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**Registered to ISO 9001:2000  
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**ICTC, Inc.**

**Quality Assurance Manual**

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Originator:	T. Baker	Revision Date:	October 2, 2007

Staff Approval	
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<b><u>Revision History</u></b>			
<b>Revision</b>	<b>Rev. Date</b>	<b>Procedure</b>	<b>Description of Change</b>
A	2/6/02	QA Manual	Initial release.
-	12/9/02	QA Manual	Signatures re-affixed to cover page reflecting staff changes; no substantive alteration to content requiring revision advancement. – T. Baker
B	10/2/07	QA Manual	Signatures re-affixed to cover page reflecting staff changes; Section 1 amended to reflect scope expansion (the manufacture and distribution of cable, harness and electronic assemblies). – T. Baker

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## 1. **Scope**

This Quality Manual provides specifics on the policies and procedures used by Interconnect Cable Technologies Corporation (ICTC) to meet ISO 9001:2000 (the Standard) Quality Management Systems requirements for the manufacture and distribution of cable, harness and electronic assemblies. Due to the nature of the organization and its products, sections 7.3 and 7.5.2 of the Standard are excluded as applicable requirements. This exclusion has no negative impact on the organization's ability or responsibility to provide products that meet the Customers' requirements.

## 2. **Normative Reference**

The following normative document(s) contains provisions which, through reference in this text, constitutes provisions of ISO 9001:2000. For undated references, the latest edition of the normative document(s) referenced applies.

*ANSI / ISO / ASQ Q9001-2000 – American National Standard  
Quality Management System Requirements*

## 3. **Terms and Definitions**

For the purpose of this manual, the term "organization" refers to ICTC. The terms "supplier" and "vendor" are synonymous and refer to external sources used to acquire purchased products and/or services by ICTC. The term "the Standard" applies to the document(s) referenced in Section 2 above.

## 4. **Quality Management System**

### **4.1 General**

ICTC documents, implements and maintains a quality management system and continually improves its effectiveness in accordance with the requirements of the ISO 9001:2000 International Standard and corporate policy.

ICTC:

1. Identifies the processes needed for the quality management system and their application throughout the organization.
2. Determines the sequence and interaction of these processes.
3. Determines criteria and methods needed to ensure that both the operation and control of these processes are effective.

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4. Ensures the availability of resources and information necessary to support the operation and monitoring of these processes.
5. Monitors, measures and analyzes these processes.
6. Implements actions necessary to achieve planned results and continual improvement of these processes.

### **Associated Documents**

ICTC's Operating Procedures

## **4.2 Documentation Requirements**

### **4.2.1 General**

ICTC's quality management system documentation includes:

1. Documented statements of a quality policy and quality objectives.
2. A quality manual.
3. Documented procedures required by the Standard.
4. Documents needed by the organization to ensure the effective planning, operation and control of its processes.
5. Records required by the Standard.

NOTE: Documentation may be in any form or type of medium.

- 4.2.2** ICTC has established and maintains a quality manual and supporting documentation as defined by four tiers which include:

#### **Level 1 Documentation - Quality Manual**

The first tier of documentation is the Quality Manual. The Quality Manual defines ICTC's quality processes and offers a description of their interaction through reference to corresponding sections of the ISO 9001:2000 International Standard and an applicable ICTC Operating Procedure (*Reference 4.2.2*).

#### **Level 2 Documentation - Operating Procedures**

The second tier of documentation is a set of Operating Procedures (*Reference 4.2.2[b]*). These procedures document the corporate activities in accordance with the

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quality management system. They also demonstrate how ICTC considers and plans for the available resources to meet the Customers' specific requirements.

The Operating Procedures address, as a minimum:

1. The purpose and scope of an activity.
2. What shall be done, and by whom.
3. How an activity is to be controlled and documented.
4. The updating as necessary of quality control, inspection and testing techniques, including the development of test and assembly instrumentation.
5. The clarification of standards of acceptability for all features and requirements, including those which involve subjective elements.
6. The compatibility of the production process, inspection and test procedures, and the applicable documentation.
7. The identification, preparation and maintenance of records (*Reference 4.2.4*).

Level 1 and Level 2 documentation is subject to copy and review by second and third parties and shall by such definition be considered uncontrolled upon distribution.

Appendix #1 of this document lists the Operating Procedures developed at ICTC.

### **Level 3 Documentation - Work Instructions**

The third tier of documentation is a set of Work Instructions. This documentation lists the details for performing specific tasks for a particular activity.

This documentation includes, but is not limited to:

1. Detailed procedures.

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2. Schematics.
3. Assembly drawings.
4. Product and process specifications.

#### **Level 4 Documentation - Records, Forms, and Tags**

The set of records, forms, tags and/or labels which compliment the record keeping necessary for maintenance of the quality system.

