

KSAIF

Wi-Fi Interface Kit for Ductless Systems

OWNER'S MANUAL

NOTE: Read and become familiar with these instructions before beginning installation.

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SAFETY CONSIDERATIONS

Installing, starting up, and servicing air-conditioning equipment can be hazardous due to system pressures, electrical components, and equipment location (roofs, elevated structures, etc.).


Only trained, qualified installers and service mechanics should install, start-up, and service this equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils. All other operations should be performed by trained service personnel.

When working on the equipment, observe precautions in the literature and on tags, stickers, and labels attached to the equipment.

Follow all safety codes. Wear safety glasses and work gloves. Keep quenching cloth and fire extinguisher nearby when brazing. Use care in handling, rigging, and setting bulky equipment.

Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements. Recognize safety information.

This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words: **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol. **DANGER** identifies the most serious hazards which **will** result in severe personal injury or death. **WARNING** signifies hazards which **could** result in personal injury or death. **CAUTION** is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. **NOTE** is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.



WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing, modifying, or servicing system, main electrical disconnect switch must be in the OFF position. There may be more than 1 disconnect switch. Lock out and tag switch with a suitable warning label.



WARNING



EXPLOSION HAZARD

Failure to follow this warning could result in death, serious personal injury, and/or property damage.



CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

OVERVIEW

For the utilization of the hardware provided in the Wi-Fi kits (KSAIF0101AAA, KSAIF0201AAA, KSAIF0301AAA, KSAIF0401AAA, KSAIF0501AAA, and KSAIF0601AAA), the home owner/end user needs to download the mobile app. The app is available in the iOS and Android markets. Instructions for downloading and using the Carrier/Bryant/Payne/ICP (Midea) apps are listed within this document.

Applicable Systems: IOS, ANDROID

IMPORTANT: We recommend iOS 7.0, Android 4.0 or later.

NOTE:

- **APP supports the latest software version of Android and IOS system.**
- **Due to special situations that may occur, the manufacturer explicitly claims:**
 - **Not all of the Android and IOS systems are compatible with APP. The manufacturer will not bear any responsibility for any issue as a result of the incompatibility.**

WIRELESS NETWORK TYPE

- The Wi-Fi kits are only supported by WPA-PSK/WPA2-PSK encryption and no encryption. WPA-PSK/WPA2-PSK encryption is recommended.



CAUTION

- Please check the router website for more information.
- Smart phone cameras require a minimum of 5 million pixels to ensure the QR code is scanned appropriately.
- Due to different network configurations, request time-outs may occur thus it may be necessary to configure the network again. Please attempt to use the app or function inside the app again before reconfiguring the app.
- Due to different network configurations, the control process may occasionally return a time-out. If this situation occurs, please attempt to use the app or function inside the app again. If this is unsuccessful, reconfiguring the app may be necessary. If the time-out error continues, reinstall the APP and check your network connection. See the troubleshooting section for more support.
- If this situation occurs, the display between the board and App may differ.

NOTE: Manufacturer will not be liable for any issues and problems caused by the Internet, Wi-Fi Router and smart devices. Please contact the original provider to get additional support.

DOWNLOAD AND INSTALL APP

- Android Phone Users: Go to google play, search for the Carrier CliMate, Bryant ControlBox, Payne Panel, or Midea Air app depending on the type of equipment installed and download it.
- iPhone Users: Go to the App Store, search for the Carrier CliMate, Bryant ControlBox, Payne Panel, or Midea Air app and download it.

USER REGISTRATION

IMPORTANT:

- Ensure your mobile device is connected to the same Wi-Fi router that your fan coil is connected to.
- The Wi-Fi router must be connected to the Internet before starting the user registration and network configuration.

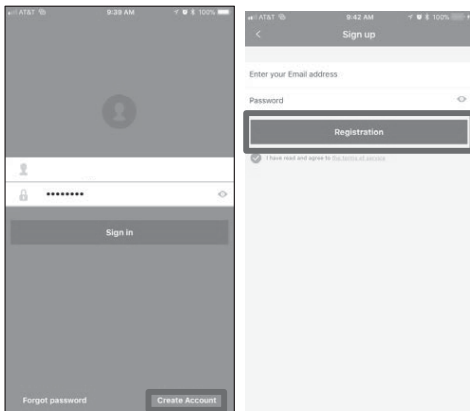


Fig. 1 – Mobile App Login Screen

NOTE: Figure 1 illustrates the generic app interface. The interface may vary depending upon the selected app.

