

Attachment G
First Article Inspection Results
Lithium Battery Pack



INSPECTION REPORT (SIDE A)

FIRST ARTICLE YES NO

(Ref. Work Instructions FTL.QUA.310-02 and FTL.QUA.430-10)

Page 1 of 2

Program or Project: SRB-406 Work Order: 5301-70 Contract No: N/A
 Part or Assy. Name: BATTERY PACK SRB 406 Part No: P4-03-0001
 Serial Number(s): 0201310 Quantity Inspected: 1 Revision Level: A

Inspect/ Test Point No	Inspection/Test Instructions, References, Equipment	Method*			Inspector's Section		
		V	W	I	Acc. Stamp	Inspection Date	Remarks/Recommendations Note: Do not stamp acceptance if item does not meet requirement.
1	NOTE 1. CELL SIZE "1-1/4 C"			✓	(S DME A)	2/26/03	
2	NOTE 1 BATTERY CONSTRUCTION			✓	(S DME A)	2/26/03	
3	NOTE 1 BATTERY WEIGHT			✓	(S DME A)	2/26/03	300 g OR 0.66 lb.
4	NOTE 1 BATTERY VOLTAGE			✓	(S DME A)	2/26/03	11.54 V (PARTIALLY DEPLETED DURING QUAL TESTING, BUT MET D.C.V LOADED VOLTAGE, REF. W.O. 5301-70)
5	NOTE 1 BATTERY CAPACITY	✓			(S DME A)	2/26/03	
6	NOTE 1 BATTERY CONNECTIONS			✓	(S DME A)	2/26/03	
7	NOTE 1, STORAGE, SHIPPING AND DISPOSAL INFORMATION				(S DME A)	2/26/03	FOR INFORMATION ONLY
8	NOTE 2. GENERAL PRECAUTIONS				(S DME A)	2/26/03	FOR INFORMATION ONLY
9	NOTE 3 PROTECTION FROM ENVIRONMENT				(S DME A)	2/26/03	FOR INFORMATION ONLY
10	NOTE 4 COPY OF AI-31-0117-001					2/26/03	LABEL P/N NOT CORRECT, CORRECTED BY HAND.
11	VERIFY LABEL			✓		2/26/03	LABEL P/N NOT CORRECT, CORRECTED BY HAND
12	VERIFY FOAM PAD			✓	(S DME A)	2/26/03	

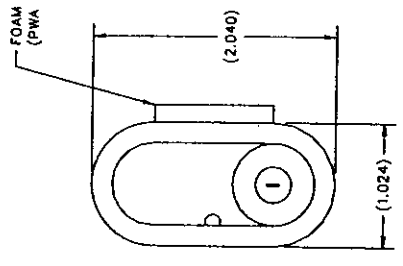
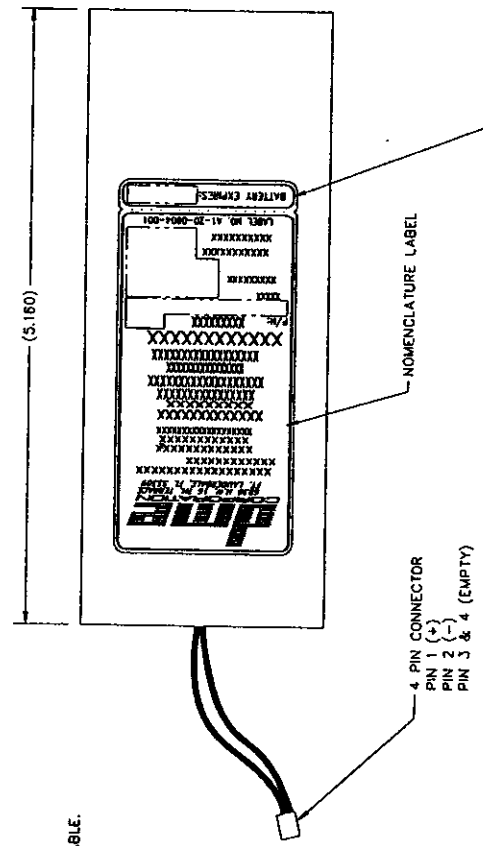
Verify W - Witness I = Inspect

