

**REPAIR STATION MANUAL  
FOR  
FAA APPROVED REPAIR STATION NO. KE7R393J**

Prepared for:  
Federal Aviation Administration (FAA)

Prepared by:  
Esterline Control and Communication Systems - Korry Electronics Co.  
11910 Beverly Park Road  
Everett, WA 98204

<http://www.korry.com>  
CAGE 81590

**NOTICE - FREEDOM OF INFORMATION ACT (5 USC 552)  
AND DISCLOSURE OF CONFIDENTIAL INFORMATION GENERALLY (18 USC 1905)**

This document contains Korry proprietary information that is exempt from disclosure under the Freedom of Information Act, 5 USC 552(b)(4), and contains information that is prohibited from disclosure by the Trade Secrets Act, 18 USC 1905.

**Proprietary Notice:** This document and all information and expression contained herein are the property of Korry Electronics Co. This document contains trade secrets protected by the Uniform Trade Secrets Act and the Economic Espionage Act of 1996, 18 USC 1831, et. seq., which are disclosed to you in confidence. Neither this document nor the trade secrets disclosed herein may be used, reproduced or disclosed (in whole or in part) by you for any purpose without the prior written permission of Korry Electronics Co.

RECORD OF REVIEW AND HISTORY

REV	DESCRIPTION	APPROVED	
		DATE	BY
-	New Release. Supersedes Repair Station Manual, PO520001 Rev. 08/10/2012. Per ECO0119662.	22 May 2013	JHL
A	Revisions required to incorporate additional rating of Instrument, change in accountable manager role, and other minor updates, per ECO0140323.	28 Nov 2016	JPC
B	Added Section 25.2 describing the use of noncertificated persons for subcontracted maintenance work. Added Section 36 to address paperwork processing for major repairs. Added Section 37 to address inspection and tagging of replacement parts received in the repair station without an 8130-3 tag. Added Section 38 to provide reference information regarding electronic recordkeeping. Updated Accountable Manager to President role. See ECO0142532.	21 Aug 2017	JPC
<u>C</u>	<u>Added Section 39 describing the procedures for maintaining and submitting a capability list document. Adjusted numerous paragraph layouts for consistent spacing and format. Updated document list to add new and remove obsolete references. Revised Section 3 to reflect current process and document references. Revised Organizational Chart and added the role of Environmental Health &amp; Safety Manager at various locations. Revised Section 34.2 and Example 3 to reflect new Korry system format for teardown reports. Other minor language edits and clarifications. See ECO0146907.</u>	<u>01 Jun 2018</u>	<u>JPC</u>

See separate ECO for revision approvals.

Initiated by Lada Hekala, Lead Auditor Quality Assurance 2013-05-22

**NOTE:** Most recent changes are underlined. The revised manual with identified changes will be submitted to the FAA for review via a method acceptable to the FAA.

TABLE OF CONTENTS

1. CERTIFICATE..... 7

2. APPLICABLE DOCUMENTS ..... 8

    2.1 Government Documents..... 8

    2.2 Non-Government Documents ..... 8

    2.3 Other Documents, Drawings, and Publications..... 8

    2.4 Order of Precedence ..... 8

3. REVISION CONTROL OF RSM..... 9

4. ORGANIZATIONAL CHART ..... 10

5. RESPONSIBILITIES ..... 11

6. SECTION IDENTIFICATION AND CONTROL..... 12

    6.1 Section Names, Section Title, and Page Numbers ..... 12

    6.2 Pages and Document – Changes/Revision Dates..... 12

    6.3 Revising RSM..... 12

    6.4 Submitting Changes to the FAA..... 12

7. RSM LOCATION ..... 13

8. INTRODUCTION..... 14

9. HOUSING AND FACILITIES..... 15

10. ROSTER ..... 16

11. DUTIES AND RESPONSIBILITIES..... 17

12. TRAINING ..... 21

13. INSPECTION ..... 23

    13.1 Inspection System - General..... 23

    13.2 Inspection Personnel ..... 23

    13.3 Inspectors, Mechanics, and Supervisors ..... 23

    13.4 Parts Receiving Policy ..... 24

14. JOB ORDER AND TEARDOWN REPORT ..... 25

    14.1 Record of Work..... 26

15. PRELIMINARY INSPECTION ..... 27

16. INSPECTION FOR HIDDEN DAMAGE..... 28

17. PROGRESSIVE INSPECTION ..... 29

18. MAINTENANCE INSPECTION ..... 30

19. HANDLING OF PARTS..... 31

20. SHELF LIFE ..... 32

21. TECHNICAL DATA .....	33
22. HARDWARE AND EQUIPMENT STORAGE .....	34
23. RECORD OF INSPECTIONS.....	35
24. RECORD OF TESTS AND CALIBRATION OF PRECISION EQUIPMENT .....	36
25. WORK BY OUTSIDE CONTRACTORS.....	37
25.1 General.....	37
25.2 Noncertificated Persons.....	37
26. CONTROL OF PRECISION TOOLS AND TEST EQUIPMENT .....	39
27. TEST EQUIPMENT CALIBRATION REQUIREMENTS .....	40
28. FINAL INSPECTION AND RELEASE TO SERVICE.....	41
29. SERVICE DIFFICULTY REPORT .....	42
30. MECHANICAL RELIABILITY REPORTS .....	43
31. RESPONSIBILITY FOR SUBMITTING REPORTS .....	44
32. PERFORMANCE OF MAINTENANCE, PREVENTIVE MAINTENANCE, ALTERATIONS & REQUIRED INSPECTION UNDER THE CONTINUOUS AIRWORTHINESS REQUIREMENTS OF FAA 14 CFR PARTS 121, 125, 129, AND 135 .....	45
33. PERFORMANCE OF MAINTENANCE AT A LOCATION OTHER THAN THE REPAIR STATION .....	46
34. CUSTOMER/JOB ORDER, TEARDOWN REPORT, AND FAA FORM 8130-3 WITH METHOD OF EXECUTION.....	47
34.1 Customer/Job Order .....	47
34.2 Teardown.....	47
34.3 FAA Form 8130-3 .....	47
34.4 Records .....	47
35. TAKING CORRECTIVE ACTION ON DISCREPANCIES .....	49
36. REQUIREMENTS FOR PROCESSING MAJOR REPAIRS.....	50
37. USE OF REPLACEMENT PARTS RECEIVED WITH NO AUTHORIZED RELEASE CERTIFICATE (FAA FORM 8130-3 OR EASA FORM 1) .....	51
37.1 Process Requirements .....	51
37.2 Training Requirements .....	51
38. USE OF ELECTRONIC RECORDKEEPING .....	53
38.1 General Control of Electronic Records .....	53
38.2 Specific Aspects of Electronic Record Control.....	53
38.2.1 Language .....	53
38.2.2 Availability .....	53
38.2.3 Training .....	53
38.2.4 Completeness and Accuracy.....	53

38.2.5 Password Duplication..... 53  
 38.2.6 Auditing ..... 54  
 38.2.7 Preserving Data ..... 54  
 38.2.8 FAA Acceptance of Changes ..... 54  
 39. CAPABILITY LIST ..... 55  
     39.1 General Discussion..... 55  
     39.2 Transfer From OpSpecs ..... 55  
     39.3 Placing Articles on the Capability List ..... 55  
     39.4 Document Revisions..... 55  
         39.4.1 Method ..... 55  
         39.4.2 Approval..... 55  
         39.4.3 FAA Acceptance ..... 56  
     39.5 Access by Repair Station Personnel..... 56  
     39.6 Self-Evaluation..... 56  
         39.6.1 Method and Frequency ..... 56  
         39.6.2 Self-Evaluation Form..... 56  
         39.6.3 Qualified Evaluators ..... 56  
         39.6.4 Manager Review and Action ..... 57  
 40. EXAMPLE 1 – CUSTOMER/JOB ORDER (CUSTOMER INFORMATION) ..... 58  
 41. EXAMPLE 2 – CUSTOMER/JOB ORDER (ROUTING OPERATION AND BUYOFF)..... 59  
 42. EXAMPLE 3 – TEARDOWN REPORT (PAGE 1) ..... 60  
 43. EXAMPLE 4 –FAA FORM 8130-3 (DOMESTIC AIRWORTHINESS TAG)..... 62

LIST OF FIGURES

Figure 1. Korry Electronics Co. FAA Repair Station Organizational Chart ..... 10

## 1. CERTIFICATE

Korry's Federal Aviation Administration (FAA) Repair Station Certificate and Operations Specifications are located on-line at <http://www.esterline.com/controlsystems/KORRY/> and on Korry's internal Quality Management System (QMS) Website.

Korry's certificate or rating is effective from the date of issue until surrendered or the FAA suspends or revokes it.

Korry must apply for a change to its certificate in a format acceptable to the FAA if:

- (1) The location of the repair station changes, or
- (2) Requests to add or amend a rating.

If Korry sells or transfers its assets, the new owner must apply for an amended certificate.

