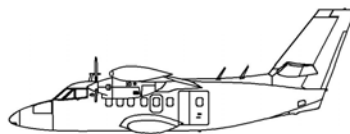




Aircraft Industries



MANDATORY BULLETIN

MB No.: L410UVP-E/143a Revision 2

Concerns: L 410 UVP-E20 airplanes from S/N 2904 to 3114 inclusive (including airplanes having R letter in Serial Number).

Subject: Modification of the electrical circuit of the propeller pitch lock system function test.

Revision 2 extends the applicability to S/N specified above, cancels inspection and adjustment of engine push/pull control rod and Beta Switch and adds the modification of the electrical circuit of the propeller pitch lock system function test.

To be carried out at the latest by: Within 25 flight hours (FH) or 20 flight cycles (FC) or 30 days after the effectivity date of this bulletin whichever occurs first.

To be carried out by: Organization certified for periodic maintenance of L 410 UVP-E20 airplanes or AI representatives.

Costs to be covered by: Operator.

Necessary material to be delivered by: Aircraft Industries, a.s., Czech Republic on a request.

Bull. becomes effective: On the day of release.

Total No. of pages: 8

Bulletin L410UVP-E/143a Revision 2 supersedes previous bulletins L410UVP-E/143a Revision 1, L410UVP-E/142a Revision 3 and L410UVP-E/492b Revision 2.

Released: Pavel Jurák
Head of airworthiness dept.

The technical content of this document is approved under the authority of DOA ref. EASA. 21J.119.

Date of release: March 7, 2018

PERFORMANCE: mandatory

1. INSTRUCTIONS FOR PLANNING

A. CONCERNS

1. Airplane Model

L 410 UVP-E20

2. Version / S/N

From S/N 2904 to 3114 inclusive (including airplanes having R letter in Serial Number).

3. Qualification for Implementation

Concurrent implementation of the GEAC service bulletin SB-H80-76-00-00-0036 is recommended.

4. New Equipment

Not required.

B. REASON

Modification of the electrical circuit of the propeller pitch lock system function test.

C. DESCRIPTION

Modification of the electrical circuit of the propeller pitch lock system function test. Function check of the TCL microswitch of the propeller pitch lock system.

D. APPROVAL

On the basis of data of the Design Changes No. ZKB 059 019, ZKB 059 077 and ZKB 059 089.

E. MAN-HOURS

Supposed Man-hours: 8 M-hours

F. MATERIAL - AVAILABILITY

1. New Equipment

Not required.

2. Installation Parts

Will be delivered by the airplane manufacturer Aircraft Industries, a.s., 686 04 Kunovice, Czech Republic on a request.

3. Costs

To be covered by the operator.

G. SPECIAL EQUIPMENT

Not required.

H. WEIGHT AND BALANCE

Influence of the modification on the airplane empty weight and balance is negligible.

I. USED DOCUMENTATION

- Airplane Maintenance Manual
- Airplane Wiring Manual
- Airplane Flight Manual
- B574 493X SALM wiring diagram
- B574 747N Installation of relays

J. AMENDED DOCUMENTATION AND APPROPRIATE AMENDMENTS

AFM L410UVP-E/259d documentation bulletin.

MS Not affected.

MM Supplement No. 210, Revision 5.

WM Supplement No. 210, Revision 4.

2. INSTRUCTIONS FOR IMPLEMENTATION

A. PREPARATORY WORK

- Disconnect the external power supply plug accord. to the MM, chap. 024.40.00.B.
- Remove accumulators from the airplane according to the MM, chap. 024.30.04.A.
- Remove the side covers of the control panel in the cockpit according to the MM, chap. 031.12.00.
- Tilt the RH instrument panel according to the MM, chap. 031.11.00.
- Remove PFD from the RH instrument panel.
- Remove the airframe de-icing control box from the RH control panel.
- Lower the bottom cowling of the LH and RH engine according to the MM, chap. 054.00.01.

