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This manual explains the internal inspection system in detail, including the continuity of inspection responsibility. The manual gives a detailed explanation of the following portions of the inspection system: receiving inspection, preliminary inspection, hidden damage, in process inspection, inspection continuity and final inspection of the article being maintained at this facility.

This repair station has applied to the FAA using application form 8310-3 for a repair station certificate with the rating limited airframe of the Boeing 717, 727, 737, 747, 757, 767, 777, Douglas/Boeing DC-9, MD80 series, DC10, MD11, Airbus A300, A319, and A320. Accessory class 1 & class 2 following the procedures on the application per CFR 145.59 & 145.61.

The maintenance, preventative maintenance, or alterations of articles will be performed in accordance with the current Federal Aviation Regulations, current overhaul manuals, drawings, component maintenance manuals, service bulletins, related Civil Aeronautics Manuals, technical orders, airworthiness directives or other technical data approved by the Administrator for the particular limited airframe & accessory class 1 & class 2 rating. This repair station will not maintain or alter any article for which it is not rated.

This Repair Station Manual /Quality Control Manual, the Operation Specification & Air Agency Certification required for the operation of this repair station, will be maintained in a current status at all times until surrendered or suspended or revoked by the FAA. In the event the repair station changes its Ratings, location, name, or sells or transfers assets this repair station will notify the FAA for written approval a minimum 30 days prior to the occurrence as per 145.57. This repair station will abide by any prescribed conditions, limitations under which the FAA deemed necessary while changing its location, housing, or facilities.

Repair station personnel will have indoctrination training on the RSM /QCM to thoroughly understand its content. For details and records see the Spectrum Aerospace Training Program Manual.

This manual has been approved by Spectrum Aerospace’s President.
Spectrum Aerospace has provision for an electronic version of the manual. The Director of Operations is responsible for the maintenance and revisions of the electronic manual.

Spectrum uses an electronic manual system to maintain and distribute the Repair Station Manual, available at www.spectrum-aero.com. Spectrum utilizes the Portable Document Format (PDF) as the document management system to accomplish this task. PDF is a universal file format that preserves the fonts, images, graphics and layout of any source document, regardless of the application and platform used to create it.

The electronic manual is distributed via an email or other electronic media with a file attachment and intranet access. Security to prevent unauthorized changes or access to the RSM/QCM, data, or records is built into the facility server. All documents, records, and programs are protected. Access to data and programs used by the repair station is user name and password controlled. Personnel access to the data is determined by the President of the Company and coordinated through a Network Administrator.

Each manager and inspector employed by this repair station will have a current copy of this manual made available to them and shall thoroughly understand its contents.
The RSM/QCM will be available by access to the company via intranet and/or on the company web site. Hard copies may be printed but are considered uncontrolled. Repair station personnel must verify that any hard copy they are using is of the current revision before initiating any repair station activities. This may be accomplished by verifying the revision available on the company intranet. Uncontrolled hard copies shall be either destroyed or marked “uncontrolled” on the cover. Hard copies so annotated may be retained for historic purposes.

The Director of Operations will authorize any changes or revisions needed to keep this manual current. The Director of Operations and the FAA, PMI sign and approve the List of Effective Pages page of this manual. The Director Operations Manager shall post new revisions upon release and remove the obsolete revision from the intranet. The CHDO will be notified by e-mail when a revision is available for their review. The completed Repair Station Manual / Quality Control Manual will be e-mailed directly to the CHDO with an acknowledgement form. An accepted acknowledgement form e-mailed back to the Director of Operations is verification that the manual changes are acceptable to the CHDO and can be published for view using the internet. Upon acceptance The Director of Operations spectrum will issue a company-wide memo stating “Revised Repair Station Manual / Quality Control Manual Is published on the company web site for review”. Any revisions determined to be noncompliant by the FAA will require an immediate revision to attain compliance with the CFR’s. A review of work performed to the noncompliant Repair Station Manual / Quality Control Manual will be performed to determine if any article was adversely affected and if recall is required.

Bars will be placed in the margins of changed paragraphs to identify changes. Change notification will be documented and saved to indicate the changes and nature of the changes. In cases where the CFR undergoes major changes, requiring extensive changes to the RSM, it is permissible to annotate “complete revision” and forego bars. A change notification record should be documented to indicate the nature of the complete revision.

The training manual will be revised under a single revision letter and date. All pages will carry the same revision date. Bars will be placed in the margins of changed paragraphs to identify changes. Change notification will be documented and saved to indicate the changes. A change notification record should be documented to indicate the nature of the complete revision.

The Director of Operations will assure that the current manuals are available on the company intranet in secure PDF file format. The posted copy will be placed in a secure read only" directory and will be unalterable, except by the Director of Operations or his delegate.
Title: Revision List

Original June 19, 2008 Issue of original REPAIR STATION MANUAL / QUALITY CONTROL MANUAL per CFR 145 requirements.

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Signed and Accepted by:

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SECTION I

ORGANIZATIONAL STRUCTURE
SECTION:  I
TITLE:  ORGANIZATIONAL STRUCTURE

REF:  CFR145.209(a)

Organizational Chart
Key Personnel

President:

The President is responsible for the actions of this repair station.

The President’s duties and responsibilities are to:

1. The President shall insure the financial resources are available To facilitate the necessary staffing, equipment and resources to accomplish correct repair of articles repaired by this repair station, but in no way supervises either directly or in-directly the operations of this repair station.

The duties of the President may be delegated to The Director of Operations or qualified individual as necessary; however, such delegation does not relieve the President of these overall responsibilities.
 SECTION:  I  
TITLE:  ORGANIZATIONAL STRUCTURE 

Director of Operations (Accountable Manager)

The Director of Operations is also the repair station’s Accountable Manager. The Director of Operations reports to the President and is directly responsible for the overall operation of the repair station. The Director of operations is appropriately certificated per CFR14 Part 65.

In addition, The Director of Operations is responsible for the following:

1. Establish and Maintain as the primary contact to the PMI.
2. Ensure that the Repair Station Manual / Quality Control Manual is kept current and accurate. Coordinate with the FAA all revisions to this manual.
3. Ensure that adequate safety precautions are observed by the repair station personnel.
4. Ensure adequate fire-equipment fighting equipment is available at the repair station.
5. Ensure that the repair station personnel follow the regulations under part 145.
6. Establish the criteria for hiring personal for positions responsible for maintaining, supervising, or inspecting maintenance and alterations of civil aviation articles
7. Establish the Training Program Manual, maintain the requirements for initial and recurrent training for personnel involved in the maintenance and, preventive maintenance of civil aviation articles.
8. Establish liaison with air carriers respecting applicable CFR requirements, when work for air carriers is to be performed.
9. Maintain the repair station rosters and ensuring that changes in job personnel or job duties are reflected on the roster within five business days as required by this manual.
10. Establish and maintain the repair station employment and training records.
11. Verify the repair station “self- evaluation” to determine it has the housing, facilities, tools, equipment, material, data, and trained personnel to add article to its Operation Specification.
12. Establish and maintain Operation Specification of articles with respect to the Operating Specifications Ratings held.

In the absence of the Director of Operations, The Production Manager or Quality Control manager assumes the responsibilities of Director of Operations The duties of the Director of Operations may be delegated by him as necessary. However, such delegation does not relieve him of the overall responsibility of his position.
SECTION: I
TITLE: ORGANIZATIONAL STRUCTURE


Quality Control Manager:

The Quality Control Manager is certificated per CFR 14 Part 65 and is directly responsible to the Director of Operations for the overall operation of the Inspection Department.