PLEASE VERIFY OPEN THAT ALL DATA CONTAINED HEREIN REVEALS ST. OR SHOWN IN THIS DOCUMENT IS CORRECT. SHOULD BE FOR INFORMATIONAL PURPOSES OF THE BUYER. THE BUYER IS ADVISED AND RECEIVED IN COMPLIANCE WITH THE FEDERAL TRADE COMMISSION ACT. THE BUYER SHALL BE RESPONSIBLE FOR ANY OTHER PURPOSES OR DUPLICATION IN WHOLE OR IN PART WITHOUT THE AUTHORIZATION OF THE COMPANY.

Notes:

1. SPECIFICATIONS:
 CELL SIZE: 1-1/4" x 1-1/4" x 1-1/4"
 CONSTRUCTION: FOUR EACH SOLID CATHODE LITHIUM MANGANESE DIOXIDE CELLS IN SERIES. EACH CELL IS PROTECTED WITH A POLYETHYLENE SEPARATOR BETWEEN ANODE AND CATHODE AND BY THE P.T.C. APPROXIMATELY 0.87 LBS.
 WEIGHT: 12 VDC NOMINAL (OPEN CIRCUIT)
 VOLTAGE: 5.6 Amps. NOMINAL (100ma @ 23°C TO 2V CUTOFF)
 CAPACITY: PIN 1 (+)
 PIN CONNECTIONS: PIN 2 (-)
 PIN 3 & 4 NOT USED.
 STORAGE: BATTERY PACK SHOULD BE STORED IN ORIGINAL PACKAGING UNTIL READY FOR INSTALLATION.
 SHIPPING: FOLLOW INTERNATIONAL/NATIONAL/STATE/LOCAL REGULATIONS WHEN SHIPPING BATTERY PACK(S).
 DISPOSAL: FOLLOW INTERNATIONAL/NATIONAL/STATE/LOCAL REGULATIONS WHEN DISPOSING OF BATTERY PACK(S).

2. GENERAL PRECAUTIONS:
 • DO NOT DISASSEMBLE BATTERY PACK.
 • DO NOT SHORT CIRCUIT BATTERY PACK.
 • DO NOT CHARGE BATTERY PACK. BATTERY PACK IS NOT RECHARGEABLE.
 • DO NOT REFURBISH AND/OR RECONDITION BATTERY PACK.
 • THIS MAY RESULT IN CATASTROPHIC DAMAGE.
 • BATTERY PACK (WITH OR WITHOUT SHIPPING PACKAGING) MUST BE PROTECTED FROM COMPRESSIVE LOADS AND HEATING BY NATURAL OR ARTIFICIAL SOURCES TO TEMPERATURES ABOVE 85°C.
 • BATTERY PACK MAY VENT ABOVE 91°C.
 • CATASTROPHIC DAMAGE MAY OCCUR TO BATTERY PACK ABOVE 180°C (MELTING POINT OF LITHIUM METAL).
 • BATTERY PACK MUST BE PROTECTED FROM FORMATION OF CONDENSATION OR EXPOSURE TO WATER OR OTHER FLUIDS.
 4. ONE COPY OF AT-31-0177-001 MUST ACCOMPANY EACH BATTERY PACK(S) SHIPPED AS A SPARE OR INSTALLED IN THE ELT (SEE FAA TSO C142).



