



DEPARTMENT OF THE ARMY
 HEADQUARTERS, US ARMY COMMUNICATIONS-ELECTRONICS COMMAND
 AND FORT MONMOUTH
 FORT MONMOUTH, NEW JERSEY 07703-5000

REPLY TO
 ATTENTION OF

April 13, 2000

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 29-01022-06
 030-05248

U.S. Nuclear Regulatory Commission
 Region I
 475 Allendale Road
 King of Prussia, PA 19406-1415

Attention: Ms. Judith Joustra
 Acting Chief, Materials Safety Branch 2
 Division of Nuclear Materials Safety

This refers to U.S. Nuclear Regulatory Commission (NRC)
 License Number ~~29-01022-14~~, Docket Number ~~030-29741~~.

We are requesting that an amendment to this NRC license be
 issued to authorize the following:

Americium-241, sealed sources, special form, AEA Technology
 (formerly Amersham Corporation) Model AMM; two sources of 4
 microcuries each per device. Not to exceed 4 millicuries total.

The Americium-241 sealed sources are used as a source of
 ionization in a Lightweight Laser Designator Rangefinder (LLDR)
 currently being developed by Litton Laser Systems for the Army.
 The LLDR will only be used by the military (custom use).

The LLDR is composed of a Laser Designator Module (LDM) and a
 Target Locator Module (TLM). The Americium-241 sealed sources
 are a component part of the LDM.

Enclosure 1 is the description of the requirements for the
 Americium-241 source assembly. AEA will load the Americium-241
 sealed sources into the source holders provided by Litton
 Systems. Enclosures 2 - 7 depict the location of the Americium-
 241 Source Assembly on the LDM Optical Bed Assembly; the LDM
 exploded view, the LDM, the TLM and the LLDR top assembly.

Enclosure 8 is Registry of Radioactive Sealed Sources and
 Devices Safety Evaluation of Sealed Source Number NR136S208S
 dated February 8, 1982, for the AEA (Amersham Corporation) Model
 AMM source.

Litton performed a radiation survey on a similar laser system
 used by the military, utilizing a Ludlum Model 14C Radiation
 Detection Instrument. No external readings above background
 radiation levels were detected at all surfaces of the laser
 system.

The technical manual associated with the LLDR, once
 developed, will contain the appropriate user safety controls,

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 Act, exemptions 2
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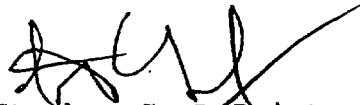
warnings and disposal information. The contractor will perform maintenance of the LDM. No maintenance of the LDM at the user level is anticipated.

Your expeditious processing of this amendment request is appreciated. We are anticipating the need for operational testing of this laser system shortly.

Our Point of Contact is Mr. Richard J. Lovell or Mr. Barry J. Silber. Facsimile on (908) 532-6403 or (908) 542-7161; Voice on (908) 427-4427/3112.

732

Sincerely,



Stephen G. LaPoint
Director
Directorate for Safety

Enclosure

Copy Furnished:

Commander, U.S. Army Materiel Command, ATTN: AMCSF-P, 5001
Eisenhower Avenue, Alexandria, Virginia 22333-0001

ENCLOSURE (1)

SH REV 1 B DRAWING NO. 66910280	APPLICATION		MF	REVISIONS			
	NEXT ASSY	USED ON		LTR	DESCRIPTION	DATE	APPROVED
	SEE ENGRG	F/A-18	(R)	B	INC ECN 3	92-03-14	<i>[Signature]</i>
	RCD						

REFERENCE ONLY

B	B	B	E	
18	19	20	21	22

SOURCE CONTROL DRAWING

REV STATUS OF SHEETS	REV SHEET		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	PL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

ADDITIONAL APPROVALS		CONTR NO. N00019-85-C-0250		Litton Laser Systems	
CH ENGR S. J. LYONS 8-3-21	SIGNATURE	DATE	TITLE AMERICIUM SOURCE ASSEMBLY		
STRESS WTE W. SANDERS 90-11-16	DRAFTSMAN E. GUINTANA	90-10-25			
MFC A. GARDNER 90-11-19	CHECKER P. KOLE	90-11-16			
QUAL J. ENGLAND 90-11-14	DESIGN ENGR B. RAMSEY	90-11-24			
CH C. SEMANIC 91-3-21	PROGRAM APPROVAL	91-03-21	SIZE A	CAGE CODE 34860	DRAWING NO. 66910280
P. ADRIAN 90-11-16	CUSTOMER APPROVAL		SCALE NONE	REV B	
			SHEET 1 OF 21		

Encl 1

1.0 SCOPE

1.1 Scope. This drawing establishes the detail requirements for an Americium 241 source and holder assembly.

2.0 APPLICABLE DOCUMENTS

2.1 Government documents. The following documents of the issue in effect on the date of invitation for bids or request for proposal, form a part of this drawing to the extent specified herein.

SPECIFICATIONS:

STANDARDS:

Military

MIL-S-22473E	Sealing, Locking, and Retaining Compounds
MIL-STD-130E	Identification Marking of U.S. Military Property
MIL-STD-454F	Standard General Requirements for Electronic Equipment
MIL-STD-810E	Environmental Test Methods and Engineering Guidelines
MS16995	Screw, Cap, Socket Head - Hexagon, Corrosion Resisting Steel UNC-3A.
MS51848	Washer, Lock-Helical Spring, Hi-Collar
QQ-B-626	Brass, Leaded and Nonleaded, Rod, Shapes, Forging and Flat Products
QQ-P-35	Passivation Treatments for Corrosion - Resistant Steel
QQ-S-763	Steel Bars, Wire, Shapes, and Forgings, Corrosion Resisting
QQ-S-766	Steel, Stainless and Heat Resisting, Alloys, Plate Sheet and Strip

(Copies of specifications, standards, and publications required by suppliers in connection with the specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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SCALE NONE	SHEET 2 OF		

2.2 Non-Government documents. The following documents, of the issue in effect on the date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

STANDARDS:

American National Standards Institute

- ANSI Y14.5-1973 Dimensioning and Tolerancing
- ANSI Y10.20-1975 Mathematical Signs and Symbols for Use in Physical Sciences and Technology.
- ANSI N542-1977 Seal Radioactive Sources, Classification (NBS 126)

American Society for Testing and Materials

- ASTM A582-88 Standard Specifications for Free-Machining Stainless and Heat - Resisting Steel Bars, Hot Rolled or Cold-Finished

National Aerospace Standards

- NAS620 Washer, Flat - Reduced O.D.
- NAS1352 Screw, Cap, Socket Head - Undrilled and Drilled, Plain and Self Locking, Alloy Steel and Corrosion Resisting Steel, UNRC-3A

2.3 Miscellaneous Documents

- 49 CFR Code of Federal Regulations
- 34860Assy60511615-19 Pockels Cell Assembly
- 34860Assy60511765-9 Bracket, Mounting, Ionizer Assembly

3.0 REQUIREMENTS

3.1 General. Individual requirements shall be as specified herein. Interpret dimensions and tolerances herein in accordance with ANSI Y14.5-1973 and mathematical symbols herein in accordance with ANSI Y10.20-1975.

3.1.1 Detail requirements. Detail requirements shall be as specified herein. In the event of any conflict between documents referenced and the detail specifications herein, the latter shall govern.

