



AMERICAN ADVANCED ASSEMBLIES

Management System Manual

AMERICAN ADVANCED ASSEMBLIES, LLC.

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Management System Manual

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1.0 Introduction and Scope

1.1 Company Profile

American Advances Assemblies. LLC, (AAA) is a privately owned business established in 2009 to manufacture electrical wiring harnesses and cables. It is located in a new environmentally controlled production facility on the south edge of Troy Ohio and is about eight miles north of the I-70 and I-75 interchange. AAA specializes in electrical wiring assemblies for aerospace and other programs that require the most rigid controls and records.

Supporting the commitment to satisfy customers' needs are the employees of AAA. They provide the experience and dedication to assure customers of product quality and delivery they can rely on.

Production Processes include:

- ◆ Automated wire cutting, stripping, tubing, terminating and printing.
- ◆ Destructive and non-destructive testing
- ◆ Automated precision crimping
- ◆ Product serialization
- ◆ Mil-spec soldering
- ◆ Shrink tube wire insulation
- ◆ Manual wire harness assembly

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1.2 AAA Management System

This management system applies to all AAA operations and the related activities. All management system documentation associated with AAA will be regularly reviewed for accuracy and periodically amended to include new management initiatives and address changes in the organization.

Recognizing that success can only be achieved by effectively and efficiently meeting the performance expectations of its customers, AAA has developed a management system which consists of the following:

- ◆ QUALIFIED PEOPLE,
- ◆ PLANNED and CONTROLLED PROCESSES,
- ◆ CAPABLE EQUIPMENT and FACILITIES,
- ◆ ACCURATE TRACKING, MONITORING and MEASUREMENT CAPABILITIES.

By managing these system components effectively, AAA will be able to effectively respond to its customers' needs.

The Management System documented in this manual defines its policies and structure. This information is communicated to the organization so that expectations for performing tasks and achieving quality are clearly understood. Management is responsible for providing the necessary resources (i.e. tools, methods, training, infrastructure, equipment, materials, gages, etc.) for performing work.

Processes are monitored and products are tracked to determine if customer requirements are being met. Management System audits are performed to determine compliance to the documented Management System. When nonconformances occur, action is taken to prevent the problem from recurring. This action may include modifications or improvements to the Management System. Performance indicators are monitored by management and proactive measures are taken to continually improve the effectiveness and efficiency of the Management System.

ISO 9001:2008 Exclusions:

The Management System is modeled after the ISO 9001 standard. However, there are some requirements of the ISO 9001 standard that do not currently apply to the AAA Management System.

- ◆ AAA does not provide contracted on-site services for its customers. Therefore, references to services in section 7.5 of the ISO 9001 standard do not apply.
- ◆ AAA does not have final design responsibility for products. However, design support is part of the customer service provided to its customers. Customers will have final approval of all product designs. All products are produced to customer approved requirements, therefore section 7.3 of the ISO 9001 standard regarding design control, does not apply.

1.3 This Management System Manual

1.3.1 Purpose

This document was developed exclusively by AAA to define policies for managing the activities that impact its ability to satisfy both customer and company performance expectations. This manual is based upon the ISO 9001 Management System model. It defines AAA's commitment to quality in all facets of organizational management.

1.3.2 Supporting Processes

Throughout the Management System Manual there are references made to supporting procedures. These documented procedures define in greater detail how, when and by whom AAA policies will be carried out. The procedures will also identify records that are created and maintained. Linked to many of the procedures are AAA forms and references, which are used as guidelines to direct the activity described in the procedure. Procedures and their attachments are controlled documents and are distributed to the same locations as the Management System Manual.

1.3.3 Proprietary use of this document

This document is intended for internal use at AAA facilities. The content of this document is the intellectual property of AAA. It may not be copied, reproduced, or electronically stored and edited by anyone without the written approval of the company President or his designee.

1.3.4 Management System Manual Control

Controlled copies of this manual are maintained and accessible to all employees of the company. The official master version of this manual resides on the AAA server. Distribution of controlled copies is the responsibility of the Management System Administrator. Copies of this manual are identified as CONTROLLED when the cover is marked "controlled", the Table of Contents page contains the original signature of the Management System Administrator, and the revision level in the Table of Contents and in the footers matches the master copy. All other copies are considered uncontrolled. The Management System Administrator is responsible for distribution of controlled documents associated with this Management System.

