



CALIBRATION SYSTEM DESCRIPTION

Sencore Calibration System Description

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Director of Quality

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Date



Metrologist

3-Dec-2010

Date

Sencore Calibration System Description

Table of Contents

TABLE OF CONTENTS	3
1.0 MISSION STATEMENT	7
1.1 Organization	7
1.2 Scope of Laboratory's Calibration Capabilities	7
1.3 Departure from documented policies and procedures	7
1.4 Resolution of Complaints	8
1.5 Review of Sencore Calibration System Description.	8
1.6 Training	8
1.7 Distribution of Revised Calibration System Description.	8
2.0 DEFINITIONS AND ABBREVIATIONS	9
2.1 Accuracy	9
2.2 ANSI	9
2.3 Calibration	9
2.4 Calibration Ratio	9
2.5 Certification	9
2.6 Independent Comparisons	9
2.7 MSF	9
2.8 M&TE	9
2.9 NCSL	9
2.10 NIST	10
2.11 OEM	10
2.12 Out of Tolerance	10
2.13 Performance Check	10
2.14 Precision	10
2.15 Primary Standard	10
2.16 Quality Level	10

Sencore Calibration System Description

2.17	Repeatability	10
2.18	Secondary Standard	10
2.19	Significantly Out of Tolerance	10
2.20	SOP	10
2.21	Stability	11
2.22	TECP	11
2.23	Traceability	11
2.24	Traceability Certificate Number	11
2.25	Working Standard	11
3.0	DESCRIPTION OF FORMS USED IN THIS SYSTEM	12
3.1	MSF 1	12
3.2	MSF 2	12
3.3	MSF 3	12
3.4	MSF 4	12
3.5	MSF 5	12
3.6	MSF 6	12
3.7	MSF 7	12
3.8	MSF 9	12
3.9	MSF 10	12
3.10	MSF 11	13
3.11	MSF 12	13
3.12	MSF 19	13
3.13	MSF 29	13
3.14	MSF 38	13
4.0	SYSTEM DESCRIPTION	14
4.1	Calibration System Requirements	14
4.1.1	Insuring Accuracy of Specifications	14
4.2	Adequacy of Measurement Standards	14
4.2.1	Uncertainty of Measurement Standards	14
4.2.2	Traceability of M&TE	14

Sencore Calibration System Description

4.2.3	Use of Standards	14
4.2.4	Repair of Standards	14
4.3	Environmental Controls	14
4.3.1	Reporting of Environmental Conditions	14
4.3.2	Inclusion of environmental conditions	14
4.3.3	Tagging for Deregulated Conditions	15
4.3.4	Environmental controls of the Standards Lab	15
4.4	Intervals of Calibration	15
4.4.1	Quality Level	15
4.4.2	Initial Calibration Level	15
4.4.3	Review of Calibration Interval	15
4.4.4	Terms Intervals are Stated in	15
4.4.5	Recall System for Calibration	15
4.4.6	Overdue System	15
4.4.7	Labeling of overdue M&TE	15
4.4.8	Extension of Calibration Intervals	15
4.4.9	M&TE not Meeting Quality Standard	16
4.4.10	M&TE not requiring calibration	16
4.5	Calibration and Performance Procedures	16
4.5.1	Location of Calibration and Performance Procedures	16
4.5.2	Procedure Requirements	16
4.5.3	Review of Procedures	16
4.6	Adequacy of the Calibration System	17
4.6.1	Auditing of the Calibration System	17
4.6.2	Corrective actions of audits	17
4.7	Calibration Sources	17
4.7.1	Traceability of Standards	17
4.7.2	Certification of Traceability	17
4.7.3	Evaluation of outside calibration sources	17
4.7.4	Evaluation of Rental Companies	17
4.8	Records for M&TE and Standards	17
4.8.1	Contents of Records	17
4.8.2	Standards and Traceability Certificate Numbers	18
4.8.3	Records of Standards	18
4.8.4	Storage of Records	18
4.9	Calibration Status	18
4.9.1	Labeling of M&TE	18
4.9.2	Explanation of Labels	18
4.9.3	Tamper Resistant Seals	18
4.9.4	Broken Tamper Resistant Seals	18
4.10	Control of Subcontractor Calibration	19
4.10.1	Calibration Subcontractors	19
4.10.2	Subcontractor Auditing	19
4.11	Storage and Handling of M&TE	19
4.11.1	Storage and Handling Considerations	19
4.11.2	Procedure for Improper Handling	19
4.11.3	Procedure for suspect or defective equipment	19
4.12	Out of Tolerance Conditions	19