3.1.2 Serialization. This is a serialization controlled item.

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A	34860	66910280	B
SCALE	WAVE	SHEET	3 OF

R

3.2 Construction. The construction, and physical dimensions shall be as specified herein.

3.2.1 Source holder assembly. The source holder assembly shall be as shown in Figure 1.

3.2.1.1 Source dimensions. The Americium 241 source dimensions shall be as required to fit the source holder as indicated in Figure 2.

3.2.1.2 Activity. The activity present in the source shall be 4.0 ± 0.5 micro Curies.

3.2.1.3 Leakage. When examined per Appendix B, the maximum allowable leak shall not exceed 11100 DPM ($.005\mu\text{C}$) of activity.

3.2.2 Source Assembly. The source assembly shall be assembled as shown in Figure 1. The source shall be retained within the holder, Figure 2, using 5 crimps as specified in 4.2.2. The protective screen as detailed in Figure 3 shall be held in place using 4 tack bonds of either Hysol (CAGE 04347) products division adhesive 1C, or 3M (CAGE 04963) 2216B/A structural adhesive. The tack bonds shall be uniform in appearance and shall not mask the active area exposed by the foil source.

3.2.2.1 Source holder. The source holder shall be in accordance with Figure 2.

3.2.2.2 Protective screen. The protective screen shall be in accordance with Figure 3.

3.2.2.3 Workmanship. Workmanship shall be in accordance with MIL-STD-454, Requirement 9. Parts shall be free of oils, dirt or other debris.

3.3 Part marking. Marking shall be in accordance with MIL-STD-130. Each source assembly shall be marked with the following information.

- a. Serial number
- b. Part number
- c. Isotope
- d. Radiation symbol
- e. Activity level

3.4 Environmental requirements. The source assembly shall be capable of operating and withstanding the following environmental conditions.

3.4.1 Temperature.

Ambient Temperature -66°C to $+95^{\circ}\text{C}$

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SCALE	NOTE	SHEET	A OF

3.4.2 External Pressure.
Ambient Pressure 50 millitorr vacuum to 35 psia

3.4.3 Vibration. Vibration Qualification shall meet the requirements of MIL-STD-810E, Section II. In addition, all RMS levels tested shall be within 10 percent of each specified RMS level. The source assembly shall be designed to withstand the vibration spectrums as shown in Figures 4 and 5. In lieu of this high level of vibration, the source assembly shall be qualified as part of a subassembly as stated in 4.4.

4.0 QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for testing. Unless otherwise specified, the supplier shall be responsible for all testing required herein. Testing may be performed by the supplier or a testing laboratory acceptable to and approved by the buyer. If testing is performed by an organization other than the supplier, the buyer shall be notified, in writing, of the name and address of the organization.

4.1.1 Supplier process plan and approval. Supplier shall submit a written, detailed, process plan. This plan must be approved by the buyer. Following approval, all product shipped by the supplier shall be certified to be fabricated in accordance with this process plan. Any proposed modification to the process plan shall require the buyer's approval. Additional first article testing may be required at the buyer's option.

4.2 Quality conformance inspection. Except as specified herein, quality conformance inspection shall be in accordance with and consists of the tests and inspections required for Group A. Parts shall have been screened prior to Group A inspection.

4.2.1 Screening. Each unit shall be temperature cycled per ANSI N542-1977 Class 2, 5 cycles.

4.2.2 Group A inspection. Group A inspection shall consist of the tests and inspection as defined in Table II herein.

4.2.2.1 Crimp Inspection. The crimp configuration on each source assembly shall be 100% inspected for the following items:

- a. 5 crimps shall be present on each assembly.
- b. Crimps shall be uniform in appearance.
- c. Crimps shall be free of major defects.
- d. Crimps shall be free of foreign materials.
- e. Foil shall not be loose within the holder.

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SCALE			

4.3 First article test. When specified by the purchase order, one first article testing in accordance with this specification is required.

4.3.1 First article requirements. Inspection and test shall consist of performing the tests in the order shown in accordance with Table I herein. Minimum source assembly quantity shall be 10. First article data shall be delivered to the buyer.

4.4 Vibration qualification. Due to the high vibration level for qualification, source holder assemblies shall be qualified as part of its end use subassembly. Two source holders shall be mounted onto an ionizer bracket as described by the following part number:

34860Assy60511765-9 Bracket, Mounting, Ionizer Assy

The source holders shall be retained using Grade-EV sealant per MIL-S-22473, and torqued to 20 ±2 oz-in. The bracket is then mounted to the pockels cell,

34860Assy60511615-19 Pockels Cell Assy

using 2 each of the following hardware:

NAS620C2	Washer, Flat-Reduced OD (for .086 screw)
MS51848-43	Washer, Lock-Spring (for .086 screw)
NAS1352C02-5	Screw, Cap, SCH (.086 x .312 long)

The hardware to be used to attach the cell to a vibration base is as follows; 3 each:

NAS520C2	Washer, Flat-Reduced OD (for .086 screw)
MS51848-43	Washer, Lock-Spring (for .086 screw)
MS16995-2	Screw, Cap, SCH (.086-56 x .250 long)

Note that all hardware is to be torqued to 20 ±2 oz-in.

4.4.1 Vibration testing. Two source assemblies as installed per 4.4 shall be qualified by the vibration levels at the base of the Pockels Cell Subassembly as defined in Figures 6, 7, and 8. The test duration shall be 30 minutes for each axis.

4.4.2 Vibration Inspection. Test qualification acceptance after vibration completion shall consist of 100% inspection for the following:

- a. No observable evidence of loose foil source.
- b. No observable deformation of foil source.
- c. No observable holder deformation outside the limits of Figure 2.

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SCALE		SHEET	

- d. No screen deformation outside the limits of Figure 3.
- e. No observable crack or ruptures on foil, source, or holder.
- f. Removed.
- g. Acceptable leak test per Appendix B.

4.5 Approved supplier test plans. The supplier shall prepare test plans for screening First Article and Group A tests. The tests shall be conducted in accordance with a buyer-approved test plan written and provided by the supplier.

4.6 Quality conformance test data. One reproducible copy of the test data for each device delivered shall be supplied with each shipment. (Appendix A or vendor facsimile acceptable).

5.0 PREPARATION FOR DELIVERY

5.1 Packaging requirements. All packaging, package labeling, shipping, and wipe testing shall meet the requirements of 49 CFR, Section 173.400, Radioactive Materials. All packaging shall be adequate to prevent damage or contamination of parts and their marking during normal shipping, handling, and storage. In addition, each shipment shall include a Source Assembly Certificate per Appendix A.

6.0 NOTES

6.1 Intended use. Devices supplied to this drawing are intended for use in a military laser system.

6.2 Ordering data. Procurement contracts and requests for quotation shall specify:

- a. Title, number, revision level, and date of this drawing.
- b. Level of packaging and packing required for shipment if special requirements are needed.
- c. Requirements for notification of change of product or process to procuring activity.
- d. The requirement to perform first article test.

6.3 Approved source(s) of supply. Identification of approved source(s) of supply herein is not to be construed as a guarantee of present or continued availability as a source of supply for the item(s).

6.4 Disposal. The supplier shall be responsible to dispose of all returned radioactive (AM-241) sources in accordance with federal regulations when requested by the buyer for a period of 10 years after delivery.

