



## AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL – BRAZIL

### BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2016-07-01**

**Effective Date: 18 Jul. 2016**

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) 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 da Aviação Civil (RBAC) 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. 2016-07-01 – EMBRAER / 39-1400.**

#### **APPLICABILITY:**

This Airworthiness Directive (AD) applies to EMBRAER S.A airplanes, models EMB-145, EMB-145ER, EMB-145EU, EMB-145EP, EMB-145LR, EMB-145MR, EMB-145LU, EMB-145MP, EMB-145MK, EMB-145XR, EMB-135ER, EMB-135LR, EMB-135KE, and EMB-135KL, all serial numbers.

#### **CANCELLATION/REVISION:**

Not applicable.

#### **REASON:**

ANAC was informed about occurrences in which airplanes that incorporated SB 145-27-0115, which changes the Gust Lock lever format, managed to takeoff, or performed RTOs, in such a configuration that the Gust Lock lever prevented the thrust levers full excursion, thus limiting the engine power to about 70% of the nominal takeoff power. Analyses and simulations conducted by the manufacturer confirmed this as a possible scenario in case some verification procedures prior to and during takeoff, for whatever reason, are not properly performed. After evaluation, the conclusion was that the incorporation of SB 145-27-0115 would take away an important tactile cue regarding the thrust levers position, which, in a timely manner, would alert the crew of an improper takeoff configuration. During takeoffs, or attempts thereof, in such condition, the airplane would have a reduced performance, which would increase the required takeoff distance or the RTO distance, and reduce the airplane capacity to clear obstacles.

Since this condition may occur in other airplanes 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:**

Replacement of the Gust Lock lever introduced by SB 145-27-0115 for one with an alternative format, such that the symmetrical advancing of the thrust levers is only possible after the Gust Lock lever is in fully unlocked position.

#### **COMPLIANCE:**

Comply with this AD as specified below, unless already done.

#### **Check of maintenance records**

(a) Within 5,000 Flight Hours or 24 months after the effective date of this AD, whichever occurs first, check the aircraft maintenance records in order to determine if the Embraer Service Bulletin SB 145-27-0115 was performed to that aircraft. If inconclusive, inspect the Engine Control Box

Assembly against the accomplishment instructions in Embraer Service Bulletin SB 145-27-0115 in order to make this determination.

**Corrective action**

(b) After performing the instructions in paragraph (a) of this AD, if it is determined that Service Bulletin SB 145-27-0115 was performed to that aircraft, within 5,000 Flight Hours or 24 months after the effective date of this AD, whichever occurs first, replace the Gust Lock lever for one with an alternative format, in accordance with the accomplishment instructions of Embraer Service Bulletin 145-27-0126, revision nº 00, dated 06 October, 2015, or later revisions approved by ANAC.

(c) Reversion of SB 145-27-0115, in accordance with a method approved by the ANAC, returning the aircraft to a “PRE-MOD S.B. 145-27-0115” condition, for the purposes of this AD, is an equivalent action to the performance of SB 145-27-0126 instructions requested in paragraph (b) of this AD.

**Prohibition of new installations**

(d) After the effective date of this AD, do not accomplish SB 145-27-0115 on any airplane to which this AD applies.

**Material Incorporated by Reference in this AD**

(e) You must use Embraer Service Bulletin 145-27-0126, revision nº 00, dated 06 October, 2015, or later revisions approved by ANAC, to do the actions required by this AD, unless otherwise specified.

**Alternative Method of Compliance (AMOC)**

(f) A different method or a different compliance time, with the requirements of this AD, may be used if approved by the General Manager of the Aeronautical Product Certification Branch (Gerência-Geral de Certificação de Produtos Aeronáuticos – GGCP).

Record compliance with this AD in the applicable maintenance logbook.

**CONTACT:**

For additional technical information, contact:  
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**APPROVAL:**

MÁRIO IGAWA  
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GGCP

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**NOTE:** Original in Portuguese language signed and available in the files of the Aeronautical Products Certification Branch (GGCP) of the National Civil Aviation Agency (ANAC).