

IDENTIFICATION MARKING OF PARTS

Document Number: LPS-258

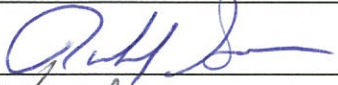
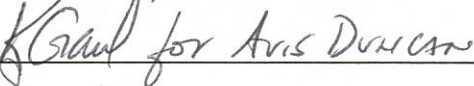
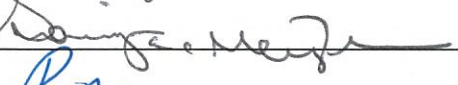

Revision: T

Release Date: 1 October, 2012

Note: FAA approval is required for all changes

Note: Printed copies of this document are considered uncontrolled unless stamped "Controlled Document" or equivalent. The revision level of this document must be verified prior to use by accessing the Luminator network.

Approvals

Department	Approval (signature)	Date
Rick Swanson Engineering		10/1/12
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Sonja Meyers Purchasing		10-1-12
Ben Sorrels Quality Assurance		10/1/2012

Document History

Revision	Description	Date
B	Completely rewritten. Earlier revision history was not recorded.	17 Nov 95
C	Updated para. 2.0; 6.8; 7.3.1; 7.4.1; 7.4.3.c; Added para 6.9; 6.9.1-6.9.3; 7.1.2.c; 7.1.3.e; 7.1.4.b; 7.2 Note; 7.2.3.b; 7.3.3.b.; 7.3 Notes 1 & 2; 4.2.b; 7.4.3; 7.5.2.b.	01 Aug 97
D	Added para 7.5.2.e, 7.6.1.e	30 Jan 98
E	Added PWA marking requirements (Item 3) to Section 7.6 – Marking Of Printed Circuit Board Assemblies, Ballasts, & LCD Glass. Updated serialization methods and added FAA/PMA procedures for Aircraft products. ES-1004 Product Identification standard will be superceded by LPS-258 upon release of this Revision	17 Jul 02
F	Revised section 6.8 (General) to include instructions for the creation of Aircraft part numbers	17 Apr 03
G	Added to section 7.1.2 information about marking procedures for Qantas ECLS assemblies.	07 Nov 03
H	Added references throughout document to address marking needs specifically for the Stationary Sign SBU.	15 Jul 04
J	Revised sections dealing with part marking by Suppliers	17 Jan 07
K	Revised FAA/PMA marking requirements; updated throughout; revised address	01 Jun 07
L	Revised company name	06 Aug 07
M	Added section 7.10	05 Sep 07
N	Revised cable identification requirements 7.6.3 pg. 7	20 Jun 08
P	Revised section 8.1.1 to reflect latest CFR change	1 Apr 10
R	Rewritten and reformatted	12 Jul 12
T	Added Definition 3.9 and Section 6.16	01 Oct 12

1.0 Purpose

This procedure defines requirements and provides guidelines for the identification of all Luminator Holding, L.P. (Luminator) parts.

2.0 Scope

This procedure applies to all parts within the Luminator Quality System. Any marking or identification requirements on a drawing or contract that are different from the requirements of this procedure take precedence.

3.0 Definitions

- 3.1 CAGE Code - An acronym for Commercial and Government Entity. The CAGE Code for Mass Transit Products is 17744. The CAGE Code for Aircraft is 0VDA9.
- 3.2 Date Code - A four (4) digit code (YYWW or YY/WW); the first two digits are the calendar year and the second two digits are the week of the calendar year in which the product was manufactured.
- 3.3 End Item - Any part which will not generally be shipped as part of a higher assembly. This term is synonymous with the term Top Level Assembly.
- 3.4 FAA – Federal Aviation Administration
- 3.5 Parts – Includes piece parts, subcomponents, subassemblies, assemblies, and kits
- 3.6 ICD - Interface Control Drawing
- 3.7 PMA – Parts Manufacturer Approval
- 3.8 Top Level Assembly - see End Item
- 3.9 Tooling and Assembly Aids – Tools used to assemble end items and sub-assemblies and detail parts converted to tools (assembly aids).

