



## Notification of a Proposal to issue an Airworthiness Directive

**PAD No.: 21-140**

**Issued: 01 October 2021**

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

**Design Approval Holder's Name:**

AIRBUS

**Type/Model designation(s):**

A350 aeroplanes

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**TCDS Number(s):** EASA.A.151

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA – Aircraft Flight Manual – Auto Flight System Control Panel ALT Knob Button Use – Amendment

### ATA 22 – Auto Flight – Flight Control Unit – Modification

**Manufacturer(s):**

Airbus

**Applicability:**

Airbus A350-941 and A350-1041 aeroplanes, all manufacturer serial numbers.

**Definitions:**

For the purpose of this AD, the following definitions apply:

**The AFM TR:** Airbus A350 Airplane Flight Manual (AFM) Temporary Revision (TR) 121 Issue 1.0.

**The SB:** Airbus Service Bulletin (SB) A350-22-P016.

**Affected FCU:** Flight control units (FCU), having Part Number (P/N) C31006AC01.

**Serviceable FCU:** FCU standard H6.0, having P/N C31006AD01.



**Groups:** Group 1 aeroplanes are those that have an affected FCU installed. Group 2 aeroplanes are those that do not have an affected FCU installed. An aeroplane on which Airbus modification (mod) 116233 has been embodied in production is a Group 2 aeroplane, provided the aeroplane remains in that configuration.

**Reason:**

Occurrences have been reported of unwanted auto flight system (AFS) altitude changes. Following investigation, it was determined that, depending on the ring selection, failure of the ALT knob on the FCU can change the target altitude, either by 100 feet or 1 000 feet. The erroneous altitude is displayed in the AFS cockpit panel display and in the primary flight display (PFD), but may not get noticed by the crew. Further investigations indicate that these events were due to an incorrect manufacturing process on the ALT knob encoder.

This condition, if not corrected, could lead to an erroneous altitude target in descent, climb or go-around, possibly resulting in an unexpected aeroplane vertical trajectory deviation, with consequent risk to the aeroplane.

To address this potential unsafe condition, Airbus published the AFM TR, as defined in this AD, providing flight crew procedures related to the use of the AFS Control Panel ALT Knob button. In addition, Airbus developed FCU standard H6.0, embodied in production through Airbus mod 116233, and published the SB to provide in-service modification instructions that, when embodied, allows removal of the applicable AFM TR.

For the reasons described above, this AD requires amendment of the applicable AFM by incorporating the AFM TR and requires replacement of the affected FCU with a serviceable FCU. This AD also allows, following that replacement, removal of the AFM TR from the applicable AFM.

**Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

**AFM Amendment:**

- (1) For Group 1 aeroplanes: Within 3 months after the effective date of this AD, amend the applicable AFM by incorporating the AFM TR, as defined in this AD, inform all flight crews, and thereafter, operate the aeroplane accordingly.
- (2) For Group 1 aeroplanes: Amending the applicable AFM of an aeroplane by incorporating an AFM revision, which includes the same content as the AFM TR, is acceptable to comply with the requirements of paragraph (1) of this AD for that aeroplane.

**Modification:**

- (3) For Group 1 aeroplanes: Within 25 months after the effective date of this AD, replace the affected FCU with a serviceable FCU (see Note 1 of this AD). This can be accomplished in accordance with the instructions of the applicable Aircraft Maintenance Manual.

Note 1: The SB provides instructions to modify an affected FCU, replacing the optical encoders, into a serviceable FCU.



**AFM Change:**

- (4) For Group 1 aeroplanes: After modification of an aeroplane as required by paragraph (3) of this AD, the operational procedure of the AFM TR, as required by paragraph (1) of this AD, is no longer necessary and can be removed from the AFM of that aeroplane.

**Parts Installation:**

- (5) Do not install an affected FCU on any aeroplane, as required by paragraph (5.1) or (5.2) of this AD, as applicable.
- (5.1) For Group 1 aeroplanes: After modification of the aeroplane as required by paragraph (3) of this AD.
- (5.2) For Group 2 aeroplanes: From the effective date of this AD.

**Ref. Publications:**

Airbus A350 AFM TR 121 Issue 1.0 dated 08 August 2019.

Airbus SB A350-22-P016 original issue dated 24 June 2021.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. This Proposed AD will be closed for consultation on 29 October 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this PAD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS A350 XWB, E-mail: [continued-airworthiness.a350@airbus.com](mailto:continued-airworthiness.a350@airbus.com).