The Quality Control Manager’s duties and responsibilities are to:

1. Coordinate repair station Inspections.
2. Ensure work performed by outside sources and undergoing maintenance, preventative maintenance, or alteration in this repair station was properly performed and documented.
3. Ensure the preservation of articles or parts, while carried in inventory, including parts that are subject to deterioration and shelf–life specifications.
4. Determine the final disposition of articles failing to meet the incoming inspection review.
5. Supervise inventory control.
6. Assist, supervise and direct personnel assigned to the inspection department.
7. Ascertain that inspections are properly performed on all completed work before it is released to service and that the proper inspection, maintenance records and forms for such releases are properly executed.
8. Maintain the files of completed work orders & inspection forms by filing work orders in numerical order in file cabinets so that the articles pertaining to specific items repaired can be readily located for review.
9. Maintain a current file of pertinent FAA specifications and airworthiness directives using the FAA web page and company computer system.
10. Maintain a file of technical data on articles overhauled or repaired by the repair station using current technical data provided by the manufacture and or the air carrier.
11. Properly submit via e-mail FAA FORM 8010-4 using the FAA web page to report of serious failures, defects, or malfunctions in accordance with CFR 145.221 within 96 hours after defects are found.
12. In charge of the Corrective Action Program and determines the appropriate actions to be taken when deficiencies are discovered or reported.
SECTION: I
TITLE: ORGANIZATIONAL STRUCTURE

Quality Control Manager: (Cont)

13. Determining the airworthiness of articles on which work has been performed by contract agencies.
14. Perform hidden damage as required of articles that undergo maintenance at this repair station.
15. Ensure that CFR Part 121, 125, 129, and 135 customer requirements are obtained, made available and followed up by inspection personnel.
16. Determine equivalency of tools and equipment in use by this repair station. This determination will be made after a close review of the technical data pertinent to the application and the article being used on.
17. Continuously review the repair stations training program to ensure all the repair station’s training needs are met.
18. Train, Direct, Supervise, and assist personnel performing work under the repair station certificate as directed by the Director of Operations.
19. Audit maintenance function contractors before use and maintain the results of those audits.
20. Fill out FAA form 337 and Determine that that manufactures instructions for continued airworthiness (overhaul manuals, service bulletins, maintenance manuals) and other data are acceptable to or approved by the FAA are in current status and available to the maintenance and or inspection personnel.
21. Ensure that the articles which have been designated as scrap are appropriately scrapped.
22. Backup control for the Production Manager for the Scrap Parts Program.
23. Backup control for the Tool Calibration Program for the Production Manager.

In the absence of the Quality Control Manager, the Production Manager assumes the responsibilities and delegates authority to qualified inspection personnel. However, such delegation does not relieve him of the overall responsibilities.
SECTION:  I
TITLE:  ORGANIZATIONAL STRUCTURE


Production Manager:

The Production Manager is certificated, and directly responsible to the Accountable Manager/Director of Operations for the overall operation of all departments.

The Production Manager’s duties and responsibilities are to:
1. Ensure that Technicians have the appropriate technical data available during the performance of maintenance, preventive maintenance and alteration activities.
2. Ensure the shop maintained in a clean and orderly manner.
3. Ensure that all maintenance or alteration processes are appropriately completed and documented on the maintenance forms as required.
4. Comply with fire and safety equipment checks periodically to ensure serviceability and adequacy.
5. Ensure the calibration program and verify shop equipment, tools are in a serviceable working condition using the tool calibration coming due list. If the Production Manager is not available the Quality Control Manager is backup control for the tool Calibration Program.
6. Ascertain that necessary work records are properly executed by the responsible technician with daily communication with the Quality Control Manager and inspectors.
7. Initiate requisitions for stock and materials as required.
8. Review purchase orders and oversee maintenance and preventive maintenance for air-carriers conducting operations under parts 121,125,129 and 135 and insure the inspections are performed per the air-carriers inspection program.
9. Supervise and direct repair station personnel performing the repair functions.
10. Ascertain that all Repair Station work is performed in compliance to established workmanship standards, and applicable specifications using current technical data.
11. Responsible for the scrap parts program.
12. Back up control to the Quality Control Manager for the Shelf Life Program.

In the absence of the Production Manager, the Quality Control Manager assumes the responsibilities and delegates authority to qualified inspection personnel. However, such delegation does not relieve him of the overall responsibilities.
SECTION:  I
TITLE:  ORGANIZATIONAL STRUCTURE

Inspectors:

Personnel performing inspection functions report to the Quality Control Manager and are responsible for performing duties as directed and assigned. Inspector’s who are authorized and approved per CFR 14 Part 65 may Approve Articles for Return to Service.
The inspection personnel are responsible for performing in-process and final inspection on civil aviation articles in accordance with current technical data provided in the manufacture’s instructions for continued airworthiness, Service Bulletins, Service Letters, Airworthiness Directives, and industry standard practices, and other data acceptable to or approved by the FAA.

Inspectors for this repair station are specifically responsible for:

1. Inspector’s who are authorized and approved per CFR 14 Part 65 may Approve Articles for Return to Service.
2. The inspection personnel are responsible for performing in-process and final inspection on civil aviation articles in accordance with current technical data provided in the manufacture’s instructions for continued airworthiness.
3. Ensuring that they are thoroughly familiar with the inspection methods techniques, aids, tools, and equipment used within their assigned area of responsibility.
4. Maintaining proficiency in using the inspection aids in their assigned area if responsibility.
5. Ensuring that the inspection tools and equipment, including inspection aids, used to perform inspections are in proper working order and with the proper calibration information is affixed.
6. Understanding the current specifications involving inspection tolerances.
7. Ensure all inspections are properly performed and recorded.
SECTION:  I  
TITLE:  ORGANIZATIONAL STRUCTURE  

Receiving Inspector  

Personnel performing receiving inspection functions report to the Quality Control Manager and are responsible for performing duties as directed and assigned.  

The receiving inspection personnel are responsible for visual and verification inspections.  

The Receiving Inspectors duties and responsibilities are to:  

1. Visually inspect and document articles being received for maintenance on Receiving Inspection form SA-10. Inspect for correct identification, shipping packaging or method used and any damage, or other defects.  

2. Execute Specified Shelf Life Program. The Production Manager is the back up control for the Shelf Life Program  

3. Visually inspect incoming articles, standard parts, and materials that are purchased and Articles that are being returned from out-processing for proper certification, conformity, defects, and quality is documented on form SA-31(Standard parts and Materials Inspection Form). The receiving Inspector will inspect the preservation of these parts using standard industry practices, including parts that are subject to deterioration and shelf-life specifications. Any defects documented will be reported to the Quality Control Manager. 

The Receiving Inspector may delegate to any qualified assistant as necessary; however, such delegation does not relieve the Receiving Inspector of these overall responsibilities.
SECTION:  I
TITLE: ORGANIZATIONAL STRUCTURE

Production Control Personnel

Production Control Personnel make up a support staff for the administrative needs and requirements of the Production Manager (PM), Quality Control Manager (QCM), Inspectors and Technicians. The Production Control Personnel are responsible to the PM for duties that include:

1. Review of Spectrum Aerospace Operation Specification with each article repair that is received and performs self-evaluation audit using form self evaluation check list SA-23 as required Report to the Director of Operations with “self Evaluations Checklist”.
2. Airworthiness Directive research on article that is received and documented on SA-4.
3. Completion and submitting via fax or e-mail Customer Notification form SA-19. In the event part number/repair order errors are found on the receiving inspection form SA-10.
4. Using the company’s computer system to create and print Work Order Traveler forms SA-1, and work order labels used for identifying customer’s files and articles in the shop.
5. Print on paper using the company computer system the current technical data manuals that are used to perform the maintenance functions on the articles.
6. Updating the data in the production report & input of the day to day changes of a production report using the company computer system. The production report lists all open work orders and includes; The customer name, date of receipt and due date, customer R/O number, work order number, article description, assigned technician status note area, article P/N, ATA code, article S/N and work required.
7. Closing work orders and the data input of the maintenance functions that were complied with on an article. This data is entered into the company’s computer system and is used to create the article’s Approval for Return to Service documentation, 8130-3 form and Teardown Report Summary form SA-3) which is the documentation that is sent out with the article.
SECTION:  I
TITLE:   ORGANIZATIONAL STRUCTURE

Shipping & Receiving Personnel

Shipping & Receiving Personnel will have appropriately trained personnel to conduct a complete visual inspection of all articles being shipped or received. The inspection and responsibilities include, but is not limited to the following:

1. A check of any obvious physical damage.
2. Verifying that all appropriate plugs and caps are installed.
3. Verifying that part numbers match the accompanying documentation.
4. Verifying that packing slips contain all the information required by the customer.
5. Verifying that the shipping container and packing are appropriate for the articles being shipped using standard industry practices.
6. Verifying that all appropriate required documentation (maintenance release, material certification, traceability documents, etc.) are at hand, properly completed, and signed.
7. Generate pick tickets.
8. Pull parts from the vertical lift to work orders as assigned.

Shipping Control/Packaging: After the completion of the shipping & receiving inspection, the articles/materials being shipped must be properly packaged as required. All articles should stay in their protective plastic wrap (if applicable) with adequate room inside the container to prevent damage. All articles will be shipped in their assigned containers or a new fiberboard box packed by using the instep-pack foam machine.