2.0 AAA Organizational Structure

2.1 *Organizational Structure*

The reporting structure of the organization is documented in **Addendum 1**, AAA Organizational Chart. The Director of Quality and Continuous Improvement serves as the Management System Administrator (Management Representative) and is the primary point of contact for all matters regarding this management system.

2.2 *Organizational Processes*

Addendum 2 shows the operations model and interfaces of the various functions of the organization. References to documented procedures are indicated in the Product Realization and Supporting Processes

3.0 AAA Guiding Principles

3.1 Mission Statement and Quality Policy

The following mission statement defines AAA's policy for quality and customer satisfaction. It represents the fundamental focus of our organization:

American Advanced Assemblies, LLC mission is to strive to achieve the highest level of excellence in the manufacture and supply of interconnect assemblies and contract manufacturing.

AAA is committed to achieve, maintain and continually improve a Management System that is not only compliant with the applicable requirements of ISO 9001, but also helps achieve business objectives for growth and success.

3.2 Quality Objectives

To support these policies, each employee is expected to understand his/her contribution to the Management System and is empowered to take action necessary to ensure that customer requirements will be met. This may include stopping work until quality issues are resolved. It is also the responsibility of each employee to adhere to the requirements of this Management System and suggest improvements.

The following objectives have been defined as management system performance indicators:

- ◆ **Continuously delight our customers with the highest quality and best value through efficient and effective manufacturing practices**
(Measured by customer rejects and positive supplier ratings)
- ◆ **Provide customers with on-time delivery of products.**
(Measured by meeting delivery performance targets)
- ◆ **Support customers by providing them with cost effective alternatives to in-house production.**
(Measured by meeting customer performance expectations for responsiveness)

Management will define and communicate specific performance targets related to these objectives. Progress toward achieving these targets will be monitored by management and action taken, when required.

4.0 Management System Requirements

*We believe that quality does not happen by accident. It is the result of identifying the best practices and then implementing those practices through qualified people. **AAA** has developed this management system to address all internal and external requirements for quality assurance.*

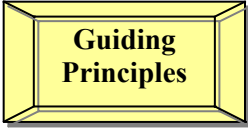
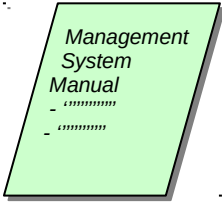
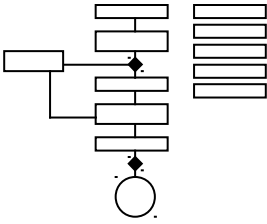
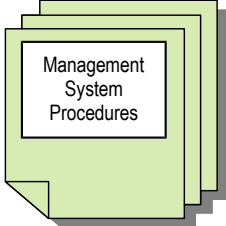
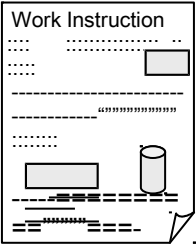
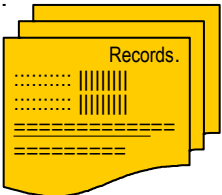
4.1 General Requirements of the Management System

- a. This system is to be implemented at all relevant organizational levels. The Management System Administrator will have the authority to implement, maintain and improve this system.
- b. The system will reflect the philosophy, business strategy, and “best practices”, as defined by management.
- c. Management will consider the following while developing this system:
 - ◆ The sequence of activities necessary to assure that all requirements will be met.
 - ◆ The interaction of organizational functions, as well as the interfaces with customers and suppliers.
 - ◆ The data that is important to assessing organizational performance.
 - ◆ The methods for accurately acquiring this data.
 - ◆ The assignment of responsibilities to qualified individuals.
 - ◆ The need for continual improvement.
 - ◆ Compliance with the most current version of ISO 9001.
- d. AAA will be responsible for any outsourced work.

4.2 General Requirements of AAA Documentation

- a. Management system documentation will define the system and communicate the expectations of management and customers to the organization.
- b. Processes will be developed and implemented, as required by the ISO 9001 standard, AAA management, and customer contract requirements. All organizational processes will be adequately communicated to the appropriate functions.

