

Service Bulletin

MODEL(S)	MD302
PART NUMBER(S)	6420302-()
DESCRIPTION	SAM [®] Standby Attitude Module
TOPIC	Modification 3 and Software Version 1.1.1
PURPOSE	Product and Performance Enhancements
RELEASE DATE	August 29, 2018

APPLICABILITY

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

PURPOSE

This service bulletin describes features associated with hardware changes that are identified at the product level as Modification (MOD) 3. Additionally, it describes an update to the product software represented by version 1.1.1.

EFFECTIVITY

All MD302 SAM units manufactured and marked with MOD 3 shall comply with the hardware updates associated with this Service Bulletin. MOD 3 changes are not required for continued airworthiness. Previous versions of the product can be upgraded to MOD 3 by the manufacturer.

MD302 SAM units in the field can be updated to Software Version 1.1.1, but are not required to do so for continued airworthiness.

Following the release date of the updated software, all MD302 SAM units manufactured by Mid-Continent Instruments and Avionics shall be supplied with Software Version 1.1.1 or later installed.

DESCRIPTION

The following list describes the enhancements associated with the MOD 3 hardware update.

ENHANCEMENT

1. Upgraded LCD
Enhances contrast, color depth, and cold temperature performance

Note: SW version 1.1.0 or newer is required for compatibility with the MOD 3 hardware update.

The following list describes the added features and resolutions incorporated in the Software Version 1.1.1 update.

ADDED FEATURES

1. Alternative battery pack support
Allows installation and support of optional/alternative nickel metal hydride (NiMH) battery pack for battery equipped units

NOTE: SW v1.1.1 or newer is required for compatibility with the NiMH battery pack

2. SSEC verification over ARINC 429 output
Provides unique SSEC identifier via ARINC output on Label 353

RESOLUTIONS

1. Reversion from external lighting input to photocell operation
When external dimming input is lost, unit now reverts to standard default photocell performance, rather than forcing the photocell response to align with the programmed lighting curve for external input.
2. Updated ARINC outputs for Inertial Rates
ARINC 429 output labels for inertial pitch (336), roll (337), and yaw (340) rates are now representative of their definition, rather than duplicates of the body pitch, roll, and yaw rates.

ESTIMATED MANPOWER

Approximately 30 minutes or less to update the unit software.

APPROVALS

This Service Bulletin represents a minor change to the previously approved Technical Standard Order Authorizations. 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 and thus maintains all aspects of the previously approved Technical Standard Order Authorizations.

OTHER PUBLICATIONS AFFECTED

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

ACCOMPLISHMENT INSTRUCTIONS

All existing versions of the product can only be upgraded by the manufacturer to incorporate the hardware changes associated with MOD 3.

However, all fielded units with a software version of 1.0.2 or greater can be updated with Software Version 1.1.1. The unit software can be updated 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 software 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.