

Service Bulletin

SB 4200-XX-02

Electric Attitude Indicator

4200 Series

Modification 2

Improves radio frequency susceptibility and lightning protection

1. DESCRIPTION

A. Effectivity:

This service bulletin is applicable to all 4200 Series Electric Attitude Indicators manufactured by Mid-Continent Instrument Co., Inc. These updates are installed by the manufacturer and are not eligible to be modified by any entity other than the manufacturer. Units with this modification are available upon customer request as of February 1, 2008. Both units with and without the modification will be available during a transitional period until such time that production begins manufacturing units exclusively with this modification installed. The units are identified by Modification Status 2 as shown on the nameplate.

B. Reason:

Improve high intensity radio frequency (HIRF) susceptibility to meet newly amended 14 CFR Part 23.1308 and Part 25.1317 requirements for flight-critical electronic equipment. Improve lightning susceptibility to Level A requirements for Critical Display equipment.

C. Description:

Replaced internal circuit board with new version containing updated circuitry and components to meet increased HIRF and lightning protection guidelines. Added a sheet metal tab that creates an electrical ground connection to the case, which now has the anodized plating selectively removed. HIRF qualification complies with RTCA DO-160E, Section 20, Category WF. Lightning qualification complies with RTCA DO-160E, Section 22, Category A3H33.

D. Compliance: Optional.

E. Approval: TSO approval not affected FAA approval of updated RTCA DO-160 compliance on record with manufacturer

F. Weight and Balance: No change.

G. Electrical load data: No change.

H. Other Publications affected:

4200 Series, Installation Manual and Operating Instructions, Revision C

2. INSTALLATION INSTRUCTIONS: (optional)

I. Planning

A. Manpower:

Approximately 12 minutes plus retest and qualification prior to return to service.
 Approximately 6 minutes extra time required if incorporated into normal overhaul.

B. Material – cost and Availability:

See Section 3. Modification is to be accomplished by the manufacturer, thus cost and availability information is not provided.

C. Tooling:

No special tooling required.

II. Procedure: Refer to 4200-XX manufacturing instructions. Units must be returned to Mid-Continent Instruments for modification.

A. Remove cover of the unit.

B. Remove Power PCB Assembly. (3 flat head screws and 2 pan head screws)

C. Replace Power PCB Assembly with new version.

D. Re-assemble the unit in reverse order as above.

E. Perform TDS305 (4200-1X) or TDS306 (4200-2X) and other internal procedures determined by the manufacturer in order to return to service.

F. Using permanent black ink, mark out block 2 in the modification section on the unit nameplate.

3. MATERIAL INFORMATION

Parts:

Model	Qty	Description	Old Part Number	Replaced By
4200-1X	1	PCB Assy, Power	9016049	9016565
4200-2X	1	PCB Assy, Power	9016338	9016583