Sencore Calibration System Description

4.12.1	Reporting	19
4.12.2	Notification of Out of Tolerance Conditions	19
APPENDIX 1 LABELS AND THEIR USES		20
APPENDIX II REVISION HISTORY		22

Sencore Calibration System Description

1.0 Mission Statement

This calibration system is organized to insure the accuracy of all Measurement and Test Equipment used at Sencore, Inc. The purpose of this manual is to describe the operating practices and procedures that comprise the Sencore Calibration System. This system assures proper certification and traceability to the National Institute of Standards and Technology, to provide the best possible service to our customers, and to meet our intent to comply with ANSI/NCSL Z540-1-1994.

1.1 Organization

The calibration system description, as described, is maintained by the Metrologist under the supervision of the Director of Quality. Calibration and Performance testing responsibilities are divided between the following areas:

Standards Lab

Responsible for the Calibration & Performance testing of all non-Sencore Test and Measurement Equipment and Sencore In-House built test jigs using Primary or Secondary Standards. The Director of Quality designates an alternate in case of absence of the Metrologist.

Quality Assurance

Responsible for Performance testing of all Sencore built Test Equipment.

Service Department

Responsible for the Calibration and Repair of all Sencore equipment.

Manufacturing Engineering

Responsible for repair of all Sencore In-House built test jigs.

1.2 Scope of Laboratory's Calibration Capabilities

Sencore calibration capabilities include the following measurement area's and there related measurement parameters.

A. DC/Low Frequency: Capacitance, Current, Frequency, Inductance, Resistance and Voltage.

B. RF/Microwave: Field Strength, Frequency, Power and Voltage.

See Sencore Form #6639 – **Sencore Traceability chart** for traceability documentation and accuracy of these parameters.

1.3 Departure from documented policies and procedures

Any deviations from the guidelines in this Calibration System Description shall be described with supporting justification and shall have prior approval from the Metrologist and Director of Quality. Individuals desiring deviation from the requirements set forth in the Calibration System Description shall provide to the Metrologist prior to implementation a detailed description and justification for the proposed deviations for

Sencore Calibration System Description

review. A complete description, justification and record of approval shall be documented and maintained for history.

1.4 Resolution of Complaints

The Metrologist shall maintain a log addressing all complaints against its activities. This log will document the source of the complaint, the policies, procedures or quality of the activity in question. This log shall detail the subsequent actions taken to resolve the complaint. An attempt to identify and resolve the root cause of each complaint shall be made (i.e. what went wrong? How do we prevent it from happening again?). The Metrologist shall ensure that all complaints are promptly resolved.

1.5 Review of Sencore Calibration System Description.

The Sencore Calibration System Description shall be reviewed at least once a year by the Metrologist and approved by the Director of Quality to ensure its continuing suitability, effectiveness and to introduce any necessary changes or improvements.