Shipping of hazardous materials will be contracted thru an outside source. All outside sources are approved and trained as required in CFR 49 part 172 subpart H.
SECTION:  I
TITLE:    ORGANIZATIONAL STRUCTURE

Technicians:

The technicians perform the repair or overhaul of articles and report to Production Control Personnel.

The Technician’s duties and responsibilities are:

1. Verify proper identification of articles being worked using current technical data.
2. Perform repair work: preliminary inspection, disassembling articles and sub-assemblies documenting on Work Order Traveler form SA-1 and Discrepancy / Correction Teardown form SA-4.
3. Clean and visually inspect of articles and sub-assemblies for damage and defects.
4. Comply with replacement part list using Required Parts List form SA-20 using current tech data and turning into purchasing.
5. For non destructive testing Identify and tag parts with metal tags utilizing item numbers reference in the appropriate technical data documented on Repair Order processing form SA-6 then transferred to a repair order form SA-15.
6. Complete and document work performed on Work Order Traveler form SA-1 and Discrepancy / Correction Teardown form SA-4.
7. Assembly of articles and sub-assemblies including torque and safety wire lock out of hardware on articles were fully assembled will be hidden.
8. Final assembly and test as required of article using current technical data results to be documented on Work Order Traveler form SA-1 and Discrepancy / Correction Teardown form SA-4.
9. Items that are rejected by the technician are tagged with Form SA-9 red reject tags. Rejected items are disposed of in accordance with standard industries practices.

The duties of the Technicians may not be delegated.
SECTION II

PERSONNEL ROSTER
SECTION: II
TITLE: PERSONNEL ROSTER

REF: CFR 145.161(a) (1) (2) (3), 145.209(b)

The Personnel Roster’s are on file in the Quality Control Manager's Office.

This repair station will maintain personnel rosters with the names of all management personnel, Supervisors, Inspection personnel, and those individuals authorized to perform final inspection and approve an article for return to service.

These rosters shall include:
1. Present title
2. Total years experience and type of maintenance work performed
3. Past relevant employment with names of employers and periods of employment
4. Scope of present employment
5. Certification type and number

The Director of Operations will be responsible for maintaining the personnel rosters. The Production Manager is authorized as an alternate when the Director of Operations is not available. Revisions to the Personnel rosters due to changes in personnel caused by termination, reassignment, or addition to the inspection personnel will be carried with-in five (5) business days of the change.

The employment summaries of all persons on the required repair station roster responsible for compliance to this procedure are on file in the Director of Operations Office and are available for review upon request CFR 145.161which states that repair station personnel must have the training, knowledge, and experience to perform maintenance, preventive maintenance, or alterations authorized by the repair station certificate.

This certificated repair station chooses not to use repairmen at this time but may consider recommending applicable personnel who meet the personnel requirements of CFR part 145.159 and the eligibility requirements of CFR part 65.101 at a later time.
SECTION III

DESCRIPTION OF OPERATIONS
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

REF: CFR 145.101, 145.109

The Facility

Location: 609 West Knox Rd, Tempe, Arizona

Spectrum Aerospace is a 145 FAA Certificated Repair Station, No.7SPR147B housed in a block, two story, office, shop, and warehouse facility.

Shop area, warehouse, stockroom, painting area, machine shop, and receiving are covered with insulated exterior foam over wood roof structure. The office, sales and data processing utilizes carpeted covered concrete flooring. The walls are constructed of both solid block exterior walls and insulated drywall constructed interior walls with drop tile ceilings.

The facility is climate controlled by 9 externally mounted central heat and air condition systems. Interior lighting is provided by 2’ x 4’ overhead fluorescent lighting panels.

The building is protected by a security and fire alarm system. The protection incorporates a sprinkler system throughout the building with certified fire extinguishers at various locations. Compressed air and secondary power is distributed throughout the facility.
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Facility Layout (First Floor) Location: 609 West Knox Road, Tempe AZ 85284
Facility Layout (Second Floor)

Location: 609 West Knox Road, Tempe AZ 85284
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Equipment and Materials

This repair station has the equipment tools, and materials to perform the maintenance as required in accordance with part 43. Tools and equipment which require calibration is the responsibility of the Production Manager who will implement into the repair station calibration program and maintain as required using the company computer system.

This repair station is equipped with machine shop centrally located in a climate controlled part of the building. Major equipment in this machine shop include: a CNC Lathe and CNC mill.

A qualified machine operator or machinist will machine articles and or sub assemblies to remove corrosion and other defects from bores, faces, and other surfaces as required in accordance with current technical data corrective actions written in the Work Order Traveler form SA-1 and or Discrepancy / Correction Teardown form SA-4.

The machines will also be used to fabricate repair bushings, sleeves, spacers and various other assemblies as required for the repair and overhaul of the various articles that this repair station will maintain. The fabricated repair parts are made using raw material that is stored in a controlled area of the machine shop. This material is color coded with paint for identification and controlled using a stick on label ink stamped with a purchase order number of the purchase order the material was purchased with. This material has certification paperwork that contains the purchase order number from which the material was purchased and can be used to trace back to purchasing origination. A copy of the material certification and purchase order receiver is kept in a material logbook in the machine shop controlled area. Original certification is filed with the original (purchase order receiver) form SA-14 when material is received. The machine shop is used to fabricate tooling and other process spec work as well.

Segregated and partitioned from the machine ship is a Hydraulic Shop. This area contains a skydrol hydraulic test bench for the pre, and post testing of hydraulic articles in accordance with current technical data and documented using the Work Order Traveler form SA-1 and or Discrepancy / Correction Teardown form SA-4 for which this repair station maintains. The qualified operator will operate the hydraulic test bench and will have documented authorization in the training records for the individual. The hydraulic test bench includes many gages and flow meters that are controlled in the calibration program.
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Equipment and Materials (cont)

The main shop includes mechanics tool boxes work benches and tables and various test fixtures This area is climate controlled and is used by technicians, inspectors ,and other personnel for the disassembly, In-process inspection, remove and replacement of parts, assembly and documentation of the article maintenance being accomplished.

The general shop is located in the back portion of the facility. This shop is swamp cooled. The general shop includes a self enclosed back draft style paint booth used by personnel qualified to refinish painted articles and sub assemblies. A rotary screw compressor with 250 gallon reserve tank supplies air to the pneumatic plumbing through-out the facility. There is a bake oven with programmable temperature and time control with chart recorder which is used to stress relieve articles post machine shop processing. The post stress relieve chart is made part of the articles work order package. The Technicians, using and referencing current technical data will document on Work Order Traveler form SA-1 and or Discrepancy / Corrective Teardown form SA-4 that the stress relieve was complied with. Technicians and or other personnel qualified will use the Plastic pressure media blaster also located in the general shop. The Plastic media blaster is used to remove paint finish off articles and sub-assemblies without disturbing or removing the plated surface. A recycle solvent tank is found in the general shop is used for the degreasing of articles and sub assemblies. The general shop also includes a band saw for rough cutting of Raw material prior to be machined in the machine shop. The tooling and or equipment found in the general shop will be used by personnel that have been checked out and properly authorized and documented using On-The Job Training Form SA-25.

The Quality Control Manager and or the Production Manager use the articles current technical data to determine what tooling or equipment is required to perform the work. Articles used for fabrication of tooling or reverse engineering will be tagged with a tan “reference only “ tag. Items tagged with a “reference only “ tag will not be received into the repair station. The tools and equipment are procured or fabricated as an equivalent substitute to the tools or equipment listed in the technical data, tooling print or drawing before any maintenance is accomplished. Tools and equipment requiring calibration are sent to an approved calibration source for calibration before being used to perform any maintenance. Calibrated tools are tracked using a calibration number and calibration report. Tools and equipment that are not calibrated are assigned a tool number and tracked using a tool number list. The Calibration report and tool number lists are maintained in the company computer system. The numbers assigned to the non-calibrated tools and test equipment are identified as “SA001, SA002, etc.” These “SA” numbers along with a manufacture part number “as applicable” are engraved, stamped
or labeled on the tool or test equipment. The tools are listed in the computer system as the “SA” number with a manufacture part number “as applicable”. The numbers,

assigned to the calibrated tools and test equipment are identified as “SAC001, SAC002 etc.” These “SAC”(Spectrum Aerospace Calibrated) numbers along with a manufacture part number “as applicable” are engraved, stamped or labeled on the tool or test equipment. The tools are listed in the computer system as the “SAC” number with a manufacture part number “as applicable” along with a description and a location where tool is stored. The tooling and equipment is under the control of the repair station at all times and at the hands of the individual before performing the maintenance.