NETWORK CONFIGURATION



CAUTION

Prior to starting the network configuration process, verify your Android or iOS device is connected to the WI-FI network you want to configure.

Ensure the Android or IOS device Wi-Fi function is turned on and will auto-connect to your Wi-Fi network.

IMPORTANT: During the network configuration process ('AP' mode), the air-conditioning remote controller is unable to control the system. It is necessary to finish network configuration, cycle power, or wait eight (8) minutes for the system to time out to regain control.

ANDROID CONFIGURATION PROCESS

1. Ensure your mobile device has already been connected to the desired Wi-Fi network. It is recommended to forget all networks except the one used to connect the fan coil to prevent configuration errors.
2. Disconnect the power supply from the Ductless system and wait thirty (30) seconds.
3. Reconnect the power supply to the Ductless system.
4. Press **LED** or **DO NOT DISTURB** button on the wireless remote seven (7) times in three (3) minutes. When the display shows 'AP', the Ductless system is ready for network configuration.
5. When the display shows 'AP', the Ductless system is ready for network configuration.

IMPORTANT: The ducted, cassette, and floor console displays will not show 'AP' during network configuration.

6. On your Android device, open the **Carrier Climate, Bryant ControlBox, Payne Panel, or Midea Air** App, and select **Add Device**.

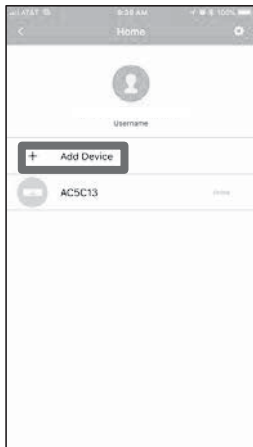


Fig. 2 — Add Device Function

7. Your device may request approval for the app to utilize the mobile device camera. Select **OK**.
8. Scan the QR Code which was provided with the Wi-Fi Kit.



Fig. 3 – Scan the QR Code

9. Select the Wi-Fi network desired and enter the Wi-Fi password.



Fig. 4 – Select Wi-Fi password

NOTE: The app may take up to 3 minutes to configure the Wi-Fi kit for connectivity to your Wi-Fi network.

Configuration is now complete. The default name for the unit connected appears on the home screen.

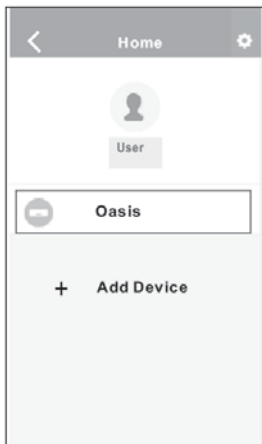


Fig. 5 – Configuration complete

iOS CONFIGURATION PROCESS

1. Ensure your mobile device has already been connected to the Wi-Fi network which you want to use. It is recommended to forget all networks except the one used to connect the fan coil to prevent configuration errors.
2. Disconnect the power supply from the Ductless system and wait thirty (30) seconds.
3. Reconnect the power supply to the Ductless system.
4. Press **LED** or **DO NOT DISTURB** seven (7) times in 3 minutes. When the display shows 'AP', the Ductless system is ready for network configuration.
5. When the display shows 'AP', the Ductless system is ready for network configuration.

IMPORTANT: The ducted, cassette, and floor console displays will not show 'AP' during network configuration.

6. On your iOS device, open the Carrier CliMate, Bryant ControlBox, Payne Panel, or Midea Air App, and select **Add Device**.

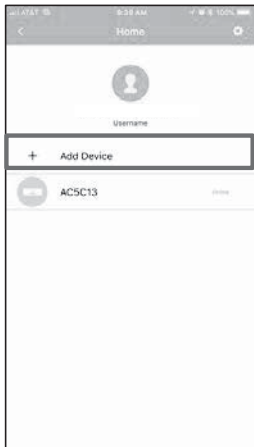


Fig. 6 – Add Device

7. Your device may request for approval for the app to utilize the mobile device camera. Select **OK**.
8. Scan the QR Code which was provided with the Wi-Fi Kit.



