



# International Aero Engines

Date: Feb.28/00

Subject: Transmittal of Revision No. 1 To Service Bulletin Number V2500-ENG-73-0167.

Service Bulletin Revision History:

<u>Event</u>	<u>Date</u>
Basic Issue	Feb.21/00
Revision 1	Feb.28/00

Reason For Issuance Of Revision:

(1) To update engine effectivity.

Effect on Prior Compliance:

None.

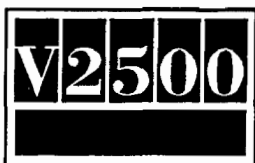
List of Effective Pages:

<u>Bulletin Page No.</u>	<u>Rev. No.</u>	<u>Effective Date</u>
1 and 2	1	Feb.28/00
3 to 6	Basic	Feb.21/00

## V2500-ENG-73-0167

Transmittal  
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### MODIFICATION SERVICE BULLETIN - ENGINE – PROVIDE A5 SCN10B SOFTWARE STANDARD FOR SPECIFIC V2527-A5 DELIVERED ENGINES

#### 1. Planning Information

##### A. Effectivity

###### (1) Aircraft

(a) Airbus A320-232

###### (2) Engine

(a) V2527-A5 Engines Serial Numbers V10003, V10004, V10234, V10235, V10236, V10237, V10241, V10242, V10243, V10244, V10247, V10248, V10249, V10250, V10253, V10254, V10255, V10256, V10257, V10262, V10267, V10268, V10269, V10293, V10303, V10369, V10370, V10371, V10381, V10397, V10412, V10430, V10431, V10437, V10439, V10485, V10486, V10504, V10508, V10531, V10554, V10558, V10560, V10561, V10562, V10573, V10574, V10582, V10659, V10673.

###### (3) ATA Locator

73-22-00

##### B. Concurrent Requirements

None.

##### C. Reason

###### (1) Problem

A potential for stage 4 High Pressure Compressor (HPC) blade fracture exists.

###### (2) Background

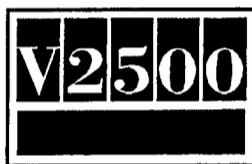
An earlier version of the Variable Stator Vane, (VSV) schedule is being introduced as part of the High Pressure Compressor, (HPC) rotor 4 fleet management plan to preclude possible engine failures in the engines specified above.

###### (3) Objective

Incorporate the A5 SCN10B software standard with the original VSV schedule into selected engines.

###### (4) Substantiation

EEC software standard A5 SCN10B is already an approved and certified software standard. All features existing in the currently installed software standard have been reviewed by engineering and Airbus relative to SCN10B standard software and have concluded that revision to



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this software standard will not impact Flight safety nor introduce unacceptable operational difficulties.

(5) Effect of Bulletin:

**WARNING**

INCORPORATION OF THIS SERVICE BULLETIN REMOVES THE MODIFICATIONS PROVIDED IN EEC SOFTWARE STANDARDS:

SCN11 (BULLETIN-V2500-ENG-73-0086).

SCN11/P (BULLETIN-V2500-ENG-73-0111).

SCN12/Q (BULLETIN-V2500-ENG-73-0121).

SCN14/S (BULLETIN-V2500-ENG-73-0159).

(a) Major Features Removed by Retrofitting SCN10B:

(1) SCN11 ITEM 1.0 ENGINE STARTING

- Enhanced starting logic to improve starting capability of the engine (additional crank, new fuel schedule and fuel depulse function) will not be available.
- Improvements for manual start will not be available.

(2) SCN11 ITEM 2.2 ENGINE RATING VS A/C TYPE DISAGREE INDICATION

The aircraft Flight Warning Computer was changed to compare its aircraft type against that sent by the EEC over ARINC Label 066. If the information does not match, an ECAM warning will be displayed.

(3) SCN11 ITEM 5.0 ENG 1(2) THR LEVER DISAGREE / ENG 1 (2) THR LEVER FAULT

Automatic idle selection in approach phase after such warning will not be available.

(4) SCN11 ITEM 6.1 THRUST REVERSER THIRD LINE OF DEFENCE SHUT OFF VALVE

The EEC software will not monitor the Thrust Reverser Shut Off Valve (SOV) operation.

(5) SCN11/P ITEM 1.0 IDG HEAT MANAGEMENT ENHANCEMENT

Modifications made to reduce the control temperature of the IDG from 100°C to 85°C will not be available.