This repair station does not intend to lease or rent tooling for maintenance purposes. Fabricated and purchased tools and test fixtures are assigned a Spectrum Aerospace number and logged into the company computer system.

This repair station has fabricated various test fixtures and tooling for the maintenance and test of the various articles being maintained. Fabricated tooling will be designed to perform the function it is intended. The Quality Control Manager will determine equivalency with the technical requirements of the special equipment or test apparatus recommended by the manufacture using prints and technical data for which the equipment was manufactured from. The equipment and test fixtures will be used to test the articles they were intended for. Equipment and test fixtures will be assigned a Spectrum Aerospace tool number and logged into company computer system. The stores area consists of a vertical lift which contains new parts, shelf life items and serviceable parts.

The vertical lift is secured by password only access approved by the President. Once a part or parts are required for a work order authorized shipping and receiving personnel generate a pick ticket from the company computer system referencing a work order number, and material description, and quantity is pulled from stock. Shelf life items are confirmed and verified for currency prior to issuing to work orders.
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Inspection Flow Chart

Receiving Inspection
See Receiving Flow Chart for Details

Damage

Hidden Damage Inspection

Notify Management

Yes

No

Preliminary Inspection

Acceptable

Notify Management

Yes

No

In Process Inspection,
See Repair/Overhaul Flow Chart

Final Inspection
of Article & Paperwork

Acceptable

Return to Technician with Written Instructions Documenting The Discrepancy

Yes

No

8130-3 & Approval for Return to Service Issued

Article & Paperwork Taken to Shipping
See Shipping Flow Chart

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SECTION: III
TITLE: DESCRIPTION OF OPERATIONS
Operation Specification Flow Chart

Is Article on Operation Specification?
Yes
No
Is Article Documentation Available?
Yes
Acquire Documentation
No
Return Item to Shipping. See FC

PERFORM SELF EVALUATION

Documentation Received?
Yes
Inspect Article with Current Documentation. Does Spectrum Aerospace have the adequate housing facilities to perform maintenance?
No
Article is placed on hold in shipping & receiving awaiting disposition
Yes
Notify

Inspect Article with Current Documentation. Does Spectrum Aerospace have the recommended equipment, material technical data & processes to perform maintenance?
Yes
Revise Operation Spec.
No
Does Spectrum Aerospace have the trained personnel to perform maintenance on the article?
Yes
No
Does Spectrum Aerospace have the adequate housing facilities to perform maintenance?
Yes
No
No
Return Article See Ship FC

Receive into Computer System and Open Work Order. Article is then released for Maintenance. See Repair/Overhaul Flow Chart

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SECTION: III
TITLE: DESCRIPTION OF OPERATION

Repair/Overhaul Flow Chart

- Article Received Into System. Work order Opened by PC. See Receiving Flow Chart.
- Technician uses Tech Manual & Work order to identify article for Proper Identification. Does Contact Immediate Supervisor for Corrective Action.
- Perform Pre-Test as Required & Continue with Disassembly.
- PC Closes out W/O and Invoices Component.
- Parts List Routed to Purchasing Department. See Flow Chart.
- Technician Completes Replacement Parts List.
- The President Director of Operations Quote Job to Customer.
- PC Closes out W/O and Invoices Component.
- Technician Completes Step by Step Repair Documented on Handwritten Teardown Routed to Machine Shop.
- Does Article Require Refinish of all Required Parts? Yes. No.
- Technician Completes Out Process Forms, Routes Sub-Assemblies for Shipping.
- See Shipping Flow Chart for Details.
- Technician to Document and Stress Relieve as Required In Process Inspection.
- Machine as Required to Remove Defects, Document, Fabricate any Repair Details as Requested by Teardown In-Process Inspection.
- Inspectors complies with In Process Inspection. Functional Test As Required.
- Inspector complies with In Process Inspection.
- Final Inspection See Inspection Flow Chart.
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Purchasing Flow Chart

1. Receive Requisition
2. Check Inventory Levels
3. Adequate Stock
   - Yes: See Repair / Overhaul FC
   - No: Confirm price and delivery schedule with supplier
4. Accept Reject
   - Accepted: Confirm Approved Supplier
   - Rejected: See QCM For Approval Of Vendor
5. Buyer issues P.O. to supplier
6. Computer generated report of weekly status
7. Is delivery of parts on schedule?
   - Yes: Continue to monitor due date
   - No: Seek New Supplier
8. Keep Supplier
   - Yes: Follow-up With supplier by phone / fax
   - No: Seek New Supplier

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SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Inventory Flow Chart

- Prepares Part Locations
- Logs Part Information
- Into Computer System
- Do Parts Match Paperwork?

  Yes →
  Image Required Paperwork into Computer System – Then Route Paperwork to Accounting

  No →
  Contact Immediate Supervisor for Corrective Action

- Are Shelf Life Items Properly Labeled and logged?

  Yes →
  Label Shelf Life items as required and log

  No →
  Expired discard as required

- Stock Replacement Parts, Standard Parts & Shelf Life Items Correct Locations

- Sales Order/Pick Ticket Received-Parts Pulled For Work Order

- All Documentation Verified For Correct Information

  Sales

  Sales

- Parts for Repair/Overhaul Or Sales

  Yes →
  Repair/overhaul

- Paperwork and Parts Delivered to Shipping See Shipping Flow Chart

- Deliver to Job Workstation See Repair/Overhaul Flow Chart

Notify Purchasing of Part Shortage See Purchasing FC

Adequate

Yes →

No →
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Invoicing Flow Chart

Receive Sales Order
Or Work Order → Create Invoice → Create Packing Slips

Shipping Documents to Shipping
See Ship FC
SECTION: III
TITLE: DESCRIPTION OF OPERATIONS

Shipping Flow Chart

1. Receives Parts for Out Process Maintenance Function
   - Select an Approved Vendor
   - Prepare Repair Order to Comply with Maintenance Function Required
   - Did Part(s) Pass Visual Inspection?
     - Yes: Outsource Maintenance Function. Deliver Component Sub-Assemblies to Vendor for Proper Function
     - No: Stop! Do Not Ship. Notify Quality Control Manager For Corrective Action
2. Receives Parts to Ship to Customers
   - Verify All Documents are Accurate and Attached to the Article
   - Package Part(s) Appropriately
   - Confirm Shipping Documentation
   - Schedule Shipping Company for Pick-up or Delivery Locally
   - Shipping of Hazardous Materials will be outsourced
SECTION IV

OPERATION SPECIFICATION
SECTION: IV
TITLE: OPERATION SPECIFICATION

REF: CFR 145.61, 145.209 (d),(1), 145.215(c)

This repair station may perform maintenance, preventative maintenance, or alterations on articles listed on the Operation Specification. The Director of Operations is responsible for filling out and submitting FAA Form 8310-3 (Application for Rating Change) listing article part numbers, and description in order for the FAA to generate the Operation Specification document. The Operation Specification document lists article part numbers of articles that fall under the repair station rating and are accepted to perform maintenance after a self evaluation audit has deemed the repair station capable to perform the necessary maintenance on the article using the current technical data. When this repair station no longer wishes to maintain an article on the Operation Specification the same form FAA 8310-3 is to be filled out and submitted to the FAA applying for a rating change so that the Operations Specification reflect the current list of articles this repair station is capable to perform maintenance, preventative maintenance, and alterations.

OPERATION SPECIFICATION SELF-EVALUATION

Production Control Personnel are responsible for administering self-evaluation. This evaluation is documented on Self-Evaluation Checklist form SA-23. Self-evaluation shall be performed when ever Spectrum cannot find a part number in question to be on the current Operation Specification. The need to revise the Operation Specification is driven by:

1. The part number not on the current Operation Specification.
2. A change to Spectrum Aerospace’s current rating.

Form SA-23 “Self-Evaluation Checklist” is designed to check that this repair station has the technical data, the housing, facilities, tools, equipment and trained qualified personnel in place to perform the work required.
SECTION: IV
TITLE: OPERATION SPECIFICATION (Cont)

The checklist form list article part number and descriptions. A description of what the form is used for and a simple questioner with “Yes” or “NO” for the answers to each requirement.

The answer results of “YES” check marked on all questions enables the article to be entered or added to the Operation Specification as described in this manual. The Director of Operations is e-mailed from Production Control Personnel with the Self-Evaluation Checklist form SA-23 to make a revision to the Operation Specification using the company computer system.

