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

Printed in Great Britain

This document transmits Revision 2 to Service Bulletin V2500-ENG-24-0020 and Revision 2 to the Supplement

### Document History

Service Bulletin Revision Status		Supplement Revision Status	
Initial Issue	Apr.14/05	Initial Issue	Apr.14/05
Revision 1	Mar.14/06	Revision 1	Mar.14/06

### Service Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 12 of the Service Bulletin	To revise the Description and the Accomplishment Instructions.
All pages of the Summary		

### Supplement Revision 2

Remove	Incorporate	Reason for change
All pages of the Supplement	Page 1 of the Supplement	To revise the Description and the Accomplishment Instructions.

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Transmittal - Page 1 of 1

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NACELLE – POWERPLANT – ENGINE BUILT UNIT (EBU) – REPLACEMENT OF THE IDG EARTH STUD  
BRACKET

1. Planning Information

A. Effectivity

(1) Airbus A319

(a) Engine Build Unit (EBU 3) Serial Numbers prior to 1724001. (Reference: delivered units on V2522-A5, V2524-A5, V2527M-A5 Engine Serial Numbers prior to V11912).

(2) Airbus A320

(a) All V2500-A1 Engine Built Units (EBU 3) and Engines.

(b) Engine Built Unit (EBU 3) Serial Numbers prior to 1724001. (Reference: delivered units on V2527-A5, V2527E-A5 Engine Serial Numbers prior to V11912).

(3) Airbus A321

(a) Engine Build Unit (EBU 3) Serial Numbers prior to 1724001. (Reference: delivered units on V2530-A5, V2533-A5 Engine Serial Numbers prior to V11912).

B. Concurrent Requirements

None.

C. Reason

(1) Problem

The rigidity of the IDG Harness can prevent adjustment of length between the Pylon Connector and the IDG Earth Stud Bracket. Consequently, the Harness may not be installed at the optimum routing when entering the Pylon Connector which could lead to stress on the Contacts.

(2) Evidence

Inspections have shown that the IDG Harness may not be installed at the optimum routing when entering the Pylon Connector.

(3) Substantiation

Trial fits by Airbus have shown that the new IDG Earth Stud Bracket allows for sufficient adjustment to ensure the proper routing of the IDG Harness.

(4) Objectives

To introduce a new IDG Earth Stud Bracket with slots to allow adjustment in the length of the Harness between the Pylon Connector and the Bracket. The adjustment will improve the routing of the IDG Harness and alleviate the stress between the Harness Contacts and the Pylon Connector.

(5) Effect of Bulletin on:

(a) Operation

Not affected

(b) Maintenance

Affected

(c) Overhaul

Affected

(d) Repair Scheme

Not affected

(e) Interchangeability

Affected

(f) Fits and Clearances

Not affected

D. Description

(1) The changes introduced by this Service Bulletin are as follows:

(a) Fan Cowl Doors are opened.

(b) The installation of the IDG Connector at the Pylon interface is checked.

(c) The P-clips along the routing of the IDG Harness are loosened to allow for adjustments.

(d) The IDG Harness is disconnected at the Earth Stud Bracket.

(e) The Earth Stud Bracket is replaced.

(f) A resistance check is done between the new Bracket and the Engine Flange.

(g) The IDG Harness is connected at the new Earth Stud Bracket and checked for correct routing.

(h) The Fan Cowl Doors are closed.

E. Compliance

Category 6

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

F. Approval

The technical content of this Service Bulletin has been approved under the authority of the EASA Design Organisation Approval No EASA.21J.031. The authorising IAE document is EC 04VN762.

G. Manpower

Estimated man-hours to incorporate the intent of this Service Bulletin on each engine:

(1) In Service

1.0 M/Hr

(2) At overhaul

1.0 M/Hr

NOTE: Manpower estimate is provided for planning purposes only. No labor allowance is provided under the terms of this service bulletin offering.