## 2. APPLICABLE DOCUMENTS

### 2.1 Government Documents

14 CFR 145	Repair Stations
14 CFR 43	Maintenance, Preventive Maintenance, Rebuilding, and Alteration
14 CFR 65	Certification: Airmen Other Than Flight Crewmembers
<u>N 8900.429</u>	<u>Maintenance Annex Guidance, Change 6, Requirements for FAA Form 8130-3, "Authorized Release Certificate," for New Parts Not Having the EASA-Required Documentation</u>

### 2.2 Non-Government Documents

The following documents form a part of this document to the extent specified herein.

AS9100C	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations
---------	---

### 2.3 Other Documents, Drawings, and Publications

KORRY ELECTRONICS CO.

	Operations Specifications
46902	Quality Manual
33924	<u>Standard Configuration Management Plan</u>
49620	<u>Enterprise Change Process</u>
49887-001	<u>Capability List</u>
49628-011	<u>Self-Evaluation Form</u>
49628	Record Control Plan
49631	Corrective Action Procedure
49682	Audits Procedure
49817	FAA Repair Station Training Program – Policy
<u>50274</u>	ESD Handling Procedure
3.300	General Calibration Procedure for Measurement and Test Equipment
53594	Supplier Auditing
IT04	Access Control
IT23	Backup and Restore

### 2.4 Order of Precedence

With the exception of government regulations, in the event of a conflict between this document and the references cited herein, this document takes precedence.



### **3. REVISION CONTROL OF RSM**

The Repair Station Manual (RSM) will be reviewed annually to assess necessary changes. Changes will be reviewed/accepted by the President (Accountable Manager) and the Product Support Manager.

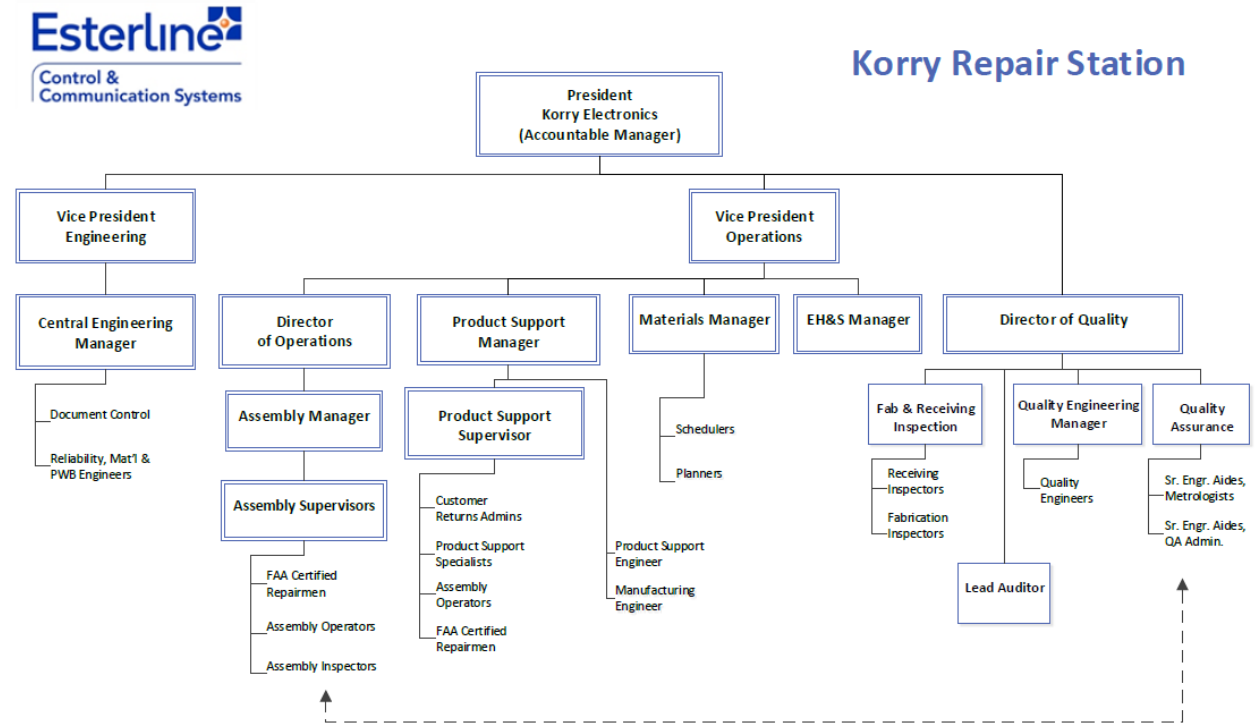
The revised RSM will be submitted for FAA acceptance through a submittal method acceptable to the FAA, in accordance with the Standard Configuration Management Plan, 33924.

The changes will be implemented in the Repair Station after official release of approved RSM in the Product Lifecycle Management (PLM) system.

When needed, the Repair Station Manual is revised to support the FAA repair station process. Changes are reviewed and documented per the Enterprise Change Order (ECO) process in accordance with the Standard Configuration Management Plan, 33924. ECO records are kept in the PLM system, including the review by the Director of Quality. Changes to the RSM are submitted for approval based on the level of the impact of the change that is being done prior to incorporation. All changes require review and signoff per ECO process including acceptance by the FAA Flight Standards District Office (FSDO).

#### 4. ORGANIZATIONAL CHART

Korry's FAA Repair Station Organizational Chart is shown below.



Dotted line relationships between Assembly Inspectors and the Quality Assurance group represent oversight regarding quality policies, processes, and procedures independent of the direct, functional reporting structure.

Figure 1. Korry Electronics Co. FAA Repair Station Organizational Chart

## **5. RESPONSIBILITIES**

The President (Accountable Manger) and the Product Support Manager maintain this Repair Station Manual (RSM) and are responsible for the implementation of the requirements of this document.

## **6. SECTION IDENTIFICATION AND CONTROL**

### **6.1 Section Names, Section Title, and Page Numbers**

The Table of Contents in this document identifies the section names as subjects, the subject titles, and the page number that the subject starts on. The page numbers are identified in the footer section of each page. The page numbers of the whole document are identified in the footer section of each page in a Page X of Y format.

### **6.2 Pages and Document – Changes/Revision Dates**

The pages within this document are not treated as individual pages and are not given individual page revisions or names. The pages are combined to make up this one whole document. The revision of this document is Rev. (dash, A,B, C ... X) and a date format of DD MMM YYYY for identifying the day, month, year. The revision history is documented in the Record of Review and History section. The current revision date is identified in both the Record of Review and History section and in the top of each page. For example, if a change is done on page four of the document, the revision date in the top right corner is changed on all of the pages and a summary of the change is stated in the Record of Review and History section of this document.

### **6.3 Revising RSM**

See section 3 of this RSM

### **6.4 Submitting Changes to the FAA**

See section 3 of this RSM

## **7. RSM LOCATION**

Korry's Repair Station Manual is referenced in Korry's Quality Management System webpage and located in the PLM database. All Korry personnel will have access to this manual via computer.

A hardcopy of this Repair Station Manual and the applicable Quality Control Procedures will be provided to the FAA Flight Standards District Offices (FSDO).

## 8. INTRODUCTION

This inspection procedures repair station manual (RSM) has been prepared in accordance with the current FAA 14 Code of Federal Regulations (CFR) and the policies of Korry Electronics Co.

This manual explains the internal inspection system in detail, excluding the continuity of inspection responsibility due a) one shift only and b) no split on inspection (if the job could not be completed by the first inspector, a second inspector would re-inspect the entire job). It gives samples of inspection forms used and the method of execution. The manual gives a detailed explanation of the following portions of the inspection system: incoming materials, preliminary inspection, hidden damage, inspection continuity, and final inspection of the article being maintained or altered at this facility.

The general repair, overhaul or alteration of products will be performed in accordance with the current Federal Aviation Regulations, manufacturer's data, drawings, specifications and bulletins, or other approved technical data for Korry Products. The Limited Accessory or Instrument rating activities for Korry Products will be performed in accordance with the procedures outlined in the Korry Electronics Quality Management System latest revision approved by the Federal Aviation Administration (FAA) Seattle Flight Standards District Office (Seattle FSDO).

This repair station will not maintain or alter any item for which it is not rated (in its FAA Operations Specifications located in its Lobby), and will not maintain or alter any article for which it is rated if it requires technical data, equipment, Materials, facilities or trained personnel that are not available.

Each supervisor and inspector working for this repair station will have access to a current copy of this manual and should thoroughly understand its contents. It will also be available to other repair station personnel.

The performance of any maintenance, preventive maintenance, alteration or required inspections for an air carrier or commercial operator having a continuous airworthiness program under FAA 14 CFR Part 121, Part 125 operator inspection program, or 135, will be performed in accordance with the requirements of FAA 14 CFR Part 145.

FAA definition of the following terms can be found in FAA AC 145-9:

(a) Accountable Manager, (b) Article, (c) Directly in Charge, and (d) Line Maintenance.

## 9. HOUSING AND FACILITIES

Korry's Repair Station is co-located with its manufacturing facility at 11910 Beverly Park Road, Everett, WA 98204 USA. This facility has one building consisting of 216,000 square feet suitable for manufacture and repair of all Korry products.

