

CONNECTOR TECHNOLOGY INCORPORATED



CONNECTOR
TECHNOLOGY
INCORPORATED

Interconnecting Quality and Service

QUALITY POLICY MANUAL

EFFECTIVE DATE: June 2009

REVISION- J

Control Number 001

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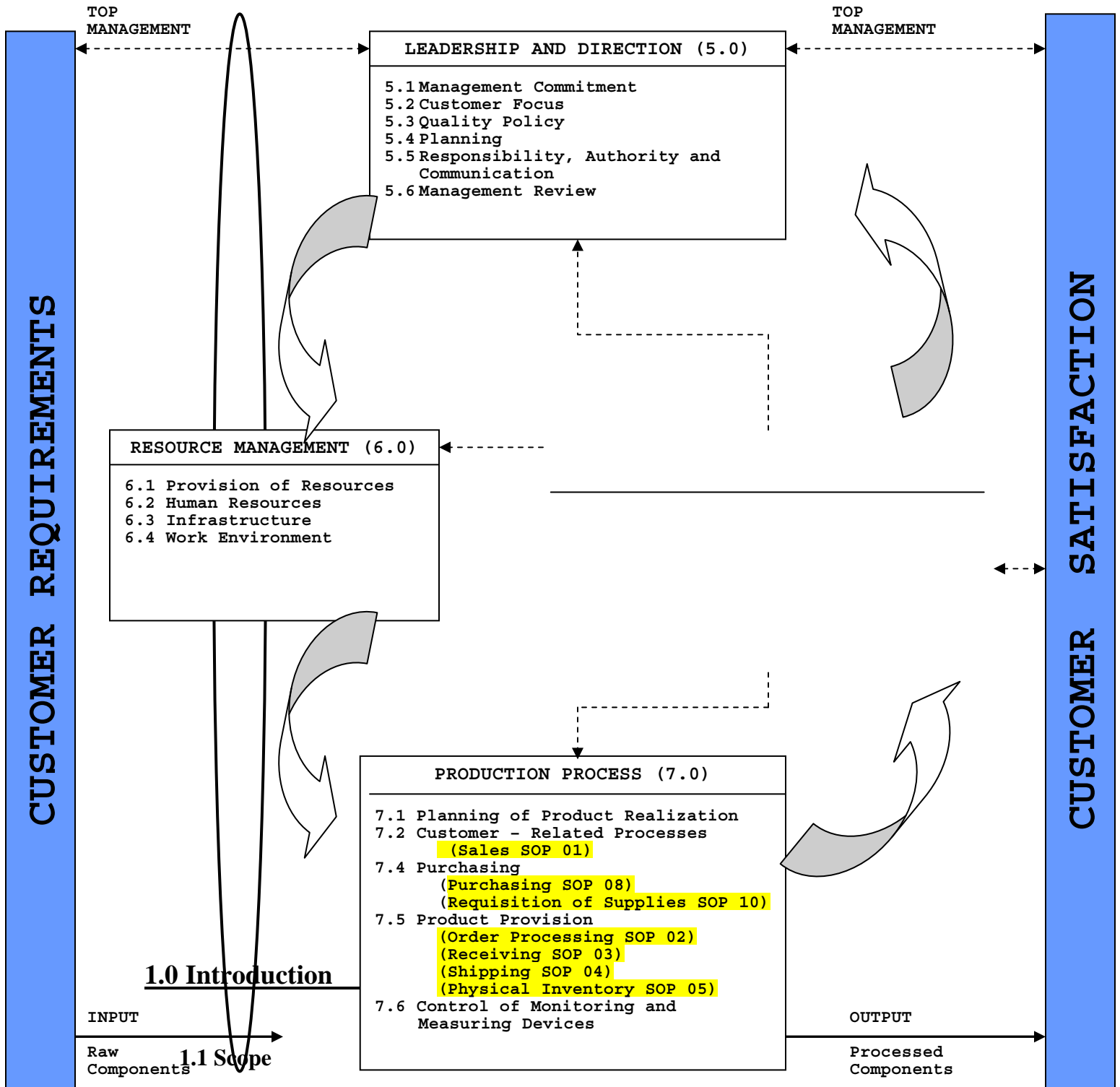
Approved By:

Quality Manager: Patricia Warner

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Date: 6/9/09

Date:



The Quality Manual (QM), issued and controlled by Connector Technology Inc. defines the Quality Management System which is effective across all disciplines and at all levels within the company. The quality management system is designed to help our organization operate with

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increased effectiveness, consistency and customer satisfaction while meeting the requirements of Aerospace Standard AS9100B/International Standard ISO 9001:2008.

The primary purpose of this Quality Manual is to describe and document the Quality Management System currently in practice at Connector Technology Inc. Our Quality Management system is designed to cover the assembly and distribution of electronic connectors and the manufacture of cable assemblies.

Our quality management system provides comprehensive evidence to all customers, suppliers, and employees that Connector Technology Inc. is committed to establishing and maintaining acceptable levels of measurable Quality in its products and services.

1.2 Application

This manual is the central source of general policies that in turn authorize and govern creation of subsidiary quality related documentation and activities. This manual encompasses all operations at our facilities located in Flemington, New Jersey and Kalispell, Montana. The requirements and procedures addressed in the Quality Manual are intended to meet the requirements of Aerospace Standard AS9100B/International Standard ISO 9001:2008 and customer, manufacturer, and military specifications.

The following table identifies AS9100B/ISO 9001:2008 requirements not applicable to our organization and provides a brief narrative justifying their exclusion from the scope of our quality management system.

Clause/Sub-clause	Exclusion	Justification
7.3	Design and Development	CTI does not perform design and development based on customer requirements. Any Engineering services required are out sourced.
7.4.3	Verification of Purchased Product (at source)	CTI does not verify purchased product at source
7.5.0	The portions of this section pertaining to Service Provisions	CTI is a production facility
7.5..1.5	Control of Service Operations	CTI is a production facility
7.5.2	Validation of Processes for Production and Service Provision	All processes in assembly and production can be verified through conventional means of inspection and test.