SIZE	CAGE CODE	DRAWING NO.	REV
A	34860	66910280	B
SCALE NONR		SHEET 7 OF	

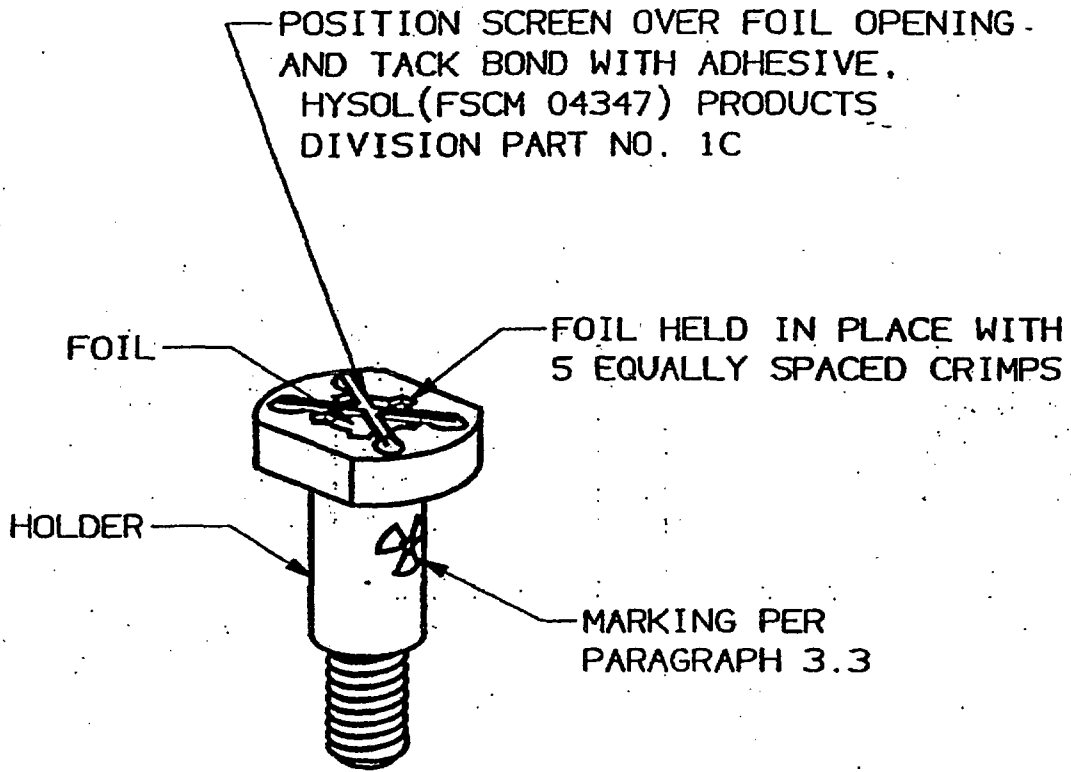
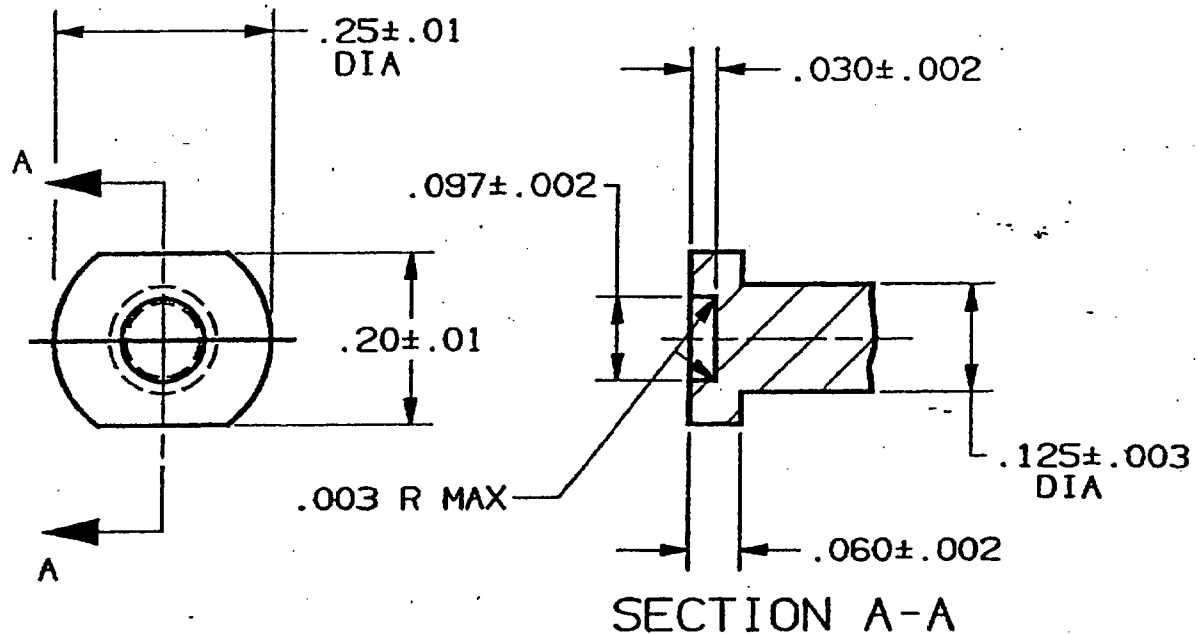


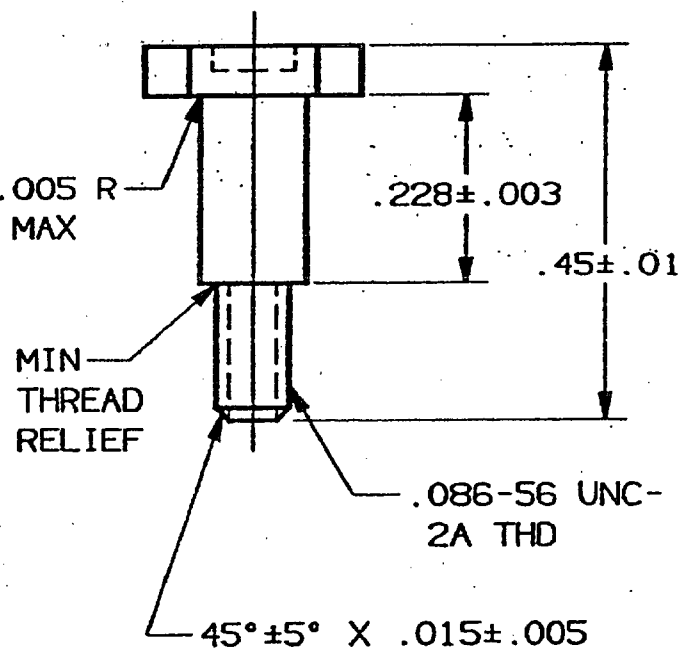
FIGURE 1: SOURCE HOLDER ASSEMBLY

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#8_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 8		



SECTION A-A

NOTES: UNLESS OTHERWISE SPECIFIED.