- c. The amount, complexity, and detail of the Management System documentation will be relative to the demonstrated competence of the intended users. The Management System documentation is structured as indicated below.

	Document Type	Use
	Quality and Mission Statements: A general statement of commitment to quality which is supported by measurable objectives	It is the focal point of the Management System. The attainment of targeted objectives determines the effectiveness of the system.
	Management System Manual: Management policies for those activities that impact quality. It includes the scope of the system and justification for exclusions of the ISO standard.	Used primarily by senior management to define the company's philosophy and expectations of its employees.
	Operations Diagram: Graphically defines the organization's functional relationships with references to procedures	This diagram used to define critical tasks and functional relationships. It is used as a reference during process audits.
	Procedures: Text documents that define how, when, where, and by whom processes will be performed; and what evidence will exist as records.	Used by Managers and Department Heads to define acceptable practices, controls and records associated with tasks.
	Work instructions: Provide detailed information for the performance of work. Work instructions are usually specific to a task, product, or piece of equipment. They may include drawings and specifications. They may be in hard copy or electronic formats. Work instructions are readily available to those who need them for reference.	Used by employees as references or guidelines for the performance of work or as training aids.
	Records: Historic data and evidence that an action occurred. Records are traceable to relevant people, time or dates, products, equipment, materials, etc.	Used to understand system performance so that educated business decisions can be made based upon data rather than assumptions.

- d. This Management System documentation is to be effectively distributed and maintained throughout the entire organization. Management System documentation will be readily available to all relevant personnel according to their assigned responsibilities.
- e. Authorized representatives of customers, regulatory agencies or contracted assessment services will also have access to this documentation while at AAA facilities.
- f. Documents are published and/or electronically stored information, which provide references, guidelines or directions for how something should be done.
- g. Documents that are relevant to the Management System are controlled according to the procedure, **Control of Documents and Data, P-4.2-1**. These documents include internal documents such as the management system manual, supporting procedures, and work instructions; and external documents such as customer purchase orders, customer drawings, standards and industry specifications.
- h. Document control consists of the following:
 - ◆ A method of authorizing documents prior to issue.
 - ◆ Periodic review, modification and reissue when required.
 - ◆ A method of identifying the current revision status of controlled documents.
 - ◆ A method of distributing controlled documents to their assigned points of use and removing or clearly identifying obsolete documentation.
 - ◆ Maintaining documents in a secure and readable condition.
 - ◆ Identifying and controlling external quality documents.
- i. Quality Records are historical evidence that a quality related activity occurred. They provide data, which can be used to analyze performance or provide objective evidence that something was done.
- j. Quality records are controlled according to the process for **Controlling Quality Records, P-4.2-2**. Control of quality records includes the following:
 - ◆ A method of identifying the records, which are important to the system and the requirements of the ISO 9001 standard.
 - ◆ Requirement for identification, legibility, and traceability
 - ◆ A process for indexing, filing and storing records in a secure manner.
 - ◆ Documenting minimum retention periods for records.
 - ◆ Disposal of records when they are of no further use.

5.0 Management Responsibility

We believe that the success of any organization is attributed to good leadership. This MSM section defines the roles of management and how quality issues are addressed at a strategic level. It identifies management's involvement in the creation of the Management System, the administration of the system and the monitoring of the system's performance.

5.1 Management Commitment

- a. Management will be visibly supportive of the Management System. This will be demonstrated by emphasizing the importance of quality and requiring adherence to the Management System's requirements.
- b. Management's quality commitment will be defined in its quality policy, (see section 3.0 of this manual), which is promoted throughout the organization. Quantifiable quality objectives will be defined and progress toward achieving these objectives will be monitored and reported to the organization.
- c. Management will periodically, but not less than once annually, conduct reviews of the Management System's performance to identify opportunities for improvement.
- d. Management will support its quality commitment by making the necessary resources available for verifying product quality and maintaining the quality system.

5.2 Customer Focus

- a. Quality is defined by the customer. Therefore, it is critical that the customer's expectations for quality are understood and accurately communicated to those who need to know. It is management's responsibility to see that this occurs.