BATTERY EXPIRATION LABEL
 (TEAR-OFF AND PLACE ON OUTSIDE
 OF TRANSMITTER HOUSING WHEN INSTALLING
 BATTERY PACK)

4 PIN CONNECTOR
 PIN 1 (+)
 PIN 2 (-)
 PIN 3 & 4 (EMPTY)

NOMENCLATURE LABEL

UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		TOLERANCES ON DIMENSIONS ARE IN INCHES		FRACTIONS 1/8		ANGLES ± 1°	
1/8	±0.005	1/8	±0.005	1/8	±0.010	1/8	±0.010	1/8	±0.010
NEXT ASSY USED ON									
NET WEIGHT									
SCALE 1/4"									
DATE CODE									
P4-03-0001									
REV. A									
SHEET 1 OF 1									

INTERFACE CONTROL DRAWING		DATE		REV.	
dme CORPORATION		5830 HWY 16TH TERRACE		FT LAUDERDALE, FL 33309	
BATTERY PACK,		SRB-406			
UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		TOLERANCES ON DIMENSIONS ARE IN INCHES	
FRACTIONS 1/8		ANGLES ± 1°		NEXT ASSY USED ON	
NET WEIGHT		SCALE 1/4"		DATE CODE	
P4-03-0001		REV. A		SHEET 1 OF 1	

PART NUMBER: P4-03-0001-001 P/N REV: (-) _____ D+S _____ W/O#: 5301-70
 DESCRIPTION: BATTERY PACK, SRB-406
 ROUTING: P4-03-0001-001 RTG REV: 0 _____ D+S _____
 WO QUANTITY: 5 _____ S/N: _____
 WO DUE DATE: 01/02/03
 WO COMMENT: PER:DEAN'S EMAIL 12/18/02

SEQ#	STEP#	DESCRIPTION	WORK CENTER#	DESCRIPTION	TOTAL STD HRS	SET UP HRS	DATE	EMPLOYEE STAMP/INIT
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Special Material Handling Requirements

- Care shall be taken to prevent contamination of materials with foreign objects. Foreign objects such as food, beverages, personal effects, production process by products, discarded packaging or any other items which are not part of the required material handling activities are to be immediately removed from the work areas.
- All Electrostatic Discharge Sensitive (ESD) materials must be handled observing the appropriate ESD protection measures, which include: ESD marking and ESD packaging protection, as well as, handling in an ESD protected workstation when not protected by ESD packaging.
- All hazardous materials must be handled using containers and other protection devices in order to prevent any spillage and/or contact with the hazardous characteristics of the materials. This includes following recommendations contained in material safety data sheets.
- Production Control Manager approval is required when more than three splits are needed.
- All operations are to be performed per DME Workmanship Standards and any applicable MPPs or SMPs.
- Nonconforming material shall be handled and dispositioned in accordance with procedure DME.QUA.450-01.

Qty	Split	S/N's	Date & Sign



PART NUMBER: P4-03-0001-001 P/N REV: (-) D+S _____ W/O#: 5301-70
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 WO QUANTITY: 5
 WO DUE DATE: 01/02/03
 WO COMMENT: PER:DEAN'S EMAIL 12/18/02

SEQ#	STEP#	DESCRIPTION	WORK CENTER#	DESCRIPTION	TOTAL STD HRS	SET UP HRS	DATE	EMPLOYEE
090		GENERAL NOTES	1111	GENERAL NOTES			N/A	N/A
10		PHANTOMS: A3-03-1006-001						

** CAUTION: LITHIUM MANGANESE DIOXIDE BATTERIES. DO NOT SHORT CIRCUIT, NOR EXPOSE TO EXCESSIVE HEAT, NOR HEAT FOR EXTENDED PERIODS OF TIME. DO NOT PLUG OR COVER VENT HOLE. DO NOT CONTACT VENT TANG INSIDE BATTERY.
 ** DO NOT RECHARGE.

