



skyAlert

User Guide



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uAvionix Corporation Bigfork, MT

2 Revision History

| Revision | Date | Comments |
|----------|----------|-----------------|
| A | 5/7/2025 | Initial release |

4 LIMITED WARRANTY

uAvionix skyAlert products are warranted to be free from defects in material and workmanship for two years from purchase. For the duration of the warranty period, uAvionix, at its sole option, will repair or replace any product which fails under normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost.

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Please email or call uAvionix Customer Support with a description of the problem you are experiencing. Please provide the model, serial number, shipping address, and a daytime contact number.

You will be promptly contacted with further troubleshooting steps or return instructions; it is recommended to use a shipping method with tracking and insurance. Directly contact customer support by visiting:

support@uavionix.com

5 Table of Contents

| | | |
|--------|---|----|
| 1 | COPYRIGHT / DISCLAIMER | 2 |
| 2 | REVISION HISTORY | 3 |
| 4 | LIMITED WARRANTY | 4 |
| 5 | TABLE OF CONTENTS | 5 |
| 6 | INTRODUCTION TO SKYALERT | 7 |
| 6.1 | SYSTEM DESCRIPTION | 7 |
| 7 | WHAT'S IN THE BOX? | 8 |
| 8 | FEATURES | 9 |
| 8.1 | SKYALERT DEVICE FEATURES | 9 |
| 8.2 | RAM® UNIVERSAL BELT & VISOR CLIP..... | 9 |
| 9 | TECHNICAL SPECIFICATIONS | 10 |
| 10 | MECHANICAL SPECIFICATIONS..... | 11 |
| 11 | USER INTERFACE..... | 12 |
| 11.1 | CONTROLS, LIGHTS AND ALERTS SPECIFICATIONS | 12 |
| 12 | EQUIPMENT ASSEMBLY AND CONFIGURATION | 14 |
| 12.1 | NO ASSEMBLY OR INSTALLATION REQUIRED | 14 |
| 12.2 | CONNECTING TO SKYALERT | 14 |
| 12.3 | ALRT CONFIGURATION | 15 |
| 13 | SKYALERT CONNECTION AND NETWORK SETTINGS | 18 |
| 13.1 | NETWORK NAME (SSID) | 18 |
| 13.2 | HOW TO CHANGE THE NETWORK NAME..... | 18 |
| | TO CHANGE THE WIRELESS NETWORK NAME (SSID): | 18 |
| 13.3 | HOW TO HIDE THE SSID BROADCAST | 18 |
| 13.4 | CONNECTING A NEW DEVICE WITH SSID BROADCAST DISABLE | 18 |
| 14 | SKYALERT REMOTE PILOT'S GUIDE..... | 19 |
| 14.1 | SKYALERT WPA2 SECURITY | 19 |
| 14.2 | TO RESTORE SKYALERT TO FACTORY SETTINGS | 19 |
| 15 | FIRMWARE UPDATE PROCEDURE | 20 |
| 15.1 | CONFIGURATION SETUP..... | 20 |
| 15.1.1 | Connecting to the skyAlert via Wi-Fi | 20 |
| 15.2 | UPDATE TRANSCEIVER SOFTWARE | 21 |

| | | |
|------|---------------------|----|
| 15.3 | WI-FI FIRMWARE..... | 22 |
| 16 | BATTERY | 24 |

6 Introduction to skyAlert

6.1 System Description

skyAlert is a rugged, wearable ADS-B detection and alerting system that enhances airspace awareness for UAS pilots operating in the field. By detecting cooperative aircraft via ADS-B on both 978 and 1090 MHz frequencies, skyAlert provides real-time audible and visual alerts when crewed aircraft approach within a configurable proximity.

This added layer of situational awareness helps operators maintain safe separation and focus on mission objectives. Compact, lightweight, and built for demanding environments, skyAlert reduces setup time, eliminates the need for bulky ground equipment, and streamlines pre-flight operations. Its rechargeable battery life and intuitive LED indicators make it the ideal companion for utility and first responder drone teams working in complex or remote airspace.

7 What's in the box?

1. SkyAlert.
2. USB to USB-C charging cable.
3. Quick Start Guide.
4. Soft sided case with foam insert.
5. RAM® Universal Belt & Visor Clip.



