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**ADMINISTRATIVE
OPERATIONAL PROCESSES
& Work Instructions**

AS 9100 REV. C / ISO 9001-2008

APPROVED BY: 
DAVID R. BENNETT
QA MANAGER

All AOP's in this binder are "REFERENCE ONLY"

Index and Revision Status

AOP-62-01 (Maintained by HR)	Employee Handbook	Rev. N/C
AOP-75-01	Work Order Creation	Rev. 3/14/2013
AOP-75-02	Production Process Forms Instructions	Rev. 3/14/2013
AOP-75-03	Production Process Verification	Rev. 3/19/2013
AOP-75-04	Foreign Object Damage	Rev. 3/6/2013
AOP-75-05	ESD Control Program	Rev. 3/6/2013
AOP-75-06	Tooling Inventory Control	Rev. 4/26/2013
AOP-85-06	Quality Stamp Control	Rev. 3/11/2014
AOP-75-07	Conversion Coat	Rev. 3/24/2014

- These Procedures are considered for Reference Training Purposes

All AOP's in this binder are for "REFERENCE ONLY"

RECORDS OF REVISIONS

DATE	SECTION	REVISION
10/22/02	AOP-44-01	Revised Supplier Quality System Survey Form AOP 44-01-1
11/04/02	AOP-12-02-01	Incorporated Documenting Procedures & Forms
12/19/02	AOP-52-04-1	Incorporated In-Process Inspection Procedure
1/9/03	AOP-52-05-1	Incorporated Final Inspection Procedure
10/08/04	AOP-44-01-1	Added AS 9000 to pages 1 & 2
2/18/03	AOP-44-01-2	Incorporated C&L Quality System Survey Form
8/25/03	AOP-45-01-1	Incorporated Production Process Forms Instructions
8/25/03	AOP-45-01-2	Incorporated Production Process Forms Instructions
9/4/03	AOP-12-02-2	Incorporated Library Procedure
10/7/03	AOP-52-00-1	Added reference to Quality Stamp Log
10/7/03	AOP-45-04-3	Incorporated Product Return Procedure
12/10/03	AOP-45-01-1	Revised RETURN TO STOCK Form procedure.
12/10/03	AOP-45-01-2	Added Reference to AOP-45-01-1
02/02/04	AOP-45-01-2	Revised to Specify how entries are automatically generated during the Work Order Entry Phase. (Blocks 10-17, 19-23 & 26-28.)
05/11/04	AOP-45-04-3	Deleted NCR Form 53-01-1 and added Form 2000-C-005.
8/10/04	AOP-44-01-1	Changed AS 9000 to AS 9001. Removed references to ISO-9001-1994.
11/11/04	AOP-52-05-1	Added foreign object check and tool accountability.
8/26/05	AOP-44-01-2	Deleted C & L SUPPLIER QUALITY SURVEY FORM
8/01/08	AOP Cover Page	Changed Address on Logo to reflect new facility location
8/01/08	AOP-44-01-1	Changed Airtronics address to reflect new facility location.
8/08/08	AOP-45-01-1	Major Revision, Released as Revision 1 to conform to revision levels needed for inclusion into FAA Repair Station Manual Appendix.
8/08/08	AOP-45-01-2	Major Revision, Released as Revision 1 to conform to revision levels needed for inclusion into FAA Repair Station Manual Appendix.
8/08/08	AOP-52-00-1	Major Revision, Released as Revision 1 to conform to revision levels needed for inclusion into FAA Repair Station Manual Appendix.

9/17/08	AOP-12-02-1	Added Manufacture Code "G" to documents list in par 6.1.3.
5/19/09	AOP-45-04-4	Added procedure for receiving Raw Material.
7/16/09	AOP-52-06-1	Added First Article Process.
9/30/09	AOP-52-04-2	Added procedure for Hidden Damage Inspection.
12/02/09	ALL AOP's	<i>Revised all AOP's to include AS 9100 and ISO 9001-2008 requirements. Revised document numbers to reflect AS 9100 Rev. C numbering system. Dates on procedures reflect date of actual revision.</i>
03/24/10	AOP-82-04-2	Completely revised procedure to make a full blown FOD procedure. Title changed from Hidden damage inspection to Foreign object prevention guidelines. This addresses Lockheed Martin visit concern.
03/17/11	AOP-42-03	Created new AOP to define the process for archiving and accessing purchase orders and supporting documentation, such as material certifications, certificates of conformance, test results, etc.
03/29/12	AOP-82-04-1	Revised procedure by adding a definition for usage of the yellow service tag.
04/04/2012	AOP-83-06-1	This procedure has been renamed and renumbered to reflect the changes to AS9100 Rev C. First Article Inspection is now referred to as Product Process Verification and moved from section 8.0 of the standard to 7.0. The new number and name for this procedure is AOP 75-06-1/Product Process Verification. Rev 1.0.
10/04/2012	AOP-75-01-1	Revised procedure by clarifying various statements within the procedure. Changes stem from personnel input during procedure training. Reference training documents in training material folder for specific changes. The new revision is 3.0 – 10/April/2012.
6/15/2012	AOP-62-01	Created Employee Handbook. Initial release rev=6/15/2012
7/31/2012	AOP-75-04-1	Revised Receiving/Storage of Material procedure by removing rev number and only using rev date. New procedure rev=7/31/2012
9/17/2012	AOP-62-02	Created Human Factors training procedure. This procedure provides training required by FAA/EASA. Initial release rev= 09/17/2012.
10/19/2012	AOP-75-04-3	Revised procedure to reflect actual current practices. New rev=3.0
2/25/2013	AQP-75-06-1	Revised the production process verification procedure to reflect the most current activities. Also revised rev date from number to date. New procedure rev=2/25/2013
3/5/2013	AOP-75-06-1	Obsoleted this procedure (First Article). Created new procedure (QOP-75-02 (Production Process Verification) to reflect changes in AS 9100 Rev C. Moved to section 7..
3/5/2013	AOP-82-04-1	Obsoleted this procedure (In-process inspections). Combined this procedure with QOP-82-04 (In-process inspections) due to duplication of activities.
3/6/2013	AOP-82-05-1	Obsoleted this procedure (Final inspection). Combined this procedure with QOP-82-05(Final inspection) due to duplication of activities.
3/6/2013	AOP-82-00-1	Obsoleted this procedure as it referenced in our quality manual section 7.5.3 as "appropriate" control and AS9100 Rev C no longer requires documented control of acceptance media. This procedure is now obsolete.
3/6/2013	AOP-82-04-2	Revised document number of the Foreign Object damage procedure from AOP-82-04- to AOP-75-04 to reflect the section of the AS 9100 standard that it is referenced in. AOP-82-04-2 is now obsolete. Revision of AOP-75-04 is 3/6/2013\
3/6/2013	AOP-75-04	Created new procedure number for AOP-82-04-2 which is now obsolete.