Level 3 and Level 4 documentation provide the information used in decision-making pertinent to the effectiveness of processes and the quality of product and shall by such definition be controlled throughout its life cycle, with the exception of The Quality Plan, which is subject to copy and review by second and third parties.

#### **4.2.3 Control of Documents**

Documents required by the quality management system are controlled. A documented procedure is established to:

1. Approve documents for adequacy prior to use.
2. Review, update and, as necessary, re-approve documents.
3. Ensure that changes and current revision status of documents are identified.
4. Ensure that relevant versions of applicable documents are available at points of use.
5. Ensure that documents are legible and readily identifiable.
6. Ensure that documents of external origin are identified and their distribution controlled.
7. Prevent the unintended use of obsolete documents through suitable identification if they are retained for any purpose.

#### **Associated Documents**

OP-003 - Control of Documents

#### **4.2.4 Control of Records**

Records are defined as documents which provide evidence of conformity to requirements and of the effective operation of the

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quality management system. ICTC has an established, documented procedure for the control, identification, storage, protection, retrieval, retention time and disposition of records.

### **Associated Documents**

OP-011 - Control of Records

## **5. Management Responsibility**

### **Associated Documents**

OP-001 - Management Review  
 OP-002 - Customer Focus / Requirement Review

### **5.1 Management Commitment**

Top management affirms and demonstrates its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

1. Communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements (*Reference 5.5.2[c]*).
2. Establishment of the quality policy (*Reference 5.3*).
3. Ensuring that quality objectives are established (*Reference 5.4.1, 7.1[a]*).
4. Conducting management reviews (*Reference 5.6*).
5. Ensuring the availability of resources (*Reference 6.0*).

### **Associated Documents**

QM-002 - Quality Manual  
 OP-001 - Management Review  
 OP-013 - Competence Awareness and Training  
 WI-QP-001 - Quality Plan  
 - *Quality Management System Newsletter*

### **5.2 Customer Focus**

Top management ensures that customer requirements are met through established procedures (*Reference 7.2.1, 8.2.1*), with the aim of enhancing Customer satisfaction.

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### 5.3 Quality Policy

*Interconnect Cable Technologies Corporation (ICTC) provides customers with unique solutions to contract assembly. We invest in the long term, with automated equipment and skilled employees. This assures our customers a high-quality, reliable partner: Today and tomorrow! Contract manufacturing is our only business. We have no proprietary products which might compete with our customers'. No single customer dominates our plant capacity or management's attention. Each customer's assembly is our most important product. By dedicating our resources to working with our customers, we can assure success and growth. ICTC's goal is meeting our customers' requirements with on-time delivery, while maintaining the highest quality level possible. This philosophy will contribute to the future of you, our partner, and our assembly services. To this end:*

***It shall be the policy of ICTC, Inc. that all processes utilized in our production or service shall be driven by customer requirements.***

Toward this end, top management:

1. Ensures that the quality policy is appropriate to its purpose.
2. Is committed to comply with requirements and continually improve the effectiveness of the quality management system.
3. Provides a framework for establishing and reviewing quality objectives.
4. Ensures that the quality policy is communicated and understood within the organization.
5. Ensures that the quality policy is reviewed for continuing suitability.

### 5.4 Planning

#### Quality Objectives

Top management ensures that quality objectives are established at relevant functions and levels within the organization. Measurable quality objectives consistent with the quality policy are to:

1. Meet or exceed Customer expectations by effective communication and review of Customer requirements.  
(Reference OP-002, Quality Plan)
2. Provide our Customers high quality products and on time delivery at a reasonable cost.  
(Reference customer feedback)

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3. Effectively manage products, processes and services to provide superior Customer satisfaction.  
(Reference OP-006)
4. Promote the safety, awareness and well being of employees through training and education.  
(Reference OP-013)

#### 5.4.2 Quality Management System Planning

Top management ensures that:

1. The planning of the quality management system is carried out in order to meet quality objectives and the requirements of Section 4.1.
2. The integrity of the quality management system is maintained when changes to the system are planned and implemented.

### 5.5 Responsibility, Authority and Communication

#### 5.5.1 Responsibility and Authority

**President** - The President of ICTC has the overall responsibility for the organization's quality system, setting policy and assigning management responsibilities within the company.

**Vice-president** - The Vice-president has the overall responsibility of directing all functions of the facility and acts on behalf of the president in the absence of the president.

**Quality Assurance Manager** - The Quality Assurance Manager, or designated alternate, has the responsibility for maintaining the quality management system and quality functions. The Quality Assurance Manager, or designated alternate, is also responsible to:

1. Initiate action to *prevent* the occurrence of any non-conformance relating to the product, process and/or quality management system (*Reference 7.1, 8.5.3*).
2. Identify and record nonconformities relating to the product, process, and/or quality management system (*Reference 4.2.4, 8.2.3, 8.2.4*).