The repair station existence within the manufacturing facility enables the repair station to work effectively. As a manufacturer, Korry has both fabrication and assembly functions. The fabricated components are assembled into product by assemblers and inspected by assembly inspectors.

If product is returned, any needed repairs, and assembly inspection functions are done either within the Product Support department or within the same manufacturing department that produced that product initially. These interactions make the assembly function essential to the effective processing of a returned product. The returned product is then submitted to Korry manufacturing FAA Certified Repairmen personnel for the return to service function.

When the Korry manufacturing FAA Certified Repairmen personnel perform their return to service duties, the repairmen are performing an a FAA function. However, when the repairmen are not performing the FAA function, they are performing Korry manufacturing functions.

## 10. ROSTER

The Environmental Health & Safety Manager maintains a database roster that is located on the Korry electronic network. The roster includes the authorized Certified Repairmen for the return to service of product. The hiring date and current position information are kept on the Korry network. This roster also contains the names of the managers / supervisors who oversee the repair station maintenance functions and the Certified Repairmen.

The roster also lists other information such as repairman certificate number for reference.

Within five (5) business days of when the status of the employee is changed, the Environmental Health & Safety Manager updates the roster. Status changes may be, but are not limited to, termination, reassignment, change in duties or scope of assignment, record of drug and alcohol program test dates, or addition of personnel.

Employment Summaries of experience prior to joining Korry are recorded on the roster; the employee's résumé is kept by Human Resources in the employee's file and used as a reference. The employee's different positions held at Korry are kept in the HR database. Copies will be provided to the FAA while on-site or upon specific request. These summaries include the title, total years of experience and the type of work performed, past relevant employers and periods of employment, scope of present employment, and the type of certificate held with its ratings identified, if applicable.



## **11. DUTIES AND RESPONSIBILITIES**

The following is the list of duties that are applicable to Korry's FAA Certified Repair Station only. For a complete list of duties, see Job Description duties listed in the Korry Human Resources Database.

**President (Accountable Manager):** Leader of the Organization. The President has overall responsibility for the operation of Korry Electronics. This includes a top level delegation of duties to qualified persons. This top level delegation of duties does not relieve the President of the overall responsibility. Responsibilities include FAA liaison (Accountable Manager), FAA Repair Station Manual, FAA Repairman certification, and Operations Specifications.

**Director of Quality:** Reports to the President. Responsible for assuring the integrity of the organization's quality system. Notifies customers and regulatory bodies of product escapes. Manages Quality Manual, related procedures, inspection stamps, inspection standards, inspector training, corrective actions, material review boards, and calibration. Responsible for the Calibration and Scrap Program. Back-up for Internal, customer and regulatory audits.

**Lead Auditor:** Reports to the Director of Quality. Responsible for the Audit Program including internal, customer, and regulatory audits. Back-up for the Quality Manual and related procedures, corrective actions.

**Product Support Manager:** Reports through the Vice President of Operations to the President. Oversees administration of customer return job orders, including contract review and negotiation with customers. This function has multiple duties which include the handling of quotes, orders and customer interface and the handling of the materials. Manages the repair activity that is repaired in Product Support area. This includes: FAA "Directly in Charge" overseeing operators and inspection activities on returned products, including FAA Certified Repairmen, Inspectors, and Operators. Responsible for training of their personnel. Responsible for annual review of RSM, Operations Specifications and related procedures.

**Product Support Supervisor:** Reports to the Product Support Manager. Supervises the repair activity that is repaired in Product Support area: FAA "Directly in Charge" overseeing operators and inspection activities on returned products, including FAA Certified Repairmen, Inspectors, and Operators.

**Customer Returns Administrator (CRA):** Reports to the Product Support Supervisor. Responsibilities include issuing return material authorization (RMA) numbers, creating return customer orders, maintaining status of return product, determining cost and lead-time of repair, submitting quotes to customers for approval, and fielding returns questions from customers.

**Product Support Specialist (PSS):** Reports to the Product Support Supervisor. Responsibilities are to perform analysis on all return products to determine as-received condition, manufacturing findings, direct cause of failure, assignment of corrective action (if required), repair action on unit, and final acceptance test procedure (ATP)

testing required on repaired unit, depending on the repair manual in use. The PSS documents findings in the teardown database.

**Product Support Engineer (PSE):** Reports to the Product Support Manager. Responsibilities are to provide technical assistance for both Korry internal and customer questions regarding issues in returned articles, provide guidance and assistance to Product Support Specialists as needed in the preparation of teardown reports and other PSS responsibilities, and provide guidance and assistance to Customer Returns Administrators as needed when resolution of technical issues helps to facilitate CRA responsibilities.

**Operations Engineering Manager:** Reports to the Vice President of Operations. Responsibilities are: manages Engineering and back-up Manufacturing Engineering functions and related procedures.

**Quality Engineering Manager:** Reports to the Operations Engineering Manager. Manages Quality Engineering and Supplier Quality Engineering functions and related procedures.

**Quality Engineer:** Reports to the Quality Engineering Manager. Back-up for Quality Engineering and Supplier Quality Engineering functions and related procedures.

**Quality Assurance: Sr. Engineering Aide, QA Administration:** Reports to the Director of Quality. Administers Corrective Actions. Back-up for the Scrap Program.

**Quality Assurance: Sr. Engineering Aide, Metrologist:** Reports to the Director of Quality. Administers and maintains calibration records. Calibrates equipment. Back-up for the Calibration Program.

**Receiving and Fabrication Inspection:** Reports to the Director of Quality. Receiving Inspectors and Fabrication Inspectors inspect product per FAA approved data.

**Receiving Inspector:** Reports to the Director of Quality. The inspector will signify acceptance of work performed by stamping the appropriate section on the job order or inspection form along with the date the work is accepted. As applicable, log book entries, inspection forms, and FAA forms are stamped or signed using their name and in ink by the inspector completing the inspection. Inspectors must not inspect their own workmanship. Inspectors must pass a test administered by Quality before they are issued their inspection stamp. The Director of Quality or Sr. Engineering Aides can pull an Inspector's stamp for violations of Korry's inspection procedures.

**Fabrication Inspector:** Reports to the Director of Quality. The inspector will signify acceptance of work performed by stamping the appropriate section on the job order or inspection form along with the date the work is accepted. As applicable, log book entries, inspection forms, and FAA forms are stamped or signed using their name and in ink by the inspector completing the inspection. Inspectors must not inspect their own workmanship. Inspectors must pass a test administered by Quality before they are issued their inspection stamp. The Director of Quality or Sr. Engineering Aides can pull an Inspector's stamp for violations of Korry's inspection procedures.

**Assembly Manager (Directly in Charge – Lead Certified Repairmen and Assembly Supervisor):** Reports to the Vice President of Operations. Manage the Assembly areas, FAA (Lead) Certified Repairmen, FAA “Directly in Charge” overseeing operators and inspection activities on returned products in assembly areas, including FAA Certified Repairmen, Inspectors, and Operators. Responsible for training of their personnel.

**Assembly Supervisors:** Report to the Assembly Manager. Supervises the assembly area, FAA (Lead) Certified Repairmen, “Directly in Charge” of overseeing operators, and inspection activities in assembly areas, including FAA Certified Repairman, Inspectors, and Operators. Responsible for training of their personnel. Back-up for the Shelf Life Program.

**FAA Certified Repairmen:** Reports to the Product Support Manager, Product Support Supervisor, Assembly Manager, or Assembly Supervisor. Responsible for official “Return to Service” from Repair Station.

**Assembly Operators:** Reports to the Assembly Supervisor or Product Support Supervisor. Assembly operators assemble Korry products using approved documents and procedures.

**Assembly Inspectors:** Reports to the Assembly Supervisor and via a dotted line to the Director of Quality. Inspect product per FAA Approved Data. The Inspector will signify acceptance of work performed by stamping the appropriate box on the job order or inspection form along with the date the work is accepted. As applicable log book entries, inspection forms, and FAA forms must be stamped or signed using their name and in ink by the Inspector completing the inspection. Inspectors must not inspect their own workmanship. Inspectors must pass a test administered by Quality before they are issued their inspection stamp. The Director of Quality or the Sr. Engineering Aides can pull an Inspector’s stamp for violations of Korry’s inspection procedures.

**Materials Manager:** Reports to the Vice President of Operations. Responsible for material planning and scheduling, including Customer Returns. Responsible for the Shelf Life Program.

**Planner:** Administers material planning at Korry, including Customer Returns material movement and job order creation.

**Scheduler:** Administers material schedules at Korry, including Customer Returns.

**Vice President of Engineering:** Reports to the President. Responsible for design and development, product and program management. Back-up for the document control and configuration management.

**Central Engineering Manager:** Reports to the Vice President of Engineering. Responsible for Document Control, configuration management, Reliability and Material Engineering and PWB layout. Responsible for the Technical Data Program.

**Reliability, Materials, and PWB Engineers:** Back-up responsibility for the Technical Data Program.

**Environmental Health & Safety Manager:** Reports through the Vice President of Operations to the President. Responsible for maintenance of the repair station personnel roster.