1.6 Training

Hiring practices at Sencore are based on documented qualifications for personnel. Supervisors are required to consult approved Job Descriptions to verify that a potential employee's qualifications match those contained in it before deciding on a candidate. Formal training and training records are not required for calibration laboratory personnel. Laboratory personnel have the responsibility to understand the Sencore Calibration System Description and all Standard Operating Procedures. Additional skills of laboratory operating procedures are obtained through the many resources in the Metrology area. These resources consist of information from NCSL Newsletters, NCSL Recommended Practices, Fluke Calibration: Philosophy in Practice, editions one and two of Managing the Metrology System and other periodicals. When a procedure or work instruction is revised due to process improvements or corrective action it is the Director of Quality's responsibility to ensure that the Metrologist is retrained. Any external training for Laboratory personnel is determined by the Director of Quality or can be requested by the Laboratory personnel. All personnel hiring and training records are kept in the Human Resources Department.

1.7 Distribution of Revised Calibration System Description.

The Metrologist is responsible to ensure the latest revision of the Calibration System Description is on the Sencore web site in the Metrology section. This will guarantee that any interested parties can verify the latest revision and review any changes at their convenience or at the time of their evaluation/review.

It will require the assistance of the IT Department to put the Description on the web page.

Sencore Calibration System Description

2.0 Definitions and Abbreviations

2.1 Accuracy

The difference between a measured, generated or displayed value and the true value.

2.2 ANSI

American National Standards Institute.

2.3 Calibration

Comparison of a measurement standard or instrument of known accuracy with another standard or instrument to detect, correlate, report or eliminate by adjustment, any variation in the accuracy of the item being tested.

2.4 Calibration Ratio

The ratio between the nominal or expected accuracy of a device to be calibrated and the known or expected accuracy of the standard used for calibration.

2.5 Certification

The process of preparing and signing a written document that attests to the various factors relating to the calibration of an item; e.g., traceability, accuracy, environmental conditions, etc. The term "certification" is sometimes used to refer to all the necessary actions that make possible the issuance of a certificate.

2.6 Independent Comparisons

The validating of specific parameters of Primary Standards between Independent Calibration Subcontractors.

2.7 Functional Check

A short inspection of the basic operations and specifications of an instrument, intended to verify the required parameters that the end user needs.

2.8 MSF

This is the abbreviation for Metrology Section Forms. This abbreviation will be seen as MSF #, and this will show which form is being referred to.

2.9 M&TE

This abbreviation stands for Measuring and Test Equipment. This may include electrical and physical measuring and test equipment that is used in incoming inspection, fabrication, calibration, service repair/calibration, quality assurance testing and any other testing that leads to publication of unit specifications.

2.10 NCSL

National Conference of Standards Laboratories

2.11 NIST

This is the abbreviation for the National Institute of Standards and Technology. This is the Federal organization that holds the highest standards in the United States. All other

Sencore Calibration System Description

standards are traced back to the Standards at NIST or to a fundamental or natural physical constant with values assigned or accepted by the NIST.

2.12 OEM

Original Equipment Manufacture.

2.13 Out of Tolerance

An Out of Tolerance condition exists when the deviation from nominal at a measurement point exceeds the allowable accuracy at that point.

2.14 Performance Check

A thorough test that assures that the M&TE is working with in its published specifications and is fully operational.

2.15 Precision

The statistical spread or variation in a value reportedly measured, generated or displayed under constant conditions. Also called Repeatability.

2.16 Primary Standard

The standard of the highest-order accuracy in a calibration system; therefore, the standard that establishes the best possible accuracy in the system.

2.17 Quality Level

A percentage determined by dividing the number of out-of-tolerance conditions by the total number of calibrations.

2.18 Repeatability

See Precision.

2.19 Secondary Standard

That standard or measuring instrument (if any) which is intermediate in the comparison process between the primary standard and a lower level standard.

2.20 Significantly Out of Tolerance

A significantly Out of Tolerance condition exists when the deviation at a measurement point exceeds the allowable accuracy and a calibration ratio greater than 4:1 has not been maintained.

2.21 SOP

This abbreviation stands for Standard Operating Procedures. Detail explanations of how an activity is done in the Quality Department.