Fig. 7 – Scan the QR Code

9. Follow the on screen instructions on your mobile device and press **HOME** to return to the device interface.
10. Click the setting icon on the mobile device, and then select the Wi-Fi menu.
11. From the wireless networks shown, select '**net_ac_XXXX**'

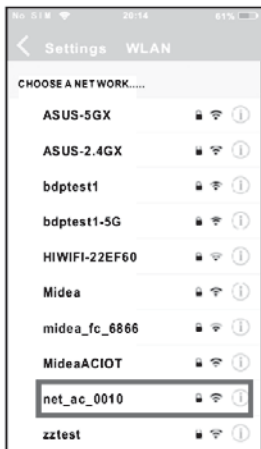


Fig. 8 — Select 'net_ac_XXXX

12. Enter the default password: **12345678** and press **Join**.



Fig. 9 – Enter the default password

- Once the connection has been made with the “**net_ac_xxxx**” network, return to the Carrier CliMate, Bryant ControlBox, Payne Panel, or Midea Air app.
- Click **Next** at the top right of the screen.



Fig. 10 – Click Next

15. Select the Wi-Fi network desired and enter the Wi-Fi password.



Fig. 11 – Select Wi-Fi network – enter Wi-Fi password

Configuration is now complete, and the default name for the connected unit appears on the home screen.

NOTE: The app may take up to 3 minutes to configure the Wi-Fi kit for connectivity to your Wi-Fi network.

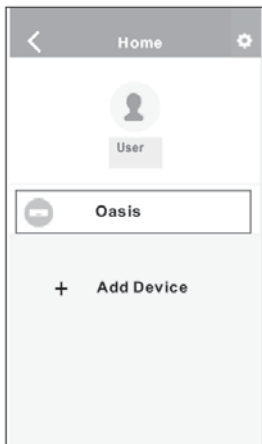


Fig. 12 – Configuration complete

NOTE:

- When the network configuration is complete, the app confirms whether the connection was successful or not.
- Due to different LAN configurations, it is possible that the device status will display **“OFFLINE”**. If this occurs, it is necessary to refresh the device list by pulling down on the list shown on the app home screen or the ductless system power can be cycled and the device status will change to **“ONLINE”** after a few minutes.

HOW TO USE THE APP

Basic Functions

IMPORTANT: Prior to using the app, verify your mobile device and ductless system are connected to the Internet.

1. Log into the app.

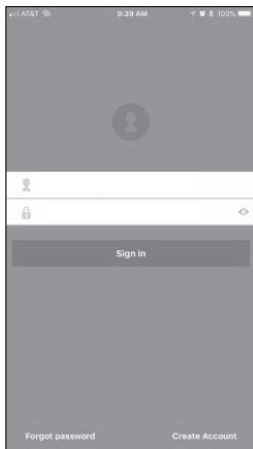


Fig. 13 – Log into the app

2. Select the desired ductless system to enter the main control interface.

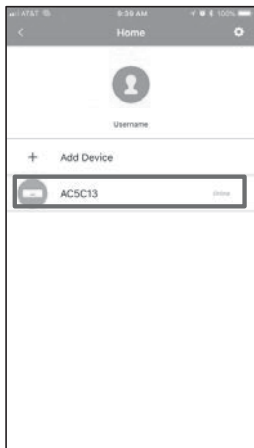


Fig. 14 – Select the ductless system

- From the main control interface the user can control the ductless system's on/off status, operation mode, temperature, fan speed, etc. by touching the buttons at the bottom of the screen.

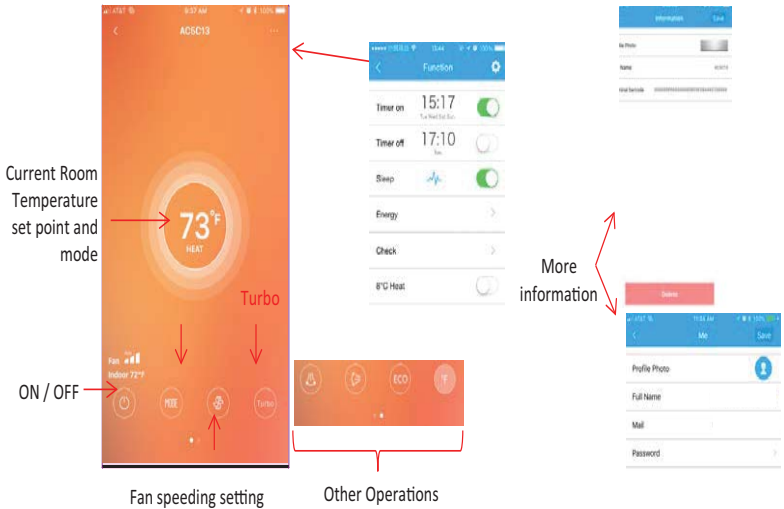


Fig. 15 – Main Control Interface

NOTE: Not all functions are available for every ductless system.