8 Features

8.1 skyAlert Device Features

| | |
|---------------------------------|---|
| Transmission Detection | Receives 978 and 1090 MHz ADS-B transmissions, allowing detection of all cooperative air traffic. |
| Lightweight and Wearable | Small, lightweight device rugged and mobile, seamlessly facilitates field operations. |
| Convenience Features | Includes a silicon sleeve storage case and USB-C charging cable. |
| Audible Alerts | Audible alerts to air traffic posing a risk to UAS operations. |
| User Configurable | Alerts are configurable based on intruder aircraft range and altitude, to prevent operator distraction. |
| Long-lasting Battery | Rechargeable (USB-C cable provided), long-life battery to support a full day of UAS operations. |
| LED Light Indication | LED lights indicate fully operational status, changing level, intruder alerts, and GPS quality. |
| LED Brightness Control | LED brightness is controlled by ambient light sensor and is user configurable. |

8.2 RAM® Universal Belt & Visor Clip.

Along with your device, you will be receiving a RAM belt clip to ensure secure and mobile operations. The RAM composite belt clip holder consists of an octagon locking button socket and diamond plate with octagon button. The belt clip holder can hold any RAM cradle that utilizes the diamond plate hole pattern as an attachment point. Follow the steps below to attach the skyAlert device to the RAM mount clip:

1. Using the provided hardware, screw the device onto the diamond plate.
2. With the octagon button, you can slide the secured skyAlert device in and out of the clip holder.
3. To attach, slip the clip over your belt or strap.

9 Technical Specifications

| Name | Part Number |
|----------------------|---|
| skyAlert | UAV-1008899-001 |
| ADS-B Detection | |
| Frequencies | 978 and 1090 MHz |
| Alerts | |
| Audible | Loud recurring beep |
| Visual | LED |
| Trigger | User configurable Default (1,000 ft, 1 mile) |
| Parameter | Value |
| Input Voltage | 5V |
| Size | 64.6 x 40.18 x 92.6 mm |
| Weight | 161 grams |
| Operating Temp | -45 to 70 °C |
| Rechargeable Battery | |
| Operating time | Up to 12 hours |
| Charging time | Up to 12 hours from zero |
| Charger type | USB-C |