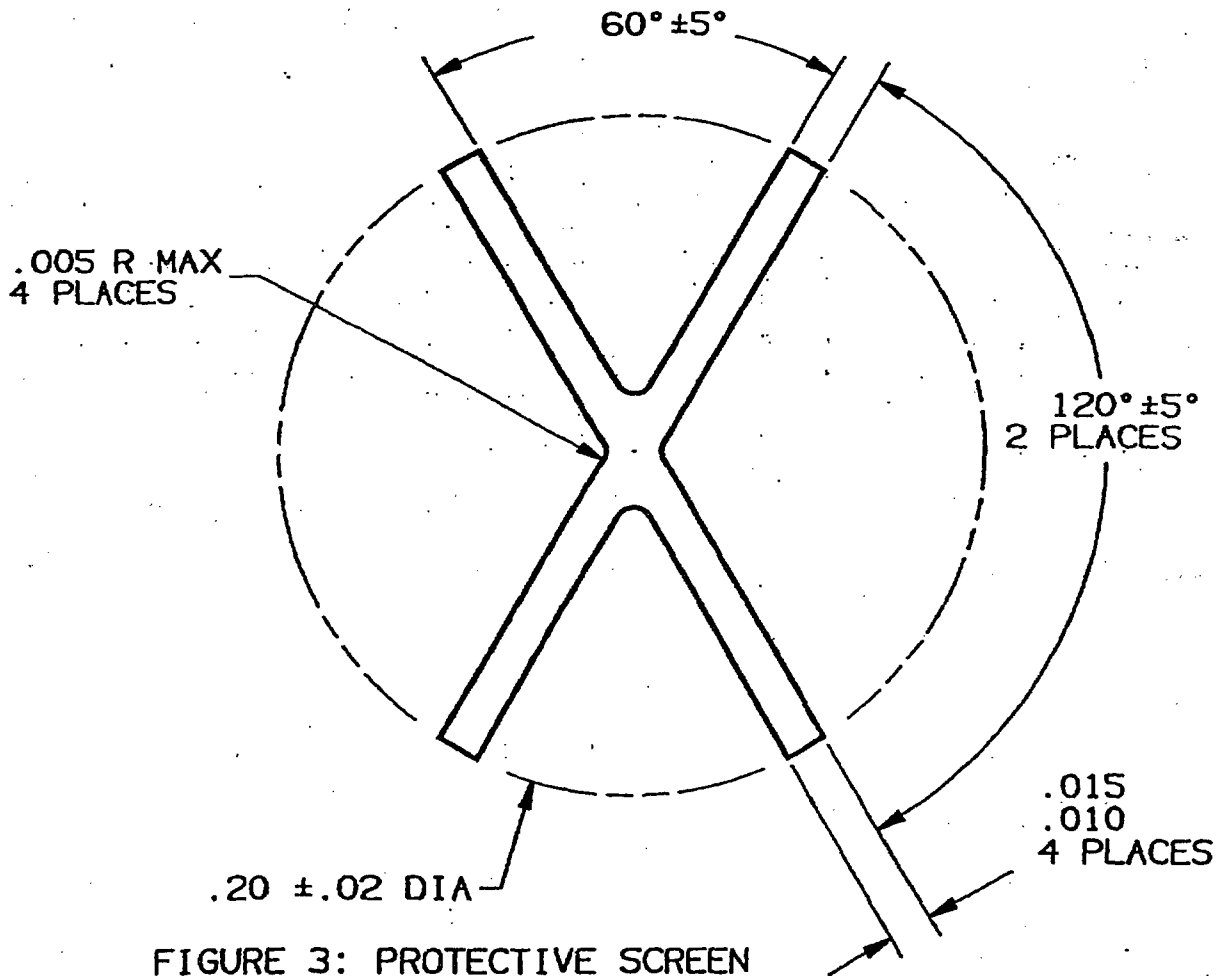
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5-1973
2. REMOVE BURRS AND BREAK SHARP EDGES.
3. MATERIAL: CRES. TYPE 303 PER QQ-S-763.
4. SURFACE FINISH: $63\sqrt{\text{MAX}}$.
5. FINISH: PASSIVATE, TYPE II PER QQ-P-35.

FIGURE 2: SOURCE HOLDER 128013

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
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SCALE NONE			SHEET 9	

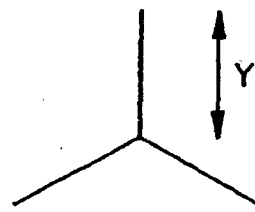
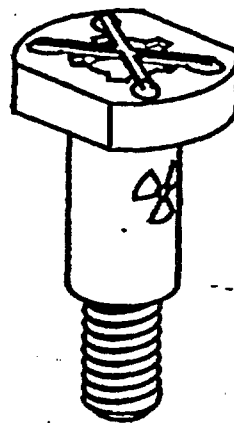
NOTES: UNLESS OTHERWISE SPECIFIED

- 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5-1973.
- 2. REMOVE BURRS AND BREAK SHARP EDGES.
- 3. MATERIAL: CRES, TYPE 302 PER QQ-SS-763. THICKNESS .008 ± .002.
- 4. SURFACE FINISH: 63 \sqrt MAX.
- 5. FINISH: PASSIVATE, TYPE VII PER QQ-P-35.



COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#10_b.cad	A	34860	66910280	B
SCALE NONE			SHEET 10	

FREQUENCY, Hz	PSD, G ² /Hz
500	.1
600	.1
830	80
950	50
1200	50
1300	150
1400	150
1500	30
2000	30



POWER SPECTRAL DENSITY, G₂/Hz

(LEVEL = 264 GRMS)

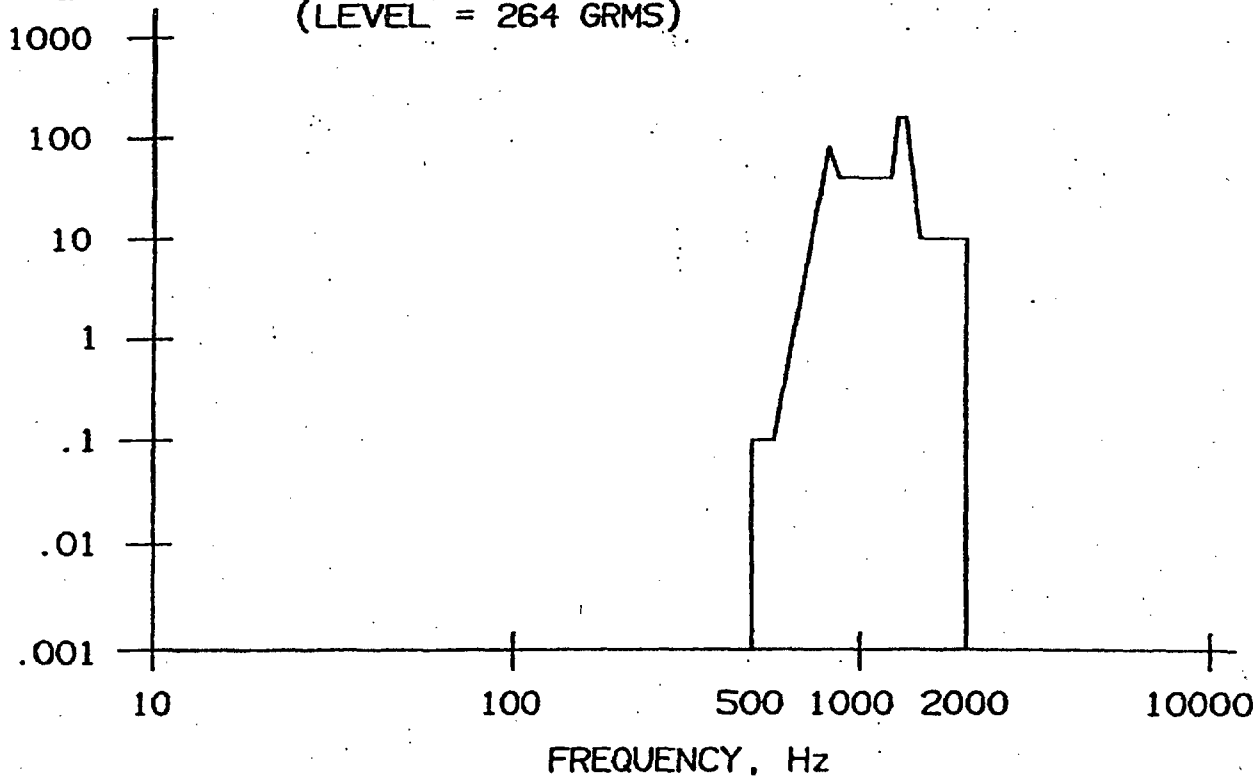
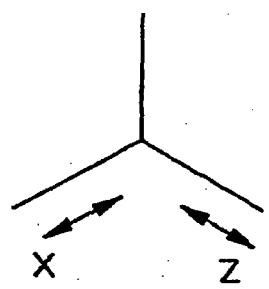
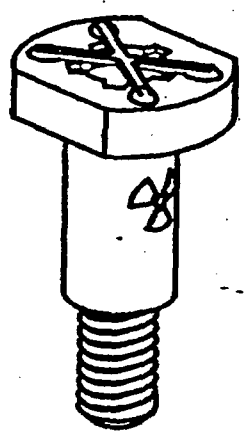