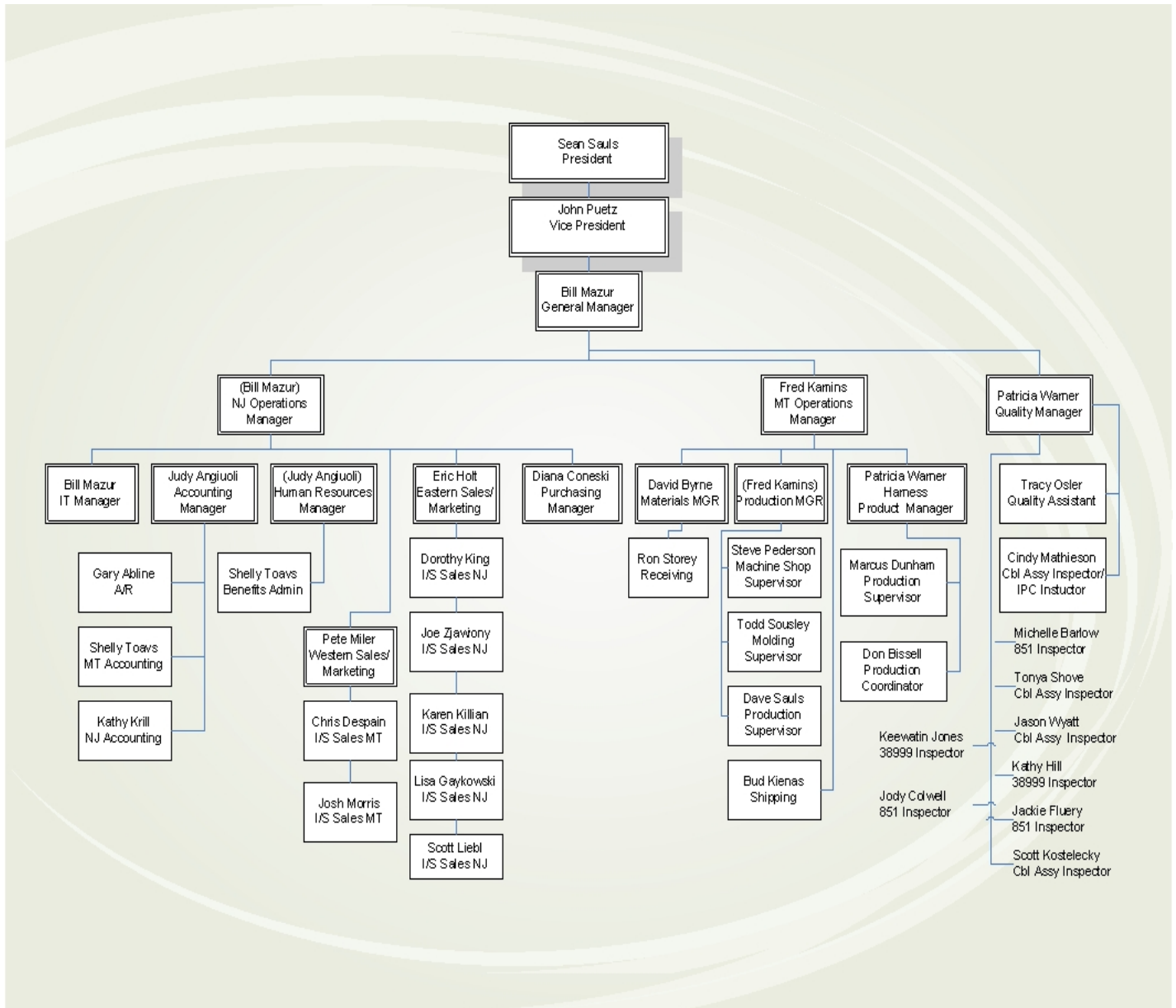
2.0 Issue of the Manual

This manual is issued under the authority of the President of Connector Technology.

Controlled copies of the Manual will be marked as such. The Master copy of the manual will be maintained in the computerized quality files by the Quality Manager. The Quality Manager is responsible for the issue of amendments to the Manual, withdrawal of obsolete information and the maintenance of the master copy of the manual.

Uncontrolled copies may be distributed to organizations or persons at the discretion of the Quality Manager. These will be current at the date of issue only and will not be subject to amendment action.

3.0 Organizational Chart



4.0 Quality Management System

4.1 General Requirements

CTI assembles connectors and cable assemblies from purchased parts. The primary processes of CTI are marketing and sales, purchasing, manufacturing, inspection and some design and development. CTI maintains a documented quality system which conforms to and will be managed to the requirements of AS9100B/ISO9001:2008.

CTI's quality management system provides for :

Identifying the processes needed for the quality management system and their application

The sequence and interaction of the processes

Determining criteria and methods to ensure that the operation and control of the quality management processes are effective

Methods to ensure the availability of resources and information necessary to support the operation of the processes

Measuring, monitoring, and analyzing these processes and implementing actions necessary to achieve planned results and continuous improvement.

Outsourcing of work will be covered under section 7.4 of this manual.

4.2 Documentation Requirements

4.2.1 General

Procedures will be consistent with AS9100B/ISO9001:2008 and CTI's quality policy.

The quality policy and applicable procedures will be documented and records maintained as required.

The range and detail of quality system procedures will be dependant upon the complexity of the work, the methods used, and the skills and training needed by the personnel involved in carrying out the activity.

Any quality system requirements imposed by regulatory authority will be included where applicable.

CTI will ensure that personnel have access to applicable quality management system documentation and are aware of relevant procedures. Access will be provided to customers and regulatory authority representatives as required.

4.2.2 Quality Manual

CTI maintains a documented quality system, which ensures that products conform to applicable standards.

The quality manual covers the requirements of AS9100B/ISO9001:2008.

The Quality Management System is structured in two levels:

- a) Level One: A Quality Policy Manual, which outlines general Quality System policies and includes the documented procedures as required by the international standard.
- b) Level Two: Standard Operating Procedures, function specific support documentation and forms to support level two procedures and policies.

The Quality Manual references related procedures in the Standard Operating Procedures. (See Appendix 1)

4.2.3 Control of Documents

Procedures to control documents and data that relate to the quality system are as follows:

General

All internal and customer documents and data that relate to quality are covered by this procedure.

Document and data approval and issue

The Quality Policy Manual will be reviewed and approved by the President and the Quality Manager. Approval will be indicated by signature.

Level II documents will be reviewed and approved by the Quality Manager. Approval on documents originating in a paper format will be indicated by signature on a retained original copy. Approval on documents originating electronically will be made by protecting write access to the documents with a password supplied only to the quality manager.

Data will be entered only by authorized employees. Authorization is granted in policies found in quality system documentation. Review of the data by a manager or supervisor is not necessary unless explicitly indicated.

A document control master list of these documents identifying the current revision status will be maintained by the Quality Manager and readily available to prevent the use of invalid or obsolete documents.

When contract requirements call out industry standards to be applied to specific orders, these standards will be pulled from current sources using the internet. Authorization is given by DSCC through Souriau for connector assembly under the requirements of MIL-STD-790F and product Military Standards, MIL-DTL-38999 and MIL-DTL-26482. For military standards a defense data search will be used, for ANSI standards the ANSI site will be used and others as applicable to the applications required. The quality manager will be responsible for ensuring the correct revision as defined in the contracts is being utilized.

