.
Range	0.0.0.0 to 255.255.255.255
Default Value	0.0.0.0

A-4. Security

The following describes the security setting items that can be configured on the Web page.

A-4-1. Password Configuration

Item	New Password
Details	Set an administrator password. The password is used for authentication when the user tries to update settings from a Web browser or to use the total management software AMC Manager®.
Range	1 to 15 characters
Default Value	(None)

A-4-2. Access Control

Access Control

Item	HTTP
Details	Allow/Deny access using HTTP via a wired/wireless LAN. When set to **ENABLE**, access to AP-800AX is allowed. When set to **DISABLE**, access to AP-800AX is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE Wireless LAN :ENABLE
Item	HTTPS
Details	Allow/Deny access using HTTPS via a wired/wireless LAN. When set to **ENABLE**, access to AP-800AX is allowed. When set to **DISABLE**, access to AP-800AX is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE Wireless LAN :ENABLE
Item	SNMP
Details	Allow/Deny access using SNMP via a wired/wireless LAN. When set to **ENABLE**, access to AP-800AX is allowed. When set to **DISABLE**, access to AP-800AX is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE Wireless LAN :ENABLE

A-4-3. Server Certificate Create

Server Certificate Create

Item	Common Name
Details	Set a name of AP-800AX.
Range	1 to 64 characters
Default Value	SXxxxxxx (xxxxxx is the last 6 digits of the MAC Address)
Item	Organizational Unit Name
Details	Enter the organization unit name.
Range	Up to 64 characters
Default Value	(None)
Item	Organization Name
Details	Enter the organization name.
Range	Up to 64 characters
Default Value	(None)
Item	Locality Name
Details	Enter the locality/city name.
Range	Up to 128 characters
Default Value	(None)
Item	State or Province Name
Details	Enter the state/province name.
Range	Up to 128 characters
Default Value	(None)
Item	Country/Region code
Details	Enter the code (two characters) representing your country or region.
Range	Up to 2 characters
Default Value	(None)

B. Reference Information

B-1. Upper Limit for Transmission Strength

The transmission strength setting (**Transmit Power (dBm)**) is a theoretical value.
Actual transmission strength may be limited by the combination of transmission strength, wireless mode, bandwidth and channel.
The upper limit of the actual transmission strength is as follows.

US/Canada

Band	Channel	Channel Bandwidth		
		20MHz	40MHz	80MHz
2.4GHz	1 to 3	18.5	18.5	-
	4 to 8	20.5	20.5	-
	9 to 11	18.5	18.5	-
5GHz	36, 40, 44, 48	13.5	14.5	14.5
	52, 56, 60	19.5	19.5	19.5
	64, 100,	17.5	17.5	17.5
	104, 108, 112	19.5	19.5	20.5
	116	19.5	-	-
	132, 136	19.5	19.5	19.5
	140, 144	17.5	17.5	17.5
	149, 153, 157, 161	17.5	20.5	20.5
	165	17.5	-	-

China

Band	Channel	Channel Bandwidth		
		20MHz	40MHz	80MHz
2.4GHz	1 to 3	18.5	18.5	-
	4 to 8	20.5	20.5	-
	9 to 11	18.5	18.5	-
5GHz	36, 40, 44, 48	13.5	14.5	14.5
	52, 56, 60	19.5	19.5	19.5
	64	17.5	17.5	17.5
	149, 153, 157, 161	17.5	20.5	20.5
	165	17.5	-	-

C. Troubleshooting

This chapter provides the solutions for possible troubles you may experience when you are configuring or using the AP-800AX.

C-1. Problems During the Setup

I don't know the IP Address of AP-800AX.

Solution	Use the unified device management utility "AMC Manager®". AMC Manager® can search for AP-800AX units connected to a network. For details, refer to **3-3. Configuration Using AMC Manager®**.

AP-800AX does not show up in the wireless network list on Windows.

If AP-800AX is not displayed in the wireless network list on Windows, you need to check the installation status, network environment and computer settings.

If you intend to setup AP-800AX via a wireless network, please confirm that the wireless adapter is enabled on your PC.	
Solution	Please confirm that the wireless adapter is enabled on your PC by checking the Windows network settings or the wireless LAN switch on your PC.

If you intend to setup AP-800AX via a wireless network, please confirm that AP-800AX is NOT placed in a location subject to weaker radio wave signals.	
Solution	Reconsider the location and surrounding conditions.

An error occurs when accessing the Web page of AP-800AX.

If an error occurs when accessing the Web page, you need to check your PC and Web browser settings.

AP-800AX may not be in the same network segment (environment without a router) as your PC.	
Solution	During the initial configuration, place AP-800AX and PC in the same network segment.

If AP-800AX has been used in another network, it may have the settings not allowing the communication with your PC.	
Solution	Please reset AP-800AX to the factory default setting. Refer to **9-3. Factory Default Configuration** for details on how to reset AP-800AX to the factory default settings.

If your Web browser is configured to use a proxy server, access to the local network might be blocked.	
Solution	Disable use of the proxy server temporarily or enable access to the local network on your Web browser.

How should I determine the way to assign an IP address to AP-800AX?

There are two ways to assign an IP address to AP-800AX; one is to Get IP address automatically from DHCP server and the other is to Assign IP address manually. Choose the way to assign an IP address according to your environment.

When there is a DHCP server in the network environment:	
Solution	You can use Get IP address automatically from DHCP server. As AP-800AX is set by default to Get IP address automatically, AP-800AX will obtain an IP address appropriate to your network environment from the DHCP server just by powering up AP-800AX. Refer to **9-3. Factory Default Configuration** for details on how to reset AP-800AX to the factory default settings.