2.22 Stability

The change in accuracy of a standard or item of M&TE over an extended period of time. Unless otherwise specified, the period of time is assumed to be the calibration interval.

Sencore Calibration System Description

2.23 TECP

This abbreviation stands for Test Equipment Control Program. ProCalv5 is the database used to track, recall and document M&TE at Sencore.

2.24 Traceability

The ability to relate the accuracy of an item through an unbroken chain of comparisons to the standard maintained by the NIST a standard calibrated by the ratio type of self-calibration technique, or to a fundamental or natural physical constants with values assigned or accepted by the NIST.

2.25 Traceability Certificate Number

This is the traceability number provided by the calibration subcontractor that is the pointer in the traceability chain leading to the NIST.

2.26 Working Standard

The lowest echelon standard in any defined calibration system or laboratory.

Sencore Calibration System Description

3.0 Description of Forms Used in This System

3.1 MSF 1

This form is used to officially notify the area manager that an item of M&TE is due for calibration and that even though an effort has been made to work out a time to calibrate the item it still hasn't been calibrated.

3.2 MSF 2

This form is used to temporarily extend the calibration due date of an item of M&TE. This extension shall be of a defined time period and there will be documentation to support the extension.

3.3 MSF 3

This notice will be sent to the department that owns an item of M&TE that has not met its quality level for the past four calibration periods. Even though it has been adjusted and/or repaired during that time. This form will document what the Metrology Section has decided about this unit, whether it is to be limited in its use or if it should be removed from use.

3.4 MSF 4

This form is used to track the review of Metrology Test Procedures.

3.5 MSF 5

This form is a generic procedure revision form that is added to all equipment procedure files to document changes done to procedures or test sheets.

3.6 MSF 6

This form is used to report significantly out of tolerance conditions to the Director of Quality.

3.7 MSF 7

This form is used to document out of tolerance conditions found with M&TE used at Sencore. The form will explain the out of tolerance condition and why it's not significantly out of tolerance.

3.8 MSF 9

This form is to be used with performance or calibration test sheets that do not have spaces on them for all the information needed. Such as environmental conditions of lab, adjustments made, repairs done and etc.

3.9 MSF 10

This form is used to report broken or missing calibration seals.

3.10 MSF 11

This form will be used to report improper handling of M&TE and what was done to prevent the improper handling from happening again.

Sencore Calibration System Description

3.11 MSF 12

This form is a generic cover sheet that is added to all equipment files as they are updated or created. It contains all the information and spaces for identification and recording environmental conditions, results of test and equipment used.

3.12 MSF 19

This form is used to document M&TE deviations from 4:1 accuracy ratio.

3.13 MSF 29

This form is used to identify the person who checks out any documentation, including manuals, from the Equipment Stockroom.

3.14 MSF 38

This form is a Supplier Survey and Quality Assurance Assessment to approve a new Calibration Sub-Contractor.

Sencore Calibration System Description

4.0 System Description

4.1 Calibration System Requirements

4.1.1 Insuring Accuracy of Specifications

The Sencore Calibration System Description along with the Quality Department SOPs are to provide documentation that set forth the procedures and practices that are used at Sencore to insure the accuracy of published specifications.

4.2 Adequacy of Measurement Standards

4.2.1 Uncertainty of Measurement Standards

The collective uncertainty of the measurement standards should not be less than a 4:1 test accuracy ratio for each characteristic being calibrated. In cases where they are not, a documented method must be selected by a reputable technical organization to ensure the accuracy of the M&TE. All un-established methods shall be documented and have customer verification before acceptance of the calibration.

4.2.2 Traceability of M&TE

Traceability is established through an unbroken chain of 4:1 accuracy ratios (minimum). Which lead up to the prime standard whose Traceability Certificate Numbers are in each Standards Unit File kept in the Metrology files listed by Sencore Stock Number.

4.2.3 Use of Standards

Standards used by the Standards Laboratory shall be used for calibration and/or performance testing only and for no other purpose.

