

Service Bulletin

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| MODEL(S) | MD302 |
| PART NUMBER(S) | 6420302-() |
| DESCRIPTION | SAM [®] Standby Attitude Module |
| TOPIC | Software Update Version 1.0.3 |
| PURPOSE | Product and Performance Enhancements |
| RELEASE DATE | October 11, 2013 |

APPLICABILITY

This Service Bulletin is applicable to the model MD302 SAM[®] Standby Attitude Module, part number 6420302-() manufactured by Mid-Continent Instrument Co., Inc. (dba Mid-Continent Instruments and Avionics). These updates are to be performed **ONLY** by authorized personnel per the instructions as listed in this Service Bulletin. Units with this software upgrade are available for sale from the manufacturer.

PURPOSE

The MD302 SAM Software Version 1.0.3 includes updates that improve flight performance, add customer requested features and provide user or operational enhancements as described herein.

EFFECTIVITY: VOLUNTARY

MD302 SAM units in the field can be updated to Software Version 1.0.3, but are not required to do so for continued airworthiness. **NOTE:** An MD302 SAM unit currently operating Software Version 1.0.0 must first be updated to Software Version 1.0.2 prior to installing Software Version 1.0.3.

Following the release date of this Service Bulletin, all MD302 SAM units provided by Mid-Continent Instruments and Avionics shall be supplied with Software Version 1.0.3 or later installed.

DESCRIPTION

The following list describes the added features, enhancements and resolutions incorporated in the Software Version 1.0.3 update.

ADDED FEATURES

1. Added feature to provide a gradient shading option to the artificial horizon background.
2. Added feature in the installation configuration to allow roll adjustment of the unit up to $\pm 5^\circ$.
3. Added feature in the installation configuration for setting the minimum end of the airspeed scale (20, 30 or 40 knots).
4. Added computed airspeed label (206) to the list of ARINC 429 data outputs.

DESCRIPTION*(cont)*ENHANCEMENTS

1. Improved attitude instrument performance during particular rate-of-turn maneuvers.
2. Improved attitude instrument performance when aircraft axis and direction of flight differ significantly.
3. Updated slip ball color to white (previously yellow).
4. Updated rolling altitude digits to display in increments of 20 feet (previously 10 feet).
5. Updated dimming curve configuration to use the photocell input when external lighting input is below the defined minimum or is lost.
6. Updated the manual brightness control to not extend below the lighting configuration minimum.
7. Updated the baro display by adding background shading to indicate when synchronized with an external source.

RESOLUTIONS

1. The baro setting more accurately synchronizes to the ARINC 429 data source.

ESTIMATED MANPOWER

Approximately 30-60 minutes

APPROVALS

None required

WEIGHT AND BALANCE

No change

ELECTRICAL LOAD DATA

No change

CERTIFICATION

This Service Bulletin represents a minor change to the previously approved Technical Standard Orders Authorization. Any changes to software and/or complex hardware have been completed in accordance with approved developmental and quality processes per the guidelines of RTCA document DO-178B and DO-254, respectively.

OTHER PUBLICATIONS AFFECTED

Mid-Continent Instruments and Avionics Installation Manual and Operating Instructions, part number 9017782, Revision E or later, includes information associated with this Service Bulletin.

ACCOMPLISHMENT INSTRUCTIONS

The action required by this Service Bulletin can be accomplished by returning the unit to Mid-Continent Instruments and Avionics or by performing the instructions as listed in this section.

If returning the MD302 SAM[®] unit to Mid-Continent Instruments and Avionics:

Call the Mid-Continent Instruments and Avionics sales department for a Return Material Authorization (RMA) at 316-630-0101

Return address: Mid-Continent Instruments and Avionics
9400 E. 34th Street N.
Wichita, KS 67226

If performing this update in the field:

Follow the Instructions for Continued Airworthiness (ICA) for Software Updates as provided in the Mid-Continent Instruments and Avionics Installation Manual and Operating Instructions, part number 9017782, Revision E or later.