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DATE: Nov.30/07

V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 3 to Service Bulletin V2500-ENG-71-0303 and Revision 3 to the Supplement

Document History

Service Bulletin Revision Status Supplement Revision Status

Initial Issue May 24/06 Initial Issue May 24/06 Revision 1 Jun. 9/06 Revision 1 Jun. 9/06 Revision 2 Apr. 4/07 Revision 2 Apr. 4/07

Service Bulletin Revision 3

Remove Incorporate Reason for change

Pages 1 to 39 of the All pages of the To update the paragraph 1.B. Concurrent Requirements and 3. Service Bulletin Service Bulletin Accomplishment Instructions.

<u>Supplement Revision 3</u>

Remove Incorporate Reason for change

Page 1 of the All pages of the To update the paragraph 1.B. Supplement Supplement Concurrent Requirements and 3. Accomplishment Instructions.

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SERVICE BULLETIN

<u>POWER PLANT - ENGINE ELECTRONIC CONTROLLER (EEC) HARNESS-CORE - INTRODUCTION OF</u> VOLTAGE DIVIDER HARNESS ASSEMBLY BETWEEN THE TRIM BALANCE PROBE AND ENGINE HARNESS

1. Planning Information

A. Effectivity

- (1) Airbus A319.
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines.

Prior to Engine Serial Number V12414.

- (2) Airbus A320.
 - (a) V2500-A1 Engines.

Prior to Engine Serial Number V0362.

(b) V2524-A5, V2527-A5, V2527E-A5 Engines.

Prior to Engine Serial Number V12414.

- (3) Airbus A321.
 - (a) V2530-A5, V2533-A5 Engines.

Prior to Engine Serial Number V12414.

B. Concurrent Requirements

R The new Trim Balance Probe introduced by the Service Bulletin standard that follows must be embodied together with this one:

V2500-ENG-72-0508 - ENGINE - INTRODUCTION OF NEW SPEED AND TRIM BALANCE PROBES

C. Reason

(1) Problem

The new Arlon trim balance probe which is introduced by Service Bulletin V2500-ENG-72-0508 can cause intermittant amber crossing of the N1 vibration display in the aircraft cockpit at the N1 speeds above 80 percent. This is attributed to an increased output voltage of the Arlon trim balance probe compared to the previous standard (the original Kinel trim balance probe).

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The amplitude of the noise generated by the phonic wheel is higher with the Arlon trim balance probe and exceeds the minimum threshold for the aircraft Engine Vibration Monitoring Unit (EVMU). This noise can cause the EVMU to register more than one pulse per revolution which results in an amber crossing in the cockpit.

(2) Evidence

The problem has been experienced by Airbus during flight testing and in-service.

(3) Substantiation

The changes introduced by this Service Bulletin have been the subject of extensive engineering assessment, analogy to existing designs and experience and successful engine tests and flight test of a representative design.

(4) Objective

Incorporation of this Service Bulletin is designed to ensure continual display of the N1 vibration in the cockpit.

- (5) Effect of Bulletin on:
 - (a) Operation

Not affected.

(b) Maintenance

Affected (Refer to 1.0. Other Publications Affected).

(c) Overhaul

Affected (Refer to 1.0. Other Publications Affected).

(d) Repair Schemes

Affected (Refer to 1.0. Other Publications Afffected).

(e) Interchangeability

Affected (Refer to 1.B. Concurrent Requirements).

(f) Fits and Clearances

None.

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D. <u>Description</u>

- (1) This Service Bulletin introduces a new voltage divider harness assembly which is connected between the trim balance probe and the EVMU to reduce the output voltage. The changes introduced are as follows:
 - (a) An additional harness assembly as a voltage divider which consists of two resistors has been introduced. One end is attached to the new clip position CP6150 and the other end is attached to the clip position CP5732. The two remaining terminal lugs are attached to the terminal block of the fan speed/trim balance probe harness studs 7 and 8.
 - (b) A new clip position CP6151 has been introduced which is located on the terminal block of the fan speed/trim balance probe harness. The new clip position CP6151 consists of a spacer, a bracket and a longer bolt which replaces the existing bolt and washer.
 - (c) A new clip position CP6150 has been introduced which is located on the bracket of the clip position CP6151. The new clip position CP6150 consists of an attaching bolt, a nut and a clip. The clip is used to secure a bolt and a nut coated in shrink sleeving to create a floating connection which is used to join the core harness and the new voltage divider harness assembly.
 - (d) The new voltage divider harness assembly is supported with the changed clip position CP5732 which incorporates a longer bolt, a deleted washer, an additional spacer and an additional clip to attach the new voltage divider harness assembly.
 - (e) The new voltage divider harness assembly is grounded at two positions, one is attached to the clip position CP5732 above the existing clip and the other is attached to the new clip position CP6150 under the bolt head.

<u>NOTE</u>: The Rework Instruction and the Assembly Instruction of this Service Bulletin are divided into two parts as follows:

PART 1 - Applicable for engines 'In Service'.

PART 2 - Applicable for engines 'At Overhaul'.



E. Compliance

Category Code 6

Accomplish when the sub-assembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Approval

The part number changes and/or part modifications described in sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) listed.

G. Manpower

(1) In Service

Total - 4 Hours:

- (a) To gain access 20 Minutes.
- (b) To embody 3 Hours 20 Minutes.
- (c) To return the engine to a serviceable status 20 Minutes.
- (2) At Overhaul

Not applicable.

H. Material Price and Availability

Either Modification kits MKVA171030301 for A1 Engines and MKVA571030301 for A5 Engines or parts as single line items are available to permit accomplishment of this Service Bulletin.

For the modification kit prices and availability or prices and availability of future spares, refer to supplement to this Service Bulletin.

I. Tooling Price and Availability

Special tools are not required.

J. <u>Industry Support Information</u>

Not applicable.



K. Weight and Balance

(1) Weight Change

Plus 0.36 lb (0,163 kg).

(2) Moment Arm

28 in. (711,2 mm) rearward.

(3) Datum

Engine Front Mount Centreline (Power Plant Station (PPS) 100).

L. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

M. Software Accomplishment Summary

Not applicable.

N. References

- Airbus Operational Information Telex (OIT) F0T999.0034/06 and Operations Engineering Bulletin 177-3 for specific aircraft interchangeability.
- A319/A320/A321 Aircraft Maintenance Manual (AMM), Chapter 70-23-11 Torque (2) Tightening Technique, Chapter 70-23-15 Electrical Connectors, Chapter 70-30-00/Section 5 Consumable Material Index and Chapter 71-13-00, Opening/Closing.
- (3) V2500 Standard Practices/Processes Manual, Chapters 70-09-00, 70-41-01 and 70-43-01.
- (4) V2500 Service Bulletin:

V2500-ENG-72-0508 - ENGINE - INTRODUCTION OF NEW SPEED AND TRIM BALANCE **PROBES**

- (5) Airbus Service Bulletin No. A320-77-1009.
- Aircraft Modification No. 36649. (6)
- (7) Internal Reference No.