3/6/2013	AOP-82-07-1	Revised document number of the ESD Control Program procedure from AOP-82-07-1 to AOP-75-05 to reflect the section of the AS 9100 standard that it is referenced in. AOP-82-07-1 is now obsolete. Revision of AOP-75-05 is 3/6/2013.
3/6/2013	AOP-75-05	Created new procedure number for AOP-82-07-1 which is now obsolete.
3/7/2013	AOP-42-02-1	Obsolete procedure. Combined this procedure with QOP-42-02- Control of Documents. AOP-42-02-1 is now obsolete.
3/7/2013	AOP-42-02-2	Obsolete procedure. Combined this procedure with QOP-42-02- Control of Documents. AOP-42-02-2 is now obsolete.
3/7/2013	AOP-42-02-3	Obsolete procedure. Not currently applicable to our processes. Work instructions are handled per QOP-42-02 Control of Documents.
3/7/2013	AOP-42-03	Obsolete procedure. Not currently relevant or applicable to our processes.
3/14/2013	AOP-75-01-1	Renumbered procedure to reflect actual flow of activities. This procedure is now AOP-75-02.
3/14/2013	AOP-75-02	Created this procedure. It is identical to AOP-75-01-1 which is now obsolete. Also changed revision number to revision date.
3/14/2013	AOP-75-01-2	Renumbered procedure to reflect actual flow of activities. This procedure is now AOP-75-01 (Work Order Creation)
3/14/2013	AOP-75-01	Created this procedure. It is identical to AOP-01-2 which is now obsolete. Renamed the procedure to Work Order Creation which reflects actual activity. Also changed revision number to revision date.
3/16/2013	AOP-75-04-1	Obsolete this procedure. Combined it with QOP-75-03- Product ID and Traceability (rev 3/18/2013) due to duplication of information. AOP-75-04-1 is now obsolete.
3/16/2013	AOP-75-04-2	Obsolete this procedure. Combined it with QOP-75-03- Product ID and Traceability (rev 3/18/2013) due to duplication of information. AOP-75-04-2 is now obsolete.
3/16/2013	AOP-75-04-4	Obsolete this procedure. Combined it with QOP-75-03- Product ID and Traceability (rev 3/18/2013) due to duplication of information. AOP-75-04-4 is now obsolete.
3/18/2013	AOP-75-05-1	Obsolete this procedure. Combined it with QOP-75-04- Product Handling and Preservation (rev 3/18/2013) due to duplication of information. AOP-75-05-1 is now obsolete.
3/19/2013	AOP-75-03	Created AOP-75-03-Production Process Verification. It is identical to the now obsolete QOP-75-02. Made AOP due to the level of information. This new rev AOP=3/19/2013.
4/26/2013	AOP-75-06	Created procedure to define tooling inventory control process. (RIP- Tooling Control project)
3/11/2014	AOP-85-06	Reinstated procedure for quality stamp control. Old procedure number was 82-00-1.
3/24/2014	AOP-75-07	Created new procedure for Conversion Coat. Revision date 3/24/14

Drawing Numbering System and Configuration Control		
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1.0 PURPOSE

To establish the engineering drawing numbering scheme for new Airtronics designs.

2.0 SCOPE

This procedure applies to all new Airtronics designs. (both reverse engineered designs and total designed parts)

3.0 GENERAL

The Engineering organization is responsible for part number assignment and for configuration control. Part numbers originate and are maintained in the Airtronics computer system.

All designs produced utilizing this numbering scheme are the property of Airtronics and should include the following statement on each drawing "Airtronics Inc. Proprietary" and data is not to be disclosed and or disseminated to third parties without written consent of Airtronics Inc.

Attachment #1 shows an example of an Airtronics drawing.

This document is for Reference Training Purposes

Approved by :



QUALITY ASSURANCE MANAGER

Originated by : Vic Garcia

This Revision Date : 18 May 2010

Drawing Numbering System and Configuration Control		
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4.0 PROCEDURE

There are 3 separate identifiers that make up the design part number.

Note: All the identifiers may not be required, depending on the product being designed.

FIRST IDENTIFIER

(AT) – Identifies that this drawing is a unique Airtronics Inc. part.

The part may have been reversed engineered or developed thru our own engineering R & D process. If the part was reversed engineered, include the NSN number under the nomenclature for reference.

SECOND IDENTIFIER

Three digits: First two digits indicates the process type and the third identifies type of material used, if applicable)

(100) Machined parts

- (101) Metal parts (Al, Cres SS, Carbon Steel, Beryllium, Mag, Lead, Nickel, Titanium, etc)
- (102) Plastic parts or non-metallic parts (ceramics, polyimide, polycarbonates, etc.)
- (103) Castings/forgings (Al, steel, etc.)
- (104 – 109) Other specialty material

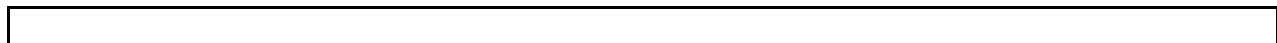
(200) Molded parts

- (201) Injection molded
- (202) Elastomers – rubber vulcanization
- (203) Ceramics
- (204) Extrusions
- (205-209) Other

(300) Cables

- (301) Round wire
- (302) Coaxial

(400) Sheet Metal Parts



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- (401) Pressed
- (402) Die forming
- (403-409) Other processes

(500) Electrical/Electronic Assemblies (May contain circuit cards with components, small cables, small brackets, batteries, etc.)

(600) Mechanical Assemblies

- (601) Valves
- (602) Actuators
- (603) Gyros
- (604) Altimeters
- (605-609) Other

(700) Composites

- (701) Resin Pre-preg
- (702) Carbon/glass fiber
- (703) Filament wound
- (704) Layup
- (705-709) Other

(800 – 900) Room for growth for other manufacturing processes

THIRD IDENTIFIER

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Four digits: The third identifier is a unique (1000) number that indicates the top level assembly, and/or piece part.

- (1000-1019) First set of numbers for that part and/or its indentured parts. Numbers ending in zero are top level assemblies.

** Blocking off a range of numbers allows for addition of parts within that drawing sequence.

- (1020-1029) Second set of numbers
- (2000-2019) More sets of numbers
- (9000-9019) Additional (If required)

Examples of the complete numbering system

Example #1:

AT – 101-1010

(AT) Airtronics drawing

(101) Machined metal part

(1010) Top level assembly or stand alone part

Example # 2:

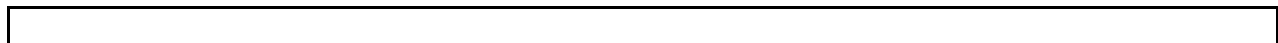
AT – 103 – 1015

(AT) Airtronics drawing

(103) Casting metal part

(1015) Sub assembly part of a top level assembly which would be at – 1010)

(- 500) Used to identify an “Underbuild” or “Overbuild”



Drawing Numbering System and Configuration Control		
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- *Underbuild* means a feature and or process has been left out due to contract/customer requirements
- *Overbuild* means a feature and or process has been added per contract/customer requirements
- Under build/overbuild are used to identify part numbers where a process and/or dimensions/features are added or left out to comply with next assembly requirements.