5.3 Quality Policy

- a. The focal point of the Management System is at AAA Quality Policy. The policy is controlled as section 3.0 of this manual. The quality policy represents at AAA commitment to customer satisfaction and continual improvement.
- b. The Director of Quality is responsible for creating and approving the company's quality policy. All quality related functions will either directly or indirectly support the expectations of this policy.

- c. The quality policy is communicated to all employees. Each employee, regardless of function, is expected to understand the policy and be able to relate it to his/her job.
- d. The effectiveness of the Management System is measured by how well the objectives of the quality policy are being achieved.
- e. The quality policy will be reviewed periodically by management to determine if it continues to reflect the commitment of the organization and its leadership.

5.4 Strategic Planning

- a. Company quality objectives are defined in section 3.0 of this manual. Management will measure and review progress toward improving the company's performance relative to achieving these objectives.
- b. It is management's responsibility to make the necessary resources available for achieving the company's objectives. Resource planning is part of the process for Business Planning. It will include the following:
 - ◆ Documenting the policies and best practices which are appropriate for this business and consistent with:
 - the applicable ISO 9001 requirements
 - the needs of customers
 - regulatory requirements
 - continual improvement of the management system
 - ◆ Providing qualified personnel for the performance of work.
 - ◆ Providing and maintaining capable equipment.
 - ◆ Providing and maintaining work facilities and utilities.
 - ◆ Providing and maintaining effective measurement systems.
- c. Changes to the management system must be planned and carried out in a manner that does not interfere with the system's effectiveness.

5.5 Administration

- a. Top management is responsible for administering the Management System.
- b. AAA organizational structure is defined in Addendum 1 of this manual.
- c. AAA Operations Model (see Addendum 2) describes the functional interfaces and work flow in the organization.
- d. The Director of Quality is designated as the Management System Administrator. In his absence, the Operation Manager or a designee will assume those responsibilities. Responsibilities of the Management System Administrator are:

- ◆ Assigning accountability for quality activities
 - ◆ Implementing and maintaining the Management System
 - ◆ Promoting internal awareness of quality requirements
 - ◆ Reporting to the management staff on the effectiveness of Management System and opportunities for improvement
 - ◆ Serving as AAA point of contact on matters related to the Management System
- e. The documented Management System is intended to be an effective communication tool. Management will use the system effectively to establish the necessary communication linkages both internally and externally, which will ensure that expectations are consistent and fully understood by all parties involved.
- f. This Management System Manual (MSM) is developed and controlled to communicate AAA quality related policies to all employees and potential customers. It addresses all of the requirements of the current version of ISO 9001 and their relevance to AAA.
- g. The MSM references supporting procedures, which define how and by whom policies will be carried out. These procedures will also identify the records that will be generated by the Management System.

5.6 Management Review

- a. The management staff, consisting of the President, Director of Business Development, Director of Quality and Continuous Improvement, and the Operations Manager, will continually monitor the performance of the business. As needed, and no less than once annually, the management staff will meet to formally review the effectiveness of the Management System and then take appropriate action.
- b. A standard Management System Review agenda will define the items addressed in that meeting. These reviews will include the following:
- ◆ Results of Management System audits
 - ◆ Customer feedback and satisfaction indicators
 - ◆ Adequacy of Quality Policy and supporting objectives
 - ◆ Continuous improvement project status
 - ◆ Production process and product performance
 - ◆ Corrective and preventive action status

- ◆ Status of action items from previous management reviews
 - ◆ Internal and external factors that can/will impact the business
- c. After reviewing Management System performance, the management staff will assess priorities and assign responsibilities for making improvements to the system. Those actions may include the allocation of company resources, the initiation of specific continuous improvement projects, or a modification of the company's quality policy or objectives to accommodate changes in the business focus.
- d. Records of these management review meetings will be kept for a period of at least three years.

6.0 Resource Management

To effectively accomplish the objectives of the company, it is necessary to ensure that the appropriate resources are identified and in place. These resources include skilled and trained employees at all levels, the implementation of technologies that are suitable for the business, a facility with the necessary infrastructure and utilities for the performance of work, and the equipment needed to receive, handle, create tooling, manufacture, package and ship products.