FIGURE 4: VERTICAL (Y) AXIS INPUT

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#11_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 11		

FREQUENCY, Hz	PSD, G ² /Hz
500	.2
800	82
1100	82
1200	10
1300	60
1400	60
1500	10
2000	10



POWER SPECTRAL DENSITY,

G₂/Hz

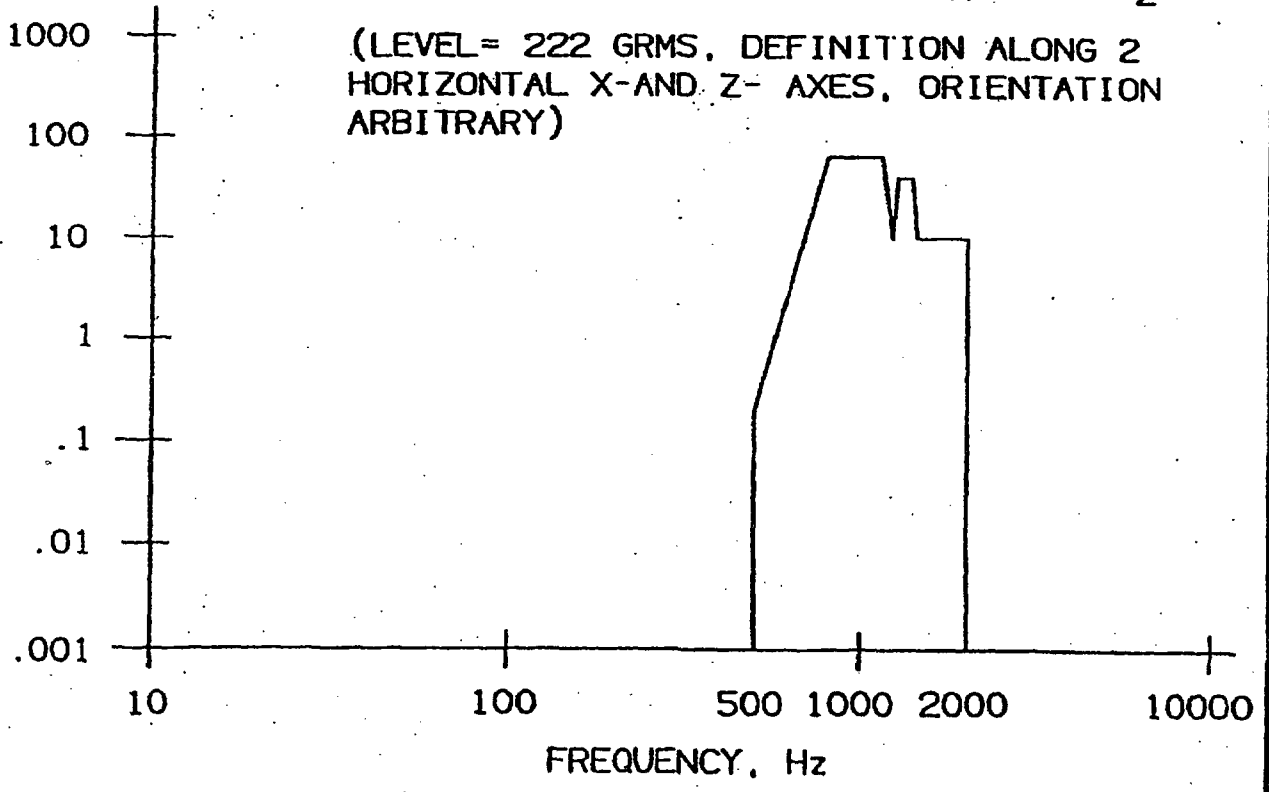
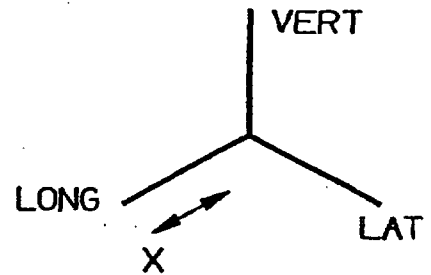
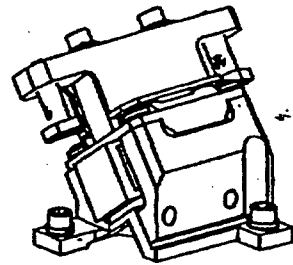


FIGURE 5: HORIZONTAL AXES INPUT

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#12_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 12		