DRAWING BLOCK INFO

All Airtronics drawings shall contain a set location to indicate who the drawing author is and who checked the drawing for completeness and accuracy. The date is also required in this section.

Example:

DRAWN BY _____ DATE _____

CHECKED BY _____ DATE _____

APPROVED BY _____ DATE _____

REVISION BLOCK INFO

All Airtronics drawings shall contain a set location to indicate the original revision release date and all subsequent revisions made to the drawings. The date is also required in this section. The subsequent revisions will be indicated in the following format:

- N/C = No Change (Original Release), A, B, C, etc.
- Include brief description of change
- Include date and initials of individual making the changes.

Attachment 1

Drawing Numbering System and Configuration Control		
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DRAWING NO.
AT-101-1010

REVISIONS			
REV.	DESCRIPTION	DATE	BY
1	PRELIMINARY RELEASE	02/08/02	LES

0101-101-V

NOTES: ARE LISTED ON PAGE 2 OF 2.

AIRTRONICS INC. PROPRIETARY DRAWING

THIS DRAWING INCLUDES DATA THAT SHALL NOT BE DISCLOSED OUTSIDE THE GOVERNMENT AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED- IN WHOLE OR IN PART- OTHER THAN TO EVALUATE THE PROPOSAL OR SOURCE APPROVAL REQUEST.

THIS DRAWING CONTAINS PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED TO OTHERS FOR ANY PURPOSE, AND USED FOR MANUFACTURING PURPOSES WITHOUT WRITTEN CONSENT OF AIRTRONICS INCORPORATED.			
TOLERANCES	HOLE	GAGE	TITLE/DESCRIPTION
UNLESS OTHERWISE SPECIFIED	±0.000	±0.000	HANDLE-LATCH
CHAMFERS	±0.000	±0.000	AIRTRONICS INC.
ANGLES	±0.000	±0.000	TUCSON, AZ 85710
12285047	M2/M3	REF/FORM	SEE NOTE 1
NEW/ISSY	USED ON	APPLICATION	EDGE BROOKS U.S.S. 303 - 210
			100 FEET SCALE 210 U.S.S.
			PSN NO. 58078
			SIZE: AT-101-1010-10C
			DRAWING NO. AT-101-1010

This document



Work Order Creation (MRO)

Operational Procedure : **AOP-75-01**

Revision: 3/14/2013

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1.0 Purpose

1.1 To define the process and provide instructions for creating work orders from our company database.

2.0 Scope

2.1 This procedure encompasses the steps taken to generate a work orders MRO received items.

2.2 Procedure AOP-75-02-Production Process Forms Instructions defines the instruction for production personnel on filling out the applicable documents including work orders.

3.0 Procedure

3.1 The work order (Form 2000-B-006) is created and generated from our company data base. This form is used as a traceable instrument to document all work performed and parts used on a customer item.

3.2 The following items to be filled in by Packaging/Shipping Personnel who will physically receive the product (MRO).

- Customer
- Part Number
 - NSN – Automatically generated when part number is entered
 - Nomenclature – Automatically generated when part number is entered
 - Manufactured Model – Automatically generated when part number is entered
- Serial Number
- Customer noted defects if required
- Comments if required

3.3 Packaging/Shipping Personnel will forward the applicable documentation to Production Control. The following information is entered by Production Control (MRO) utilizing the appropriate information.

- Customer P.O. if applicable
- Revised customer noted defects as necessary
- Update assigned Technician
- Possible Warranty

Approved by :



QUALITY ASSURANCE MANAGER

Originated by : Vic Garcia

This Revision Date : 3/14/2013

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- Previous Work Order Number
- Previous Shipping Date
- Work Order Number - Automatically generated by the computer system
- Aircraft - Automatically generated by the computer system
- Date In – Automatically generated by computer system
- Due out date - Automatically generated by the computer system. Normal default is 30 days from date of entry but can be changed manually if customer is requesting expedited service due to AOG or MICAP.
- FAA: FAA 8130-3 Return to Service Tag - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military and /or commercial customers but can also be manually selected.
- OHC: Overhaul Certification Required - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military and /or commercial customers but can also be manually selected.
- MIL - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military customers but can also be manually selected.
- TD: Tear Down Report - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military and /or commercial customers but can also be manually selected.
- S/S - Not Used
- G/L: Government Locker - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military customers but can also be manually selected to designate that it should be secured in the Government Bond Room Area when it is not in work.
- GSI: Government Source Inspection Required - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military customers but can also be manually selected.
- COC: Certificate of Conformance - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military and /or commercial customers but can also be manually selected.

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- MIL: Military Maintenance Release Tag - Automatically generated by the computer system. It is generated from a Customer Data Table inside the program based upon previous arrangements made with military and /or commercial customers but can also be manually selected.
- SPECS: Specifications to be used for servicing the item - Automatically generated by the computer system. It is generated from the Standard Description Table inside the program based upon previous determinations made Production and Quality Assurance for the requirements of the associated PN of the item to be serviced.
- SERVICE INSTR - Special Service Instructions requested by the customer – found on customer shipping doc/P.O.
- INCOMING ONLY - This block is checked when customer is asking for failure analysis & repair costs be authorizing repairs.
- TECH - Assigned Technician. Automatically generated by the computer system. It is generated from the Standard Description Table inside the program based upon previous determinations made by the General Manager, Production Controller and Quality Assurance on personnel best suited to work on the associated PN of the item to be serviced.
- EST/HRS: Estimated Hours - Automatically generated by the computer system. It is generated from the Standard Description Table inside the program based upon previous determinations made by the General Manager and Production Controller for the associated PN of the item to be serviced, based upon historical data collected on specific part numbers in for service.
- NTE: Parts Not to Exceed Limitations - Automatically generated by the computer system. It is generated from the Standard Description Table inside the program based upon previous determinations made by the General Manager and Production Controller for the associated PN of the item to be serviced.
- CUSTOMER NOTED DEFECTS - This is the Defect/Complaint taken from the Customers shipping Doc/P.O. or condition tag attached to the unit.
- COMMENTS - This block is for noting anything found during the incoming inspection, such as damaged shipping box, broken instrument glasses, damaged connectors, etc.

Work Order Creation		
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3.4 The following information is entered by Production Control (Manufacturing & Machine Shop)

- Customer
- Customer P.O.
- Part Number
- Quantity (In the serial number box)
- Customer noted defects as applicable
- Appropriate information regarding product, e.g., Revision, Line Item, Sub-Work Order, etc. (In the comment box)
- Date Due

3.5 Upon entering all of the above information work orders are ready to print.

3.6 Work Order Entry Process is complete. Turn in all receiving paperwork to the Production Controller for verification of proper data entry.