6.1 Provision of Resources

- a. Management will provide in a timely manner, the necessary resources for achieving the business objectives of the company, fulfilling customer contracts, and complying with regulatory requirements.
- b. Realistically, there will always be resource limitations. However, the management of AAA will strategically plan for the most effective use of available resources, giving high priority to customer satisfaction.

6.2 Human Resources

- a. Personnel will only be assigned to responsibilities for which they are qualified, (either by formal training or on-the job training), and have demonstrated their capability.
- b. The following human resource issues are addressed by management:
 - ◆ Minimum requirements for each position will be determined by management and documented
 - ◆ Employees are trained to perform to requirements
 - ◆ Effectiveness of training is verified
 - ◆ Employees will understand the quality policy and their contributions toward meeting company objectives
 - ◆ Training records are maintained for the duration of employment
- c. Employee performance will be assessed by their supervisors, who will determine who has demonstrated skills and abilities to perform specific tasks.
- d. Employees will be qualified and trained according to the requirements of procedure **P-6.2-1, Human Resource Development.**

6.3 Facilities

- a. The management team will ensure that adequate facilities are provided for the effective performance of work.
- b. Consideration will be given to efficient use of floor space and the flow of work in the facility.
- c. Management will assign responsibilities for the maintenance and upkeep of the facility.
- d. Purchases of equipment, tooling, hardware, and software will be based upon the current and projected needs of the organization.

6.4 *Work Environment*

- a. When planning facilities, consideration will be given to the environmental needs of the business. Everyone is expected to organize and maintain their work areas in a manner that would facilitate production, work flow, and safety.
- b. The facility will have adequate lighting for the performance and verification of work. It will also provide appropriate protection from the elements.
- c. Processes that may produce undesirable outputs such as excessive noise, poor air quality, etc., will be controlled in a manner that will reduce the impact to acceptable levels.

7.0 Order Processing

*Order processing is the sequence of events that ultimately leads to the on-time delivery of acceptable product to the customer. To assure that this occurs, **AAA** has developed and implemented processes which control the following activities:*

- ◆ *Understanding customer requirements*
- ◆ *Procuring materials and subcontracted services from approved sources*
- ◆ *Part production and verification*
- ◆ *Shipping products to the customer*
- ◆ *Effectively tracking parts*

7.1 Order Management

- a. AAA Management System is designed to manage the processing of customer orders. All facets of the business that impact the ability to meet contract requirements are addressed in the system.
- b. Planning of order processing will address the following:
 - ◆ How quality and accuracy will be assured,
 - ◆ Verification / validation methods, and
 - ◆ Records which demonstrate conformity to requirements.
- c. Travelers, Pick Lists, and associated drawings, checklists or work instructions, will capture necessary job information for producing parts. They will be developed from customer inputs to assure conformity to their requirements and created from the order management database.

7.2 Customer Related Processes

- a. It is management's responsibility to fully understand the expectations of the customer so that it can determine the feasibility of accepting the contract. Management will approve all contracts prior to the acceptance of work. The process for **Reviewing Customer Requirements and Quoting, P-7.2-1**, defines how customer requests are evaluated and quotes are prepared and submitted.
- b. Procedure **P-7.2-2, Order Acceptance and Job Packet Generation**, documents the process for accepting customer P.O.s. and communication those requirements to production.

- c. All open issues for product acceptance, price, and delivery expectations will be resolved to the satisfaction of both AAA and its customer, prior to accepting a contract. Contract review will include the following:
 - ◆ Customer specific requirements
 - ◆ Applicable functional requirements of the product
 - ◆ Legal or regulatory considerations
 - ◆ Product specifications
 - ◆ Confirmation of any verbal orders
- e. Records of the contract review and corresponding communications with the customer will be retained.
- f. Contract modifications, whether initiated by the customer or by AAA, will be effectively communicated to all appropriate parties. When customer approval of changes is required, it will be recorded. Relevant documentation will be modified to reflect the contract changes, and reissued.

