

Instruction Manual

Supplementary Manual for WSD-1500H-W Wi-Fi Controller for Electric Smokers

Version 2.0 (Dec, 2019)

1. Overview

Auber's WSD-1500H-W is a temperature controlling device with Wi-Fi network connection capability. It has a build-in Wi-Fi module which allow its user to monitor and control temperature from a smart phone or a tablet. Once set up, user can access the data and change parameter settings even the user is thousands of miles away from the device.

This guide provides an instruction on how to use AuberSmart app to connect to the controller WSD-1500H-W. For basic operations of the controller, please check the main manual of WSD-1500H.

2. Wireless connection

2.1. Specifications

Frequency Range	2.412 GHz - 2.484 GHz
Standards	802.11b/g/n
Output Power	802.11b: 16 dBm
	802.11g: 14 dBm
	802.11n: 13 dBm
Receiving Sensitivity	802.11b < -78 dBm
	802.11g < -68 dBm
	802.11n < -66 dBm
Data Rates	11 M @ 802.11b, 54 M @ 802.11g, MCS7 @ 802.11n
Security	Encryption Standards: WEP/WEP/WPA2 Encryption Algorithms: WEP64/WEP128/TKIP/AES
Wi-Fi Type	STA/AP

Note:

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. WSD-1500H-W contains radio module. FCC ID: 2ACDZ-3301-SBSL.

2.2. Requirements

- User must have a smart phone/tablet with AuberSmart app installed (available for Android 4.4 or above and for iOS 10).
- User must have a Wi-Fi network, the network's name (SSID) and the password.
- During the initial set up, user's smart phone/tablet must connect to the designated Wi-Fi network with 2.4 GHz signal.
- The device must under the coverage of the designated Wi-Fi network all the time.

2.3. Wireless connection indicator

There is a blue LED indicator shows the status of the wireless connection. It is located at the lower right corner of the display window. Different blinking frequency indicates different communication status.

Solid on: The device is connected to a Wi-Fi signal.

Fast blinking (4.0 Hz): The Wi-Fi module has not been configured to any router, or it has been reset.

Slow blinking (0.6 Hz): Wi-Fi module is initializing its connection to the router.

Off: No Wi-Fi signal or connection lost.

2.4. Initial set up

When the device is powered up for the first time, the wireless connection indicator (blue LED) will fast blink, which means the device has not been configured to any Wi-Fi signal yet. User can configure the device from his/her smart phone/tablet if AuberSmart app is installed. A step by step instruction can be found in section 4. During the Wi-Fi configuration process, the blue indicator will be blinking at 1 Hz frequency. Once the wireless connection between the device and the router has been established, the blue LED will become solid on. User will have to reset the Wi-Fi module when he/she wants to re-configure the wireless connection.

2.5. Reset wireless connection

If the device (WSD-1500H-W) has already been configured to a Wi-Fi signal but it needs to be moved to a new place that is not under the coverage of the same Wi-Fi signal, the wireless module must be reset. To configure the device to the new Wi-Fi signal:

- 1) Power up the controller at the new place. If the old Wi-Fi signal is out-of-range, the blue indicator will not lit.
- 2) On the device, hold both the SET key and the Back/Timer key (⏪) key for 3 seconds till the blue LED start fast blinking (4 Hz).
- 3) On your AuberSmart app, delete this device if it is still on the device list. Then proceed to add a new device. A step by step instruction can be found in section 4.

2.6 Selecting the best Wi-Fi signal

The location of a router can make a big difference for the reliability of the Wi-Fi connection between the router and a WSD-1500H-W controller located outside of a house. The signal from a router located above the ground level can reach much further than the signal from a router located in the basement. You may not feel the effect of the location of a router to its signal strength if you are in the house, because the wooden structure in the house will not block the Wi-Fi signal from the basement. But when you are outside of the house, the signal strength from the router in the basement will reduce much faster than the signal from a router above the ground level as you moving away from the house. So, when you configure the controller's Wi-Fi connection, you should connect to the router that is located above the ground level.

2.7 Placement of the controller

Leaving the controller sitting on a concrete floor or on the ground may result in poor Wi-Fi reception. Elevate the controller from the concrete floor or ground by setting it on a wooden bench or on a table can help improve the situation.

