

Ultra Electronics SERVICE BULLETIN

This Service Bulletin complies with British
Civil Airworthiness Requirements, Sect. A,
Chapter A5-3.

Signed . *A. Maybank*

CAA Approval No. DAI 1501/39
November 1, 1997

SERVICE BULLETIN No. 6647-32-9

LANDING GEAR - EXTENSION AND RETRACTION - CONTROL AND INTERFACE

EQUIPMENT MODIFICATION NO. 5

POWER SUPPLY/FILTER ASSEMBLY - PRECAUTIONARY REPLACEMENT OF GROMMETS

1. Planning Information

A. Effectivity

- (1) Airbus Industrie A319, A320 and A321, all models.
- (2) Landing Gear Control and Interface Units (LGCIUs), Part Nos. 664700500A4X, all serial numbers up to, and including 1588.

B. Reason

Five insulating grommets used in the power supply/filter assembly, Pt. No. 001LG010380 have been found to exhibit a tendency to hardening and subsequent cracking after extended service.

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C. Description

This Service Bulletin introduces the precautionary replacement of the suspect grommets by items manufactured from a different compound. Accomplishment of this Service Bulletin constitutes a complete fix.

No part number or type number changes are required. The LGCIU modification state is raised to 5 (strike-off number).

D. Compliance

Compliance with this Service Bulletin is recommended, when the LGCIU is removed from the aircraft for investigation/repair work. The manufacturer does not consider it necessary for Operators to remove LGCIUs solely to accomplish this Service Bulletin.

Compliance is achieved by either of the following methods :

- (1) Operators may carry out the replacement procedure themselves (see para. 2), using new grommets supplied by Ultra Electronics Controls Division.
- (2) Ultra Electronics Controls Division will implement this Service Bulletin on all LGCIUs returned for investigation/repair.

E. Approval

The technical data in this Service Bulletin is approved by the authority of CAA Approval No. DAI/1501/39.

F. Manpower

The work necessary to accomplish this Service Bulletin requires 3 man-hours. Post-accomplishment testing will be covered by the normal acceptance test carried out at the conclusion of the investigation/repair work for which the LGCIU was originally removed from the aircraft.

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G. Material Cost and Availability

LGCIUs returned to the manufacturer for investigation/repair will have the grommets replaced free of charge.

Alternatively, new grommets will be supplied to Operators free of charge, on request.

H. Tooling - Price and Availability

No special tools are necessary.

J. Weight and Balance

Weight and balance are not changed.

K. Electrical Load Data

Accomplishment of this Service Bulletin does not change the aircraft electrical load.

L. References

Ultra Electronics Component Maintenance Manual Ref. No. 32-31-39, Rev. 09.

2. Accomplishment Instructions

CAUTION: YOU MUST WORK ON THE LGCIU ONLY IN A CLEAN ROOM WITH A CONTROLLED AND FILTERED ATMOSPHERE. DO ALL WORK AT AN APPROVED METAL-OXIDE SEMICONDUCTOR (MOS) WORKSTATION. USE APPROVED ANTI-STATIC PROCEDURES TO PREVENT STATIC DISCHARGE DAMAGE.

ALL FIVE OF THE ORIGINAL GROMMETS MUST BE REPLACED BY NEW ITEMS. THE CONDITION OF THE ORIGINAL GROMMETS IS NOT READILY ASSESSED BY VISUAL INSPECTION.

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A. Disassemble the LGCIU

- (1) Refer to CMM 32-31-39, DISASSEMBLY, page 301 and to IPL Fig. 2.
- (2) Remove the OBRM and the PCBs as detailed in DISASSEMBLY, paras. 2.A and 2.B.

B. Remove the Power Supply/Filter Assembly

- (1) Remove the power supply/filter assembly as detailed in DISASSEMBLY, para. 2.C, sub-paras. (1) to (6).
- (2) Tag all the wiring to the power supply/filter assembly to ensure correct reassembly. Note the route taken by each wire.
- (3) Unsolder the wiring to the power supply/filter assembly, supporting the assembly to minimise strain on the wiring.

C. Remove the Power Supply Module (IPL Fig. 2, item 145)

- (1) Remove three M3 screws (150), two M3 nuts (155), two lock washers (160) and two plain washers (165) which secure the power supply module (145) to the power supply/filter assembly (135).
- (2) Refer to Fig. 1 of this Service Bulletin and identify the five grommets (letter G). At this stage you should be able to gain access to all five grommets without further disassembly.

D. Replace the Grommets

- (1) Identify the wires which you must unsolder in order to fit the new grommets. Tag these wires and make a note of the routing of each wire.
- (2) Taking each grommet in turn, unsolder the relevant wires, remove and discard the original grommet.
- (3) Fit the new grommet and resolder the wires. Renew any cable ties which you have had to cut.
- (4) Repeat this procedure until all five grommets have been replaced.