10 Mechanical Specifications

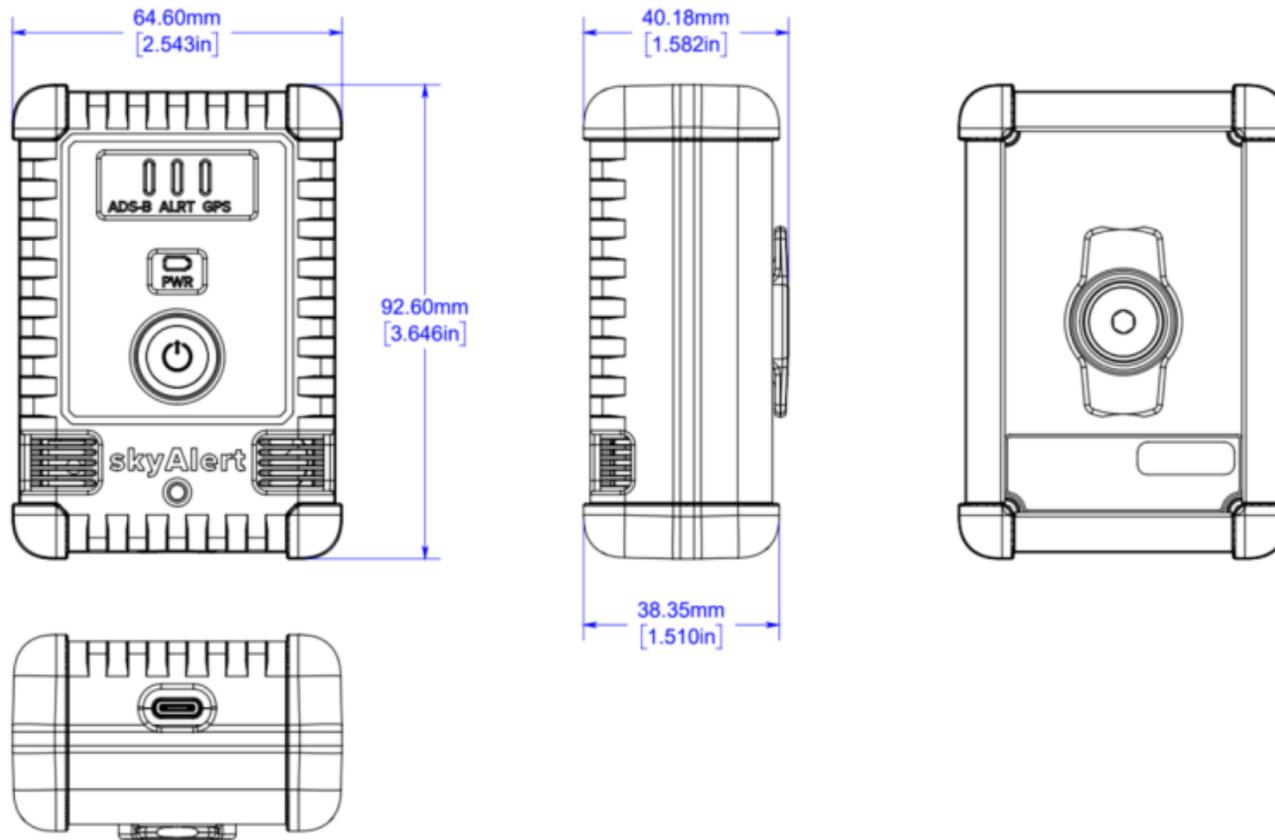


Figure 1: skyAlert Mechanical Specifications

11 User Interface

11.1 Controls, Lights and Alerts Specifications

| | |
|-----------------------------|--|
| Powering On | Press the power button for at least one second to turn it on and all LEDs will become illuminated. |
| Powering Off | Press the power button for at least one second to turn off and all LEDs will turn off. |
| Active Charging | The PWR light will illuminate blue and will go out once the device is fully charged. |
| Light Sensor Control | The light sensor controls LED brightness and can also be configured. |
| Traffic Detected | Alerts are configurable based on intruder aircraft range and altitude, to prevent operator distraction. The alarm can be silenced for 30 seconds at a time by pressing the power button. |

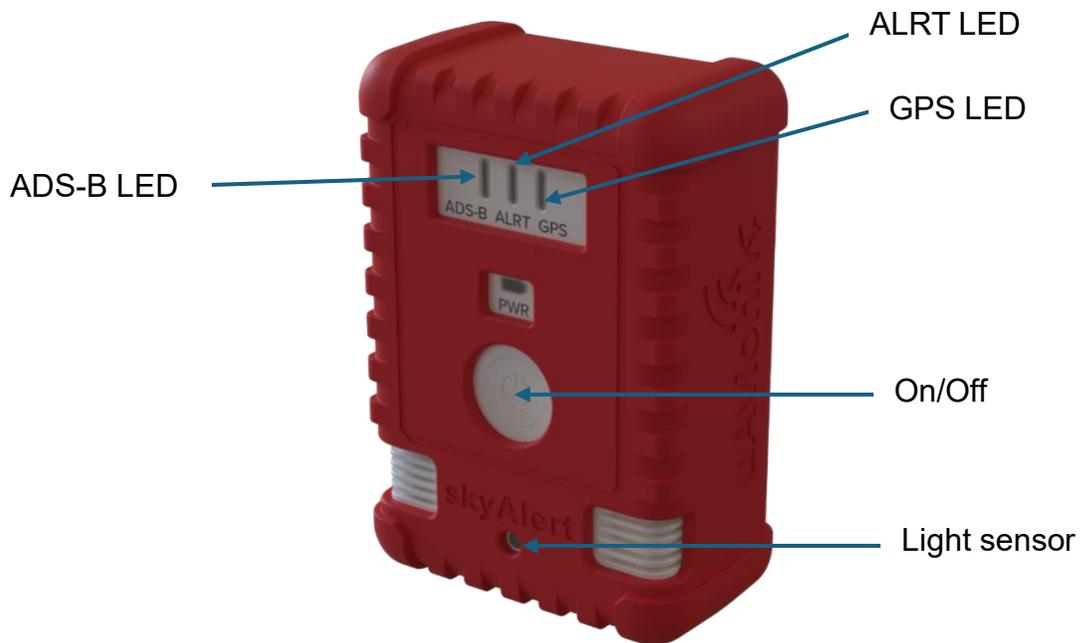


Figure 2: User Interface Components

Table 1: LED Indicator Guide

| LED Color | ADS-B | ALRT | GPS | PWR |
|--|--|---|----------|------------------------|
|  | --- | ---- | ---- | Battery Charging |
|  | Good coverage (at least 2 UAT uplink towers) | All Clear | Good Fix | Battery Good > 30% |
|  | Marginal Coverage (at least 1 UAT uplink tower) | Warning (aircraft within double the altitude limit AND within range limit OR within double range limit and altitude limit) | Bad Fix | Battery Low < 30% |
|  | Poor Coverage (no UAT uplink towers) | Alarm (aircraft within range and altitude limit) | No Fix | Battery Critical < 20% |

NOTE: In reference to the ADS-B LEDs, “targets active” means that we’ve received an ADS-B update from that aircraft in the last 60 seconds.