(6) SCN14/S ITEM 10.0 ENGINE AT OR ABOVE Idle ARINC BIT

There is an indication on the ECAM display, which identifies that the engine is at or above idle. The intention is to provide a positive indication that an in-flight start was successful. The EEC will not send the "engine at or above idle" indication over ARINC Label 066.

(b) The use of SCN10B is intended to be for a limited period only and will be superseded by A5-SCN15/T.



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**D. Description**

Use A5-SCN10B software programming with the original (VSV) schedule for selected engines.

**E. Compliance**

**Category Code 4**

Accomplish at the first visit of an engine or module to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

**F. Approval**

The original software on A320 aircraft was authorized by References K. (2a), Airbus Service Bulletin A320-73-1048.

The Part Number Changes and/or part modifications described in Section 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 listed.

**G. Manpower**

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083

**H. Weight and Balance**

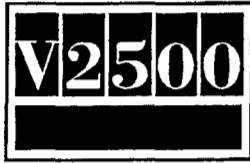
Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083

**I. Electrical Load Data**

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083

**J. Software Accomplishment Summary**

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083



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### K. References

(1) Internal Reference No.

(a) 00VZ003

(2) Other References

- (a) This Service Bulletin is subject to A/C Modification 25596 and is covered by AIB SB A320-73-1048.
- (b) V2500-ENG-73-0083 Engine – Fuel and Control – To Provide a New Electronic Engine Control (EEC) With The SCN10B Software Configuration Version 027/027 Trims.
- (c) V2500-ENG-73-0086 Engine – Fuel and Control – To Provide a New Electronic Engine Control (EEC) With The SCN11 Software Configuration Version 032/032 Trims.
- (d) V2500-ENG-73-0111 Engine – Fuel and Control – To Provide a New SCN11/P (EEC).
- (e) V2500-ENG-73-0121 Engine – Fuel and Control – To Provide a New SCN12/Q (EEC).
- (f) V2500-ENG-73-0159 Engine – Fuel and Control – To Provide a New SCN14/S (EEC).
- (g) Hamilton Sunstrand Service Bulletin EEC-150-20-73-16, Install Software Identification Plate.

### L. Other Publications Affected

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083.

### M. Interchangeability of Parts

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083.



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2. Material Information

A Material Price and Availability

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083.

B Industry Support Information

This is a technical document not a quotation; any prices and delivery are given in good faith without

C Kits necessary for this Service Bulletin

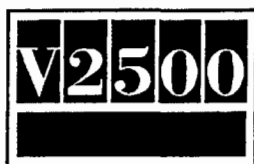
None

D Parts affected by this Service Bulletin

NEW PART No. (ATA No.)	QTY	PART TITLE	OLD PART No. (IPC No.)	INSTR DISP
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Applicability: For each V2527-A5 Engine to incorporate this Service Bulletin

(73-22-34)	1	.Control, Electronic Engine (Vendor P/N 808050-4-028) OR	2A3250 (01-280)	(A)
(73-22-34)	1	.Control, Electronic Engine (Vendor P/N 808050-4-30) OR	2A3283 (01-280)	(A)
(73-22-34)	1	.Control, Electronic Engine OR	2A3342 (01-280)	(A)
	1	.Control, Electronic Control	2A3458	(B)
2A3223 (73-22-34)	1	.Electronic Engine Control	(01-280)	(1D)



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### E Instruction Disposition Code

(1D) The new part can be obtained through modification by the approved procedure as described in the Accomplishment Instructions contained in References K. (2b) Service Bulletin V2500-ENG-73-0083.

(A) The old part is not available.

(B) The old part can be used for other applications.

### F Tooling – Price and Availability

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083.

### 3. Accomplishment Instructions

#### A Rework Instructions

Modify the EEC in accordance with the Accomplishment Instructions contained in References K. (2b) Service Bulletin V2500-ENG-73-0083.

#### NOTE:

Prior to full incorporation of A5-SCN10B on the subject engine serial numbers it is required to perform a ground assurance run on a single engine fitted with SCN10B.

When the first EEC is Reprogrammed on-wing to SCN10B, or the first off-wing reprogrammed SCN10B EEC is installed on an engine/aircraft, the post-installation testing specified in References K. (2b) Service Bulletin V2500-ENG-73-0083, item (43), page 15, is to be completed. All abnormalities must be reported to IAE prior to proceeding with reprogramming on other serial number engines.

#### B Assembly Instructions

Refer to References K. (2b) Service Bulletin V2500-ENG-73-0083.

#### C Recording Instructions

A record of accomplishment is necessary.