## 12. TRAINING

The Repair Station Training Program 49817 applies to all personnel who supervise, perform, or verify work that affects the quality of products within the Korry Electronics Repair Station. This Repair Station Training Program includes all personnel under the Korry Electronics Repair Station certificate for Korry Electronics.

The Accountable Manager has the overall authority for Korry's Repair Station training program. Any changes to the training program will be coordinated with the Accountable Manager. Revisions to the Repair Station Training Program are submitted to the FAA FSDO prior to incorporation for approval via mail. In addition to submitting revisions to the FAA FSDO, this is a policy top level document in the Korry Quality Management System and notification of all levels of changes to it are submitted to the FAA Manufacturing Inspection District Office (MIDO) for notification of the FAA-PMA or TSO product affect.

Training of repair station FAA Certified Repairmen, Inspectors, Operators, and other personnel will be accomplished by classroom instruction plus factory and on the job training (OJT) as necessary.

The Repair Station Training Program includes procedures to ensure that Inspection personnel are familiar with the applicable regulations and are proficient at inspecting the articles they are assigned to inspect. Testing, formal training, recurrent training, or a combination of these methods is used to maintain the proficiency of inspection personnel.

- Noncertificated persons who perform maintenance, preventive maintenance, or alterations for the repair station are qualified.
- The noncertificated person follows a QC system equivalent to the system followed by the certificated repair station;
- The certificated repair station remains directly in charge of the work performed by the noncertificated person;
- The certificated repair station verifies, by testing and/or inspecting, that the work has been performed satisfactorily and that the article is Airworthy before approving it for RTS; and
- The noncertificated person's contract allows the FAA to inspect or observe work being performed on any articles for the certificated repair station.

NOTE: The ability to inspect a noncertificated person can only be accomplished while the contract is in force. This requirement does not give ASIs access to non-FAA-certificated facilities if there is no work being performed under contract for a certificated repair station

Classroom training will be accomplished by the Assembly Manager, Certified Repairmen, Director of Quality, & Quality Engineering Manager, or authorized trainer.

Factory training will be scheduled as necessary for personnel to become familiar with new aircraft and aviation products or product improvements.

Current records will be maintained for each employee by the Human Resources (HR) Department. The record will indicate the type of training (detailed), date of completion, and include the name of the instructor that conducted the classroom and on the job training. These records are kept on the training database by HR.

## **13. INSPECTION**

### **13.1 Inspection System - General**

The Assembly Manager (Directly in Charge – Lead Certified Repairmen) and the Product Support Manager are responsible for full compliance with all procedures outlined in this system as appropriate to any item being inspected, repaired, overhauled, or altered by the repair station. The airworthiness of those items and compliance with record requirements of the operators of those items and of the repair station depends upon conformity of the procedures of this system.

Employees are initially chosen for Inspector positions based on their relevant employment experience. Upon being chosen, for an inspector position, inspection personnel must pass a test administered by Quality before they are issued their inspection stamp. The proficiency of an inspector is maintained by the performance of their daily inspection duties. Inspection proficiency results are reviewed during periodic managerial and/or supervisory reviews.

### **13.2 Inspection Personnel**

Inspection personnel are required to be thoroughly familiar with all inspection methods, techniques, and equipment used in their area of responsibility to determine the quality of airworthiness of an article undergoing maintenance, or repair. All personnel must also maintain proficiency in the use of the various types of inspection aids to be used for inspection of the particular items undergoing inspection. Available to all inspection personnel are current specifications involving inspection tolerances, limits, and procedures as set forth by manufacturer of the product undergoing inspection and other forms of inspection information such as FAA airworthiness directives, manufacturer's bulletins, etc. Files of Korry drawings, maintenance manuals, engineering letters, service letters, FAA regulations, etc., are maintained in Central Engineering.

Inspection personnel assigned to repair station operations are required to familiarize themselves with FAA regulations applicable to such operations with particular emphasis on the following:

FAA 14 CFR Part 21 – Certification Procedures for Products and Parts

FAA 14 CFR Part 39 – Airworthiness Directives

FAA 14 CFR Part 43 – Maintenance, Preventive Maintenance, Rebuilding, and Alteration

FAA 14 CFR Part 65 – Certification: Airmen Other Than Flight Crewmembers

FAA 14 CFR Part 145 – Repair Stations

FAA 14 CFR Part 125 – Operator Inspection program

FAA 14 CFR Part 135 – Air Taxi Operators and Commercial Operators

### **13.3 Inspectors, Mechanics, and Supervisors**

All supervisors, inspectors, and mechanics are required to be thoroughly familiar with the requirements of this manual, Korry's Quality Management System (QMS), FAA regulations, airworthiness directives and bulletins, manufacturer's service letters, and



engineering orders. The basic inspection system requires mechanics to initial and date for work performed by them prior to submitting the item to inspectors for final acceptance. Inspectors will indicate their acceptance of work performed with the application of the inspector's acceptance stamp next to the item on the work forms. See the end of this manual for sample forms and instructions for their use.

### **13.4 Parts Receiving Policy**

All incoming materials, AN or MS and other hardware, parts, components, equipment and other products procured for use by the repair station are subject to receiving inspection to assure conformance to part number, purchase order and/or other applicable specifications. A record of receiving inspections will be recorded.

All adhesives, sealers, primers, finishing and other materials having limited shelf-life are identified by material control labels showing the expiration date of the shelf-life as established by applicable specifications. Any materials found in the shop or store rooms without such identification or with expired shelf-life will be disposed.

The detailed functions of material inspection are covered by the manufacturer's quality assurance directive and inspection bulletins, which will be used to implement the operation of the repair station with respect to the control and identification of materials, parts and equipment received for direct use in the repair station. All parts new or overhauled, purchased from vendors, will be checked for proper approval documentation, identification, and traceability, conformity to a specification and acceptable quality, shelf life, contamination, shipping damage, state of preservation prior to release for installation by the repair station. Proper approval documentation items are certificates of conformance, first article inspection documentation, test results, drawings, purchase orders, work orders, etc.



## 14. JOB ORDER AND TEARDOWN REPORT

Upon receipt of a work request for the maintenance or repair on an accessory or instrument by the repair station, the Customer Returns Administrator will issue an RMA number. This RMA number is the return material authorization number that is issued to the customer. The RMA number is a computerized unique number that will be the basic reference for the product's maintenance record and tracking through the repair process. Each RMA number identifies the customer, ship to address, the product for which it was issued, quantity, reason for return, and special instructions.

A teardown report is completed for each Repair Station's RMA number. A Product Support Specialist or qualified designee completes the teardown report. They identify the as received condition; including checking for Hidden Damage and any Airworthiness Directives on the part, when appropriate. They document the manufacturing findings, required repairs, root cause and corrective action, and the inspection and testing required to return the product to service.

After the Product Support Specialist finishes the teardown report, the Customer Returns Administrator creates a Customer Order. The Planner then creates the Job Order from the Customer Order. The job orders are then tracked in Korry's electronic system. This electronic system is Korry's ERP system that is used throughout the company. In this system, the job order is not only created, but the job order is a real time entity, until the product is shipped out of Korry. The job order is a record of work and the content of the job order is printed at its creation and remains with the product throughout the product's time at Korry. While in work at Korry, the job order can be monitored in the ERP system to find the location of the product. The product on the job order is electronically transferred in the ERP system to the applicable assembly operator and inspection work centers when the product is physically moved to those work centers. The job order packet now contains the assembly and inspection acceptance indications, the repairmen documentation, and inspection and test reports.

The Assembly Operators repair the product and Assembly Inspection inspects the product per the Product Support Specialist instructions on the teardown report. The Certified Repairman releases the product on a FAA Form 8130-3. The job order is then processed in the ERP system on through to the shipping process and out to the customer. Upon shipping, the job order packet is part of the permanent record of work on the product.

It will be the responsibility of the Assembly Manager and Assembly Inspection to assure that proper supplemental instructions are used to assure proper progressive servicing, inspection, and testing of the product involved.

Assembly Operators will enter work accomplished and use their assembly stamp to sign-off their work. Assembly Inspectors will use their inspection stamp to sign off inspections. A list of Assembly Inspectors and stamp numbers are retained by the Quality Assurance Administrator.

See examples of Job Order and Teardown Report forms at the end of this manual.

## 14.1 Record of Work

A detailed record shall be kept of all work performed by the repair station. A copy of each job order with all attached supplementary documents by date shipped will be maintained. Each work record is checked by an inspector for work accomplished, parts used, buy-off, and inspectors who performed maintenance. Records are maintained for eleven (11) years minimum as identified on the Record Control Plan 49628.

## 15. PRELIMINARY INSPECTION

The Product Support Specialist (PSS) or qualified designee is responsible for the performance of appropriate inspections including functional and nondestructive tests to assure that all units delivered to the repair station for maintenance, alteration, or repair under the privileges of the repair station certificate are subjected to a preliminary inspection to determine the state of preservation and any defects on the items involved.