12 Equipment Assembly and Configuration

12.1 No Assembly or Installation Required

skyAlert is a wearable device that can be charged up and attached to your clothing with the provided RAM clip. No other assembly or installation is required.

12.2 Connecting to skyAlert

1. Power the device on by holding the power button for one second.
2. With skyAlert powered on, open the Settings app on your device (i.e. smartphone, tablet) and select Wi-Fi. Locate skyAlert's wireless network and tap to connect.
 - skyAlert's network name is "skyAlert_" followed by a sequence of letters and numbers (e.g. skyAlert_125A).
3. Once you connect to skyAlert, your device (i.e. smartphone, tablet) will automatically reconnect, provided the following conditions are met:
 - skyAlert is powered on.
 - The Wi-Fi device is enabled.
 - skyAlert network name and password have not changed.
 - The device is not already connected to another network.
 - Auto-Join is enabled in your device's (i.e. smartphone, tablet) Wi-Fi > skyAlert settings.

12.3 ALRT Configuration

To change the alert from the default range and altitude limits, follow these steps. First make sure your device (i.e. smartphone, tablet) is connected to the skyAlert_XXXX Wi-Fi network. Open a web browser to navigate the steps below:

1. The main page (<http://192.168.4.1/>) highlights skyAlert identification information along with a link to the settings page (<http://192.168.4.1/settings>). Click the "Settings" link.

uAvionix Landing Page

Not secure 192.168.4.1

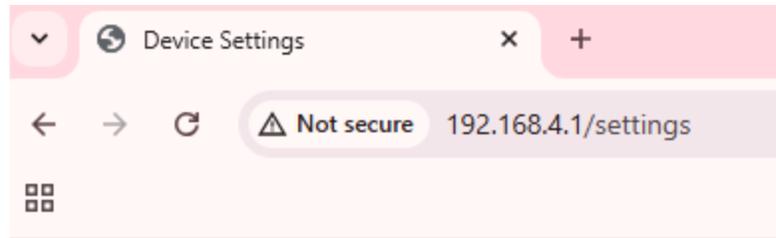
uAVIONIX

Wi-Fi Version: 1.0.19-skyAlert [Update](#)
 ADS-B Version: 2.4.45 [Update](#)
 Serial Number: 0729549197
 SSID: skyAlert_0AE1
 Clients Connected: 1

[Settings](#)

| Current Status | |
|-------------------|----------------------|
| GPS Fix | 3D |
| GPS Sats | 12 |
| Position | 33.573104, -101.9664 |
| GNSS Altitude | 3245 ft |
| Pressure Altitude | 3064 ft |
| NIC | 10 |
| NACp | 10 |

- The "Settings" page will load and there will be a note at the top stating "Settings loaded." On the settings page, you may change the traffic proximity alarm range, altitude, and volume, Wi-Fi network name settings, or the LED brightness.



Device Settings

Settings updated.

Traffic Proximity Alarm Settings

Altitude Limit (ft):

Range Limit (ft):

Volume:

WiFi Network Settings

SSID: Hidden

Password: Enabled

Channel: Auto

Pwr Level:

LED Control

Brightness: Auto



[Main Page](#)

3. Once the settings are configured, click the large "Save" button at the bottom of the page. Once saved, confirmation will be displayed.

- **NOTE:** Below the "Save" button, you can reset to default settings.

13 skyAlert Connection and Network Settings

13.1 Network Name (SSID)

The default skyAlert network name is generic (e.g., skyAlert_123A). The network name can be changed if desired. Wireless network names must be unique and between 1 and 32 characters. The network name may contain only letters, numbers, spaces, and underscores.

13.2 How to change the network name

To change the wireless network name (SSID):

1. Go to the skyAlert settings webpage.
2. Tap the SSID field and enter a network name between 1 and 32 characters.
3. Tap “Save” when complete.
4. Once complete, reboot skyAlert for the changes to take effect.

