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**V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN**

Printed in Great Britain

This document transmits Revision 1 to Service Bulletin EV2500-71-0162 and  
 Revision 1 to the Supplement

**Document History**

Service Bulletin Revision Status  
 Initial Issue                      Jun.13/97

Supplement Revision Status  
 Initial Issue                      Jun.13/97

**Bulletin Revision 1**

Remove  
 All pages of the  
 Service Bulletin

Incorporate  
 Pages 1 to 12 of the  
 Service Bulletin

Reason for change  
 Remove erroneous inst/disp  
 code. Format SB to latest  
 standards.

**Supplement Revision 1**

Remove  
 All pages

Incorporate  
 Page 1

Reason for change  
 Remove erroneous inst/disp  
 code. Format SB to latest  
 standards.

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 Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED

If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England

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# LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 to the Bulletin and Revision 1 to the Supplement are as follows:

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R 2	1	Jul.31/03
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R 8	1	Jul.31/03
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R 10	1	Jul.31/03
R 11	1	Jul.31/03
R 12	1	Jul.31/03
Supplement		
R 1	1	Jul.31/03

Printed in Great Britain



POWER PLANT – ELECTRICAL HARNESS – LIGHT DUTY – EEC LINK HARNESS CORE – REVISED  
COOLING AIR DEFLECTOR BRACKET ASSEMBLY FOR ELECTRICAL CONNECTOR AT STAGE 10 ON/OFF  
VALVE

1. Planning Information

A. Effectivity

(1) Airbus A319

V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V10280

(2) Airbus A320

V2500-A1 Engines prior to Serial No. V0362

V2527-A5, V2527E-A5 Engines prior to Serial No. V10280

(3) Airbus A321

V2530-A5, V2533-A5 Engines prior to Serial No. V10280

B. Concurrent Requirements

None.

C. Reason

(1) Condition

High Cycle Fatigue (HCF) cracking of the core harness cooling air deflector bracket assembly and corresponding stub bracket for the stage 10 on/off valve electrical connector may occur.

The problem is attributed to insufficient stiffness of the current standard of brackets.

(2) Background

The problem has been observed on engines in service.

(3) Substantiation

The changes introduced by this Service Bulletin have been the subject of satisfactory engineering analysis, strain gauge development engine testing and a successful trial installation of brackets representative of the standards introduced by this Service Bulletin on a V2500 mock-up engine.



(4) Objective

Incorporation of this Service Bulletin (Modification) is designed to maintain reliability.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) The changes introduced are:

- (a) A revised cooling air deflector bracket is introduced, similar to the existing item except that the fabrication now comprises a deflector, a support and a stiffening web replacing the existing two piece assembly. The support bracket edges are folded and the web is re-profiled to provide an increase in stiffness.
- (b) A revised attaching bracket is introduced similar to the existing item except for folded edges to provide an increase in stiffness.
- (c) The core harness assembly backshell has been turned one tooth (22.5 degrees) anti-clockwise to provide additional clearance with the revised bracket configurations.

(2) Existing core harness assemblies may be reworked without re-identification (refer to Figure 6).



E. Compliance

Category Code 7

Accomplish when supply of superseded part has been depleted.

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 models listed.

G. Manpower

In service

Not affected.

At overhaul

Not affected.

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material Price and Availability

Modification kit not required; parts supplied as single line items.

For prices and availability of future spares see Supplement to this Bulletin.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

None.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No effect.

(3) Datum

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



L. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

M. Software Accomplishment Summary

Not applicable.

N. References

- (1) Engine Manual, Chapter/Section 72-00-40, Removal/Installation.
- (2) Airbus A319, A320 and A321 Aircraft Maintenance Manual.
- (3) Internal Reference Nos. – EC 94VR031.
- (4) ATA Locator – 72-40-00.

O. Other Publications Affected

- (1) Illustrated Parts Catalogue (IPC) Chapter/Section 71-52-44 and 72-40-00 will be revised.
- (2) Engine Manual, Chapter/Section 72-00-40, Removal/Installation.
- (3) Airbus A319, A320 and A321 Aircraft Maintenance Manual.