The preliminary inspection includes the check for:

- Proper documentation, identification, and traceability;
- Shipping damage and contamination;
- State of preservation;
- Life limits;
- Airworthiness Directives (AD) and Service Bulletins (SB);
- Functional test or tear-down inspections;
- FAA approval of new articles; and
- Determination of what repairs are necessary.

This inspection will be recorded on the Teardown Report with any discrepancies noted and the form must be attached to the job order identified with the unit involved. It will remain with the applicable inspection records until the unit is released for service. Appropriate supplemental forms will be used to record the results of functional and nondestructive tests. Those forms will show the job order number and will be routed attached to the job order.

Before any work is begun, the Product Support Specialist (PSS) will, in the case of work to be performed for an air carrier under the continuous airworthiness requirements of FAA 14 CFR Parts 121, 125, 129, or 135, make sure that all work is performed in accordance with Section 32 of this manual, and that all necessary current information and specifications are included or referred to in the work instructions that are to accompany the article through the repair station.

## **16. INSPECTION FOR HIDDEN DAMAGE**

Inspection for hidden damage applies when returned parts have been involved in an aircraft accident.

The preliminary inspection is not limited to the area of obvious damage or deterioration, but include a thorough and searching inspection for hidden damage in areas adjacent to the damaged area and/or in the case of deterioration, a thorough review of all similar materials or equipment in a given system or structural area. The scope of this inspection will be governed by the type of unit involved with special consideration accorded previous operating history, Service Difficulty Reports, service bulletins and Airworthiness Directives notes applicable to the unit involved. The PSS is responsible for listing all discrepancies noted during inspection on the job order prior to release for return to service. See the end of this manual for the Teardown Report.

If parts were involved in an accident, Korry supports customer to witness and record the details during the product teardown process (see teardown section 34 of this manual).

## **17. PROGRESSIVE INSPECTION**

Authorized PSS, Quality Engineers (QE), QE aides, and Inspectors will be assigned to make inspections at various stages of Teardown, overhaul, and repair of all units or components received by the repair station for service. Progressive inspections are accomplished with a frequency determined by applicable manual recommendations and/or repair station originated work forms.

Section 8 of this manual reference the exclusion of the continuity of inspection responsibility due a) one shift only and b) no split on inspection (if the job could not be completed by the first inspector, a second inspector would re-inspect the entire job).

## **18. MAINTENANCE INSPECTION**

The status of each job order is kept current in Korry's Manufacturing Database within Korry's Material Resource Planning (MRP) system.

## **19. HANDLING OF PARTS**

All items or components undergoing maintenance, repairs and/or modifications in the repair station shall have the component parts segregated and in containers in order to assure that all parts of the same unit(s) are kept together. Suitable trays, racks, stands, and protective coverings (as required) are to be provided in shop areas to ensure maximum protection of all parts. Rejected parts will be identified by the use of a discrepancy report (DR) and final disposition will be the responsibility of Quality Engineering.

Job Order – Parts are accepted through last operation with inspection stamp.

Rework Tag – Parts require noted rework.

Discrepancy Report – Parts are rejected as identified on (DR).

## **20. SHELF LIFE**

For those items having a specific shelf life, a shelf life label is completed by the receiving inspector or by the supplier on vendor managed items upon receipt of material.

Components or parts that have exceeded allowable shelf life limits will be removed from the Repair Station and disposed of by Facilities per environmental requirements.



## 21. TECHNICAL DATA

Documents are received from Engineering, Contracts, Quality, etc. Documents are reviewed and authorized by the Configuration Control Board (CCB). Document Control manages electronic records.

Records are legible, readily identifiable and retrievable.

All documents are converted to electronic images and are released into the online manufacturing system.

Design changes are identified and records maintained.

The changes and current revision status of the documents are identified on Enterprise Change Orders (ECO).

Upon notification from the CCB of a change, updates are made to the online manufacturing system. All relevant personnel are made aware of the changes electronically.

Document control tracks and emails the changes with the ECO Change Notice. Superseded or obsolete documents are moved to an online archive folder and records are maintained.

Approved Technical Data is available in the Korry PLM system and is either an approved component maintenance manual (CMM) or General Process Specification.

## **22. HARDWARE AND EQUIPMENT STORAGE**

The Materials Director is responsible for the operation of the stockroom and is responsible for controlling, segregating, and maintaining all stock. In addition, the Materials Director is required to:

Properly store, segregate, and protect materials, parts, and supplies.

Provide suitable storage facilities for storing standard parts, spare parts and assure that raw materials are separated from shop and working space.

Provide for preservation of all articles or parts, while in inventory, that are subject to deterioration and shelf-life specification.

Only acceptable parts and supplies will be issued for any job. Acceptable industry practices shall be followed for the proper protection and storage of materials.

Tools are maintained by the Assembly Managers' Tooling departments.

### **23. RECORD OF INSPECTIONS**

Where a record of the inspection by dimensions, tests, or calibration is required by the manufacturer's technical data such records shall be made on the Teardown Report properly identified with the Job Order; it must also be dated and signed by the operator performing the inspection, tests or calibration and/or the inspector as appropriate.

## **24. RECORD OF TESTS AND CALIBRATION OF PRECISION EQUIPMENT**

A system is maintained on all precision test equipment that will properly identify each piece of equipment. A Calibration database is maintained to properly identify the equipment and record the date and person testing or calibrating each individual piece of precision equipment.

## **25. WORK BY OUTSIDE CONTRACTORS**

### **25.1 General**

Korry may contract out maintenance of articles to other persons per the requirements of Part 145.217.

The FAA approves the maintenance function to be contracted to the outside source. Korry Repair Station maintains and makes available to FSDO in a format acceptable to the FAA, the following information:

- a. The maintenance functions contracted to each outside facility; and
- b. The name of each outside facility to whom the repair station contracts maintenance functions and the type of certificate and ratings, if any, held by each facility.

Korry requests an RMA number from the Contractor. When an RMA number is received, the purchase order (PO) is created including the requirements per Q-Notes. Receiving Inspector performs the inspection including the visual and paper work verification per Inspection Procedure.

Korry conducts periodic audits to ensure that Contractors meet Korry's requirements and can support the requirements of Part 145.217. Korry procedure document 53594, Supplier Auditing, details the steps taken by Korry Supplier Quality to satisfy this activity.

Korry Repair Station may not provide only approval for return to service of a complete type-certificated product following contract maintenance, preventive maintenance, or alterations.

### **25.2 Noncertificated Persons**

The Korry repair station may contract a maintenance function pertaining to an article to a noncertificated person provided:

- (1) The noncertificated person follows a quality control system equivalent to the system followed by the Korry repair station;
- (2) The Korry repair station remains directly in charge of the work performed by the noncertificated person; and
- (3) The Korry repair station verifies, by test and/or inspection, that the work has been performed satisfactorily by the noncertificated person and that the article is airworthy before approving it for return to service.

Note: "Directly in charge" means having the responsibility for the work of a repair station that performs maintenance, preventive maintenance, alterations, or other functions affecting aircraft airworthiness. A person directly in charge does not need to physically observe and direct each worker constantly but must be available for consultation on matters requiring instruction or decision from a higher authority.

Korry procedure document 53594, Supplier Auditing, details the steps taken by Korry Supplier Quality to establish quality system equivalency, typically by confirming the supplier's certification to international quality system standard AS9100 and by meeting

the quality system requirements of 14 CFR Part 145.211. Korry retains responsibility for the work of any noncertificated contracted repair supplier; is always available for guidance, consultation, or instruction as required; and is directly in charge of the work at all times. Korry document 49494, Receiving Inspection, describes the processes by which articles received from a contracted repair supplier are determined to be airworthy by meeting the requirements defined for the product according to the repair purchase order.

## **26. CONTROL OF PRECISION TOOLS AND TEST EQUIPMENT**

Precision tools, gauges, scales, pressure gauges, ammeters, ohmmeters, voltmeters, radio, electronic, x-ray, eddy current and ultrasonic test equipment used in the repair station operations are subject to periodic checks and calibration in accordance with appropriate repair station procedures.

All repair station personnel, before using test equipment, are responsible to check that the testing unit has a current calibration label attached. Any piece of test equipment found in the repair station without a current calibration label attached shall be given to the inspection department for recalibration.

## **27. TEST EQUIPMENT CALIBRATION REQUIREMENTS**

Test equipment shall be calibrated at periodic intervals established on the basis of stability, purpose, and degree of usage. The calibration interval is controlled by the General Calibration Procedure for Measurement and Test Equipment 3.300.

Each piece of test equipment will be labeled. The label will identify the unit by Korry asset number (K\_\_ - \_\_ - \_\_). The attached label must indicate the last calibration date and next calibration due date.

Inspection verifies the calibration dates of their equipment prior to use. At no time will any person be permitted to perform work on components using test equipment which is out of calibration. The test equipment labels will be checked by supervisors at random to assure that equipment in use is in calibration. If at any time a piece of test equipment inadvertently exceeds its calibration due date, it will immediately be removed from service until a calibration check has been performed. A check is done to determine if any product were processed using equipment that had exceeded its calibration due date. If product had been processed, quality engineering investigates the need to recall the product.

