SERVICE BULLETIN REVISION NOTICE

INFORMATION — IGNITION — INTRODUCTION OF A MODIFIED IGNITION LEAD TO ADDRESS INSULATION DEGRADATION/CRACKING

Turbojet Engine Service Bulletin No. V2500-ENG-70-1004 Revision No. 1 dated June 12, 2014.

Revision History

Original Issue July 23, 2012

Revision 1 dated June 12, 2014

Reason for the Revision

To add a Summary to explain the purpose of the bulletin.

To update the Effectivity section.

To incorporate the new Illustrated Parts Catalog part numbers in the References Section.

To add Reference 7, Service Bulletin V2500-ENG-70-1005 as a concurrent requirement.

To change the Interchangeability from directly interchangeable to incorporate in full sets.

Add the current price of the part as of this date in the Material Information section.

To add a Commercial Vendor Support Program and Vendor Services Section.

To create an Accomplishment Instruction section for installation of the new leads.

To add additional references to complete the Accomplishment Instructions.

To add two graphics to help describe the old and new part locations.

Effect of Revision on Prior Compliance

Perform Reference 7, Service Bulletin V2500-ENG-70-1005 at the next opportunity.

This is a Complete Revision (Not Applicable to the SGML version)

The format of this Service Bulletin has been changed from previous versions. This revision shows flow bars and the revision date on the bottom of every page. Technical changes incorporated in this revision are marked with revision bars. The contents are in accordance with the list of effective pages.

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 70-1004

Page	Revision No.	Date
1 thru 10	1	June 12/14

A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

SERVICE BULLETIN

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MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 70-1004

ATA NUMBER

74-21-43

Compliance Category

7

Summary

The purpose of this Service Bulletin is to introduce a new ignition lead with increased conductor diameter and an additional polytetrafluoroethylene (PTFE) sleeve over the complete length of the silicone insulated ignition lead.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1
Engine Serial Nos. V0001 thru V0361

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V10001 thru V13190

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V15001 thru V16455
Engine Serial Nos. V16542 thru V16965
Engine Serial Nos. V16967 thru V16968

Concurrent Requirements

This Service Bulletin must be done at the same time as Reference 7, Service Bulletin No. V2500-ENG-70-1005.

Reason

1. Condition: Field returns of ignition leads indicated a degradation of the silicone insulation material and cracking of the outer insulation jacket.
2. Background: Breakdown of the ignition lead insulation is attributed to dielectric stress and corona discharge.
3. Objective: A re-design of the ignition lead was performed to decrease the dielectric stress and to improve the dielectric resistance against chemical attack.
4. Substantiation: A trial installation has been carried out with no configuration problems and no effect on the installation of other units.
5. Effects of Bulletin on:

   Removal/Installation: No effect.

   Disassembly/Assembly: No effect.

   Cleaning: No effect.

   Inspection/Check: No effect.

   Repair: No effect.

   Testing: No effect.
6. Supplemental Information

   None.

Description

This Service Bulletin introduces a new ignition lead with increased conductor diameter and an additional polytetrafluoroethylene (PTFE) sleeve over the complete length of the silicone insulated ignition lead.

The spring retainers and springs in the current design are replaced by larger diameter springs which rest directly on the PTFE sleeve to reduce the heat transfer from the igniter plug to the ignition lead.

A new polyether ether ketone (PEEK) washer and a ferrule have been introduced to simplify the design and provide technical improvement.

The diameters of the air inlet and outlet holes on the ignition lead end fittings have been increased to provide additional cooling air flow and compensate for the reduction of the cross sectional cooling gap caused by the increased conductor diameter.

The 90 degree elbow end fitting has been increased in height to accommodate the larger cooling air outlet holes and changes to the ferrule assembly.

There is no impact on engine performance. The new standard of ignition lead must be incorporated at the same time as the new ignition lead plug end shrouds. See Concurrent Requirements and Reference 7, Service Bulletin V2500-ENG-70-1005.The clip positions and routing of the leads are not affected.

Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

Manpower

1. In Service

   ..... Not Applicable.

2. At Overhaul

   ..... Not Applicable.

Weight and Balance

1. Weight Change

   None.

2. Moment Arm

   No Effect.

3. Datum

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

Electrical Load Data

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

Software Accomplishment Summary

Not Applicable.

