



AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL

## BRAZILIAN AIRWORTHINESS DIRECTIVE

**AD No.: 2024-08-02**

**Effective Date: 23 Ago. 2024**

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. 2024-08-02 - EMBRAER / 39-1569.**

#### **APPLICABILITY:**

(a) This Airworthiness Directive (AD) applies to Embraer S.A. airplanes model EMB-545 and EMB-550, all serial numbers.

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

Not applicable.

#### **REASON:**

It has been found that there is the possibility of a jamming failure of the main door lock sensor. This jamming may result in a false indication of a locked door, even when it is only latched, resulting in a dormant system failure and lack of cockpit indication of the door not locked condition. The closed, latched, and locked indications are required by airworthiness requirements to avoid in-flight door opening due to an operational error since in-service experience shows that this operational error is not unlikely to occur.

Since this condition may occur in other airplanes and affects flight safety, corrective action is mandated. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

#### **REQUIRED ACTION:**

Main door sensor operational test and main door sensors mechanism lubrication

#### **COMPLIANCE:**

Required as indicated below, unless already accomplished.

#### **(b) Main door sensor Operational Test.**

For airplanes identified in paragraph (a) of this AD, within the 12 months from the

effective date of this AD, conduct an operational test of the main door sensors in accordance with TASK 52-71-20-710-801-A, dated February 23, 2024, or further revisions of this task approved by ANAC.

(1) With the main door open, check the status of each sensor

(i) If a sensor does not show the message VALIDITY – OK, the sensor must be replaced

(ii) If the MAIN DOOR LOCKED sensor does not show the STATUS message or if the message LOCKED is indicated, as applicable for the aircraft configuration, remove and discard the Main Door Locked Sensor Support. Then, install a new one.

(iii) If the MAIN DOOR LATCHED sensor status is different from NOT LATCHED, adjust the sensor or contact Embraer, in accordance with the instructions provided in TASK 52-71-20-710-801-A, dated February 23, 2024, or further revisions of this task approved by ANAC.

(iv) If the MAIN DOOR CLOSED sensor status is different from NOT CLOSED, adjust the sensor or contact Embraer, in accordance with the instructions provided in TASK 52-71-20-710-801-A, dated February 23, 2024, or further revisions of this task approved by ANAC.

(v) If none of the above conditions are found, there is no additional action required by this paragraph.

(2) Close, latch and lock the main door and check the status of each sensor

(i) If a sensor does not show the message VALIDITY – OK, the sensor must be replaced

(ii) If a sensor does not show the status indicated in TASK 52-71-20-710-801-A, dated February 23, 2024, or further revisions of this task approved by ANAC, carry out the actions required by TASK 52-71-20-710-801-A, dated February 23, 2024, or further revisions of this task approved by ANAC.

(iii) If none of the above conditions are found, there is no additional action required by this paragraph.

#### **(c) Main Door sensor Operational Test – repetitive action**

Repeat the operational test required by paragraph (b) each 12 months.

#### **(d) Main Door sensor mechanism lubrication**

For airplanes identified in paragraph (a) of this AD, within the 12 months from the effective date of this AD, lubricate the main door sensor mechanism in accordance with TASK 52-71-21-640-801-A, dated March 15, 2024, or further revisions of this task approved by ANAC. Lubrication must include:

(1) Main door locked sensor piston, if applicable for the aircraft configuration

(2) Main door closed sensor mechanism axis

(3) Main door latched sensor mechanism axis

#### **(e) Main Door sensor mechanism lubrication – repetitive action**

Repeat the lubrication required by paragraph (d) each 24 months

#### **(f) Alternative methods of compliance (AMOCs).**

A different method or a different compliance time, with the requirements of this AD, may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (GTAC) of ANAC.

**(g) Material incorporated by reference**

You must use to do the actions required by this AD:

- TASK 52-71-20-710-801-A dated February 23, 2024, as published on Aircraft Maintenance Manual AMM-5613, Part II (Maintenance Practices and Procedures-MPP), or further revisions of this task.

- TASK 52-71-21-640-801-A dated March 15, 2024, as published on Aircraft Maintenance Manual AMM-5613, Part II (Maintenance Practices and Procedures-MPP), or further revisions of this task.

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

**CONTACT:**

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**APPROVAL:**

ROBERTO JOSÉ SILVEIRA HONORATO  
Head of Airworthiness Department  
ANAC

**NOTA:** Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the National Civil Aviation Agency (ANAC).