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E. Install the Power Supply Module

- (1) Set the power supply module in position on the power supply/filter assembly and check that no wires are trapped.
- (2) Secure the power supply module, using three M3 screws (150), two plain washers (165), two lock washers (160) and two M3 nuts (155).

F. Install the Power Supply/Filter Assembly

- (1) Check all the wiring tags and routing notes.
- (2) Cut off the previously soldered portion of each wire and strip back the insulation 5.0mm. Tin the exposed wire end and re-form the appropriate loops for resoldering.
- (3) Resolder all the wires to/from the power supply/filter assembly.
- (4) Replace any cut cable ties.
- (5) Refer to CMM 32-31-39, ASSEMBLY, page 701 and to IPL Fig. 2.
- (6) Assemble the power supply/filter assembly to the main chassis as detailed in ASSEMBLY, para. 2.C, sub-paras. (3) to (5).

G. Assemble the LGCIU

If you have finished the repair work for which the LGCIU was originally removed from the aircraft, assemble the PCBs and the OBRM as detailed in ASSEMBLY, paras. 2.B and 2.A.

H. Test

After accomplishment of this Service Bulletin, do normal acceptance testing as part of the investigation/repair procedure. Refer to CMM 32-31-39, TESTING AND FAULT ISOLATION.

J. Identify the Modification

On the equipment amendment plate, strike off the number 5.

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K. Notification

After accomplishment of this Service Bulletin, the Operator must tell the manufacturer this data :

- Service Bulletin Number.
- Serial Number(s) of the LGCIU(s) modified.
- Date of fitting the new grommets.

Send this data to :

Product Support Manager,
Ultra Electronics Controls Division,
Bridport Road, Greenford, Middlesex,
UB6 8UA
United Kingdom

3. Material Information

New Part Number	Qty.	Keyword	Old Part Number	Inst. - Disposition
001LG010380	1	Assembly, power supply/ filter	001LG010380	Reworked part
23271-303-0-3	5	Grommet	23271-201-0-3	Discard

Note that the above new part number will be incorporated into the manufacturer's CMM (Ref. No. 32-31-39) at the next revision.

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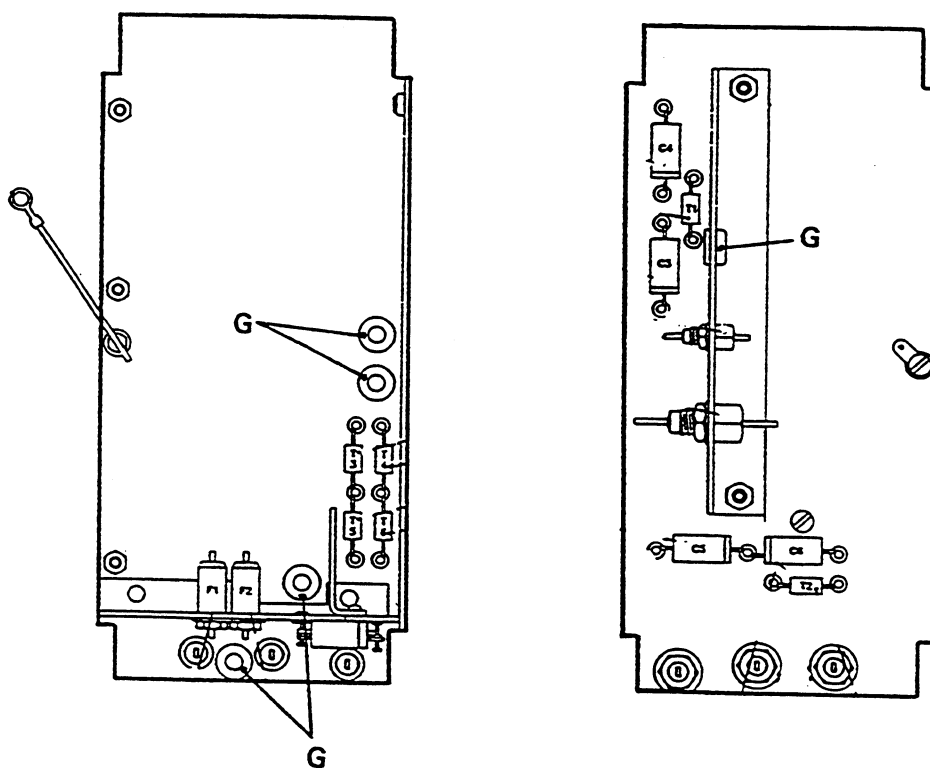


Figure 1 Power Supply/Filter Assembly - Grommet Positions