References

1. ATA Locator — 74-21-43.
2. V2500-A1 Series Illustrated Parts Catalog, PN 2A4427, Chapter/Section 74-21-43.
3. V2500-A5 Series Illustrated Parts Catalog, PN 2A4428, Chapter/Section 74-21-43.
4. V2500 Component Maintenance Manual (CMM-MECH), PN 2A4409, Chapter/Section 74-21-43.
5. V2500 A1/A5 Series Engine Manual, PN 2A4407, Chapter/Section 72-00-40.
6. Airbus A319/A320/A321 Aircraft Maintenance Manual, Chapter/Section 72-00-40.
7. IAE V2500 Service Bulletin V2500-ENG-70-1005 (Ignition — Shroud, Lead Plug End — Introduction Of A Longer Shroud To Improve Cooling).
8. IAE V2500 Service Bulletin V2500-ENG-79-0087 (Oil — Scavenge Oil Tubes — Re-route Of Number 4 Bearing Scavenge Tube).
9. IAE V2500 Service Bulletin V2500-ENG-79-0088 (Oil — Scavenge Oil Tubes — Re-route Of Number 4 Bearing Scavenge Tube).

Other Publications Affected

1. V2500-A1 Series Illustrated Parts Catalog, PN 2A4427, Chapter/Section 74-21-43.
2. V2500-A5 Series Illustrated Parts Catalog, PN 2A4428, Chapter/Section 74-21-43.
3. V2500 Component Maintenance Manual (CMM-MECH), Chapter/Section 74-21-43.

Interchangeability of Parts

Old and new parts are interchangeable only in full sets.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. The estimated price of new material to do this Service Bulletin using new replacement parts is $5,373.32.
2. There is a kit provided by Unison Industries to do this Service Bulletin. See the Vendor Services section for more information.
3. Part availability information is provided in material data Instructions — Disposition.

Commercial Vendor Support Program

Vendor support program is being provided by Unison Industries. See the Vendor Services section for more information.

The material data that follows is for each engine.

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
512090-1	1	2,686.66	IGNITION LEAD — A	5U0072 (74-21-43-01-100)	(2)(A)(L)(S1)
512090-1	1	2,686.66	IGNITION LEAD — B	5U0072 (74-21-43-02-100)	(2)(A)(L)(S1)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

(A) The new part is available.

(L) The old part will be supplied until the supply is fully used.

(S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE SET per Engine (or Nacelle).

Vendor Services or Special Components/Materials

1. When this Service Bulletin V2500-ENG-70-1004 and Reference 7, V2500-ENG-70-1005 are accomplished at the same time, the parts required may be obtained as a Kit, PN K516516 from Unison Industries.

   NOTE: Kit, PN K516516 is a Unison part number and is only available from Unison Industries.

2. Operators are requested to work directly with Unison Industries (contact information provided below) regarding the material logistics and to obtain the discounted pricing information when returning to Unison the old lead PN 5U0072 and old shrouds PN 5U0065. In exchange the operators will receive a kit with the new lead and new shrouds.

3. The kit will be provided for all eligible engines listed in the effectivity section of this Service Bulletin thru the end of the commercial support period identified as 06/01/17.

4. Should you require additional information please contact your local IAE representative or your Customer Fleet Director.

Vendor Information

Quantity	Vendor Designation	Name	Vendor Name & Address
1	K516516	Kit Contents are Parts that Follow:	Unison Industries 7575 Baymeadows Way Jacksonville, FL 32256-8514 U.S.A. Attn: Tina Honour Phone: 904-739-4106
2	514465	Shroud, Lead plug end	
1	512090-1	Lead, Ignition	
Vendor Manufacturer's Code: 59501 See Illustrated Parts Catalog Vendor Manufacturer's Code List			

NOTE: EXCEPT FOR WORK OR SUPPLIES TO BE PERFORMED OR FURNISHED BY IAE, IT IS UNDERSTOOD THAT IAE DOES NOT ENDORSE THE WORK PERFORMED BY THE COMPANY OR COMPANIES NAMED HEREIN OR ANY OTHER COMPANY AND DOES NOT ACCEPT RESPONSIBILITY TO ANY DEGREE FOR THE SELECTION OF SUCH COMPANY OR COMPANIES FOR THE PERFORMANCE OF ANY WORK OR PROCUREMENT OF SUPPLIES.

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

NOTE: Service bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

1. For engines installed on aircraft (on wing) do the following procedure: See Figures 1 and 2 for location of parts.

   A. Refer to Reference 6, Aircraft Maintenance Manual TASK 74-21-43-000-010-A for removal of both V2500-A1 Ignition Leads, PN 5U0072 or TASK 74-21-43-000-010-B for removal of both V2500-A5 Ignition Leads, PN 5U0072.