Engineering Change No. 06VR002 and 06VR002A.

(8) ATA Locators - 71-52-43 and 72-32-00.

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0. Other Publications Affected

- (1) For effect on Illustrated Parts Catalogue (IPC), refer to 2. Material Information.
- (2) IAE V2500 Engine Manual (E-V2500-1IA), Chapters 72-00-40 Removal/Installation and 72-32-00 Cleaning, Inspection/Check.
- (3) IAE Component Maintenance Manual Electrical Harnesses and Cables (EHC-V2500-1IA), Chapter 71-52-43 Cleaning, Inspection/Check.
- (4) Trouble Shooting Manual, Chapters 77-00-00, PB101 and 77-30-00, PB101.
- (5) The following Repair Schemes will be revised to include the new parts introduced by this Service Bulletin: VRS1071, VRS1077 and VRS7002.
- (6) The following note on the Vital Statistics Logs (VSL) is invalidated after the incorporation of this Service Bulletin:

'Limitations imposed on the part: The interchangeability/transferability of the engines ESN greater than V12220 from an A/C with new EVMU (241-247-013-005) to an A/C with the current EVMU (241-247-012-005) is lost, unless the A/L removes the current EVMU (241-247-012-005) and replaces it with the new EVMU (241-247-013-005), Ref: Service Bulletin ENG-72-0508. If this is fitted on A/C pre-modification 36648, and if EVMU P/N 241-247-013-005 is not installed on the A/C, OEB 177-3 shall apply.'

P. Interchangeability of Parts

Affected (Refer to paragraph 2. Material Information).



2. <u>Material Information</u>

A. <u>Kits defined for this Service Bulletin:</u>

Modification kits MKVA171030301 and MKVA571030301 consist of the parts that follow:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
71-52-4	3					
01-310	AS21425	1	Bolt (CP5732)	-	4W0112	
01-314	UP10480	1	Spacer (CP5732)	-		
06-005	6A8933	1	Voltage divider harness assembly	-		
06-203	AS62205	1	Clip (CP5732)	-		
06-300	6A8967		Bolt assembly	-		
06-308	4W0344	1	Bolt (CP6150)	-		
06-311	AS62203	1	Clip (CP6150)	-		
06-314	4w0001	1	Nut (CP6150)	-		
06-320	AS27831	1	Nut	-		
72-32-0	00					
02-232	6A8958	1	Bracket (CP6151)	-		
02-233	AS21030	1	Bolt (CP6151)	-		
02-234	LJ32698	1	Spacer (CP6151)	-		

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B. <u>Parts to be re-identified:</u>

FIG NEW ITEM PART NO. NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For A1 Engines:					
72-32-00					
01-001 5W0227	1	LPC/Intermediate case module	-	5W0175	(1D)
01-001 5W0229	1	LPC/Intermediate case module	-	5W0016	(1D)
01-001 5W0230	1	LPC/Intermediate case module	-	5W0102	(1D)
01-001 5W0231	1	LPC/Intermediate case module	-	5W0127	(1D)
01-001 5W0232	1	LPC/Intermediate case module	-	5W0142	(1D)
01-001 5W0233	1	LPC/Intermediate case module	-	5W0153	(1D)
01-001 5w0234	1	LPC/Intermediate case module	-	5W0161	(1D)
01-001 5w0235	1	LPC/Intermediate case module	-	5W0162	(1D)
01-001 5w0236	1	LPC/Intermediate case module	-	5W0163	(1D)
01-001 5w0237	1	LPC/Intermediate case module	-	5W0164	(1D)
01-001 5w0238	1	LPC/Intermediate case module	-	5W0165	(1D)
01-001 5w0239	1	LPC/Intermediate case module	-	5W0176	(1D)
01-001 5w0240	1	LPC/Intermediate case module	-	5W0177	(1D)

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FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For A1	Engines cor	ntinuec	l:			
72-32-0	00 continued	d				
01-001	5W0241	1	LPC/Intermediate case module	-	5w0178	(1D)
01-001	5W0242	1	LPC/Intermediate case module	-	5W0179	(1D)
01-001	5W0243	1	LPC/Intermediate case module	-	5w0180	(1D)
For A5	Engines:					
72-32-0	00					
01-001	5W0228	1	LPC/Intermediate case module	-	5w0181	(1D)
01-001	5W0244	1	LPC/Intermediate case module	-	5W0130	(1D)
01-001	5W0245	1	LPC/Intermediate case module	-	5W0150	(1D)
01-001	5W0246	1	LPC/Intermediate case module	-	5W0157	(1D)
01-001	5W0247	1	LPC/Intermediate case module	-	5W0155	(1D)
01-001	5W0248	1	LPC/Intermediate case module	-	5W0166	(1D)
01-001	5W0249	1-	LPC/Intermediate case module	-	5W0167	(1D)
01-001	5W0250	1	LPC/Intermediate case module	-	5w0182	(1D)
01-001	5W0251	1	LPC/Intermediate case module	-	5w0183	(1D)

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C. New production parts:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For all	Engines:					
71-52-4	3					
01-310	AS21425	1	Bolt (CP5732)	-	4W0112	(S1)(2D)
01-314	UP10480	1	Spacer (CP5732)	-		(A)(S1)
06-005	6A8933	1	Voltage divider harness assembly	-		(A)(S1)
06-203	AS62205	1	Clip (CP5732)	-		(A)(S1)
06-300	6A8967	1	Bolt assembly	-		(A)(S1)
06-308	4W0344	1	Bolt (CP6150)	-		(A)(S1)
06-311	AS62203	1	Clip (CP6150)	-		(A)(S1)
06-314	4w0001	1	Nut (CP6150)	-		(A)(S1)
06-320	AS27831	1	Nut	-		(A)(S1)
72-32-0	0					
02-232	6A8958	1	Bracket (CP6151)	-		(A)(S1)
02-233	AS21030	1	Bolt (CP6151)	-		(A)(S1)
02-234	LJ32698	1	Spacer (CP6151)	-		(A)(S1)

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D. <u>Redundant parts:</u>

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For all	engines:					
71-52-4	3					
01-311		1	Washer (CP5732)	-	5W1086	(B)(1D)(S1
72-32-0	0					
02-307		1	Bolt	-	AS21014	(3D)(S1)
02-308		1	Washer	_	MS9321-10	(3D)(S1)

E. Instruction disposition codes:

- (A) Additional.
- (B) Old part becomes redundant upon embodiment of this Service Bulletin.
- (S1) New and additional parts must replace old parts as a complete set per engine.
- (1D) Old part may be re-identified to the new part number.
- (2D) Old part may be used on other applications.
- (3D) Quantity reduced from 3 to 2.

)

3. Accomplishment Instructions

A. Rework Instructions

<u>NOTE</u>: The re-identification procedure that follows has to be done after the accomplishment of the Assembly Instructions of this Service Bulletin.