ON/OFF

The **ON/OFF** soft button allows the user to turn off the ductless system. Once touched, the screen will change to one of the colors shown in Figure 16 (color depends on which mode was last operational at the time the system was turned off).



Fig. 16 – ON/OFF Soft Buttons

To turn the system on again, touch the logo in the middle of the screen.

MODES

There are five (5) different modes available in the app. These modes are **AUTO**, **COOL**, **DRY**, **HEAT**, and **FAN**. When the user touches **MODE** the Mode menu appears (see Figure 17).

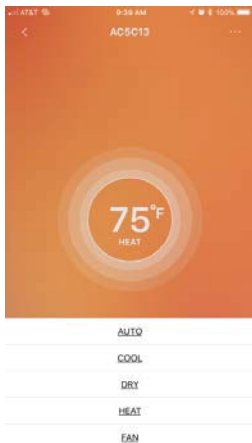


Fig. 17 — Mode

The user can touch any of the modes to set the unit mode.

IMPORTANT: When using the App to control the space setpoint and mode, the wireless or wired controller (where applicable) will not update with the settings from the app. Also, if the wireless or wired controller (where applicable) is used to control the setpoint and mode, the app will not update with the setting from the controller. The refrigerant system will respond to the last command from either the app or the controller.

AUTO Mode

AUTO mode allows the ductless system to shift between the heating and cooling mode to maintain the setpoint. The dead band between setpoint and controllability is 2°F (1°C) and cannot be adjusted within the app. When this mode is selected, the screen color will change (see Figure 18).



Fig. 18 – AUTO Mode

COOL Mode

The **COOL** mode allows the ductless system to lock into cooling mode **ONLY** and condition the space by cooling the air to the setpoint. If the space temperature is lower than the setpoint, the ductless system turns off. When this mode is selected, the screen color will change (see Figure 19).



Fig. 19 – COOL Mode

DRY Mode

The **DRY** mode locks the ductless system into the cooling mode and reduces airflow to increase the water removal from the space. Conditioning of the space is done by cooling the air to the setpoint. If the space temperature is lower than the setpoint, the ductless system turns off. When this mode is selected, the screen color will change (see Figure 20).



Fig. 20 – DRY Mode

HEAT Mode

The **HEAT** mode allows the ductless system to lock into heating mode **ONLY** and condition the space by heating the air to the setpoint. If the space temperature is higher than the setpoint, the ductless system turns off. When this mode is selected, the screen color will change (see Figure 21).



Fig. 21 – HEAT Mode

FAN Mode

The **FAN** mode allows the ductless system to turn off except for the indoor fan. This mode is intended to circulate air through the space without conditioning it with the refrigeration system. When this mode is selected, the screen color will change (see Figure 22).



Fig. 22 – FAN Mode

Setting the Temperature set point

Once the operation mode is selected, setting the desired indoor temperature set point is usually desired. To do this, drag your finger up or down over the temperature setting number on the main screen.

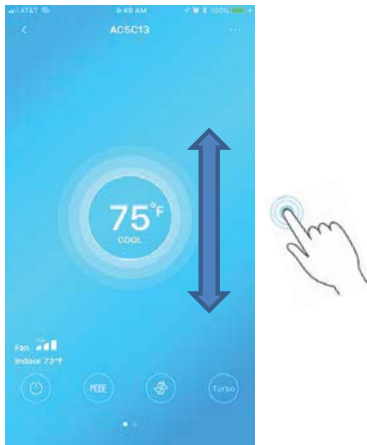


Fig. 23 – Setting the Temperature set point

Fan Speed Settings

There are 4 fan speed options available to the user. These options are **AUTO**, **HIGH**, **MID**, and **LOW**.

NOTE: These speeds are available only when the system is set to the **COOL** or **HEAT** modes. Changing fan speeds is not available in the **AUTO** or **DRY** modes.

