

IEEE 802.11ah Access Point AP-100AH Setup Guide

Thank you for purchasing the Access Point AP-100AH. AP-100AH is a wireless Access Point that supports IEEE 802.11ah (Wi-Fi HaLow™) and can be used as a base station to connect IEEE 802.11ah-compatible station devices with each other. This Setup Guide explains how to configure and use AP-100AH in a wireless network.



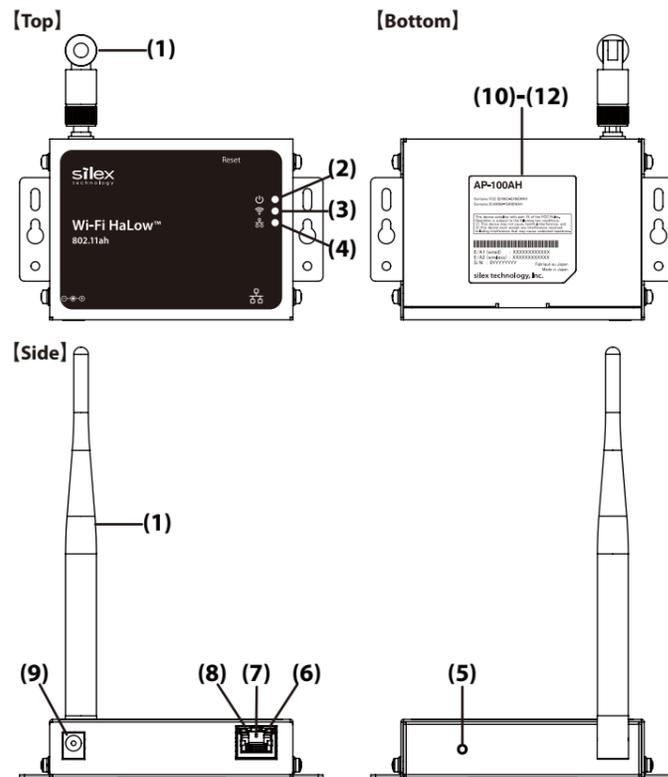
WA106440XX

Package Contents

Following items are bundled with AP-100AH.

- AP-100AH
- AC adaptor
- Wireless LAN antenna
- Rubber feet (4pcs)
- Network cable
- Setup Guide (this document)
- GPL license notice

Parts and Function



(1) Wireless LAN Antenna	Antenna for wireless communication
(2) Power LED ((U)) (Orange) (*)	ON: Powered on
(3) Wireless LED ((W)) (Yellow) (*)	ON: STA (station) is connected. BLINK: Data communication is occurring.
(4) Wired LED ((W)) (Green) (*)	ON: Wired LAN port is enabled.
(5) Push Switch	Press this switch for the following operations when AP-100AH is on. Initialization: Press and hold, and release the switch in 5 sec or longer. Restart: Press and hold, and release the switch in 5 sec or shorter.
(6) Status LED (Yellow)	Blinks while communicating in a wired LAN.
(7) Network Port	Connect a network cable.
(8) Link LED (Green)	Turns on when connected to a wired LAN.
(9) DC Connector	Connect an AC adaptor.
(10) E/A1 (wired)	Ethernet Address of the wired LAN
(11) E/A2 (wireless)	Ethernet Address of the wireless LAN
(12) S/N	Serial Number

(*) LED light pattern
All 3 LEDs (Power/Wireless/Wired LEDs) turn on when AP-100AH is started. Then, Wireless/Wired LEDs turn off in 1 sec, and start to turn on/blink as described in the above table.

Configuration Method

AP-100AH can be configured by the following methods:

- 1) Configuration Using AP-100AH's Web Page
- 2) Configuration Using AMC Manager®

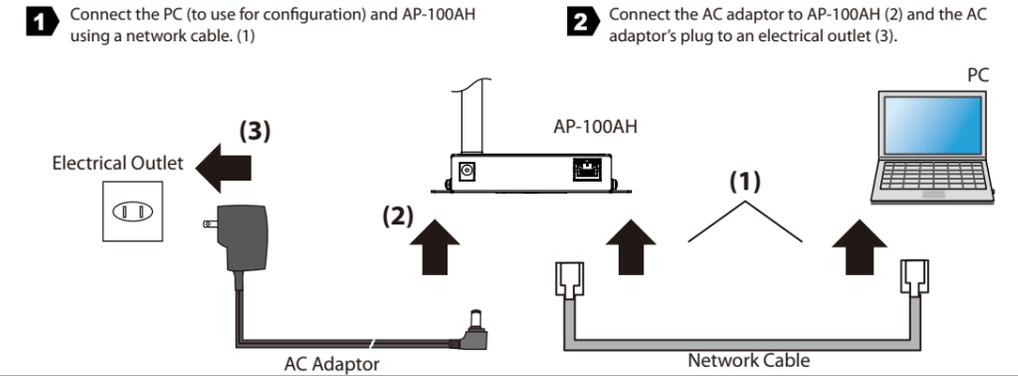
When you have only one AP-100AH unit, see **Configuration Using AP-100AH's Web Page**.
When you have multiple AP-100AH units, see **Configuration Using AMC Manager®** and configure them one by one.