PART 1 - APPLICABLE FOR ENGINES 'IN SERVICE'

- (1) Re-identify the Low Pressure (LP) compressor/intermediate case module
 - (a) Consumable Materials
 - (i) Refer to the table that follows:

MATERIAL NO.	DESIGNATION
V05-126	Scotch Brite

For the details of the consumable material given in the table above refer to the Aircraft Maintenance Manual, Chapter 70-30-00.

- (b) Tools and Equipment
 - (i) Refer to the table that follows:

REFERENCE	DESIGNATION
No Specific	Vibro Peen Equipment

- (c) Use vibro peen equipment to re-identify the LP compressor/intermediate case module.
 - <u>NOTE</u>: Characters are produced by a rapidly vibrating tool which may be hand guided but it is preferred, where practical, to be guided by a pantograph, stencil or other mechanical/electrical mechanism.



(d) Vibro peen a line through the old part number. Vibro peen the applicable new part number on the LP compressor/intermediate case module identification plate (Refer to the Illustrated Parts Catalogue, 72-32-85, 03-100) adjacent to the old part number (For the applicable part number refer to the table that follows):

<u>NOTE</u>: Use characters of the same height and width as used for the old part number.

(i) For A1 Engines:

Old Part Number	New Part Number
5W0175	5W0227
5W0016	5W0229
5W0102	5W0230
5W0127	5w0231
5W0142	5W0232
5W0153	5W0233
5W0161	5W0234
5W0162	5W0235
5W0163	5W0236
5W0164	5W0237
5W0165	5W0238
5W0176	5W0239
5W0177	5W0240
5W0178	5W0241
5W0179	5W0242
5w0180	5W0243

(ii) For A5 Engines:

Old Part Number	New Part Number
5W0181	5W0228
5W0130	5W0244
5W0150	5W0245
5W0157	5W0246
5W0155	5W0247
5W0166	5W0248
5W0167	5W0249
5W0182	5w0250
5W0183	5W0251

- (e) Use scotch brite (Material No. V05-126) to remove any raised metal or burrs which have been produced during the re-identification procedure of the LP compressor/intermediate case module.
- (f) Make sure that the LP compressor/intermediate case module identification plate is not damaged and is clean and contains no unwanted material.

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PART 2 - APPLICABLE FOR ENGINES 'AT OVERHAUL'

- (1) Re-identify the Low Pressure (LP) compressor/intermediate case module (Refer to the Standard Practices/Processes Manual, Chapter 70-09-00)
 - (a) Consumable Materials
 - (i) Refer to the table that follows:

COMAT NO.	DESIGNATION
05-126	Scotch Brite

For the details of the consumable material given in the table above refer to the Overhaul Processes and Consumables Index.

- (b) Tools and Equipment
 - (i) Refer to the related Manual tasks given in this instruction.
- (c) Use vibro peen equipment to re-identify the LP compressor/intermediate case module.
- (d) Vibro peen a line through the old part number. Vibro peen the applicable new part number on the LP compressor/intermediate case module identification plate (Refer to the Illustrated Parts Catalogue, Chapter 72-32-85, 03-100) adjacent to the old part number (For the applicable part number refer to the table that follows):

<u>NOTE</u>: Use characters of the same height and width as used for the old part number.

(i) For A1 Engines:

Old Part Number	New Part Number
5W0175	5W0227
5W0016	5W0229
5w0102	5W0230
5W0127	5W0231
5W0142	5W0232
5w0153	5W0233
5W0161	5W0234
5W0162	5W0235
5W0163	5W0236
5W0164	5W0237
5W0165	5W0238
5W0176	5W0239
5W0177	5W0240
5W0178	5W0241
5W0179	5W0242
5w0180	5W0243

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(ii) For A5 Engines:

Old Part Number	New Part Number
5w0181	5W0228
5w0130	5W0244
5w0150	5W0245
5W0157	5W0246
5w0155	5W0247
5W0166	5W0248
5W0167	5W0249
5W0182	5W0250
5W0183	5W0251

- (e) Use scotch brite (CoMat 05-126) to remove any raised metal or burrs which have been produced during the re-identification procedure of the LP compressor/intermediate case module.
- (f) Make sure that the LP compressor/intermediate case module identification plate is not damaged and is clean and contains no unwanted material.



B. Assembly Instructions

PART 1 - APPLICABLE FOR ENGINES 'IN SERVICE'

(1) General

CAUTION:

IN ORDER TO REDUCE THE POTENTIAL FOR MULTIPLE ENGINE IN-FLIGHT SHUT DOWN, POWER LOSS, OR OTHER ANOMALIES DUE TO MAINTENANCE ERROR, IAE RECOMMENDS THAT OPERATORS AVOID PERFORMING MAINTENANCE ON MULTIPLE ENGINES INSTALLED ON THE SAME AIRCRAFT AT THE SAME TIME. IF IT IS NOT POSSIBLE TO AVOID MAINTENANCE ON MORE THAN ONE ENGINE AT THE SAME TIME, IAE RECOMMENDS THAT ADDITIONAL CONTROLS BE APPLIED IN ORDER TO ENSURE THAT MAINTENANCE TASKS HAVE BEEN COMPLETED AS DEFINED. MAINTENANCE GUIDELINES SHOULD BE REVISED WHERE POSSIBLE, TO PROMOTE THIS

RECOMMENDATION.

WARNING:

DO NOT TOUCH THE ENGINE COMPONENTS FOR A SHORT TIME AFTER THE ENGINE IS SHUT DOWN. THE COMPONENTS STAY HOT AND CAN CAUSE INJURY.

CAUTION:

DO NOT BEND THE ELECTRICAL CABLE CONDUIT TOO MUCH WHEN YOU DISCONNECT/CONNECT THE ELECTRICAL CONNECTOR. THE CONDUIT CAN BE DAMAGED AND CAN CAUSE ELECTRICAL CIRCUIT DEFECTS.

CAUTION:

MAKE SURE ELECTRICAL CONNECTORS DO NOT HAVE BENT PINS AND THAT THEY ARE CLEAN BEFORE YOU CONNECT THEM. DAMAGE OR CONTAMINATION OF THE ELECTRICAL CONNECTORS CAN CAUSE DAMAGE TO THE COMPONENTS.

- (a) Obey all the WARNINGS and CAUTIONS in the procedures that are referred to.
- (b) Consumable Materials
 - (i) Refer to the table that follows:

MATERIAL NO.	DESIGNATION	
V05-126	Scotch Brite	

For the details of the consumable material given in the table above refer to the Aircraft Maintenance Manual, Chapter 70-30-00.