H. Material Cost and Availability

Operators with units listed in Paragraph 1.A. should submit a Charge purchase order for the applicable quantity of parts. The Charge purchase order must specify this Service Bulletin number the parts listed herein.

Direct request to:

Goodrich Aerostructures Group

850 Lagoon Drive

Chula Vista, CA 91910-2098 USA

Attn: Airline Support Manager MZ107A

(Service Bulletin No. V2500-NAC-24-0020)

Telephone: (619) 691-2006

Fax: (619) 691-6195

I. Tooling – Cost and Availability

None.

J. Industry Support Information

Not applicable.

K. Weight and Balance

Not affected.

L. Electrical Load Data

This modification improves electrical power feed continuity.

M. Software Accomplishment Summary

Not applicable.

N. References

- R
- (1) A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft Maintenance Manual (M-V2500-1IA) Chapter/Sections 70-23-11, 70-40-11 and 71-13-00.
  - (2) Overhaul Processes And Consumable Index (IAE PCI-V2500-1IA) Section II.
  - (3) IAE engineering change EC 04VN762.
  - (4) Aircraft modification no. 34982.
  - (5) Airbus Service Bulletin no. A320-71-1034.
  - (6) ATA Locator 24-21-43.

O. Other Publications Affected

- (1) A320/V2500-A1/A5 Engine Illustrated Parts Catalog, Chapter/Section 24-21-43 will be revised.
- (2) A320/V2500-A1 A319/A320/A321/V2500-A5 Engine Manual (E-V2500-1IA) Chapter/Section 72-00-32 will be revised.

P. Interchangeability of Parts

- (1) New part is interchangeable with old part but old part is not interchangeable with new part.

## 2. Material information

### A. Kits required consist of the following parts:

None.

### B. Parts to be reworked:

None.

### C. New production parts:

Applicability: For each V2500-A1 Propulsion System to incorporate this Service Bulletin.

All V2500-A1 Propulsion Systems

24-21-43

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01940	740-5894 -503	1	IDG Earth Stud Bracket	-	740-5894 -501	(A)(S1)

Applicability: For each V2500-A5 Propulsion System to incorporate this Service Bulletin.

All V2500-A5 Propulsion Systems

24-21-43

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01940	740-5894 -503	1	IDG Earth Stud Bracket	-	740-5894 -501	(A)(S1)

### D. Redundant Parts:

None.

### E. Instructions/Dispositions Code Statements

(A) Parts are currently available.

(S1) New part is interchangeable with old part, but old part is not interchangeable with new part.



**F. Materials required to incorporate this Bulletin:**

CoMat 01-002 Inhibited and stabilized trichloroethane

CoMat 02-099 Lint free cloth

CoMat 02-147 Lockwire

**NOTE:** To identify the consumable materials, refer to the Overhaul Processes and Consumable Index PCI-V2500-1IA.

### 3. Accomplishment Instructions

#### A. Pre-requisite Instructions

**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.

**WARNING:**

MAKE SURE THAT THE AIRCRAFT IS SAFE FOR MAINTENANCE. THIS WILL PREVENT INJURIES TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT.

- R      (1) Open the Fan Cowl Doors. Refer to the Aircraft Maintenance Manual, Task 71-13-00-010-010.

#### B. Rework Instructions

- (1) Loosen the two bolts that attach the Support Clamp to the Engine to allow adjustment of the IDG Harness. Refer to Figure 1 sheet 1.
- (2) At six locations, loosen the bolt that attaches the p-clip to the Engine to allow adjustment of the IDG Harness.
- (3) Confirm that the IDG Electrical Connector is correctly installed to the Pylon Receptacle.

**NOTE:** If the orange indicator is not visible in the coupling nut window then the IDG Connector is not correctly installed to the Pylon Receptacle.

- (4) If necessary, remove the lockwire and hand tighten the connector until the orange indicator is visible. Safety the connector with lockwire (CoMat 02-147). Refer to the Aircraft Maintenance Manual, Task 70-40-11-911-014.
- (5) Remove the AS8623J nut and the two harness terminal lugs from the 740-5894-501 Bracket.
- (6) Remove the two AS20625 nuts and the two AS21513 bolts to release the 740-5894-501 Bracket from the Engine Flange. Remove the Bracket.