All Self- Evaluation Checklists form SA-23 are scanned in the company computer system and maintained in file along with the approved FAA Operation Specification.
SECTION V

TRAINING PROGRAM
SECTION: V
TITLE: TRAINING PROGRAM

REF: CFR145.163, CFR 145.165

The training program and associated revision procedures are located in the TPM section 8.

Spectrum Aerospace has a Training Program Manual with the applicable training needs, training forms and areas of study. Maintenance, preventative maintenance, or alterations for air carriers conducting operations under parts 121, 125, 129, and 135 may provide or require their own instructions and technical data used to perform the maintenance. The Production Manager and the Technicians performing the maintenance will be trained by the air carrier as required to ensure that there is a clear understanding of what the purchase orders requirements are and what technical data is to be used to properly perform the maintenance.
SECTION VI

PROCEDURES GOVERNING WORK AT ANOTHER LOCATION
SECTION: VI
TITLE: PROCEDURES GOVERNING WORK AT ANOTHER LOCATION

REF: CFR 145.203

Spectrum Aerospace does not provide service outside their current facilities.
SECTION VII

PROCEDURES FOR MAINTENANCE, PREVENTIVE MAINTENANCE OR ALTERATIONS FOR AIR CARRIERS
A training program will be carried out using CFR 145.205 for certificate holders under CFR 121, CFR 125, and CFR 135, and for foreign air carriers operating a U.S. registered aircraft in common carriage under CFR 129. Quality Control Manager will keep a file of air carriers procedures and necessary technical data. The Production Manager will verify these procedures are in place when the maintenance is performed. The Quality Control Manager will update training programs and individual training per the air carriers’ revisions and notification to Company.

This repair station will perform maintenance and preventive maintenance for air carriers conducting operations under parts 121, 125, 129, and 135. Work will be performed in accordance with the operator’s program and maintenance manuals as required in accordance with the contractual documents from the air carrier. The Production Manager and the Technicians performing the maintenance will be trained by the air carrier as required to ensure that there is a clear understanding of what the purchase orders requirements are and what technical data is to be used to properly perform the maintenance. The Production Manager will verify that the air-carriers purchase order has provided the repair station with the information necessary to comply with the maintenance requirements. Communication with the operator will be maintained in the Repair Station when specific manuals or other instructions are not available or applicable.

In the absence of specific instruction, the repair station will not perform maintenance until such instruction is provided. Return to service documentation will be issued to work completed as per operator’s requirements. Spectrum Aerospace does not perform required inspection item (RII) and or line maintenance functions.
SECTION: VIII
TITLE: CONTRACTING

REF: CFR 145.209(h), 145.211(c), 145.217 (a) (21) (2), & 145.223(bc)

The list of functions and vendors are kept in the Quality Control Manager’s office.

The Quality Control Manager is responsible to submit the Maintenance Functions List and revisions to the FAA for approval prior to contracting maintenance. The maintenance functions list and revisions is compiled with by sending a letter and an acknowledgement form to the CHDO via e-mail.

Upon approval by the FAA, the acknowledgement form is returned to Spectrum Aerospace and recorded as the current maintenance functions list. It is also the responsibility of the Quality Control Manager to maintain a list of contracting vendors, and their addresses for FAA acceptance.

Vendors that are FAA – Certificated Facilities are sent a vendor audit form SA-11 or an on-site audit is performed every year by the Quality Control Manager. The audit includes their current FAA - rating status. Copies of these contractor’s Air Agency Certificates and Operations Specifications are kept on file in the company’s computer. The Quality Control Manager then evaluates the vendor audit form to determine that the vendor is properly rated to perform the service.

Vendors that are non-FAA – Certified Facilities will not be used for maintenance functions at this repair station.

The article to be maintained by a Certificated Provider is accompanied by a Repair Order that includes any special instructions necessary for the maintenance of the article. Once the article is returned to Spectrum Aerospace, a receiving inspector shall perform the incoming visual inspection of all articles received from an out process vendor. The visual inspection shall include a review of the Approval for Return to Service and or certification of conformity documentation required to insure requested processes have been accomplished. The Repair Order Receiver Form SA-16 is generated and the article is received back into the system. Any material, article or part failing to meet the incoming inspection will be tagged with a red unserviceable reject tag Form SA-9 and segregated by placing the part into a red tag cage.
SECTION: VIII
TITLE: CONTRACTING (cont)

REF: CFR 145.209(h), 145.211(c), 145.217 (a) (21) (2), & 145.223(b, c)

Receiving inspector is trained per the repair stations training program manual. As discrepancies occur they are noted on the Repair Order Receiver form SA-16. This report is located in the Company’s Computer System. The discrepancies are also included in the Corrective Action Program as provided in this manual.

This repair station will not provide only approval for return to service of a complete certificated product following any outside contract maintenance, preventative maintenance, or alterations.
SECTION IX

PROFICIENCY OF INSPECTION PERSONNEL
SECTION IX

TITLE: PROFICIENCY OF INSPECTION PERSONNEL

REF: CFR 145.155, 145.157, 145.161 & 145.211

The Director of Operations establishes the criteria for hiring inspection personnel. This section documents the procedure for establishing and maintaining Proficiency of Repair Station inspection personnel.

Employees are hired to perform maintenance on civil aviation articles based upon their knowledge and experience. The employee’s initial qualifications are determined by employment history, training, certification, knowledge, experience, and practical tests, job assignments, including the performance of maintenance, inspection or supervision, are based upon the employee’s initial qualifications. Additionally, the employee qualifications listed in the manual will be the basis for determining the initial and recurrent training requirements.

All employee’s performing maintenance or other safety-sensitive functions for an air carrier or commercial operator certified under FAR 121, or 135 are included in an FAA approved “Anti-Drug and Alcohol Misuse” Program.

Prior to assigning an inspector preliminary, in process or final inspection authority, the repair station shall determine that the individual

1. Is thoroughly familiar with applicable CFR’s and with the inspection methods, techniques, practices, aids, equipment, and tooling used to determine the airworthiness of the article which maintenance, preventative maintenance, or alterations are being performed.
2. Is proficient in using various types of mechanical and visual inspection aids appropriate for the articles being inspected and approved for return to service.
3. Understands, reads, and writes English.

Once the above information has been ascertained and documented in the appropriate employee files. This individual shall be listed on the repair station inspector roster.

Inspectors must demonstrate proficiency using the various types of inspection equipment and tooling while performing inspections on articles. Prior to performing inspections, inspectors are required to understand, read and write in English.
SECTION IX
TITLE: PROFICIENCY OF INSPECTION PERSONNEL (cont)

The Quality Control Manager is responsible for verifying the capability of the inspectors and assuring that only capable persons are issued inspection Authority. Repair Station Inspection Personnel have access to and require proper knowledge of current technical data to perform their tasks. Inspection personnel will have initial indoctrination training to become familiar with the (RSM /QCM) for the repair station, as well as the applicable federal aviation requirements. Inspection personnel will be trained on technical areas of study based on individual job functions. The Director of Operations is responsible for assuring that Repair Station Inspection Personnel have received training to become familiar with these areas and assuring that training records are current and documented per the Training Program Manual section 6, page 6-1.

The Final Inspection will be conducted by an inspector who is authorized and certificated under 14 CFR 65, and listed on the Repair Station Inspector Roster as having approval for return to service authority.

The Director of Operations is responsible for monitoring the proficiency of Repair Station Inspection Personnel working in their areas and assuring that proficiency is maintained. Proficiency shall be monitored through observation of work quality and during yearly training. Loss of proficiency observed as increased repair and rejections shall require immediate re-training of inspection personnel. The Quality Control Manager will be responsible for all required re-training and documentation per the Training Program Manual Sec 6 and Sec 7.
SECTION X

TECHNICAL DATA
SECTION: X
TITLE: TECHNICAL DATA

APPROVED TECHNICAL DATA

Technical data, such as overhaul manuals, component maintenance manuals, service bulletins, AD’s, engineering orders, and/or other technical data approved by the FAA will be made available electronically thru the company computer system over the internet subscription to manufacture and/or purchased from the manufacture or customer supplied. The Quality Control Manager will be responsible for revising and maintaining technical data.

CURRENCY OF DATA

Current technical data shall be available to Repair Station maintenance and inspection personnel before inspection occurrence. This technical data is made available electronically thru the company computer system and or purchased from an acceptable approved source. Technical data shall consist of the current revisions of the overhaul manuals, component maintenance manuals, service bulletins, AD’s and other data accepted by the FAA. The technical data is printed on paper and implemented into a working copy issued to the technician along with a Work Order Traveler form SA-1. This process is accomplished by Production Control Personnel. The Quality Control Manager is responsible for making sure all software is operating correctly and the latest revisions are being used.

