



Air Methods Process Specification

AMPS 020-0134

IDENTIFICATION AND MARKING OF COMMERCIAL AND MILITARY HARDWARE

Revision: F

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Revision History

The latest revision of this document is indicated by the highest revision letter as listed below in the Revision History. All pages are revised when any page is changed so that all pages maintain the same revision level. A “List of Effective Pages” is therefore not included. Changes to the current revision will be indicated within the document by change bars in the right margin.

FAA Approved Document – Revisions Require FAA approval prior to implementation.



Revision	Date	Prepared By	Checked By	Approved By
-	04/26/1996	KM Hoganson	K. Pharris	R. Thibault
Description of Changes:		Initial Release		
A	06/29/2006	C. Gehrig	R. Linscott	J. Musco
Description of Changes:		Removed Sections 2.3 and 2.4, Revised Identification Information		
B	1/23/2010	L. Vardakova	R. Linscott	J. Lord
Description of Changes:		Revised identification information throughout the document		
C	5/1/2013	K. Voorhies	R. Linscott	K. Voorhies
Description of Changes:		Clarification to FAA-PMA Marking		
D	9/20/2013	S. Faria	L. Vardakova	J. Sanchez
Description of Changes:		Requirements stated for applicability of location-critical cases and bag & tag methods; Added process for IUID for marking military products; Added direction for fallback marking of legacy items (see 4.1.1)		
E	10/01/2014	C. McCulley	J. Davenport	M. Wells
Description of Changes:		Rolled to further clarify part marking for FAA-PMA parts (see Sections 6.1.2, 6.1.3, 6.1.5).		
F	03/12/2020	C. Chapel		
Description of Changes:		Removed references to specific Types; general formatting/grammatical updates.		



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1 Scope

- 1.1. This document details the identification and marking processes and procedures performed by Air Methods Corporation and its agents or subcontractors.
- 1.2. The marking methods and procedures applied herein shall be applicable to all detail parts, subassemblies, and assemblies delivered by Air Methods as a product or service to other commercial or military agencies.
- 1.3. This document is intended to correspond with the requirements of MIL-STD-130 at the latest revision, Identification and Marking of US Military Property, and 14 CFR Part 21 and 45.15.
- 1.4. In the event that a conflict exists between what is on the released drawing and the methods as outlined within this specification, the drawing shall be considered the prevailing document between the two.

This document is arranged in two sections:

1. Product related to civil aircraft (commercial) subject to 14 CFR
2. Product related to Military items

2 Applicable Documents

- 2.1. Military Standards
 - MIL-STD-130 (per latest revision), Identification Marking of US Military Property
- 2.2. Civil Standards
 - Title 14 of Code of Federal Regulations

3 Definitions

- 3.1. Acquisition Instrument Identification Number - A government contract or purchase order number.
- 3.2. Commercial and Government Entity (CAGE) Code - Air Methods' five character code which identifies the corporation as a commercial or governmental supplier develops items or provides services and supplies to the government.
- 3.3. Commercial Products - Products developed, modified, or sold by Air Methods which are not procured through or by US Military agencies.
- 3.4. Configuration Item - The part, assembly, or installation requiring configuration management and control.
- 3.5. Face-of-Drawing (FOD) - The geometry, notes, or text on the front surface of an engineering drawing.
- 3.6. Machine Readable Information (MRI), a.k.a. MIL STD-130 - Identification marking of U.S. Military Property, is a specification commonly used for giving directions on how to mark items sold to the Department of Defense.
- 3.7. Military Products - Products developed, modified, or sold by Air Methods which are procured through or by US Military Agencies.
- 3.8. National Stock Number (NSN) – A 13-digit stock number, consisting of the 4-digit Federal Supply Classification code and the 9-digit National Item Identification Number.
- 3.9. Organization Designation Authorization (ODA) - A delegation from the FAA that allows Air Methods to act on behalf of the FAA on a limited basis.
- 3.10. Part Number - The identification number assigned by Air Methods Engineering to a configuration item at the time design activity commences.
- 3.11. Parts Manufacture Approval (PMA) - An approval granted by the United States Federal Aviation Administration (FAA) to a manufacturer of aircraft parts.
- 3.12. Purchase Order - The unique identification number assigned by Air Methods Material to a configuration item at the time procurement commences.
- 3.13. Serial Number - The unique identification number assigned by Air Methods Production Control to the configuration item at the time fabrication or modification commences.
- 3.14. Unique Identification Marking (UID) & Item Unique Identification (IUID) - A part of the compliance process mandated by the United States Department of Defense. It is a permanent marking method used to give equipment a unique ID.