4.2.4 Repair of Standards

All Standards requiring repair should be returned to the OEM.

4.3 Environmental Controls

4.3.1 Reporting of Environmental Conditions

Environmental conditions, which could effect M&TE, will be identified and controlled. Monthly ilog spreadsheets recording temperature and humidity are stored. See Metrology Record Matrix for location of Records. These will provide a history of environmental conditions of the Standards Lab.

4.3.2 Inclusion of environmental conditions

All unusual environmental control requirements are described in the calibration procedure for that item of M&TE.

Sencore Calibration System Description

4.3.3 Tagging for Deregulated Conditions

Any M&TE used in an environment outside of its normal operating range is tagged so the user knows that the item is not working at its published specifications.

4.3.4 Environmental controls of the Standards Lab

Primary and Secondary Standards are kept in the secured Standards Lab in the Metrology Section. The environment is controlled to the extent required by the most environmentally sensitive measurement. The Standards Lab is controlled to between 19-25 degrees C° and to a relative humidity of 20% to 50%. Good housekeeping factors such as cleanliness, the Metrologist shall adequately control storage and space.

4.4 Intervals of Calibration

4.4.1 Quality Level

This system is to be maintained at a reliability level of 70% or greater in-tolerance.

4.4.2 Initial Calibration Level

The initial calibration interval is by manufacture's recommendation or through previous experience with the model of M&TE.

4.4.3 Review of Calibration Interval

Review of calibration interval is on a unit by unit level at the time of calibration.

4.4.4 Terms Intervals are stated in

Calibration intervals are established in terms of calendar time.

4.4.5 Recall System for Calibration

The recall system consists of using a computer printout that identifies Sencore part number, Manufacture, Model #, and date calibration is due using ProCalv5 database.

4.4.6 Overdue System

Overdue form MSF #1 is sent out to the manager of the end user, after 5 working days of the due date, if no arrangement can be worked out to calibrate an item of M&TE.

4.4.7 Labeling of overdue M&TE

Items overdue for calibration are labeled "do not use until tested or calibrated" or removed from use.

4.4.8 Extension of Calibration Intervals

Calibration intervals may be extended if a unit fits the following criteria:

- A. M&TE items that have maintained their quality level for two calibration periods.
- B. M&TE of eight times or higher accuracy than the items to be measured.
- C. Calibration intervals may be extended to allow the completion of a test in progress or prevent work stoppage from the loss of a critical Standard. If the calibration due date is extended, form MSF # 02 is then filled out documenting the extension and setting down a definite time limit for the extension. An evaluation of M&TE found out of tolerance is made at the conclusion of an extension. All equipment verified with an

Sencore Calibration System Description

item that has its interval extended must be listed on MSF#2. This is in case the extended item fails its verification. The units tested by the extended item must be rechecked if the extended item fails its verification.

4.4.9 M&TE not Meeting Quality Standard

Items that do not meet reliability target for more than four calibration intervals, even though they have been adjusted and/or repaired, will be restricted in their use or be removed from use. Form MSF# 3 is then completed and sent to the department that owns the unit, detailing the recommendation of the Metrology Section.

4.4.10 M&TE not requiring calibration

All exemptions from periodic calibration or performance testing shall be documented.

4.5 Calibration and Performance Procedures

4.5.1 Location of Calibration and Performance Procedures

All calibration and performance procedures are kept in the Test Files in the Metrology Section arranged by Sencore stock number.

4.5.2 Procedure Requirements

The calibration and performance procedures used are the manufacturer's procedures, except for that item for which a manufacturer's calibration procedure is not available and for specialized Sencore built M&TE. These items have procedures written by the Manufacturing Engineering Department or the Metrology Section. All calibration and performance procedures conducted by this laboratory are performed in accordance with approved procedures. The revision record of each procedure has the designated approval signature, issue date and changes to procedure. Manufacturer's procedures may be modified, if necessary, to contain the following:

- A. M&TE to be used and/or with the required accuracy of the equipment.
- B. Calibration process, if it needs to be altered to conform to use of alternative M&TE.
- C. Performance and/or calibration test sheets.
- D. MSF# 9 is used in those procedures that do not have spaces for calibrations done, repairs or other information necessary for complete documentation.