B. PROCEDURE

Modification of the electrical circuit of the propeller pitch lock system function test

- Install V900 ground according to the Dwg. No. B574 747N, View P. Stick V900 el. symbol close to the ground. Use material pos. 1, 2, 3 of point 3.A. of this bulletin.
- Perform as follows according to the original SALM 601 wiring diagram in the Supplement No. 210 of the WM, chap. 076.14.00:
 - Remove the bracket with the M897 and M898 relays installed inside the control panel in the cockpit.
 - Remove the M891 and M892 relays behind the RH instrument panel from the bulkhead 4.
 - Disconnect the 9337M wire from the M891-6 relay and connect it to the M891-3 relay according to the B574 493X wiring diagram.
 - Disconnect the 9552M wire from the M891-2 relay and connect it to the M891-B relay according to the B574 493X wiring diagram.
 - Disconnect the 9553M wire from the M891-B relay and connect it to the M891-5 relay according to the B574 493X wiring diagram.
 - Disconnect the 9364M wire from the M891-4 relay and connect it to the M891-5 relay (together with the 9553M and 9552M wires) according to the B574 493X wiring diagram.
 - Disconnect the 9363M wire from the M897-4 (or M897-2) relay (unfasten it from a cable harness) and connect it to the V900 ground according to the B574 493X wiring diagram.
 - Disconnect the 9412M wire from the M892-6 relay and connect it to the M892-3 relay according to the B574 493X wiring diagram.
 - Disconnect the 9557M wire from the M892-2 relay and connect it to the M892-B relay according to the B574 493X wiring diagram.
 - Disconnect the 9359M wire from the M892-B relay and connect it to the M892-5 relay according to the B574 493X wiring diagram.
 - Disconnect the 9352M wire from the M892-4 relay and connect it to the M892-5 relay (together with the 9359M and 9557M wires) according to the B574 493X wiring diagram.
 - Disconnect the 9351M wire from the M898-4 (or M898-2) relay (unfasten it from a cable harness) and connect it to the V900 ground according to the B574 493X wiring diagram.
 - Install back the M891 and M892 relays.
 - Install back the bracket with the M897 and M898 relays.

Function check of the TCL microswitch of the propeller pitch lock system

- Disconnect the BETA feedback lever from the connecting rod - see Fig. 1.

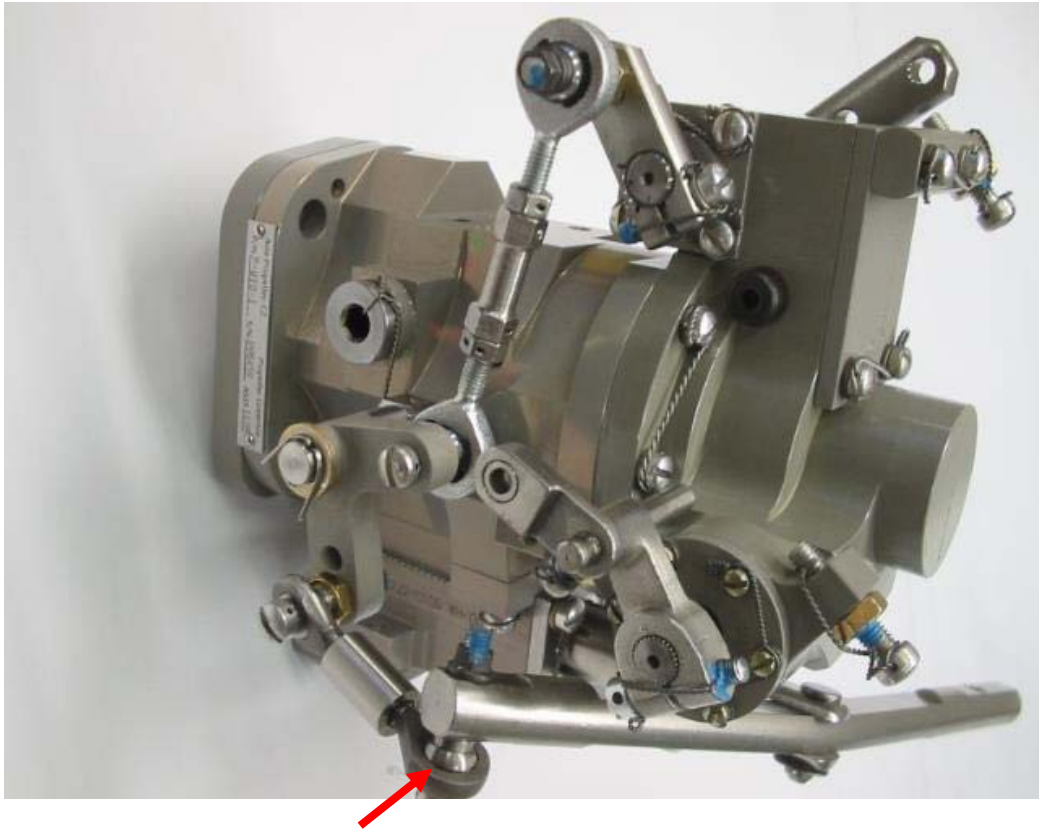


Fig. 1

- Disconnect the M893 connector of the propeller pitch lock (component of the P-W22-1 propeller governor) on the LH / RH engine - see Fig. 2.

