



SERVIÇO PÚBLICO FEDERAL

DEPARTAMENTO DE AVIAÇÃO CIVIL

BRAZILIAN AIRWORTHINESS DIRECTIVE

EFFECTIVE DATE

26 Aug. 2004

AD No.:

2003-01-03R1

The following Airworthiness Directive (AD), issued by the Departamento de Aviação Civil (DAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro de Homologação Aeronáutica (RBHA) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

AD No. 2003-01-03R1 - EMBRAER - Amendment 39-1037.

APPLICABILITY:

This Airworthiness Directive is applicable to all Embraer EMB-145() and EMB-135() aircraft models in operation, either with an operational electromechanical gust lock system or with provisions for the installation of the electromechanical system, provided a gust-lock spring cartridge P/N KPD2611 installed in that system.

CANCELLATION / REVISION:

This AD cancels and supersedes the AD No. 2003-01-03, original issue – Amdt 39-980, dated 10 Feb. 2003, and is being issued to include a terminal action through replacement of the spring cartridge by one bearing a new P/N.

REASON:

It has been found the occurrence of cases of unscrewing of the spring cartridges of the electromechanical elevators gust lock system, precluding them to be unlocked on the ground, with a possibility of elevator jam if the failure occurs during flight.

Since this condition may occur in other aircraft of the same type and affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

REQUIRED ACTION:

Periodic inspection and replacement of the spring cartridges of the electromechanical gust lock system.

COMPLIANCE:

Required as indicated below, unless already accomplished.

- (a) Within the 30 days previous to 10 Feb. 2003, the effective date of the original issue of this AD:
- (1) For aircraft which have incorporated complete electromechanical elevators gust lock system either at factory or through accomplishment of Embraer Service Bulletins Nos. 145-27-0075, original issue, or 145-27-0086, original issue, or further revisions approved by the CTA, visually inspect the spring cartridges of the electromechanical gust lock system within the next 30 calendar days after 10 Feb. 2003, the effective date of the original issue of this AD, to make sure that the lock washer projection fits the slots in the cartridge flange. If there are signs of cartridge unscrewing, replace the spring cartridge assembly before next flight. Repeat the inspection at intervals no larger than 800 flight hours until accomplishment of item (b) below.
 - (2) For aircraft which have only the provisions for incorporation of the electromechanical elevators gust lock system either at factory or through accomplishment of Embraer Service Bulletins Nos. 145-27-0075, original issue, or 145-27-0086, original issue, or further revisions approved by the CTA, and have installed spring cartridges P/N

KPD2611, visually inspect the spring cartridges of the electromechanical gust lock system within the next 60 calendar days after 10 Feb. 2003, the effective date of the original issue of this AD, to make sure that the lock washer projection fits the slots in the cartridge flange. If there are signs of cartridge unscrewing, replace the spring cartridge assembly before next flight. Repeat the inspection at intervals no larger than 800 flight hours until accomplishment of item (b) below.

NOTE: For aircraft that have only the provisions for the electromechanical gust lock system, the removal of the spring cartridges by the time of the inspection, to be re-installed later when the system will be activated, eliminates the need for the repetitive inspections.

- (b) Within the next 5500 flight hours or 36 calendar months after the effective date of this revision 01 of this AD, whichever occurs first, replace, for all affected aircraft, the spring cartridge P/N KPD2611 with a new spring cartridge bearing P/N KPD4235.
- (c) After 01 Jan. 2005, no spring cartridge P/N KPD2611 will be allowed to be installed at the electromechanical gust lock system of the aircraft EMB-145() or EMB-135().

The detailed instructions and procedures to accomplish this AD are described in the Embraer Service Bulletins Nos. 145-27-0098, original issue, 145-27-0102, original issue, 145LEG-27-0006, original issue, and 145LEG-27-0012, original issue, or further revisions approved by the CTA.

Record compliance with this AD in the applicable maintenance log book.

CONTACT:

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NOTE: Original in Portuguese language signed and available in the files of the Registro Geral de Aeronavegabilidade (RGA/TE-1/STE) of the Departamento de Aviação Civil.