



SkyGuardTWX Vision-Pro “UAT ADS-B OUT” Transmitter Setup

This Transmitter is a fully integrated 978mhz UAT ADS-B OUT Transmitter along with a WAAS GPS and WiFi transmitter. The unit is powered on by plugging the provided DC power adapter into any aircraft power socket that provides either 12v or 24v DC at 3 amps. There are 2 antennas (1 long on 4 ft. coax(Transmitter) and 1 short(WiFi)) and a GPS receiver that must be installed **prior to powering up the transmitter**. The GPS receiver “puck” is plugged into the ADS-B Transmitter with the “arrow” on the GPS plug pointing up. The 4 ft. coax cable with long “Blade” antenna is attached to the center coax connector at the same end as the GPS plug. The shorter WiFi antenna and the DC power adapter plug are connected to the opposite side of the transmitter.

See photo just below:



- After all antennas, GPS, and power adapter are connected, power up the transmitter.
- There is an app. available on the Apple App. Store under “SkyGuardTWX” that will allow initial preflight setup and in flight control of the transmitter. This app. allows setting/changing of the specific aircraft parameters for which the transmitter is contained. Be sure to download/install this app. to your Apple device and configure the transmitter parameters prior to your first flight. The N-number and ICAO code as well as a default squawk code must be set prior to your first flight. You can find your aircraft ICAO code by doing an N-number search on www.faa.gov. This search will bring up a table with the details for your aircraft. The 6 character ICAO code is the “Mode S Code (base 16/hex). Once the transmitter is initially configured, then each time the transmitter is powered up, it will read the transmitter configuration parameters from it’s internal memory. Then while in flight, if it is necessary to change any parameters, just use the SkyGuardTWX app. to modify and save the new transmitter configuration.
- To configure the ADS-B OUT Transmitter using an iPad/iPhone containing the SkyGuardTWX App.:
 - On your Apple device, go into “Settings” and turn ON Airplane mode.
 - While in “Settings”, turn on WiFi and after a brief search, a WiFi hot spot will appear showing “SkyGuardTWXxx” where “xx” is a numeric value specific to your ADS-B Transmitter.
 - Select this hot spot by tapping on it’s name.
 - Wait for approximately 10 seconds for the Apple device to establish a connection to the ADS-B Transmitter over WiFi. If a connection is not established, turn off your WiFi on the Apple device and power cycle the transmitter. Then try again.
 - Close “Settings” on the Apple device.
 - Startup the SkyGuardTWX app. and configure the transmitter parameters.
- If you have an IFly 720, you can use also use this app. to setup the transmitter initial configuration. For specific instructions to use the IFly 720 to setup/control the Vision-Pro Transmitter, see your IFly 720 user manual.
- You are now ready to transmit your GPS location and associated info. to ADS-B ground stations. This will “Trigger” the ground station to begin providing your companion ADS-B receiver with TIS-B broadcasts. This will give you the Full Traffic Picture similar to what ATC is viewing on their radar scopes.
- In order to maximize transmission, it is best to place the transmitter on the aircraft glare shield. If this is not possible, you can place the unit virtually anywhere as long as the transmitter antenna is attached to a cockpit window for best transmissions. It is recommended to place the transmitter antenna at least 18 inches away from the transmitter unit. This will insure no interference between the transmitter and the internal radio components. Always place the transmitter

antenna at least 8 inches (20cm) away from any part of yourself or any passengers.

Helpful Hints:

- In order for the transmitter to begin broadcasting your position, altitude, heading, speed, etc. to the ADS-B ground station towers which will trigger these towers to begin sending the full traffic messages (TIS-B) back to your companion Receiver, the transmitter must have a valid position fix from its internal GPS. You can verify the GPS is locked by looking at the small red LED on the side of the GPS puck antenna. This light should be flashing red on and off at once per second. If it is solid red, then the GPS is not locked. Also ensure that the transmitter is enabled by using the SkyGuardTWX app. or the iFly 720 to show the status of the transmitter.
- If not receiving any TIS-B (traffic) messages from the ADS-B ground station tower and you are sure you are in range of a tower, check that the Transmitter is enabled in the SkyGuardTWX app. Typically in order to receive any messages from the ground station tower, you need to be in-flight at an altitude of > 1000 ft. AGL with a clear line of site to your local ADS-B tower. The SkyGuardTWX Transmitters have a transmit range of up to 60 miles.
- Always take care to position the transmitter antenna in the vertical position with a clear view out the windows of the aircraft. It is best to keep the antenna away from any metal panels or metal structural supports of the aircraft.
- Make sure you snug the transmitter coax cable connectors securely with a small wrench.

Important Pilot Advisory Note Regarding Safety of Radio Frequency Energy:

Safe use of this device requires care as to the placement of the long Blade antenna. Place this antenna at least 20 cm (8 inches) away from any part of your body or that of other cabin occupants. Only handle the antenna when power is disconnected. Advise your passenger(s) to avoid contact with the long antenna. Retain these instructions with your maintenance logs/files and for future reference.

FCC Compliance Statement:

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.

Modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment under FCC rules.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for a public/uncontrolled environment.

WARNING: This Transmitter is to be used to improve pilot situational awareness only and as a navigational aid. It is not intended for primary use in IFR or IMC flight conditions. SkyGuardTWX LLC is not responsible for the transmitter's end use and will not be held liable for any events occurring from the use of the transmitter.