The adjustments to the fan speed should be done to improve the comfort of the occupant(s). When the fan speed setting soft button is pressed, the mode menu appears (see Figure 24).

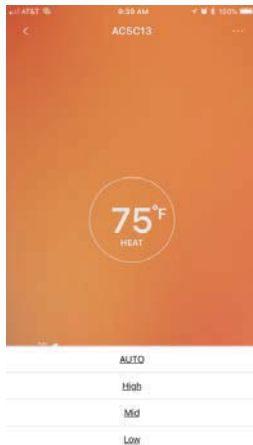





Fig. 24 – Fan Speed Settings

TURBO – TURBO is only available after the COOL mode is selected. TURBO is designed to decrease the time it takes for the space to achieve setpoint by triggering the compressor and fan to immediately move to the high speed.

Louver Controls – the app provides 2 different louver controls, horizontal () and vertical control (). The use of these functions are dependent on the type of fan coil currently installed and if it has a vertical and/or horizontal louver control. When available, these buttons allow the user to adjust the direction of air flow from the motorized high wall veins.

ECO Mode – ECO mode is available only after the ductless system is set to the COOL mode. This mode reduces the energy consumption of the ductless system up to 60% by slowing the compressor and reducing the maximum capacity output. This mode remains active for 8 hrs and then the system returns to the normal operating mode.

NOTE: While in this mode, the system may not obtain the setpoint if there is a large thermal load on the space.

Unit of Measure – By default, the app comes set to use °F for the temperature unit of measure. Press  (the soft button) and the unit of measure changes to °C. If pressed again, the unit of measure returns to °F.

Special Functions – The special functions available in the app include **TIMER ON, TIMER OFF, 14°F (8°C) HEAT SETBACK, SLEEP, SYSTEM CHECK.**

Timer On/Timer Off

7 day programmable features are available to set on and off times for the ductless system to condition the space.

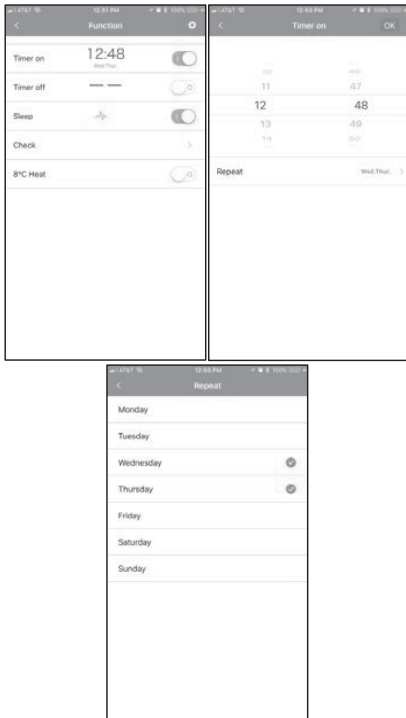


Fig. 25 – Timer On/Timer Off

14°F (8°C) Heating Setback/Vacation Mode

This feature allows the ductless system to enter a setback/vacation mode when the space is or will be unoccupied. The ductless system will follow the current space temperature setpoint less 14°F to protect the space from frost damage.

Sleep

This feature allows the user to customize the space temperatures throughout a sleep cycle of 8hrs by setting a targeted temperature for each hour of the cycle. Adjusting the temperature is done by dragging each round node to the desired temperature.

IMPORTANT: This mode must turn on when it is desired to start the sleep cycle.

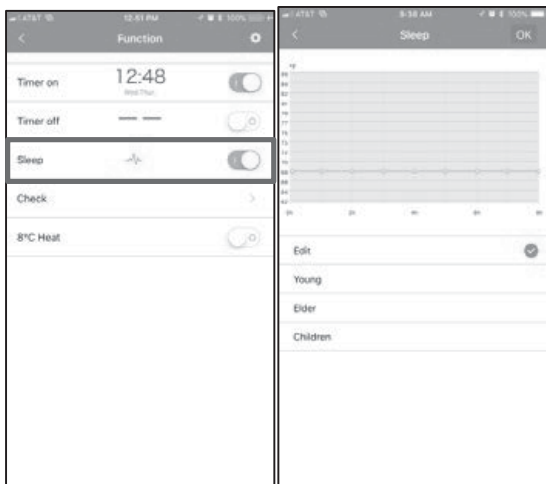


Fig. 26 – Sleep

NOTE: Start time scheduling for the sleep cycle is currently not available.