This procedure is revision controlled by incorporation into the Airtronics FAA Repair Station Manual (RSM). All changes to this document must be coordinated through the FAA in accordance with the Requirements specified in the RSM.

PRODUCTION PROCESS FORMS INSTRUCTIONS - MRO

Operational Procedure : **AOP-75-02**

Revision: 3/14/2013

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1.0 Purpose

1.1 To define the process and provide instructions on completing applicable production department process forms.

1.2 Additional information on creating work orders is can be found in AOP-75-01-Work Order Creation.

2.0 Scope

2.1 This procedure shall encompass the work order, parts request and return to stock forms.

3.0 Procedure

3.1 Work Order Form (2000-B-006)

3.1.1 This form is used as a traceable instrument to document all work performed and parts used on a customer item. Therefore it is of high importance that the integrity of this document be maintained at all times to meet the requirements of our FAA, DOD or commercial customers. All entries made by technicians on this document shall be made in permanent ink.

3.1.2 The following portions of the work order are to be filled in by technicians on an ongoing basis, to accurately reflect the status or state a process is currently in.

- *Date:* Date that the specific process is started.
- *Int.:* Initials of the technician doing the process.
- *Incoming:* Time spent to do a functional check using the data sheet to find a malfunction, verification of the customer complaint and determine materials needed to return product to a serviceable condition. When a specific customer complaint is listed on the work order it is mandatory that the complaint be addressed at a minimum by writing in the Teardown Report block “VCC” for (verified customer complaint) or “CNVCC” for (could not verify customer complaint).
- *Teardown:* Time spent for disassembly of unit to perform internal inspection in order to determine parts needed for repair/overhaul of unit or to complete incoming as required. A written report of teardown findings is required for all units that are opened for inspection and repair/overhaul. Teardown findings are to be entered in the space provided (Item 12).

Note: The following steps comprise a complete Incoming Process. At this point, any additional time required to complete the unit should be requested via a redi-note or on the work order under additional hours. All parts needed to perform repair/overhaul services should be ordered at this time.

Approved by :



QUALITY ASSURANCE MANAGER

Originated by : Vic Garcia

This Revision Date : 3/14/2013

PRODUCTION PROCESS FORMS INSTRUCTION

Operational Procedure : **AOP-75-02**

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It is important for a technician to perform a thorough Incoming Process to ensure that all parts required to return a product to a serviceable condition are requested prior to initiating the repair/overhaul process. Failure to order all parts required, results in lengthy repair cycle times and limits management’s ability to manage or control delivery dates and customer costs of a repair/overhaul process. It is possible that a span of several days may be required to perform a complete Incoming/Teardown process therefore it is necessary for the technician to record the starting date for this process as the first entry in the Work Accomplished block.

- *Analysis:* Review of appropriate specifications and technical orders to determine the most effective method of repair/overhaul. This block shall be used to record time spent to determine equipment and tooling required to perform repair/overhaul process and time used to develop (when directed) a preliminary Test Method, Schematics, Drawings and or Test Data Sheet.
- *Repair:* Actual time spent on repair/overhaul.
- *Cal:* Time spent for calibration of unit after repair/overhaul has been completed. (As needed)
- *Seal:* Date the unit is sealed. – All units will be given a 1.0 hour processing time to include the opening and sealing. Space is provided on the Work Order Form for three cycles through paint and seal, you must notify Production Control or Quality Assurance whenever a unit takes more than three cycles through seal.

When a unit is recycled through seal process the reason for returning it for recycling must be noted on the work order Teardown Report block and the Work Accomplished block. Example: Teardown Report block “...Unit failed final test after seal, null voltages to high 08/30/03” Work Accomplished block “Failed post seal test - Returned to P&S for reopen 08/30/03.”

- *Fog:* Date the unit is fog checked. All units will be given .50 hour processing time. Additional space has been allocated for those units that need a fog check more than one time.
- *Pnt:* Date the unit is painted. All units will be given .25 hour processing time. Additional space has been allocated for those units that go to paint more than one time.
- *Final:* Time spent to final test the unit after paint/seal has been completed to verify it is in compliance with the specifications and it is ready to send to customer.
- *Teardown Report:* A written report of the findings during the incoming process. (i.e. verification of the customer complaint, additional problems found and listing of bad parts). If additional problems are found after teardown is completed, it should be noted as such on teardown report (Sample *-found during repair – Transformer T1 shorted -* Date and Initials are required)

PRODUCTION PROCESS FORMS INSTRUCTIONOperational Procedure : **AOP-75-02**

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- *T.O. Used:* Technical specifications used for repair/calibration of the unit. (i.e. ATP#, Mfg Pub#, DMWR# or NAVAIR#) Do not use the section number that is assigned by the Airtronics Library personnel and typically hand written in on the tab of the folder that is used to bind the T.O.'s or drawings together. that number is meaningless to anyone outside of Airtronics. List revision/change number and date of publication/drawing used.
- *T.E. Used:* Test equipment used in repair/calibration.
- *Work Accomplished:* A detailed summary of specific steps performed in the repair/overhaul of a unit. Entries are to be made as work is performed. See attached example.
- *Technician:* Signature of technician that completed the unit.
- *Date:* Date unit is completed.

3.2 *Material Record Form- (2000-B-006, back side)*

3.2.1 Material record information is typically recorded on the back of the Work Order Form 2000-B-006. Parts and special materials used for the repair/overhaul process for the product associated to the work order are entered as parts are consumed.

(Items to be filled in by technician as parts are consumed)

- Item number.
- Part number of component/parts used.
- Nomenclature of component/parts.
- Date component part issued.
- Quantity used.
- Source of component/part (i.e. stock, CFM)
- Sell Price – price per unit/part.
- Total Price.
- Tech comments: To be used when additional information is required from the technician concerning the condition of the unit.
- Parts total: Summation of all parts cost, to be completed only when work order technician signature block is signed by the technician, just prior to turning the work order and end item(s) into QA.

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3.3 *Return to Stock Form- (2000-C-007)*

3.3.1 Person returning part: When filling out the Return to Stock Form, please observe the procedure and fill in the request completely for items 1 thru 12.

- Issue date
- Work order number.
- End item part number.
- Reason for return: **Part Defective** (Explain how the part is defective, and details leading to part being defective if it was damaged during handling or installation process), **Wrong Part Ordered** (Explain what caused you to order the wrong part), **Not Needed** (Explain why part is not needed – Item Closed Not Repaired, Original Part Was Not Defective, Repaired Original Part, etc.)
- Item number.
- Quantity of item being returned.
- Cost Price per item being returned.
- Part number of item being returned.
- Nomenclature of item being returned.
- Condition of part – is it **GOOD** or **BAD** and was it **USED** (installed) or **NOT USED** (not installed).
- Your signature.
- The date the part is turned in to QA.