It is the responsibility of the Quality Manager to issue new and revised documents and to ensure that current issues of documents are available at locations where they are required to ensure the effective functioning of the quality system

It is the responsibility of the Quality Manager to ensure invalid or obsolete documents are promptly removed from all points of issue or use.

It is the responsibility of the Quality Manager to identify obsolete documents which are retained.

Document and data changes

Changes to the Quality Policy Manual will be reviewed and approved by the Quality Manager and President.

Changes to Level II documents will be reviewed and approved by the Quality Manager. Electronic documents will be password protected to allow changes approved by the Quality Manager only.

Changes to documents generated by the EPDS system will be made within EPDS. Changes must be authorized by authorized management personnel

Data changes may only be made by the individual who made the initial entry or authorized personnel. Authorization is granted in policies found in quality system documentation.

Data changes on controlled paper documents are to be made by placing a single line through the data to be changed and initialing the change. These changes may only be made by authorized personnel and changes shall be made to the original computerized document with replacement of hard copies once computerized changes have been made.

Authorization for data changes on computer records are controlled through access passwords.

The review and approval of document changes will be based upon background information.

The nature of changes will be identified in the document or appropriate attachments. If obsolete documents are maintained they will be filed within an archive file on the computer database.

Documents implementing this policy

[QC-002 Document Control Master List](#)

4.2.4 Control of Records

Following is CTI's documented procedure which defines how records are, identified, stored, retrieved, protected and their retention time.

The Quality Manager will be responsible for maintaining documented procedures for identification, collecting, indexing, access, filing, storage maintenance and disposition of quality records.

Quality records will be identified on form QC-042 Quality Records. The form will also indicate the location, retention period and disposal method.

Quality records will be maintained as required by manufacturer, military, customer specifications and CTI's quality system.

Documents and data will be legible.

Documents and data will be stored and indexed in a way that makes it possible to find and retrieve information within a reasonable period of time. They will be ordered by date, alphabetically, order number, or some other easily recognized system.

Records may be stored in file cabinets, labeled boxes, or electronically.

All active quality records stored electronically must be backed up at least weekly.

Any computer systems that have data dumped must have a full backup made prior to dumping the data. These backups will be retained for the time frame set for all quality records.

Quality records will be maintained for the period indicated in QC-042. The retention period must comply with all manufacturer, military, and customer specifications.

The Quality Manager will be responsible for providing customers with quality records if requested.

The quality manager is responsible for arranging disposition of quality records. Quality Records will be disposed of according to the disposal method listed in QC-042.

If any manufacturer, customer, or military specification requires or if CTI determines records to contain sensitive information records will be shredded prior to disposal.

Records created by suppliers will be filed in accordance with incoming receiving procedures. Any documents sent to suppliers will be controlled in accordance with purchasing procedures.

Records will be made available for review by customers and regulatory authorities in accordance with contract or regulatory requirements.

Documents implementing this policy

QC-042 Quality Records, SOP- 03 Receiving, SOP-08 Purchasing

4.3 Configuration Management

The majority of items assembled by CTI are controlled by original manufacturer of the piece parts, or by customers. Souriau controls and provides all configuration control for the connectors that CTI assembles and distributes. Top Bills of Material are provided and placed into the CTI database. These top levels are posted within EPDS and updated as deemed necessary by Souriau.

When a customer request CTI assemble/ manufacture cables, a drawing is obtained from the customer. If changes are recommended they must have customer approval. Any changes to those drawings are supplied by the customer. Drawings are posted into the EPDS data base. When revised drawings are received the obsolete drawings are maintained for reference. The EPDS lot control system allows for tracking of revisions.

5.0 Management Responsibility

5.1 Management Commitment

The management of CTI is committed to the development and implementation of the quality management system and continually improving its effectiveness by:

- a) communicating to CTI employees the importance of meeting customer, statutory and regulatory requirements,
- b) establishing the quality policy as indicated in this manual,
- c) ensuring that quality objectives are established,
- d) management reviews are conducted, and
- e) resources are available

5.2 Customer Focus

CTI management and the sales department ensure that customer requirements are determined and met with the aim of enhancing customer satisfaction through sections 7.2.1, 8.2.1 and other sections of this quality manual.

5.3 Quality Policy

The quality policy of Connector Technology Inc. as stated below includes objectives for quality, is relevant to organizational goals and customer needs. This policy will be implemented and understood at all levels of the organization.

“INTERCONNECTING QUALITY AND SERVICE”

The corporate quality policy of Connector Technology Inc. is stated herein and was developed and agreed to by the Senior Management of the Company.

The Company is committed to achieve this policy through the implementation and maintenance of a Quality Management System. This commitment seeks continual improvement of the system to achieve the company mission. Senior management will review the Quality Management System to ensure it's continued effectiveness.

The company is committed to ensuring that all staff is responsible for the quality of their work, and so verification is carried out by the personnel who perform the operations.

All products and services provided by Connector Technology Inc. shall conform to requirements specified. Each employee is responsible for his or her input to the procurement, production, support, delivery, service or management provided.

We are committed to continually improving all products and services and to maintaining Connector Technology Inc. as the Quality Leader in our field and to provide our customers with only the highest quality products and services.

5.4 Planning

5.4.1 Quality Objectives

CTI will ensure that quality objectives are established at relevant functions and levels within the company. The quality objectives will be determined by top management based upon areas which show a need for improvement. The quality objectives may change as need determines and goals are met therefore they will be maintained separate from this quality manual. Quality objectives will be measurable and consistent with the current quality policy.

5.4.2 Quality Management System Planning

Quality planning will be consistent with requirements of the quality system and documented in a format, which suits methods of operation. Inputs to planning will result from periodic management reviews. Planning will be consistent with the requirements of AS9100B/ISO9001:2008 and will be accomplished with the intent of meeting defined quality objectives.

It is the responsibility of management to document a quality plan in the form of this Quality Manual and supporting documents referenced in the Quality Manual. This plan will detail how the requirements for quality will be met.

The Quality Plan will be consistent with the requirements of manufacturers, customers, military specifications and AS9100B/ISO9001:2008. Procedures will be developed and maintained using input from department managers and employees regarding the complexity of the work, the methods used, and the skills and training needed by the personnel involved in carrying out the activity.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

The interrelation of personnel affecting quality is outlined in the organizational chart found in section 3.0 of this manual. Detailed documentation of responsibilities and authority are found throughout this QP Manual and supporting documents.

All employees are responsible for initiating action to prevent the occurrence of non-conformities in their areas of responsibility. Action is to be initiated following the policies outlined in 8.5.3 Preventive Action.

All employees are responsible for identifying and recording problems in their areas of responsibility. Problems are to be recorded following the policies outlined in 8.5.2 Corrective Action., and relevant SOP's.

All employees may recommend solutions for quality related problems to management. It is the responsibility of management to initiate and provide solutions.