P. Interchangeability of Parts

Not affected.



## 2. Material Information

### A. Parts required to accomplish this Service Bulletin:

Applicability: For each V2500 engine to incorporate this bulletin

71-52-44

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
05950	6A5907	1	Bracket A/O - colling air deflector	-	6A3991	(A)(B) (S1)

72-40-00

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01075	6A5911	1	Bracket, attaching	-	6A3992	(A)(B) (S1)

### B. Instructions disposition codes:

(A) New part is currently available.

(B) Old part will be discontinued.

(S1) Old and new parts are freely and fully interchangeable.



### 3. Accomplishment Instructions

#### A. Rework Instructions

None.

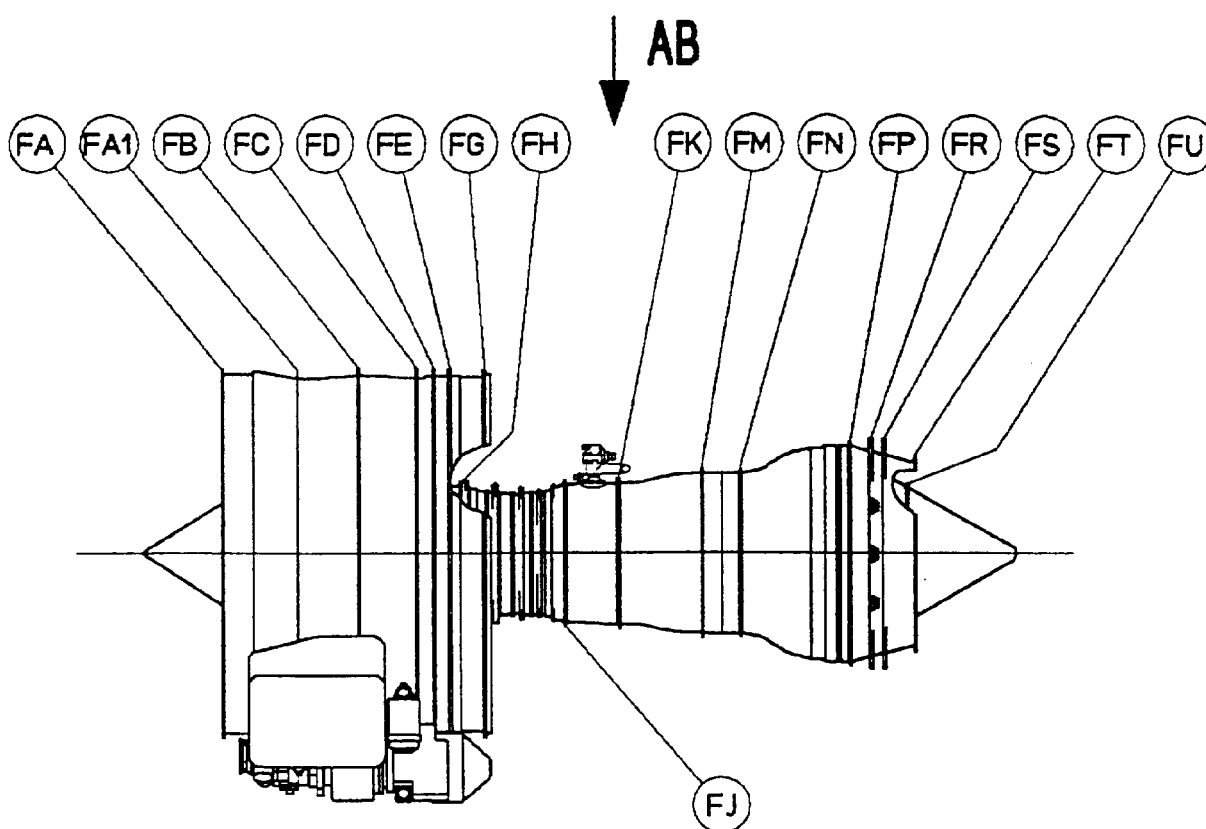
#### B. Assembly Instructions

For the installation of the cooling air deflector refer to the V2500 Engine Manual, Chapter/Section 72-00-40 and the Airbus A319, A320 and A321 Aircraft Maintenance Manual.