Technical data that requires translation will be converted to English before it is distributed or used for any maintenance functions at this repair station. The Quality Control Manager will seek this task out as required when required and be responsible for translation, revisions and quality checks by checking the internet subscription for latest copy. After revisions are made Production Control Personnel distribute technical data to technicians.
SECTION I

INSPECTION SYSTEM
SECTION: I
TITLE: INSPECTION SYSTEM
REF. Part 145 sections 145.21, 145.213

General

Inspections are a continuous process from receiving inspection through the various stages of repair or alteration until the final inspection prior to the approval of the work for return to service. The in-process inspections will be performed in accordance with the manufactures recommendations or in accordance with the customer’s program, as appropriate. In addition, as work progresses on a specific item, inspections will be made as necessary so that final inspection to determine airworthiness will not require disassembly. The inspector approving the article for return to service will determine through a review of the documentation (Form SA-1 and Discrepancy / Corrective Action form SA-4) through observation and inspection that all the required inspections have been completed.

When the customer requests a specifically limited work scope, and the preliminary or in-process inspection indicated discrepancies which do not affect completion of the limited work scope the final inspection and approval for return to service will be limited to the particular worked performed.

1. The work was accomplished with the work scope requested by the customer.

2. Each discrepancy that had corrective actions complied with was determined that the inspection was completed because the inspection block was signed with the signature or first initial last name of the inspector that completed the in-process inspection for that specific discrepancy in accordance with the current technical data.

In the event, any serious failure malfunction or defects of an article is discovered the Repair Station shall submit, Form FAA 8010-4, within 96 hours after the defect or malfunctioning has been discovered. The Quality Control Manager shall completely describe the nature of the defect or malfunctioning.

To ensure the continuity of inspection work that has been accomplished will be documented on a Discrepancy / Corrective Action form SA-4. This form will have the corrective action inspection block signed by the Inspector that complied with the inspection indicating that the corrective action for this step has been accomplished. The Corrective action inspection block with no signature will indicate that this step has not been inspected and that the next step of maintenance cannot be performed. The continuity of inspection is complied with by the Inspector. All discrepancies and corrective actions documented on Form SA-4 will be reviewed by the Production Control Manager and Quality Control Manager for form completeness and accepted with a signature.
SECTION: I
TITLE: INSPECTION SYSTEM
REF. Part 145 sections 145.21, 145.213

General (cont)

When complete articles are disassembled, the Technician will tag using green Repairable tag Form SA-8 for repairable parts and segregate the article and its parts in containers and placed on shelves to ensure that all individual parts of the same assembly are identified to that assembly. Non-repairable parts and articles will be tagged using red reject tag Form SA-9 and segregated into its own container and or placed into the red tag cage.

Suitable trays, racks, stands, and containers are provided in the shop areas to ensure proper segregation and maximum protection of all parts during the maintenance and alteration process. Articles are handled according to the manufactured recommendations to ensure that articles are not damaged in transit from one area of the repair station to another.

Prior to performing any maintenance or alteration on civil aviation articles this repair station will assess the requirements of each customer order to verify that the capability to accomplish the work. In particular, this repair station will accomplish the following steps under the direction of the Director of Operations.

1. Evaluate the requirements and clarify with the customer any question about the work scope to be done on the article, and what technical data will be used to perform the maintenance, preventative maintenance, or alteration.

2. Verify that the work required is within the authority of this repair station as in its ratings and Operational Specifications. This Repair station will also verify that is has the appropriate housing, facilities, equipment, tooling, qualified personal and current technical data available to perform the work requested.

3. Verify that the parts and material are available.

The company computer system and repair station software is used to Generate a working file and work order (work order traveler form SA-1) package to document maintenance, generate an identification tag (printed label that is affixed to SA-8 Spectrum Aerospace Green Repairable tag with applicable information,(customer name, article part number, article description, serial number, work order number, and work scope. Each work order will be a consecutively numbered document. The work order number will be used to as reference to the all maintenance, alterations, and inspections the article receives. The Paperwork review of the incoming article to determine if the may have been involved in an accident. Consult with the customer if there are any questions.
SECTION: I
TITLE: INSPECTION SYSTEM

General (cont)

4. If the article may have been involved in an accident, the work scope will include hidden damage inspection as described in this manual.

Receiving Policy
Articles, standard parts, and materials that are purchased are received by the Receiving Inspector documented on form SA-31 (Standard parts and Materials Inspection Form). This form is attached to SA-14 (Purchase Order Receiver Form) or SA-16 (Repair Order Receiver Form), whichever applies.

Articles received at this repair station for maintenance will be received and documented using Form SA-10 (Receiving Inspection Form). This form will remain with the article’s work order package.

Inspectors conduct visual inspection of all incoming parts and material to check for damage, identification and preservation. In the event an article or parts shipping container is damaged, the damaged container is digitally photographed for notification purposes to the vendor or customer. The article or part is removed and immediately inspected for damage. If the article or part is damaged then it is red tagged and routed to the red tag cage for instruction from vendor or customer. If the article or part has no evidence of damage then it resumes the receiving process for verification of documentation such as Approval for return to service form 8130-3 and or Certification of Conformity and Traceability records from vendors and contracted facilities.

All items are tracked by part number and lot number or serial number. For non serialized material the company computer system assigns a lot number to the parts being received. Material is stored in the stores area until required with the exception of certified Raw Material which is stored in the Certified Lock up cage.

All documentation associated with the material received is attached to the respective Purchase or Receiver. These documents are then imaged electronically into the company’s computer system which associates the documentation with the correct serial number or lot number for that part number. The original receivers along with the documentation, is then filed upstairs in the accounting office.

Upon successful completion of the receiving process the material, part or article is received into the system and routed to stores for proper storage.

Any material, article or part failing to meet the incoming inspection will be tagged with a red unserviceable reject tag and segregated by placing the part into a red tag cage.
SECTION: I  
TITLE: INSPECTION SYSTEM

Receiving Policy (cont)

The Director of Operations will determine the final disposition of such articles and appropriate steps will be taken to correct the discrepancies, return or to dispose of the item in accordance with the specific manufacture instructions or industry standard.

Incoming Inspection

The Receiving inspector will perform the following steps during the incoming inspection. Once completed the receiving inspector will complete form SA-31 (Standard parts and Materials Inspection Form) and attach this form to the Purchase Order form SA-14 or Repair Order Receiving form SA-16 whichever is applicable.

1. Inspectors conduct visual inspection of all incoming parts and material to check for damage, identification and preservation. No special test equipment or technical data will be required to perform the receiving inspection other than verification of documentation such as approval for return to service 8130-3 Certification of Conformity and Traceability records.

2. Shelf life material will be identified at incoming inspection. The purchase order number and the original manufactures expiration date will be marked on the shelf life label and affixed to the material container or package prior to being placed into stock. The shelf life is also entered into the company’s computer system.

3. Standard parts and materials are tracked by part number and lot number or serial number. For non serialized material the company computer system assigns a lot number to the parts being received. Material is stored in the stores area until required with the exception of certified Raw Material which is stored in the Certified Lock up cage.

All documentation associated with the material received is attached to the respective Purchase or Receiver. These documents are then imaged Electronically into the company’s computer system which associates the documentation with the correct serial number or lot number for that part number. The original receivers along with the documentation, is then filed upstairs in the accounting office.

Upon successful completion of the receiving process the material, part or article is received into the system.

Any material, article or part failing to meet the incoming inspection will be tagged with a red unserviceable reject tag and segregated by placing the part into a red tag cage.
SECTION: I
TITLE: INSPECTION SYSTEM

Incoming Inspection (Cont.)

The Director of Operations will determine the final disposition of such articles and appropriate steps will be taken to correct the discrepancies or to dispose of the item in accordance with the specific manufacture instructions or industry standard.

An attempt to correct discrepancies or to resolve any issues with the manufacture or distributor will be made. If the discrepancy involves activity believed to be a violation of the CFR’s or if criminal activity is suspect, this repair station will voluntarily report the suspect unapproved part using the FAA Form 8120-11. Form 8120-11 will be completed in accordance with the instructions found on-line with the form.

Preliminary Inspection

Articles received at this repair station will be given an appropriate preliminary inspection to determine their state of preservation by the Technician. These results will be noted on work order traveler Form SA-1 and or Discrepancy / Corrective Action form SA-4.

If the customer’s work scope is limited in nature, the Quality Control Manager will determine if the requested maintenance, preventative maintenance or alteration can be accomplished within the applicable data and regards to any other damage or discrepancies noted.

