

Advisory Wire

REFERENCE NO:	AW300-26-0249 Rev. 2	INFORMATION TYPE:	Maintenance Operational
ATA:	26-11	EFFECTIVITY:	Challenger 300 (20003 – 20500) Challenger 350 (20501 – 20669)
SUBJECT:	Landing GEAR BAY DET FAIL EICAS Message		

1. REFERENCES:

- 1.1. [Transport Canada\(TC\)](#) and [European Union Aviation Safety Agency \(EASA\)](#) Airworthiness Directive (AD) CF-2020-12
- 1.2. CL300/350 Flight Crew Operating Manual (FCOM) 1, Chapter 5-21, FIRE PROTECTION
- 1.3. Recommended Service Bulletin (SB) 100-26-01 REV. 01 MODIFICATION - FIRE PROTECTION - REPLACEMENT OF THE FIRE-DETECTION-AND-EXTINGUISHING (FIREX) CONTROL UNIT
- 1.4. Recommended Service Bulletin (SB) 350-26-001 REV. 01 MODIFICATION - FIRE PROTECTION - REPLACEMENT OF THE FIRE-DETECTION-AND-EXTINGUISHING (FIREX) CONTROL UNIT

2. INTRODUCTION:

The revision of this Advisory Wire is to inform Operators that an AD (Ref 1.1) has been issued to mandate the SBs (Ref. 1.3 and 1.4) replacing the FIREX Control Unit PN 474112-2 with the PN 474112-3.

3. DESCRIPTION:

Field reports indicate that during flight some aircraft are experiencing steady “GEAR BAY DET FAIL” EICAS message (Ref 1.2). Troubleshooting pointed to the Fire Extinguisher Control Unit (FIREX) having failed internally. The fault can be only cleared by resetting the circuit breakers on the ground.

Investigation has revealed that the FIREX Field Programming Gate Array of the channel B (FPGA-B) is susceptible to internal circuit noise on slow clock signal. The loss of the FPGA-B function results a loss of the main wheel well overheat detection. The symptom of such failures is a “GEAR BAY DET FAIL” message that does not clear until power to the FIREX Control Unit is cycled. The related CAS message can be accompanied or not, with the “FIRE SYS FAULT” that required a specific troubleshooting. Only the FIREX Part Number 474112-2 is affected by this internal fault and not Part Number 474112-1.

The two SBs (Ref. 1.3 and 1.4) have been released to introduce new FIREX Control Unit part number 474112-3. The new part introduces a modified software to correct the related CAS message that may be posted in flight or on ground.

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The failure of the FIREX Control Unit PN 47411-2 may result in the loss of the ability to detect a fire and for that reason the SB compliance time has been changed to 24 months, and an AD (Ref. 1.1) was issued.

4. ACTION:

Operators should be aware of the AD (Ref. 1.1) that mandates the SBs (Ref. 1.3 and 1.4) to replace the FIREX Control Unit PN 474112-2.

Should you have any questions pertaining to this AW or additional queries, please contact your Bombardier Field Service Representative (FSR) or the Customer Response Center (CRC).