#### C. Recording Instructions

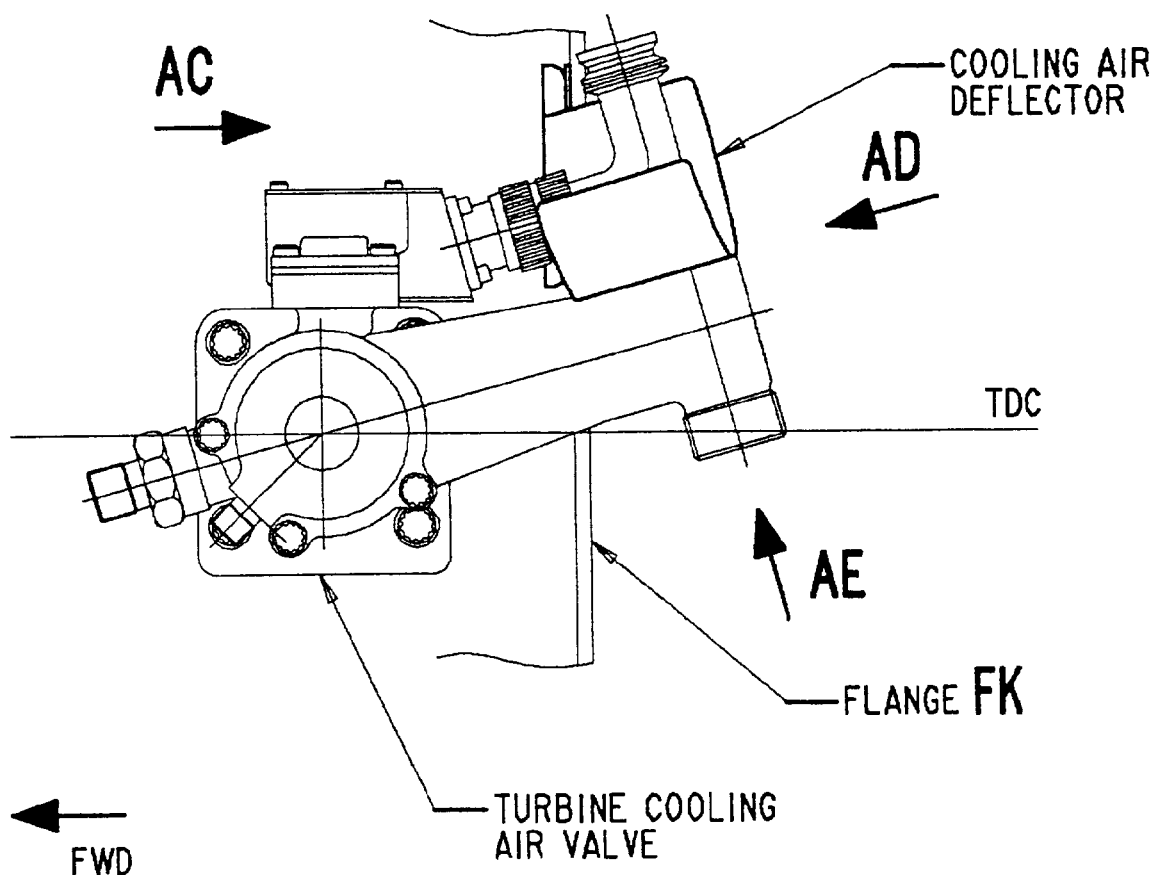
A record of accomplishment is necessary.