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3. Initiate, promote, recommend or provide solutions through designated channels (*Reference 4.1, 5.5.2*).
4. Verify the implementation of solutions and conformance to ISO 9001:2000 requirements through conducting internal quality audits (*Reference 4.2.4, 8.5.2*).
5. Control further processing or delivery of non-conforming product until the deficiency or unsatisfactory condition has been corrected (*Reference 8.3*).
6. Provide verification, resources and personnel to perform inspections and assessment of processes and/or product (*Reference 6.1, 6.2*) and communicate management's quality policy and objectives throughout the organization (*Reference 5.5.3*).

#### **5.5.2 Management Representative**

The President of ICTC has appointed as the management representative, a Quality Assurance Manager who is:

1. The interface between ICTC and the certifying body.
2. Responsible for the resources for the maintenance of the quality system.
3. Able to ensure that the quality system is established, implemented, and maintained.
4. Responsible for ensuring that management reviews are conducted in accordance with the appropriate Operating Procedure, and to report on the performance of the quality system to the executive staff and any invited guests (*Reference 5.5.2[b], 5.6.1*).

The proxy of the Quality Assurance Manager shall be a deputy appointed by management. At this time, the deputy management representative is the Vice-president.

Appendix #2 of this document is ICTC's organizational chart.

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Additional information regarding ICTC's ISO 9001:2000 compliant Quality Management System, may be obtained through:

**Quality Assurance Department  
16041 Flight Path Drive  
Brooksville, FL. 34604-6852  
(352) 796-1716**

### 5.5.3 Internal Communication

Top management has implemented processes, determined to be appropriate to the organization, through the establishment of internal newsletters, dedicated areas for posting QMS information, periodic production and staff meetings and training that communicate the policies and effectiveness of the quality management system (*Reference 5.1[a], 5.5.2[c], 5.5.3, 6.6.2[c]*).

#### Associated Documents/Devices

- OP-013
- Competence, Awareness and Training
  - *Quality Management System Newsletter*
  - Posted Memoranda
  - Dedicated Whiteboard

### 5.6 Management Review

#### Associated Documents

- OP-001
- Management Review
  - Management Review Minutes, Associate Report(s), supporting Staff Meeting Minutes

All personnel affecting the quality of products manufactured by ICTC are responsible to conform to the documented ISO 9001:2000 compliant quality policies and procedures as they pertain to the work they perform. It is the policy of ICTC to conduct periodic, documented management reviews under the chairmanship of the President or a designated alternate.

## 6. Resource Management

#### Associated Documents

- OP-006
- Control of Product Realization

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## 6.1 Provision of Resources

ICTC has determined and provides adequate resources to implement and maintain the quality management system, continually improve its effectiveness and to perform activities that ensure product quality and Customer satisfaction (*Reference 6.1, 6.2*).

### Human Resources

#### 6.2.1 General

The personnel performing work affecting product quality shall have demonstrated the required proficiency to carry out their assigned tasks.

#### 6.2.2 Competence, Awareness and Training

##### Associated Documents

OP-013 - Competence, Awareness and Training.  
- Training Affidavit  
- Employee Training Record

##### Policy

ICTC shall:

1. Determine the necessary competence requirements for personnel performing activities affecting product quality.
2. Provide training as necessary to satisfy these needs.
3. Evaluate the effectiveness of training activities.
4. Ensure that personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives.
5. Maintain appropriate records of education, training, skills and experience.

## 6.3 Infrastructure

ICTC maintains comfortable, spacious, well-lighted and clean buildings and workspaces along with well maintained process equipment (both hardware and software) and supporting services for transportation of product and communication of information needed to achieve conformity.

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## 6.4 Work Environment

ICTC manages the physical work environment in such a fashion, through conditioned air and clean, comfortable surroundings, as well as promoting an environment of mutual dignity and respect among members of the organization, to achieve consistent quality output and conformity to product requirements.

## 7. Product Realization

### 7.1 Planning of Product Realization

#### Associated Documents

OP-006 - Control of Product Realization  
WI-GEN-001 - General Work Instruction  
Quality Plan  
Manufacturing Traveler  
WI-QP-001 - Work Instruction: Quality Plan  
IPC/WHMA-A-620 - Requirements and Acceptance for Cable and Wire Harness Assemblies

#### Policy

ICTC's planning of product realization is consistent with the other processes of the quality management system. In planning product realization ICTC will determine that which is appropriate to:

1. The quality objectives and requirements for the product.
2. The establishment of processes, documents and resource provision specific to the product.
3. Verification, validation, monitoring, inspection and test activities, as well as acceptance criteria specific to the product.
4. Records to provide evidence that the processes and resulting product meet requirements.