It is the responsibility of the management team to verify the effective implementation of solutions.

It is the responsibility of the management team to control further processing of nonconforming product until the nonconformance has been corrected. The procedures outlined for, Control of Non-conforming Product, will be followed.

5.5.2 Management Representative

The President and General Manager have appointed a member of management having defined authority for

- a) ensuring that processes needed for the quality system are established, implemented, and maintained in accordance with AS9100B/ISO9001:2008 and customer requirements
- b) reporting on the performance of the quality system to management for review and improvement
- c) ensuring awareness of customer requirements throughout the organization.
- d) The representative has the freedom to resolve matters pertaining to quality

5.5.3 Internal Communication

Top management shall ensure that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the quality management system.

5.6 Management Review

5.6.1 General

Management will review the quality system annually at a minimum to ensure its continued suitability and effectiveness in satisfying the requirements of AS9100B/ISO 9001:2008, CTI's quality policy, customer, and manufacturer requirements. Results of internal audits, third party audits, and a review of customer returns and complaints will be used to gauge the level to which the quality system is meeting these requirements. Reviews may be held with individual departments as deemed necessary by management.

Formal reviews will be attended by top management.

Records of reviews will be maintained.

5.6.2 Review Input

Input to management review shall include information on:

- a) results of audits
- b) customer feedback
- c) process performance and product conformity
- d) status of preventative and corrective action
- e) follow up actions from previous management reviews
- f) changes that could affect the quality management system, and
- g) recommendations for improvement

5.6.3 Review Output

Output from the management review shall include any decisions and actions related to:

- a) improvement of the effectiveness of the quality management system and its processes

- b) improvement of product related to customer requirements
- c) resource needs

6.0 Resource Management

6.1 Provision of Resources

CTI will identify resource requirements and provide adequate resources to implement and maintain the quality management system and continually improve its effectiveness; and to enhance customer satisfaction by meeting customer requirements.

6.2 Human Resources

6.2.1 General

Personnel performing work affecting product quality shall be determined competent on the basis of education, training, skills and experience.

6.2.2 Competence Awareness and Training

The Quality Manager will maintain procedures for identifying training needs. All employees will be made aware of the quality management system.

Training is required for any employee effected by any of the following circumstances:

- e) new hire
- f) change in position or responsibilities
- g) change in procedures or policies
- h) change in equipment or technology
- i) corrective/preventive action lists a requirement for additional training
- j) new product line added

Department managers will be responsible for identifying the need for, coordinating, and documenting training. The training may be conducted by a CTI employee or an outside source if necessary.

Training will be documented on QC-16 Training Log and QC-033 Training Matrix. Reviews will be performed on a regular basis to ensure training needs are identified and competency levels are accurate. Completed records are to be forwarded to the quality manager.

Competency requirements for management level personnel are as follows:

Management positions at CTI are dependent on a person's formal educational background. Experiential as well as institutional learning are considered in their own right. Higher education does, however, bring certain advantages in specific disciplines as well as in general life skills.

General Manager:

Must have a minimum of 10 years experience in management of a technical operation in connectors or electronics. Working knowledge or experience in sales, quality, purchasing, production and accounting are necessary. Must possess good people, communication and presentation skill. Computer skills should include Excel, MS Word, and Power Point.

Quality Manager:

Must have a minimum of five years experience in quality management. A background in military quality programs or with organizations that have dealt with international quality systems is considered a fundamental requirement. Other skills that have definite value and are required in greater or lesser degree are:

- a) experience in implementing or sustaining an ISO 9000 or D9000 program
- b) a general knowledge of electrical / electronic interconnection systems
- c) some proficiency in the following software programs
 - a. Excel – PowerPoint – Word – Adobe

The position also requires some motivational and communication skill in dealing with people as well as an ability to focus on detail.

Operations Manager:

The ability to manage a team of key personnel in a very diverse, high volume value – added distributor and connector facility including cable harness assembly is the general scope of the task. Key specifics would include a minimum 5 years experience with electronic connectors for aerospace, military and industrial applications. This individual must possess a strong commitment to customer service and quality. Sales and purchasing knowledge would be a plus. Computer skills should include Excel, MS Word, and Power Point.

Production Manager:

The position entails an ability to manage all aspects of production of commercial and military connector lines. The position requires a minimum of two years experience in management of diverse groups of employees. Manufacturing skills for light assembly production line, knowledge of production tools and facility maintenance are a must. Some preliminary knowledge of quality systems and requirements are a plus. Computer skills should include Excel, MS Word and manufacturing software related to inventory and scheduling.

Purchasing Manager:

At least five years purchasing experience in the electronic connector field is critical. The job demands good negotiation, scheduling and math skills. Attention to detail is critical. Skill in the use of Excel, or programs of that nature, is a must as well as adaptability to programs specifically developed to enhance the company's purchasing practices. An understanding of the constantly evolving practices of scheduling methods is critical. Included in such procedures would be methods such as JIT (just in time) KanBan, and auto – replenishment among others. The ability to read clearly and to precisely understand the language of contracts is vital. That same ability to write those contracts or conditions within a contract is also a prime asset.

Sales Manager:

A minimum of five years experience in sales and account management in the commercial or military interconnect business sectors is a fundamental quality. Familiarity with standard software programs, Excel, Word, PowerPoint and specialized Contact Manager programs is indispensable. Of prime importance this person must have the ability to understand and communicate CTI's philosophy of *doing business*. Our sales force is the face of CTI that our customer's perceive. The ability to transmit that *real face is the real skill*.

Accounting Manager/Controller:

Must have a minimum of 2 years of college in Accounting and Finance and at least five years experience in all phases of accounting to include, accounts receivable, accounts payable, payroll and month end/year end reports. Will have the ability to process employee payroll, W-2's and 1099's. Tax knowledge a must. Will perform human resource functions to include, control of insurance policies, i.e. health, dental, life, workers comp and disability. Commercial insurance packages to include fire, umbrella, building and auto. Will be responsible for control profit sharing plan and 401-K deductions and payments. Must be proficient in an automated accounting department, Microsoft Word and Excel.

Personnel employed with CTI prior to the date of implementation of the quality system are considered adequately trained.

Applicants to management positions will be interviewed by the General Manager who will determine their qualification for the position.

Applicants to sales positions will be interviewed by the General Manager or Sales Manager who will determine their qualification for the position.

Personnel performing tasks which affect quality will be trained prior to performing those tasks. The length and degree of training will be based upon experience and education.

The quality department will be responsible for maintaining training documents.

Each employee will have a training file containing records of training sessions.

Documents implementing this policy

[QC-016 Training Log](#)
QC- 033 Training Matrix

6.3 Infrastructure

CTI will continue to work with existing infrastructure which includes; facilities, equipment and support services. The infrastructure will be examined during management reviews. Changes to the infrastructure will be handled on a case-by-case basis.