Standards used to calibrate test equipment must be traceable to the National Institute of Standards and Technology (NIST) or an approved foreign country's standards by certificate from the testing facility. Frequency for calibration standards may vary for different units but must never exceed a 12-month interval.



## **28. FINAL INSPECTION AND RELEASE TO SERVICE**

Prior to approval for return to service, irrespective of the method to be used to indicate such approval, the Assembly Inspector will review the records “package” as identified by the work order, to determine that all work has been inspected as required for compliance with this inspection system and the applicable FAA 14 CFRs. They will indicate final acceptance by their inspection stamp in the final inspection operation on the work order.

When approval has been given to the above, the certified repairman will approve the article for return to service with an FAA Form 8130-3.

This approval will be accomplished as appropriate to the work done, the article involved, the records available with the article, and the instructions of the customer. Care will be exercised to comply with FAA 14 CFR Part 43 in every case.

No unit may be released for return to service until the work order and other records have been revised for completeness and final acceptance cleared by inspection. Particular attention shall be accorded the status of applicable airworthiness directives.

## **29. SERVICE DIFFICULTY REPORT**

Korry Electronics Co. will report to the FAA within 96 hours after it discovers any serious failure, malfunction, or defect of an article. The report will be in a format acceptable to the FAA.

Service Difficulty Reports (SDR) on-line form will be completed per FAA Service Difficulty Reporting website instructions located at:

<http://av-info.faa.gov/sdrx/Default.aspx>

An SDR should be submitted through the SDR Log-in portion of the web page.

Suspected Unapproved Parts (SUP) Report will be completed on FAA Form 8120-11. This form includes instructions to complete, and identifies the information needed to initiate, an SUP investigation. The electronic copy of FAA Form 8120-11 with the instructions is available on the FAA website at:

<http://www.faa.gov/aircraft/safety/programs/sups>

### **30. MECHANICAL RELIABILITY REPORTS**

When work is being accomplished for an air carrier and a defect as described under the Service Difficulty Report is found, the air carrier will be notified in order that a Mechanical Reliability Report may be issued by the air carrier.

### **31. RESPONSIBILITY FOR SUBMITTING REPORTS**

The Director of Quality is responsible for preparing and submitting a Service Difficulty Report to the FAA.

### **32. PERFORMANCE OF MAINTENANCE, PREVENTIVE MAINTENANCE, ALTERATIONS & REQUIRED INSPECTION UNDER THE CONTINUOUS AIRWORTHINESS REQUIREMENTS OF FAA 14 CFR PARTS 121, 125, 129, AND 135**

All Korry products receive a functional test and visual examination before return to service in accordance with the Air Carriers or commercial operators manual. All maintenance under a Continuous Airworthiness Maintenance Program (CAMP) shall be performed in accordance with the operator's manual. Maintenance, preventive maintenance, or alterations performed for an air carrier or commercial operator that has a CAMP under Part 121 or 135 shall be performed according to the air carrier or commercial operator's maintenance program, or applicable sections of its maintenance manual. Korry shall follow the operator's FAA-approved inspection program when performing inspections for a certificate holder conducting operations under Part 125. Maintenance, preventive maintenance, or alterations performed for a foreign air carrier or foreign operator operating a U.S.-registered aircraft under Part 129 shall be performed according to the operator's FAA-approved maintenance program.

### **33. PERFORMANCE OF MAINTENANCE AT A LOCATION OTHER THAN THE REPAIR STATION**

Korry will provide maintenance service for its customers on an emergency on-call basis at a place away from the repair station. Korry can only provide this service for work for which the repair station is rated. Only the Product Support Manager or Assembly Manager with the concurrence of the Director of Quality is authorized to initiate a work order for such work.

The Product Support Manager or Assembly Manager will be responsible for assigning the personnel necessary to perform the work and appoint a person to be in charge of the work force. The Director of Quality will assign the inspector(s) responsible to inspect the work and assure that all required forms and work are completed as necessary. The Director of Quality will assign one inspector with the responsibility for returning the article to service.

The Product Support Manager or Assembly Manager will ensure that the article to undergo maintenance and the work force will be in an area safe for the work to be performed and that they will be protected from the elements. The Product Support Manager or Assembly Manager will be responsible for providing all the necessary manpower, work forms, technical data, tools, and equipment necessary for the accomplishment of the maintenance. The Product Support Manager or Assembly Manager will establish a system of communications between the field and the repair station.

The Materials Manager will be responsible for assigning a stockperson who will provide parts and supply support between the repair station and the field force. All articles removed by the field force from a product undergoing maintenance at a location away from the repair station will be routed through the stockroom parts receiving department. The article(s) will be inspected in accordance with the repair station inspection procedures and either routed to the repair station shops or to contract repair agencies as appropriate.

All personnel assigned to accomplish work away from the repair station shall accomplish the specific function of work in the same manner as when performed at the repair station and in accordance with applicable FAA 14 CFRs.

## **34. CUSTOMER/JOB ORDER, TEARDOWN REPORT, AND FAA FORM 8130-3 WITH METHOD OF EXECUTION**

### **34.1 Customer/Job Order**

The Customer Order is created by the Customer Returns Administrator using Korry's ERP system. The Job Order is created by the Planner. The Customer Order and Job Order are combined into one document. The Customer Order section includes all applicable Customer information and the Job Order section includes all applicable information and operations required to repair the part to Airworthy condition. Instructions for creating Customer / Job Orders are found in EPAK training located on Korry network. Each Customer / Job Order has a unique number that can be tracked by a number of factors which segregate it from production Customer / Job Orders. The travelers are printed on blue paper for articles having work performed in the Repair Station.

### **34.2 Teardown**

The Teardown Report quality record is a printout from an electronic Customer Returns database that contains all applicable data regarding the actual work done on the returned part. The Teardown is organized in multiple sections.

Section 1: Most of the basic reference information is transferred electronically from the RMA number in the ERP system. Korry serial number / customer serial number, date code and customer purchase order is entered manually by the Product Support Specialist or qualified designee.

Section 2: The Product Support Specialist (PSS) or their qualified designee reviews the Customer's Rejection, conducts and records the results of their "preliminary inspection" in the "As Received Condition" area and also notes any other relevant findings such as "hidden damage" in the "Evaluation Findings" area. The PSS also summarizes the Direct Cause of the primary observed nonconformance.

Section 3: The Product Support Specialist (PSS) or their qualified designee documents the repair steps to be taken and the testing to be performed, as well as any special requirements for the part to return it to Airworthy condition.

### **34.3 FAA Form 8130-3**

The FAA Certified Repairman reviews the Job Order and Teardown Report to assure that all requirements and operations are complete and the part is Airworthy and then completes the FAA Form 8130-3 per the requirements of FAA Order 8130.21 latest revision. Reference to the applicable technical data is recorded in the Remarks section of the FAA Form 8130-3.

### **34.4 Records**

All documentation listed below are stapled together and kept for eleven years minimum as a "Quality Record." These quality records are kept on-site for

approximately three months and then stored off-site for the remainder of eleven years minimum. All Quality Records are available within five (5) business days.

1. Completed Customer / Job Order with all Operations closed by Operator's buy-off or Inspector's Stamp.
2. Completed Teardown Report.
3. Completed FAA Form 8130-3.
4. Other documents as specified by Customer.

Examples of Work Order, Teardown, and FAA 8130-3 are at the end of this document.



### **35. TAKING CORRECTIVE ACTION ON DISCREPANCIES**

Some articles demonstrate one or more nonconformances that suggest corrective or preventive action be taken to reduce the likelihood of shipping additional articles with the same nonconformance. The Product Support Specialist (PSS) or Quality Engineer (QE) reviews the Technical Evaluation section of the Teardown Report and determines if such action is warranted. If so, the PSS or QE issues a corrective action (CA) per Korry Corrective Action Procedure 49631. On occasion, the benefits of a CA can be determined prior to, or in the absence of, receipt of any nonconforming article. When this occurs, the QE issues a corrective action per Korry CA Procedure 49631.

### **36. REQUIREMENTS FOR PROCESSING MAJOR REPAIRS**

Korry has some articles in its Operations Specifications that are rated as Instrument. Repairs performed on Instruments are defined by the FAA as major repairs. The requirements for major repairs differ in some ways than those for the repair of Accessories, which encompass all other Korry articles. Regulation 14 CFR Part 43, Appendix B, paragraph (b) describes the applicable requirements.

Korry's existing processing and documentation for Accessories satisfy most of the requirements for major repairs, but the following differences must be addressed when processing a major repair (repair on an article rated as Instrument):

- A physical copy of the completed job order must be included in the paperwork package that ships to the customer.
- In preparing the 8130-3 tag for return to service, pay attention to the entity identified as the manufacturer in the Operations Specifications. If the manufacturer is not Korry, the manufacturer's part number is the number that must appear in Block 8 of the 8130-3. For clarity, include the Korry part number as a reference in Block 12.
- Also regarding the 8130-3 tag, the manufacturer's name must appear in Block 12. This can be accomplished with a notation reading, "Manufacturer: XXX," where "XXX" is a variable representing the name of the manufacturer.