Manufacturing processes are planned and controlled through:

1. Documented Quality Plans, defining the manner in which processes are performed to ensure that quality objectives and requirements for the product are met (*Reference 7.5.1[b]*).
2. Suitable equipment and appropriate environmental conditions (*Reference 6.3, 6.4, 7.5.1[c]*).

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3. Compliance with reference standards/codes, and/or other applicable documented procedures.
4. Monitoring of process and product characteristics during manufacturing (*Reference 7.5.1[a]*).
5. Appropriate evaluation and approval of processes and equipment.
6. Clearly defined product acceptance criteria.
7. Suitable maintenance of equipment to ensure continuing process capability.

All processes and manufacturing steps shall be carried out as defined in the Quality Plans. While engineering and management are responsible for planning quality into ICTC's products by ensuring that adequate materials and resources are available, manufacturing personnel are responsible for the quality of their own work. To ensure the processes are conducted in accordance with Customers' specifications, a Quality Plan and Traveler support each process step. The quality of the product and control of the process are further supported by final functional testing of ICTC's products.

Any procedure, policy, practice or process may be suspended or waived, at the discretion of management or a consensus of management, for the sake of the advancement of, or for the prevention of detriment to the Company, in the event no such suspension or waiver of procedure, policy, practice or process results in harm or loss to the Customer, compromises product quality or is in direct violation of any standards to which ICTC subscribes.

## **7.2 Customer-related Processes**

### **7.2.1 Determination of Requirements Related to the Product**

ICTC shall determine:

1. Requirements specified by the Customer, including delivery and post-delivery activities.
2. Requirements not stated by the Customer, but necessary for intended use, where known.
3. Statutory and regulatory requirements related to the product.
4. Additional requirements determined by ICTC.

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### Associated Documents

OP-002 - Customer Focus/Requirement Review  
WI-PPO-001 - Work Instruction: Processing Purchase Orders

Contract Change Form  
Sales Order  
Customer Call-in Sheet  
Quote Form(s)

### Review of Requirements Related to the Product

ICTC conducts reviews of requirements related to the product prior to the organization's commitment to supply a product and ensures that:

1. Product requirements are defined.
  2. Contract or order requirements differing from those previously expressed are resolved.
  3. ICTC has the ability to meet the defined requirements.
- Initial contract/requirement reviews are conducted by the President, or a designated alternate, and documented by the Customer Support Team. Initial reviews shall provide the Customer's design input, product price, quantity, and delivery schedules (*Reference 7.2.3*). As a minimum, this review shall ensure:

1. Accurate understanding and capability of meeting all of the Customer's requirements. Any differences are to be resolved prior to the acceptance of the Purchase Order.
2. That each Purchase Order is reviewed to ensure all of the Customer's requirements are met prior to processing the order.

Arrangements are maintained for communicating with Customers in regard to product information, order handling and feedback, including Customer complaints.

All contract amendments or changes shall be documented through a Contract Change Form (*Reference 7.2.2*).

Records of these reviews shall be maintained by the Customer Support personnel (*Reference 4.2.4*).

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## Customer Communication

ICTC establishes and implements effective arrangements for communication with Customers in relation to:

1. Product information.
2. Enquiries, contracts or order handling (including amendments).
3. Customer feedback (including Customer complaints).

### Associated Documents

OP-002	- Customer Focus/Requirement Review
OP-008	- Control of Nonconforming Product
WI-RMA-001	- Work Instruction: Returned Material Authorization
Contract Change Form	
Sales Order	
Customer Call-in Sheet	
Quote Form(s)	

## 7.3 Design & Development (Excluded)

### Associated Documents

ISO 9001:2000 - Section 1.2, 7.3.2, 7.3.4, 7.3.5, 7.3.6, 7.3.7

### General

This requirement of the Standard does not apply to ICTC due to the nature of the organization and its exclusion has no affect on ICTC's ability, or responsibility, to provide product that meets the customers' requirements

### Justification for Exclusion

ICTC's customers plan and control the design and development of their products manufactured by ICTC. Inputs relating to product requirements are the province of ICTC's customers. The outputs of design and development are the province of ICTC's customers. ICTC's customers perform reviews of design and development and communicate the results to ICTC. ICTC's customers perform all design and development verifications. Typically, design and development validation is performed by the customer prior to ICTC's involvement toward product realization and completed by the customer prior to implementation of the product. Design and

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development changes are the province of ICTC's customers. The provisions of section 7.3 of the Standard are outside the purview of ICTC.

## **7.4 Purchasing**

### **7.4.1 Purchasing Process**

It is the policy of ICTC to purchase goods and services from approved sources. This approval is established by the customer, from our own assessment of the supplier or from references.