3.4 *Parts Request/Issue Form- (GA129A-1)*

3.4.1 When filling out the parts request form, observe the procedures and fill in the request completely for the following items. Turn the completed parts request into inventory control. Do not wait for the parts to be issued by the inventory control personnel. Inventory Control Personnel will deliver the parts or forward the request to production control as soon as it is processed.

- To whom the request is directed (i.e. inventory). **INTEROFFICE USE ONLY – NOT FOR TECHNICIANS USE.**
- Date submitted. - **INTEROFFICE USE ONLY – NOT FOR TECHNICIANS USE.**
- Work order number.
- Initials of Person requesting parts or materials.
- End item (Item name or nomenclature, End Item part number, End Item Manufacturer, End Item Serial Number as listed on work order).
- Salesperson- **(NOT REQUIRED AT THIS TIME).**

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- Department of origination. (NOT REQUIRED AT THIS TIME).
- Management Authorization for items other than normal repair/overhaul such as TE, analysis, etc. NOT FOR TECHNICIANS USE
- Part number of the end item.
- Date of origination.
- Manufacturer of the end item.
- NSN of the end item.
- Serial Number of the end item
- Quantity of requested items.
- Requested item part number – All parts request turned into inventory must have a part number listed.
- Description of the requested part (i.e. resistor, capacitor, diode, value & tolerance, type. If a hardware item, material & size (i.e. screw, machine 10-32 x 1” brass).
- Misc. information concerning the request (i.e. P & D only for IC only work orders; Red Dot for rush work orders, MICAP if on work order. If parts are needed in order to complete Incoming process you should state as such).
- The contract number/purchase order number is normally listed on the work order as CUST P.O.
- Not to exceed price listed on work order.
- Amount already spent to date on the work order.

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PRODUCTION PROCESS VERIFICATION (First Article Inspection)Operational Procedure : **AOP-75-03**

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1.0 Purpose

- 1.1 To define the process used by Airtronics, for contracts which require production process verification, i.e., first article inspection (FAI)

2.0 Scope

- 2.1 This procedure applies to all product, which require production verification process and all personnel involved with the FAI process.

3.0 Procedure

- 3.1 When deemed necessary by production management a planning meeting shall be performed with the appropriate departments/individuals to review the contract requirement which includes product process verification.(Also referenced herein as first article inspection or FAI). This includes review of any outside processes that will be required to be performed by subcontractors and internal processes that need to be verified as part of the FAI.
- 3.2 Outside contractors performing first article requirements for Airtronics are subject to the requirements of our purchasing procedures.
- 3.3 Work order(s) for FAI are generated based on customer requirements and/or planning input.
- 3.4 QDS sheets are generated for maintenance, repair and overhaul (MRO) and in-process dimensional inspection report is generated for machine shop/manufacturing FAI jobs.
- 3.5 Production builds/manufactures the first article per requirements, initials and dates the work order indicating the applicable operations have been completed and 100% dimensional verification on the FAI in-process dimensional report.
- 3.6 When first article machined parts are run utilizing programs for CNC equipment, make sure the latest revision of program used is recorded on the inspection report and/or the work order.
- 3.7 Once the first article is complete it is submitted to quality assurance for inspection.
- 3.8 Quality assurance performs 100% inspection on the first article and completes the first article report. The completed report is signed and dated.
- 3.9 Any discrepancies on the FAI are handled in accordance with contractually specified requirements and Procedure QOP-83-01 (Non-conforming Material).

Approved by:



QA Manager

Revision Date : 3/19/2013

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- 3.10 (*Government*). In the event there is a discrepancy in a contractual drawing that prevents Airtronics from performing in accordance with the Contract, a waiver deviation form DD 1694 may be submitted to request waiver or deviation as applicable. This form is submitted to DCMA for review and transmission to the applicable Government Contracting agency for approval. DCMA QAR and ACO will be notified of any work stoppage and included on all correspondence with Government Contracting Agency.
- 3.11 The FAI is not complete until all non-conformances and corrective actions, if applicable are complete and closed. Deviations from this requirement must be noted on the inspection sheet and/or the work order.
- 3.12 The following activities should be conducted in support of FAI.
- Review documentation for the manufacturing process (e.g., routing sheets, manufacturing/quality plans, manufacturing work instructions, etc.) to make sure all operations are complete as planned.
 - Review referenced exhibits supporting the FAI (e.g., inspection data, test data, Acceptance Test Procedures, etc.) for completeness.
 - Review nonconformance documentation (if any), for completeness.
 - Review material certifications for compliance, as applicable.
 - Verify that approved Special Process sources are used (as applicable), and that the manufacturing planning/routing document calls out the correct specification.
 - Verify that Key Characteristic requirements have been met, as applicable.
 - Verify part specific gages and/or tooling is qualified and traceable, as applicable.
 - Verify that every design characteristic requirement is accounted for, uniquely identified and has inspection results traceable to each unique identifier.
- 3.13 FAI certifications reports that are required to be presented to the government for final approval may include the following depending on contract requirements.
- Contract document
 - Work Order
 - Material Certifications
 - Special Process Certifications (Heat treat, Chemfilm, Plating, NDT, etc..)
 - Airtronics Certificate of Conformance
 - AS9102 REV A First Article Inspection Forms

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3.13.1 Instructions for completing these forms are found in Appendix A of AS9102

3.14 Partial or Re-accomplishment of First Article Inspection

3.14 The FAI requirement, once invoked, shall continue to apply even after initial compliance.

3.16 The FAI requirements may be satisfied by a partial FAI that addresses differences between the current configuration and prior approved configurations. When a partial FAI is performed, Airtronics shall complete only the affected fields in the FAI forms.

3.17 FAI requirements may also be satisfied by previously approved FAI performed on identical characteristics of similar parts produced by identical means. When FAI requirements (partial or complete) are satisfied in this manner, identify the approved configuration in the index of part numbers on Form 1.

This Document is for Reference Training Purposes

FOREIGN OBJECT DEBRIS/DAMAGE GUIDELINES		
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1.0 PURPOSE

To establish general workmanship practices and guidelines for the detection of Foreign Object Debris (FOD) and prevention of Foreign Object Damage (FOD).

2.0 SCOPE

This procedure applies to all personnel at Airtronincs.

This procedure applies the Airtronics to the extent of work performed to support the repair/overhaul, and manufacturing of aerospace components/products (military or commercial)

3.0 DEFINITIONS

Foreign Object Debris (FOD): A substance, debris or article alien to a vehicle or system which could potentially cause damage.

Foreign Object Damage (FOD): Any damage attributed to a foreign object that can be expressed in physical or economic terms which may or may not degrade the product's required safety and/or performance characteristics.