Necessary Items

Following items are required.

- Network Cable
- PC to use for configuration

Connection to PC



Configuration Using AP-100AH's Web Page

Network Setting of PC

- 1 Change the network settings of the PC to allow accessing AP-100AH.

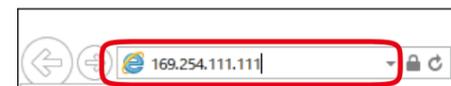
Example:
When AP-100AH has the factory default setting, the IP Address of AP-100AH is set to "169.254.111.111". Then, change the network settings of your PC as below:
- IP Address : 169.254.111.1
- Subnet Mask : 255.255.0.0

* Please be sure to set a unique address to your PC, that is not used by AP-100AH.
By default, AP-100AH has an IP Address of "169.254.111.111".

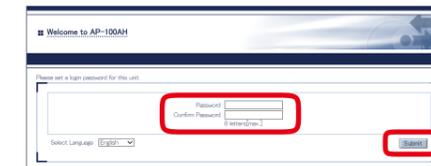
* For the configuration, connect AP-100AH to the PC using a network cable.

Access to AP-100AH's Web Page

- 2 Start a Web browser (Internet Explorer, Microsoft Edge, etc.) on the PC, enter the IP address of AP-100AH in the address bar and press the **ENTER** key.



- 3 The login password configuration page is displayed. Enter the password to configure for AP-100AH and click **Submit**.



* The login password configuration page is displayed only when AP-100AH is configured for the first time.

- 4 The Web page of AP-100AH is displayed. Log into the Web page to continue the configuration.



Login Authentication

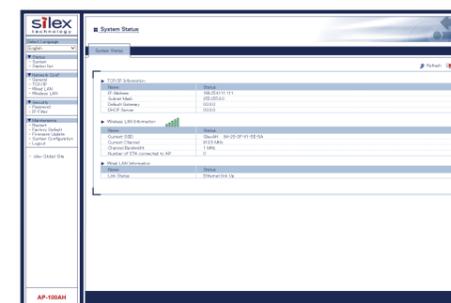
- 5 Click **Login** from the page menu.



The login menu window is displayed. Enter the login password you have configured and click **Login**.

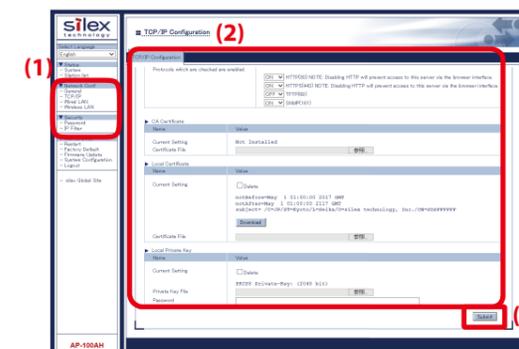


- 6 The login is completed.



Basic Configuration

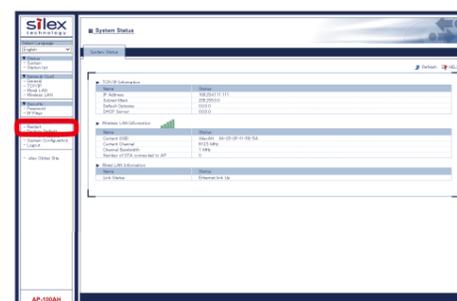
- 7 Click the setting from the page menu (1), enter the necessary settings at the displayed page (2) and click **Submit** (3).



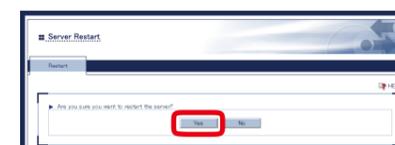
* For details on each setting, refer to the User's Manual or the Help page. Clicking **HELP** on top right of the page will open the Help page.



- 8 To take effect of the changes, restart AP-100AH. Click **Restart** from the page menu.