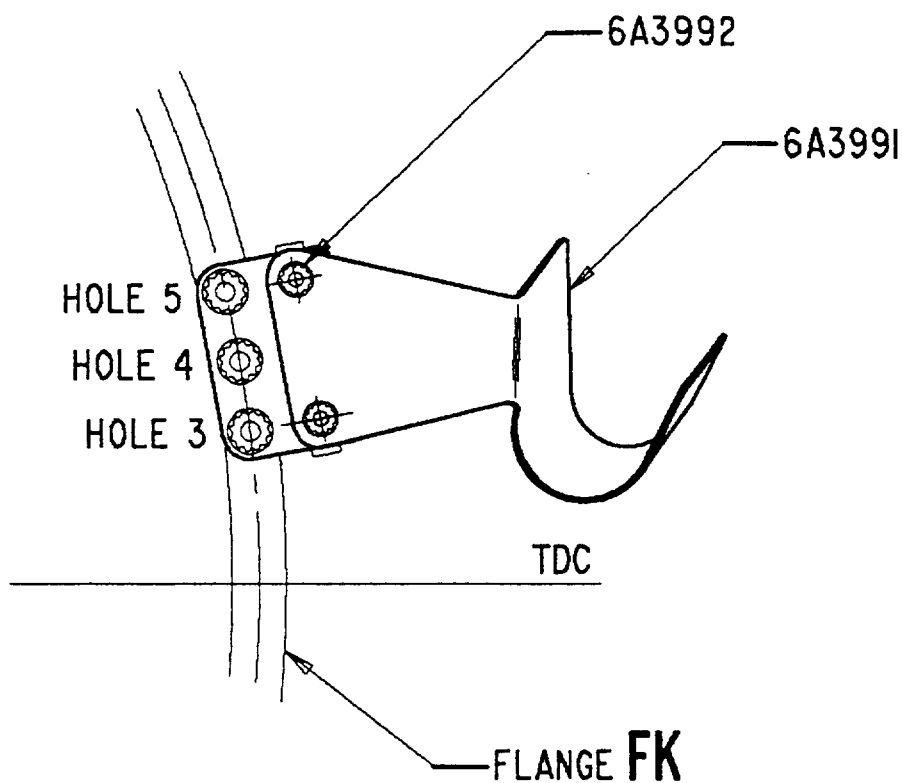
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View on engine - Location turbine cooling air valve  
Figure 1