Note:

After reset the wireless connection, other users need to delete the device from Device List and add it back to their AuberSmart app again, but they don't need

to reset the Wi-Fi module on the device. If other users don't delete the device and re-configure it, they may still be able to connect to the device when their phones and device are both in the original Wi-Fi network. But they won't be able to connect the device once when their smart devices leave the Wi-Fi network.

3. Getting started

- 1) Download and install the latest AuberSmart app. The app can be found in Google Play (for Android users) or from Apple Store (for iOS user). The Android version app installation file (apk) can also be downloaded from Auber's website.
- 2) Take the device to a location that is under the coverage of strong Wi-Fi network signal which you have its name (SSID) and the password. The SSID and password should be no longer than 32 letters.
- 3) Make sure you have turned on the Wi-Fi enable switch on your smart phone/tablet, and make sure it is connected to a 2.4 GHz Wi-Fi signal. You can go to "Settings", then "Wi-Fi" in your phone/tablet to set it up. If you don't know which signal is 2.4 GHz, please see the FAQ at the end of this manual.
- 4) Add a new device. Open the AuberSmart app, at "Device list" page, click the plus icon "+" on the top right corner to add a new device (see Figure 1).
- 5) On the Add Device page (Figure 2), enter your current Wi-Fi network name (SSID) and then type in your password. If the SSID doesn't show up automatically or correctly, please manually enter the correct SSID. Once you have entered these information, click "Connect Device". This step may take up to 1 minute.
- 6) New device should have been added to the Device List like Figure 3. The model number of the device and current probe readings will be displayed. Multiple devices can be added to AuberSmart app.

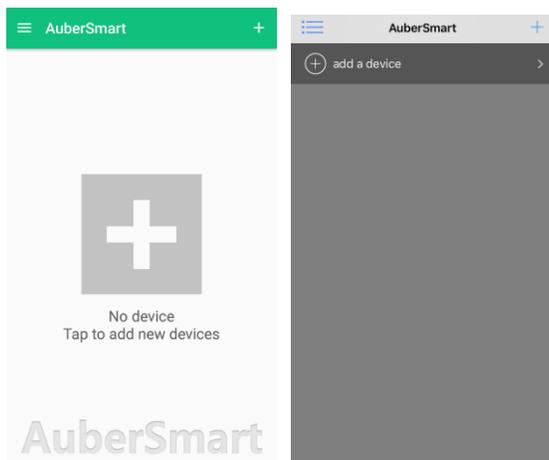


Figure 1. Device List page of AuberSmart (left: Android version; right iOS version).

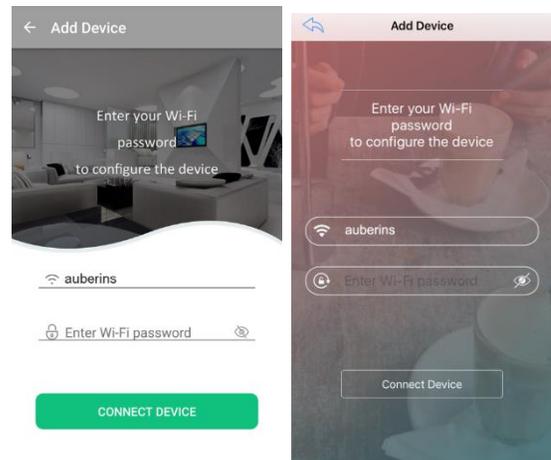


Figure 2. Add Device page. (Left: Android version; right iOS version).

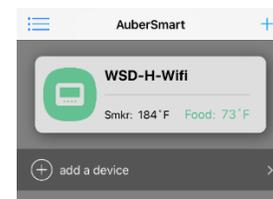


Figure 3. When the device is added successfully, app will return back to Device List page.

- 7) To view the detailed information about the device, short tap on the device name/info. To rename this device or delete it from the device list, long tap on the device name/info (Android App only). To refresh the information, tap the refresh button on the top right corner.

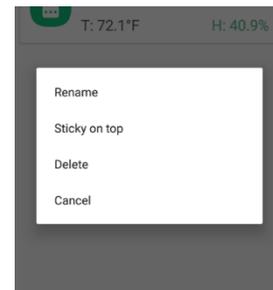


Figure 4. Available operations when long tap on the device tab (Android App only).

- 8) For Android phone, to exit the app, tap the return button twice; or tap the top left corner to bring up the menu list and select "Exit" (see Figure 5).