100	1	CUT AND STRIP WIRES			.0425		12-19-02	
		DO THE FOLLOWING PER DWG A3-03-1006-001:						
		1. CUT WIRES TO LENGTH AND STRIP.						
		COLOR LENGTH STRIP-A STRIP-B						
		RED 5-00 0-000" 0-23"						
		BLK 5-00 0-000" 0-23"						
		ASSEMBLE CELL STACK						
120	1	WELD CELL STACK ASSY			.3330		12-19-02	
		DO THE FOLLOWING PER DWG A3-03-1006-001:						
		1. TAPE CELLS TOGETHER PER DWG. CONFIG. USE FIXTURE #T3-06-1006-001A						
140	1	WELD CELL STACK ASSY			.1900		12-19-02	
		** CAUTION: USE SAFETY GLASSES FOR THIS OPERATION.						
		** REFER TO SMP #2020						
		** DO THE FOLLOWING PER DWG A3-03-1006-001:						
		1. PLACE GLASS TAPE ON CELLS IN CENTER WELD AREA PER DRAWING.						
		2. WELD CELL STRIPS TO BATTERIES PER DRAWING.						
160		INSPECT WELDS					12-19-02	

1260 QUALITY CONTROL MAIN



PART NUMBER: P4-03-0001-001 P/N REV: (-) D+S _____ W/O#: 5301-70
 DESCRIPTION: BATTERY PACK, SRB-406
 ROUTING: P4-03-0001-001 RTG REV: 0 D+S _____
 WO QUANTITY: 5
 WO DUE DATE: 01/02/03
 WO COMMENT: PER:DEAN'S EMAIL 12/18/02

SEQ# STEP# DESCRIPTION WORK CENTER# DESCRIPTION TOTAL STD HRS SET UP HRS DATE EMPLOYEE STAMP/INIT

10 PERFORM IN-PROCESS INSPECTION IN ACCORDANCE WITH WI FTL.QUA.430.02,5.3.

180 FINAL ASSEMBLY, SRB-406 BATTERY

5301 FTL COMM BATTERY CELL

.5000

5 12-20-02



1 ** CAUTION: USE SAFETY GLASSES FOR THIS OPERATION.

- ** DO THE FOLLOWING PER DWG A3-03-1006-001:
1. SOLDER WIRES TO WELD TABS.
 2. PLACE INSULATOR BETWEEN CELL STACKS.
 3. PLACE END INSULATORS ON STACK.
 4. ROUTE WIRES THRU HOLE IN TOP INSULATOR. TIE-WRAP STRAIN RELIEF.

- 2 DO THE FOLLOWING PER DWG A3-03-1006-001:
1. CUT HEAT SHRINK TUBING TO 6.12" LG.
 2. PLACE STACK INTO TUBING AND SHRINK.
- NOTE: ENSURE ENDS OF TUBING ARE FLATTENED AGAINST INSULATOR.

- 3 DO THE FOLLOWING PER DWG A3-03-1006-001:
1. TRIM WIRES ONE AT A TIME TO 5.25" LG.
 2. ONE AT A TIME: STRIP WIRE 0.13" AND CRIMP TERMINAL TO WIRE. INSERT TERMINAL INTO CONNECTOR HSG. PER DWG.
- ** ASSEMBLY NOTES: 1)TERMINATING ONE WIRE AT A TIME WILL HELP PREVENT SHORTING WIRES TOGETHER.
 2)USE MOLEX CRIMPER #11-01-0208 POSITION "A" (CAL #453).
 3)WHEN INSERTING TERMINAL INTO HOUSING MAKE SURE THE SLIT IN THE TERMINAL IS TOWARD THE LATCH ON THE HOUSING. IT ONLY FITS ONE WAY.
 4)ENSURE ALL THE TERMINALS LATCH FULLY INTO THE HOUSING AND CANNOT BE PULLED OUT OF HOUSING BY HAND.

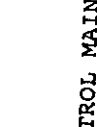
- 4 DO THE FOLLOWING PER DWG A3-03-1006-001:
1. MARK LABEL WITH DOM, LOT#, AND EXP. DATE.
 2. APPLY LABEL TO BATTERY ASSEMBLY.
 3. INSTALL FOAM PAD ONTO BATTERY ASSY.