FREQUENCY, Hz	PSD, G ² /Hz
200	.05
500	.05
760	2.00
1100	2.00
1320	10.00
1500	2.00
2000	2.00



POWER SPECTRAL DENSITY, G₂/Hz

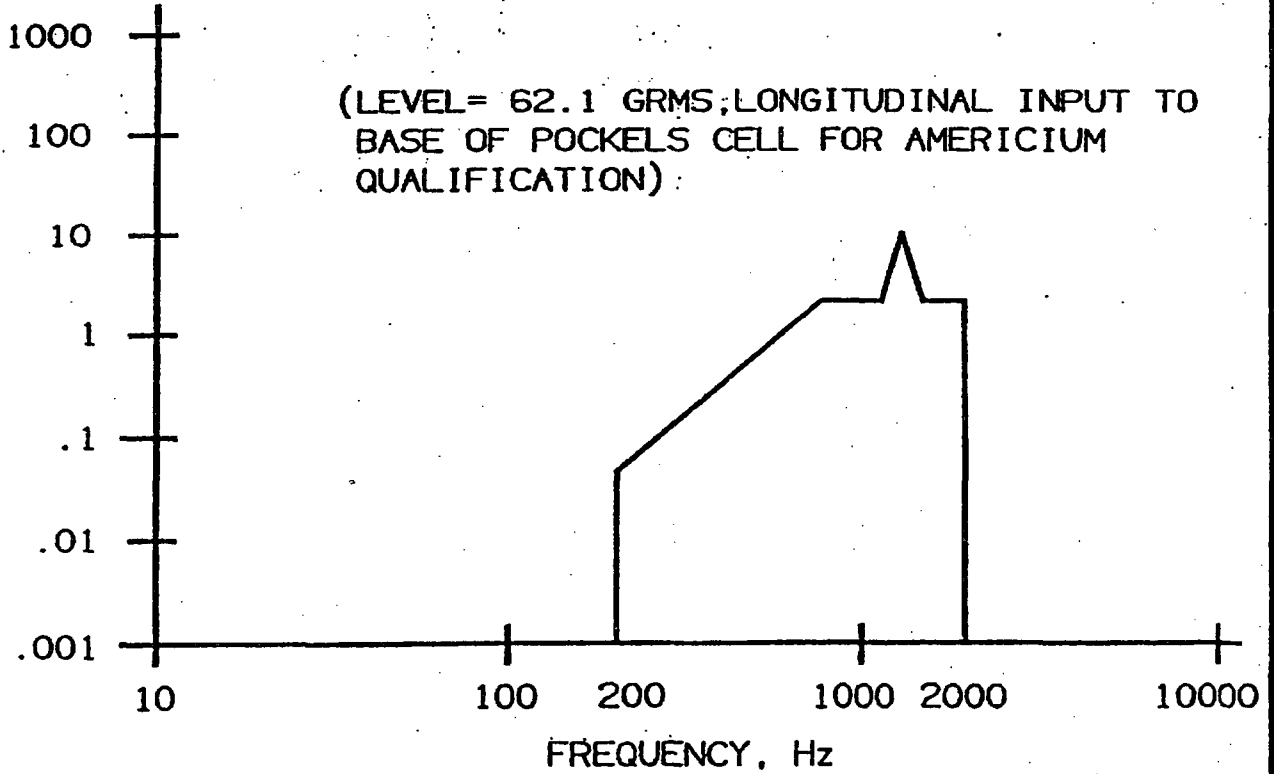
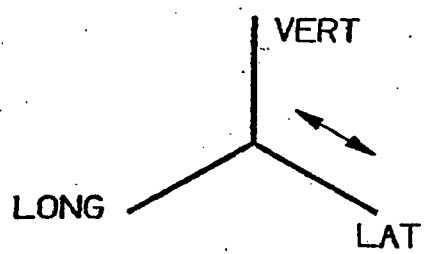
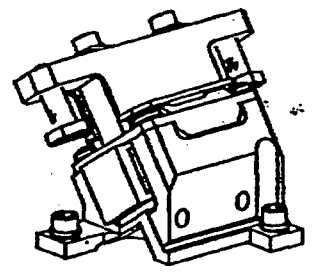


FIGURE 6: LONGITUDINAL INPUT

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#13_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 13		

FREQUENCY, Hz	PSD, G ² /Hz
200	.01
410	.20
760	.20
1320	14.00
1460	4.90
1600	4.90
1730	2.40
1800	1.00
2000	1.00



POWER SPECTRAL DENSITY, G₂/Hz

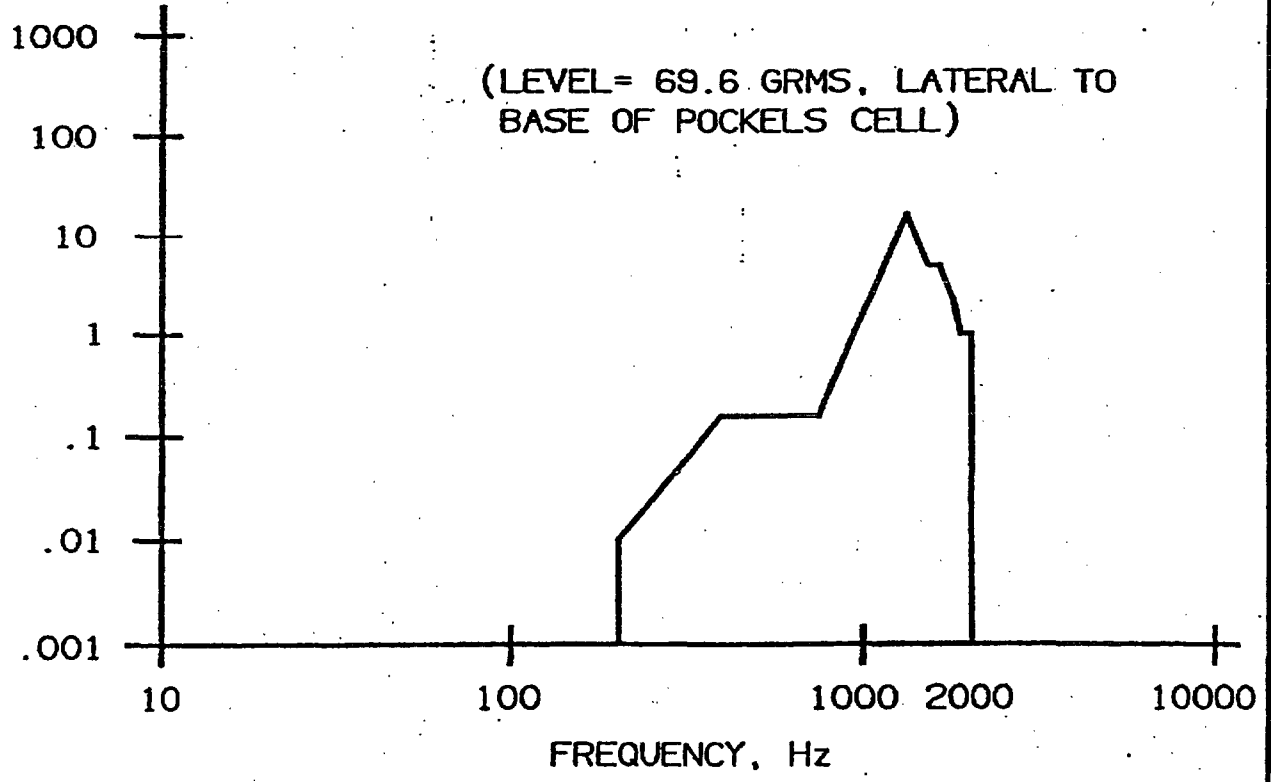
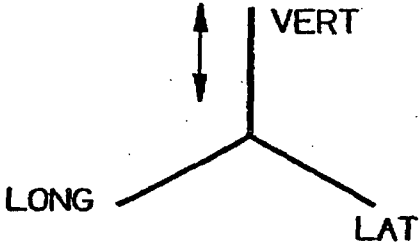
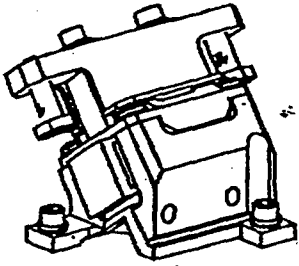


FIGURE 7: LATERAL INPUT

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#14_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 14		

