

Advisory Wire

REFERENCE NO: AW300-30-0418 Rev 02

ATA: 30-41

SUBJECT: Windshield and Side Window Temperature
Sensor Drift

EFFECTIVITY:

Challenger 300
Challenger 350
Challenger 3500

1. REFERENCES:

- 1.1 SmartFix Plus™ page for L/R WINDOW HEAT FAIL and L/R WSHLD HEAT FAIL
- 1.2 [IS Modsum IS100-30-0002 / 0003 / 0004 and 0005.](#)
- 1.3 Affected Part Numbers: Windshield 185901-3 and -4, Side Window 185902-1 and -2
- 1.4 Aircraft Maintenance Manual (AMM) Installation Task 56-11-01-400-802 (Windshield) and Task 56-12-01-400-802 (Side Window)

2. INTRODUCTION:

The purpose of this Advisory Wire (AW) revision is to add clarification on warranty coverage for the affected parts and to add the affected part numbers (Ref 1.3)

3. DESCRIPTION:

In 2021, Bombardier noticed a rise in the number of reported WSHLD / WINDOW HEAT FAIL messages. This was discussed and voted as a top issue by the Advisory Committee.

The investigation revealed that the temperature sensors installed in the windshield and side window were identified as the root cause. Under certain conditions (mainly during aircraft pressurization and temperature changes), the sensor resistance may drift outside the nominal values. The Challenger 300/350/3500 aircraft have all 3 sensors connected to the controller. If one of the 3 sensors resistance moves outside the expected nominal values, this results in a false overheat reading by the controller and a WSHLD / WINDOW HEAT FAIL CAS message is posted.

Bombardier has released a set of 4 ISMS (Ref 1.2) that provide wiring modifications to isolate the affected temperature sensor and prevent CAS messages due to drifting sensors. Once the ISMS is incorporated, the windshield or side window can remain permanently installed. If a second sensor drifts, the same solution can be applied down to the last sensor as only one sensor per transparency is required for operation.

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A heat failure (WSHLD/WINDOW HEAT FAIL CAS messages) due to a drifting sensor by itself is not a warrantable defect. Only transparencies with a heat failure CAS message with all three sensors failed are entitled to a free of charge warranty replacement via Bombardier. As such, any windshield that has 2 capped and stowed sensors per the ISMS (Ref 1.2) that subsequently has a final sensor failure, will be granted an additional year of warranty coverage (i.e. 6 years after entry into service and 4 years for spare items).

Parts Services is currently offering the option of ordering new or repaired condition units from stock at a discounted price. Customers should be aware that repaired condition units may have one (1) sensor already disabled by the vendor. This will be identified on the certification documents. In such cases, the AMM installation task (Ref 1.4) and AMM notes specific to those repaired units should be followed.

4. ACTION:

Operators should familiarize themselves with the content of this AW and be aware that an intermittent WSHLD / WINDOW HEAT FAIL CAS message may be caused by one of the temperature sensors.

Operators can identify the drifting temperature sensor using the associated SmartFix Plus™ page (Ref. 1.1) and isolate the affected sensor with the ISMS (Ref 1.2) wiring modification to allow continued operation.

Should you have any technical queries pertaining to this Advisory Wire, please contact your local [Field Service Representative](#) (FSR) or [Customer Response Center](#) (CRC).