System Check

A systems health check can be performed in the check screen. This function informs the user or service technician of normal items, abnormal items, and detailed information about the operating characteristics of the ductless system.

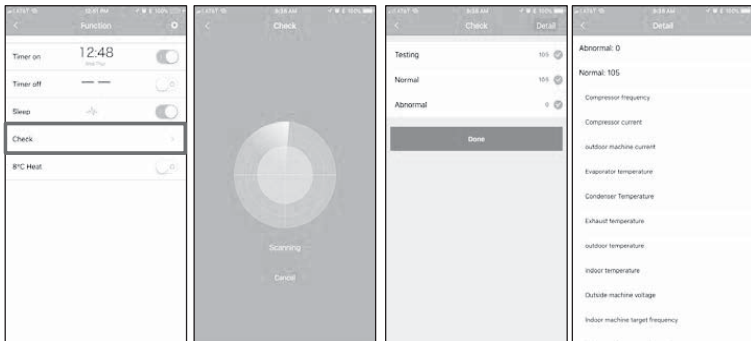


Fig. 27 – System Check

Fan Coil Deletion from App

In the event a fan coil is decommissioned or a user moves from a location where a Wi-Fi kit is installed, the ductless system can be removed from the app by entering the Information menu via the function menu accessible from the icon in the top right of the home screen.

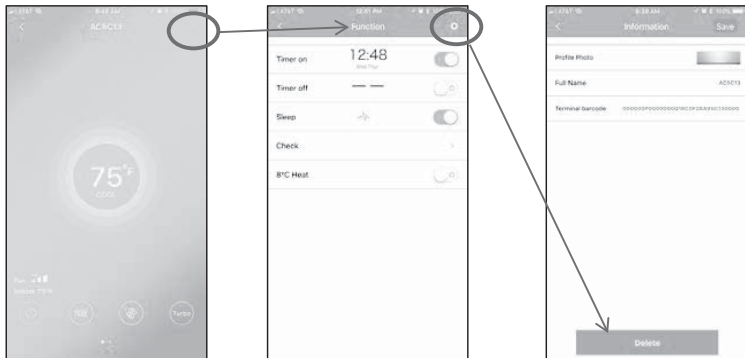


Fig. 28 – Fan Coil Deletion from App

Cautions

- The Wi-Fi kit complies with 47cfr sub-part 15 and RSS 210 of the Industry and Science of Canada. Operation is subject to the following conditions:
 1. This device may not cause a harmful interface, and
 2. This device must not accept any interference received, including interference that may cause undesired operation.
- Only operate the device in accordance with the instructions provided. The Wi-Fi kit complies with FCC and IC electromagnetic radiation limits set forth for a residential environment. To avoid the possibility of exceeding the FCC and/or IC radio electromagnetic radiation limits, human proximity to the antenna shall not be less than 8 inches (20cm) during normal operation.
- Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

TROUBLESHOOTING

Table 1—Troubleshooting

Issue	Resolution
Connection failure between the Wi-Fi AC and home router	<i>Wrong password inputted.: If there is no response for a long time, please re-connect from AP mode and try and repeat the network setup process.</i>
	Password contains special characters. The Wi-Fi app only supports letters and numbers, does not support “:,@,!”
	Unsupported Encryption: Check the router encryption to verify only WAP-PSK or WAP2-PSK or no encryption is used.
	Wi-Fi network requires a login to access. Some Wi-Fi networks in public places or businesses require a username and password to access the Internet. The Wi-Fi kit cannot support this type of access.
	The router is set to filter MAC addresses: In this case, the router forbids all connected devices except those listed in the router filter list. To fix this, the Wi-Fi kit MAC address should be added to the accepted MAC list in the router settings or change the router configuration to abstain from filtering MAC addresses.
	Too many clients are connected to the router. A normal household router cannot support more than 8 sub-routers connected to the main router via a wireless connection. In this case, reduce the number of sub-routers or add routers via a network cable instead of Wireless.
Connection failure between router and cloud server	Check the Internet connection
	Use a computer or smart phone Internet browser to navigate to https://app.v1.appsm.com:8443/V2/Login.ashx . If you see the following message, your connection is okay: <?xml version="1.0" encoding="utf-8" ?> <response code="0" encry="0" result="3000" />