4.0 References

- 4.1 **Product Identification and Traceability**, procedure QP-118
- 4.2 **Control of FAA-PMA Parts**, QP-134
- 4.3 **WIP Tag**, form 902602
- 4.3 Title 14 Code of Federal Regulations (CFR) Part 45.15

5.0 Responsibility

- 5.1 Quality Assurance/Certification (process owner)
- 5.3 Production
- 5.4 Engineering
- 5.5 Purchasing

6.0 Procedure

- 6.1 The Luminator standard identification method is labeling. Where practical, identification labels shall be applied directly to the surface of the part. The label shall be located so as not to be visible during normal operational use, and parallel to an edge whenever possible. The label shall conform to an item in a manner as not to wrinkle or bubble excessively after application to the part.
- 6.2 Text height should be based on the size of the part and readability. The identification method should provide sufficient contrast to allow for easy readability of the information.
- 6.3 If the label cannot be applied directly to the part, the container (bag, box, etc.) shall be labeled or the part shall be tagged. If a container is used, the label shall be placed on the container parallel to an edge, in the approximate center, and on a surface that is easily seen.

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- 6.4 Identification of parts shall not adversely affect the part's form, fit, or function.
- 6.5 Labels will be of sufficient durability and contain sufficiently strong adhesive so as to not require edge sealing. Edge sealing of labels will be performed only if required by the customer or regulatory agency.
- 6.6 The preferred material for labels will be a white polyester material with a permanent acrylic adhesive equivalent to Brady® 423 type material.
- 6.7 A drawing note for specific identification will be performed as follows:
- 6.7.1 A note with no arrow pointing to the item: the item may be identified anywhere except on a show surface, or on the container, paperwork, or the part wrapping.
- 6.7.2 A note with an arrow pointing to the item with no location specified: the item may be identified anywhere except on a show surface.
- 6.7.3 A note with an arrow pointing to the item with the location specified by a dotted box: the item shall be identified in that approximate location.
- 6.8 Identification of Top Level Assemblies, Mass Transit
- 6.8.1 The preferred method is a standard 2" x 4" label. This label will contain, at a minimum,
- Name ("Luminator")
 - Part number
 - Part revision
 - Date Code
 - CAGE Code
 - Serial Number & Bar Code (if required)
- 6.8.2 Optional information contained on the standard 2" x 4" label may include the following:
- Part Description
 - Attaching Hardware Information
 - Replacement Lamp Information
 - Customer Part Number
 - ICD Drawing Number and Revision
 - Transit Authority
 - Other Pertinent Information
- 6.9 Identification of Top Level Assemblies, Aircraft
- Name ("Luminator").
 - Part Number
 - Part revision
 - Date Code
 - CAGE Code
 - Serial Number & Bar Code (if required).
- 6.10 Identification Marking of PMA Parts:
- 6.10.1 Identification of FAA-PMA parts must be per 14 CFR §45.15 (a), (1), (2), (c), (d) and QP-134, Control of FAA-PMA Parts.
- 6.10.2 Luminator must be authorized by the FAA to declare parts FAA-PMA, which is provided by the PMA supplement for specific parts.
- 6.10.3 Luminator will comply with 14 CFR §45.15 by the following method:
All parts produced under the Luminator FAA-PMA issued under 14 CFR Part 21.303 shall be permanently and legibly identified with a tamper resistant label. The label shall, at a minimum, contain the following information:
- The letters FAA-PMA

