

## REVISIONS

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	NAME	DATE	MASSACHUSETTS INSTITUTE OF TECHNOLOGY CENTER FOR SPACE RESEARCH			
Drawn:	BRIAN KLATT	12/18/90	<b>CALIBRATION PROCEDURE FOR MEASURING/TESTING EQUIPMENT</b>			
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# **CALIBRATION PROCEDURE FOR MEASURING/TESTING EQUIPMENT**

## **1.0 PURPOSE**

This procedure provides specific instructions for the verification, calibration, and maintenance of mechanical and electrical measuring and testing equipment to ensure its proper functioning and continued accuracy. This will help to assure that parts, subassemblies, and assemblies conform to specified requirements.

## **2.0 SCOPE**

This procedure applies to all mechanical and electrical measuring and testing equipment used by Quality Assurance for the verification of part and material acceptability, and selected equipment used by Fabrication personnel for product acceptability.

## **2.0 APPLICABLE DOCUMENTS**

MIL-STD-45662

Calibration Systems Requirements

## **3.0 APPLICABLE EQUIPMENT**

The CSR Projects (project engineers, design engineers, incoming/receiving personnel, etc.) will generate a list of project equipment which is to be maintained in calibration. Due to the time involved in the calibration process itself (currently about three weeks), this list will contain duplicate items of many equipment types. This way, at least one of the two units is always serviced, calibrated, and available for use. This list will be compiled and maintained by the Project Administrator.

#### **4.0 INITIATION OF CALIBRATION REQUEST**

The responsibility for maintaining the equipment on the above list within calibration rests with the Reliability and Quality Assurance (R&QA) group associated with the CSR Project. The R &QA Manager, or his designee, will maintain a file of this equipment and send each item for calibration at the appropriate time (just prior to the calibration expiration date).

#### **5.0 INSTRUMENT CALIBRATION**

The Calibration Laboratory of the C.S. Draper Laboratory (CSDL), or another qualified calibration service, will perform all necessary inspections, repairs, and calibrations in accordance with the requirement established by MIL-STD-45662. The forms and stickers shown in this procedure are from CSDL. If another calibration service is used, a different set, but with equivalent information, will be used.

- 5.1** A record is maintained of all repair and calibration action performed on the instrument. When calibration is successfully completed, a calibration sticker is affixed to the instrument which contains the date the calibration was completed and the date the instrument is due for recalibration. See Figure 5-1.



Figure 5-1  
Calibration Sticker

Figure 5-2  
Instrument Service Request

**5.2** The calibrated instrument is returned to MIT/CSR accompanied by a calibration/service report. At CSDL, this documentation is called the "CSDL Instrument Service Request". (See figure 5-2).

## **6.0 CSR CALIBRATION RECORDS**

The R&QA group of CSR maintains an inventory file system on all project property (instruments) requiring calibration, as described in paragraph 3.0 herein. The inventory contains all the necessary identification names, serial numbers, and property numbers. The calibration/service report described above, including date due for recalibration, is retained by Performance Assurance and becomes the Calibration/Service History Record.

## **7.0 UNCALIBRATED EQUIPMENT**

Instruments within the project ,which are not used for product acceptance and are not calibrated, are tagged. See Figure 7-1.



Figure 7-1  
No Calibration Required