6.4 Work Environment

CTI plans to continue to use the existing work environment. The present work environment has been and will continue to be adequate to achieve conformity to product requirements. Changes to the work environment will be handled on a case-by-case basis.

7.0 Product Realization

7.1 Planning of Product Realization

The process for establishing quality objectives and requirements for the product are documented under 7.2.1.

The necessary processes, documents, and product-specific resources including maintenance are set forth throughout these product realization sections of this quality manual.

The required verification, validation, monitoring, inspection, and test activities specific to CTI connectors and the criteria for product acceptance are covered under sections 7 and 8 of this quality manual.

The records needed to provide evidence that the realization process and resulting product meet requirements are also covered under sections 7 and 8 of this quality manual.

7.2 Customer Related Processes

7.2.1 Determination of Requirements Related to The Product

The design of the connectors assembled by CTI have been in place for several years and meet both military and commercial specification requirements. The customer normally selects existing products and determines specification requirements based on specific needs as determined by the final end product requirements.

In the event a customer requires a special order the customer normally request through oral communication the special requirements other than those called out in the standard parts catalog. If the customer has specific drawings those are requested. A determination is then made as to whether the special request can be fulfilled and whether special work instructions are required.

CTI maintains documented procedures for contract review and the coordination of related activities.

7.2.2 Review of Requirements Related to the Product

Sales employees will review customer's orders prior to acceptance:

- a) to ensure that the requirements are adequately defined including a minimum of an agreed upon part number, quantity, price and delivery date. An order may be verbal, written, or electronic data.
- b) to identify any differences between the order and the original quotation. If the order differs from the original quotation the salesperson will make the determination to accept the order as is, have the customer modify the order to match the original quotation, or refuse the order.
- c) to determine CTI's ability to meet the specified requirements. This determination should be made by using prices and inventory information found in the database as well as standard assembly lead times. New or special parts not found in the database must have pricing and delivery requirements reviewed by the purchasing manager and assembly times established by the production manager. If it is found that CTI will be unable to meet the specified requirements it is the responsibility of the sales employee to inform the customer. The customer will have the right to change or cancel the order.
- d) Special Quality Requirements which differ from CTI's normal procedures must be forwarded to the Quality Manager for approval prior to acceptance of the order. These documents will be kept on file by the quality department. It is the responsibility of the quality manager to implement policies to ensure that finished product complies with any special quality requirements.

Orders for non-standard or modified parts must be evaluated by sales review and quality manager to determine risks associated with the part. Final approval will be made by the General Manager or President prior to acceptance. Entry of the part into the database indicates acceptance. Any drawings or specifications for these parts will be maintained in the EPDS System for the applicable part number. (See SOP 1)

Special shipping requirements which differ from CTI's normal procedures must be entered using the appropriate menu on the computer.

Special production or testing requirements which differ from CTI's normal procedures must be entered using the appropriate menu on the computer.

Amendment

Amendments and changes must be reviewed following the same procedures as original orders.

All amendments and or changes to contracts are to be made through electronic data entry. Changes in the database will automatically result in notification being sent to all concerned personnel in the form of a change order if processing has already begun.

Changes to orders already in production must be approved by the Production Manager.

Documents implementing this policy.

[SOP-001 Sales Standard Operating Procedures](#)

7.2.3 Customer Communication

Customers can find product information on the CTI web site as well as in the CTI catalog which is supplied at their request. Customer inquiries, contracts and order handling, including amendments is the responsibility of the sales department. Customer feedback also includes a customer complaint form and RMA request. When a customer has rejected parts follow-up is completed to ensure that where necessary corrective action is taken and procedures are implemented to correct any internal deficiencies.

7.3 Excluded

7.4 Purchasing

7.4.1 Purchasing Process

Subcontractors will be evaluated and selected based on their ability to meet contract requirements including the quality system and specific quality assurance requirements. Customer designated sources will also be evaluated using the same methods. In the case where a supplier is a sole source efforts will be made to ensure their ability to meet requirements.

The type and extent of control over subcontractors will be dependent upon the type of product, impact of subcontracted product on the quality of final product, and the quality audit reports and quality records, of previously demonstrated capability and performance of subcontractors.

- a) approved suppliers are maintained in the EPDS data base system. Vendor files include the scope of approval for which the suppliers are approved.
- b) Supplier performance reports are reviewed periodically to determine if the level of controls that are implemented need to be adjusted
- c) Actions to be taken when a supplier does not meet requirements are defined in SOP-08

- d) If special process sources are required by customer these will be defined on the purchase order or work order to the supplier.
- e) The quality manager approves supplier quality systems and has the authority in conjunction with the general manager to disapprove the use of sources.

7.4.2 Purchasing Information

Purchasing documents will contain data clearly describing the product ordered including *where applicable*:

- a) requirements for approval of product, procedures, processes and equipment;
- b) requirements for qualification of personnel;
- c) quality management system requirements;
- d) the name or other positive identification, and applicable issues of specifications, drawings, process requirements, inspection instructions and other relevant technical data;
- e) requirements for design, test, examination, inspection and related instructions for acceptance by the organization
- f) requirements for test specimens (e.g. , production method, number, storage conditions) for design approval, inspection, investigation or auditing,
- g) requirements relative to
 - a. supplier notification to organization of nonconforming product and
 - b. arrangements for organization approval of supplier nonconforming material
- h) requirements for the supplier to notify the organization of changes in product and/or process definition and, where required, obtain organization approval
- i) right of access by the organization, their customer, and regulatory authorities to all facilities involved in the order and to all applicable records, and
- j) requirements for the supplier to flow down to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required.

Purchasing documents shall be reviewed for adequacy of requirements prior to release.

See SOP-08 Purchasing

7.4.3 Verification of Purchased Product

CTI has established and implemented activities necessary for ensuring that purchased product meets specified purchase requirements which depending on the product may include:

- a) obtaining objective evidence of the quality of the product from suppliers (this will be accomplished with certificates of conformance unless a customer specific requirement includes providing test reports)
- b) (Excluded)
- c) Review of the required documentation
- d) Inspection of product upon receipt, and
- e) Delegation of verification to the supplier, or supplier certification

Incoming product will not be used or processed until it has been inspected and verified as conforming to specified requirements. Verification of conformance will be performed in accordance with SOP 03 Receiving Inspection.

Where specified by contract a customer or customer representative will be permitted to verify at CTI's premises or subcontractor's premises that subcontracted product conforms to specified requirements. Such verification will not be used by CTI as evidence of effective quality control by a subcontractor. Verification by a customer will not absolve CTI of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer.

The amount and nature of receiving inspection will be determined by the amount of control exercised at the subcontractor's premises and the recorded evidence of conformance provided.