4.5.3 Review of Procedures

Procedures are reviewed each time a unit of that type is calibrated to insure completeness of the procedures. Any changes made to procedures are documented on the procedure revision record that is kept in the equipment file and recorded on MSF#4.

Sencore Calibration System Description

4.6 Adequacy of the Calibration System

4.6.1 Auditing of the Calibration System

An annual audit of the Metrology system is performed by the assigned internal auditor. The Director of Quality assigns this auditor.

4.6.2 Corrective actions of audits

All audit and review findings and any corrective actions that arise from them shall be documented. The Metrologist shall ensure that these actions are discharged within the agreed time frame.

4.7 Calibration Sources

4.7.1 Traceability of Standards

All measurement Standards used for calibration is to be traceable to one of the following:

- A. NIST
- B. U.S. Naval Observatory
- C. Fundamental or natural physical constants with values assigned or accepted by the NIST.
- D. Ratio type of calibrations
- E. Comparison to consensus standards
- F. Independent Comparisons

4.7.2 Certification of Traceability

Documentation of traceability is maintained in the individual M&TE file for Primary and Secondary Standards used for calibration by the Metrology Section. Calibration certificates must state traceability to National Standard of measurements. Standards are required to have before and after measurement results done during calibration.

4.7.3 Evaluation of outside calibration sources

It is the responsibility of the Metrology Section to insure that calibration subcontractors are capable of performing calibrations to Mil-Std 45662A and/or ANSI/NCSL Z540-1-1994.

4.7.4 Evaluation of Rental Companies

All rented M&TE used by the Sencore Standards Lab must have documentation that the company's calibration lab is in compliance with Mil-Std 45662A and/or ANSI/NCSL Z540-1-1994. All calibrations performed with the rental M&TE must be noted in the standards used list of the Report of Calibration.

4.8 Records for M&TE and Standards

4.8.1 Contents of Records

The following items are documented in each M&TE file:

- A. Instrument identification
- B. Current calibration interval.
- C. Date of last calibration.
- D. Results of previous calibrations.
- E. Calibration Certificate or Verification Report.

Sencore Calibration System Description

- F. Indications of erratic behavior or operational failures.
- G. Calibration Procedure used.
- H. Environmental condition at calibration.
- I. Out-of-Tolerance data.
- J. Manufacturer's Name.
- K. Serial number.
- L. Calibration due date.
- M. Details of maintenance history.
- N. Identity of personnel involved in the calibration.

4.8.2 Standards and Traceability Certificate Numbers

The documentation for all standards that are sent out to calibration subcontractors are maintained in the individual M&TE files stored in the Metrology Section.

4.8.3 Records of Standards

Records of all Standards and M&TE are to be kept indefinitely.

4.8.4 Storage of Records

All M&TE records are safely stored in file cabinets in the secured area of the Metrology area. Electronic records are stored on the Sencore Drive Network using ProCalv5 database. See Metrology Record Matrix for location of records.

4.9 Calibration Status

4.9.1 Labeling of M&TE

All M&TE and Standards used for verification of specifications will be labeled to indicate the following:

Date last calibrated, date calibration due, initial of technician, department or company that calibrated the M & TE and any limitations of the unit from the original specifications.

All M&TE not calibrated to their full capability or which have other limitations of use, shall be labeled or otherwise identified as to the limitations.

4.9.2 Explanation of Labels

All labels and their uses are described in Appendix I.

4.9.3 Tamper Resistant Seals

Tamper resistant seals are to be affixed to prevent user calibration and if broken, to indicate tampering.