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- (c) Tools and Equipment
 - (i) Refer to the table that follows:

REFERENCE	DESIGNATION
No Specific	Multimeter
No Specific	Vibro Peen Equipment

- (ii) For further tools and equipment refer also to the related Manual tasks given in this instruction.
- (d) Refer to the Aircraft Maintenance Manual, Chapter 70-23-11 for all torque procedures.
- (e) Refer to the Aircraft Maintenance Manual, Chapter 70-23-15 for the procedure to connect electrical connectors.
- (2) Get access to the right inner area of the intermediate case
 - (a) Open the applicable fan cowl doors (Refer to the Aircraft Maintenance Manual, Chapter 71-13-00 Opening/Closing).
- (3) Disconnect the core harness (71-52-43, 01-005) from the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2)
 - (a) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) to the stud 7 of the terminal block (1).
 - NOTE: Do not remove the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) from the stud 7 of the terminal block (1).
 - (b) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) to the stud 8 of the terminal block (1).
 - (c) Remove the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) from the stud 8 of the terminal block (1).
- (4) Connect the new voltage divider harness assembly (71-52-43, 06-005), P/N 6A8933 and the core harness (71-52-43, 01-005) to the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 2, Sheets 1 and 2)
 - (a) Install the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) on the stud 7 of the terminal block (1).



- (b) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) to the stud 7 of the terminal block (1)
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
- (c) Install the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) on the stud 8 of the terminal block (1).
- (d) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) to the stud 8 of the terminal block (1)
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
- (5) Install the parts at the new clip position CP6151 on the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2 and to Figure 2, Sheets 1 and 2)
 - (a) Remove the old bolt (72-32-00, 02-307), P/N AS21014 and the old washer (72-32-00, 02-308), P/N MS9321-10 that attach the terminal block (1) to the intermediate case.
 - (b) Loosely install the new bolt (72-32-00, 02-233), P/N AS21030 and the new spacer (72-32-00, 02-234), P/N LJ32698 that attach the new bracket (72-32-00, 02-232), P/N 6A8958 to the terminal block (1).
- (6) Remove the parts at the clip position CP5732 from the bracket (75-27-49, 01-050) (Refer to Figure 1, Sheets 1 and 3)
 - (a) Remove the old bolt (71-52-43, 01-310), P/N 4W0112, the old washer (71-52-43, 01-311), P/N 5W1086 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 01-313) to the bracket (75-27-49, 01-050).
 - <u>NOTE</u>: Do not remove the clip (71-52-43, 01-313) from the core harness (71-52-43, 01-005).
- (7) Install the parts at the changed clip position CP5732 on the bracket (75-27-49, 01-050) (Refer to Figure 2, Sheets 1 and 3)
 - (a) Install the voltage divider harness assembly (71-52-43, 06-005) into the new clip (71-52-43, 06-203), P/N AS62205.



- (b) Install the new bolt (71-52-43, 01-310), P/N AS21425, the new spacer (71-52-43, 01-314), P/N UP10480 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 06-203), the grounding terminal lug C of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 01-313) to the bracket (75-27-49, 01-050).
- (c) Torque the bolt (71-52-43, 01-310) to 40 lbf in. (4,5 Nm).
- (8) Install the parts at the new clip position CP6150 on the bracket (72-32-00, 02-232) (Refer to Figure 2, Sheets 1 and 2)
 - (a) Install the new bolt assembly (71-52-43, 06-300), P/N 6A8967 into the new clip (71-52-43, 06-311), P/N AS62203.
 - (b) Install the new bolt (71-52-43, 06-308), P/N 4W0344 and the new nut (71-52-43, 06-314), P/N 4W0001 that attach the grounding terminal lug E of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 06-311) to the bracket (72-32-00, 02-232).
 - (c) Torque the nut (71-52-43, 06-314) to 40 lbf in. (4,5 Nm).
 - (d) Install the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness (72-32-37, 01-100) on the bolt assembly (71-52-43, 06-300).
 - (e) Install the new nut (71-52-43, 06-320), P/N AS27831 that attaches the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness (72-32-37, 01-100) to the bolt assembly (71-52-43, 06-300).
 - (f) Torque the nut (71-52-43, 06-320) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
- (9) At the clip position CP6151:
 - (a) Torque the bolt (72-32-00, 02-233) to between 85 and 105 lbf in. (10 and 12 Nm).
- (10) Do a visual inspection of the installed voltage divider harness assembly
 - <u>NOTE</u>: This is necessary to make sure that the voltage divider harness assembly is correctly installed and connected.



(11) Do a function test of the installed voltage divider harness assembly

<u>NOTE</u>: This is necessary to make sure that the voltage divider harness assembly is correctly installed and connected. If the result of the function test of the installed voltage divider harness assembly is not in the given resistance limits, do an inspection of the voltage divider harness assembly for its correct installation.

- (a) Measure the resistance on the electrical connector 407VC-A of the general services harness
 - (i) Disconnect the electrical connector 407VC-A from the mid pylon interface panel (eagle plate).
 - (ii) Install an adapter pin on the pin 17 of the electrical connector 407VC-A.
 - (iii) Install an adapter pin on the pin 18 of the electrical connector 407VC-A.
 - (iv) Connect a multimeter across the pins 17 and 18 of the electrical connector 407VC-A.
 - (v) Measure the resistance between the pins 17 and 18 of the electrical connector 407VC-A
 - (1) Make sure that the resistance value is in the range of 2436 \pm +/- 50 ohms.

NOTE: If the resistance value is not within the range of 2436 +/-50 ohms but in the range of 30 +/-5 ohms, this is an indication that the voltage divider harness assembly is not installed on the trim balance probe.

- (vi) Disconnect the multimeter from the pin 18 of the electrical connector 407VC-A.
- (vii) Connect a multimeter across the pin 17 and the stud 7 of the terminal block.
- (viii) Measure the resistance between the pin 17 on the electrical connector 407VC-A and the stud 7 of the terminal block
 - (1) Make sure that the resistance value is 5 ohms or less.

<u>NOTE</u>: If the resistance value is not 5 ohms or less , this is an indication:

- that the trim balance sensor lead 4000VS-8 has not been removed from the stud 8 of the terminal block.

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- that the trim balance sensor lead 4000VS-7 has been removed from the stud 7 of the terminal block.
- that the trim balance sensor lead 4000VS-7 has been installed to the floating connection.
- (ix) Disconnect the multimeter from the pin 17 of the electrical connector 407VC-A and the stud 7 of the terminal block.
- (x) Remove the adapter pin from the pin 17 of the electrical connector 407VC-A.
- (xi) Remove the adapter pin from the pin 18 of the electrical connector 407VC-A.
- (xii) Connect the electrical connector 407VC-A to the mid pylon interface panel (eagle plate).
- (b) Measure the resistance on the electrical connector 4000KS-J2 of the Engine Electronic Controller (EEC) lane A harness
 - (i) Disconnect the electrical connector 4000KS-J2 from the EEC terminal J2.
 - (ii) Install an adapter pin on the pin L of the electrical connector 4000KS-J2.
 - (iii) Install an adapter pin on the pin d of the electrical connector 4000KS-J2.
 - (iv) Connect a multimeter across the pins L and d of the electrical connector 4000KS-J2.
 - (v) Measure the resistance between the pins L and d of the electrical connector 4000KS-J2
 - (1) Make sure that the resistance value is in the range of 47 + -10 ohms.

NOTE: If the resistance value is not within the range of 47 +/- 10 ohms, this is an indication that the voltage divider harness assembly is possibly installed on the N11 speed probe and is not installed on the trim balance probe.