Technicians are responsible for accomplishing preliminary inspection on the complete assembly and on all individual parts during the disassembly and cleaning process in accordance with the article’s manufacture instructions and documented on work order traveler Form SA-1 and or Discrepancy / Corrective Action form SA-4.

This repair station records corrective actions taken on Form SA-4 which includes the relationship between the discrepancies found and the corrective action taken.

When articles that have life limits (or cycle limited) are received into the system for maintenance the records from the customer is reviewed by the Inspector for the life limit information. This information is transferred on to the identification repairable green tag SA-8 and affixed to each part as required. During the initial disassembly, cleaning, the technician will verify if the part is acceptable or not acceptable. Acceptable parts are identified using a green repairable tag Form SA-8. Parts that are not acceptable are tagged with a red rejection tag Form SA-9. The current status of any life limited articles is appropriately documented on Discrepancy / Corrective Action form SA-4. The records are filed with the work order package kept on file in the Production Control Office until completion of the job.
Hidden Damage Inspection

Before this repair station starts work on an article known to have been in an accident it will be given a thorough inspection by the Quality Control Manager for possible hidden damage.

When hidden inspection is required it will be accomplished with the specific instructions provided by the applicable manufacture of the article. The inspection will include areas adjacent to or likely to have been affected by the obviously damaged unit or component. The result of this inspection will be recorded by documenting in writing on the receiving inspection form SA-10 and Discrepancy / Corrective Action form SA-4. Hidden damage appearing to be the result of an accident (excessive heat, fire, shock, mishandling) will be reported to the customer by Production Control Personnel by using Notification form SA-19 then filed in the work order package for that article.

In-Process Inspection

Inspectors are responsible for ensuring that Progressive (in Process) inspections are performed properly, and that the inspection results are acceptable. The requirement and frequencies of the in-process inspection shall be determined whenever deemed necessary by an Inspector and or the Quality Control Manager referring to the instructions for continued airworthiness: (overhaul manuals, maintenance manuals, Service Bulletins, Service letters and Airworthiness Directives) or other data acceptable or approved by the FAA.

When records of maintenance include tests or dimensional results, these results are documented on a copy of the actual tech data page, "fits and clearances, test procedure, or checks. The initial page is labeled with a work order label. Any additional pages will include the individuals signature, initials, work order number and serial number to the article. These tests and dimensional checks are inspected for the technician signature or initials, date and for a calibrated tool number that that would indicate what tool was used. The tool identification number can be verified with the Calibrated Tools Program for calibration status. The inspector shall record the in-process inspection has been completed and that nothing further is required on that maintenance step by signing in the inspection block with signature and date on the work order traveler Form SA-1 and or Discrepancy / Corrective Action form SA-4.

Articles undergoing maintenance, preventative maintenance or alterations will be inspected and tested as required in accordance with the current technical data for the article. Whenever an in-process inspection or work scope determines that a maintenance step has been accomplished incorrectly, the work will be repeated and inspected to ensure proper completion. Troubleshooting will be performed if necessary to confirm cause and corrective action. Work performed will be documented on Work
SECTIONS: I
TITLE: INSPECTION SYSTEM

In-Process Inspection (Cont.)

Order Traveler form SA-1 and Discrepancy / Corrective Action form SA-4 the In-Process Inspection may only be performed by an Inspector listed on the repair station roster.

Articles which require a test or calibration after assembly will be given such a test by the technician and witnessed by the inspector as required. The records of this test will be included in the work order package signed by the technician and the Inspector.

The in-process inspection is complied with after each maintenance function and documented by the technician in writing on Work Order Traveler Form SA-1 and Discrepancy / Corrective Action form SA-4. The Form SA-4 is a step by step report of the maintenance being done. Steps without corrective action documented are steps that have not been performed. These steps may be performed out of sequence with the approval of the Inspector performing the in-process inspection and the work performed does not interfere with the final assembly. The approval of the procedure will consist of initials or signature of the inspector approving the in-process inspection in the appropriate area on the Work Order Traveler Form SA-1 and Discrepancy / Corrective Action form SA-4.

Final Inspection

Final inspection is conducted by the Inspectors (who are certificated per CFR14 part 65) after all in-process inspection has been completed. The final inspection requires the review of the documents used during the maintenance and any inspection documents including a thorough inspection of the article. All work done in accordance with customers repair order referenced to current technical data. Articles requiring rework will be returned to the technician with written documentation defining the discrepancy on form SA-4 for the Technician to correct or rework. Upon completion of the work the article will be inspected by the Inspector (who is certificated per CFR14 part 65). The Inspector will sign and date the approval for return to service form 8130-3, Teardown Report form SA-3, final inspection block on the Work Order Traveler Form SA-1 and the Discrepancy / Corrective Action form SA-4. Completed articles will be tagged with a original Teardown report form SA-3 and FAA Form 8130-3

Approval for return to service

This repair station will use CFR Parts 1 and 43 (Appendix A) as guidance to determine if a repair/alteration is classified as major or minor. If a repair or alteration is to be accomplished and it is not obvious if it should be classified major or minor, the Quality Control Manager will be consulted. The Quality Control Manager will consult the customer. If the customer holds an FAA certificate with authority to determine major
SECTION: I
TITLE: INSPECTION SYSTEM

Approval for return to service (cont)

and minor for the subject case, this repair station will request in writing that
determination and follow the customer’s instructions. If the customer cannot make such
determination, the Quality Control Manager will make the determination and document
the analysis that supports that determination for completion of form FAA 337.

Records of major alterations will be filled out by the Quality Control Manager on FAA
Form 337. After completion, the original FAA Form 337 shall be supplied to the
customer, a copy will be made part of the work order package for the repair station
records, and a copy will be forwarded to the Flight Standards District Office within forth-
eight (48) hours of approving the article for return to service by this repair station.
Approved Parts used on the article for the return to service is referenced by work order
number that is on the Approval for return to service 8130-3. This Work order number is
used to reference the work order package which includes a list of the approved parts.

Work Order

Production Control Personnel complete the information necessary (in the company
computer system) to open a work order traveler each time that an article is received and
maintenance preventative maintenance or alterations are going to be done at this repair
station.

A repair Work Order Traveler form SA-1, identified by the work order number and
containing the customer’s name, date and appropriate identification required to identify
any articles will be utilized by this repair station. This repair Work Order package shall
include the information pertinent to the work that is to be accomplished, including a list
of approved parts as authorized by the customer upon an approved quote. Work to be
accomplished shall be in sufficient detail that it will be readily understandable to the
assigned technician. With the use of current technical data and the Repair Work Order
Traveler form SA-1 The article will be tagged with a Green Spectrum Aerospace
Repairable Tag SA-8 and delivered to the appropriate work station.

Record of Inspection & Work

The repair Work Order Traveler form SA-1 shall contain the signature or initials of the
technician who performed the work, the signature or initials of the Inspector who
inspected the work. The Discrepancy / Corrective action form SA-4 will reflect exactly
what work was accomplished including the signature or initials of the technician who
performed the work, and signature or initials of the Inspector who inspected the work
approving each article. The Required Parts List form SA-20 will list parts used for the
service performed.
SECTION: I
TITLE: INSPECTION SYSTEM

Record of Inspection & Work
(cont.)

When records of maintenance include tests or dimensional results, these results are documented on the work order traveler Form SA-1 and/or Discrepancy / Corrective Action form SA-4. These tests and dimensional checks are inspected for the technician’s signature, date, and for a tool Identification number that would indicate the tool that was used. The tool identification number can be verified with the Calibrated Tools Program for calibration status. The inspector shall record the in-process inspection to determine that nothing further is required on that maintenance step by signing in the inspection block with signature and date.

Each inspection conducted - preliminary, hidden damage, in-process, periodic, dimensions, condition and any other appropriate information obtained during various stages of these inspections shall be recorded in the appropriate space on the Work Order Traveler form SA-1 which will be attached to or made a part of the file record. The work order package will be in English and filed as a permanent record of all work accomplished. These records will be maintained on file for at least two years from the date the article was approved for return to service.

Quality Control Manager is responsible for maintaining all Work orders packages. These packages include Work Order Traveler form SA-1 and Discrepancy / Correction Teardown form SA-4, a copy of the Teardown report form SA-3, a copy of the 8130-3, all testing procedures and results including out processing functions and parts required for completion of job. The owner/operator will receive the original teardown report form SA-3, and the 8130-3. All documentation generated is to provide a record of all work performed by the repair station and is checked for accuracy and completeness by the inspector performing the Final inspection before approval for return to service.