A listing of approved suppliers shall be maintained, reviewed and updated. Continued approval status shall be contingent upon ongoing assessment of delivery, service, and quality performance.

#### **Associated Documents**

OP-004 - Purchasing and Customer Property  
Supplier Questionnaire

### **7.4.2 Purchasing Information**

All Purchase Orders shall be reviewed and authorized prior to release. Purchase Orders shall ensure a clear, unambiguous definition of the goods and/or services required and, where appropriate, include or reference documentation, specifications, and inspection requirements.

### **7.4.3 Verification of Purchased Product**

ICTC has established and implements inspection or other activities necessary to ensure that purchased product meets specified requirements. Where ICTC or the Customer intends to perform verification at the supplier's premises, such arrangements are planned and implemented.

#### **Associated Documents**

OP-004 - Purchasing and Customer Property  
Purchase Order

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## 7.5 Production and Service Provision

### 7.5.1 Control of production and service provision

ICTC's commitment to the Customer is to take immediate corrective action to resolve any defect, functional or cosmetic, in goods produced. ICTC carries out production processes under controlled conditions which include:

1. The availability of information that describes the required characteristics of the product.
2. The use of Work Instructions, defining the manner in which processes are performed to ensure that quality objectives and requirements for the product are met.
3. The implementation of product and process conformance measurement activities.
4. The use of suitable equipment, including monitoring and measuring devices.
5. The implementation of product release, delivery and post delivery activities.

#### Associated Documents

OP-006	- Control of Product Realization
OP-007	- Control of Monitoring and Measuring Devices
OP-014	- Measurement, Analysis and Improvement
WI-GEN-001	- General Work Instruction
IPC/WHMA-A-620	- Requirements and Acceptance for Cable and Wire Harness Assemblies

### 7.5.2 Validation of Processes for Production and Service Provision (Excluded)

ICTC recognizes the need for validation of processes where the resulting output cannot be verified by subsequent monitoring and measurement. This includes processes where deficiencies become apparent only after the product is in use or the service has been delivered. Exclusion is justified in that due to the nature of the organization, there are no processes involved in product or service realization at this time that cannot be verified through subsequent monitoring or measurement. This exclusion has no affect on the organization's ability, or responsibility, to provide product that meets the Customers' requirements.

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### Associated Documents

ISO 9001:2000 - Section 1.2, 7.5.2

### 7.5.3 Identification and Traceability

Where appropriate, ICTC identifies the product by suitable means throughout product realization. The organization also identifies product status with regard to monitoring and measurement requirements. Where traceability is a specified requirement, ICTC controls and records the unique identification of the product (*Reference 4.2.4*).

### Associated Documents

OP-004 - Purchasing and Customer Property  
 OP-005 - Identification and Traceability  
 WI-GEN-001 - General Work Instruction

Where traceability is a specified requirement, individual product or lots will be uniquely identified to satisfy said requirement.

### 7.5.4 Customer Property

ICTC exercises all due care with Customer property while it is in use or under the control of the organization. ICTC identifies, verifies, protects and safeguards Customer property provided for use or incorporation into the product. Should Customer property become lost, damaged or otherwise be found unsuitable for use, it is reported to the Customer and records maintained (*Reference 4.2.4*).

NOTE: Customer property can include intellectual property.

### Associated Documents

OP-004 - Purchasing and Customer Property  
 OP-009 - Preservation of Product  
 WI-GEN-001 - General Work Instruction

### 7.5.5 Preservation of Product

ICTC preserves the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage

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and protection. Preservation also applies to the constituent parts of a product.

### **Associated Documents**

OP-010 - Preservation of Product  
WI-GEN-001 - General Work Instruction

## **7.6 Control of Monitoring and Measuring Devices**

ICTC determines the monitoring and measurement to be undertaken and the monitoring and measurement devices needed to provide evidence of conformity to requirements (*Reference 7.2.1*). ICTC has established processes to ensure that monitoring and measurement can be, and is carried out in a manner consistent with requirements. Where necessary to ensure valid results, measuring equipment is:

1. Calibrated or verified at specified intervals, or prior to use, against standards traceable to national or international measurement standards; where no such standard exists, the basis used for calibration or verification is recorded.
2. Adjusted or re-adjusted as necessary
3. Identified to enable calibration status to be determined.
4. Safeguarded from adjustments that would invalidate the measurement result.
5. Protected from damage and deterioration during handling, maintenance or storage.

Additionally, ICTC assesses and records the validity of previous measuring results when the equipment is found not to conform to requirements. ICTC takes appropriate action on equipment and product affected. Records of calibration and verification results are maintained.

When used in monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended requirements is confirmed prior to initial use and reconfirmed as necessary.

