

ADVISORY WIRE

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First.

REFERENCE NO:	AW300-24-0195	INFORMATION TYPE:	Maintenance Operational
ATA:	24	EFFECTIVITY:	Challenger 300 (20003 to 20500) Challenger 350 (20501 to 20999)
SUBJECT:	DC Generator - False 4-Volt Indication		

1. REFERENCES:

n/a

2. INTRODUCTION:

This Advisory Wire is to inform Maintenance Crews and Pilots of cases reported in service where the DC generator voltage output indication is showing 4 Volts on the electrical synoptic page when the engine(s) or APU are not operating.

3. DESCRIPTION:

Some cases have been reported where the DC generator output voltage indicated 4 volts on the electrical synoptic page when the engine(s) or APU were not operating. In all cases, no Engine Indication and Crew Alerting System generator failure messages were posted and the affected generators operated normally once put online. Troubleshooting of those cases confirmed that the affected generators were the cause of the incorrect voltage indication. Once replaced, the 4-volt indications were no longer present.

In one case reported to us, the generator output filter board was found to have extensive heat damage. The investigation performed on the generators returned due to Operators reporting the incorrect 4-volt indication confirmed the root cause, in all cases, as being the overheating of the generator's filter board components.

To avoid this condition occurring on generators in service, the vendor introduced improved procedures and tests into the generator Acceptance Test Procedure (ATP) in July of 2013. A visual and an impedance check are done to verify the filter board functionality on all overhauled units. An additional step has also been added to ensure that the generator output voltage is at 0 when the Generator Control Unit and Power Module cards are powered and the generator speed is at 0 RPM.

This failure mode is not a common one and only accounts for approximately 3 % of all generators removed since 2008. The investigation of the root cause of the issue is ongoing.

4. ACTION:

There are no immediate actions for Operators to take at this time other than being familiar with this issue. Any generator output voltage indication other than 0 Volt when engine(s) or APU are not operating should be investigated. This failure mode will be incorporated in SMARTFIX PLUS to help Customers troubleshoot this issue. We will update this Advisory Wire when the investigation is complete. Please report any issues of this type to your [Field Service Representative](#) or to the [Customer Response Centre](#).