In the event that CTI proposes to verify product at a subcontractors premise's a procedure, which specifies verification arrangements and the method of product release, will be established.

Documents implementing this policy

[SOP 08 Purchasing](#) [SOP 03 Receiving](#)

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

As a Souriau value added distributor, product specifications are predetermined by the principal manufacturer of the assembly components. These specifications are depicted in the product catalogs and assembly instructions. The specification information is made available to customers and to assembly personnel.

Detailed control plans and travelers are written and approved for all cable assemblies ensuring that drawing requirements are met.

Work instructions identifying key characteristics are provided with all assembly orders as well as a bill of materials for all components which will make up the final product. Assembly manuals are made available for reference to be used in conjunction with the work instruction sheet. Accountability for all product is maintained within the EPDS system.

Suitable equipment is provided for all assembly operations. In the event that new product is to be assembled the operations manager and plant manager will review the equipment needs as specified in the assembly manual. Equipment will be evaluated on a periodic basis to determine its condition and repairs or replacements will be made as necessary.

Where necessary monitoring and measuring devices will be made available. These devices will be controlled in accordance with section 7.6 of this manual.

Assembly processes will be monitored through the use of in process inspection points which are called out on the assembly traveler.

The assembly traveler will also cover final inspection requirements for release of product. All applicable steps on the assembly traveler must be completed prior to final release for shipment.

Provisions for prevention, detection, and removal of foreign objects will be included in the appropriate production areas.

A system is in place to monitor and control chemical products utilized in the production area.

7.5.1.1 Production Documentation

Production operations will be carried out in accordance with SOP-02 Order Processing. Data to be used will include *as necessary*:

- a) production orders, bills of material, travelers which include inspection requirements, drawings, assembly manuals, or control plans.
- b) Tools and machine programs required and specific instructions as to their use.

7.5.1.2 Control of Production Process Changes

Production process changes will be approved only by the quality manager after coordination with the applicable production managers and the general manager.

If a change requires customer approval the change will be coordinated with and approved by the customer before implementation.

No changes will be made to approved processes without the review of production managers with final approval from the quality manager.

If production processes are changed the results will be assessed to ensure the desired effect prior to continuing with production.

7.5.1.3 Control of Production Equipment and Tools

Production equipment, tools and programs will be validated prior to use, maintained and inspected periodically. A periodic maintenance check will be performed by each work shop monthly to determine if maintenance is required.

Production runs will have 1st piece verified prior to completing the run to ensure that machine settings are correct. These will be inspected and the inspection signed off prior to proceeding. Tools that may be in temporary storage will be included on the periodic maintenance verification.

7.5.1.4 Control of Work Transferred, on a Temporary Basis, Outside the Organization's Facilities:

If work is to be completed outside of CTI a work order will be generated within the EPDS system indicating the requirements and steps to be completed on the product.

If necessary a certificate of conformance will be requested. Receiving shall perform incoming inspection. See SOP-03 Receiving

7.5.1.5 Excluded

7.5.2 Excluded

7.5.3 Identification and Traceability

Documented procedures for identifying product from receipt to and during all stages of production and delivery will be maintained.

Configuration of the product will be maintained within the EPDS data system.

Where traceability is a specified requirement documented procedures for unique identification of individual product lots will be maintained. This identification is recorded in the EPDS software system.

Records will be maintained which provide evidence that product has been inspected.

Records will show whether the product has passed or failed the inspections or tests. Product will have identification indicating conformance or nonconformance with regard to inspection and tests performed. Travelers will indicate inspection points and the person performing the inspection must initial to indicate their acceptance. A list of employees including signature and initials will be maintained by the quality department.

Only persons authorized by the quality manager are allowed to perform inspections on product.

Where product fails to pass an inspection or test the procedures for control of nonconforming product will apply. (8.3)

The identification of inspection and test status will be maintained as defined in the Quality Manual throughout production of the product to ensure that only product that has passed the required inspection and tests is used.

Levels of traceability will be determined based on contract, and regulatory requirements as appropriate for the product . All product produced at CTI is traceable within the EPDS system by lot number and production dates as well as component lots used in the assembly/manufacture process. Paper records of the manufacturing process and inspections completed will be maintained for a period of ten years.

7.5.4 Customer Property

Customer property under CTI's control will be identified, protected and safeguarded. Material supplied by customers for incorporation into an end product will be identified as customer property in the EPDS system for inventory control purposes by use of the CUS manufacturing code. Locations will be assigned and maintained within EPDS.

When property is returned from customers on an RMA , for purposes of rework/repair, the property will be controlled using the procedures for control of nonconforming material. All customer returns are identified to the customer and controlled under rework orders where applicable.

Customer supplied drawings will be attached to the applicable customer part within EPDS. If hard copies are maintained the originals will be maintained in the quality managers files.

7.5.5 Preservation of Product

Handling

All employees will use care when handling product. Specific methods of handling product to prevent damage or deterioration will be outlined in assembly manuals where required.

Storage

Parts will be stored in the specific area identified for their storage.

Items requiring climate controlled storage will be stored in calibrated equipment.

Receiving personnel will place all parts in designated storage areas following receiving inspection.

The condition of product stock will be assessed using cycle count physical inventories per SOP-05.

Date sensitive materials will be logged in by the quality department on form QC-008 and placed in the appropriate storage location. The condition of these materials will be checked monthly and logged on QC-023 Material age control log. Expired materials will be disposed of accordingly.

Packaging

Parts will be packaged according to manufacturers assembly manuals, specifications, or customer requirements.

Any parts not having specific packaging requirements will be packaged in a way which prevents damage.

Preservation

Parts will be segregated by part number. Part numbers will not be mixed in individual containers.

Lot controlled product will be segregated in containers which prevent the mixing of lots.

Materials will be stored under the environmental conditions required by the manufacturer. Subassembly parts are cleaned during the production process as required by the appropriate assembly manual/process. At time of shipping and or sending to built stock, all completed product is bagged in plastic bags to prevent inclusion of foreign object debris.

Delivery

Parts will be packaged for shipping using protective materials sufficient to prevent damage in transit. If customer specific packaging is required this will be indicated on the picking ticket. Documents accompanying the product will be placed in a protective sleeve on the outside of the package as well as a copy placed inside the package.

Documents implementing this policy

[SOP-03 Receiving](#)

[SOP-05 Inventory Control](#)

7.6 Control of Monitoring and Measuring Devices

These procedures will be maintained to control calibration and maintenance of inspection measuring and test equipment used to demonstrate conformance to ANSI/NCSL Z540-1.

Control Procedure

Inspection, measuring, and test equipment will be selected based on the accuracy required by manufacturer provided assembly manuals, part specifications, or customer requirements.