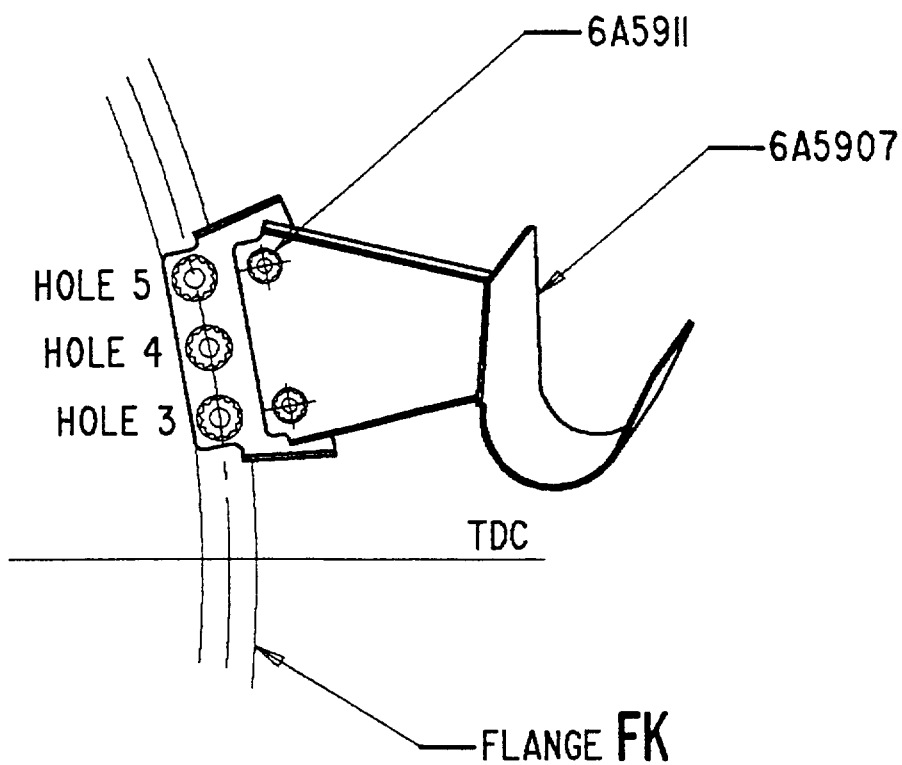
TYPICAL VIEW ON ARROW **AB**

View AB of turbine cooling air valve – Before and after alteration  
Figure 2



VIEW ON ARROW **AC**  
WITH COOLING AIR VALVE REMOVED

Bracket assembly - before alteration  
Figure 3

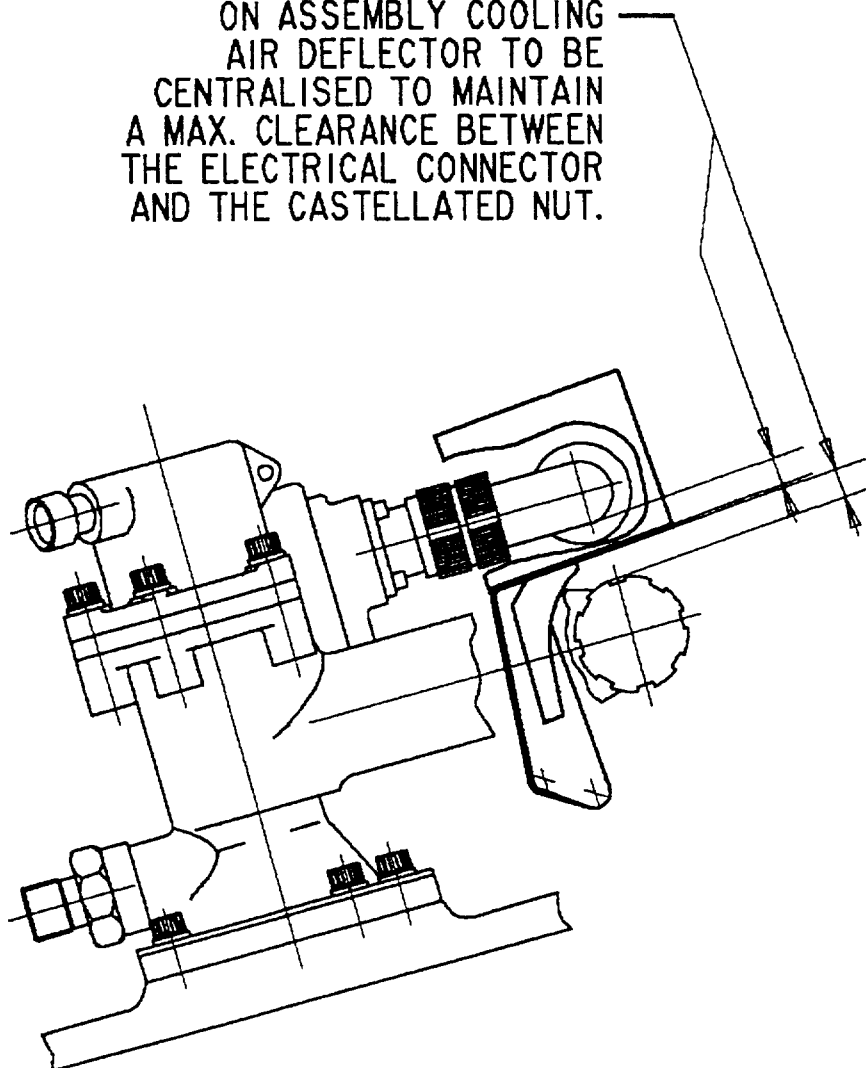


VIEW ON ARROW **AC**  
WITH COOLING AIR VALVE REMOVED

Bracket assembly - after alteration  
Figure 4



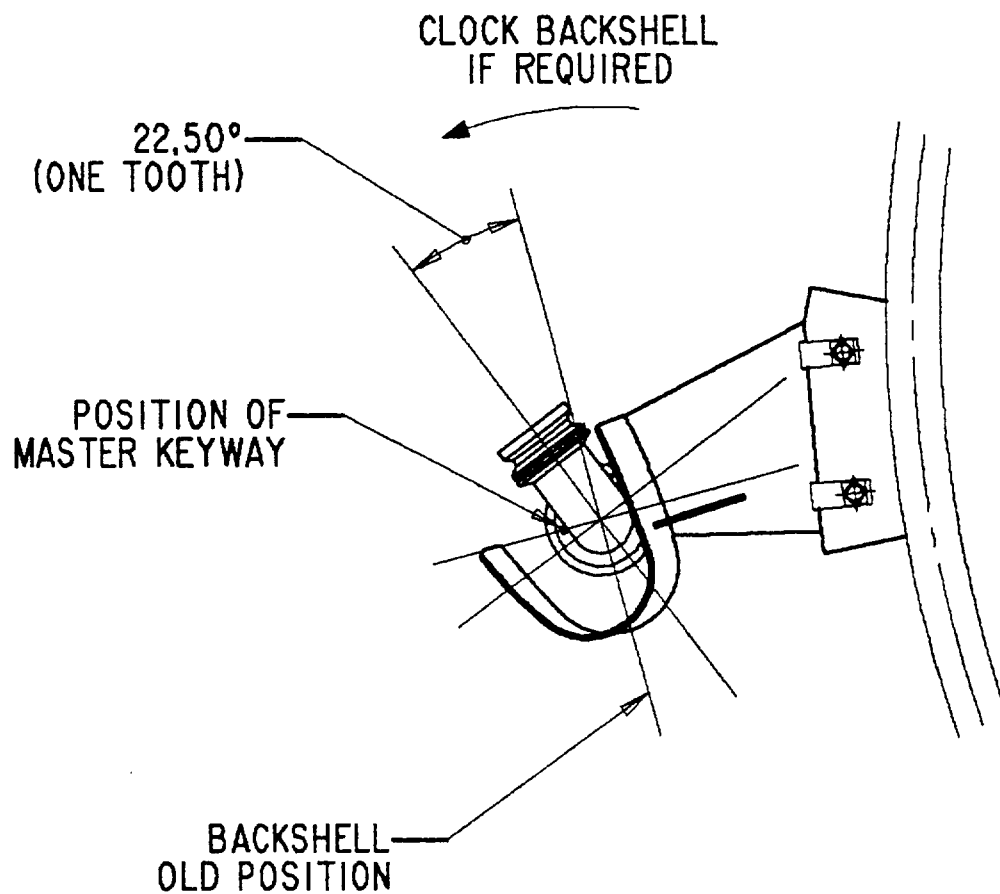
ON ASSEMBLY COOLING  
AIR DEFLECTOR TO BE  
CENTRALISED TO MAINTAIN  
A MAX. CLEARANCE BETWEEN  
THE ELECTRICAL CONNECTOR  
AND THE CASTELLATED NUT.



VIEW ON ARROW **AE**

View AE of cooling air valve - after alteration  
Figure 5

ded0002716



VIEW ON ARROW AD

Rework of harness assemblies  
Figure 6

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POWER PLANT - ELECTRICAL HARNESS - LIGHT DUTY - EEC LINK HARNESS CORE - REVISED  
COOLING AIR DEFLECTOR BRACKET ASSEMBLY FOR ELECTRICAL CONNECTOR AT STAGE 10 ON/OFF  
VALVE

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:

Not applicable.

2. New Production Parts:

Part No.	Desc.	Unit Price US Dollars
6A5907	Bracket	126.00
6A5911	Bracket	Price on request