4 Engineering Data Requirements

4.1. General Part Marking

- 4.1.1 The identification marking requirement shall be indicated in the general notes section of all detail part and assembly prints.
- 4.1.2 Identification marking may be placed on a suitable surface that has a sufficient amount of area for the intended marking. The selected surface shall not be one that rubs or interferes with another surface such that the marking may become degraded. The surface area to be marked, shall not be one that (once marked) could potentially impact the overall form, fit, function, or cosmetic appearance of the part or assembly.
- 4.1.3 The text height used for marking shall be no smaller than 0.060 inches.
- 4.1.4 Whenever possible, labeling of parts shall not be applied in a location that is visible after installation.
- 4.1.5 The primary choice of method to be used shall be permanent ink stamp and shall be in a contrasting color to that of the surface.
- 4.1.6 The method of marking shall be determined by the designer and/or design engineer to be one of the following:

- a) General Identification – General part identifications shall be addressed by using the following note callout:

X. IDENTIFY PART PER AIR METHODS PROCESS SPECIFICATION, AMPS 020- 0134, METHOD Y

- b) Specific Location – Markings that are to be located in a specific area on the part, shall be identified on the field of the drawing by using a leader, a flag note symbol and note number.



The corresponding note associated with this callout, shall be located in the general note section and shall read:

 IDENTIFY PART PER AIR METHODS PROCESS SPECIFICATION, AMPS 020-0134, METHOD Y, IN APPROXIMATE LOCATION INDICATED

- c) Bag and Tag – Those components which are determined to be unsuitable for conventional marking shall be identified by using the bag and tag method (see Method K, Section 5 herein). The following note shall be used and located in the general note section of the drawing:

X. IDENTIFY PART PER AIR METHODS PROCESS SPECIFICATION, AMPS 020-0134, METHOD K

Note: Only under those circumstances designated above shall either the location-critical or bag and tag identification be accepted.

Note: If the article does not have at minimum a 1" X 3/4" area for ink stamping, then Method K is acceptable.

Note: Placards and non-metallic articles generally should not have physical labels applied. Examples of such materials are plastics (i.e., UHMW, Nylon, Delrin, Teflon/PTFE, ABS), rubber, NVIS filters, wire and glass.



5 Application Methods

All lettering and identification shall be placed on clean, oil-free surfaces using a method indicated below:

Method	Description
A	The parts shall be stamped or legibly lettered using ink of a contrasting color (including permanent pen)
B	Paper label marking
C	Laser etch with top coat sealant ¹ after etching
D	Vibrate etching with top coat sealant ¹ after etching
E	Leather tag (sewn into seam of parts)
F	Air Methods label (TESA tape or similar) that has been laser etched
G	Paper label sealed under resin on composite parts
H	Embroidered on the fabric
I	<i>Letter (I) is not used.</i>
J	Metal tag (riveted or adhered)
K	Bag/container and tag
L	Heat Shrink Tube with marking
M	Fabric or Material (such as cloth, leather, vinyl) tag, sewn or bonded to the part. Marking on tag may be laser, ink, embroidered.

Note: For drawings released prior to this revision that do not call out location for marking, parts will be marked using Method A with location at the discretion of QA personnel, OR Method K if there is not a sufficient sized area, i.e., 1" X 3/4", or material type is not conducive to marking (see Section 4.1.6c). The figure below indicates the minimum size for part marking.

Note: For drawings released prior to this revision that call out a Type, the type shall be ignored and QA personnel are responsible for determining if it is an FAA-PMA part.

¹ When marking penetrates to metal, apply any acceptable standard aviation top coat, unless otherwise specified on drawing.

6 Product Related to Civil Aircraft (Commercial) Subject to 14 CFR

6.1 Parts Manufacturer Approval (PMA) Articles

The following process applies to the marking of all articles subject to 14 CFR Part 21. The engineering data shall contain the marking requirements as outlined in Section 4.

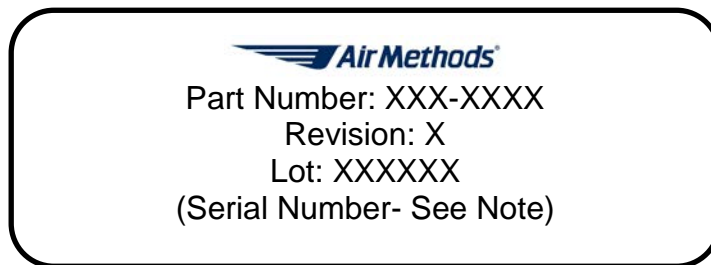
Part marking consists of Traceability and PMA markings, as defined below, these markings can be separate or on mark, but will be found in close proximity to each other on the part.

6.1.1 *Traceability Markings*

Each part will be marked with the following information at the location specified by the engineering drawing as applicable, utilizing the marking method specified:

- Air Methods name, trademark, or symbol
- Part Number
- Part Revision
- Lot Number
- Serial Number if Applicable

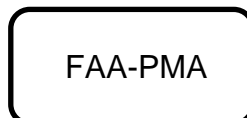
Note: Critical parts – A part for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section of a manufacturer's maintenance manual or Instructions for Continued Airworthiness. Such parts must be permanently and legibly marked with a serial number (or equivalent) unique to that part.



6.1.2 *FAA PMA Markings*

Each article that is not consumed by a next higher level assembly must also include the following:

- The marking “FAA-PMA”



If the article is being manufactured under a FAA (ODA, STC, PMA, etc.) project, the article is not to be marked “FAA-PMA”.

