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V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin EV2500-71-0287

Bulletin Initial Issue

Remove

Incorporate
Pages 1 to 7 of the
Service Bulletin

Reason for change
Initial issue

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CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England
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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin are as follows:

Page Revision Number Revision Date

Bulletin

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POWER PLANT – RELAY BOX – INTRODUCTION OF A REVISED RELAY BOX

1. Planning Information

A. Effectivity

(1) Airbus A319

(a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V11700

(2) Airbus A320

(a) V2500-A1 Engines prior to Serial No. V0362

(b) V2527-A5, V2527E-A5 Engines prior to Serial No. V11700

(3) Airbus A321

(a) V2530-A5, V2533-A5 Engines prior to Serial No. V11700

B. Concurrent Requirements

None.

C. Reason

(1) Condition

A design review of the Power Plant Relay Box has indicated that the manufacture of the unit may be optimised.

(2) Background

(See Condition).

(3) Substantiation

The changes introduced by this Service Bulletin (modification) have been the subject of satisfactory engineering analysis and development engine testing.

(4) Objective

Incorporation of this Service Bulletin is designed to simplify manufacture.



(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) The changes introduced are:

(a) A revised Ignition Relay Box is introduced similar to the existing unit except for the following:

- (i) A revised Internal Harness has been introduced which has rationalised the wire size and deleted unused spare wires, unnecessary connections and wire runs.
- (ii) A revised Power Sense Board has been introduced which has increased component mounting hole sizes, re-positions a number of components, and re-allocates the earth bonding process to the Printed Circuit Board (PCB) sub-tier supplier.
- (iii) A revised PCB has been introduced which additionally contains two new diodes and a passive filter, replaces the quad op-amp and replaces the zener diode with a stable reference voltage.

E. Compliance

Category Code 7

Accomplish when the supply of superseded parts has been depleted.



F. Approval

The part number changes and/or modifications described in sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA Approved for the engine models listed.

G. Manpower

(1) In service

Not applicable.

(2) At overhaul

Not affected.

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material Price and Availability

Not applicable.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

Not applicable.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

None.

(3) Datum

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

L. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.



M. Software Accomplishment Summary

Not applicable.

N. References

- (1) Ultra Electronics Service Bulletin No. 005RL-01:
Introduction of a New Part Number 005RL-05.
- (2) Engine Manual (EM), Chapter/Section 72-00-32, Removal/Installation.
- (3) A319, A320, A321 Aircraft Maintenance Manual (AMM), Chapter/Section 71-51-49, Removal/Installation.
- (4) IAE Engineering Change No. 03VI003.
- (5) ATA Locator - 71-51-49.

O. Other Publications Affected

- (1) Illustrated Parts Catalogue (IPC), Chapter/Section 71-51-49 will be revised.

P. Interchangeability of Parts

Not affected.



2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

None.

C. New production parts:

None.

D. Vendor units affected by this bulletin:

All Engines

71-51-49

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01100	005RL05	1	Box, Relay - (VK8081)	005RL03	(A)(S1)

E. Instruction disposition codes:

(A) New standard of unit will be made available from March 2004.

(S1) Old and new units are freely and fully interchangeable.



3. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

The revised Ignition Relay Box introduced by this Service Bulletin is interchangeable with existing. Remove and install in accordance with current overhaul or maintenance procedures (Engine Manual 72-00-32, Removal/Installation or Aircraft Maintenance Manual, 71-51-49, Removal/Installation).

C. Recording Instructions

A record of accomplishment is necessary.



V2500-A1 & -A5 Ignition Relay Box Family Tree *

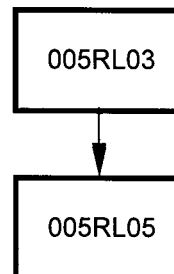
Service Bulletin Number	Unit Mod Plate Endorsement
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BASELINE Ultra Electronics Ltd.	
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NONE	
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V2500-ENG-71-0287 Introduction of a new Ignition Relay Box	
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NONE	
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* This family tree is not intended to represent the combination of modifications fitted to units in service

ded0005446

V2500-A1/A5 Ignition Relay Box Family Tree
Figure 1

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Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

SERVICE BULLETIN No. 005RL-01

IGNITION & PROBE HEATER RELAY UNIT
TYPE NO. 005-RL

INTRODUCTION OF NEW PART NUMBER 005-RL-05

1. **Planning Information**

A. Effectivity

Airbus Industrie A319, A320 and A321 aircraft fitted with V2500-A1 and V2500-A5 engines.

B. Reason

As a part of Ultra Electronics' commitment to obsolescence management and product improvement, a review of the design of the of the unit has taken place and key issues have been identified.

C. Description

The modifications are as follows:

- a) Two power sense circuit components have been updated due to obsolescence and other minor circuit changes have been made to improve the accuracy of the circuit.
- b) The PCB's have been re-artworked to remove all cut tracks and pin and link components.
- c) The wiring loom in the unit has been rationalised, removing unused wires and rerouting others to reduce complexity.

D. Compliance

The 005-RL-05 Ignition & Probe Heater Relay Unit will be fitted to all new build aircraft, and will be available to purchase as spares.

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It is not necessary to replace existing units with the new type, as there is no change in the function of the unit.

E. Approval

This Service Bulletin technically agreed to by IAE on 19th February 2004.

F. Manpower

N/A

G. Material Cost and Availability

Price and delivery data for the new 005-RL-05 Ignition & Probe Heater Relay Unit is available on request from Ultra Electronics Controls Division (address on Page 3 of this Service Bulletin).

H. Tooling - Price and Availability

No special tools are required to accomplish this Service Bulletin.

J. Weight and Balance

No change.

K. Electrical Load Data

No change.

L. References

Ultra Electronics 005-RL Component Maintenance Manual Ref. No. 71-51-49(Latest Revision).
IAE SB 710287

M. Intermixability/Interchangeability

This Service Bulletin does not affect intermixability or interchangeability.

N. Other Publications Affected

Ultra Electronics

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CMM 71-51-49

2. Accomplishment Instructions

N/A

3. Material Information

New Part Number	Qty.	Keyword	Old Part Number	Inst.-Disposition
005-RL-05	1	HT Relay	005-RL-03	Redesigned LRU

4. Further Information

If you need more information about this Service Bulletin, or to obtain price/delivery data, contact the Customer Services Manager at:

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United Kingdom

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