Potential FOD: The condition where foreign object debris may cause damage, and /or failure should the product be put into use. Examples specific to our organization are:

- Metal or wire clippings, solder balls and debris lying in the vicinity or electrical terminals, circuitry, connectors, components, etc.
- Electrostatic Discharge (ESD)
- Debris from inadequate housekeeping.
- Debris from any type of construction, remodeling, etc. that is being performed in the vicinity of production and/or test.

FOD Critical Areas: Any area where flight hardware is in place and exposure to foreign objects would potentially cause a system or product failure due to deterioration, malfunction or damage.

Approved by :



QUALITY ASSURANCE MANAGER

Originated by : Vic Garcia

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Critical FO: Foreign objects in areas from which migration is possible, e.g., through tooling holes, bend relief cutouts, drain holes, intakes,, etc. which are probable to cause system or component malfunction or deterioration should the

4.0 General

4.1 Airtronics maintains a planned and implemented Foreign Object Elimination Program (FOE) using a “continuous improvement” approach with an operational target of zero incidents.

4.1.1 It is the responsibility of all Airtronics to ensure that all employees understand the importance of FOD and implement a zero incident mentality, therefore all employee must understand the causes of FOD and FOD prevention and to notify management of any FOD or potential FOD.

4.1.2 Various measurement tools are utilized as deemed appropriate by management to enable visibility and information regarding FOD (incident reports, visibility charts, customer comments, concerns, or complaints, etc.)

4.2 The basic elements of our program are:

4.2.1 FOD Prevention training

4.2.1.1 The primary objective of our FOD prevention training program is to increase awareness to the causes and effects of FOD, promote active involvement through specific techniques, and stress good work habits through work disciplines.

4.2.1.2 Training for employees associated with design, development, manufacturing, test operations, repair, modification, refurbishment, and maintenance is required as part of initial job orientation and on continuous basis.

4.2.1.3 Training subjects include:

- Proper storage, shipping and handling of material, components, and equipment.
- Techniques to control debris
- Housekeeping
- Cleaning and inspection of components and assemblies
- Accountability/control of tools and hardware
- Control of personal items, equipment and consumables
- Care and protection of end items
- Quality workmanship (clean as you go inspection)
- How to report FOD incidents or potential incidents.

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4.2.2 *Work instructions of overhaul/repair that includes proper care and use of equipment and part protective devices.*

4.2.2.1 Procedures, work/assembly instructions, are established with FOD prevention in mind. This includes procedures that define specifics for sensitive parts, assemblies, surfaces, areas, etc.

4.2.2.2 Products in a test cell environment should include, but not limited to the following FOD procedures:

- 4.2.2.2.1 Assure adequate preventive maintenance is performed on the test environment.
- 4.2.2.2.2 Inspect the test cell(s) environment for cleanliness prior to introduction of the test article to the test environment.
- 4.2.2.2.3 Upon completion of each test run and prior to removal from the test cell, inspect the test article for presence of FOD.
- 4.2.2.3 The following should be included in fabrication and assembly work instructions as applicable.
 - 4.2.2.3.1 Cleaning and/or flushing of machined components to assure they are free of debris.
 - 4.2.2.3.2 Adequately protect hardware and equipment from splatter accumulation during brazing, soldering, welding and such operations.
 - 4.2.2.3.3 Inspect components and equipment for damage prior to installation and repair as necessary.
 - 4.2.2.3.4 Verify protective devices (end caps, dust covers, temporary seals, cushioning, etc. are present and properly installed.
 - 4.2.2.3.5 Inspect for and remove extraneous material as part of the each assembly step
 - 4.2.2.3.6 Inspect production tooling, jigs, fixtures, etc. to assure it is clean, undamaged and free of foreign material prior to installation and buildup of components or assemblies. Assure the same type of care for special test equipment which is in the vicinity of work stations.

4.2.3 *Handling of Material*

4.2.3.1 Material handling, storage, packaging, shipping procedures are in place that recognize FOD requirements. Inspection of all materials and material handling equipment used in storage, packaging and shipping areas should be performed at adequate intervals.

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4.2.4 *Housekeeping*

4.2.4.1 Maintenance, manufacturing and operational areas must remain clean. House keeping is part of every employee's job. All employees must incorporate a "clean as you go" work ethic to prevent FOD from migrating into flight hardware. All production and test areas should meet "good housekeeping" standards.

4.2.5 *Control of tools and personal items*

4.2.5.1 All loose tools and personal items (when practical) should be contained in a tote tray, soft tool bag or other suitable spill proof container and not placed in a manner that would cause damage to flight hardware or injury to personnel.

4.2.6 *Control of hardware/consumables*

4.2.6.1 Hardware and consumables (nuts, bolts, screws, cotter pins, wire, etc.) should always be organized in such a manner to prevent migration into flight hardware. Hardware accountability should be instituted to ensure FOD prevention. The use of totes or equivalent type containers should be utilized whenever possible.

4.2.7 *Control of hazardous material*

4.2.7.1 Hazardous waste materials that can potentially migrate into flight hardware as FOD should be is to not be used or stored in the vicinity, and handled per our internal material handling procedures.

4.2.8 *Awareness/Employee feedback*

4.2.8.1 Awareness and employee feedback of FOD is critical to its' prevention. Awareness at Airtronics will be incorporated by various methods, such as:

- Initial training for all employees
- Periodic refresher training for all employees.
- Visual FOD postings throughout the facility.
- FOD references in applicable procedures.
- Customer/Supplier/Employee feedback-verbal and/or through FOD incident report. (2000-F-06-FOD Incident Report)

4.3 Reporting/Investigation of FOD

4.3.1 All incidents of actual or potential FOD should be reported and investigated.

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- 4.3.2 A FOD incident report shall be generated (2000-F-06) when actual or potential FOD is discovered. The report shall include:
- 4.3.2.1 Date
 - 4.3.2.2 Part name (nomenclature)
 - 4.3.2.3 Part serial number
 - 4.3.2.4 Part location
 - 4.3.2.5 When discovered
 - 4.3.2.6 How discovered
 - 4.3.2.7 Narrative description of FOD-when analyzed-who analyzed-how analyzed
 - 4.3.2.8 Root cause
 - 4.3.2.9 Corrective action
 - 4.3.2.10 Reported By
- 4.3.3 After an FOD incident report is generated, operations should immediately cease and an investigation initiated to determine the cause. Cause and corrective action should be attained in a timely manner to preclude similar occurrences from happening in the future – “lessons learned.” Cause may be determined by visual observation, analysis or by location of the object.
- 4.3.4 When an acceptable resolution is obtained the incident report shall be closed and filed in QA files.

