

Ultra Electronics

SERVICE INFORMATION LETTER

SERVICE INFORMATION LETTER LG 01/2000

(Issue 2, November 2000)

LANDING GEAR CONTROL AND INTERFACE UNITS, 6647 SERIES (Used on Airbus A319, 320 and 321 aircraft)

IMPROVED METHOD OF MOUNTING INTEGRATED CIRCUITS ON THE MICROPROCESSOR BOARD

1. Description

A. Effectivity

This Service Information Letter is applicable to all versions of the Landing Gear Control and Interface Unit (LGCIU), Pt. No. 664700500A4X, having microprocessor boards Pt. Nos. 001-LG-01-0340 or 001-LG-01-0450 installed.

The improvements described in this Service Information Letter do not affect the function of the LGCIU.

The work described in this Service Information Letter may be carried out when either of the relevant integrated circuits, IC2 and IC3 on the microprocessor board, are to be replaced for fault correction purposes. Operators should not disassemble an LGCIU simply to implement this Service Information Letter.

B. Outline

Spacers are to be installed between the integrated circuits and the board surface. The spacers confer the following benefits :

- (1) Improve the quality of the soldered joints.
- (2) Reduce stress on the soldered joints.
- (3) Improve inspection of the soldered joints.
- (4) Prevent the encroachment of conformal coating under the integrated circuits.

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The manufacturer will install the spacers on all new-build units.

Implementation of this Service Information Letter does not change the part number of the microprocessor board, neither does it affect the modification standard of the board or of the LGCIU.

C. Substantiation

The information in this Service Information Letter reflects the requirements of Ultra Electronics Controls Division Change Note No. 001-LG/296.

2. Parts and Materials Required

A. Spacers

The spacers are available from the manufacturer, Ultra Electronics Controls Division (K8081). Their Pt. No. is 001-LG-01-0592 and two spacers are required for each LGCIU.

B. Adhesive

A small quantity of standard shop adhesive, Type RTV 162, is required. This is available worldwide: a typical UK supplier is GE Silicone Ltd.

C. Miscellaneous

You will already be using materials to remove and repair the conformal coating when you change the integrated circuits. Refer to the LGCIU CMM, ATA Ref. 32-31-39, REPAIR page 601.

3. Procedure

NOTE: Do not carry out this procedure unless you intend to replace IC2 or IC3 on the microprocessor board as part of a fault-correction task.

All the following procedures are described in the LGCIU CMM, ATA Ref. 32-31-39.

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A. Access to the Work Area

- (1) Refer to the LGCIU CMM, ATA Ref. 32-31-39, DISASSEMBLY page 301.
- (2) Remove the microprocessor board and check that its Pt. No. is 001-LG-01-0340 or 001LG-01-0450.

B. Fitting the Spacer(s)

- (1) Refer to the LGCIU CMM, ATA Ref. No. 32-31-39, REPAIR page 601 and IPL Fig. 7, and remove the faulty IC(s).
- (2) Clean the work area to remove all traces of conformal coating.
- (3) Apply a thin layer of adhesive RTV 162 to the underside of the new IC(s). Position the spacer, Pt. No. 001-LG-01-0592, centrally on the underside of the IC(s).
- (4) Apply a thin layer of adhesive RTV 162 to the underside of the spacer.
- (5) Fit the new IC/spacer assembly to the board and allow the adhesive to cure (see adhesive manufacturer's instructions).
- (6) Solder the legs of the IC(s) to the board.
- (7) Repair the conformal coating.
- (8) Carry out any further fault-correction tasks necessary and then reassemble the LGCIU.
- (9) Perform a full acceptance test on the LGCIU as detailed in the CMM, ATA Ref 32-31-39, TESTING AND FAULT ISOLATION page 101.

4. Further Information

If you need more information about this Service Information Letter, contact the Customer Service Manager at:

Ultra Electronics Controls Division
417 Bridport Road, Greenford, Middlesex
UB6 8UA
United Kingdom

Telephone: 020-8813 4407

Fax: 020-8813 4351