- (vi) Disconnect the multimeter from the pins L and d of the electrical connector 4000KS-J2.
- (vii) Remove the adapter pin from the pin L of the electrical connector 4000KS-J2.



- (viii) Remove the adapter pin from the pin d of the electrical connector 4000KS-J2.
- (ix) Connect the electrical connector 4000KS-J2 to the EEC terminal J2.
- (c) Measure the resistance on the electrical connector 4000KS-J8 of the EEC lane B harness
 - (i) Disconnect the electrical connector 4000KS-J8 from the EEC terminal J8.
 - (ii) Install an adapter pin on the pin L of the electrical connector 4000KS-J8.
 - (iii) Install an adapter pin on the pin d of the electrical connector 4000KS-J8.
 - (iv) Connect a multimeter across the pins L and d of the electrical connector 4000KS-J8.
 - (v) Measure the resistance between the pins L and d of the electrical connector 4000KS-J8
 - (1) Make sure that the resistance value is in the range of 47 +/-10 ohms.
 - NOTE: If the resistance value is not within the range of 47 +/- 10 ohms, this is an indication that the voltage divider harness assembly is possibly installed on the N13 speed probe and is not installed on the trim balance probe.
 - (vi) Disconnect the multimeter from the pins L and d of the electrical connector 4000KS-J8.
 - (vii) Remove the adapter pin from the pin L of the electrical connector 4000KS-J8.
 - (viii) Remove the adapter pin from the pin d of the electrical connector 4000KS-J8.
 - (ix) Connect the electrical connector 4000KS-J8 to the EEC terminal J8.



- (12) Do a function test of the disconnected voltage divider harness assembly (71-52-43, 06-005) (Refer to Figure 2)
 - NOTE: This is only necessary if the result of the function test of (71-52-43, 06-005) of the installed voltage divider harness assembly (71-52-43, 06-005) was not in the given resistance limits, but the voltage divider harness assembly (71-52-43, 06-005) was correctly installed.
 - (a) Disconnect the five terminal lugs of the voltage divider harness assembly (71-52-43, 06-005) from the engine
 - (i) Disconnect the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 8 of the terminal block (1).
 - (ii) Disconnect the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 7 of the terminal block (1).
 - (iii) Disconnect the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP6150.
 - (iv) Disconnect the grounding terminal lug E of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP6150.
 - (v) Disconnect the grounding terminal lug C of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP5732.
 - (b) Measure the resistance between the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005)
 - (i) Connect a multimeter across the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005).
 - (ii) Make sure that the resistance value is in the range of 7500 ohms +/- 75 ohms.
 - NOTE: If the resistance value is not within the range of 7500 ohms +/- 75 ohms, the voltage divider harness assembly (71-52-43, 06-005) is damaged or defective and must be replaced.
 - (iii) Disconnect the multimeter from the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005).



- (c) Measure the resistance between the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005)
 - (i) Connect a multimeter across the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005).
 - (ii) Make sure that the resistance value is in the range of 3600 ohms +/-36 ohms.

NOTE: If the resistance value is not within the range of 3600 ohms +/- 36 ohms, the voltage divider harness assembly (71-52-43, 06-005) is damaged or defective and must be replaced.

- (iii) Disconnect the multimeter from the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005).
- (d) Connect the five terminal lugs of the voltage divider harness assembly (71-52-43, 06-005) to the engine or, if necessary, install a replacement voltage divider harness assembly (71-52-43, 06-005) on the engine (Refer to the steps B.(4), B.(7) and B.(8)).
- (e) If a replacement voltage divider harness assembly (71-52-43, 06-005) has been installed do the function tests of the replacement voltage divider harness assembly (71-52-43, 06-005) (Refer to the steps B.(11) and B.(12)).
- (13) Cross out the concession on the engine identification plate (72-32-85, 03-120) after accomplishment of this Service Bulletin.
 - <u>NOTE</u>: The concession is marked on the engine identification plate (72-32-85, 03-120) of a limited number of engines only.
 - (a) Use vibro peen equipment to cross out the concession number which is marked with "Concession-IAEXXXXX" or "IAEXXXXX" with a single line.
 - (b) Use scotch brite (Material No. V05-126) to remove any raised metal or burrs which have been produced during the crossing out procedure.
 - (c) Make sure that the engine identification plate is not damaged and is clean and contains no unwanted material.
- (14) Close the access to the right inner area of the intermediate case
 - (a) Close the fan cowl doors (Refer to the Aircraft Maintenance Manual, Chapter 71-13-00 Opening/Closing).

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PART 2 - APPLICABLE FOR ENGINES 'AT OVERHAUL'

(1) General

CAUTION: DO NOT BEND THE ELECTRICAL CABLE CONDUIT TOO MUCH WHEN YOU

DISCONNECT/CONNECT THE ELECTRICAL CONNECTOR. THE CONDUIT CAN BE

DAMAGED AND CAN CAUSE ELECTRICAL CIRCUIT DEFECTS.

CAUTION: MAKE SURE ELECTRICAL CONNECTORS DO NOT HAVE BENT PINS AND THAT

THEY ARE CLEAN BEFORE YOU CONNECT THEM. DAMAGE OR CONTAMINATION OF THE ELECTRICAL CONNECTORS CAN CAUSE DAMAGE TO THE COMPONENTS.

(a) Obey all the WARNINGS and CAUTIONS in the procedures that are referred

(b) Consumable Materials

(i) Refer to the table that follows:

COMAT NO.	DESIGNATION	
05-126	Scotch Brite	

For the details of the consumable material given in the table above refer to the Overhaul Processes and Consumables Index.

- (c) Tools and Equipment
 - (i) Refer to the table that follows:

REFERENCE	DESIGNATION
No Specific	Multimeter

- (ii) For further tools and equipment refer also to the related Manual tasks given in this instruction.
- (d) Refer to the Standard Practices/Processes Manual, Chapter 70-41-01 for all torque procedures.
- (e) Refer to the Standard Practices/Processes Manual, Chapter 70-43-01 for the procedure to connect electrical connectors.
- (2) Get access to the right inner area of the intermediate case



- (3) Disconnect the core harness (71-52-43, 01-005) from the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2)
 - (a) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) to the stud 7 of the terminal block (1).
 - NOTE: Do not remove the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) from the stud 7 of the terminal block (1).
 - (b) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) to the stud 8 of the terminal block (1).
 - (c) Remove the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) from the stud 8 of the terminal block (1).
- (4) Connect the new voltage divider harness assembly (71-52-43, 06-005), P/N 6A8933 and the core harness (71-52-43, 01-005) to the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 2, Sheets 1 and 2)
 - (a) Install the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) on the stud 7 of the terminal block (1).
 - (b) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) to the stud 7 of the terminal block (1)
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
 - (c) Install the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) on the stud 8 of the terminal block (1).
 - (d) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) to the stud 8 of the terminal block (1)
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).