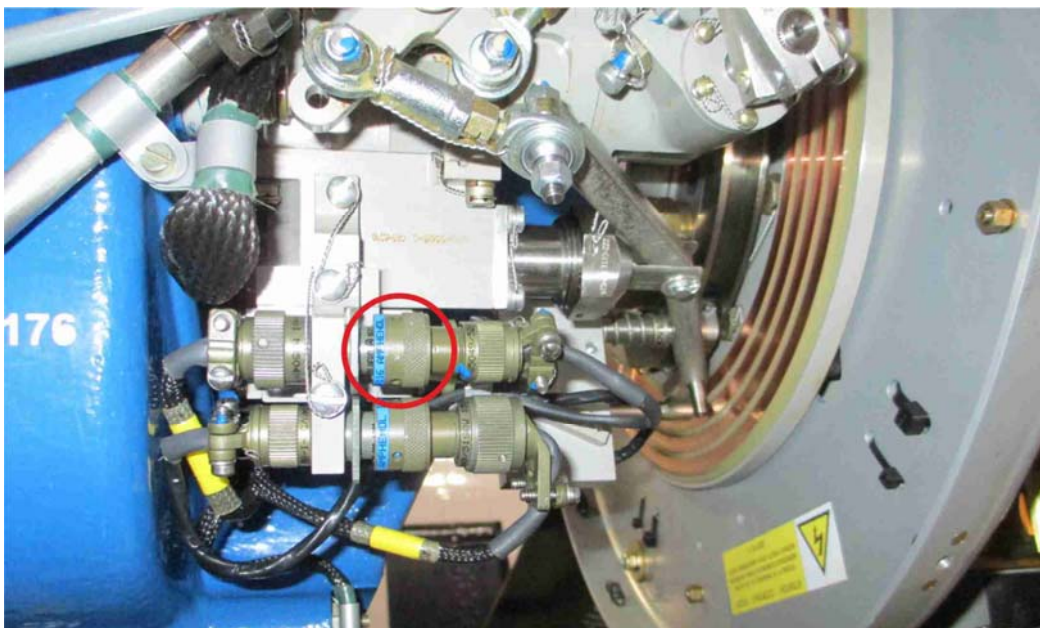


Fig. 2

- Connect the voltmeter to the „A“ and „B“ pins on the M893 flange connector on the LH / RH engine. Connect the red wire of voltmeter (+ voltage pole) on the „A“ pin and the black wire of voltmeter (- voltage pole, ground) to the „B“ pin. Set the appropriate range of voltage to min. 30 V DC on the voltmeter.

