



U.S. Department
of Transportation
**Federal Aviation
Administration**

**Small Airplane Directorate
Atlanta Manufacturing
Inspection District Office**
1701 Columbia Avenue
College Park, GA 30337

March 1, 2013

PQ4009CE

Aircraft Battery Shop, LLC
163 Business Park Dr., Suite 7
Lebanon, TN 37090

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

In accordance with the provisions of Title 14, Code of Federal Regulations (14 CFR), part 21, Certification Procedures for Products, Articles, and Parts, subpart K, the FAA has found that the design data, based on Test and Computation submitted by Aircraft Battery Shop, LLC, with your letter dated March 1, 2013 meet the airworthiness requirements of the regulations applicable to the products on which the articles are to be installed. Additionally, the FAA has determined that Aircraft Battery Shop, LLC, has established the quality system required by § 21.307 at 163 Business Park Dr., Suite 7, Lebanon, TN 37090. Accordingly, Parts Manufacturer Approval (PMA) is hereby granted for production of the replacement articles listed in the enclosed amended Supplement No. 3.

You are reminded that the provisions of 14 CFR, parts 21 and 45, noted in our PMA letter of approval dated October 22, 2008, also apply to the enclosed amended PMA Listing - Supplement No. 3. The enclosed Supplement should be retained with the original PMA Letter as evidence of approval to produce the articles concerned.

Sincerely,

for Greg Benson, Manager
Atlanta Manufacturing
Inspection District Office

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Aircraft Battery Shop LLC
 163 Business Park Dr., Ste. 7
 Lebanon, TN 37090

PMA NO.: PQ4009CE
 SUPPLEMENT NO.: 3
 DATE: April 27, 2009
 AMENDED: MARCH 1, 2013

ARTICLE NAME	PART NUMBER	APPROVED REPLACEMENT FOR PART NUMBER	APPROVAL BASIS & APPROVED DESIGN DATA	MAKE ELIGIBILITY	MODEL ELIGIBILITY
Battery Pack	ABS-5776-1	Luminescent Systems <u>P/N</u> : 5776-1 Aero Design, Inc. <u>P/N</u> : AD-5776-1 Installed in Luminescent Systems Power Supply(s): 5822 Series, 5885 Series, 7815 Series	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.</u> : ABS-1026A <u>Rev.</u> : Orig. <u>Date</u> : May 04, 2008 or later FAA-approved revisions	Airbus	A300 Model B4-2C, A300 Model B4-103, A300 Model B4-203 A300-600, A300 Model B4-601, A300 Model B4-603, A300 Model B4-620, A300 Model B4-605R, A300 Model B4-622R, A300 Model F4-605R, A300 Model F4-622R, A300 Model CA-605R Variant F, A300 Model B4-622 A310 Model 204, A310 Model 221, A310 Model 222, A310 Model 203, A310 Model 322, A310 Model 324, A310 Model 304, A310 Model 325 A320 Series, A320 Model-111, A320 Model-211, A320 Model -212, A320 Model-214, A320 Model-231, A320 Model-232, A320 Model-233

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Battery Pack	ABS-5776-1	Luminescent Systems <u>P/N: 5776-1</u> Aero Design, Inc. <u>P/N: AD-5776-1</u> Installed in Luminescent Systems Power Supply(s): 5822 Series, 5885 Series, 7815 Series	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1026A <u>Rev.:</u> Orig. <u>Date:</u> May 04, 2008 or later FAA-approved revisions	Boeing	707-300 Series, 707-400 Series, 707-300B Series, 707-300C Series 720, 720B 727 Series, 727-200 Series, 727C Series, 727-100C Series, 727-200 Series, 727-200F Series 737-100 Series, 737-200C Series, 737-300 Series, 737-400 Series, 737-500 Series, 737-600 Series, 737-700 Series, 737-700C Series, 737-800 Series, 737-900 Series, 737-900ER Series 747-100 Series, 747-100B Series, 747-100B SUD Series, 747-200B Series, 747-200C Series, 747-200F Series, 747-300 Series, 747-400 Series, 747-400D Series, 747-400F Series, 747SR Series, 747SP Series 757-200 Series, 757-200PF Series, 757-200CB Series, 757-300 Series 767-200 Series, 767-300 Series, 767-300F Series, 767-400ER Series