- (5) Install the parts at the new clip position CP6151 on the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2 and to Figure 2, Sheets 1 and 2)
 - (a) Remove the old bolt (72-32-00, 02-307), P/N AS21014 and the old washer (72-32-00, 02-308), P/N MS9321-10 that attach the terminal block (1) to the intermediate case.
 - (b) Loosely install the new bolt (72-32-00, 02-233), P/N AS21030 and the new spacer (72-32-00, 02-234), P/N LJ32698 that attach the new bracket (72-32-00, 02-232), P/N 6A8958 to the terminal block (1).
- (6) Remove the parts at the clip position CP5732 from the bracket (75-27-49, 01-050) (Refer to Figure 1, Sheets 1 and 3)
 - (a) Remove the old bolt (71-52-43, 01-310), P/N 4W0112, the old washer (71-52-43, 01-311), P/N 5W1086 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 01-313) to the bracket (75-27-49, 01-050).
 - NOTE: Do not remove the clip (71-52-43, 01-313) from the core harness (71-52-43, 01-005).
- (7) Install the parts at the changed clip position CP5732 on the bracket (75-27-49, 01-050) (Refer to Figure 2, Sheets 1 and 3)
 - (a) Install the voltage divider harness assembly (71-52-43, 06-005) into the new clip (71-52-43, 06-203), P/N AS62205.
 - (b) Install the new bolt (71-52-43, 01-310), P/N AS21425, the new spacer (71-52-43, 01-314), P/N UP10480 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 06-203), the grounding terminal lug C of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 01-313) to the bracket (75-27-49, 01-050).
 - (c) Torque the bolt (71-52-43, 01-310) to 40 lbf in. (4,5 Nm).
- (8) Install the parts at the new clip position CP6150 on the bracket (72-32-00, 02-232) (Refer to Figure 2, Sheets 1 and 2)
 - (a) Install the new bolt assembly (71-52-43, 06-300), P/N 6A8967 into the new clip (71-52-43, 06-311), P/N AS62203.
 - (b) Install the new bolt (71-52-43, 06-308), P/N 4W0344 and the new nut (71-52-43, 06-314), P/N 4W0001 that attach the grounding terminal lug E of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 06-311) to the bracket (72-32-00, 02-232).
 - (c) Torque the nut (71-52-43, 06-314) to 40 lbf in. (4,5 Nm).

- (d) Install the terminal lug D of the voltage divider harness assembly $(71-52-43,\ 06-005)$ and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness $(72-32-37,\ 01-100)$ on the bolt assembly $(71-52-43,\ 06-300)$.
- (e) Install the new nut (71-52-43, 06-320), P/N AS27831 that attaches the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness (72-32-37, 01-100) to the bolt assembly (71-52-43, 06-300).
- (f) Torque the nut (71-52-43, 06-320) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
- (9) At the clip position CP6151:
 - (a) Torque the bolt (72-32-00, 02-233) to between 85 and 105 lbf in. (10 and 12 Nm).
- (10) Do a visual inspection of the installed voltage divider harness assembly
 - <u>NOTE</u>: This is necessary to make sure that the voltage divider harness assembly is correctly installed and connected.
- (11) Do a function test of the installed voltage divider harness assembly
 - <u>NOTE</u>: This is necessary to make sure that the voltage divider harness assembly is correctly installed and connected. If the result of the function test of the installed voltage divider harness assembly is not in the given resistance limits, do an inspection of the voltage divider harness assembly for its correct installation.
 - (a) Measure the resistance on the electrical connector 407VC-A of the general services harness
 - (i) Disconnect the electrical connector 407VC-A from the mid pylon interface panel (eagle plate).
 - (ii) Install an adapter pin on the pin 17 of the electrical connector 407VC-A.
 - (iii) Install an adapter pin on the pin 18 of the electrical connector 407VC-A.
 - (iv) Connect a multimeter across the pins 17 and 18 of the electrical connector 407VC-A.



- (v) Measure the resistance between the pins 17 and 18 of the electrical connector 407VC-A
 - (1) Make sure that the resistance value is in the range of 2436 \pm +/- 50 ohms.

NOTE: If the resistance value is not within the range of 2436 +/- 50 ohms but in the range of 30 +/- 5 ohms, this is an indication that the voltage divider harness assembly is not installed on the trim balance probe.

- (vi) Disconnect the multimeter from the pin 18 of the electrical connector 407VC-A.
- (vii) Connect a multimeter across the pin 17 and the stud 7 of the terminal block.
- (viii) Measure the resistance between the pin 17 on the electrical connector 407VC-A and the stud 7 of the terminal block
 - (1) Make sure that the resistance value is 5 ohms or less.

<u>NOTE</u>: If the resistance value is not 5 ohms or less , this is an indication:

- that the trim balance sensor lead 4000VS-8 has not been removed from the stud 8 of the terminal block.
- that the trim balance sensor lead 4000VS-7 has been removed from the stud 7 of the terminal block.
- that the trim balance sensor lead 4000VS-7 has been installed to the floating connection.
- (ix) Disconnect the multimeter from the pin 17 of the electrical connector 407VC-A and the stud 7 of the terminal block.
- (x) Remove the adapter pin from the pin 17 of the electrical connector 407VC-A.
- (xi) Remove the adapter pin from the pin 18 of the electrical connector 407VC-A.
- (xii) Connect the electrical connector 407VC-A to the mid pylon interface panel (eagle plate).
- (b) Measure the resistance on the electrical connector 4000KS-J2 of the Engine Electronic Controller (EEC) lane A harness
 - (i) Disconnect the electrical connector 4000KS-J2 from the EEC terminal J2.

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- (ii) Install an adapter pin on the pin L of the electrical connector 4000KS-J2.
- (iii) Install an adapter pin on the pin d of the electrical connector 4000KS-J2.
- (iv) Connect a multimeter across the pins L and d of the electrical connector 4000KS-J2.
- (v) Measure the resistance between the pins L and d of the electrical connector 4000KS-J2
 - (1) Make sure that the resistance value is in the range of 47 + -10 ohms.
 - NOTE: If the resistance value is not within the range of 47 +/- 10 ohms, this is an indication that the voltage divider harness assembly is possibly installed on the N11 speed probe and is not installed on the trim balance probe.
- (vi) Disconnect the multimeter from the pins L and d of the electrical connector 4000KS-J2.
- (vii) Remove the adapter pin from the pin L of the electrical connector 4000KS-J2.
- (viii) Remove the adapter pin from the pin d of the electrical connector 4000KS-J2.
- (ix) Connect the electrical connector 4000KS-J2 to the EEC terminal J2.
- (c) Measure the resistance on the electrical connector 4000KS-J8 of the EEC lane B harness
 - (i) Disconnect the electrical connector 4000KS-J8 from the EEC terminal J8.
 - (ii) Install an adapter pin on the pin L of the electrical connector 4000KS-J8.
 - (iii) Install an adapter pin on the pin d of the electrical connector 4000KS-J8.
 - (iv) Connect a multimeter across the pins L and d of the electrical connector 4000KS-J8.



- (v) Measure the resistance between the pins L and d of the electrical connector 4000KS-J8
 - (1) Make sure that the resistance value is in the range of 47 +/-10 ohms.