4.9.4 Broken Tamper Resistant Seals

M&TE with damaged seals are removed from use & the calibration is verified before returning to user.

Sencore Calibration System Description

4.10 Control of Subcontractor Calibration

4.10.1 Calibration Subcontractors

Mil-Std 45662A, ANSI/NCSL Z540-1-1994, ISO Guide 25 or ANSI/ISO/IEC 17025 requirements must be imposed on any subcontractor who provides calibration service.

4.10.2 Subcontractor Auditing

Sencore use's an approved list of subcontractors based on historical performance and /or a mail audit. Verification of the certificate of calibration is made by independent comparisons of subcontractors who provide calibrations for Sencore's Primary Standards.

4.11 Storage and Handling of M&TE

4.11.1 Storage and Handling Considerations

All Primary standards and Secondary standards are kept in the secure Standards Lab. The environment is controlled to the extent required by the most environmentally sensitive measurement. M&TE that is not in-use is stored in the equipment stockroom, where the environment is the same as the areas where the M&TE is used, which is within the storage temperature range of all M&TE.

4.11.2 Procedure for Improper Handling

Any M&TE that are found to have been improperly handled or overloaded will be documented on MSF # 11 that explains what improper handling accrued, what reasons caused the improper handling or overloading and what is being done to correct the problem.

4.11.3 Procedure for suspect or defective equipment

The suspect or defective Standard or M&TE shall be taken out of service, clearly identified and stored in the repair area of the equipment stockroom. Until repaired and shown by verification to perform satisfactorily. The laboratory shall examine the effect of this defect on previous calibrations.

4.12 Out of Tolerance Conditions

4.12.1 Reporting

It is the responsibility of the Metrologist to identify and report Out of Tolerance and/or Significantly Out of Tolerance conditions when performing calibrations or when external calibration sources are used.

4.12.2 Notification of Out of Tolerance Conditions

If any Standard or M&TE used for calibrating customer products is found to have drifted to a significant out of tolerance condition since its last calibration, the customer for any affected equipment will be notified so that appropriate action can be taken by the customer to account for any resulting consequences.

Appendix 1 Labels and Their Uses

Sencore Stock Number Label

Used to identify all M&TE that is tracked by the Metrology Section.

Calibration Label

Used to show that an item of M&TE is calibrated.

Calibration Not Required Label

Used to show that an item of M&TE does not need periodic calibration.

Not Subject to Periodic Calibration Label

Used to show that an item of M&TE is not used to calibrate or confirm calibration. The item can be fully calibrated upon request.

Limited Calibration

Used to show that an item of M&TE is limited to its use or specifications.

OK For Limited Use

Used to show that some function or functions of the item of M&TE are not up to specifications.

Calibration Extended

Used to identify to the end user that the item has had its calibration date extended.

Calibration Seals

Used to visually show that an M&TE item has not been opened or adjusted since it was calibrated.

Defective Do Not Use

Used to show that an item of M&TE is in a state of disrepair and cannot be used.

Do Not Use until tested and calibrated

Used to show that an item of M&TE is past its due date and should not be used until tested and/or calibrated

For Reference Only

Sencore Calibration System Description

Equipment labeled “For Reference Only” shall not be used for final verification of any Sencore products, acceptance of incoming product or defining functional specifications. M&TE labeled “For Reference Only” does not require calibration or verification. The M&TE can be calibrated and/or performance tested upon the request of the end user. The Metrologist makes determination of “For Reference Only” status.

Functional Check Only

Equipment labeled “Functional Check Only” shall not be used for final verification of any Sencore products, acceptance of incoming product or defining functional specifications. M&TE labeled “Functional Check Only” does require a periodic functional check; however a certificate of calibration and/or test data is not required. A calibration should be performed if problems are found during the periodic functional check. The Metrologist makes determination of “Functional Check Only” status.