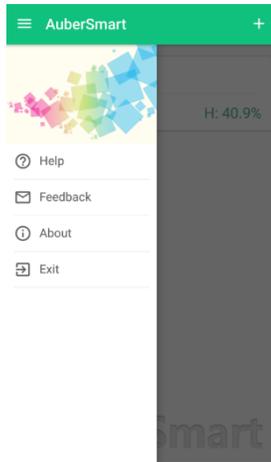


Figure 5. Menu list.

4. Navigating the AuberSmart app

The AuberSmart app is constructed in three main layers: device list, device information page, and settings.

4.1 Device List page

The Device List page show a list of devices that has been paired with this smart phone/tablet. It gives user a quick view of the current status of all the devices on this list. User also can add new devices or remove the added devices from this page.

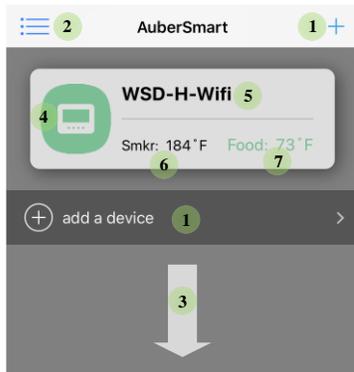


Figure 6. Device List.

- (1) Add a new device.
- (2) App menu button.
- (3) Pull down to refresh device list.
- (4) Device quick-view. Short tap it to view the device information page; long tap it to bring up a quick action menu (Android only).
- (5) Device alias / name.
- (6) Current cabinet temperature (Probe 1).
- (7) Current food internal temperature (Probe 2).

4.2 Device Information page

The Device Information page shows current probe readings, device working status, and data plot collected in the past. See Figure 7 for details. The page can be divided into three sections: A) quick access bar, B) current temperature, and C) control status and data plot.

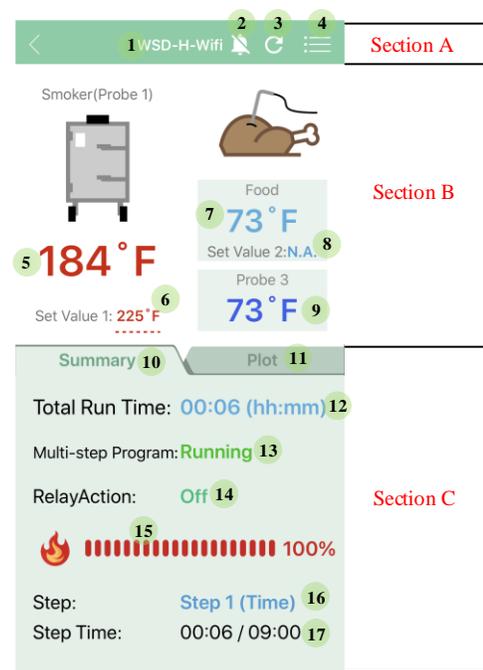


Figure 7. Device Information page (single-step mode).

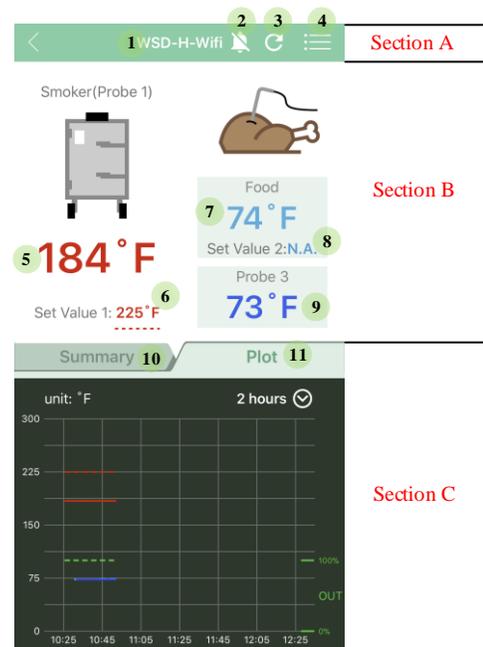


Figure 8. Data plot on the Device Information page.

Section A: quick access bar.

- (1) Go back to the Device List page.
- (2) Mute the alarm buzzer on the device.
- (3) Refresh the Device Information page.
- (4) Configuration Button. Go to Cooking Profile, Control Setting, System Config, and Device setting. These settings are password protected (default password 777).

Section B: current temperature.

