TITLE:	Security of PCB Attachment Screws
DOCUMENT NUMBER:	SB AD32/AC32-03
EQUIPMENT:	AD32 RVSM Air Data Display and AC32 Digital Air Data Computer
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RECORD OF REVISIONS

Rev.	Date	Reason for Revision	Prepared	Checked	Approved
1.0	16/04/14	Initial Release	C. Bradbury	P. Stutz	K. Gisler
1.1	26/04/21	Service Bulletin reformatted. No changes to the technical content.	*J. Garrett* J. Garrett	*O. Diatlova*	*A. Savin* A. Savin

SERVICE BULLETIN

1. Planning Information

    A. Effectivity

    The modification procedure given in this Service Bulletin (SB) is applicable to the AD32 RVSM Air Data Display and the AC32 Digital Air Data Computer.

    The SB is applicable to the AD/AC32 with the dates shown below:

Unit Type	Date
AD32	Up to and including MAR 2012
AC32	Up to and including MAR 2012

    B. Concurrent Requirements

    None required.

    C. Reason

    A loose object noise was heard from inside an AD/AC32 during the installation in an aircraft. The AD/AC32 was opened, and a nut and screw were found detached. This screw and nut is one of four that attach the printed circuit boards (PCBs) to the AD/AC32 internal structure.

    A loose nut/screw could cause a short circuit on one of the PCBs, which could make the AD/AC32 inoperative.

    D. Description

    This Service Bulletin (SB) gives the procedure for the application of Loctite 243 to the four screws that attach the PCB to the structure of the AD/AC32.

    The SB explains how to:

    - Open the AD/AC32.
    - Remove the four nuts and screws.
    - Apply Loctite 243 to the threads of the screws.
    - Install the four screws and nuts.
    - Apply Enictol safety lacquer on the top of each nut.
    - Close the AD/AC32.

    This modification does not change the operation or function of the AD/AC32 in any way or form.

    E. Compliance Recommendation

    Incorporation of this Service Bulletin is optional.

    F. Approval

    The AD32 RVSM Air Data Display and the AC32 Digital Air Data Computer conform to TSO-C106, TSO-C88a, and TSO-C10b.

    This Service Bulletin contains no modification information that revises the approved configuration and therefore does not require any implementation of governmental or other regulatory agency approval.

G. Manpower

This modification can be done by THOMMEN AIRCRAFT EQUIPMENT AG or its approved service centres.

The modification (excluding removal and reinstallation of the unit) requires approximately 30-45 minutes.

H. Weight and Balance

Not affected.

I. Electrical Load Data

Not changed.

J. Software Accomplishment Summary

Not applicable.

K. References

REFERENCE	ITEM
CMM 34-16-10	Component Maintenance Manual - AD32
CMM 34-16-30	Component Maintenance Manual – AC32

L. Other Publications Affected

None.

M. Interchangeability of Parts

Not applicable.

2. Material Information

    A. Material - Price and Availability

       The hardware parts/materials required for this modification are procured by THOMMEN AIRCRAFT EQUIPMENT AG or its approved service centres.

       This modification is free of charge when done within 12 months of the initial release date of the Service Bulletin.

       For more information please contact:

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       NOTE:
       All units subject for modification must be scheduled prior to shipping. Contact THOMMEN AIRCRAFT EQUIPMENT AG for further lead time and delivery schedule.

    B. Material Necessary for Each Aircraft/Engine/Component

REFERENCE	DESCRIPTION
Local supply	Enictol safety lacquer
Local supply	Loctite 243

    C. Tooling - Price and Availability

       No special tools are required.

3. Accomplishment Instructions

The modification procedure can be accomplished by THOMMEN AIRCRAFT EQUIPMENT AG or its approved service centres.

A. Preparation

(1) Remove the AD/AC32 from the aircraft.

(2) Make sure that the workstation is electro-static discharge (ESD) compatible and is clean and clear of unwanted parts and materials.

B. Procedure

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CAUTION: THE PRINTED CIRCUIT BOARDS (PCB) INSIDE THE AD/AC32 ARE ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) PARTS. YOU MUST MAKE SURE THAT THE WORKSTATION IS ELECTROSTATIC DISCHARGE (ESD) COMPATIBLE BEFORE DOING THE FOLLOWING PROCEDURE.

(1) For the AC32 – remove the twelve screws and the casing (ref. CMM, ATA No. 34-16-30).

(2) For the AD32 – remove the twelve screws, the two knobs and the casing (ref. CMM, ATA No. 34-16-10).

(3) Remove and reinstall the four PCB attaching screws (one at a time) according to the following procedure (ref. Figure 1 and CMM):

- Remove one of the four nuts and screws.

- Apply Loctite 243 to the threads of the screw.

- Install the screw and the nut and tighten it to the standard torque load.

- Apply Enictol safety lacquer on the top of the nut and screw.

- Do the procedure again for the other three positions.

(4) For the AC32 – apply Loctite 243 on the threads of the twelve casing screws.

(5) For the AD32 – apply Loctite 243 on the threads of the four rear casing screws.

(6) Put the casing on the AD/AC32 and install the twelve screws.

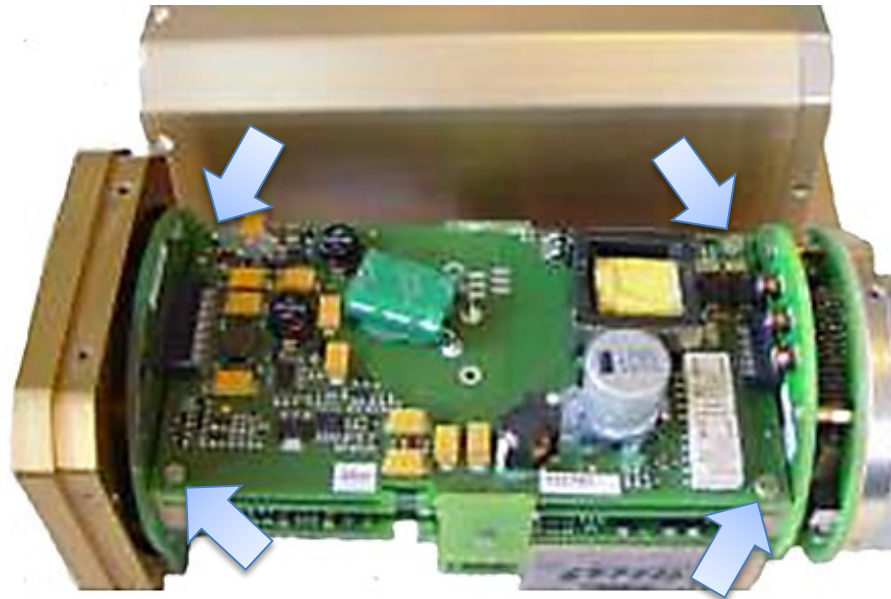(7) Apply Enictol safety lacquer on the screws that are not painted black.

Figure 1 - AD32/AC32 Casing and PCB Attachment Screws

C. Close Up

(1) Put the AD/AC32 into its plastic bag and storage container with a sachet of activated silica-gel crystals.

D. Identification

(1) If the AD/AC32 is installed in an aircraft, make a record in the aircraft technical history that the unit has been modified to 'MOD 3'.

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