



Boletim Especial de Aeronavegabilidade *(Special Airworthiness Bulletin)*

ATA: 21 – Air Conditioning System

BEA N° 2020-09

Subject: Manual Pressurization System Controller knob **Date:** August 10th, 2020
inspection

Introduction:

This Special Airworthiness Bulletin (BEA) advises owners and operators of Yaborã Indústria Aeronáutica S.A. Model EMB-145 airplanes about the inspection of the manual pressurization system controller knob.

This bulletin is informative, and the recommendations are not mandatory. Until this time, there is no airworthiness concern that would warrant an Airworthiness Directive (AD) according to Regulamento Brasileiro de Aviação Civil (RBAC) n° 39.

Manufacturer: Yaborã Indústria Aeronáutica S.A.

Affected Aeronautic Product: Embraer S.A. model EMB-145, EMB-145ER, EMB-145EU, EMB-145EP, EMB145LR, EMB145MR, EMB-145LU, EMB-135ER, EMB-135BJ, EMB-135LR, EMB145MP, EMB-145MK, EMB-135KE, EMB135KL, and EMB-145XR airplanes.

Background:

ANAC has received information that an Yaborã Indústria Aeronáutica S.A. airplane model EMB-145LR experienced loss of both pressurization systems inflight at 16,000 feet Mean Sea Level (MSL). The automatic system failed and when the manual backup system was selected it also failed. This condition required an emergency landing at the nearest suitable airport. The crew was unable to open the main entry door and suspected the aircraft was still pressurized. Depressurization eventually occurred and passengers were deplaned.

An investigation as to the causes of both pressurization systems failure is undergoing but preliminary findings indicate that a faulty manual pressurization controller knob might have prevented the crew to set the manual pressurization system correctly, thus possibly contributing to the aircraft having a cabin pressure higher than the ambient pressure at the landing airport which, consequently, prevented the opening of the main entry door.

Recommendations:

ANAC recommends all owners and operators to:

- 1- Visually inspect the manual pressure controller knob and panel face markings in the cockpit for obscured / erased paint markings. Ensure that the knob pointer line and panel face markings are clearly visible and legible. Panel face or controller knob obscured / erased markings can prevent the crew to accurately set the manual pressurization system;
- 2- Do a check of the manual controller knob (PNs 912R0201 or 912R0301, see Figure 1 below) as follows:
 - a) Make sure that the engines and APU are not in operation;
 - b) Turn the manual controller knob fully clockwise. When the knob pointer line approaches the 4 o'clock position ("UP" marking on the panel face), a detent spot (notch) should be felt in the movement of the knob;
 - c) Turn the manual controller knob fully counterclockwise. When the knob pointer line approaches the 8 o'clock position ("DN" or "DN AUTO" green marking on the panel face, depending on PN 912R0201 or 912R0301, respectively), a detent spot (notch) should be felt in the movement of the knob.

If unreadable / obscured / erased markings are identified in the visual inspection, or if too much force is required to turn the knob or if either of the detent spots are not felt, replace the part.

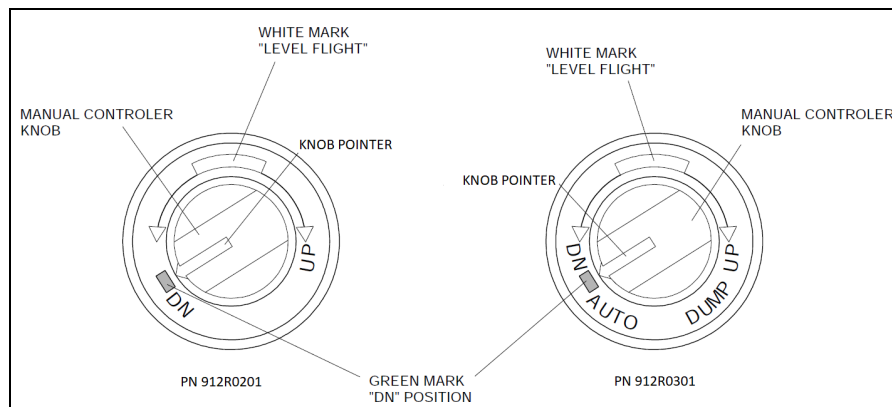


Figure 1

Reference documents:

- 1) Yaborã Indústria Aeronáutica S.A. AMM – Aircraft Maintenance Manual – Maintenance Practices and Procedures (MPP) - Task 21-31-00-700-801-A - PRESSURIZATION CONTROL SYSTEM - OPERATIONAL CHECK IN MANUAL MODE.
- 2) Yaborã Indústria Aeronáutica S.A. IPC – Illustrated Parts Catalog – 21-31-02.

For further information contact

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