**WARNING:**

BEFORE YOU USE CHEMICALS, READ, UNDERSTAND AND OBEY ALL SAFETY INSTRUCTIONS FOR THE CHEMICALS. THESE INSTRUCTIONS INCLUDE INSTRUCTIONS FROM THE MANUFACTURER, THE MATERIAL SAFETY DATA SHEET (MSDS), AND GOVERNMENT REGULATIONS. CHEMICALS MAY CAUSE INJURY TO YOU OR MAKE YOU SICK WHEN SAFETY INSTRUCTIONS ARE NOT OBEYED. AN MSDS GIVES INSTRUCTIONS ON HOW YOU MUST SAFELY USE, KEEP, AND DISCARD CHEMICALS. GET INSTRUCTIONS FROM YOUR EMPLOYER ON HOW YOU MUST SAFELY USE, KEEP, AND DISCARD CHEMICALS.

- (7) Use a clean, lint free cloth (CoMat 02-099) made moist with CoMat (01-002) inhibited and stabilized trichloroethane and remove oil, dirt, grease and other contaminants from the Engine Flange, the new Bracket and the two harness lugs. Wipe the area dry with a clean, lint free cloth (CoMat 02-099) before the solvent evaporates.

NOTE: The cleaned surface area of the flange should be 1.25 times the size of the area of contact with the Bracket.

- (8) Install the new 740-5894-503 Bracket to the Engine Flange with the two AS21513 bolts and the two AS20625 nuts. To allow adjustment of the bracket position, do not torque the bolts.

NOTE: To achieve accurate measurement of the electrical resistance, tighten the bolts sufficiently to achieve continuity between the bracket and the engine flange.

- (9) Measure the electrical resistance of the new Bracket. Make sure the electrical resistance between the Bracket and the Flange is not more than 0.005 ohms. If the electrical resistance is more than 0.005 ohms, clean the area again as necessary.

- (10) Install the two harness terminal lugs to the 740-5894-503 Bracket with the AS8623J nut.

- (11) Confirm that there are no excessive bends in the harness routing between the Pylon interface and the new Bracket. Refer to Figure 1 sheet 2.

NOTE: To remove excessive bends, adjust the IDG Harness routing and bracket position.

- (12) Torque the two AS20625 nuts to 85 to 105 lbfin (10 to 12 Nm). Refer to the Aircraft Maintenance Manual, 70-23-11-911-013.

- (13) Torque the AS8623J nut to 110 lbfin (12,43 Nm). Refer to the Aircraft Maintenance Manual, 70-23-11-911-013.

- (14) At six locations, torque the p-clip bolt to 40 lbfin (4,5 Nm). Refer to the Aircraft Maintenance Manual, 70-23-11-911-013.

- (15) Torque the two nuts at the Support Clamp to 100 lbfin (11,13 Nm). Refer to the Aircraft Maintenance Manual, 70-23-11-911-013.

- (16) Make sure that the work area is clean and clear of tools and other items.