All inspection, measuring, and test equipment that can affect product quality will be identified with a number assigned by CTI.

The identification number and calibration interval will be recorded on the Calibration Master Log QC-024.

Equipment will be evaluated by an outside vendor for calibration prior to first use and at prescribed intervals. The vendor must provide documentation stating that the equipment was calibrated against certified equipment having a known valid relationship to internationally or nationally recognized standards. Calibration records will be maintained by the Quality Manager.

Any equipment found to be out of calibration will be repaired or scrapped. Where the condition is sufficient to effect the required accuracy of measurement wherever possible the validity of previous inspection and test results will be confirmed. The problem and resolution are to be recorded in the EPDS Corrective/Preventive Action Log.

Measurements will take place under the environmental conditions specified by the manufacturers assembly manual, part specification, or customer requirements.

Equipment will be used and stored in designated areas by trained personnel. Any equipment that has been stored or used in a way that may have adversely affected calibration will be sent out for recalibration.

Where possible equipment will be mechanically safeguarded from adjustments which would invalidate calibration. Employees will be trained to prevent adjustments which can not be prevented mechanically.

All equipment requiring calibration is kept at CTI therefore no recall notices are necessary.

Computer software is used for testing in the cable harness assembly area. Software test parameters are set based on the customer requirements, and product capabilities. Software used in the cable test area is password protected and designed to be tamper proof. Periodic self test are run on the software to determine if it continues to satisfy its intended application.

Documents implementing this policy

[QC-024 Calibration Master Log](#)

8.0 Measurement, Analysis and Improvement

8.1 General

CTI will review the need for statistical techniques required for establishing, controlling and verifying process capability and product characteristics, using methods identified in 8.2.4.1 and SOP 09 Inspection and Testing.

Where statistical techniques are used for product verification due regard will be made to the contractual requirements of the customer.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

CTI Sales personnel maintain customer files within EPDS. When comments are received from customers they are logged in the appropriate file. Comments may include vendor rating reports which are typically received from larger customers. Negative remarks are brought to the attention of management upon receipt.

A periodic review will be made to determine if any trends are developing and if any corrective or preventative action is necessary.

Customer complaint forms and RMA's will also be analyzed periodically to determine need for corrective action. The results of these evaluations will be presented to management at the planned management reviews. (5.6)

8.2.2 Internal Audit

CTI will maintain documented procedures for planning and implementing internal quality audits.

Internal audits will verify whether quality activities and related results comply with planned arrangements and determine the effectiveness of the quality system.

Internal audits will be scheduled on the basis of the status and importance of the activity being audited.

Audits will be carried out by personnel independent of those having direct responsibility for the area being audited.

The results of the audits will be recorded and brought to the attention of the personnel having direct responsibility for the activity being audited.

The management personnel responsible for the area will take timely corrective action on deficiencies found during the audit.

Follow up activities will verify and record the implementation and effectiveness of the corrective action taken.

An internal audit checklist will be maintained by the quality department. The results of internal quality audits will be addressed during management review activities.

Documents implementing this policy

[SOP-07 Internal Quality Audits](#)

[QC-09 Internal Quality Audit Report](#)

8.2.3 Monitoring and Measurement of Processes

CTI will:

- a) assemble all product according to assembly manuals created and approved by the manufacturer of the product and/or the quality manager of CTI.

- b) ensure that assembly travelers accompany each order throughout the assembly process
- c) ensure each step of the process is verified by subsequent inspection or carried out by trained personnel
- d) ensure process operations and equipment are monitored and qualified

In the event of process nonconformity CTI will

- a) take appropriate action to correct the nonconforming process,
- b) evaluate whether the process nonconformity has resulted in product nonconformity, and
- c) identify and control the nonconforming product in accordance with 8.3

Corrective action will be taken as necessary if any processes are determined to be insufficient in maintaining the proper standards.

Process operations and equipment will be qualified by a representative of the manufacturer and/or the quality manager in conjunction with the general manager of CTI to ensure finished product will meet all applicable specifications. This verification will be done by measuring and testing finished product according to drawings and/or specifications. This testing will be done by CTI or the manufacturer where specifically required.

The qualification of personnel will be determined by department managers or the General Manager according to their training, experience, and on the job performance.

Assembly manuals, assembly travelers, calibration records, and training records will be stored and maintained following the procedures in 4.2.4.

8.2.4 Monitoring and Measurement of Product

CTI will:

- a) inspect key characteristics and test product as required by documented procedures
- b) hold product until required inspection and tests have been completed

All finished product will be assembled or processed according to assembly manuals created and approved by the manufacturer of the product and/or the Quality Manager of CTI.

Assembly manuals will include the following:

- a) step by step procedures for processes affecting quality of finished product
- b) description or listing of necessary equipment and materials
- c) special requirements for work environment
- d) reference to standards, quality documents or procedures which must be adhered to
- e) process parameters and product characteristics which must be monitored
- f) criteria for workmanship stated in the clearest practical manner
- g) equipment maintenance needed to ensure continuing process capability

Assembly travelers will accompany each order throughout the assembly process. The traveler will be initialed following each procedure to ensure that the process has been verified by subsequent inspection and/or carried out by trained personnel and that process parameters were within an acceptable range.

Final inspection and testing will be carried out in accordance with documented procedures to provide evidence of conformance of finished product to requirements.

Procedures for final inspection and testing will include requirements that all specified inspections and tests have been carried out and show satisfactory results. No positive-recall procedure is necessary as no product will be shipped until **all** the activities specified in documented procedures have been satisfactorily completed and associated documentation is available and authorized.

8.2.4.2 First Article Inspection

First piece inspections will be performed on each new production run. If a customer request first article reports this will be documented within the EPDS system so that the requirement prints on the production order. A First Article Inspection Report will be completed and a copy maintained with the part files. The First Article Report will be verified and signed by the Quality Manager or designated quality personnel

8.3 Control of Nonconforming Product

This section (8.3) will include the documented procedures to ensure that product which does not conform to specified requirements is prevented from unintended use.

Controls will provide for identification, documentation, evaluation, segregation, and disposition of nonconforming product, and for notification of the functions concerned.

Non-conforming product will be identified as non-conforming with a label or tag on the packaging. If product is dispositioned as scrap it will be conspicuously and permanently marked and controlled, until physically rendered unusable.

Non-conforming product found during receiving, in-process, or final inspection will be rejected within the EPDS system. Material to be returned to the vendor will be processed through the EPDS vendor return screen.

Non-conforming material being returned from customers will be recorded on the RMA form within EPDS. Any material returned from a customer for rework/repair is customer product and will be identified to the applicable customer. A copy of the RMA form will remain with the hardware during the rework process.

The Purchasing Manager will be notified after a determination on disposition has been made if new product must be ordered to meet customer requirements.