- 9 Click **Yes** to restart AP-100AH.



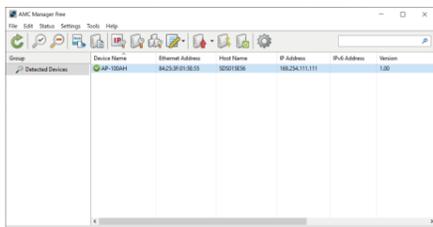
The configuration has now been completed.

Configuration Using AMC Manager®

* For the configuration, connect AP-100AH to the PC using a network cable, and configure it one by one.

Start AMC Manager®

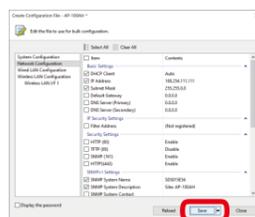
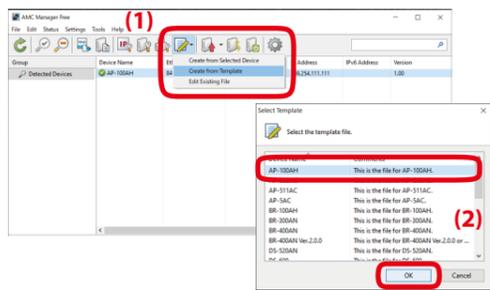
- Download AMC Manager® from the Silex Technology's website and install it to the PC. Click **Start - silex Tools - AMC Manager**. The AMC Manager will be started.



* In this document, AMC Manager® Free is used as an example, however, if you have a license key of AMC Manager® (non-free program), it can also be used for configuration.

Create Configuration File

- Create a configuration file using the template. Click the icon **Create the configuration file** and click **Create from Template** from the toolbar (1). In the **Select Template** window, select the device to configure and click **OK** (2).
- In the **Create Configuration File** window, check the check box of the items you want to use for the configuration file, edit the settings and click **Save**. In the dialog to save the configuration file, specify the file name and click **Save**.



* When AP-100AH is used for the first time, the login password needs to be set.

Connection to PC & Network Setting

- Connect AP-100AH to the PC and change the network setting of the PC according to the instructions given at **Connection to PC** and **Network Setting of PC** in the back page. For the IP address to set to the PC, use the one communicable with AP-100AH.

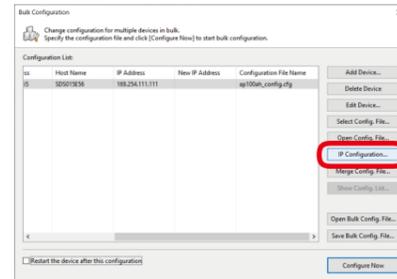
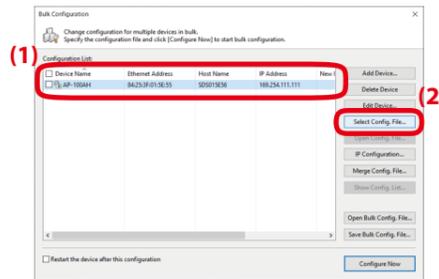
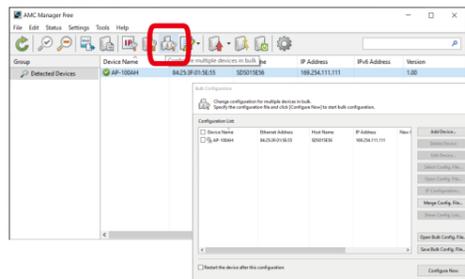
Setting example)

Sample address to set for AP-100AH	Sample address to set for PC
192.168.10.10	192.168.10.100
172.25.50.10	172.25.50.100

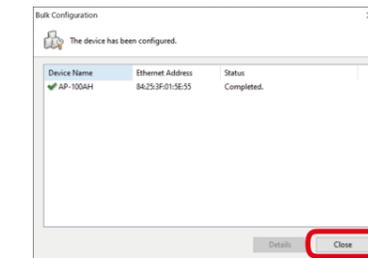
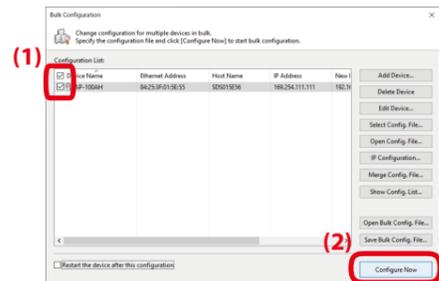
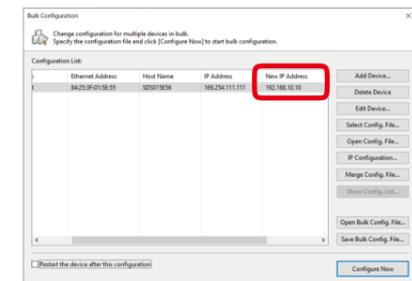
* This is the procedure to configure an IP address for the wired LAN. For IP address of the wireless LAN, "192.168.1.1" is set by default. If the IP address of the same network segment is set to the wired LAN as the wireless LAN (e.g. "192.168.1.2"), communication is not established.