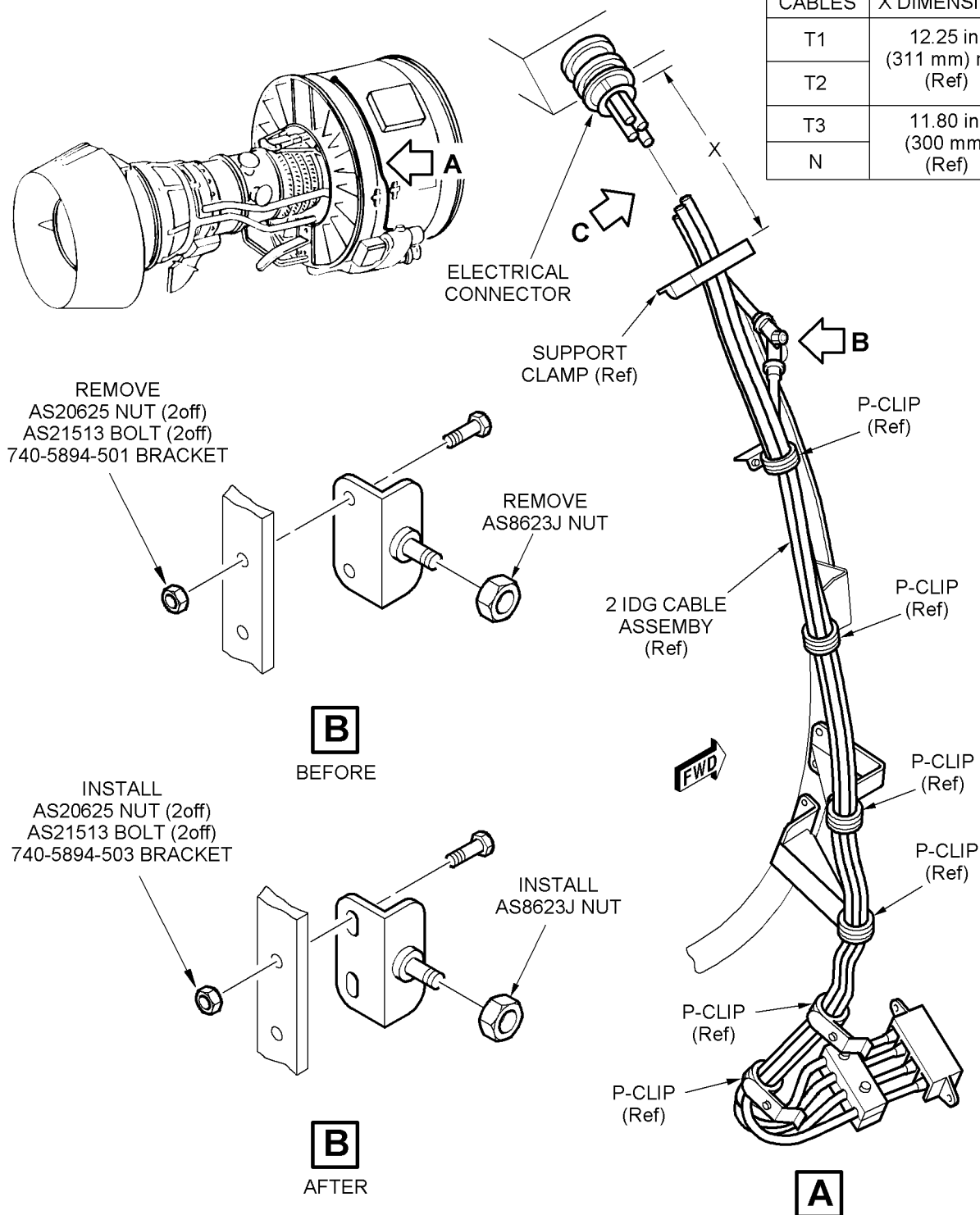
#### C. Post-requisite Instructions

- (1) Close the Fan Cowl Doors as instructed in the A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft Maintenance Manual, Task 71-13-00-410-010.

