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MANDATORY

**SERVICE
BULLETIN**

MANDATORY BULLETIN Z 242L/29a, Z 143L/16a

Supersedes Informative bulletin Z 242L/10b

Engineering Aspects are CAA of
the Czech Republic Approved

1. **DATE:** Juni 19, 1998
2. **MODELS AFFECTED:** All Zlin 242L aircraft up to S/N 0708 incl. and all Zlin 143L aircraft up to S/N 0014 incl. The aircraft of higher S/N are affected only in case of the checking block L 143.8521 failure in some of circuits of the instruments lighting dimmers.
Correction 4.2 concerns all Z 242L aircraft provided with the Maintenance Manual, Vol. I in the Czech version (Reissue, DOC. No. 003.021.1).
3. **SUBJECT:** Occurrence of the checking block L 143.8521 damage in operation.
4. **CORRECTION:**
 - 4.1 Repair of the block - removal of the cooler eloxal coating and/or replacement of defective transistors in the checking block, if necessary.
 - 4.2 Correction of the checking block wrong designation in the Z 242L Maintenance Manual (see point 9.6 of this Bulletin).
5. **TIME OF COMPLIANCE:** At next 500-hour inspection.
In case of the checking block failure in some circuit of the instruments lighting dimmers prior to next take-off after failure detected.
Correction 4.2 should be accomplished immediately after the Bulletin receipt.
6. **CORRECTION PERFORMED BY:** The Manufacturer of aircraft or the authorized service person/organization, owning the appropriate qualification.
7. **EXPENSES COVERED BY:** The Operator of aircraft.
8. **NECESSARY MATERIAL:** Specified in point 9 of this Bulletin; in case of need it will be delivered by the Manufacturer of aircraft on the basis of the order.

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9. PROCEDURE:
- 9.1 Remove the checking block from the aircraft and dismantle covers of this block. The checking block is located in the cockpit on floor in the front in the middle and it is accessible after removing the sheet side covers.
- 9.2 Perform measurement of the transistors of the dimmer circuits (KD 503 - 3 pcs; KFY 46 - 3 pcs). Replace transistors if defective. Unless the original models are available, as the substitutive equivalents there may be used the following ones:
KD 503: 2N3772, 2N3773, 2N3055
KFY 46: BC 141-16 or other one as per the specification:
 U_{CE} 60V; I_C 0.8-1A, NPN; $h_{21} > 100$.

NOTE: The wiring diagram of the checking block is shown in MM - Vol. I.

- 9.3 Removal of the failure cause:
Remove the eloxal coat layer of the cooler under attachment nuts of all three KD 503 transistors (or their equivalents) and under the screw of the supply voltage lead to the cooler. After cleaning off and tightening, re-paint these joints with the protective lacquer.

REMOVE THE ELOXAL COAT LAYER

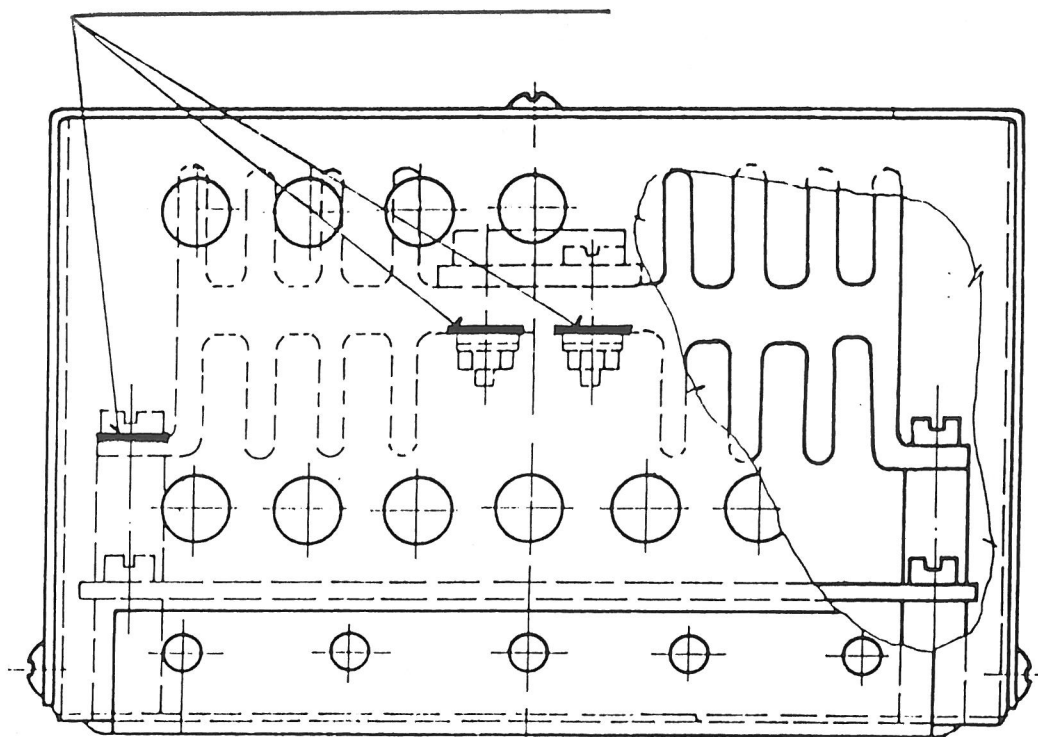


Fig.: Checking block L 143.8521

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- 9.4 Mount the covers on the checking block, install it on the aircraft and verify the instruments lighting dimmers for proper function:

Check the instruments lighting intensity control using three potentiometers "INSTRUMENT LIGHTING DENSITY" ("HELLIGKEITSREGLUNG").

When turning the potentiometer from the left extreme position clockwise, the lighting of an appropriate group of instruments on the instrument panel must change from minimum to full intensity.

- 9.5 Check the checking block for other functions:

Check of the stall warning system

Check of the stall warning system may be accomplished e.g. at the aircraft levelling when the main landing gear is unloaded. In case of the main landing gear unloaded on ground, the stall warning light marked "STALL WARN. INACTIVE", located on the annunciator lights display, must be OFF and the stall warning horn must sound after switching-on the appropriate electrical circuits.

NOTE: THE STALL WARNING LIGHT MARKED "STALL WARN. INACTIVE" IS NOT USED AT ZLIN 143L AIRCRAFT REGISTERED IN FRG.

Check of the mains voltage comparator device

Check of the mains voltage comparator device may be carried out during the engine test of the aircraft. For measuring the board network d.c. - voltage + 28 V, use the digital voltmeter. While the engine r.p.m. are increased continuously, the light marked "GENERATOR" on the annunciator lights display must become OFF when reaching the board network d.c.-voltage value $26.2 \text{ V} \pm 0.1 \text{ V}$. When switching-off the "GENERATOR" circuit switch, this annunciating light must be ON again. As fault is not considered if this voltage value is reached and the appropriate light turns OFF already at the engine idling.

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- 9.6 Rectify by hand the wrong designation of the checking block Z 143.8521 and put the correct L 143.8521 instead in the Czech version of Z 242L Maintenance Manual, Vol. I (Reissue, DOC. No. 003.021.1) on pages 2-64 and 2-65.



Radek Sejbal

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Manufacturer's
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