MidContinent™
INSTRUMENTS+AVIONICS
Wichita, Kansas USA

Service Bulletin

SB 4300-XXX-02

Electric Attitude Indicator

4300 Series
Modification 2
Improves circuit reliability

1. PLANNING INFORMATION

A. Effectivity:

This service bulletin is applicable to 4300 Series Electric Attitude Indicators manufactured by Mid-Continent Instrument Co., Inc. It applies to units manufactured prior to January 1, 2005, serial numbers previous to A05-XXXXX.

B. Reason:

To improve circuit reliability.

C. Description:

This service bulletin replaces the 4300 Inverter PCB Assembly from P/N 9015511 to P/N 9015951-1.

D. Compliance:

This modification is highly recommended.

E. Approval:

FAA and TSO approval not affected.

F. Manpower:

Approximately 30 minutes, not including testing.

G. Material – Cost and Availability:

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

H. Tooling:

No special tooling required.

I. Weight and Balance:

No change.

J. Electrical load data:

No change.

K. Other Publications affected:

None.

2. ACCOMPLISHMENT INSTRUCTIONS:

A. Refer to the 4300-XXX Component Maintenance Manual for part locations, disassembly instructions, and wiring diagrams.

B. De-solder and remove all wires from the Inverter PCB.

C. Remove the screws securing the Inverter PCB and discard the old PCB assembly.

D. Cut the red flag wire to the same length as the black flag wire.

E. Strip and tin each end of the red wires.

Note: When installing the wires into the new Inverter PCB Assembly, place all wires into the component side of the PCB.

Note: J1-1 on the Inverter PCB Assembly has a square pad.

F. Solder the white/black wire (GND) from the Power PCB Assembly into J1-1 of the Inverter PCB Assembly.

G. Solder the white/red wire (+ V OUT pump) from the Power PCB Assembly into J1-2 of the Inverter PCB Assembly.

H. Solder the red wire (+ V FLAG) from the Power PCB Assembly into J1-3 of the Inverter PCB Assembly.

I. Secure the Inverter PCB Assembly onto the unit with the component side down, making sure all wires are secured to prevent pinching, chafing, or interference with any moving parts.

J. Solder the red wire from the flag assembly into the “FLG+” terminal of the Inverter PCB Assembly.

K. Solder the black wire from the flag assembly into the “FLG-” terminal of the Inverter PCB Assembly.

L. Solder the brown wire from the rear brush block into the “C” terminal of the Inverter PCB Assembly.

M. Solder the red wire from the rear brush block into the “B” terminal of the Inverter PCB Assembly.

N. Solder the orange wire from the rear brush block into the “A” terminal of the Inverter PCB Assembly.

O. Clean all solder connections and check that all wires are properly secured.

P. Assemble the unit and perform the tests called out in the 4300-XXX Component Maintenance Manual (page 201, Testing and Fault Isolation).

Q. Using permanent black ink, mark out block 2 on the modification section of the mfg. nameplate.

3. MATERIAL INFORMATION

Parts:

New P/N	Qty.	Description	Old P/N	Disposition
9015951-1	1	PCB Assy., 4300 Inverter	9015511	Discard