Appendix II Revision History

Revision	Date Revised	Change Description
2.0	20 November, 1991	<ol style="list-style-type: none"> 1) Added all changes to Metrology system since 1985. 2) Referenced all Quality SOPs. That apply to the system 3) Added all labels used on the system 4) Updated department names and changed NBS to NIST.
2.1	04 December, 1991	<ol style="list-style-type: none"> 1) Added a approval sign off page 2) Changed T & ME to M & TE
2.2	15 April, 1992	<ol style="list-style-type: none"> 1) Reorganized index and numbering sequence. 2) Reviewed and updated all problems found on first quarter audit of the Calibration System Description.
2.3	01 July, 1992	<ol style="list-style-type: none"> 1) Removed references to Prime Standards Binder. It was decide to discontinue this practice.
2.4	28 May, 1993	<ol style="list-style-type: none"> 1) Added eighteen new forms to the list in Section 3.0
2.5	18 April, 1995	<ol style="list-style-type: none"> 1) Added sections 2.19 and 4.8.3 2) Added New Forms #36,#37 3) Changed reference from the Quality Engineer in Metrology audits to whom the QA Manager assigns 4) Changed references to NIST test numbers to Traceability Certificate Numbers. 5) Updated Sections 4.2.2 & 4.5.1. 6) Updated any references of SOP's to current formats. 7) Updated MSF #1.
2.5A	6 June, 1996	<ol style="list-style-type: none"> 1) Removed need to perform yearly audits on contractors in Section 4.10.2
2.6	1 July, 1996	<ol style="list-style-type: none"> 1) Added definitions 2.5,2.8,2.15 2) Deleted MSF 22,24,31,34,35. 3) Added section 4 4) Added item 3 to 4.4.8 5) Updated 4.10.2 6) Revamped entire description.
2.7	11 April, 1997	<ol style="list-style-type: none"> 1) Updated Forms #6 & #7. 2) Updated Statement & Section 4.4.1 3) Added Definitions 2.2 & 2.8.
2.8	26 January, 1999	<ol style="list-style-type: none"> 1) Updated Sections: 1.1, 4.2.1, 4.3.4, 4.4.1, 4.5 4.5.1, 4.5.2, 4.7.2, 4.7.3, 4.8.1, 4.9.1, 4.11.1, 4.11.2, 4.12.2 4.11.3 2) Added Sections: 1.2, 1.3, 1.4, 1.5, 1.6, 2.11, 3.30, 4.2.3, 4.2.4, 4.4.10, 4.6.2, 4.7.4, 4.8.4,
2.9	27 April, 2000	<ol style="list-style-type: none"> 1) Updated Section: 4.4.8 2) Added Section: 1.7 3) Added Calibration Extended label to Appendix I

2.9A	7 December, 2000	1) Changed format and structure for easier revisions and corrected typographic errors.
2.10	23 January 2002	1) Updated Section 1.1 2) Added Definition 2.7 3) Redefined Definition 2.14 4) Updated Section 4.8.4 5) Added “For Reference only” & “Functional Check Only” labels to Appendix 1
2.11	17-July-2007	1) Updated location of distribution list in Section 1.7 2) Removed MSF #25, 30, 33 and 37 3) Updated Section 4.3.1. to document use of Monthly ilog spreadsheets to track history of Standard Lab environmental conditions. 4) Updated Section 4.6.1. to indicate internal audits are done annual.
2.12	1-July-2008	1) Added Footer. 2) Updated use of Metrology Record Matrix. 3) Updated Humidity range. 4) Removed Forms 4,8,10,13,14,18,20,21,23,26,27,28 and 32.
2.13	8-Feb-2010	1) Updated Sections 1.7, 2.23, 4.45, 4.53, 4.8.1, 4.8.4 and 4.10.1. 2) Added Forms 4 and 10.
2.14	3-Dec-10	1) Updated Sencore logo on cover page.