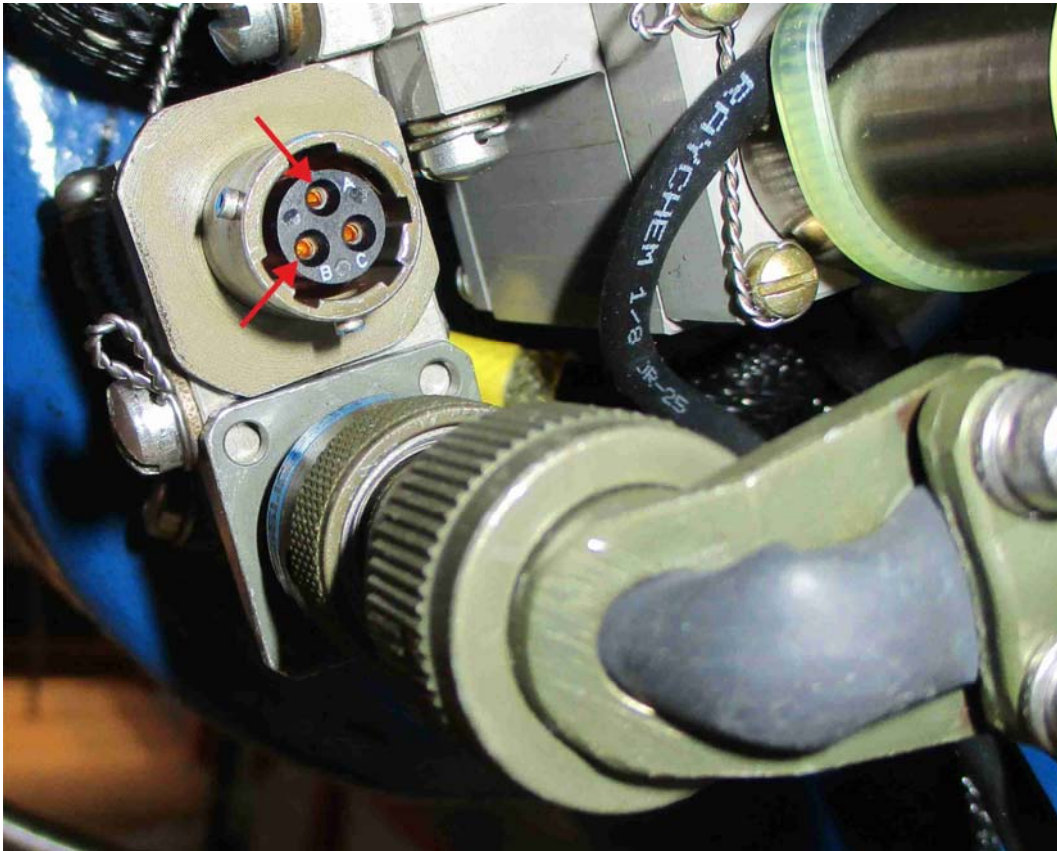


Fig. 3

- Verify the LH / RH TCL is set in the idle position in the cockpit.
- Install the airplane accumulators according to the MM, chap. 024.30.04.A.
- Switch on the BATTERY I, II switches and the ELU LH / RH, CWD LH ENGINE, AIRFRAME, ELECTRO, RH ENGINE circuit breakers on the overhead panel in the cockpit.
- Verify the PITCH LOCK circuit breaker on the circuit breakers panel in the cockpit is ON.
- Press the PROPELLER PITCH LOCK TEST button on the LH control panel. During the pressing and holding this button the BETA RANGE and LIMITER ACTIVE cells (on the CWD of LH / RH engine) and PROPELLER PITCH LOCK cell (on the instrument panel glareshield - LH / RH) shall light and at the same time voltage about +28 V DC shall be indicated on the voltmeter, which is connected on the M893 flange connector on the LH / RH engine.
- Move the LH / RH TCL in the cockpit over their full range (from the idle to max. power) and check that the +28 V DC voltage is always on the M893 flange connector of the LH / RH engine.

- Move the LH / RH TCL in the cockpit to the BETA area and check that the +28 V DC voltage on the M893 flange connector of the LH / RH engine has disappeared (voltage range from 0 to 1.5 V) and at the same time the PROPELLER PITCH LOCK cell (on the instrument panel glareshield - LH / RH) has gone off.
- Release the PROPELLER PITCH LOCK TEST button and switch off the ELU LH / RH, CWD LH ENGINE, AIRFRAME, ELECTRO, RH ENGINE circuit breakers and BATTERY I, II switches on the overhead panel.
- Connect back the M893 connector of propeller pitch lock on the LH / RH engine.
- Connect the BETA feedback lever to the connecting rod - see Fig. 1.

C. TESTS

NOTE

Implementation of the GEAC service bulletin SB-H80-76-00-00-0036 is recommended before undermentioned check.

- Check the propeller pitch lock function according to the AFM, Sec. 4 „Engine starting“. Carry out the check on the Maximum take-off power and Maximum reverse power according to the Airplane Flight Manual.

D. FINISHING WORK

- Install the bottom cowling of the LH and RH engine according to the MM, chap. 054.00.01.
- Install the side covers of the control panel in the cockpit according to the MM, chap. 031.12.00.
- Install back the airframe de-icing control box on the RH control panel.
- Install back the PFD on the RH instrument panel.
- Install the RH instrument panel according to the MM, chap. 031.11.00.
- Insert the Supplements and L410UVP-E/259d documentation bulletin into the respective airplane manuals.

3. NECESSARY MATERIAL

A. INSTALLATION PARTS DELIVERED BY THE AIRPLANE MANUFACTURER

Pos.	AI Identifier	Name	Pcs/Aircraft
1	3105 6314	M3x14 Screw, DIN 84 A	1
2	3372 0003	M3 Lock nut, ONL 3248	1
3	3565 5632	3.2 Washer, DIN 125-1A	2

4. RECORD IN THE AIRPLANE LOGBOOK

Modification of the electrical circuit of the propeller pitch lock system function test has been performed according to the L410UVP-E/143a Revision 2 mandatory bulletin.

Date:

Performed:

(legible signature of verification engineer)

Elaborated by: Ing. Zdeněk Klofáč



Checked by: Ing. Pavel Ulrich

