



AVIATION ACTION ALERT

AA-98-2

TO: Bombardier Aerospace

SUBJECT: Champion 28VS100Y-10B (MS17976-2) Transformer Rectifier Units for CRJ Aircraft

BACKGROUND INFORMATION: Champion 28VS100Y-10B TRU'S Manufactured under date codes 1/98 and 2/98 may contain AC-filter capacitor susceptible to loosening under vibratory environments. The focus of this Aviation Action Alert letter is to delineate the scope of actions required to:

- (1) Identify the potentially affected Champion 28VS100Y-10B TRU's in the Bombardier fleet.
- (2) Outline the identification procedure to evaluate the units in the field.
- (3) Define the policy for returning 28VS100Y-10B TRU's identified with this condition.

UNITS AFFECTED: Champion 28VS100Y-10B TRU's manufactured under date code 1/98, Serial Numbers 0780 to 0861, and date code 2/98, Serial Numbers 0862 to 0879.

FIELD INSPECTION PROCEDURE: Prior to the field inspection procedure, it is recommended that the operator have the component maintenance manual for the Champion Part Number 28VS100Y-10A and 28VS100Y-10B, 100 ampere, 28VDC, fan cooled, static converter. The ATA number for this manual is 24-31-03, revised on 10-25-96. With the aircraft power OFF, and the converter installed in the aircraft, remove the three (3) nuts, item 10 on IPL Figure 1, and the converter end bell, item 5 on IPL Figure 1 from the converter assembly. After removal of the end bell assembly, locate the three (3) AC filter capacitors, item 80 on IPL Figure 3. (IPL Figures 1 and 3 are attached to this document).

After location of the three (3) capacitors, item 80 on IPL Figure 3, on the motor ring assembly, item 175 on IPL Figure 3, the operator must check the capacitor connection to the motor ring. This test is performed by applying torsional force to each capacitor in a counterclockwise rotation. The inspection force required for this test is limited to finger pressure applied by the operator to the capacitor body. If any of the three (3) filter capacitors physically move or rotate while this procedure is applied, this converter is identified as having the loose filter capacitor problem. For those units in spares inventory, perform the same inspection on the bench.

AFFECTED UNIT CATEGORIZATION: If there are no adverse affects to the aircraft operation, and the unit continues to provide 28 Volts DC, a loose capacitor is not to be considered a part failure. The aircraft and TRU serial numbers should be recorded, and the TRU should be replaced at the operator's earliest convenience. If adverse affects are noted, the identified TRU should be removed from the aircraft, and replaced by a non-affected TRU. For affected TRU's in spare stock, arrange for repairs through Allied International as outlined in this letter.

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RETURN POLICY: To initiate the return of one or more identified 28VS100Y-10B TRU's with loose filter capacitors and to correct this condition, the operator must provide the serial number and the date coded of the converters. Only Champion converters, Model 28VS100Y-10B, date coded 1/98 and 2/98 are eligible for this service policy.

Allied International will coordinate the logistical details, repair and replacement of the Champion 28VS100Y-10B converters identified with this deficiency. The personnel to contact for normal or AOG service are Linda Birkmann or Lorette Prendegast at (914) 241-6900 during normal hours, 8 a.m. to 5 p.m., E.S.T., or (718) 961-0056 during off hours.

UNIT IDENTIFICATION: To account for all suspect units in the field, Federal-Mogul request that within the next 200 to 500 flight hours, the 91 units with the date codes defined in this letter, be inspected for this condition. After inspection of the 28VS100Y-10B units in the CRJ aircraft, please notify in writing to Federal-Mogul Aviation Products that the 28VS100Y-10B converters, serial numbers 0780 to 0879 were inspected for this condition, and which were found to be secure, or loose.

To facilitate the documentation of the field inspection process, please complete the section below for the five (5) TRU's in each aircraft, and forward the information to the address below.

TRU DATE CODE: Unit 1: _____ Unit 2: _____ Unit 3: _____ Unit 4: _____ Unit 5: _____

TRU S/N: Unit 1: _____ Unit 2: _____ Unit 3: _____ Unit 4: _____ Unit 5: _____

Capacitors (Loose/Tight): Unit 1: _____ Unit 2: _____ Unit 3: _____ Unit 4: _____ Unit 5: _____

Aircraft Number: _____

Date Checked: _____

Inspected By: _____

Federal-Mogul Aviation Products
1230 Old Norris Road
Liberty, SC, USA 29657

Attn: J. Costello, Product Engineering

TECHNICAL ISSUES: Any additional technical issues or inquiries that arise regarding this issue should be addressed directly to Federal-Mogul Aviation Products at (864) 843-7803 or Fax: (864) 843-5471

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