- b) The name “Luminator”
 - c) The part number
- 6.10.4 The permanent marking of the part is to be accomplished using the following components:
- a) Use label LB 006 – XXX (dash numbers, i.e. -001, -002, indicate different label sizes).
 - b) Clear acrylic covering # PT1010-001, applied over the label such that the label cannot be removed.
- 6.10.5 FAA-PMA part markings required by 14 CFR Part 45.15 are applied to the top-level assembly for which the original PMA was granted, not subassemblies or individual detail parts.
- Note: If a PMA is granted for an assembly, individual detail parts of the assembly sold separately must be labeled as in 6.10.4 and accompanied by a shipping document containing the information required by 14 CFR Part 45.15 (a). This includes the following on the shipping documents, “This is a subcomponent of a PMA assembly”.
- 6.11 Identification of Work In Process (WIP)
- 6.11.1 The requirement for the identification of WIP parts is to allow all parts within Luminator to be readily identifiable. WIP parts are identified in one of three ways:
- a) Labeled or stamped per this procedure
 - b) The accompanying router (i.e. work instructions or job pack)
 - c) The WIP tag
- 6.11.2 The marking of WIP parts should not be visible upon final assembly of the product.
- Note: For parts requiring further outside processing (e.g. anodize, powder coating, finishing, plating, machining, etc.), the router stays with the parts until they are placed in a higher assembly or moved to stock.
- 6.12 Identification of Cables
- 6.12.1 Cable identification shall include, but is not be limited to, a label or indelible ink stamping. Items will have, at a minimum, the following information:
- a) Part number
 - b) Part revision
 - c) Date Code
 - d) Luminator Identification - The part must be marked, at a minimum, “Luminator”, or contain Luminator’s CAGE Code.
- 6.12.2 Cable identification should be located within the first 12” from the connector or end. Cables that have passed electrical testing shall be marked on the part number/revision label indicating the testing requirements have been met.
- 6.13 Identification of Printed Circuit Boards (PWB) and Assemblies (PWA), Ballasts, & LCD Glass
- 6.13.1 Identification methods shall include, but are not limited to, a label (single or multiple), silk-screening, or indelible ink stamping. Parts will have, at a minimum, the following information:
- a) Part number and revision
 - b) The name “Luminator”
 - c) Supplier Identification - The part must be marked with either the supplier’s name or the supplier ID number assigned by Luminator.
 - d) Date code and/or serial number.
- 6.13.2 In addition to the above, PWA suppliers are required to include the following information:

- a) Latest bill of material revision.
 - b) Bar coded serial number.
- 6.14 Identification of Programmable or Application Specific Integrated Circuits
- 6.14.1 The requirement for the marking of Integrated Circuits (IC) is to allow all ICs to be readily identifiable upon inspection.
 - 6.14.2 Preferred marking is by label, but may be by indelible ink stamping. Minimum item marking will contain the Luminator Part Number.
- 6.15 Identification of Listed Electronic Assemblies
- Applies to assemblies listed by various industry organizations, such as Underwriter's Laboratories (UL), Edison Testing Laboratories (ETL), etc.
- 6.15.1 Mark in accordance with the industry organization requirements.
 - 6.15.2 In addition to the above, labels shall include the following information
 - a) Input voltage and frequency.
 - b) Full load amperes.
 - c) The words "Suitable For Wet Locations".
- 6.16 Identification of Tooling and Assembly Aids
- 6.16.1 All Luminator designed tooling will be identified with a tool number for reference within the Router, Quality Process Planning, Qualification Test Planning/Procedures and Acceptance Test Planning and Reports. The method and location shall be appropriate with the form and function of the tool.
 - 6.16.2 Assembly Aids will be identified with information pertinent to the applicable operation they are used in. Router and/or operation numbers as well as assembly numbers can be used as the pertinent information as long as it is clearly stated on the assembly aid.
 - 6.16.3 Labels, engraving, indelible ink stamping and permanent marker are all acceptable methods of marking tooling and assembly aids.
 - 6.16.4 Tools and Assembly Aids that are too small for legible marking will have a location provided that identifies their information as noted in 6.16.2 above.

7.0 Auditing

Quality Assurance shall carry out periodic reviews of this procedure in order to determine whether the activities and related results comply with the requirements.