NOTE: If the resistance value is not within the range of 47 +/- 10 ohms, this is an indication that the voltage divider harness assembly is possibly installed on the N13 speed probe and is not installed on the trim balance probe.

- (vi) Disconnect the multimeter from the pins L and d of the electrical connector 4000KS-J8.
- (vii) Remove the adapter pin from the pin L of the electrical connector 4000KS-J8.
- (viii) Remove the adapter pin from the pin d of the electrical connector 4000KS-J8.
- (ix) Connect the electrical connector 4000KS-J8 to the EEC terminal J8.
- (12) Do a function test of the disconnected voltage divider harness assembly (71-52-43, 06-005) (Refer to Figure 2)

NOTE: This is only necessary if the result of the function test of (71-52-43, 06-005) of the installed voltage divider harness assembly (71-52-43, 06-005) was not in the given resistance limits, but the voltage divider harness assembly (71-52-43, 06-005) was correctly installed.

- (a) Disconnect the five terminal lugs of the voltage divider harness assembly (71-52-43, 06-005) from the engine
 - (i) Disconnect the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 8 of the terminal block (1).
 - (ii) Disconnect the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 7 of the terminal block (1).
 - (iii) Disconnect the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP6150.
 - (iv) Disconnect the grounding terminal lug E of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP6150.

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- (v) Disconnect the grounding terminal lug C of the voltage divider harness assembly (71-52-43, 06-005) at the clip position CP5732.
- (b) Measure the resistance between the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005)
 - (i) Connect a multimeter across the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005).
 - (ii) Make sure that the resistance value is in the range of 7500 ohms +/-75 ohms.
 - NOTE: If the resistance value is not within the range of 7500 ohms +/- 75 ohms, the voltage divider harness assembly $(71-52-43,\ 06-005)$ is damaged or defective and must be replaced.
 - (iii) Disconnect the multimeter from the terminal lugs D and A1 of the voltage divider harness assembly (71-52-43, 06-005).
- (c) Measure the resistance between the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005)
 - (i) Connect a multimeter across the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005).
 - (ii) Make sure that the resistance value is in the range of 3600 ohms $\pm 1/2$ 36 ohms.
 - NOTE: If the resistance value is not within the range of 3600 ohms +/- 36 ohms, the voltage divider harness assembly $(71-52-43,\ 06-005)$ is damaged or defective and must be replaced.
 - (iii) Disconnect the multimeter from the terminal lugs D and B1 of the voltage divider harness assembly (71-52-43, 06-005).
- (d) Connect the five terminal lugs of the voltage divider harness assembly (71-52-43, 06-005) to the engine or, if necessary, install a replacement voltage divider harness assembly (71-52-43, 06-005) on the engine (Refer to the steps B.(4), B.(7) and B.(8)).
- (e) If a replacement voltage divider harness assembly (71-52-43, 06-005) has been installed do the function tests of the replacement voltage divider harness assembly (71-52-43, 06-005) (Refer to the steps B.(11) and B.(12)).



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International Aero Engines...

SERVICE BULLETIN

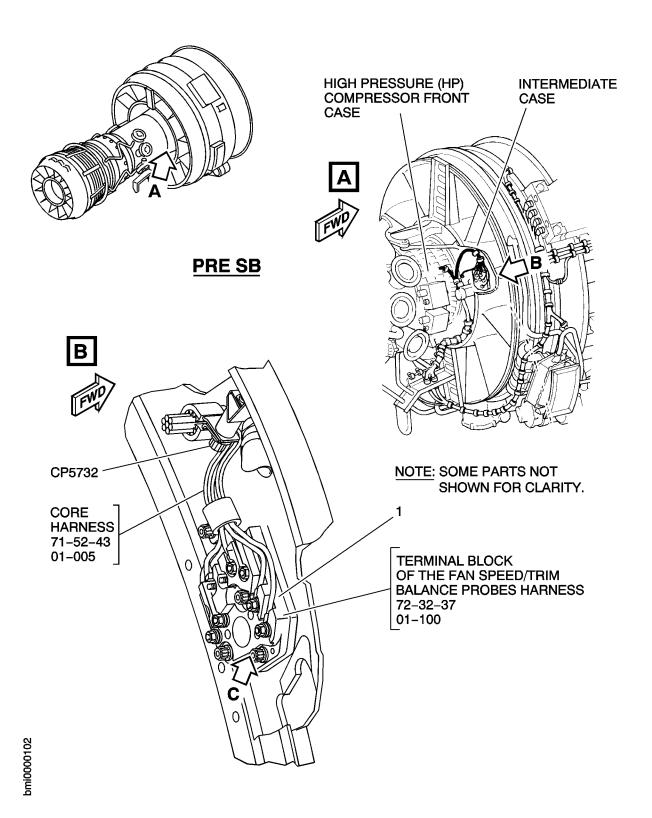
(13) Cross out the concession on the engine identification plate (72-32-85, 03-120) after accomplishment of this Service Bulletin (Refer to the Standard Practices/Processes Manual, Chapter 70-09-00).

The concession is marked on the engine identification plate (72-32-85, 03-120) of a limited number of engines only.

- (a) Use vibro peen equipment to cross out the concession number which is marked with "Concession-IAEXXXX" or "IAEXXXX" with a single line.
- (b) Use scotch brite (CoMat O5-126) to remove any raised metal or burrs which have been produced during the crossing out procedure.
- (c) Make sure that the engine identification plate is not damaged and is clean and contains no unwanted material.
- C. Recording Instructions
 - (1) A record of accomplishment is required.

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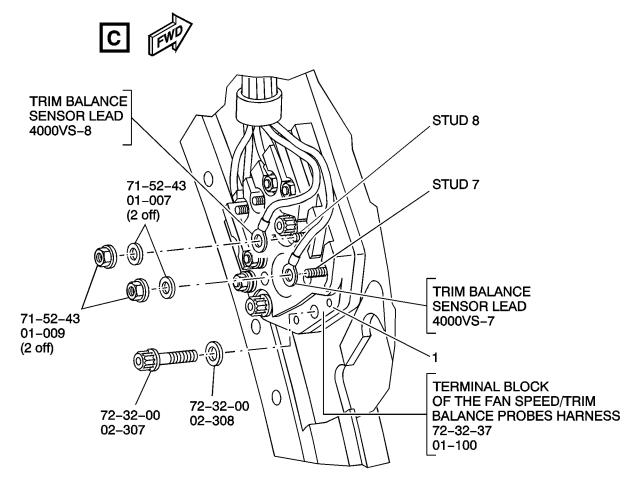


Installation ot the new Voltage Divider Harness Assembly Figure 1 (Sheet 1 of 3)

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PRE SB



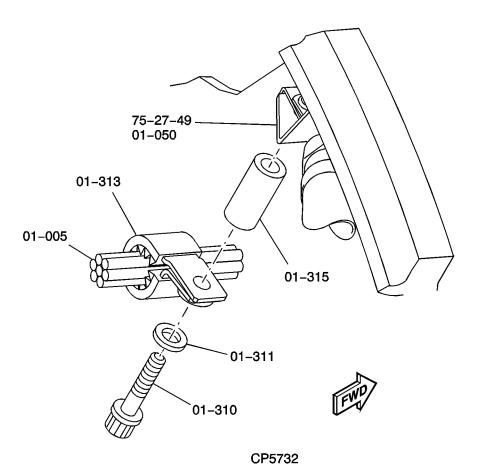
NOTE: SOME PARTS NOT SHOWN FOR CLARITY.