Non-conforming product will be stored in a designated area separate from other product.

Review and disposition of nonconforming product

The quality manager in conjunction with the general manager has responsibility for review and authority for the disposition of nonconforming product. These personnel have been selected based on experience, product knowledge and competency. See 6.2.2

Quality inspectors or assembly personnel may authorize rework of in process parts found to be non-conforming.

Nonconforming product will be checked against manufacturers, government, or customer specifications.

Dispositions of rework, re-grade for alternative applications, scrap or return to vendor may be chosen without customer involvement.

Where required by contract the proposed use or repair of nonconforming product will be reported to the customer. Customer approval must be obtained prior to using material which does not conform to customer design. The description of the nonconformity and repairs will be recorded.

Repaired or reworked product will be re-inspected to ensure conformance to manufacturer, government, or customer specifications.

Failure reporting:

If parts received from vendors are found to be nonconforming they will be processed through the applicable discrepant inventory and return to vendor processes within the EPDS system.

In the event items are returned that failed while in use at a customer and require return to Souriau, information will be obtained from the customer as to the nature of the use, the length of time installed before failure and any environmental conditions which may have affected the performance. This information will be provided to Souriau to assist in the failure analysis. Any reports required from this analysis by the customer will be reported by Souriau.

8.4 Analysis of Data

Data from customer complaints, RMA's, nonconformance's and in process inspections will be collected and analyzed to determine:

- a) customer satisfaction
- b) conformity of product requirements
- c) characteristics and trends of processes and products
- d) supplier levels of quality

Data will be presented and discussed at scheduled management reviews to determine the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness can be made.

8.5 Improvement

8.5.1 Continual Improvement

The management will review the quality system at defined intervals sufficient to ensure its continued suitability and effectiveness in satisfying the requirements of AS9100/ISO 9001:2000, CTI's quality policy, and customer requirements.

If opportunities arise for improvement the following will be taken into consideration:

- a) the reason for improvement
- b) the effectiveness of the existing process
- c) analysis of problems
- d) possible solutions
- e) evaluation of effects if the process is changed
- f) verification that improvement efforts were achieved

Records of reviews and improvement efforts will be maintained when applicable.

8.5.2 Corrective Action

CTI will maintain a system for implementing corrective action.

Corrective action taken to eliminate the causes of actual nonconformities shall be to a degree appropriate to the magnitude of problems and commensurate with the risks encountered.

Any changes to documented procedures resulting from corrective action will be recorded.

Corrective Action Procedures

Corrective action will be initiated for the following reasons:

- a) a customer requires corrective action
- b) finding of nonconformities during an internal, customer, or third party audit
- c) when review of data from RMA's, material rejects, Customer Complaints show a negative trend, pattern or recurring problem.
- d) a single non-conformity is determined by management to be serious enough to require action
- e) a supplier does not meet the minimum requirements for on time delivery or product quality.

Corrective actions must be documented in the EPDS Corrective Action form.

Corrective actions may be initiated by any employee. The quality department is responsible for completing the documentation.

A root cause must be determined and documented on the Corrective Action Form by the party the corrective action has been assigned to.

The corrective action needed to eliminate the root cause must be determined and documented on the Corrective Action Form by the party the corrective action has been assigned to.

The quality manager is responsible for performing a follow up on all corrective actions to ensure that timely actions were taken and that they were effective. The results of the follow up must be recorded on the Corrective action form. Specific action to be taken if timely and effective corrective action is not achieved will be determined by the quality manager in conjunction with the general manager.

If it is determined that a supplier is responsible a request will be placed with the supplier for corrective action and parts returned as necessary.

Corrective action documentation will be part of the management review.

Customer complaints involving the return of parts shall be recorded within the EPDS RMA form .

Any customer complaints which do not involve returned merchandise and resulting from defective or damaged product, incorrect product, incorrect quantities, or lateness caused by CTI error shall be recorded in EPDS as a customer complaint.

8.5.3 Preventive Action

CTI will maintain a system for implementing preventive action.

Preventive action taken to eliminate potential nonconformities shall be to a degree appropriate to prevent their occurrence.

Any changes to documented procedures resulting from preventive action will be recorded.

Preventive action procedure

The following will be taken into consideration before taking preventative action

- a) the use of appropriate sources of information such as processes and work operations which affect product, quality, concessions, audit results, quality records, service reports and customer complaints to detect , analyze, and eliminate potential causes of nonconformities.
- b) determination of the steps needed to deal with any problems requiring preventive action
- c) initiation of preventive action and application of controls to ensure that it is effective.
- d) Ensuring that relevant information on actions taken is submitted

Preventive action will be initiated for the following reasons:

- f) any employee finds that a policy, process, component, material, or equipment has a potential to cause a nonconformity
- g) review of data from RMA's, material rejects, Customer Complaints show a negative trend, pattern or recurring problem.

This may consist of , but is not limited to audit inspection checklist, operator/ inspection trend analysis.

Preventive actions must be documented within EPDS.

Preventive actions may be initiated by any employee. The quality department is responsible for completing the documentation.

The quality Manager is responsible for performing a follow up on all preventive actions to ensure that the actions were taken and that they were effective. The results of the follow up must be recorded on the Preventive action form.

Preventive action documentation will be part of the management review.

Appendix 1 Applicable Documents and Procedures

SOP	TITLE	REV	Related Clauses
01	Sales Department	1	7.2 thru 7.2.3
02	Order Processing	1	7.5 thru 7.5.5, 8.2, 8.2.3, 8.2.4, 8.2.4.2, 8.3
03	Receiving Department	1	7.4.3, 7.5.3, 7.5.5, 8.2.4.1, 8.2.4.2, 8.3
04	Shipping Department	1	7.5.5, 8.2.1, 8.3
05	Physical Inventory	1	7.5.4, 7.5.5
07	Internal Quality Audits	1	8.2.2
08	Purchasing	1	7.4 thru 7.4.2
09	Inspection & Testing	1	8.1, 8.2 thru 8.2.4.2, 8.3
10	Requisition of Supplies	1	7.4.1
	Control of Nonconforming Product		8.3
	Corrective and Preventative Action		8.5

All other required procedures are contained within the applicable sections of this quality manual.

CHANGE CONTROL SHEET

DATE	Manual Rev Level	DESCRIPTION of CHANGES
10/07/02	C	Manual rewritten to ISO9001-2000
04/21/03	D	Organization charts updated. Administrative changes made throughout manual.
08/20/03	E	Changes to sections 1, 4, 6 and 7.
06/14/04	F	Organization chart updated.
04/21/06	G	Organization Chart Updated/ Manual updated to include EPDS
04/02/07	H	7.3 Eliminated, Organization Chart updated
05/19/09	I	Change to AS9100/ISO9001 requirements