



SERVICE BULLETIN

NUMBER: SB 500-31-008, REV B
MODEL: ECLIPSE EA500
SUBJECT: DIAGNOSTIC STORAGE UNIT (DSU) ELECTRICAL CONNECTOR UPGRADE

1. PLANNING INFORMATION

A. Effectivity

Aircraft Serial Number 00001 to 00049.

B. Reason

The slide lock retention device on the DSU electrical connectors does not always provide connector retention.

Revision B corrects the kit part number in the Materials section.

C. Description

This Service Bulletin modifies the DSU electrical connectors with new hardware that guarantees permanent connector retention.

D. Relevant Publications

Aircraft Maintenance Manual (AMM) P/N 06-117751, latest revision.

E. Compliance

Eclipse Aviation Corporation considers this to be a recommended upgrade that can be accomplished at the operator's discretion.

Compliance with revision A of this Service Bulletin constitutes compliance with revision B.

F. Approval

This Service Bulletin is based on engineering data that is FAA-approved, and the modification herein complies with the applicable regulations.

G. Labor Requirements

The following information is for planning purposes only.

(1) Estimated labor hours to perform:

Pilot's seat removal and installation: 20 minutes

Passenger seat removal and installation: 20 minutes

Floor panel removal and installation: 20 minutes

Harness and DSU connector modification: 30 minutes

The above is an estimate based on properly equipped and experienced personnel complying with this Service Bulletin. Actual labor hours may vary depending on workforce experience, concurrent maintenance, discovery of other discrepancies, etc.

(2) Suggested number of personnel: 1

H. Weight and Balance Change

None.



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I. Electrical Load Data Change

None.

J. References

Aircraft Maintenance Manual (AMM) P/N 06-117751, latest revision.

K. Publications Affected

Aircraft Maintenance Manual (AMM) P/N 06-117751, latest revision.

Illustrated Parts Catalog (IPC), P/N 06-117752, latest revision.

2. MATERIAL INFORMATION

A. Materials

Order Kit P/N SB500-31-008A below:

- (1) **Kit SB500-31-008A**

Part Number	Description	Qty Required
D20419-18	Locking Hardware	4
5748270-2	Screwlock, Female, Short Head, .090 Panel, Amplimite	4

B. Consumables

The following consumables are required for this Service Bulletin.

Part Number	Description	Qty Required
222MS Loctite	Loctite	1

C. Tooling

No special tooling/support equipment are required to accomplish this Service Bulletin.

D. Interchangeability/Intermixability of Parts

N/A

E. Part Re-identification

Mark the label on DSU as “Modified per 39-122064-1001” using a permanent marker.

3. ACCOMPLISHMENT INSTRUCTIONS

A. Procedure

- (1) Make the aircraft safe for maintenance. Refer to AMM 20-00-01-051-921-001.
- (2) Remove electrical power or open the following:
 - ECB - DIAG STRG UNIT (L FWD Bus)
 - ECB - DIAG STRG UNIT (R AFT Bus)
- (3) Remove the left front passenger seat (if installed). Refer to AMM - 25-21-10-001-801 - PASSENGER SEAT - REMOVAL.
- (4) Remove the pilot’s seat. Refer to AMM - 25-12-01-001-801 - COCKPIT SEAT COMPONENT - REMOVAL.



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- (5) Fold the carpet as necessary to access floor panel.
- (6) Remove the 131 AZ - Floor Panel, Forward Left Cabin. Refer to AMM - 06-50-00-051-801-A - AIRCRAFT ACCESS PANELS or AMM - 06-50-00-051-801-B - AIRCRAFT ACCESS PANELS.
- (7) Disconnect the electrical connectors 39A10P01 and 39A10P02 (1, Figure 1) and (3, Figure 1) from the DSU (6, Figure 1).
- (8) Remove the eight bolts (5, Figure 1) and washers (3, Figure 1) that attach the DSU (6, Figure 1) to the rails (2, Figure 1) and (7, Figure 1).
- (9) Remove the DSU (6, Figure 1) from the rails (2, Figure 1) and (7, Figure 1).
- (10) Remove and discard the attachment hardware (1, Figure 3) from the harness connectors at 39A10P01 and 39A10P02.
- (11) Attach the locking hardware (5, Figure 4), one on each side of the connector on 39A10P01 (4, Figure 4) and 39A10P02 (6, Figure 4).
- (12) Remove and discard the DSUB locking clips (1, Figure 2) from DSU connectors 39A10J01 and 39A10J02.
- (13) Install the Amplimite 5748270–2 Screwlocks (7, Figure 4), one on each side of the connector with 222MS Locktite on DSU connectors 39A10J01 (4, Figure 4) and 39A10J02 (6, Figure 4). Torque the Screwlocks to 6 in.lbs.