- (5) Current cabinet temperature from Probe 1.

- (6) Set Value 1 for cabinet temperature (Smkr Temp).
- (7) Current food temperature from Probe 2.
- (8) Set Value 2 for target temperature of food (Food Temp), if the ending criterion of the current step is set to "Food Temp". It will display "N.A." if the ending criterion of the current step is set to "Time".
- (9) Current temperature from Probe 3 (optional). It will display "N.A." if Probe 3 is not plugged in.

Section C: control status summary and data plot.

- (10) Summary tab: show a few key control statuses.
- (11) Data Plot tab: show the past temperature and output data in a plot.
- (12) Controller's total run time since it is powered up.
- (13) Multi-step Program status. **Running**: multi-step mode and the program is running; **End**: multi-step mode but the program has ended; **Off**: single-step mode.
- (14) Relay Action (smoke generator output socket status). **On**: Smoke generator socket is enabled; **Off**: Smoke generator socket is disabled.
- (15) Output status bar.
- (16) Current step number and its ending criterion, for example, "Step 1 (Timer)" or "Step 2 (Food)". It will show "N/A" if the "Multi-step Program" mode is set to "Off".
- (17) The program running time and the total time of the current step. It will show "N/A" if the "Multi-step Program" mode is set to "Off".

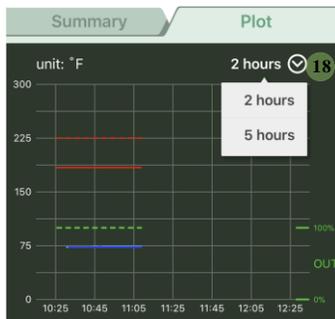


Figure 9. Change the time scale of the data plot.

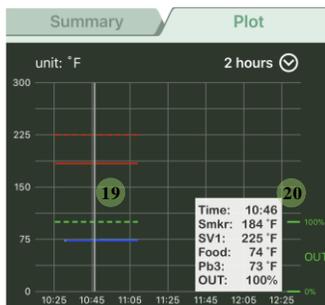


Figure 10. Check a data point on the plot.

From the data plot, the user can check the Probe 1 (cabinet) temperature (red solid line), set value for cabinet (red dash line), Probe 2 (food) temperature (light blue solid line), Probe 3 temperature (if enabled, dark blue solid line) and the output power (green dash line) in the past a few hours. The time span of the data plot can be switched between "2 hours" and "5 hours" by selecting it from the dropdown list (18) on the top right corner by default. Please see Figure 9 for details.

To log longer cooking process, user can adjust the settings in parameter **Dwell Time** in **System Config** menu. By default, the maximum logging time is 5 hours. The data logging sample rate (Dwell Time) is set to 1 minute (per sample). To log 25 hours cooking, please change **Dwell Time** to 5 minutes (per sample).

To check a data point on the plot, the user can tap anywhere on the plot and a vertical line (19) will appear to help user locate the data point. Data will be shown in a box in a corner (20) of the plot. Please see Figure 10 for details.

4.3 Device settings and app preferences

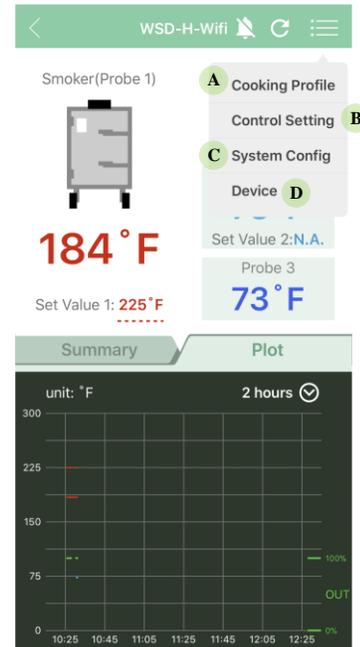


Figure 11. Tap the configuration button to bring up the parameter menu.

All parameters are grouped into 4 sub-menus in the Configuration menu: "**Cooking Profile**", "**Control Setting**" and "**System Config**", and "**Device**". The parameters in the first three sub-menus are also accessible from the controller. Changes made from the app will be synchronized to the device. The settings in "Device" menu is app related and are only accessible from the app.

All parameter settings are password protected (default password is 777). The user can change the default password to any 3-digit code as they want. This can be done either from the app or from the device. The user can also choose to save the password on the app for convenience.

