

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SUBJ: INSTRUMENT PANEL, Potential Installation of Lockwire on Switch SAIB: 2025-09

Guards that May Restrict Access to Passenger Oxygen and Ram Air Turbine Date: September 8, 2025

(RAT) Switches

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) advises owners and operators of **The Boeing Company Model 787-8, 787-9, and 787-10 series airplanes** of the potential installation of a lockwire on switch guards that may prevent manual deployment of passenger oxygen masks or the ram air turbine (RAT) during emergency situations. This SAIB also provides recommended actions to address this concern.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under 14 CFR part 39.

Background

The Boeing Model 787 Airplane Maintenance Manual (AMM) was revised in April 2023 to add steps for installing a copper lockwire on the passenger oxygen and RAT switch guards to prevent accidental operation while equipment is serviced for maintenance or during flight. A lockwire is a wire that prevents use of the switch and requires use of a tool to remove. A lockwire is usually a stainless steel wire with a diameter that is thicker than a breakaway wire. A breakaway wire is a wire that increases the effectiveness of a switch guard by reducing the likelihood of inadvertent actuation, but it is intended to be broken easily without a tool during deliberate actuation. A breakaway wire is usually a thinner diameter copper wire than the stainless steel lockwire.

The AMM incorrectly described installing a lockwire instead of a breakaway wire. However, the AMM did identify the correct part number (P/N) MS20995CY15, which is a breakaway wire. (See figure 1 for an illustration of the correct installation of the breakaway wire.) The concern is that maintenance personnel may have installed a lockwire instead of the correct part number because the AMM incorrectly called the wire a lockwire. Accordingly, Boeing revised the AMM in October 2023 to remove the "lockwire" installation steps.

Figure 1 – Example of Breakaway Wire on PASS OXYGEN Switch Guard



Recommendations

The FAA recommends all owners and operators of the affected airplanes perform the following actions at the earliest opportunity:

- Inspect the passenger oxygen switch guard and RAT switch guard to determine if a breakaway wire or lockwire is installed. If the switch guard does not have a breakaway wire or lockwire installed, no further action is needed.
- To determine if a breakaway wire or lockwire was installed on the switch guard, first pull on the switch guard with one or two fingers to break and remove the wire. If the wire breaks, it is a breakaway wire.
- If the wire does not break, it is a lockwire. Cut and remove the lockwire from the switch guard.
- If it is the operator's policy to use a breakaway wire to prevent inadvertent actuation of a switch, install copper breakaway wire, P/N MS20995CY15 (0.015-inch diameter) on the closed switch guard after determining what type of wire was installed.

For Further Information Contact

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