FREQUENCY, Hz	PSD, G ² /Hz
100	.01
460	.70
1000	.70
1320	16.00
1460	2.50
2000	2.50



POWER SPECTRAL DENSITY,
G²/Hz

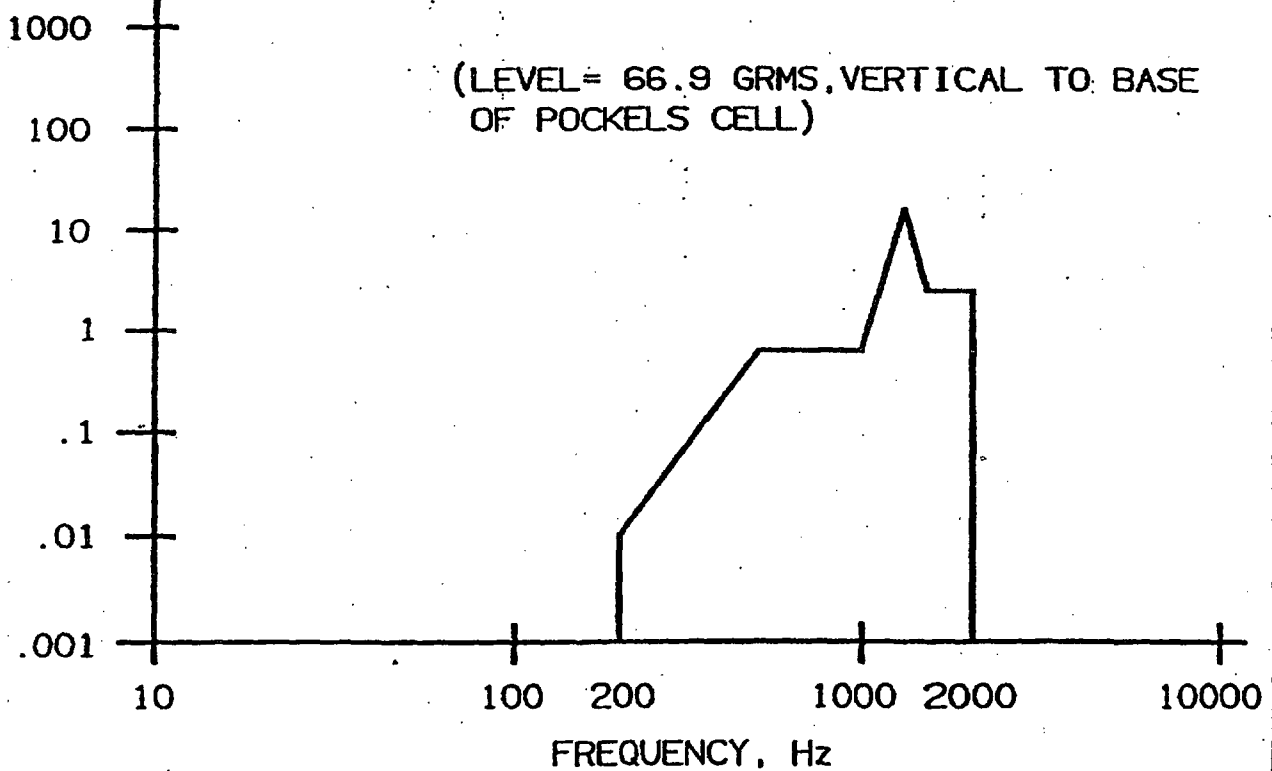


FIGURE 8: VERTICAL INPUT

COMPUTER FILE:	SIZE	CAGE CODE	DRAWING NO.	REV
/f18p/66910280#15_b.cad	A	34860	66910280	B
SCALE NONE		SHEET 15		

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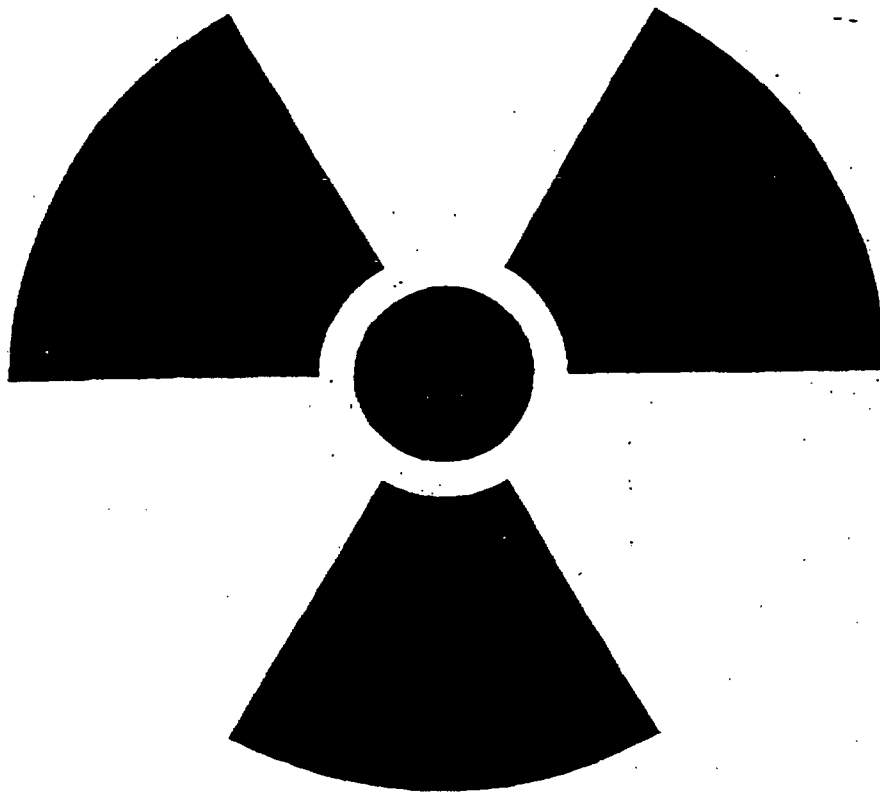


FIGURE 9
RADIOACTIVE SYMBOL

COMPUTER FILE:	SIZE	CASE CODE	DRAWING NO.	REV
/f18p/66910280/16_b.cad	A	34860	66910280	B
SCALE NONE			SHEET 16	

TABLE I. FIRST ARTICLE TEST

TEST/ INSPECTION	CONDITIONS	S A M P L E S 10 L Z E E 1/
<u>I</u>		
Visual mechanical examination	Figure 2 & para. 4.2.2	
<u>IA</u>		
Source activity	Per para 4.5	
<u>II</u>		
Leak test	Appendix B per approved test plan.	
<u>III</u>		
Vibration	Per para 4.4.1	
Temp	Class 3 per ANSI N542-1977 except temp -66°C to +95°C	
External Pressure	Class 3 per ANSI N542-1977 except low pressure to 50 millitorr vacuum, high pressure to 35 psia.	
<u>III A</u>		
Inspection	Per para 4.4.2	

1/ Accept on zero failures.

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SCALE NONE	SHEET 17 OF		

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TABLE II. GROUP A INSPECTION

TEST	METHOD	CONDITIONS	S A M P L E
<u>SUBGROUP I</u>			
Leak test	Per Appendix B	25°C ±5°C	100%
Source activity	Per Approved Test Plan		100% <u>1/</u>
<u>SUBGROUP II</u>			
Crimp inspection	4.2.2.1		100%

1/ A data sheet for each SN shall be supplied with the actual source activity value recorded showing compliance with para. 3.2.1.2.

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APPENDIX A

SOURCE ASSEMBLY CERTIFICATE

SOURCE TYPE: AMERICIUM-241

VENDOR: AMERSHAM

CONTROL NO: 34860-60511772-1

SOURCE SERIAL NO.'s:

BACKGROUND:

WIPE CPM:

NET CPM:

DETECTOR EFFICIENCY:

MICROCURIES OF ACTIVITY ON WIPE:

ACTIVITY 4.0 ±0.5

MICROCURIES:

ANALYSIS OF THE WIPE TO BE USED TO CONDUCT A LEAK TEST ON THE SOURCE NOTED ABOVE WAS PERFORMED BY SCINTILLATION DETECTION REVEALED REMOVABLE CONTAMINATION WAS LESS THAN .005 MICROCURIES WHEN COMPARED TO NIST TRACEABLE STANDARDS. THE RESULTS ARE INDICATIVE OF A NON-LEAKING SOURCE.