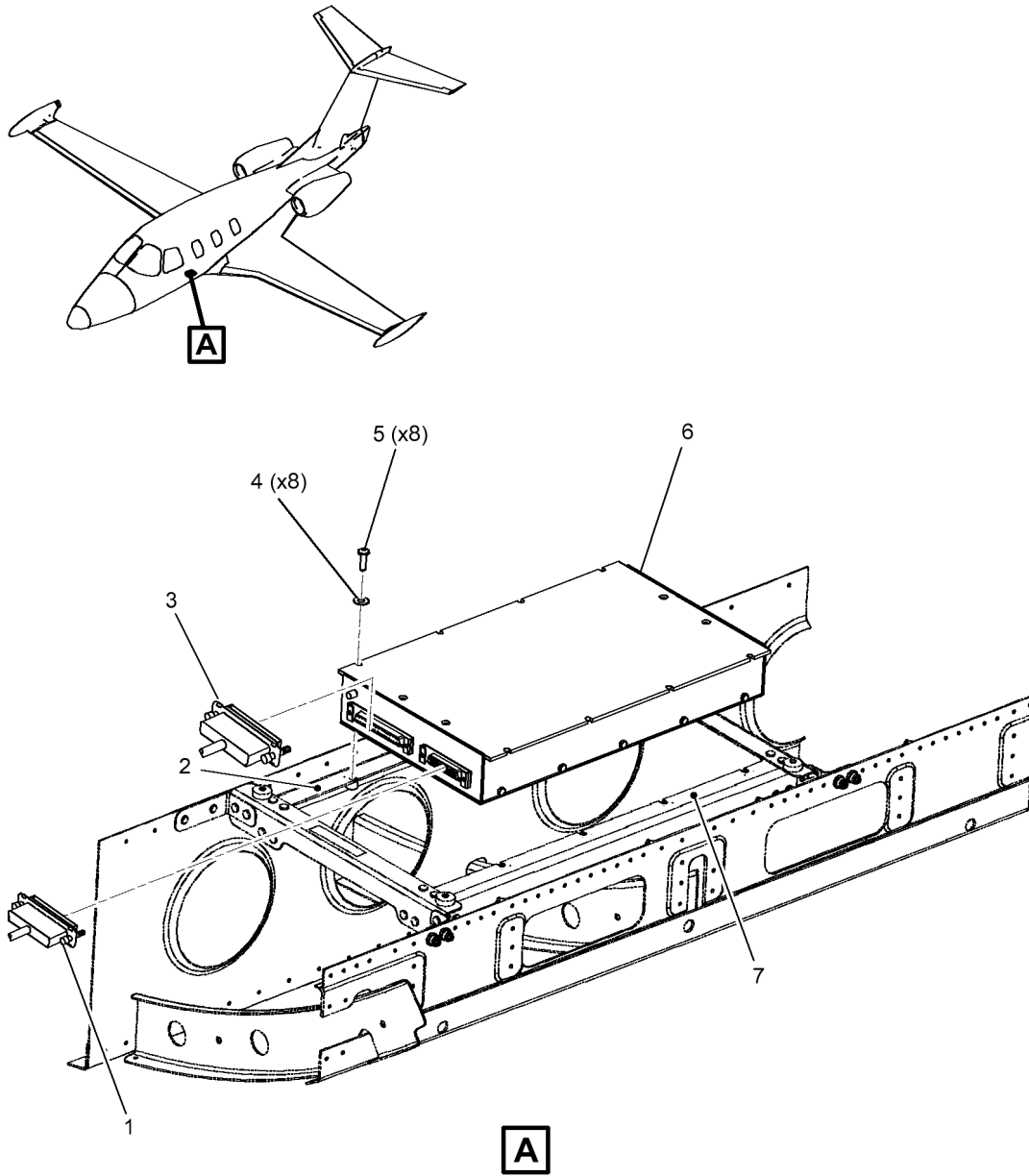
NOTE: Do not use washers with the Amplimite 5748270–2 Screwlocks.
- (14) Put the DSU (3, Figure 4) on the rails and align holes.
- (15) Attach the DSU (3, Figure 4) to the rails and with eight bolts (1, Figure 4) and washers (2, Figure 4). Torque the eight bolts (1, Figure 4) to 30-40 lbf.in (3,4-4,5 m.N).
- (16) Connect the electrical connectors 39A10P01 (6, Figure 4) and 39A10P02 (6, Figure 4) and to the DSU (3, Figure 4). Torque the screws (5, Figure 4) to 4 in.lbs.
- (17) Using a Extech Milli-Ohmmeter, bond the DSU (3, Figure 4) to the rails. Refer to AMM - 20-03-00-051-801 - ELECTRICAL BONDING - MAINTENANCE PRACTICES. Resistance must be 2.5 milliohms or less.
- (18) If pulled, close the following:
 - ECB - DIAG STRG UNIT (L FWD Bus)
 - ECB - DIAG STRG UNIT (R AFT Bus)
- (19) Do the Adjustment/Test of the DSU, Refer to AMM - 31-30-00-071-801 - DISPLAYS AND CONTROL PANELS - ADJUSTMENT/TEST, SUBTASK AMM-31-30-00-071-701-002.
- (20) Install the 131 AZ - Floor Panel, Forward Left Cabin. Refer to AMM - 06-50-00-051-801-A - AIRCRAFT ACCESS PANELS or AMM - 06-50-00-051-801-B - AIRCRAFT ACCESS PANELS.
- (21) Install the pilot's seat. Refer to AMM - 25-12-01-041-801 - COCKPIT SEAT COMPONENT - INSTALLATION.
- (22) Install the left front passenger seat (if removed). Refer to AMM - 25-21-10-041-801 - PASSENGER SEAT - INSTALLATION.
- (23) Remove all tools, equipment and unwanted material from the work area.
- (24) If all other maintenance is complete, return the aircraft to service. Refer to AMM-20-00-02-921-001.