When there is no DHCP server in the network environment, or when you do not prefer getting an IP address from DHCP server:

Solution

Please use Assign IP address manually. Keep in mind of the following points regarding the IP address to assign to AP-800AX.

- Assign an IP address unique in the network.
- Assign an IP address that has the same address class as the PC that will use AP-800AX. e.g. When an IP address of the PC is "192.168.0.xx", assign an address such as "192.168.0.100" that is not used by other network devices.

(Tips about the IP address)

- An IP address is a unique number for identifying network devices. An IP address is indicated with four numbers divided by a period (.), for example "192.168.0.1". The integer from 0-255 is used for each number.
- An IP address is, depending on the number assigned, categorized to 3 classes below.
- Numbers making up the IP address are either network numbers indicating network, or host numbers indicating each network device; each number indicates the different meaning based on the IP address class. Each class is categorized as the following diagram which is indicating a network number as n, and a host number as u.
- An IP address with the same network number must be assigned to the network devices in the same network segment.
- There is an address range in the IP address called the private address that could be used freely. In the LAN environment not directly connected to the internet, an IP address is assigned within the range of the private address.

First 1 digits in IP address	Class	Definition of IP address n: network number u: host number	Size of the network to be used	Private address
0 - 127	A	n.u.u.u	Large network	10.0.0.0 - 10.255.255.255
128 - 191	B	n.n.u.u	Mid-size network	172.16.0.0 - 172.31.255.255
192 - 223	C	n.n.n.u	Small network	192.168.0.0 - 192.168.255.255

C-2. Problems on Wireless Access Point Feature

I cannot connect to AP-800AX wirelessly.

Please check the operation status and configuration of AP-800AX.

The wireless LAN setting may differ between AP-800AX and the connected wireless station device.	
Solution	Connect a LAN cable to AP-800AX and check the wireless LAN settings.

When DFS channels are used, communication may be disabled for a certain period of time as a result that radar waves are detected.	
Solution	Please wait until the communication recovers, or else, use the channel that does not support DFS. The time period of communication loss will differ in each country.

The wireless station device may be connected to a different Access Point that has the same SSID.	
Solution	Set a different SSID between AP-800AX and the Access Point that the wireless station device is unintentionally connected. Or, set the transmission strength lower for that Access Point to shorten the wireless coverage. * It is possible to see if the wireless station device is properly connected by accessing the Web page of AP-800AX (Wireless Station Status 5GHz/Wireless Station Status 2.4GHz). For details, refer to **8-1. Monitoring Status for Wireless Station Devices**.

Connection is interrupted and disconnected.

AP-800AX may be installed at a location subject to weaker radio wave signals.	
Solution	Please reconsider the location of installation and condition of use.

Transmission rate may not be appropriate for your environment.	
Solution	Reconsider the transmission rate to use, and limit the unicast transmission rate. For details, refer to **7-3. Transmission Rate Setting for Stable Communication**.

Communication speed is too slow.

An older wireless standard may be selected for **Wireless Mode** of AP-800AX.	
Solution	Check that **Wireless Mode** of AP-800AX is set to **802.11ax**.

The connected wireless station device may not support the latest wireless standard.	
Solution	Use the wireless station device that supports IEEE 802.11ax.

Wired LAN standard of the connected LAN cables and devices may be too old.	
Solution	Use the different LAN cables and devices that support 2.5GBASE-T.

Communication is unstable

Communication may be affected by multipath, etc.	
Solution	Change **Guard Interval for 11ax** of AP-800AX to **3200**. Also, find the appropriate transmission rate for stable communication, and limit the transmission rate of AP-800AX. For details, refer to **7-3. Transmission Rate Setting for Stable Communication**.

C-3. Problems for Connecting Multiple AP-800AX Units

AP-800AX fails to connect to the existing AMC Mesh network.

The wireless setting or AMC Mesh setting of AP-800AX may differ from the setting of that AMC Mesh network.	
Solution	Configure the same wireless setting, Mesh group name and Mesh encryption key to AP-800AX as that of the AMC Mesh network. These settings must be the same between the AMC Mesh network and AP-800AX.

I cannot communicate with a target device in the AMC Mesh network.

The communication route to the target device may not have been established.	
Solution	See **6-7. Checking Connection Status on Web Page** to identify the AMC Mesh device whose connection is not properly established, and then try the following. - Move the AMC Mesh devices closer to each other - Add another AMC Mesh device (operating in Repeater mode) as a relay device. - Remove obstacles between AMC Mesh devices

AP-800AX of a different floor may have been connected to the AMC Mesh network.

AP-800AX of a different floor could be connected if a radio wave is reached from that AMC Mesh network.	
Solution	To establish the AMC Mesh network separately for each floor, a different Mesh group name needs to be set for each network.

C-4. Checking Troubles on the Event Logs

By obtaining the event logs, you can check the status of AP-800AX when the troubles occur. Refer to **8-2-2. Downloading the Logs** - **How to Download Event Log** for how to obtain the event logs.
The detailed information on how to see the event logs is posted on the Silex Technology's website. By reading it with the event logs, you can check how AP-800AX was operating during the trouble.

D. Product Information and Customer Services

D-1. Product Information

The services below are available from the Silex Technology website. For details, please visit the Silex Technology website.

URL	
USA	https://www.silextechnology.com/
China	http://www.silex.com.cn/

- Latest firmware download
- Latest software download
- Latest manual download
- Support information (FAQ)

D-2. Customer Support Center

Customer Support is available for any problems that you may encounter.
If you cannot find the relevant problem in this manual or on our website, or if the corrective procedure does not resolve the problem, please contact Silex Technology Customer Support.

Contact Information	
USA	support@silexamerica.com
China	电话支持 : 010-64403958 微信公众号 :

Note

- Visit the Silex Technology website for the latest FAQ and product information.