
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Instruments and Automatic Pilots

AD/INST/55

Garmin GSM 85 Servo Gearbox

**3/2008
DM**

Applicability: All aircraft fitted with GARMIN GSM 85 servo gearbox units, part number (P/N): 011-00894-00, 011-00894-02, 011-00894-04, 011-00894-06, 011-00894-07, 011-00894-08, 011-00894-09, 011-00894-10, 011-00894-11 and 011-00894-14.

Note 1: GSM 85 servo gearbox units are known to be installed in, but not limited to, the following aeroplanes.

- (i) Cessna Aircraft Company 182T, T182T, 206H, and T206H*
- (ii) Hawker Beechcraft Corporation G36 and G58*
- (iii) Diamond Aircraft Industries GmbH DA40 and DA40F*
- (iv) Columbia Aircraft Manufacturing 350 and 400*
- (v) Mooney Airplane Company, Inc. M20M and M20R*

Requirement:

1. Check the serial tag of the installed GSM 85 servo gearbox unit to determine the modification level. The modification (mod) level marked on the serial tag indicates if the GSM 85 servo gearbox unit is already in compliance with this AD.
 - (a) If the serial tag on the installed GSM 85 servo gearbox unit for P/Ns 011-00894-00 or 011-00894-10 is marked at mod level 3, no further action is required.
 - (b) If the serial tag on the installed GSM 85 servo gearbox unit for P/Ns 011-00894-02, 011-00894-04, 011-00894-06, 011-00894-07, 011-00894-08, 011-00894-09, 011-00894-11, or 011-00894-14 is marked at mod level 1, no further action is required.
 - (c) If the serial tag on the above GSM servo gearbox units is not at mod level 1 or 3 as specified in Requirement (1)(a) and (1)(b) above, then inspect the servo gearbox for foreign object debris in accordance with any of the Service Bulletins listed in Table 1.

Instruments and Automatic Pilots

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2. If foreign object debris is found during the inspection required in Para 1(c), remove and return the GSM 85 servo gearbox to the manufacturer for replacement in accordance with any of the Service Bulletins listed in Table 1, as applicable.

Table 1.

Manufacturer	Service Bulletin No.	Date
Garmin International Inc.	0713 Revision A	07 May 2007
	0713 Revision B	18 May 2007
	0713 Revision C	29 May 2007
	0713 Revision D	13 June 2007
Cessna Aircraft Company	Single Engine Service Bulletin SB07-22-01	04 June 2007

Note 2: FAA AD 2008-02-06; Amendment 39-15336, dated 11 January 2008 refers.

Compliance: For Requirement 1: Within the next 100 hours time-in-service (TIS) or within the next 3 months after the effective date of this AD, whichever occurs first.

For Requirement 2: Before further flight after the Requirement 1 inspection.

This Airworthiness Directive becomes effective on 26 February 2008.

Background: This AD results from reports of certain GARMIN GSM 85 servo gearbox units that have foreign object debris inside the assembly. This AD is issued to detect and correct defective GARMIN GSM 85 servo gearbox units, which could result in jamming of the servo gearbox. This jamming could lead to the pilot having to apply sufficient control force to override the servo gearbox slip clutch in order to control the aeroplane. In certain situations, this could compromise the safety of the aeroplane if the pilot was not able to focus on critical duties due to having to tend to the servo gearbox.



David Punshon
Delegate of the Civil Aviation Safety Authority

29 January 2008