

DATE: July 9, 2011

SUBJECT: Improved transistor with higher current capability

PRODUCT AFFECTED: Ahlers P/N 810-30005-1 Annunciator (Enstrom ECD4078-1)

TIME OF COMPLIANCE: At next production or upon return for maintenance, whichever comes first.

Ahlers Aerospace and Enstrom Helicopters have identified an area for improvement of the Ahlers 810-30005-1 Annunciator Panel used on the Enstrom Helicopter. The output pins "X", "Y", "c", "d" and "e" utilize a transistor to provide buss voltage when required. The transistor is rated for 1.5 ampere but certain load conditions may exceed the rated power of the transistor and can degrade the output or create an output failure. This service bulletin (SB) requires the replacement of the transistor with a device rated for 3 ampere and increasing the blocking diode to a 1 ampere device.

Parts that are repaired to this SB will be identified with a Modification Sticker A. Any annunciator that does not have this modification sticker must be repaired.

Inspection Procedure

Verify 810-30005-1 annunciator panel has the modification by examining the modification sticker. The suggested location of the modification sticker is shown in figure 1. The MOD A circle will be punched out. If unit is identified as MOD A, it has been modified to this SB and is acceptable. No further work is required.

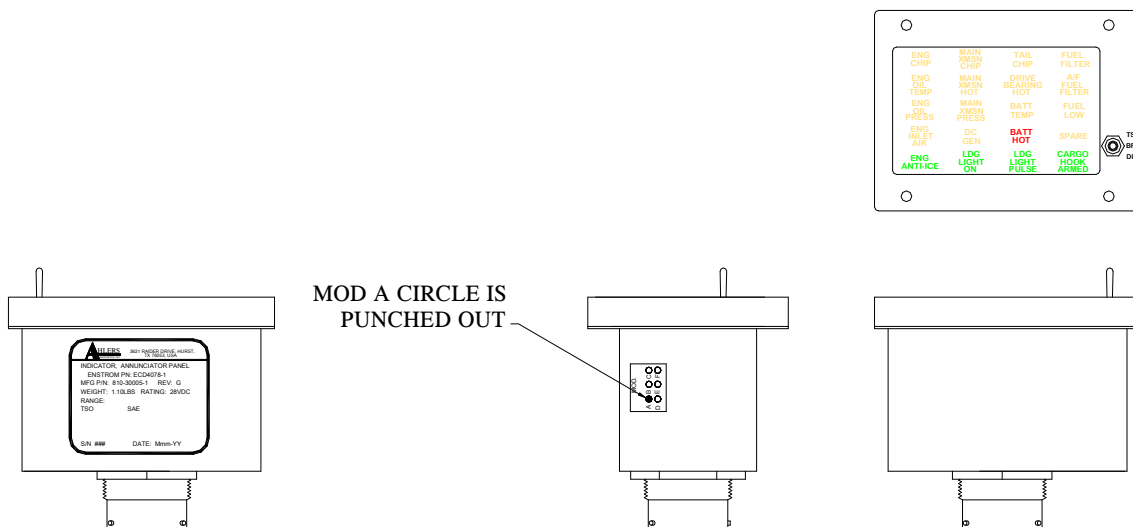


FIGURE 1.

ISSUED			REVISED			PAGE NO.	REVISION
MO	DAY	YEAR	MO	DAY	YEAR	1 OF 2	-
07	09	2011	-	-	-		

Modification Procedure

Using an approved repair station and ESD grounded work station, remove the case and gain access to the Power Supply Printed Circuit Board (PCB, PWR SUPPLY) assembly. Using the proper rework equipment, remove four diodes and five transistors or mosfet devices at locations D1, D2, D3, D4, R1, R2, T1, T2, T3, T4 and T5. Install new diodes, resistors and transistors:

QTY	PART NUMBER	DESCRIPTION
4	DL4004-TPMSCT	Diode, SOD 123, 400V, 1A
5	ZXTP2014ZTA	Transistor, PNP
1	CRCW0805470RJNEA	Resistor, 0805, 470ohm, 5% (R1)
1	CRCW08054K70JNEA	Resistor, 0805, 4.7kohm, 5% (R2)

Spot clean to remove flux residual.

Touch-up conformal coating

Reassembly

Reassemble the annunciator panel in reverse order and install case.

Test

Conduct test per TS810-30005-1.

Punch out the circle adjacent the "A". Alternative to a punch, use a sharp knife to cut a triangle within the circle. Identify acceptable units with the Modification Label A.

Records

Record Compliance with this SB in the production traveler or repair station work order.

ISSUED			REVISED			PAGE NO.	REVISION
MO	DAY	YEAR	MO	DAY	YEAR	2 OF 2	-
07	09	2011	-	-	-		