

# Service Bulletin

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| <b>MODEL(S)</b>       | MD302                                    |
| <b>PART NUMBER(S)</b> | 6420302-( )                              |
| <b>DESCRIPTION</b>    | SAM <sup>®</sup> Standby Attitude Module |
| <b>TOPIC</b>          | Software Version 1.0.4                   |
| <b>PURPOSE</b>        | Product and Performance Enhancements     |
| <b>RELEASE DATE</b>   | December 22, 2014                        |

## APPLICABILITY

This Service Bulletin is applicable to the model MD302 SAM<sup>®</sup> Standby Attitude Module, part number 6420302-( ) manufactured by Mid-Continent Instrument Co., Inc. (dba Mid-Continent Instruments and Avionics).

## PURPOSE

The MD302 SAM Software Version 1.0.4 includes updates that improve flight performance, add customer requested features and provide user or operational enhancements as described herein.

## EFFECTIVITY

MD302 SAM units in the field can be updated to Software Version 1.0.4, 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 1.0.4.

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 1.0.4 or later installed.

## DESCRIPTION

The following list describes the added features, enhancements and resolutions incorporated in the Software Version 1.0.4 update.

### ADDED FEATURES

1. Display heading from ARINC  
Labels 014 and 320 are now received via ARINC 429 and optionally displayed on the attitude screen.
2. Field calibration of altitude and airspeed  
There is an option to calibrate airspeed and altitude. For the majority of units with pressure indications exceeding tolerances, this feature can adjust the altitude and airspeed.

3. Live preview of configuration  
The configuration menu will now also display a live preview of the item being changed.
4. Storage mode for battery  
In the configuration menu, there is an option to temporarily disable the battery until the unit is restarted by external power. This increases battery shelf life from 6-9 months currently to 2+ years.
5. Variable  $V_{NE}$   
The barber pole can be configured to vary with altitude. This option is available in the configuration menu.

#### ENHANCEMENTS

1. Updated flight performance related to shallow turns in high airspeed conditions.
2. Fully integrated ARINC 429 output data for non-zero panel roll and panel tilt settings.

#### RESOLUTIONS

None

#### **ESTIMATED MANPOWER**

Approximately 30-60 minutes.

#### **APPROVALS**

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.

#### **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.

**OTHER PUBLICATIONS AFFECTED**

Mid-Continent Instruments and Avionics Installation Manual and Operating Instructions, part number 9017782, Revision G 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<sup>®</sup> 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. 34<sup>th</sup> 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 G or later.