### **Associated Documents**

OP-007 - Control of Monitoring and Measurement Devices  
- Maintenance Records  
- Calibration Certificates

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## **8.0 Measurement Analysis and Improvement**

### **8.1 General**

ICTC plans and implements the monitoring, measurement, analysis and improvement processes needed to:

1. Demonstrate conformity of the product.
2. Ensure conformity of the quality management system.
3. Continually improve the effectiveness of the quality management system.

#### **Associated Documents**

OP-014 - Measurement, Analysis and Improvement

### **8.2 Monitoring and Measurement**

#### **8.2.1 Customer Satisfaction**

As one of the measurements of the quality management system, ICTC monitors information relating to Customer perception as to whether the organization has met Customer requirements. Methods for obtaining this information are determined.

#### **Associated Documents**

OP-002 - Customer Focus/Requirement Review  
WI-RMA-001 - Returned Material Work Instruction  
- Customer Satisfaction Questionnaire

#### **8.2.2 Internal Audits**

ICTC conducts internal audits at planned intervals to determine if the quality management system is:

1. Conforming to planned arrangements, to the requirements of ISO 9001:2000 and to quality management system requirements established by the organization.
2. Effectively implemented and maintained.

An audit program has been planned taking into consideration the status and importance of the processes and areas to be audited, as well as previous audit results. Auditor selection and the conduct of audits are planned to ensure objectivity and

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impartiality. Auditors do not audit their own work. The responsibilities and requirements for planning and conducting audits and for reporting and maintenance of records are defined in a documented procedure. The management responsible for the area under audit will ensure that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken, their effectiveness and the reporting of results.

### **Associated Documents**

OP-001 - Management Review  
OP-012 - Internal Audits

### **8.2.3 Monitoring and Measurement of Process**

ICTC applies suitable methods for the monitoring and, where applicable, measurement of the quality management system process. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken, as appropriate, to ensure conformity of the product.

### **8.2.4 Monitoring and Measurement of Product**

ICTC monitors and measures the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with planned arrangements (*Reference 7.1*). Evidence of conformity with acceptance criteria and records indicating the person(s) authorizing the release of product are maintained (*Reference 4.2.4*). Product release and service delivery does not proceed until the planned arrangements (*Reference 7.1*) have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the Customer.

### **Associated Documents**

OP-006 - Control of Product Realization  
OP-008 - Control of Nonconforming Product  
OP-009 - Corrective and Preventive Action  
OP-014 - Measurement, Analysis and Improvement  
WI-GEN-001 - General Work Instruction  
Quality Plan  
Manufacturing Traveler

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### 8.3 Control of Nonconforming Product

ICTC ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming products are defined in a documented procedure. ICTC deals with nonconforming product by:

1. Taking action to eliminate the detected nonconformity.
  2. Authorization of its use, release or acceptance under concession by a relevant authority and, where applicable, by the Customer.
  3. Taking action to preclude its original intended use or application.
- Records of the nature of nonconformities are maintained (*Reference 4.2.4*). When nonconforming product is corrected, it is subject to re-verification to demonstrate conformity to requirements. When nonconforming product is detected after delivery or use has started, ICTC takes action appropriate to the effects, or potential effects, of the nonconformity.

#### Associated Documents

- |                |  |
|----------------|--|
| OP-008         | - Control of Nonconforming Product                                     |
| OP-009         | - Corrective and Preventive Action                                     |
| WI-MRB-001     | - Material Review Board Instruction                                    |
| WI-RMA-001     | - Returned Material Instruction  |
| IPC/WHMA-A-620 | - Requirements and Acceptability for Cable and Wire Harness Assemblies |

### 8.4 Analysis of Data

ICTC determines, collects and analyzes data to demonstrate the suitability and effectiveness of the quality management system, and to evaluate where continuous improvement to the system can be made. This includes data generated as a result of monitoring and measurement, as well as other relevant sources. The analysis of this data provides information relevant to:

1. Customer satisfaction (*Reference 8.2.1*).
2. Conformity to product requirements (*Reference 7.2.1*).
3. Characteristics and trends of process and products, including opportunities for preventive action, and suppliers.

#### Associated Documents

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OP-001	- Management Review
OP-006	- Control of Product Realization
OP-012	- Internal Audits
OP-014	- Measurement, Analysis and Improvement
WI-MRB-001	- Material Review Board Instruction

## 8.5 Improvement

### 8.5.1 Continual Improvement

ICTC continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective actions, preventive actions and management reviews.

### 8.5.2 Corrective Action

ICTC takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered. A documented procedure is established defining requirements for:

1. Reviewing nonconformities (including Customer complaints).
2. Determining the cause of nonconformities.
3. Evaluating the need for action to ensure that nonconformities do not occur.
4. Determining and implementing action needed.
5. Records of the results of action taken (*Reference 4.2.4*).
6. Reviewing corrective action taken.