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ESD Control Program		
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1.0 Purpose

Purpose of this procedure is to document the key administrative and technical requirements of the ESD control program used by Airtronics Inc. in compliance with ANSI/ESD S20.20-2007

2.0 Scope

This procedure applies to all production areas and associated manufacturing areas where unprotected ESD sensitive products may be handled

3.0 Responsibilities

Airtronics Inc. has assigned an ESD coordinator who will be responsible for compliance with this program

4.0 ESD Control Program Plan

4.1 The controls referenced in this document have been selected to ensure that ESD sensitive devices (ESDS) that are susceptible to Human Body Model discharges of 100 volts or greater shall not be damaged. ESDS devices that are more sensitive may require additional control measures.


4.2 The basic guidelines that comprise the local ESD control program are as follows:

4.3 All semi-conductor electronic devices are considered to be ESD sensitive, this includes all end items that contain semi-conductor devices in any stage of assembly.

4.4 Some typical semi-conductors are:

- Operational amplifiers
- Diodes
- Transistors
- Logic ICs
- All surface mount devices

4.5 All employees that handle ESD-sensitive products shall have successfully completed the company ESD training.

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- 4.6 All employees shall be grounded utilizing the wrist strap method when handling ESD sensitive devices.
- 4.7 Only approved ESD sheilding bags (qualified per ANSI/ESD S541) shall be used to transport ESD sensitive products from one ESD protected work station to another. ESD sensitive products must be completely enclosed by the shielding bag. ESD sensitive products are to be removed from the packaging on at an ESD protected work surface by certified grounded employees.
- 4.8 All ESD control elements must be periodically verified per the compliance verification plan. (Reference section 6.0)
- 4.9 Non-essential insulators must be removed from the ESD Protected Area. (Reference 7.0)

5.0 Training Plan

- 5.1 Initial Training
 - 5.1.1 All Airtronics Inc. employees who handle ESD sensitive products (whether on a continual or intermittent basis) must attend initial ESD orientation training before handling ESD sensitive products.
 - 5.1.2 The initial ESD training will be conducted by the Airtronics Inc. ESD coordinator. The initial training covers all the requirements of this work instruction.
- 5.2 Refresher Training
 - 5.2.1 All Airtronics Inc. employees who handle ESD sensitive products must receive refresher training as deemed necessary by the ESD coordinator. The ESD coordinator will notify personnel of required refresher training.
- 5.3 Records of training shall be maintained per the Airtronics records procedure.

6.0 Compliance Verification Plan

- 6.1 The compliance verification plan established by Airtronics, Inc. to control ESD is defined in Table I.

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- 6.2 The ESD coordinator is responsible for ensuring that all the ESD control items used in the facility have been qualified per the requirements of tables II and III of ANSI/ESD S20.20-2007.
- 6.3 Product qualification data is compiled and maintained by the ESD Coordinator.
- 6.4 The ESD Coordinator is responsible for identifying and defining the ESD control items that require periodic verification, i.e., work benches, ESD protective mats, wrist strap tester. The ESD coordinator is also responsible for the development of the audit procedures as well as the training of any person performing ESD audits.
- 6.5 Audits will consist of a general overall performance check in relationship to a standard procedure including, but not limited to: work bench conductivity, wrist strap resistance and grounding capability, personnel compliance, etc.

7.0 ESD Protected Area Requirements

- 7.1 ESD sensitive products will only be handled in an ESD Protected Area.
- 7.2 The ESD protected work stations within the EPA will be identified with a sign indicating that the work station is ESD protected.
- 7.3 ESD sensitive products shall only be handled at an ESD protected workstation by grounded, ESD certified employees.
- 7.4 Non-essential insulators (insulating items not required in the production process), including packaging materials, shall be removed from all ESD protected work stations.
- 7.5 Process required insulators are permitted at an ESD protected workstation as long as the measured electrostatic field does not exceed 2000 V/inch (see the measurement procedure in annex I). If the measured field exceeds 2000 V/inch the process required insulator must be moved a minimum of 12 inches from the ESD sensitive device.

8.0 Equipment Grounding Plan

- 8.1 Equipment (AC) ground shall be used as the ground reference for all ESD control items used by Airtronics Inc.
- 8.2 All wrist strap connection points and work surfaces shall be connected to ground via a common point ground as defined in ANSI/ESD S6.1-2005.

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8.3 All newly installed work surfaces and wrist strap connection points shall be tested before use to ensure that they are connected to ground.

9.0 Personnel Grounding Plan

9.1 Personnel shall be connected to ground with a wrist strap system.

9.1.1 The wrist strap must be worn such that there is 360 degrees of contact with the employee's skin. The wrist strap cord must be plugged into the wrist strap receptacle that is located at every ESD protected work station.

10.0 Testing

10.1 Employees shall test their wrist straps at least once per day (before use) using the tester(s) approved by the ESD Coordinator. If the tester gives a "pass" indication, the employee will initial the daily log sheet for that work station. If the tester gives a "fail" indication, the employee shall contact the ESD Coordinator. The ESD Coordinator will determine the cause of the failure and correct the problem. It is important that the employee does not handle ESD sensitive products until all safety devices are functioning properly.

11.0 Work surfaces


11.1 All work surfaces within the ESD protected area on which ESD sensitive products may be placed shall have a grounded surface compliant with table I. Any surfaces that do not comply shall be marked to indicate that they are not suitable for holding ESD sensitive products.

12.0 Packaging

12.1 Once the ESD sensitive product has been completed, it will be placed into a shielding bag and sealed. The sealed bag will then be placed in a protective container to be shipped to the customer.

12.2 In the case where specific ESD packaging is specified by the customer, by either contract or purchase order, these are the materials that shall be used.

12.3 If the ESD sensitive device is a subsystem of a fully enclosed end item, normal handling procedures may be used when the following conditions are met:

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12.3.1 The device is fully enclosed by a metal case and may not be directly contacted from the outside, including items enclosed that have glass (window) dial type indicators.

12.3.2 ESD protective shipping caps are in place to cover any external connectors.

13.0 Marking

13.1 Airtronics Inc. uses ESDA certified labels or, in some cases, markings specified by the customer to indicate proper handling of enclosed ESD sensitive products.

14.0 Audit Procedures

See applicable Annex

Annex 1 – Testing of wrist strap connection point


Equipment: calibrated multi-meter

1. Connect one lead of the multi-meter to ground.
2. Connect the second lead to the wrist strap connection point.
3. Turn on the multi-meter and read the resistance.
4. If less than 2 ohms, the reading is acceptable.
5. If greater than 2 ohms, check the wiring and repair as necessary.

Annex 2 – Checking for static generators

Equipment: calibrated electrostatic field meter

1. Turn on, ground and zero the electrostatic field meter
2. Measure all items within the work area with the electrostatic field meter.
3. If the reading of any item exceeds 2000 V/inch, the item must be:
 - a. Moved 12 inches away from the area where ESD sensitive products are handled
 - b. Removed from the area completely.
4. If the reading for an item does not exceed 2000 V/inch, no further action is required.