--- DME CORRELATION ---
 STANDARD OPERATION SHEET

PART NUMBER: P4-03-0001-001 P/N REV: (-)
 DESCRIPTION: BATTERY PACK, SRB-406
 ROUTING: P4-03-0001-001 RTG REV: 0
 WO QUANTITY: 5
 WO DUE DATE: 01/02/03
 WO COMMENT: PER:DEAN'S EMAIL 12/18/02

D+S _____ W/O#: 5301-70
 D+S _____
 S/N: _____

SEQ#	STEP#	DESCRIPTION	WORK CENTER#	DESCRIPTION	TOTAL STD HRS	SET UP HRS	DATE	EMPLOYEE
5		TEST BATTERY WITH METER. ** NOTE: LOAD 100 OHM, 10 SEC, MINIMUM 12 VDC. **						
10		PERFORM FINAL INSPECTION IN ACCORDANCE WITH WI FTL.QUA.430.02,5.4.	1260	QUALITY CONTROL MAIN	.0150		12-10-02	
200		FINAL INSPECTION						
220		MOVE TO STOCK	1110	PRODUCTION CONTROL				



N/A

N/A

Growlmer

PCSERGIO.FMDME

Part Number P4-03-0001-001

Revision Level: (-)

Drawing Number:

LWE CORPORATION

SINGLE LEVEL ENGINEERING BILL OF MATERIAL AS OF 12/18/02 FOR SELECTED PARTS

BATTERY PACK, SRB-406

Engineering Status:

Comment:

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Quantity U/M EA M Y
1

Level	Line	Rev	Start Date	Stop Date	Part Number	Rev	Description
1	1		10/ 1/02		A3-03-1006-001	(-)	POWER UNIT ASSEMBLY,406 BEACON

Grower
PCSERGIO.FMDME

12/18/02 JD

INCORPORATION
PICK LIST

SORTED BY STOCK LOCATION

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WO #: 5301-70 Part Number: P4-03-0001-001 Description: BATTERY PACK, SRB-406 Quantity: 5
Rev. Level: (-) Comment: U/M: EA
WO Comment: PER:DEAN'S EMAIL 12/18/02 Eng. Status:

Item Description	U/M	SC	Stockroom	Location	Required	Part Number	Issued	Short
STRIP,WLD,.880 X.156,.003 THK,S 00/00/00	EA	P	BAT	FS	20	A1-17-0314-005	0	20
INSULATOR,.080 THK,406 BATTERY 00/00/00	EA	P	COMM	B18B	5	A1-26-0083-002	✓	
INSULATOR,.030 THK,406 BATTERY 00/00/00	EA	P	COMM	E17C	10	A1-26-0083-001	✓	
CELL,1-1/4 C SIZE,Li/MnO2,3V,FL 00/00/00	EA	P	COMM	ELEC	20	A1-13-0093-001	✓	
TERMINAL,CRIMP,FEMALE BOX,22-24 00/00/00	EA	P	COMM	F15C	10	A1-03-0199-001	✓	
HOUSING,CRIMP,4 COND,POSITIVE L 00/00/00	EA	P	COMM	F17D	5	A1-03-0197-001	✓	
SPACER,FOAM,1 X 1 X .125 00/00/00	EA	P	COMM	N12B	5	A1-25-0074-001	✓	
LABEL,ID,BATTERY,SRB,MODEL 406 00/00/00	EA	P	COMM	P1F	5	A1-20-0004-001	✓	
WIRE TIE,3.75 LG 00/00/00	EA	P	COMM	T7C	5	A1-18-0552	✓	
WASHER,INSULATOR,SRB-406 00/00/00	EA	P	ZZ	ZZ	20	A1-26-0084-001	0	20
TUBING,HEAT SHRINK,FLAT,72 MM,B 00/00/00	FT	P	ZZ	ZZ	3	A2-20-0079-001	0	3

PICK LIST COMPLETED SUCCESSFULLY