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Figure 1



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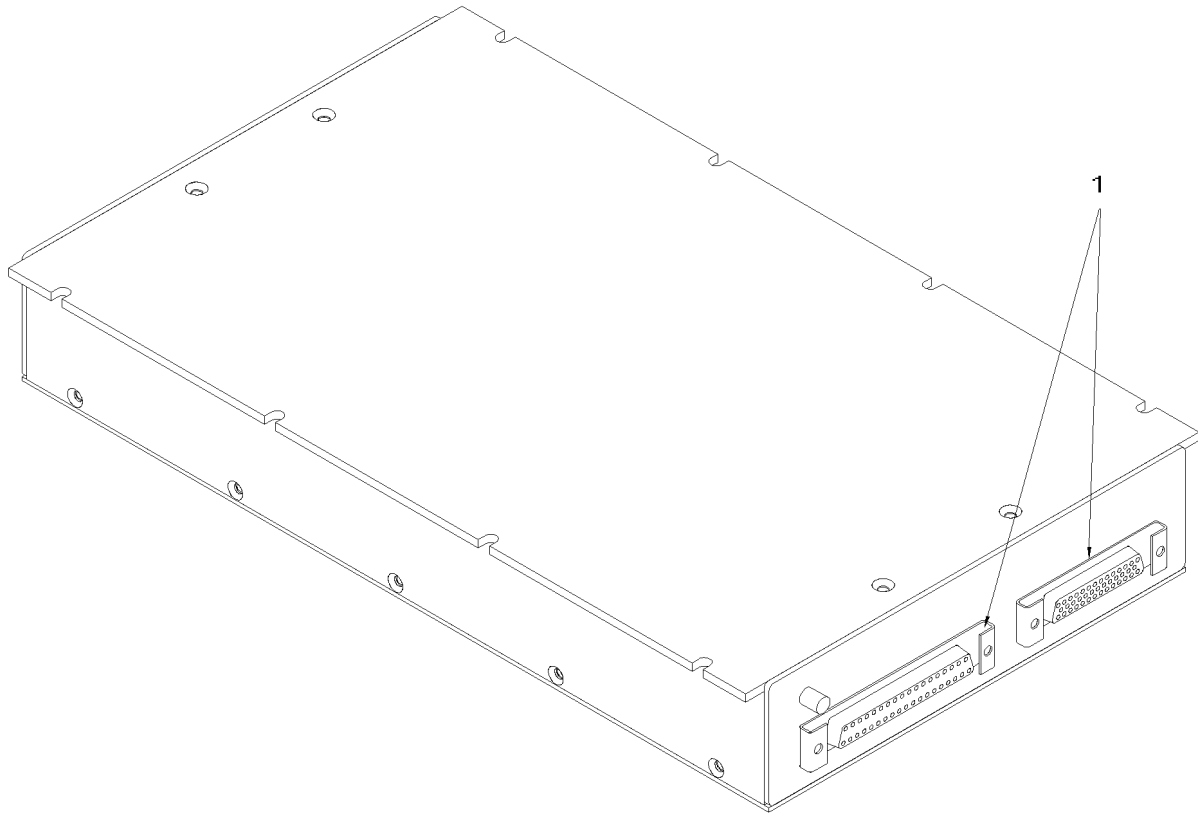


Figure 2 (Sheet 1 of 1)



