ELTEC INSTRUMENTS, INC.

Summary Outline
Quality Assurance Program at ELTEC Instruments, Inc.

This Summary Outline is provided to acquaint detector users with the scope of our QA program to the extent commensurate with retaining company proprietary information.

The program has been designed to control the production of our pyroelectric detectors so that these sophisticated devices can be produced in quantity with a reasonable and predictable assurance of excellent electro-optic performance throughout an extended period.

The management of Eltec Instruments pledges a continuing and diligent adherence to this program.

QUALITY ASSURANCE PLAN

1.0 - DOCUMENTATION

1.1 - Drawings

1.1.1 - *Detailed Drawings* - Define specifications, mechanical dimensions and tolerances of component parts.

1.1.2 - *Assembly Drawings* - Identify placement of internal components and electrical connections for each applicable process step.

1.1.3 - *Process Drawings* - Define tools, equipment and materials used in each process step. Include detailed description of procedure and drawing of completed subassembly.

1.1.4 - *Engineering Drawing* - Defines mechanical/spatial dimensions and tolerances of finished product. Includes case outline drawing, pin-out diagram and electrical circuit schematic.

1.2 - Procedures

1.2.1 - *Production/Process* - Detailed description of each process step including tools, materials and equipment required. See 1.1.4.

1.2.2 - *Inspection* - Detailed description of procedures for inspection of production and test equipment, all incoming materials and in-process parts. Includes accept/reject criteria, drawings and diagrams where necessary, and sampling method (per Mil Std. 105D)

1.2.3 - *Test* - Detailed description of all test procedures. Includes tools and equipment required, configuration of test set-up, instrument settings, and accept/reject criteria.

1.3 - Tracking

1.3.1 - *History Tags* - Accompany detectors through production stream. Record date, operator's name, lot numbers for components and materials used at each process step, and date lot code of finished part. Date, inspector/test technician's name and yields are recorded at each inspection/test point. History tags are filed daily according to Model Number and date code. History tags are kept on file for a minimum of 2 years.

1.3.2 - *Test Data* - Where Relevant, specific electrical test data is recorded and filed daily according to Model Number. Test data is kept on file for a minimum of 2 years. Yields at the various test points are calculated and reported on a daily basis.

2.0 - INSPECTION

2.1- Incoming Materials - Materials and components are inspected according to specific incoming inspection procedures. See 1.2.2

2.2 - Equipment

2.2.1 - *General* - All machine settings are checked daily to verify conformance with procedures. See 1.2.2

2.2.2 - *Test* - All test equipment and setups are checked on a daily basis for correct electrical parameters.

2.2.3 - *Calibration* - All electronic measuring and test equipment are calibrated by the manufacturer or an independent calibration lab, at intervals as recommended by the equipment manufacturer or as industry defined.

2.3 - In-Process Parts - Subassemblies are inspected following final production step. Sampling method per Mil Std 105D. See 1.2.3

3.0 - TEST

3.1 - Electrical

3.1.1 - *Preseal* - All detectors are 100% electrically tested per specific test procedures in Section 1.2.3 prior to being sealed.

3.1.2 - *Postseal* - All detectors are 100% electrically tested per specific test procedures in Section 1.2.3 after being sealed.

3.2 - Leak - Detectors are 100% leak tested for weld-rim and window leaks, except cases where detector or filter damage will occur. See 1.2.3

3.3 - Filter Alignment - All detectors are 100% checked for correct alignment of filter.

4.0 - QUALITY CONTROL AUDIT

4.1 - Production - A QC audit of work performed at each production work station is conducted on a random basis. See 1.2.2, 2.3. If any rejects are found, specific lot undergoes 100% inspection.

4.2 - Test - A QC audit of work performed at each test station is conducted randomly. Tested parts are statistically sampled, retested, and results are compared with initial measurements.

4.3 - Finished Parts Inventory - A QC audit of finished parts inventory is conducted on a random basis. Sampled parts are retested electrically, inspected for visual defects, and checked for proper marking and packaging.

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