### Associated Documents

OP-001	- Management Review
OP-009	- Corrective and Preventive Action
OP-008	- Control of Nonconforming Product
IPC/WHMA-A-620	- Requirements and Acceptance for Cable and Wire Harness Assemblies

### 8.5.3 Preventive Action

ICTC determines actions to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems. Documented procedures are established to define requirements for:

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1. Determining potential nonconformities and their causes.
2. Evaluating the need for action to prevent occurrence of nonconformities.
3. Determining and implementing action needed.
4. Records of results of actions taken.
5. Reviewing preventive action taken.  
(Reference 4.1, 5.3, 5.4, 5.6, 7.1, 7.2.1, 7.2.2, 8.1, 8.2.2, 8.2.3, 8.2.4, 8.4, 8.5.1)

### **Associated Documents**

- OP-001 - Management Review
- OP-006 - Control of Product Realization
- OP-008 - Control of Nonconforming Product
- OP-009 - Corrective and Preventive Action
- OP-013 - Competence, Awareness and Training
- IPC/WHMA-A-620 - Requirements and Acceptance for Cable and Wire Harness Assemblies

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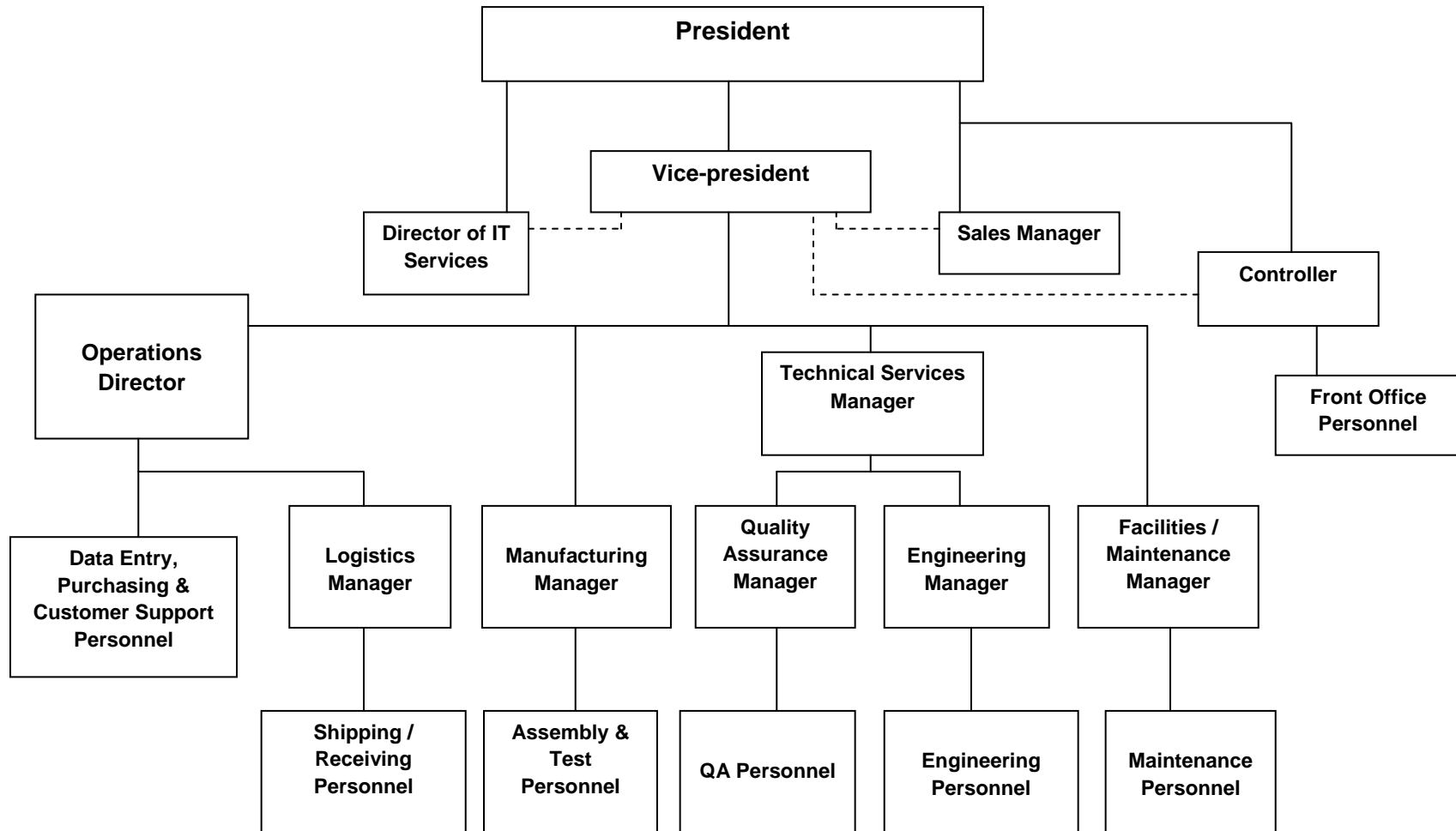
i - Appendix # 1

