

Service Bulletin

SB 1394T100-10RA-01

Autopilot Turn Coordinator

1394T100-10RA

Modification 1

Loss of autopilot valid

1. PLANNING INFORMATION

A. Effectivity

This service bulletin is applicable to 1394T100-10RA Autopilot Turn Coordinator manufactured by the Electric Gyro Division of Mid-Continent Instrument Corp, Inc. It applies to units manufactured with serial numbers prior to 2108-XXX.

B. Reason

1. Intermittent power fluctuations may cause the loss of the autopilot valid signal from this unit. This service bulletin installs a 2 second delay before the autopilot output becomes invalid.
2. Under some conditions of high temperature operation the warning flag could intermittently drop in and out of view. This service bulletin changes the value of one resistor to improve the warning flag on/off operation performance window.
3. This service bulletin is optional based on individual owner request.

C. Description

This service bulletin performs two changes to the Autopilot Turn Coordinator electronic circuit. The first change adds a 47 μ f Capacitor part number 7014582 in parallel with capacitor C9. This new capacitor is designated as C11.

The second change replaces resistor R21, 470 ohm, part number 53-4700J3TK-L with a 1,000 ohm, part number 53-1001J3TK-L.

D. Approval

FAA and TSO approval not affected

E. Manpower

This service bulletin may be accomplished and unit tested in approximately 0.25 man-hour.

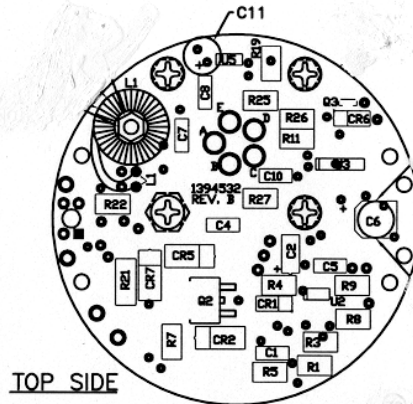
F. Material – Cost and Availability

The parts and materials necessary to accomplish this service bulletin are available from Mid-Continent Instruments. Refer to Section 3, Material Information, for part numbers. Check for current pricing.

- G. Tooling
Surface mount soldering and component removal equipment is necessary to perform this service bulletin. Normal ESD procedures should be followed.
- H. Weight and Balance
No change.
- I. Electrical load data
No change.
- J. Other Publications affected
None.

2. ACCOMPLISHMENT INSTRUCTIONS

- A. Remove cover from unit.
- B. From the circuit board side opposite the connector locate the two via holes as shown. Install the 47uf capacitor with the positive lead to the centermost hole.



- C. Locate resistor R21, if it is a 470 ohm, remove from circuit board using surface mount component removal techniques. Clean circuit paths. Install new 1,000 ohm resistor onto the circuit board.
- D. Install cover onto unit.
- E. Test unit i/a/w test specification TDS170.
- F. Identify service bulletin completion by placing a 3/8 inch orange label on the rear of the cover adjacent to the connector.

3. MATERIAL INFORMATION

- A. Parts

New P/N	Qty.	Description	Old P/N	Disposition
7014582	1	Capacitor, C11		
53-1001J3TK-L	1	Resistor, 1Kohm	53-4700J3TK-L	Discard