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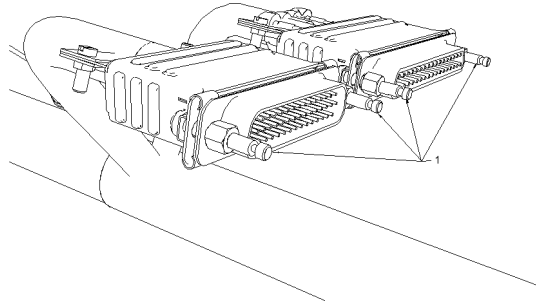


Figure 3



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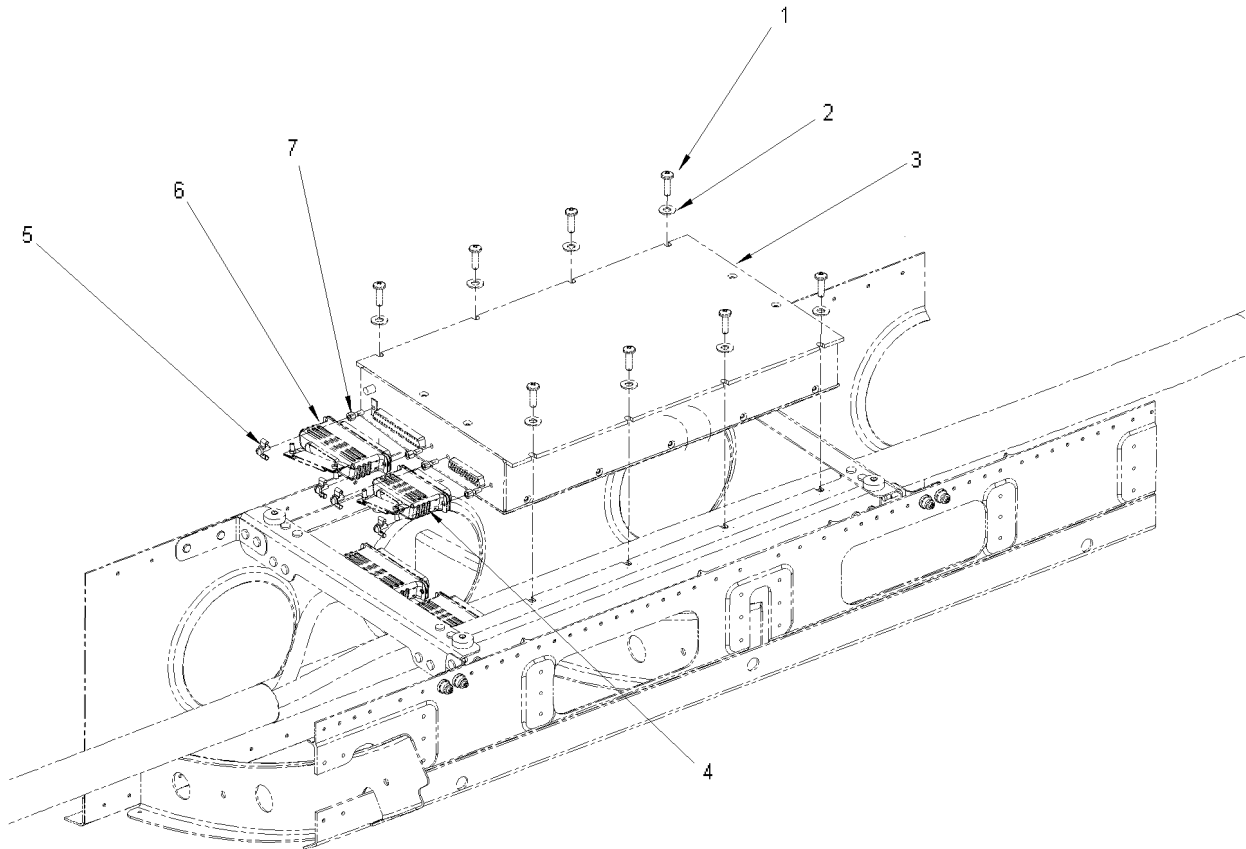


Figure 4



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B. Limitations and Procedures

None

C. Cost

Parts and Labor will be supplied by Eclipse Aviation Corporation at no charge to the aircraft owner. This Service Bulletin will be accomplished at an Eclipse Aviation Service Center.

4. RECORD OF COMPLIANCE

Upon completion of this Service Bulletin, make an appropriate maintenance-record entry specifying the Service Bulletin number.

5. NOTIFYING ECLIPSE AVIATION

On completing this service bulletin, the operator/maintainer shall complete the attached Compliance Record and send it to Eclipse Aviation via regular mail, fax, or e-mail.

MAILING ADDRESS	Eclipse Aviation Corporation ATTN: Customer Care 2503 Clark Carr Loop SE Albuquerque, NM 87106
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