7.3 *Product Design and/or Development*

- a. AAA does not have design responsibility. This requirement of ISO 9001 does not apply.
- b. However, as part of the company's customer focus, AAA will provide prototype support, if needed.
- c. Ultimately, the customer is responsible for design approval and production will not proceed until the customer has authorized the final design.

7.4 *Purchasing and Supplier Control*

- a. AAA will procure materials and subcontracted value added services from qualified resources. Unless the material source is specified by the customer, the responsibility for qualifying and selecting these sources belongs to the authorized AAA buyer.
- b. The AAA purchasing function will exercise the necessary level of control, (within its scope of influence), to ensure that purchased materials and outsourced processes will meet all necessary specifications.
- c. The procedure for **Supplier Management, P-7.4-1**, defines how suppliers and subcontractors are qualified and how AAA requirements are communicated. This information will include, as appropriate, the following:

- ◆ Product identification- type, style, quantity, etc.
 - ◆ Due date.
 - ◆ References to any procedures, processes, personnel, equipment, or acceptance criteria.
 - ◆ Compliance or certification to any applicable product standards, regulatory requirements, or Management System management standards.
- d. Purchase orders are reviewed for adequacy prior to release and traceability to the person authorizing the P.O. will be maintained.
- e. Purchased materials or subcontracted services will be verified to determine acceptability. The purchasing procedure defines the methods of accepting critical purchased products.

7.5 *Production Control*

- a. Jobs will be processed according to procedure **Production Control, P-7.5-1**. This procedure defines how the production processes are developed, qualified and monitored.
- b. Controls for the production area will include the following:
- ◆ Authorization of production processes
 - ◆ Qualification of equipment and personnel
 - ◆ Validation of processes, including those processes where the resulting outputs cannot be verified other than by nondestructive testing (i.e. crimp strength)
 - ◆ Processes that are unstable may require periodic revalidation.
- c. Completed jobs are verified prior to release to the customer. Products, which meet all acceptance criteria, are released for delivery to the customer.
- d. All products and materials will be identifiable either by a form of marking, labeling, or by being placed in a designated location. Product identification is applicable from the time that raw material is received until it is incorporated into a product and shipped to the customer. Customer expectations for product identification and traceability will be AAA minimum requirements.
- e. The quality status of parts or components will also be designated in some manner to ensure that nonconforming material does not get released for use. Traceability of product to information or records will be maintained, if required by the customer or AAA Management System.
- f. Tooling used to produce parts will be developed to be compatible with the production equipment and processes. Tooling and fixtures will be validated as a result of product verification.

- g. AAA will be accountable for all customer supplied property that is located at this facility. Customer supplied property may include the following:
 - ◆ Customer owned material, which is in AAA possession
 - ◆ Customer owned tooling
 - ◆ Customer provided gages or reference examples
 - ◆ Reusable containers provided by the customer
- h. Customer supplied property will be identified and protected in the same manner as AAA purchased parts or materials. This includes compliance to receiving, product identification and material management requirements.
- i. In the event that customer owned property is lost or damaged, the Operations Manager or designee is responsible for recording the details of the incident and notifying the appropriate representative of the customer. Records of these incidents will be maintained and serious incidents will result in the issuing of a formal corrective action. (See the procedures for **Control of Nonconforming Product**. and **Corrective and Preventive Action**.)
- j. Raw materials, purchased components, work in process, and finished product inventories are managed in a manner that would prevent loss, provide control, and avoid deterioration or damage by considering the following:
 - ◆ Material handling requirements
 - ◆ Inventory control and preservation of product with a limited shelf life
 - ◆ Product identification and traceability
 - ◆ Product quality status
 - ◆ Control of customer owned property
- k. Procedure **P-7.5-2, Inventory Management**, defines the management of materials from receipt through shipment to customers. It addresses material handling, storage, preservation of items with limited shelf life and product identification and traceability.
- l. Finished goods will be shipped to designated locations according to the requirements of the customer P.O. Products will be packaged in a manner to protect them from loss or damage during shipment. Packages will be appropriately labeled and shipping information attached to ensure that they will be delivered with appropriate traceability.

7.6 Control of Measuring and Monitoring Devices

- a. AAA will identify all Inspection, Measuring and Test Equipment (IMTE) that is used to monitor key processes or verify product quality characteristics.