13.3 How to hide the SSID broadcast

If you don't want skyAlert to broadcast its network for all devices to see, you can disable the SSID broadcast. Disabling the SSID broadcast hides the network from devices that have not yet connected to skyAlert. To hide the skyAlert network:

1. Check the box labeled “Hidden” next to the Wi-Fi Network Settings > SSID box.
2. Once your iOS device has connected to skyAlert, it will automatically reconnect when the device is powered on, provided auto-join was enabled in Wi-Fi > skyAlert settings.

13.4 Connecting a New Device with SSID Broadcast Disable

To connect a new device to skyAlert with the SSID disabled, follow the steps below:

1. Open Wi-Fi settings on your device (i.e. smartphone, tablet).
2. Select Other... from the OTHER NETWORKS section.

3. Manually enter the skyAlert network name (SSID) and password (if applicable).

14 skyAlert Remote Pilot's Guide

14.1 skyAlert WPA2 Security

skyAlert does not have a passcode by default. A passcode can be assigned from the skyAlert settings page. To assign a passcode:

1. Go to the skyAlert "Settings" webpage.
2. Under "Wi-Fi Network Settings," next to the "Password" box, check the box labeled "Enabled."
3. Enter a new passcode in the "Password" box.
4. Enter a passcode between 8 and 63 characters. The WPA2 passcode may only contain letters, numbers, spaces, and underscores, and are case sensitive.
5. Tap "Save."
6. Restart skyAlert by holding the power button for one second to power it off.
7. Open your device (i.e. smartphone, tablet) settings app
8. Select Wi-Fi settings and connect to skyAlert using the new passcode. If you're unable to connect to skyAlert with WPA2 security enabled, perform a factory reset to remove the passcode.

14.2 To restore skyAlert to factory settings

1. Power skyAlert on.
2. Press and hold the power button until the LEDs flash white (approximately ten seconds).
3. Power skyAlert on.
4. Open the Wi-Fi settings on your device (i.e. smartphone, tablet) and connect to skyAlert.

15 Firmware Update Procedure

15.1 Configuration Setup

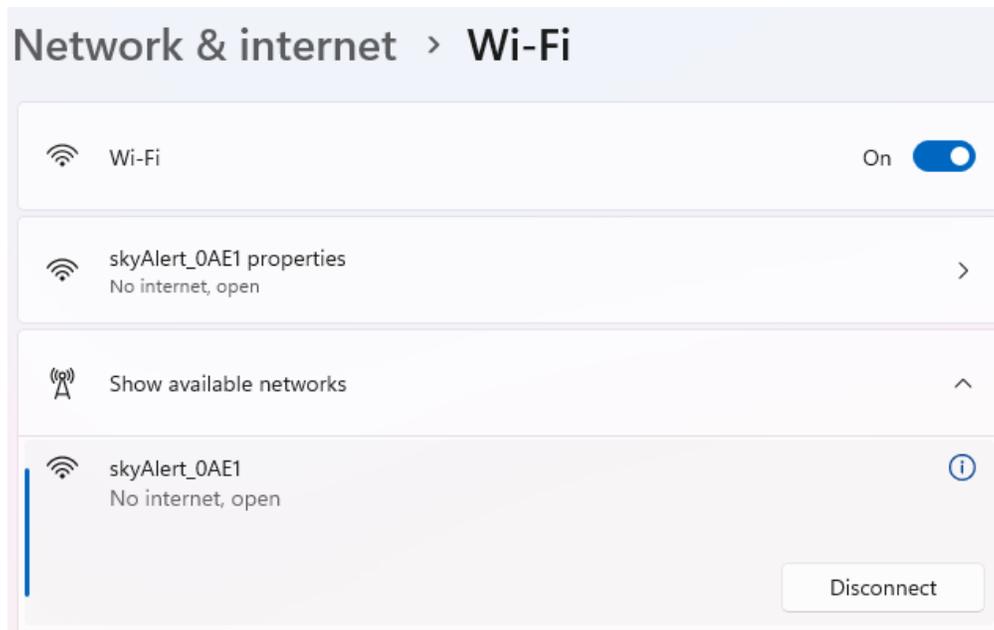
Configuration of skyAlert is accomplished by logging on to the device directly from a computer or mobile device using the skyAlert internal Wi-Fi hotspot. No additional application is necessary.