- A. **Cooking Profile**
Set up the cabinet temperature (Smkr Temp), food temperature (Food Temp), or timer here. By the default, the controller works in multi-step mode. User can set up to six cooking steps. Single step mode is also available, so user only need to set cabinet temperature of Step 1. Please refer to section 4.1 in its main menu for details.
- B. **Control Settings**
Parameters in this group are related to the control configuration, which may need to be adjusted from time to time. Please refer to the section 7.1 in the main menu for details.

- C. System Config
Parameters under this group are related to the system settings, which may not need to be changed frequently. Please refer to the section 7.2 in the main menu for details.
- D. Device
Settings in this sub-menu (Figure 12) are only available on AuberSmart app.

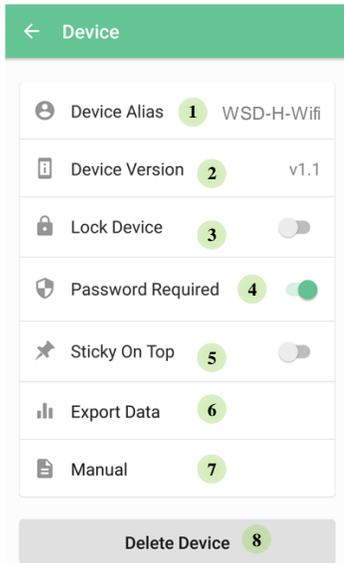


Figure 12. Device settings page (Android).

- 1) Device Alias. User can rename the device in order to differentiate it from other devices. By default, it is set to "WSD-H-Wifi".
- 2) Device Version. The firmware version is v1.1.
- 3) Lock Device. This setting determines whether a new user can find and add this device to his/her AuberSmart app. When this feature is turned on, other users of AuberSmart App won't be able to connect to the device. But users that have already established the connection won't be affected. By default, this feature is set to "off".
- 4) Password Required. By default, this option is turned on; the user will be asked for password to access the parameters. It can be turned off. This setting does not affect other users who also added this device to their apps. Default password is 777.
- 5) Sticky on Top *. When this option is turned on, this device will stay on the top of the Device List page.
- 6) Export Data. Temperature and controlling data recorded on the device will be saved as CSV file on user's phone. User can also choose to share the data file via email or other apps.
- 7) Manual. By tapping on this button, user can view/download the manual of WSD-1500H-W on auberins.com.
- 8) Delete Device. By tapping on this button, user can remove this device from AuberSmart app.

Note *: only available for android app.

4.4 Program Status & Control (for firmware 1.7.4 or newer)

Program status & control section is located on the top of "Cooking Profile" (A in Figure 11). Parameter name is **Program Status**.



Figure 12a. Program status & control in **Cooking Profile** page, highlighted in red. The program status above is "Stopped".

In this section, user can check or change current program running status by this parameter. To remotely stop/start the program, user needs to select **Start** or **Stop** row in the following screenshot, then click **Save** on the right top corner to confirm. To jump steps, choose the step row user wants to go, then click **Save** button to confirm. For example, if user wants to run steps from 2 to 6, click **Step 2** then click **Save** to confirm. In single step mode, Step 2 ~ 6 are disabled, only step 1 can be selected. In multi-step mode, Step 1 ~ 6 can be selected.

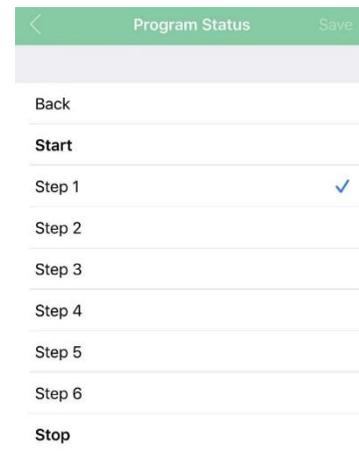


Figure 12b. Program status & control menu under multi-step mode.

5. FAQs (regarding the wireless connection)

- 1) Can I add more than one Auber's Wi-Fi device to AuberSmart app?

Yes. You can add multiple devices manufactured by Auber as long as they are Wi-Fi enabled (Including WSD-1500H-W, TH220-W or HD220-W) to AuberSmart app. If you have two devices under the coverage of the same wireless network, you'll add two devices to your AuberSmart at the same time. If you added two devices of the same model, the app will add

a number in brackets for the second device. For example, WSD-1500H-W (2). If the number might confuse you, you can change the name of the device by using "Device Alias" in the "Device" menu.