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Installation ot the new Voltage Divider Harness Assembly Figure 1 (Sheet 2 of 3)

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PRE SB



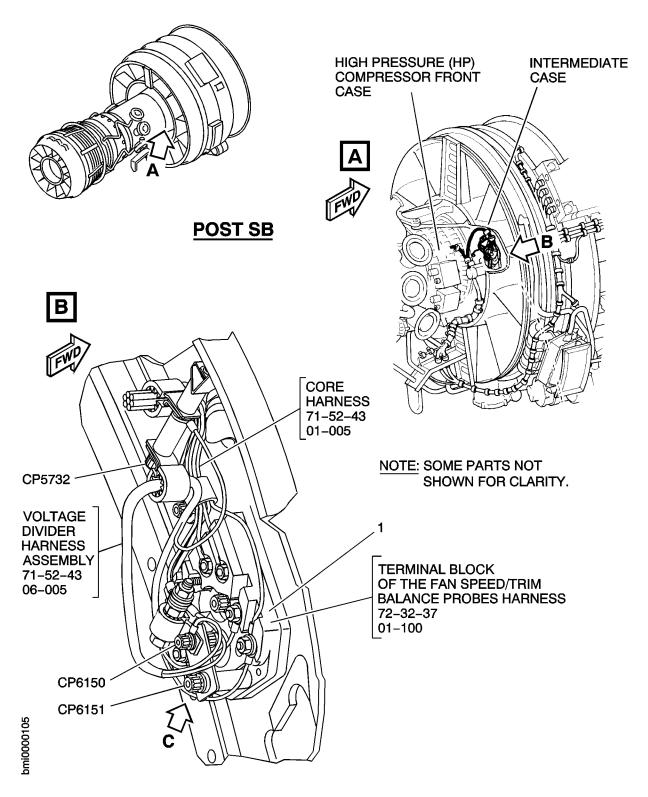
NOTE: ALL IPC FIG/ITEM
NUMBERS ARE 71–52–43
UNLESS IDENTIFIED
DIFFERENTLY.

Installation ot the new Voltage Divider Harness Assembly Figure 1 (Sheet 3 of 3)

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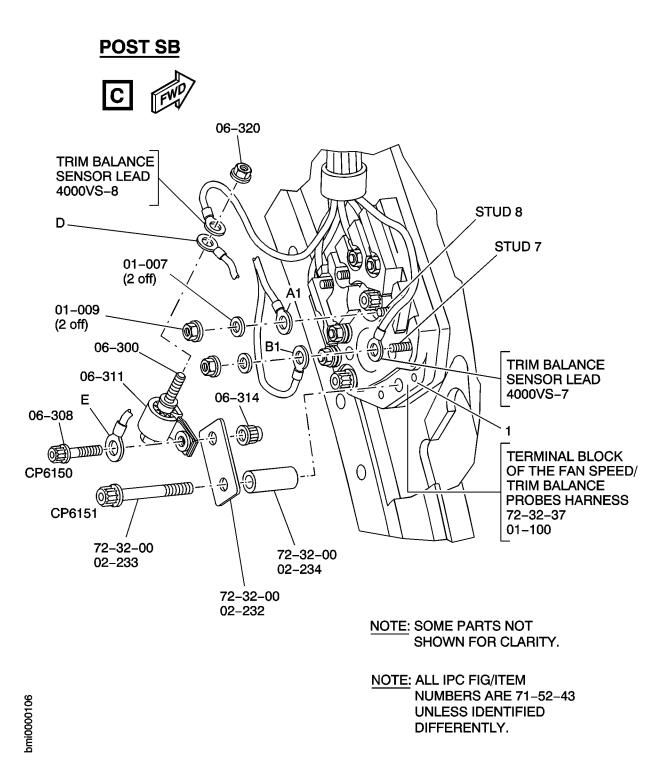
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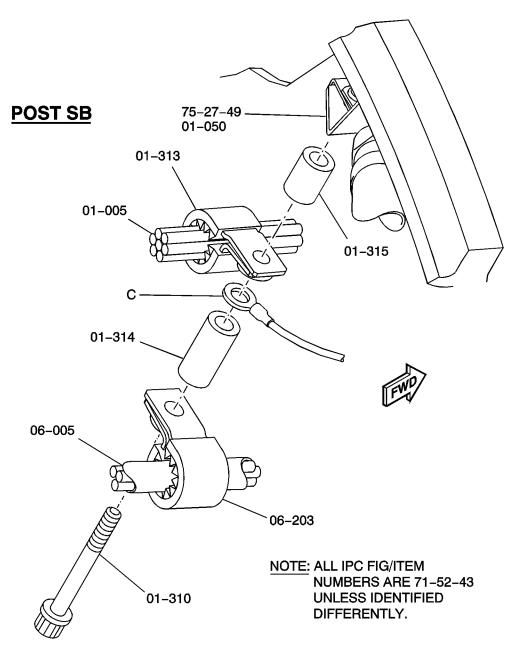
Installation ot the new Voltage Divider Harness Assembly Figure 2 (Sheet 1 of 3)

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Installation ot the new Voltage Divider Harness Assembly Figure 2 (Sheet 2 of 3)

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Installation ot the new Voltage Divider Harness Assembly Figure 2 (Sheet 3 of 3)

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<u>POWER PLANT - ENGINE ELECTRONIC CONTROLLER (EEC) HARNESS-CORE - INTRODUCTION OF</u> VOLTAGE DIVIDER HARNESS ASSEMBLY BETWEEN THE TRIM BALANCE PROBE AND ENGINE HARNESS

SUPPLEMENT - PRICES AND AVAILABILITY

The prices (if shown) are for estimating purposes only and as such are given in good faith, without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

1. Modification Kit:

Part No.	Description	Unit Price US Dollars
MKVA171030301	Kit	\$ 1,793.20
MKVA571030301	Kit	\$ 1,793.20

2. New Production Parts:

Part No.	Description	Unit Price US Dollars
AS21425	Bolt	\$ 12.50
UP10480	Spacer	\$ 18.20
6A8933	Voltage divider	\$ 1,531.50
	harness assembly	
AS62205	Clip	\$ 27.80
6A8967	Bolt assembly	\$ 36.70
4W0344	Bolt	\$ 12.00
AS62203	Clip	\$ 17.70
4W0001	Nut	\$ 4.40
AS27831	Nut	\$ 5.50
6A8958	Bracket	\$ 95.00
AS21030	Bolt	\$ 6.80
LJ32698	Spacer	\$ 24.70

3. Tools

None.

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