Basic Configuration

- Select the AP-100AH unit to configure from the device list of AMC Manager®, and click the icon **Configure multiple devices in bulk**.
- In the **Bulk Configuration** window, select the AP-100AH unit to configure from the **Configuration List** (1) and click the **Select Config. File** button (2). When a file selection dialog appears, select the configuration file that you have created and click **Open**.
- The selected file is displayed at **Configuration File Name**. Click **IP Configuration** for the IP address configuration. When you are using the DHCP server to automatically configure the IP address, skip this and go on to 10.
- In the **IP Address Configuration** window, specify the range of IP address to configure for AP-100AH, and click **OK**.



- The IP address is pre-assigned to AP-100AH and is displayed under **New IP Address**.
- Check the check box of the AP-100AH unit to configure (1) and click **Configure Now** (2).
- The configuration performs and the result is displayed. Click **Close**.
- When there are more AP-100AH units to configure, repeat the process of 4 to 11 and configure them one by one.



The configuration has now been completed.

FCC / ISED Notice



FCC Notice

AP-100AH
This device complies with Part 15 of 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.

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USA
Phone: 657-218-5199

FCC CAUTION

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

Contains FCC ID: N6C-SXNEWAH

FCC Rules Part 15 Subpart B

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

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

RF exposure compliance

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.

Co-Location Rule

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Antennas

To prevent violation of the law, do not use antennas other than those provided or specified by Silex Technology.

ISED Notice

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Contains IC: 4908A-SXNEWAH

RF exposure considerations

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the ISED radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body. Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

Antenna Type

This radio transmitter (4908A-SXNEWAH) has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna type	Gain	Impedance
Rod Antenna	3.4dBi	50ohms

Le présent émetteur radio (4908A-SXNEWAH) a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

Type d'antenne	Gain	l'impédance
Antenne à tige	3.4dBi	50ohms

How to Download AMC Manager®

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

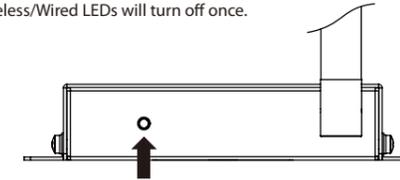
<https://www.silextechnology.com/>

- When the website is displayed, click **Support** from the top menu.
- Click **Software Download**.
- In the **Software Download** page, click **AMC Manager®**.
- Download AMC Manager®.

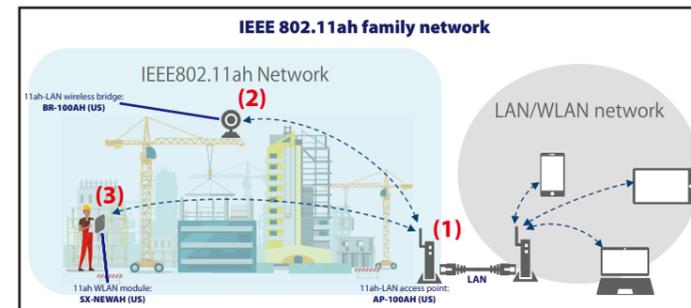
Factory Default Configuration

Follow the instructions below to reset AP-100AH to the factory default setting.

- Press and hold the push switch of AP-100AH and release it in 5 sec or longer to start the factory default configuration. When the factory default configuration is finished, AP-100AH will automatically be restarted. After the restart, all 3 LEDs on the top surface will turn on, and then the Wireless/Wired LEDs will turn off once.



IEEE 802.11ah Product Lineup and Installation Image



- AP-100AH: IEEE 802.11ah-compatible Access Point
- BR-100AH: IEEE 802.11ah-compatible wireless bridge
- SX-NEWAH: IEEE 802.11ah-compatible wireless LAN module

Trademarks

- AMC Manager® is a registered trademark of Silex Technology.
- Wi-Fi HaLow™ is a trademark of Wi-Fi Alliance.
- Company names and product names contained in this document are trademarks or registered trademarks of their respective companies.

Customer Support Center

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

Customer Support Center information

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