## Operating Procedures Index

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OP-011 .....	Control of Records
OP-012 .....	Internal Audits
OP-013 .....	Competence, Awareness and Training
OP-014 .....	Measurement, Analysis and Improvement



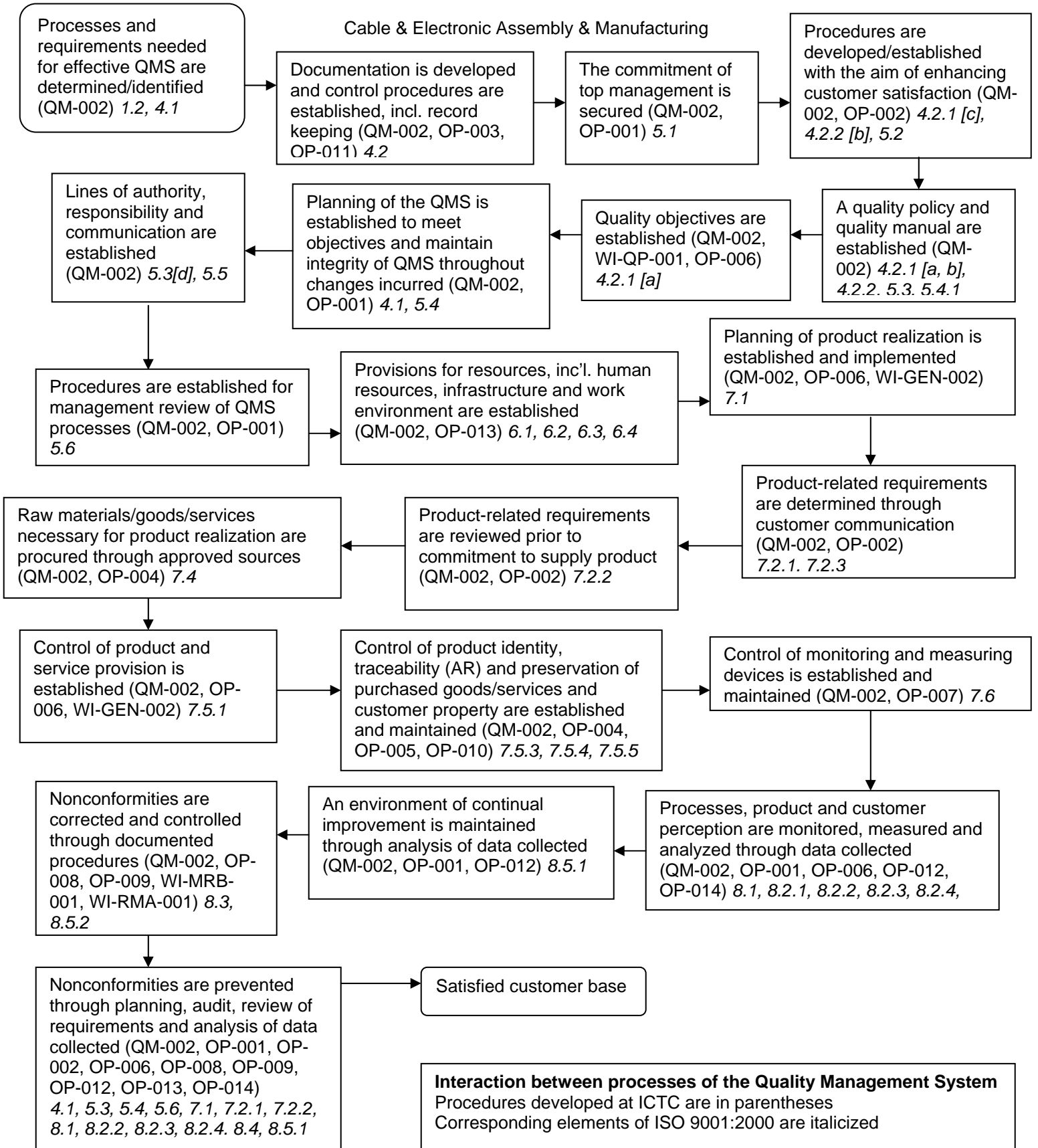
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**Interaction between processes of the Quality Management System**  
 Procedures developed at ICTC are in parentheses  
 Corresponding elements of ISO 9001:2000 are italicized

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