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Battery Pack	ABS-5776-1	Luminescent Systems <u>P/N</u> : 5776-1 Aero Design, Inc. <u>P/N</u> : AD-5776-1 Installed in Luminescent Systems Power Supply(s): 5822 Series, 5885 Series, 7815 Series	Test and Computation per 14 CFR § 21.303) <u>Dwg. No.</u> : ABS-1026A <u>Rev.</u> : Orig. <u>Date</u> : May 04, 2008 or later FAA-approved revisions	Lockheed Martin Corp. McDonnell Douglas	L-1011-385-1, L-1011-385-1-14, L-1011-385-1-15, L-1011-385-3 DC-8-11, DC-8-12, DC8-21, DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43, DC-8-51, DC-8-52, DC-8-53, DC-8F-54, DC-8F-55, DC-8-55, DC-8-61, DC-8-61F, DC-8-62, DC-8-62F, DC-8-63, DC-8-63F, DC-8-71, DC-8-71F, DC-8-72, DC-8-72F, DC-8-73, DC-8-73F DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A, C-9B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, DC-9-51, DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, MD-90-30 DC-10-10, DC-10-40, DC-10-30, DC-10-30F, (KC-10A, KDC-10), DC-10-10F, DC-10-40F, DC-10-15, MD-11, MD-11F, MD-10-10F, MD-10-30F

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Battery Pack	ABS-3127	ATR <u>P/N:</u> 301-1151 Aero Design, Inc. <u>P/N:</u> AD-3127	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1019A <u>Rev.:</u> Orig. <u>Date:</u> May 03, 2008 or later FAA-approved revisions	ATR – GIE Avions de Transport Régional	ATR-42-200, ATR-42-300, ATR-42-300F
Battery Pack	ABS-S1356-10A	<u>Soderberg</u> <u>P/N:</u> S1356-10A <u>Aero Design, Inc.</u> <u>P/N:</u> AD-S1356-10A	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1032A <u>Rev.:</u> Orig. <u>Date:</u> April 23, 2008 or later FAA-approved revisions	Boeing	747-400 Series 747-400D Series 747-400F Series
Battery Pack	ABS-10VB60-1	G.E. <u>P/N:</u> 42B905KD02 Lear Jet <u>P/N:</u> 10VB60 Grimes <u>P/N:</u> MISC0627 Aero Design, Inc. <u>P/N:</u> AD-10VB60-1	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1004A <u>Rev.:</u> Orig. <u>Date:</u> Aug. 13, 2008 or later FAA-approved revisions	Learjet McDonnell Douglas	24, 24A, 24B, 24B-A, 24C, 24D, 24D-A, 24E, 24F, 24F-A, 25D, 25F, 25, 25A, 25B, 25C, 28, 29, 31, 31A, 35, 36, 35A (C-21A), 36A, 55, 55B, 55C, 60 DC-8-11, DC-8-12, DC-8-21, DC-8-31, DC-8-32, DC-8-33, DC-8-41, DC-8-42, DC-8-43, DC-8-51, DC-8-52, DC-8-53, DC-8F-54, DC-8-55, DC-8F-55, DC-8-61, DC-8-61F, DC-8-62, DC-8-62F, DC-8-63, DC-8-63F, DC-8-71, DC-8-71F, DC-8-72, DC-8-72F, DC-8-73, DC-8-73F
Battery Pack	ABS-31-1525-1	Grimes <u>P/N:</u> 31-1525-1 Aero Design, Inc. <u>P/N:</u> AD-31-1525-1	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1016A <u>Rev.:</u> Orig. <u>Date:</u> May 10, 2008 or later FAA-approved revisions	Boeing	747-400 Series, 747-400D Series, 747-400F Series,

