

# Aviation Applications Limited

## Installation Guide

### CloudBaseGA AutoLog-FM

#### Introduction

AutoLog-FM records key flight events and passes these to the CloudBaseGA server at the end of the flight via the mobile telephone network. It is an essential component of the AutoLog service.

The unit consists of:

- AutoLog-FM flight logger
- Three-pin power connector
- Dual Antenna (GPS/GSM)

#### Installation

**The location of the AutoLog-FM unit and Antenna are a matter for agreement between the aircraft owner and installer. Installation should be carried out by a suitably qualified installer whose responsibility it is to ensure compliance with all relevant regulations. Aviation Applications or its agents/distributors do not accept any responsibility for the safety, compliance or efficacy of the installation.**

#### Power Supply

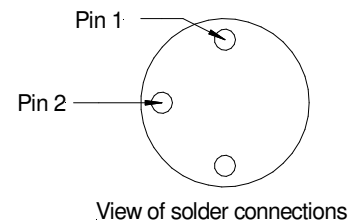
AutoLog-FM requires 12-28Vdc @ 1A controlled by the aircraft Master Power switch. It is essential to the operation of the system that this power supply is reliable and, whilst power could be taken from an auxiliary source such as a cigar lighter, it should preferably be connected with suitable protection to the aircraft Master Bus. This may require a minor modification for the aircraft concerned. An Approved Minor Modification is available EASA ELA-2 aircraft.

The female connector provided must be connected as follows:

- Pin 1 to Ground
- Pin 2 to Master Power

When viewing the solder connection pins:

- Pins 1 and 3 are on a common diameter
- Pin 2 is the middle pin
- Pin 1 is clockwise from Pin 2.



#### Dual Antenna

In ELA1 and ELA2 aircraft, for optimum performance we recommend the antenna is mounted externally on top of the fuselage in accordance with CS-STAN Initial Issue Annex IV to ED Decision 2015/016/R Subpart B section CS-SC004a.

The antenna must be mounted horizontally in a position providing good GPS coverage. If this can be safely achieved by using a suction mount onto a windscreen, this is an acceptable method of installation. The inclusion of a 10cm diameter sheet metal ground plane on the underside of the antenna will significantly improve performance and reliability.

The antenna must be installed in a position to receive GPS in accordance with CS-STAN Initial Issue Annex IV to ED Decision 2015/016/R Subpart B section CS-SC004a. The following supporting documents are relevant:

- FAA AC43.13-2B Chapter 3 for methodologies.
- Part 21 Subpart Q defining Product marking requirements.
- Manufacturers Certificate of Conformance. Supplied with AutoLog-FM.
- Part Compliance Statement to comply with Part-21.A.307C requirement. Supplied with AutoLog-FM.
- AMC M.A.801 Annex 1 Decision 2003/19/RM Form 123 for Release to Service.

#### AutoLog-FM unit

AutoLog-FM001 is a lightweight flight logger that meets the requirements of and may be installed in ELA1 and ELA2 aircraft in accordance with CS-STAN Initial Issue Annex IV to ED Decision 2015/016/R Subpart B section CS-SC104a.

The unit:

- Stores data on non-volatile medium
- Employs circular recording to ensure there is always sufficient memory space
- Does not use data compression
- Decoding of the recorded data is provided via the CloudBaseGA.com website which is free to AutoLog users.
- The mounting plate supplied with the unit has been tested to retain the AutoLog-FM in all directions up to 9g in accordance with AC43.13-2b.

The Mounting Plate provides a secure mount for the AutoLog-FM. It must be installed in accordance with AC43.13-2B Chapter 2 in a location that is out of the pilot's view and clear of flying controls. The following supporting documents are relevant:

- FAA AC43.13-2B Chapter 2 for methodologies.
- Part 21 Subpart Q defining Part marking requirements.
- Manufacturers Certificate of Conformance. Supplied with AutoLog-FM.

- Part Compliance Statement to comply with Part-21.A.307C requirement. Supplied with AutoLog-FM
- AMC M.A.801 Annex 1 Decision 2003/19/RM Form 123 for Release to Service.

When attaching the unit to the mounting plate ensure that all stud connectors are fully engaged with their complementary sockets.

AutoLog-FM may alternatively located in the aircraft as a PED.

## **Initial Testing**

Observing the LEDs on the AutoLog-FM end panel:

### **Switch on aircraft Master Power**

- Power LED is illuminated
- CPU LED illuminates and within a few seconds starts flashing

Within a few minutes note:

- GPS LED is illuminated indicating a GPS fix is established.
- Mobile LED is illuminated indicating connection to a mobile network is established.

### **Switch off aircraft Master Power**

- Power LED is extinguished
- Mobile LED is extinguished
- GPS LED is extinguished
- Send LED is illuminated indicating End of Flight routine is running

Within two minutes note:

- All LEDs extinguished indicating AutoLog-FM has shut down.

If the above sequence is followed the installation has been completed successfully.