- b. IMTE will be capable of the degree of accuracy necessary to provide assurances that specifications are/are not being met.
- c. IMTE will be used and controlled according to the process for **Calibration of Inspection, Measuring and Test Equipment, P-7.6-1**. This process addresses the following IMTE control issues when they apply to AAA applications:
 - ◆ Periodic calibration of IMTE according to a documented schedule
 - ◆ Qualifications of the individuals performing calibrations
 - ◆ Methods of calibration using standards traceable to the National Institute of Standards and Technology (NIST) or other sanctioned standard. If no standard exists, AAA will document its own criteria for acceptance.
 - ◆ Environmental requirements for using and calibrating IMTE.
 - ◆ Guidelines for proper care and handling of IMTE to prevent loss, damage, or tampering
 - ◆ Methods of adding and removing IMTE from the system.
 - ◆ Recording results of the calibration
 - ◆ Reaction plan if it is determined that a piece of IMTE is found to be out of calibration and could have resulted in the acceptance of nonconforming material. This includes the re-verification of suspect parts and the possible notification to customers
 - ◆ Identification labels indicating calibration status
 - ◆ Test software validation prior to use

8.0 Measurement, Analysis and Improvement

*The **AAA** management team recognizes that in order to fully understand our company's performance, we must have credible methods of measuring results. By determining the critical indicators for evaluating quality and Management System performance, and then finding ways to accurately measure and monitor those indicators, the management can measure its success toward achieving company objectives. Strategic business decisions can be made based upon actual data instead of hunches or guesses. Resources can be directed to areas where they will have the most positive impact.*

8.1 Planning Verification Activities

- a. At the Management System level, senior management will define business processes and allocate the necessary resources to conduct company business. Emphasis will be placed on effective communication and interfaces between business functions. Statistical tools may be used to organize performance data and monitor progress toward the achievement of company objectives.
- b. At the product level, travelers, work instructions, process controls, and product inspection requirements are defined. Product acceptance criteria are documented on the drawings and inspection plans in the job order packet, (see section 7.1 of this manual). Statistical techniques for monitoring production performance are considered when establishing process controls.

8.2 Product Measurement and Monitoring the Management System

- a. Customer satisfaction or dissatisfaction is monitored by management via ongoing correspondence.
- b. To determine ongoing compliance to the Management System, internal audits are conducted regularly, according to process for **Internal Audits, P-8.2-1**.
- c. The objectives of these audits are to determine if the requirements of ISO 9001 are addressed by the Management System and if the system has been effectively implemented and maintained.
- d. Auditors and audit frequencies will be scheduled according to the status and importance of the area being audited. Auditors may not be assigned to areas where they have direct responsibilities and authority.

- e. Audit findings will be quickly addressed in the formal corrective action program. Follow-up audits to determine the effectiveness of the corrective action will be conducted and recorded.
- f. It is management's responsibility to periodically evaluate the production processes to correct problem areas, improve efficiency, and initiate continuous improvement projects.
- g. Product verification is carried out according procedure **P-8.2-2, Product Verification**, and product inspection instructions in inspection plans.
- h. Records of inspection and testing are created and retained. These records include the authorization to release product to the customer. Products cannot be released to the customer until all requirements for quality have been verified, or the customer permits shipment.

8.3 Control of Nonconformity

- a. Product that does not meet acceptance requirements, (or is suspect), will be dispositioned according to the process for **Control of Nonconforming Product, P-8.3-1**.
- b. Nonconforming Product will be clearly identified, and controlled to prevent its unintended use or release.
- c. Disposition options include the following:
 - ◆ Rework and re-verify against the original acceptance criteria
 - ◆ Scrap/ recycle the material; or return it to the supplier
 - ◆ Retain the material for use in another application where it would be acceptable
 - ◆ Accept and use as is. If the nonconformance is against a customer requirement, the customer must be informed of the nature of the problem and provide a written deviation before the product can be shipped.
- d. In the event that nonconforming material was sent to a customer, the appropriate customer representative should be notified immediately.