   B. Refer to Reference 6, Aircraft Maintenance Manual TASK 74-21-43-400-010-A for installation of both V2500-A1 Ignition Leads, PN 512090-1 or TASK 74-21-43-400-010-B for installation of both V2500-A5 Ignition Leads, PN 512090.

2. For engines removed from aircraft (off wing) do the following procedure: See Figures 1 and 2 for location of parts.

   NOTE: The Engine Manual refers to the Ignition Lead as the High Energy Ignition Harness. It is the same part.

   A. Remove the High Energy Ignition Harnesses: Refer to Reference 5, Engine Manual TASK 72-00-40-020-003-A00 (for A1) or TASK 72-00-40-020-003-B00 (for A5).

      (1) Remove the 2 Ignition Leads, PN 5U0072 and replace in sets with PN 512090-1.

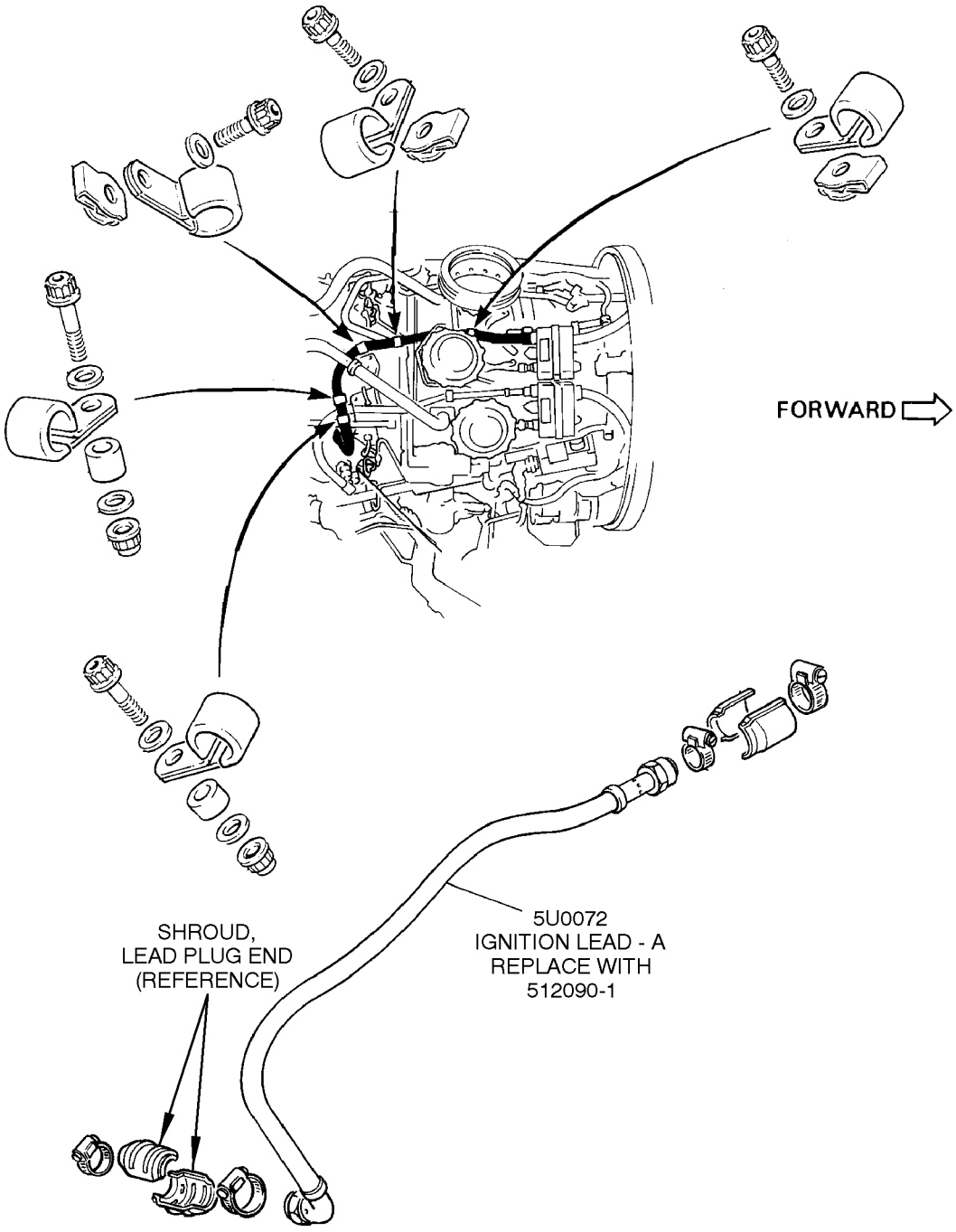
   B. Install the High Energy Ignition Harness: Refer to Reference 5, Engine Manual TASK 72-00-40-420-095 (for A1), or TASK 72-00-40-420-224 (for A5).