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Battery Pack	ABS-2047	<u>Embraer</u> P/N: C366-01-100 <u>Aero Design</u> P/N: AD-2047 Installed in: <u>Embraer</u> P/N: D366-04-001	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1006A <u>Rev.:</u> Orig. <u>Date:</u> May 01, 2008 or later FAA-approved revisions	Empresa Brasileira de Aeronautica S. A. (EMBRAER)	EMB-120, EMB-120RT, EMB-120ER, EMB-120FC, EMB-120QC
Battery Pack	ABS-3109	<u>Marathon</u> P/N: D650-01-095 <u>Aero Design, Inc.</u> P/N: AD-3109	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1014A <u>Rev.:</u> Orig. <u>Date:</u> Nov. 20, 2008 or later FAA-approved revisions	McDonnell Douglas	MD-11, MD-11F
Battery Pack	ABS-3110	<u>McDonnell Douglas</u> P/N: 41B030CF00101 <u>Grimes</u> P/N: MISC0639 <u>Aero Design, Inc.</u> P/N: AD-3110	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1015A <u>Rev.:</u> Orig. <u>Date:</u> May 28, 2008 or later FAA-approved revision	McDonnell Douglas	DC-9-81(MD-81), DC-9-82(MD-82), DC-9-83(MD-83), DC-9-87(MD-87), MD-88, 717-200

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Battery Pack	ABS-803949-1	<u>EM Engineered</u> <u>Magnetics Inc.</u> <u>P/N: 803949-1</u> <u>Aero Design, Inc.</u> <u>P/N: AD-803949-1</u>	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.: ABS-1030A</u> <u>Rev.: Orig.</u> <u>Date: May 15, 2008</u> or later FAA-approved revisions	McDonnell Douglas	717-200

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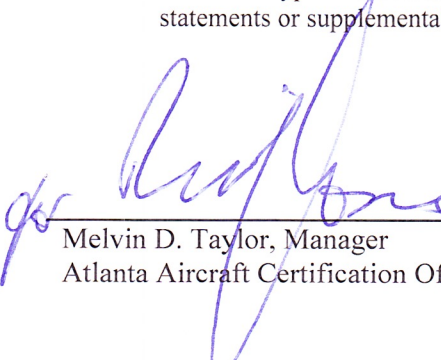
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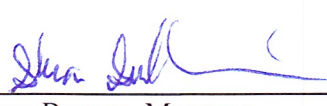
ARTICLE NAME	PART NUMBER	APPROVED REPLACEMENT FOR PART NUMBER	APPROVAL BASIS & APPROVED DESIGN DATA	MAKE ELIGIBILITY	MODEL ELIGIBILITY
Battery Pack	ABS-MISC-062	<u>Marathon</u> P/N: S-106, 37067-001, 38931-002	Test and Computation per 14 CFR § 21.303 <u>Dwg. No.:</u> ABS-1003A <u>Rev.:</u> Orig.	SAAB AB, Saab Aerosystems	SAAB 340A (Saab/F340A), Saab 340B
		<u>Grimes</u> P/N: MISC-062, 240006-140	<u>Date:</u> April 07, 2008 or later FAA-approved revisions	Boeing	727 Series, 727-100 Series, 727C Series, 727-100C Series, 727-200 Series, 727-200F Series,
		<u>Aero Design, Inc.</u> P/N: AD-MISC-062			
		Installed in: <u>Grimes P/N:</u> 60-1321, 60-1411, 60-3844, 60-4068, 60-4222 Series, and Installed in Battery Packs: <u>Grimes P/N:</u> 61-0478-1, 61-0478-9			

-----**END OF LISTING**-----

NOTE:

- 1) Provide minor design changes in a manner as determined by the ACO. Handle major design changes to drawings and specifications in the same manner as that for an original FAA-PMA.
- 2) The FAA Approved ICA for the above parts with their designs. These ICA may refer to those of the respective parts from the holders of type certificates. Otherwise provide supplemental ICA for differences in the replacement parts. Make referral statements or supplemental ICA readily available per 14 CFR § 21.50.


Melvin D. Taylor, Manager
Atlanta Aircraft Certification Office


Greg Benson, Manager
Atlanta Manufacturing
Inspection District Office