6.1.3 General Requirements

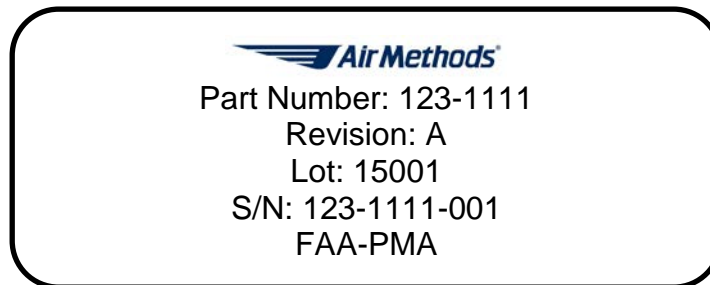
1. The following are acceptable markings for Air Methods name, trademark, or symbol:



2. Top-Level Assemblies or Parts Installed at Aircraft Level – Marking is required if marked parts are to be finished (paint, etc.). The markings must remain visible. Do not paint or permanently cover Traceability or PMA markings.
3. Markings may be scaled for parts, but text height must be at least .060 inches and easily located.
4. Marking shall be applied adequately to contrast with the color/texture of the part for ease of identification.

6.1.4 FAA-PMA Part Marking Examples

Note: Include the letters “FAA-PMA” only if required by Section 6.1.2





 Part Number: 123-1111 Revision: A Lot: 15001 S/N: 123-1111-001	FAA-PMA
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Air Methods P/N: 123-1111, Rev A S/N: 123-1111-001 Lot: 15001 FAA - PMA

 FAA-PMA P/N: XXX-XXXX-XXX INSP: XXXX REV: X DATE: XX/XX/XX MRB: XXXXX W/O: XXXXXX ECO: XXXXX, XXXXX, XXXXX
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6.2 Civil Aircraft Non-PMA Articles

6.2.1 Traceability Markings

Each part will be marked with the following information at the location specified by the engineering drawing as applicable. If the article is not suitable for ink stamping due to size, type, or material constraints stated in Section 4.1.6c, then Method K is acceptable.

- Air Methods name, trademark, or symbol
- Part Number
- Part Revision
- Lot Number
- Serial Number if Applicable

 Part Number: XXX-XXXX Revision: X Lot: XXXXXX (Serial Number- See Note)
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7 Product Related to Military Items

7.1 Commercial Item Identification for Military Products

- 7.1.1 Commercial items procured by Air Methods for use in its military products are not re-identified unless part number is not permanently affixed.
- 7.1.2 On assemblies, a permanent identification plate must be affixed with the manufacturers name, part number, and CAGE code or NSN number (if applicable) prior to delivery if the commercial product is not delivered with one in place.

7.2 Military Products

7.2.1 All Air Methods parts (Manufactured or Modified) shall have a tag or label attached with the following information (as applicable). For articles that do not need data tags, Method K is acceptable.

- The part number
- The work order under which the part was built
- Any NCR numbers that affect next level of installation or assembly
- **Note:** Part must be reworked and remarked if NCR occurs after original marking.
- Bar Coded Serial Number (when applicable)
- Bar Coded Part Number (when applicable) – UID (unique identification number) or part number Assigned by Air Methods Engineering. As standard operating procedure, only production parts that have serialized (*riveted or adhered*) data tags will also get an item unique identification (IUID) tag. In some cases the contract may specify if IUID tagging is required. In this case, IUID tagging requirements will be communicated on the specific work orders that repair, produce or ship these items. IUID tag placement will be adjacent to the existing data tag. In the case where no data tag is present, locate in an area not subject to sliding or bearing and doesn't affect the parts cosmetic appearance. Additionally, the tag shall be readily visible without disassembly of parts or components.
- Acquisition Instrument Identification Number (when applicable)
- Nomenclature (Item Name and Type Designation) (when space allows)
- Special Characteristics
- Manufacturers CAGE Number (Air Methods CAGE number if manufactured by Air Methods Corporation)
- Design Activity CAGE Number (Air Methods CAGE number if designed by Air Methods Corporation)
- National Stock Number (when applicable)
- Government Ownership Designation (when applicable)

7.2.2 *Traceability Markings*

Each IUID tag will be laser etched and be of two “parts”; HRI (Human Readable Information), text on the left side and MRI (Machine readable Information), square matrix on the right.

The HRI portion will contain (but not be limited to) the following information:

- Cage Code
- Part Number
- Serial Number*

The MRI will only contain:

- Cage Code
- Part Number
- Serial Number*

* Serial Number is defined as a standard, assigned AMC Document Control generated (and documented) serial number. In the case of contractually required IUID marking there may not be an associated serial number for that specific part number so the production work order number with an additional dash number added to differentiate between multiple parts made from the same work order will be used as the “serial number”.

Note: If a part that has a serialized data tag is required to have IUID marking as well, the serial number from the data tag **MUST** be recorded on the IUID tag.

7.2.3 IUID tag template examples

IUID tag with a standard AMC serial number (090-12345):



IUID tags using the production work order number as the “serial Numbers”. Note the addition of the dash number to differentiate between multiple parts made from the same work order (W12345-1 & W12345-2).

