

# Service Bulletin

<b>MODEL(S)</b>	MD23
<b>PART NUMBER(S)</b>	6420023-( )
<b>DESCRIPTION</b>	FLEX Custom Function Display
<b>TOPIC</b>	Software Update Version 1.0.2
<b>PURPOSE</b>	Product and Performance Enhancements
<b>RELEASE DATE</b>	August 20, 2021

## APPLICABILITY

This Service Bulletin is applicable to the MD23 FLEX Custom Function Display, part number series 6420023-( ), 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 MD23 software version 1.0.2 represents improvements to product functionality and support of the additional features.

## EFFECTIVITY: RECOMMENDED

MD23 FLEX units in the field can be updated to Software Version 1.0.2, but are not required to do so for continued airworthiness.

Mid-Continent Instruments and Avionics is recommending that all MD23 units in the field be updated to Software Version 1.0.2 in order to take advantage of added features, enhancements and resolutions that improve the function and performance of the product.

Following the release date of the updated software, all MD23 units manufactured or serviced by Mid-Continent Instruments and Avionics shall be installed with Software Version 1.0.2 or later.

## DESCRIPTION

The following list describes the added features, enhancements and resolutions incorporated in Software Version 1.0.2.

### ADDED FEATURES

1. Add differential voltage sensing between Multi IOs

### ENHANCEMENTS

1. Improved Multi IO sensing accuracy at low voltages
2. Improved RTD sensing accuracy
3. Support software updates from any file name with the .MUF extension
4. Improve USB drive compatibility
5. Display “?” for all non-displayable characters
6. Improve sensor sampling rates
7. Improve graphics rendering speed

### RESOLUTIONS

1. Fix rendering issue for ‘\_’ for built in font 10
2. Correct the reported software version over ARINC 429
3. Limit calibrated tachometer readings to non-negative values
4. Limit pressure to airspeed calculations to 0 when impact pressure is negative
5. Correct Flight Menu closure when timeout exceeded

## ESTIMATED MANPOWER

Software can be downloaded and updated on fielded units in approximately 10 minutes.

## 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 for the MD23 FLEX. Any changes to software have been completed in

accordance with approved developmental and quality processes per the guidelines of RTCA document DO-178C.

#### **OTHER PUBLICATIONS AFFECTED**

Mid-Continent Instruments and Avionics Installation Manual and Operating Instructions, part number 9019161, Revision A or later, is updated with information associated with this Service Bulletin, as applicable.

#### **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 MD23 unit to Mid-Continent Instruments and Avionics:**

Call 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 Section 5.1 of the Mid-Continent Instruments and Avionics Installation Manual and Operating Instructions, part number 9019161.