## **37. USE OF REPLACEMENT PARTS RECEIVED WITH NO AUTHORIZED RELEASE CERTIFICATE (FAA FORM 8130-3 OR EASA FORM 1)**

### **37.1 Process Requirements**

A repair station inspector can issue an FAA form 8130-3 for new parts that are not accompanied by FAA form 8130-3 when they will be consumed in repair activities, as long as the following criteria are met:

FAA advisory circular AC20-62 is used as the standard for inspecting the new part to verify traceability to the Original Equipment Manufacturer (OEM).

The inspector is trained as detailed in section 37.2.

A Direct Ship Authorization (DSA) letter from the Production Approval Holder (PAH) is available for the new components that includes a statement that the parts were produced in accordance with the PAH quality system, or a certificate of conformance showing the acceptable standard to which the part was produced.

The inspector ensures that the part number, model, serial number, lot number, etc., as appropriate, match the accompanying documentation, such as packing slips, invoices, certificates of conformance, work orders, or purchase orders, as applicable.

The article is visually inspected to ensure satisfactory condition for safe operation. Inspection should include checks for obvious physical damage, defects, state of preservation, and that the appropriate quantities have been received. It should also confirm that part markings are as applicable and required per design data or regulatory guidance, such as part number, serial number, date or lot code, or FAA markings such as PMA or TSO.

Note: When applicable, new parts should be handled to prevent damage from electrostatic discharge (ESD). Materials should be packaged, handled, and protected in accordance with Korry document 50274, ESD Handling Procedure.

An FAA Form 8130-3 issued by the repair station for new replacement parts must be completed according to the latest revision of FAA Order 8130.21, must be a dual-release (FAA/EASA) form, and at a minimum include the following statement in Block 12:

This inspection is for a new part received on or after 01 Oct 2016 with no FAA 8130-3 form. This inspection is in accordance with FAA Order 8130.21 and Notice 8900.429.

The process above should be audited as part of the Repair station internal audit program.

### **37.2 Training Requirements**

An inspector issuing 8130-3 forms for new parts received in the repair station shall be trained in, as a minimum, the recognition of part identification; determination of the current acceptance status of the part; regulatory compliance requirements, including

training on the completion of the 8130-3 form for new products; inspection, handling, storage, and ordering procedures; bench or functional testing (as applicable); and recordkeeping requirements.

These requirements will be considered to be met when the inspector has accomplished or fulfilled the following:

- Issuance of Korry inspection stamps according to Korry document STMP050.
- Completion of training courses and requirements detailed in the Korry repair station training program, 49817.
- Completion of the FAA training course, "Issuance Of 8130-3 For Domestic And Export Approvals Of Engines, Propellers, & Articles Only," followed by recurrent training in that course within periods of 36 calendar months.
- Completion of one of the following:
  - Preparation of twenty (20) 8130-3 tags for new product under the supervision of an FAA DMIR or an inspector appointed as a Flightworthiness Inspector under the procedures of the Quality Manual for Korry Electronics Co., document 46902.
  - Preparation of twenty (20) 8130-3 tags for the return to service of maintained articles.

Korry shall maintain a roster of repair station inspectors qualified to issue 8130-3 tags on new product. That roster shall show evidence of the review of the training accomplishments for each inspector as acknowledged by one of the people identified in Korry Operations Specification A007, Designated Persons, Table 1.

## **38. USE OF ELECTRONIC RECORDKEEPING**

### **38.1 General Control of Electronic Records**

The identification, storage, protection, retrieval, retention, and disposition of electronic records are controlled by Korrry document 49628, Record Control Plan. In the Korrry repair station, electronic records include (but may not be limited to) Return Material Authorization (RMA) checklists, scanned customer purchase order and rejection paperwork, internal and external correspondence, and other incidental reference items intended to be kept paperless in the Korrry repair station electronic network.

### **38.2 Specific Aspects of Electronic Record Control**

In addition to the terms, conditions, policies, and procedures of 49628, Record Control Plan, the following specific requirements must also be met for electronic records in the repair station.

#### **38.2.1 Language**

Records must be retained in the English language.

#### **38.2.2 Availability**

Records must be made available to the FAA and the National Transportation Safety Board upon request.

#### **38.2.3 Training**

Personnel responsible for preparing, processing, or storing electronic records in the repair station shall have a training record on file documenting review of 49628, Record Control Plan, and this section (Section 38) of this document (49887, Repair Station Manual).

#### **38.2.4 Completeness and Accuracy**

Records must be reviewed for completeness and accuracy, according to the type of record. RMA checklists are reviewed by the various different personnel job functions that contribute to completion through the routing of the form. Records received from customers are reviewed as required to create and process returned material, as are correspondence records created during the maintenance process.

#### **38.2.5 Password Duplication**

Passwords determining access to electronic records in the repair station are driven by Korrry internal network login credentials managed by Korrry Information Technology (IT) departmental procedure IT04.

### **38.2.6 Auditing**

Electronic recordkeeping and record retention shall be audited as part of the regularly scheduled repair station internal audits conducted per Korry document 49682, Audits.

### **38.2.7 Preserving Data**

To ensure records are preserved while system or network upgrades are executed, electronic records are backed up through procedures that require writing to separate storage media that is stored offsite for specific time periods, per Korry IT procedure IT23.

### **38.2.8 FAA Acceptance of Changes**

Changes to the electronic recordkeeping procedures are subject to acceptance by the FAA. Changes must be submitted to the FAA for review and acceptance.

## **39. CAPABILITY LIST**

### **39.1 General Discussion**

Korry Electronics may perform maintenance, preventive maintenance, or alteration on parts as listed or described in its Capability List, document 49887-001, according to any limitations documented therein. The Accountable Manager is responsible for ensuring that the Capability List is consistent with the repair station ratings.

### **39.2 Transfer From OpSpecs**

As part of the initial creation of the Korry Capability List at revision – (dash), part numbers, descriptions, limitations, and other pertinent information are transferred from Korry Operations Specification A003. This forms a baseline of capabilities established by the FAA prior to the effectivity of this section. All procedures and requirements stated in this section for placing or adding parts in the Capability List are effective for Capability List revisions after revision – (dash).

### **39.3 Placing Articles on the Capability List**

Before placing an article on the Capability List, a Designated Person identified in Table 1 of Operations Specification A007 will:

- a) determine that the article is within the scope of the repair station's ratings;
- b) perform or review and approve a self-evaluation to determine that this repair station has the appropriate housing, facilities, equipment, material, technical data, processes, and trained personnel to perform the work on that article as required by 14 CFR Part 145;
- c) document the results of the self-evaluation by finishing the completion of a Capability List Self-Evaluation Form, Korry document 49628-011; and
- d) file a copy of the Capability List Self-Evaluation Form in the company network directory structure for Product Support. This form will serve as evidence of the self-evaluation requirements of 14 CFR 145.215(c) and 145.209(d)(2), and must be available for FAA review.

## **39.4 Document Revisions**

### **39.4.1 Method**

Revisions to the Capability List will be accomplished via a Korry Enterprise Change Order (ECO) in the Korry Product Lifecycle Management (PLM) system, according to Korry document 49620, Enterprise Change Process.

### **39.4.2 Approval**

Designated Persons identified in Table 1 of Operations Specification A007 have the authority to approve revisions to the Capability List. The Capability List is a controlled document, 49887-001, and said Designated Persons also have the

authority to determine the Korry signature approvals required to process an Enterprise Change Order (ECO) for that document, provided those approvals include both a Designated Person and the Product Support Manager.

### **39.4.3 FAA Acceptance**

Once an initial list or revision has been approved, it will be submitted to the FAA Flight Standards District Office (FSDO) for acceptance through a submittal method acceptable to the FAA, within seven days of creation or revision.

## **39.5 Access by Repair Station Personnel**

Access by Korry personnel to both the Capability List and Capability List Self-Evaluation Form is provided through Korry's Product Lifecycle Management (PLM) system.

## **39.6 Self-Evaluation**

### **39.6.1 Method and Frequency**

Self-evaluations shall be performed through the review and documentation of the elements itemized on a Self-Evaluation Form, Korry document 49628-011. Such reviews will be conducted whenever a new part number is proposed for addition to the Capability List.

### **39.6.2 Self-Evaluation Form**

Pursuant to section 39.2, a Self-Evaluation Form, Korry document 49628-011, must be completed to support addition of items to the Capability List. The itemized elements of that form shall be, at a minimum:

- a. Limited Rating
- b. Housing
- c. Facilities
- d. Equipment
- e. Material
- f. Technical Data
- g. Processes
- h. Trained Personnel

### **39.6.3 Qualified Evaluators**

A Designated Person identified in Table 1 of Operations Specification A007 or the Product Support Manager may perform the assessment of the elements in paragraph 39.5.2, or the assessment may be conducted by a person with the following qualifications, as suggested by FAA Advisory Circular AC 145-9A:



- a. experience with performing evaluations (or audits, if that is the method selected by the repair station),
- b. an understanding of the requirements of Part 145, and
- c. knowledge of the maintenance requirements for the particular make/model of the article to be added to the list.