The following are procedures for updating the skyAlert firmware. You may be provided with one or two files to update, corresponding to the procedures below. The most recent firmware is always posted at www.uavionix.com/support.

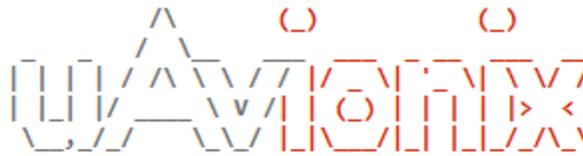
NOTE: Save the provided firmware file(s) to an accessible location on your computer/tablet prior to joining the skyAlert Wi-Fi hotspot.

15.1.1 Connecting to the skyAlert via Wi-Fi

1. To connect, power on skyAlert and join the device to the wireless network SSID named skyAlert-XXXX using the procedure for your device (i.e. smartphone, desktop, tablet). This procedure is identical to joining any other public or private Wi-Fi on your chosen device.
 - a. **NOTE:** The No Internet Connection message is normal when connected to skyAlert.



- Open any browser on your computer/mobile device that is connected to your skyAlert via the Wi-Fi link and type in <http://192.168.4.1>
The following landing page should load and will display skyAlert status:



Wi-Fi Version: 1.0.19-skyAlert [Update](#)
 ADS-B Version: 2.4.45 [Update](#)
 Serial Number: 0729549197
 SSID: skyAlert_0AE1
 Clients Connected: 1

[Settings](#)

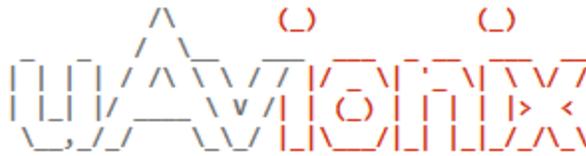
Current Status

| | |
|-------------------|-------------------------|
| GPS Fix | DGPS |
| GPS Sats | 12 |
| Position | 33.573136, -101.9664704 |
| GNSS Altitude | 3224 ft |
| Pressure Altitude | 3065 ft |
| NIC | 10 |
| NACp | 10 |

15.2 Update Transceiver Software

Follow this procedure if you are given Transceiver Software (*.uav) update file.

- Click on the ADS-B Version” Update Link:



Wi-Fi Version: 1.0.19-skyAlert [Update](#)
ADS-B Version: 2.4.45 [Update](#)
Serial Number: 0729549197
SSID: skyAlert_0AE1
Clients Connected: 1

[Settings](#)

2. Click on “Choose File,” and navigate to the Transceiver Software file (.uav). Select it and click “Update.”

Ping Update

No file chosen

[Advanced](#)

3. The system will update.
4. When complete, the following screen will appear:

Update success, device 1 restarting

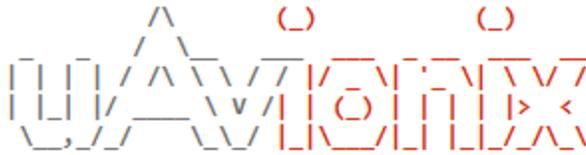
[Return to status page](#)

5. Manually power off skyAlert, then power back on to reboot.

15.3 Wi-Fi Firmware

Follow these instructions if you are given Wi-Fi update firmware (*.bin).

1. Reconnect to the skyAlert hotspot as described above.
2. Open a web browser on your chosen device (i.e. desktop, mobile device) and navigate to 192.168.4.1
3. Click on the “Wi-Fi” Version Update Link:



Wi-Fi Version: 1.0.19-skyAlert [Update](#)
ADS-B Version: 2.4.45 [Update](#)
Serial Number: 0729549197
SSID: skyAlert_0AE1
Clients Connected: 1

[Settings](#)

4. Click on “Choose File” and navigate to the Wi-Fi firmware file (.bin). Select it and click “Update.”

Wi-Fi Firmware Update

No file chosen

[Main Page](#)

5. The system will update.
6. When complete, go back to the main page to confirm both ADS-B and Wi-Fi versions match the files delivered.
7. Manually power off skyAlert, then power back on to reboot.

16 Battery

skyAlert is equipped with a rechargeable battery. The battery is not designed to be removed or replaced. skyAlert exclusively supports USB 5V (volt) 2A (amp) chargers.

skyAlert will not charge if connected to a charger that delivers more power than it is designed to accept. When charging, the skyAlert power light is illuminated blue. It can take up to 12 hours to charge a depleted skyAlert battery.



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