      (1) For additional clarity on the A5 engines refer to Reference 9, Service Bulletin V2500-ENG-79-0088.

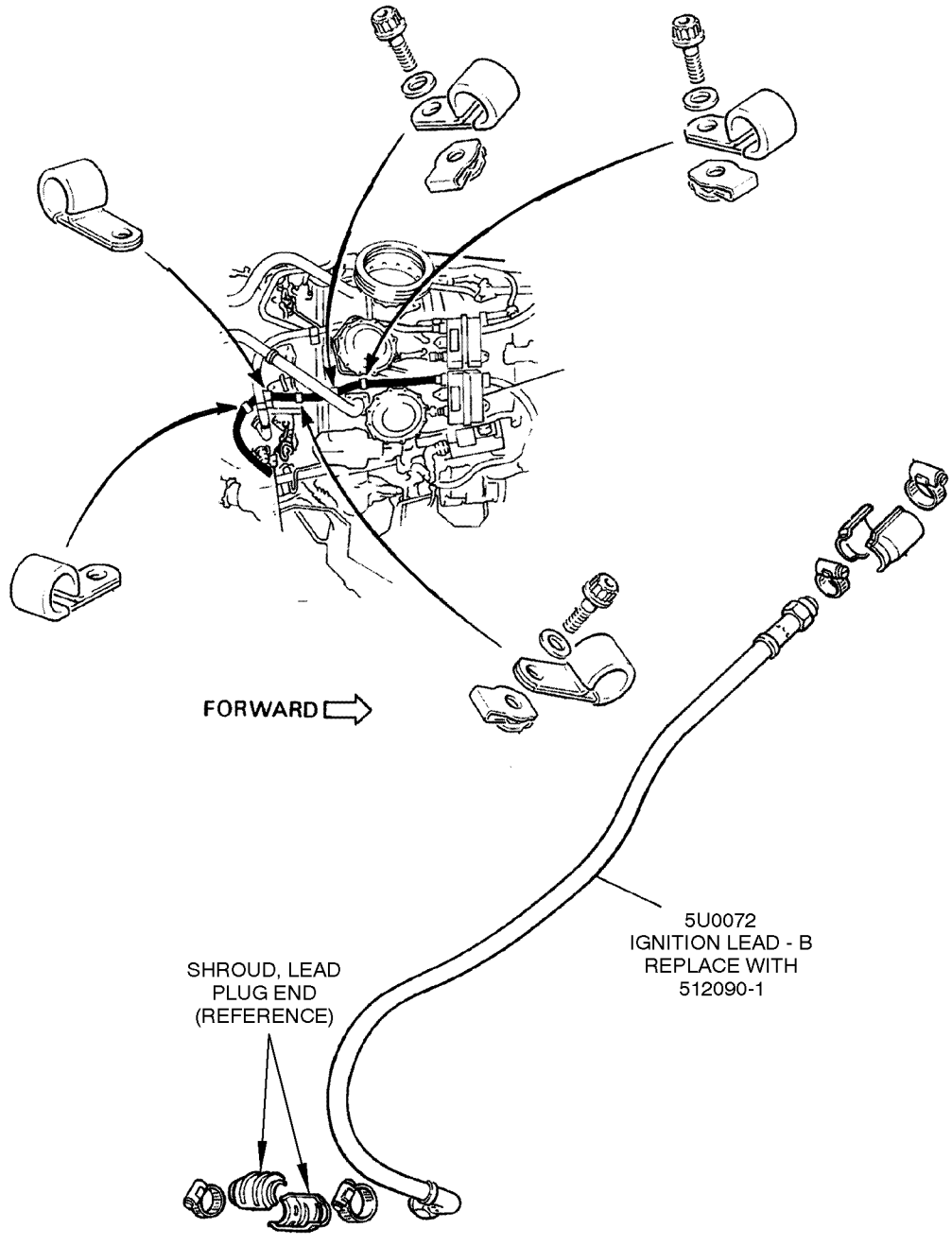
      (2) For additional clarity on the A1 engines refer to Reference 8, Service Bulletin V2500-ENG-79-0087.

3. Recording Instructions

   A. A record of accomplishment is required.



LOCATION OF IGNITION LEAD — A
74-21-43-01
FIGURE 1



LOCATION OF IGNITION LEAD — B
74-21-43-02
FIGURE 2

Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC11VI002	RR
1	EC11VI002	JCM/CMS

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.