8.4 *Analysis of Data*

- a. Management will use the information generated by the management system to make informed decisions and plans. Information will be formally reviewed at Management Review Meetings, or as the need arises.
- b. AAA will review the defined measurement criteria, which includes:
 - ◆ Customer satisfaction and dissatisfaction
 - ◆ Conformance to customer requirements
 - ◆ Supplier performance

8.5 *Improvement*

- a. AAA has a formal process for identifying continuous improvement opportunities and taking the appropriate action. Continuous improvement activities are directed toward increasing production, expanding capabilities, or reducing variation in critical product characteristics of high volume parts.
- b. Corrective actions are the response to an existing nonconformance, which will prevent it from recurring. The process for **Corrective and Preventive Action, P-8.5-1**, describes a formal process for addressing any nonconformances or potential nonconformances which, due to the impact on the business, require special attention.
- c. Preventive actions are the result of a proactive effort to identify potential nonconformances, assess the level of risk exposure, and then initiate changes that will prevent the serious nonconformances from occurring.
- d. Both corrective and preventive actions use the same six-step process:
 - ◆ Identify the (potential) nonconformance. Contain the problem, if necessary
 - ◆ Confirm the (potential) nonconformance and assign responsibility
 - ◆ Determine the root cause
 - ◆ Select the appropriate action to be taken
 - ◆ Implement the action
 - ◆ Follow up to determine if the root cause was successfully eliminated.
- e. Records of corrective and preventive actions and their results are maintained and reviewed by management.

9.0 Glossary of Terms

Meanings of words used in the quality manual are defined as follows:

Audit	A survey of an area or element of a standard for the purpose of determining conformance to requirements.
Contract	A documented statement of agreed requirements, needs and expectations between two parties in a customer - supplier relationship; usually a purchase order.
Continuous Improvement	The practice of identifying opportunities and then modifying methods of operation to increase efficiency, effectiveness, accuracy, or consistency
Corrective Action	The action taken to eliminate the root cause of an existing nonconformance
Customer Supplied Product	Any product or material that is supplied by an AAA customer for the purpose of adding value or incorporation into another product.
Document	Written or electronically communicated information which provides guidelines and references to assist in the performance of a task. (i.e. work instruction, drawing, engineering standard, etc.) Controlled documents are authorized for use and are part of a document distribution system that assures that the appropriate documents are available to those who need them.
IM&TE	Inspection measuring and test equipment used to verify product quality of monitor machine performance variables.
Management System	The components of an organization that work together to assure that customer expectations and business objectives can be met in an effective manner.
Management System Manual (MSM)	A document setting out the general quality policies, procedures of an organization.
Material Control	Methods of handling and managing the inventory of parts and components.
Nonconformance	The condition that exists when a specification or stated requirement has not been achieved
Objective evidence	Any documented statement of fact, information or record, either quantitative or qualitative, pertaining to the quality of an item measurement or tests that can be verified.
Preventive Action	Action taken to anticipate the possibility of a nonconformance and then taking the appropriate steps to prevent its occurrence
Procedure	A document that specifies or describes how, when, where, and by whom an activity is performed.
Process	A sequence of related tasks intended to achieve a desired outcome.
Procurement Product	The ordering of parts needed to fill customer requirements. A deliverable such as an item or a service that is the output of process

Quality	1) A value placed on a product or service relative to how well it meets expectations. 2) Fitness for use. 3) Doing the right things the correct way the first time.
Record	Historic evidence that something was done. Records provide information which can be used to make business decisions. They provide traceability of issues and they are objective evidence of compliance or noncompliance to documented policies and procedures.
Statistical Technique	A method of collecting, organizing and analyzing data to better understand performance
Traceability	The ability to relate a product to critical information about that product, i.e. supplier, lot number, date shipped, etc.

Section 10.0 Management System Manual Document History

Rev. Date Approval Nature of Change

draft	9-27-2011	Tom Fay	Initial release for review and approval
A	6-14-2014	Tom Fay	Reviewed, no changes required
B	9-29-2014	Tom Fay	Removed all references to ADCO Products. Management System is now exclusive to American Advanced Assemblies, LLC; Added record identification, legibility and traceability requirement in 4.2.j; added product and process performance in 5.6.b;
	6/15/2015	Tim Fay	Reviewed for general distribution via website redesign and launch. No changes required. Approved for general release.