

Advisory Wire

REFERENCE NO:	AW300-27-0302	INFORMATION TYPE:	Maintenance Operational
ATA:	27-61	EFFECTIVITY:	Challenger 300 (20003 – 20500) Challenger 350 (20501 – 20999)
SUBJECT:	SPOILERS FAULT EICAS Message Caused by TQA Idle Switch		

1. REFERENCES:

- 1.1. Aircraft Maintenance Manual (AMM) Task 45-45-01-970-802 – Data Download from the Maintenance Diagnostic Computer (MDC)
- 1.2. SmartFix Plus – B3-007883 SECU1 INTERNAL FAULT
- 1.3. SmartFix Plus – B3-007916 SECU2 INTERNAL FAULT
- 1.4. SmartFix Plus – B3-007896 SECU1 L TQA IDLE FAULT
- 1.5. SmartFix Plus – B3-007897 SECU1 R TQA IDLE FAULT
- 1.6. SmartFix Plus – B3-007929 SECU2 L TQA IDLE FAULT
- 1.7. SmartFix Plus – B3-007930 SECU2 R TQA IDLE FAULT

2. INTRODUCTION:

This Advisory Wire (AW) provides recommendations to reduce the high number of Throttle Quadrant Assembly (TQA) removals following a “SPOILERS FAULT” EICAS messages (Amber or Cyan) appearing during approach or taxi.

3. DESCRIPTION:

Operators have reported several cases of “SPOILERS FAULT” messages (Amber or Cyan) posted during taxi and approach. Analysis of these events revealed that the detection of a position mismatch of the TQA idle switch was the cause of the EICAS messages.

Each throttle lever is equipped with two idle switches that are each monitored by one of the two SECU. Each SECU compares the position of its own switch to the other SECU and will display a “SPOILERS FAULT” EICAS message if they are detected in opposite states (open/closed). Under certain conditions, it is possible that a thrust lever may momentarily trigger only one of its two idle switches, generating the fault.

Our investigation revealed that a slow movement of the thrust levers near the idle position, combined with a high thrust lever friction knob setting, increases the possibility for this condition to occur. Operators have observed that reducing the amount of friction on thrust levers has reduced the number of “SPOILERS FAULT” occurrence while throttle levers are at, or close to their idle setting.

4. ACTION:

Operators experiencing an amber or cyan “SPOILERS FAULT” EICAS message during taxi or approach may find that reducing the throttle lever friction will reduce the number occurrences.

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This should not prevent pilots from setting thrust lever friction as desired to meet comfort and operational needs. However, this suggestion should be considered as a mitigating action until a solution is found.

To determine the cause of a “SPOILERS FAULT” EICAS message, we recommend carrying out a data download from the Maintenance Diagnostic Computer (MDC) (Ref. 1.1) and to follow SmartFix Plus troubleshooting tasks reference 1.2 through 1.7.

This investigation is still ongoing and Bombardier remains engaged in finding a solution to “SPOILERS FAULT” EICAS messages caused by defective TQA idle switches.