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Annex 3 – Checking ESD compliance of soldering irons

Equipment: Digital Multimeter

1. Verify that soldering iron is OFF.
2. Measure resistance between tip of the soldering iron and the ground. (equipment ground) utilizing the digital multimeter.
3. Resistance should be less than .1 ohms. If resistance is greater than .1 ohms, notify the ESD Coordinator.

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Table I

Control Item	Limits	Test Procedure	Test Frequency	Checked by
Wrist Strap	$R_s < 1.0 \times 10^7$ ohms	ESD Association publication TR53 (Wrist strap section)	Daily (before use)	Operator
Work surface	$1.0 \times 10^6 < R_s < 1.0 \times 10^9$ ohms	ESD Association publication TR53	monthly	ESD Coordinator
Wrist strap connection point	$R_g < 1$ ohm	Annex 1 of this procedure	monthly	ESD Coordinator
Static generators	< 2000 volts/inch	Annex 2 of this procedure	every 3 months	ESD Coordinator
Shielding bags	Visual indications of damage	Random visual inspection	every 3 months	ESD Coordinator
Soldering Iron	Less than .1 ohms	Annex 3	monthly	ESD Coordinator

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**Attachment A
Wrist Strap Log**

Date	Initials		Date	Initials		Date	Initials		Date	Initials
		1			20			40		
		2			22			41		
		3			23			42		
		4			24			43		
		5			25			44		
		6			26			45		
		7			27			46		
		8			28			47		
		9			29			48		
		10			30			49		
		11			31			50		
		12			32			51		
		13			33			52		
		14			34			53		
		15			35			54		
		16			36			55		
		17			37			56		
		18			38			57		

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**Attachment B
Work Station Test Log**

	Date	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Inspector
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
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18										
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21										
22										
23										
24										
25										

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Tooling Inventory Control

Operational Procedure : **AOP-75-06**

Revision: 4/26/2013

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1.0 Purpose

1.1 To define the process and provide instructions for managing tooling inventory.

2.0 Scope

2.1 This procedure applies to all personnel employed by who use Airtronics tooling.

2.2 This procedure applies to ALL company owned tooling purchased or manufacture that have been assigned a "T" number by inventory control department.

3.0 Procedure

Note: No company owned tools shall leave the premises without the applicable supervisors' approval.

3.1 The Inventory Control department is responsible for the overall management of company owned tools, including:

3.1.1 Assignment of "T" numbers which are obtained by the next available "T" number in the company computer database.

3.1.2 Assigning inventory location and updating database when required.

3.1.2.1 All personnel using company owned tools are considered an inventory location.

3.1.3 Issue tools to personnel and updates database accordingly.

3.1.4 Maintaining status of each employee in possession of company owned tools and continuously updating computer database and records as required.

3.1.5 Conduct scheduled and random audit of tool status and inventory utilizing form 2000-B-024.

3.1.5.1 The audit results and subsequent actions are to be recorded and maintained, including adjustment of inventory in the company database.

3.1.6 Inventory control is responsible for retrieving tools from inventory as tools are requested.

3.1.7 Inform management of any unaccountable, lost or damaged tools. Form 2000-B-023 may be used.

Approved by :



QUALITY ASSURANCE MANAGER

Originated by : Vic Garcia

This Revision Date : 3/14/2013

Tooling Inventory Control		
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- 3.2 All personnel are responsible and accountable for the tools that are assigned to them.
 - 3.2.1 Tools must have traceability to their work station at all times, including when tools are loaned to other personnel.
 - 3.2.1.1 When applicable, transfer form, (Form 2000-B-025)) must be completed and turned in to inventory control by end of each day.
 - 3.2.2 All personnel is required to conduct an inventory of the tooling assigned to them on the last working day of each month.
 - 3.2.2.1 Tools that are damaged, lost or are worn are to be immediately reported to your supervisor utilizing form 2000-B-023.
 - 3.2.3 Tools that are no longer being used should be returned to inventory control.
 - 3.2.4 Permanently stationed tools, i.e. machine shop, are issued to the applicable supervisor who is responsible for maintenance and inventory status of those tools.
- 3.3 Department supervisors are responsible for holding their applicable personnel accountable for company owned tools.
 - 3.3.1 Department supervisors should ensure that we are not purchasing tools that each employee is required to purchase on their own as part of the minimum personnel tool requirements list.
 - 3.3.2 When damaged, lost, unusable tools are identified or reported on form 2000-B-023, the applicable department supervisor will determine if the cause was accidental, normal wear and tear or negligence.
 - 3.3.2.1 The proper documentation for reimbursement to Airtronics should be initiated when the cause was found to be negligence.
 - 3.3.3 Any random tool inventory should be held by the department manager until resolution and disposition is determined.
 - 3.3.4 Department supervisors are responsible for conducting quarterly and un-announced audits of personnel under their supervision.
 - 3.3.4.1 Tools that are damaged, lost or are worn are to be immediately reported to your supervisor utilizing form 2000-B-023.

QUALITY STAMP CONTROL		
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1.0 PURPOSE

1.1 To indicate how quality inspection stamps are controlled at Airtronics, Inc.

2.0 SCOPE

2.1 This document covers the use of all quality inspection stamps at Airtronics, Inc.

3.0 REFERENCES

Form 2000-C-009 – Quality Stamp Log

4.0 RESPONSIBILITY

4.1 The Quality Assurance Manager shall control the storage and issuance of inspection stamps.

4.2 Quality Assurance Inspectors are responsible for the safekeeping of stamps issued to them. Loss of any stamps shall be promptly reported to the Quality Assurance Manager.


5.0 PROCEDURE

5.1 The Quality Assurance Manager maintains a Stamp Log reflecting the status and location of all inspection stamps. All issued stamps, replacements, and cancellations are recorded.

5.2 Inspection stamps are used to indicate acceptance of material, parts and assemblies. Their use is intended to ensure that adequate inspection is performed before material is moved between critical in-process points.

5.3 Stamps are only to be used by the quality assurance inspection personnel that they are assigned to. Where lot size and the physical size of the item permit, and where it will not affect the parts, stamps shall be affixed to every item in a lot. Large lots of small items are marked by stamping an identifying tag attached to a part or the box.

5.4 Each inspector is assigned a stamp numbered so as to be unique to that inspector.

Approved by :		QUALITY ASSURANCE MANAGER
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Originated by : Vic Garcia	This Revision Date : 11 March 2014
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CONTROL OF QUALITY STAMPS

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- 5.5 Personnel transferring to another department or leaving the company are required to turn in all stamps issued to them. These stamps are withheld from re-issue for at least one month.
- 5.6 If a stamp is lost, all stamps of the same number are recalled and the stamp number is held from re-issue for at least one year.
- 5.7 Worn stamps are returned to the Quality Assurance Manager for destruction.
- 5.8 Stamps are not allowed to be used by any person other than the individual to whom issued. Stamps shall be kept clean for legible marking and shall not be altered in any way.

