



United Kingdom Addendum to SkyEcho Installation and Pilot's Guide



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1 Revision History

Revision	Date	Comments
A	5/1/2022	Initial release migrating contents from Revision L of SkyEcho Installation and Pilot's Guide

2 Warnings / Disclaimers

The following required statement from the Federal Communications Commission (FCC) **applies to United States based entities with the exception of direct sales to the U.S. Government and units directly exported by uAvionix.**

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be offered for sale or lease, or sold or leased, until authorization is obtained.

All device operational procedures must be learned on the ground.

Received traffic information is to be used as an aid to situational awareness and is merely supplemental and advisory in nature.

uAvionix is not liable for damages arising from the use or misuse of this product.

This equipment is classified by the United States Department of Commerce's Bureau of Industry and Security (BIS) as Export Control Classification Number (ECCN) 7A994.

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

3 Limited Warranty

uAvionix SkyEcho products are warranted to be free from defects in material and workmanship for one year from purchase. For the duration of the warranty period, uAvionix, at its sole option, will repair or replace any product which fails in 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.

This warranty does not apply to cosmetic damage, consumable parts, damage caused by accident, dropping, abuse, misuse, water, fire or flood, damage caused by unauthorized servicing, or product that has been modified or altered.

IN NO EVENT SHALL UAVIONIX BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Warranty Service

Warranty repair service shall be provided directly by uAvionix.

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5 International Use Limitations

At the time of publishing of this revision, portable ADS-B OUT transmitters are not permitted for global use (including the United States). Operating SkyEcho outside of approved airspace, the transmit function must be disabled. SkyEcho can be used as a receiver in all locations.

6 United Kingdom Regulation

EC devices are intended for voluntary carriage on registered and non-registered UK Annex II aircraft, non-complex EASA aircraft of <5700kg MTOM and for gliders and balloons (including those covered under ELA 1 and ELA 2) within uncontrolled UK airspace. EC Devices do not replace the need for a transponder when required by airspace/flight rules. Aeronautical Information Circular (AIC) Y 141/2019 allows for the use of EC devices simultaneously with ATCRBS or Mode S transponders which are not Extended Squitter (ES) or ADS-B OUT enabled. If your aircraft is ADS-B OUT enabled, you must disable the transmit function of SkyEcho from the configuration settings.

6.1 CAA CAP 1391 Declaration

An EC device that operates using ADS-B at 1090MHz must have a Declaration of Capability and Conformance (DoCC) from the manufacturer before you can legally use it on board an aircraft. The pilot in command of the aircraft is responsible for ensuring that the EC device has a valid declaration. Please refer to the CAA EC Web page for more information:

<https://www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/Electronic-Conspicuity-devices/>

Reference number	Issue number	Manufacturer	Type number	Category
UK.CAA.DoCC.000007	Issue 0	uAvionix Inc	SkyEcho 2	Intermediate

6.2 Mode-S or ATCRBS Limitations

EC Devices do not replace the need for a transponder when required by airspace/flight rules. Aeronautical Information Circular (AIC) Y 141/2019 allows for the use of EC devices simultaneously with ATCRBS or Mode S transponders which are not Extended Squitter (ES) or ADS-B OUT enabled. If your aircraft is ADS-B OUT enabled, you must disable the transmit function of SkyEcho from the configuration settings. Receive functionality may still be used. Deactivation of the transmitter is accomplished by removing device power or disabling the transmit capability via the configuration settings. These regulations are subject to change. Please be informed of the most current regulations at:

<https://www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/Electronic-Conspicuity-devices/>

6.3 Declaration of Conformity (DoC)

uAvionix Corporation declares that that the SkyEcho 2 ADS-B Transceiver conforms with with the pertaining EU harmonization legislation and, since 31 January 2020, appropriate UK equivalents where applicable. Reference the following standards which are applied:

- EN 62368-1:2014
- EN 62311:2008
- EN 61000-4-2:2009
- EN 61000-4-3:2006/A1/A2
- EN 303 413 V1.1.1
- Final Draft EN 301 489-1 V2.2.2 & EN 301 489-19 V2.1.1
- EN 300 328 V2.1.1 & EN 301 489-17 V3.2.4

The Notified Body Telification B.V., with Notified Body number 0560 performed: applicable Modules B+C

Where applicable:

The issued EU-type examination certificate: 192140399/AA/01

Description of accessories and components, which allow the radio equipment to operate as intended and covered by the DoC: SkyEcho 2 to be used in conjunction with tablet running EFB APP like SkyDemon, EasyVFR, Foreflight Mobile, and others.

6.4 Country Specific Configuration Items

The following configuration items augment the configuration instructions found in the SkyEcho Installation and Pilot's Guide with UK specific information.

6.4.1 Transmit Control

Transmission must be deactivated when used on an aircraft with an air traffic control radar beacon system (ATCRBS) Mode-S transponder which has ADS-B OUT enabled.

6.4.2 Receiver Mode

The SkyEcho contains dual receivers. The primary receiver is permanently configured for 1090MHz ADS-B. The secondary receiver can be configured for either 978MHz UAT ADS-B, or 868.4MHz FLARM® reception (European frequency only). Only one option can be selected.

When selecting UAT, SkyEcho will be able to receive 978MHz UAT ADS-B weather and traffic information if available.

When selecting FLARM, encrypted FLARM data is received and transmitted to the EFB application for processing. Specific FLARM functionality is dependent upon the EFB functionality implemented.

6.4.3 Aircraft Address Programming (ICAO Address)

The ICAO address is a 24-bit number issued to the aircraft by the registration authority of the aircraft. These addresses are usually written as a 6-digit hexadecimal number, although you may also encounter one

written as an 8-digit octal number. The SkyEcho understands the hexadecimal format, so you must first convert an octal number to hexadecimal before entering. Sometimes this value is referred to as Mode S code. It is critical that the correct address is used. Incorrect addresses can disturb the service to other airspace users and may have regulatory compliance consequences. In the UK to find the ICAO address of the aircraft you will be flying go to <https://siteapps.caa.co.uk/g-info/>

Refer to UK CAA guidance for using 24-bit addresses with EC devices at the following URL:

<https://www.caa.co.uk/General-aviation/Aircraft-ownership-and-maintenance/Electronic-Conspicuity-devices/>

6.4.4 Call Sign

This is a maximum 8 character code that corresponds to the tail number of the aircraft. (0-9, A-Z). The value should be entered without dashes: G-ABCD should be entered as GABCD.

6.4.5 Emitter Category

To assist ATC tracking of aircraft, an aircraft category is transmitted. Select the aircraft category that most closely matches the aircraft.

Note EC devices are not approved for all emitter categories. EC devices are intended for voluntary carriage on registered and non-registered UK Annex II aircraft, non-complex EASA aircraft of <5700kg MTOM, Permit aircraft, and for gliders and balloons (including those covered under ELA 1 and ELA 2) within uncontrolled UK airspace.

7 Contact uAvionix

For additional questions or support please visit <http://uavionix.com/support>