Persons with those qualifications are typically a Quality Engineer or Manufacturing Engineer familiar with the product under assessment. If the assessment is performed by someone other than an A007 Designated Person, a Designated Person or the Product Support Manager must indicate on the form that the person conducting the assessment has the necessary qualifications.

#### **39.6.4 Manager Review and Action**

Any Enterprise Change Order (ECO) processed to revise the Capability List, 49887-001, must include the Product Support Manager in the list of ad-hoc reviewers for Edit and Approval as described in document 49620, and access to the supporting Self-Evaluation Form as a required component of that review. Although a Designated Person has the authority to approve Capability List changes, assigning the Product Support Manager to the ad-hoc review list satisfies the requirement of FAA AC 145-9A, section 5.3.2, paragraph 5 for providing results to the appropriate manager for review and action.

**40. EXAMPLE 1 – CUSTOMER/JOB ORDER (CUSTOMER INFORMATION)**

**PROCEED WITH REPAIR**



Control Systems

**REWORK**

**REPRINT**





Job Order: 1202149 Suffix: 0000 JO Qty: 1   
 Production Readiness: Production  
 Item Number: RMA-CONTROLS Rev: -  
 Production Type: Job  
 Start Date: 6/12/2013 Planner Code: RMA 1046500-003 JUN 13 2013 JUN 13 2013  
 Due Date: 6/18/2013 Rank 1 Inv Loc: CR Verify Drawing Rev W <sup>KP</sup> 2996 Verify BOM Rev N <sup>KP</sup> 2996  
 Jurisdiction: Non-Tech Data ECCN/USML:  
 Program: RMA-CONTROLS\_- Schedule B:


Customer Order: S000003801 Line: 1 CO Qty: 1  
 End User Type: REW RMA: RMA0000647 Line Due Date: 6/18/2013 Ship Date: 6/18/2013 CSA: rspencer

Customer Item: 822-1807-003   
 Customer: 1030 Ship To: 2 Cust PO: 4504944319  
 ROCKWELL COLLINS Cust PO Line: 00010  
 2051 AIRPORT RD.  DMIR  
 WICHITA KS 67209  FAI  
 USA Gov Contract #:  Source Inspection  
 DPAS Rating:

Job Order Notes:  
 NMR:  
 DATE CODE:0617R  
 SERIAL:003AA0385  
 DEBIT:  
 FAILURE: DIGITS RE DIMMED ALL THE TIME. HARD TO READ AT DAYTIME  
 CUSTOMER PARTNUMBER-822-1807-003  
 CUSTOMER SERIAL NUMBER-28CKF  
 \*\*\*\*\*  
 TEARDOWN REPORT MUST ACCOMPANY SHIPMENT OF HARDWARE  
 TEST DATA REQUIRED WITH THIS ORDER  
 [REDACTED] AA/EASA REQUIRED  
 PARTS LIST REQUIRED


**41. EXAMPLE 2 – CUSTOMER/JOB ORDER (ROUTING OPERATION AND BUYOFF)**

Job Order: 1202149  Suffix: 0000  **Esterline**  
 JO Qty: 1.00  Start Date: 6/12/2013 **Control Systems**  
 Item Number: RMA-CONTROLS Due Date: 6/18/2013  
 Rev: **REWORK**  
 Production Readiness: Production **REPRINT**


OpSeq	WC	Description	Setup Hours	Run Hours	Total Hours
 20	CRCP	CONTROL P. RETURNS	0.00	1.290	1.290
Item	Description	Rev	U/M	Type	Total Req
1	RMA-CONTROLS	-	EA	M	0.00


REPAIR PER TEARDOWN

KP 2996 JUN 13 2013  KP 2996 JUN 13 2013

OpSeq	WC	Description	Setup Hours	Run Hours	Total Hours
 50	QCCP	CONTROL PRODUCT INSP	0.00	0.000	0.000
Item	Description	Rev	U/M	Type	Total Req
					0.00

FINAL INSPECT

 JUN 15 2013

OpSeq	WC	Description	Setup Hours	Run Hours	Total Hours
 60	TRANS	TRANSIT	0.00	0.000	0.000
Item	Description	Rev	U/M	Type	Total Req
					0.00

SHIP

 SN 2863  
4/18/13

**42. EXAMPLE 3 – TEARDOWN REPORT (PAGE 1)**



**Esterline Korry - Teardown Report**

<b>Customer Name:</b>	ALL NIPPON AIRWAYS CO. LTD	<b>RMA No.</b>	RMA0016826-1
-----------------------	-------------------------------	----------------	--------------

Korry Part Number	Quantity	Korry Part Description	Outgoing Part Number
412400-001	1	CONTROL PANEL, OBS AUDIO OVRD	412400-001
Customer PO	Customer Part	Customer Rejection No.	Order Disposition
			WAR

<b>Korry Serial No.</b>	412400AA0247		
<b>Customer Serial No.</b>			<b>As Received Condition Type</b>
<b>Date Code</b>	1405		Used

**Shop Findings**

<b>Customer Rejection:</b>	
CANT EVAC CMD FROM L1 ATT PNL EVAC S/W	
<b>As Received Condition:</b>	
Unit received at Black Label configuration. Rev: J. Unit received with protective film on lightplate surface and has scuffs/scratches/chips in paint as normal tear and ware. 1/4 turn fasteners have tool marks. Connector has ESD protective cap.  Photos on file: RMA16826/TT&E	
<b>Evaluation Findings:</b>	
Customer rejection has been confirmed. Unit failed intermittent at toggle switch S3 "EVAC COMMAND" ARM & ON position and lightplate has lightleaks. The failure switch will be replaced under Korry's condition of warranty.	
<b>Direct Cause:</b>	
Age of used.	

<b>Time Since New</b>	<b>Cycles Since New</b>	<b>Time Since Installed</b>
11719.3	2346	
<b>Cycles Since Installed</b>	<b>Time Since Overhaul</b>	<b>Cycles Since Overhaul</b>
	2113.5	
		<b>Completion Date</b>
		05/03/2018 15:15

Export Control: EAR jurisdiction and 9A991.d classification.

Printed By: Joe Cron

Page: 1 of 3

Date: 05/29/2018 14:54

**EXAMPLE 3 – TEARDOWN REPORT (PAGE 2)**



**Esterline Korry - Teardown Report**

<b>Shop Action</b>		
<b>Action Description:</b>		
Rework unit per CMM 23-51-01 Rev: 7 Date 24 Mar 2015		
* Remove and replace toggle switch S3 "EVAC COMMAND" with new per CMM. * Clean, touch-up paint, lightleaks and mark "R" on unit as required. * Final inspect and functional test per CMM.		
<b>ATP Required:</b>	<b>ATP Sections Required:</b>	<b>Lighting Test Required:</b>
Test per CMM for return to service.		
<b>Note: Creation or submittal of ATP test data is according to the ATP or applicable inspection alerts or Purchase Order requirements.</b>		
<b>Special Requirements:</b>		
Unit is to ship at Rev: J		

Export Control: EAR jurisdiction and 9A991.d classification.

Printed By: Joe Cron

Page: 2 of 3

Date: 05/29/2018 14:54

**43. EXAMPLE 4 –FAA FORM 8130-3 (DOMESTIC AIRWORTHINESS TAG)**

<p>1. Approving Civil Aviation Authority/Country: <b>FAA/UNITED STATES</b></p>		<p>2. <b>AUTHORIZED RELEASE CERTIFICATE</b> <b>FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG</b></p>		<p>3. Form Tracking Number <b>Job Order Number</b></p>	
<p>4. Organization Name and Address: KORRY ELECTRONICS COMPANY 11910 BEVERLY PARK ROAD EVERETT, WA 98204</p>		<p>5. Work Order/Contract/Invoice Number: <b>(KE7R393J)</b></p>		<p>6. Purchase Order Number</p>	
<p>6. Item: <b>1</b></p>	<p>7. Description: <b>Switch</b></p>	<p>8. Part Number: <b>433-673-1041-232</b></p>	<p>9. Quantity: <b>1</b></p>	<p>10. Serial Number: <b>Serial Number if one exists</b></p>	<p>11. Status/Work: <b>REPAIRED</b></p>
<p>12. Remarks: Repaired in accordance with CIMM-XX-YY-ZZ dated 11/22/2013 Full details in job order 1234567, including replaced parts list.</p>					
<p>14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.</p>					
<p>13a. Authorized Signature: <i>Jix Plans</i></p>		<p>13b. Approval Authorization No. <del>13b. Issue date (mm/dd/yyyy)</del></p>		<p>14c. Approval/Certificate No.: <b>KE7R393J</b></p>	
<p>13c. Name (Typed or Printed): <b>Name of FAA Certified Repairperson</b></p>		<p>13d. Date (Typed or Printed): <b>DD MMMM YYYY</b></p>		<p>14d. Date (dd/mm/yyyy)</p>	
<p><b>User/Installer Responsibilities</b></p> <p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1. Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p>					

NSN: 0052-00-012-9005