**D. Recording Instructions**

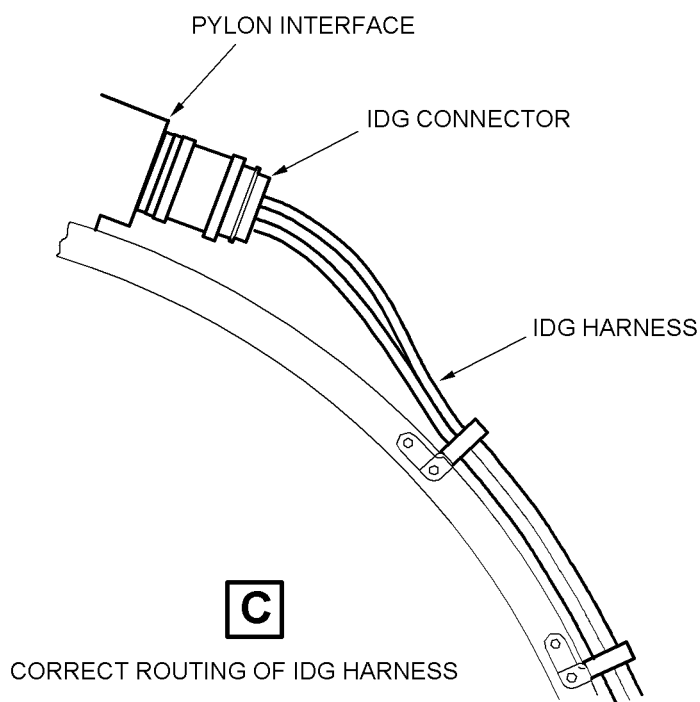
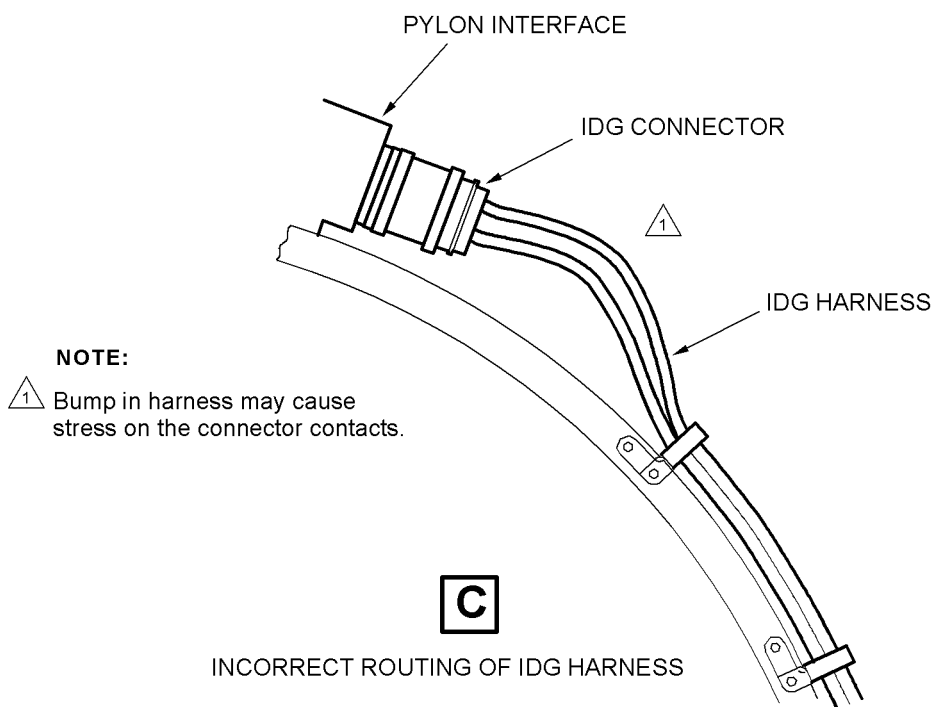
- (1) A record of accomplishment is necessary. Write in the Aircraft Log Book that Service Bulletin V2500-NAC-24-0020 has been done.

CABLES	X DIMENSION
T1	12.25 in. (311 mm) min (Ref)
T2	
T3	11.80 in. (300 mm) (Ref)
N	



sh000b4792

Replacement of the IDG Earth Stud Bracket  
Figure 1 sheet 1



sh000b4793

Replacement of the IDG Earth Stud Bracket  
 Figure 1 sheet 2

NACELLE – POWERPLANT – ENGINE BUILT UNIT (EBU) – REPLACEMENT OF THE IDG EARTH STUD  
BRACKETSUPPLEMENT – 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
R	740-5894-503	IDG Earth Stud Bracket	P.O.A.