- 2) Can multiple smart phones or tablets connect to the same controller?

Yes. An Auber's Wi-Fi device can connect with more than one smart phone or tablet at same time.

- 3) How can I prevent other AuberSmart app users from adding my device?

First of all, the other user must know your Wi-Fi password in order to add the device. Secondly, you can choose to "Lock" the device so new users won't be able to add the device even if he/she has your Wi-Fi password. Please note that this "Lock Device" feature won't block users that are already connected with the device.

- 4) How can I prevent other users from changing my settings on the device?

The parameter settings and app preferences are password protected. Users who don't know your password won't be able to access the parameter or preference settings. However, changing parameter settings from the device itself doesn't require password.

- 5) My device picked up other people's wireless signal instead of mine.

The device automatically picks up the strongest Wi-Fi signal around it. You can manually input the Wi-Fi name (SSID). Or you can move the device to a location that is closer to your Wi-Fi router during the initial set up. Once the connection is established, you can move the device back to where it was as long as it is under the coverage of the same Wi-Fi signal.

- 6) Can I access the device without Wi-Fi network?

Yes. Once your phone/tablet has successfully connected with the device, you can access the device via cellular internet.

- 7) Can I access the device from a Wi-Fi network that is different from my home Wi-Fi network?

If you are connecting the device for the first time, your phone/tablet and the device must under the coverage of the same Wi-Fi network. Once your phone/tablet has successfully connected with the device, you can access the device from a different Wi-Fi network as long as it has good internet access.

- 8) I can see and access the device from AuberSmart app when I was home, but when I was away from home I cannot connect to it.

Please try 1) delete the device from the app, 2) reset the Wi-Fi module, and 3) add the device again.

The reason why this happened is probably this: you added device while the device was configured to your home Wi-Fi network. And later the device was reset and configured to another Wi-Fi network. Then the device was reset and configured to your home Wi-Fi network again by someone else, not by you. In that case, you can connect to the device while you are connecting to your home Wi-Fi network, but you won't be

able to connect to the device when you are not using your home Wi-Fi (i.e., using cellular internet or using a different Wi-Fi network).

- 9) After I installed the app and added my device, my phone constantly shows "connection error".

You probably didn't exit your AuberSmart App properly last time and it was still running in the background. To exit the app, tap return button (for Android user) or tap the app menu and select "exit". Or you can simply reboot your phone.

- 10) Where does the AuberSmart save exported data (Android user only)?

The default file path is
"/storage/emulated/0/Android/data/com.auberins/files/".

- 11) Can I use the controller without a smart phone?

Yes. This controller can work as standalone unit. All parameters can be entered from the device. But you won't be able to view the data plot or export data from the device.

- 12) Can I use my smart phone to control Auber's Wi-Fi device without internet?

Yes, but you need a wireless router as an access point even though it may not necessarily be connected to the internet. You can still configure Auber's Wi-Fi device to this router following the normal Wi-Fi configuration procedures. Then as long as your phone is connected to this router, you can use the app to control Auber's Wi-Fi devices. In this situation, the Wi-Fi indicator on the device will never become solid on; it will only blink slowly.

- 13) My router has both 2.4 GHz and 5.0 GHz signals. I don't know which signal is 2.4 GHz.

The Wi-Fi module on Auber's Wi-Fi device only supports 2.4 GHz signal. If you can't tell which signal is 2.4 GHz, you can find 3rd party apps that analyze the Wi-Fi signals for you.

- 14) How to reset the Wi-Fi module on the device?

On the device, hold both SET key and BACK/Timer TIME key (⏪) key for 3 seconds till the blue LED start fast blinking (4 Hz).

- 15) I have reset the Wi-Fi module a few times but still cannot add the device to AuberSmart app.

Please delete the device from your app if it had been added to your app previously. Then reset the Wi-Fi module and try adding a new device again. If the blue LED flashes slowly (about 1 once per second) but never become solid on, the Wi-Fi connection is not properly established between the device and the router.

Some high-end wireless routers and some older models may not be compatible with the Wi-Fi module on our device. Please contact our technical support for suggestions.

16) How should I set up my router?

Normally you don't need to change any settings on your home router. If you have issues in configuring the device to your router, please make sure the DHCP function is enabled on your router, and the UDP ports are not closed.

(End)

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