All work performed by outside contracting agencies shall be visually inspected and documented on Standard parts and Materials Inspection Form SA-31 by the Receiving Inspector prior to being placed in stock or service making sure the correct certification is filed with the correct work order package.

These packages will be maintained for a period of at least seven (7) years or longer if required by contract. Completed Work packages are stored in file cabinets located in the Production Control Personnel Office. These file cabinets are purged of closed work order packages each year. The work order packages will then be moved into archives for long term storage of at least seven (7) years.
SECTION II
CALIBRATION OF TESTING EQUIPMENT
SECTION: II
TITLE: CALIBRATION OF TESTING EQUIPMENT

Calibration Program

Equipment materials, and technical data needed for the work this repair station performs will be where the work is accomplished and be under the repair stations control while the work is being performed.

The equipment used to make airworthiness determinations that have a calibration requirements will be calibrated and certified prior to being used on the articles for maintenance, preventative maintenance and alterations per this repair stations tool calibration program.

The Production Manager is responsible for Tool Calibration Program and the Quality Control Manager is back-up for this function. Measurement (precision tools, gauges, scales and meters) and test equipment used in the repair station operations are subject to periodic inspection. The calibration and certificating calibrating of tooling is contracted to an outside source that has the resources to perform the calibration in accordance to (N.I.S.T.) National Instrument Standards Technology or other Industry standard acceptable to the FAA. This repair station requires that tooling is issued a certificate to verify the tool is certified traceable to N.I.S.T. or another industry standard acceptable to the FAA and documents what standards were used to calibrate the tool or equipment that was used to perform the calibration also the date of when the calibration for the test equipment used is due.

Calibration sources are surveyed and evaluated yearly by the Quality Control Manager to ensure that they are capable of performing the required services. An onsite audit by the Quality Control Manager will be performed or a paper audit will be sent to the vendor requesting the documentation, standard operational procedures (ISO9000, FAA, N.I.S.T, etc) that the calibration lab uses to perform the calibration on the tools and equipment that they are certifying.

Spectrum maintains a computerized calibration tracking system to track, find, and or issue new tools to the calibration program. Tool certifications are maintained on file in the Production Manager’s office and also reside on the company computer server on file in the Tool Calibration folder.

The Production Manager will generate a recall report noting equipment coming due for calibration. Tool that are delinquent The calibration coming due report will list tools and equipment for calibration prior to the tools becoming delinquent. Frequency of calibration checks may very depending on the use of the tool or the equipment. This repair station will allow for twelve (12) months maximum interval between calibration checks or what is recommended by the manufacture of the equipment or tooling.
SECTION: II
TITLE: CALIBRATION OF TESTING EQUIPMENT

Calibration Program (cont)

A calibration report will be originated by the Production Manager listing all tools, and test equipment. Record information shall include (as applicable):
Certification of Calibrated Tooling will be label with the following information on the label:

1. Tool Identification Number (SAC#)
2. Serial Number
3. Nomenclature / Description
4. Calibrated by / Date
5. Calibration Due
6. Name of the company who did the calibration

Calibration procedures and methods shall require standards acceptable to the FAA. Test equipment shall be calibrated at periodic intervals established on the basis of stability, purpose, and degree of usage. One year shall be the maximum established calibration interval. All Measurement and Test Equipment must be labeled, marked or otherwise identified to indicate its calibration status. When it is impractical to apply a label directly to an item, the label may be affixed to the instrument’s container or some other suitable means may be used to reflect calibration status. As a minimum, every calibrated device must be labeled by the calibration source or their approved subcontractors with the date of calibration, any limitation, the date of next calibration and the certification number or initials of the individual performing calibration.

Repair station personnel are responsible to check that the equipment or tool being used has a current calibration label attached. A past due list is used to assist in the location of equipment which has not been returned for recalibration. If a calibrated tool is found to be out of tolerance or found in the repair station missing a current calibration label that tool shall be removed from service, tagged with a red reject tag, SA-9 (to indicate something is wrong with the tool and not for use), then taken to the Production Manager’s office for disposition. In such a case: an inspection will be conducted to determine if this tool was used on any articles for maintenance. If the tool was determined to be out of tolerance the effected articles will be recalled.

Equipment that does not require calibration is labeled as “Reference only”. Employee owned tools that require calibration must be labeled reference only and are not used in maintenance practices. If calibrated tooling is removed from the facility, it must be sent for recalibration before it can be used. This repair station does not use automated test equipment.

At this time, there is no intent to rent or lease any equipment necessary for the repair of articles.
SECTION III
CORRECTIVE ACTION
SECTION III
TITLE: CORRECTIVE ACTION

Corrective Action

Corrective Action is a system of procedures that remedies undesirable situations through the correction of deficiencies. The system is designed to contribute to the repair station's improvement process.

The Quality Control Manager is responsible for the corrective action program. The Quality Control Manager shall appoint appropriate personnel for corrective action. After a deficiency is detected this repair station will implement a corrective action within forty eight (48) hours. The Quality Control Manager is responsible for the follow up audit. A record of corrective action shall be maintained in the Quality Control Manager’s office.

Steps for Corrective Action

Detection shall be assured by control and acceptance procedures designed to detect defects as promptly and feasible after they have been caused and an effective system of failure reporting which is factual and prompt.

Identification shall locate the origin of the unsatisfactory quality in one or more of the following areas:

1) Incoming material, parts, assemblies.
2) Service
3) Special processes.
4) Assembly.
5) Inspection.
6) Test.
7) Packing and Shipping.
8) Other.
SECTION III
TITLE: CORRECTIVE ACTION

Diagnosis

Diagnosis shall classify the root cause as:

1. Deficiencies are due to the receipt of inadequate condition of parts, conformity or traceability/certification by an outside vendor.

2. Repetitive noncompliance during the repair/release process indicates the need for review of housing, facilities, personnel qualifications, and procedures to make certain that the noncompliance is not a systematic problem.

3. Repetitive deficiencies, attributed to poor design, poor processing, or inadequate workmanship conditions, noted during analysis of returned article

4. Corrective Action is required for occurrences of any noncompliant condition

5. Preventive Action allows the Quality Control manager to use the training program to check and verify that inspection personnel are proficient at inspecting the articles that they are assigned to inspect.

6. Corrective Action is required to keep from having repetitive occurrences of any noncompliant condition.

The procedures in this manual for documenting deficiencies are to prevent a recurrence. In the event that this repair station identifies any evidence of potential violation of the regulation, this repair station should avail itself of the self-disclosure program addressed by AC-00-58.

Analysis identifying manufactured defects that may affect other released articles requires the notification of customers of the possible deficiencies.

The Quality Control Manager has full responsibility to ensure that Preventive Action is applied to the appropriate applications and follow-up audits are conducted to ensure the Corrective Action was effective. All records of Corrective Action audits form SA-21 shall be reviewed during Management meetings to make certain no recurrences happen. Form SA-21 to remain on file in the Quality Control Manages office for two (2) years from the date of the corrective action.
SECTION IV
TITLE: SCRAP PARTS PROGRAM

Procedures for Rejected or Scrapped Items

Articles that are determined to be Beyond Economical Repair or considered to be rejected are tagged with a red Reject Tag Form SA-9 and placed in the red tag cage awaiting disposition.

The Production Manager will be responsible for the Scrap Parts Report Program and assure that the Scrap Parts Report Form SA33 is sent to the customer (owner of the article) to obtain further instruction as to what the disposition of the article will be. The customer is given a choice to have the article sent back to them or have the article scrapped on site. This Scrap Parts Report requires that the customer sign and return the Scrap Parts Report to the repair station. This then becomes this repair station’s acknowledgement for the articles disposition and filed with the articles work order documentation.

When form SA-33 Scrap Parts Report is received back from the customer the Production Manager verifies that the customer has signed in the proper spaces provided that will authorize this repair station to scrap the article on site, or ship the article back to them.

The Production Manager will assign the shipping and receiving personnel to scrap the article. Articles to be scrapped on site will be scrapped as follows:

1. The articles will be removed and segregated from the shop.
2. The articles will be destroyed and damaged to the point where it can no longer be used or installed in a serviceable article.
3. The shipping and receiving personnel shall record the date the article was scrapped, part number, description, serial number, work order, and his initials in the scrapped parts log located in Shipping/Receiving.

The Production Manager is responsible to the Scrap Parts Program. The Quality Control Manager will ensure that the scrap parts program is effective.