AUTHENTICATING SIGNATURE: _____

DATE: _____

SIZE A	CAGE CODE 34860	DRAWING NO. 66910280	REV B
SCALE	NONE	SHEET	10 OF

APPENDIX B

LEAK TESTING OF SOURCE ASSEMBLIES

Americium-241

1. With a moistened wipe, wipe the entire external surface of the source assembly.
2. Measure the activity of the wipe.
3. Record ALL data on the Source Assembly Test Certificate (Appendix A).

SIZE	CAGE CODE	DRAWING NO.	REV
A	34860	66910280	B
SCALE	NONE	SHEET	20 OF

(R)

SUGGESTED SOURCE(S) OF SUPPLY

CONTROL NUMBER	SUPPLIER DATA		
	CAGE	PART NUMBER	NAME AND ADDRESS
66910280-1	51431	188322	AMERSHAM CORP. 2636 S. CLEARBROOK DR. ARLINGTON HEIGHTS, IL 60005

SIZE A	CAGE CODE 34860	DRAWING NO. 66910280	REV B
SCALE NONE		SHEET 21	

ENGINEERING CHANGE NOTICE COVER SHEET



CCB No. F18-092
REF NO. LC/F18-0276

DOCUMENT NO. 66910280
ECN NO. 4

DATE: 03/ 31 /92

PLACE: 2078

APR 01 1992

TITLE OF CHANGE: CHANGE VENDOR PART NO. AND CONTROL NO.

PRIORITY		STOP ORDER		DOES CHANGE EFFECT				ANSWERS LC(S)
<input type="checkbox"/> URGENT	<input type="checkbox"/> YES	NUMBER	TEST EQUIPMENT	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES		F18-0505	
<input checked="" type="checkbox"/> ROUTINE	<input checked="" type="checkbox"/> NO		TOOLING	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES			
			SOFTWARE	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES			
			SDRL'S	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES			

NEW DRAWINGS:
N/A

HARDWARE IMPLEMENTATION PLAN			
PART No.	REL. ECN No.	CI	EFFECTIVITY
66910280-1	<u>4</u>	LTR	013 & UP (VENDOR) TARGET
66910280-1		STR	00001 & UP (VENDOR) TARGET
66910280-1		XTR	0101-0102 (PARTS MADE OK) IN-POS
66910280-1		HBT	0101 & UP (VENDOR) TARGET

COMMENTS:
LTR = PRODUCTION
STR = SPARES
XTR = PRU
HBT = HOT BED TESTER
ACTION ITEM(S):

REFERENCE ONLY

BLOCK 1 MANDATORY

CM REP: C. Sammie

DATE: 04/ 01 /92

ECN APPROVED
 YES NO

LITTON

Laser Systems

PROJECT F18 SHEET 1 OF 1

DOCUMENT NO. 66910280

DATE APR 01 1992 REV: B ECN NO. 4

ENGINEERING CHANGE NOTICE

TITLE: AMERICIUM SOURCE ASSEMBLY

JOB NO. LC/F18-0505 | ENG STOP NO.

CONFIG. ITEMS LTR REF NO. LC/F18-0276

NEED FOR CHANGE

CORRECT DOCUMENTATION

DESCRIPTION OF CHANGE

AFFECTED DWG

CHG CODE

G

REV

CHANGE VENDOR PART NO. AND CONTROL NO.

REV	DATE	NO.	BY	FIND NO.	CAGE CODE	SPECIFICATION OR DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	PL	NOMENCLATURE DESCRIPTION REFERENCE DESIGNATIONS	SYM	NOTE NO.	CI	EFFECTIVITY	
													FROM	THRU

SHEET 21

PART NUMBER

WAS: 188322

NOW: 188326

SHEET 19

CONTROL NO:

WAS: 34860-60511772-1

NOW: 34860-66910280-1

HARDWARE DISPOSITION				CHECKED	DATE
EFF BY CI SERIAL NO.	REWORK PERMITTED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	TEST/RETEST REQUIRED <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	PARTS MADE OK <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	<u>R. Nitcher</u>	<u>3/30/92</u>
HARDWARE RE-WORK INSTRUCTIONS/EFFECTIVITY:				APPROVALS	DATE
ORIGINATOR <u>S. DAVIS</u>				<u>[Signature]</u>	<u>92-3-27</u>
EPM <u>[Signature]</u>				<u>[Signature]</u>	<u>92-3-31</u>
SYS ENGR <u>[Signature]</u>				<u>[Signature]</u>	<u>92-3-31</u>
LOC ENGR <u>[Signature]</u>				<u>[Signature]</u>	<u>92-3-31</u>
PROJ MGR <u>[Signature]</u>				<u>[Signature]</u>	<u>92-3-31</u>

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LDM Optical Bed Assy. P/N 20002300-9

Output Risley/Beam Steering Assy.
20002365-9

Americium Assy.
20002375-9

Porro/Risley Assy.
20002330-9

Rhomb/Polarizer Assy.
20002350-9

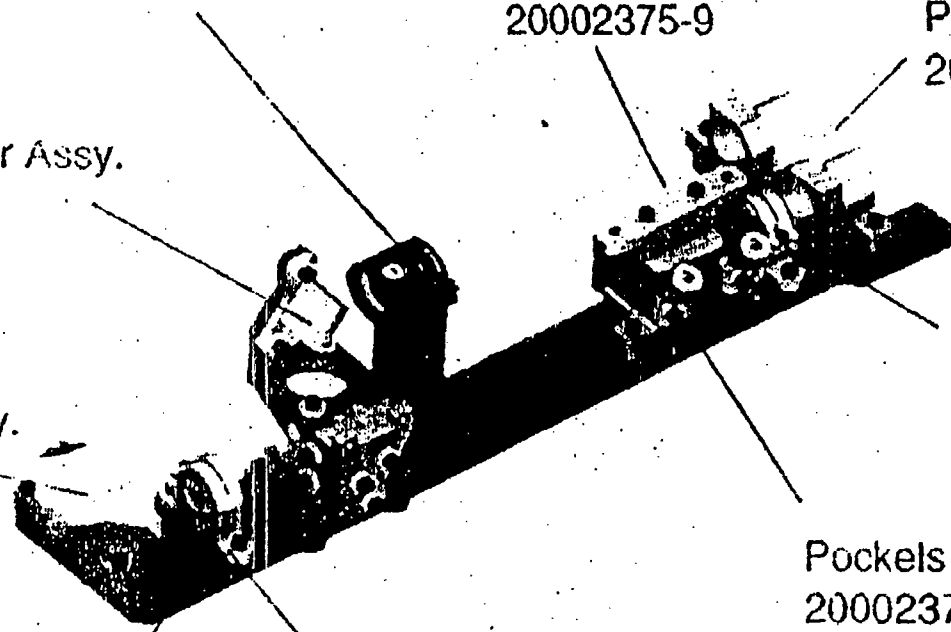
Corner Cube Assy.
20002325-9

Waveplate Assy.
20002345-9

Pockels Cell Assy.
20002370-9

Compensating Lens Assy.
20002390-9

Optical Bed
20002305-1

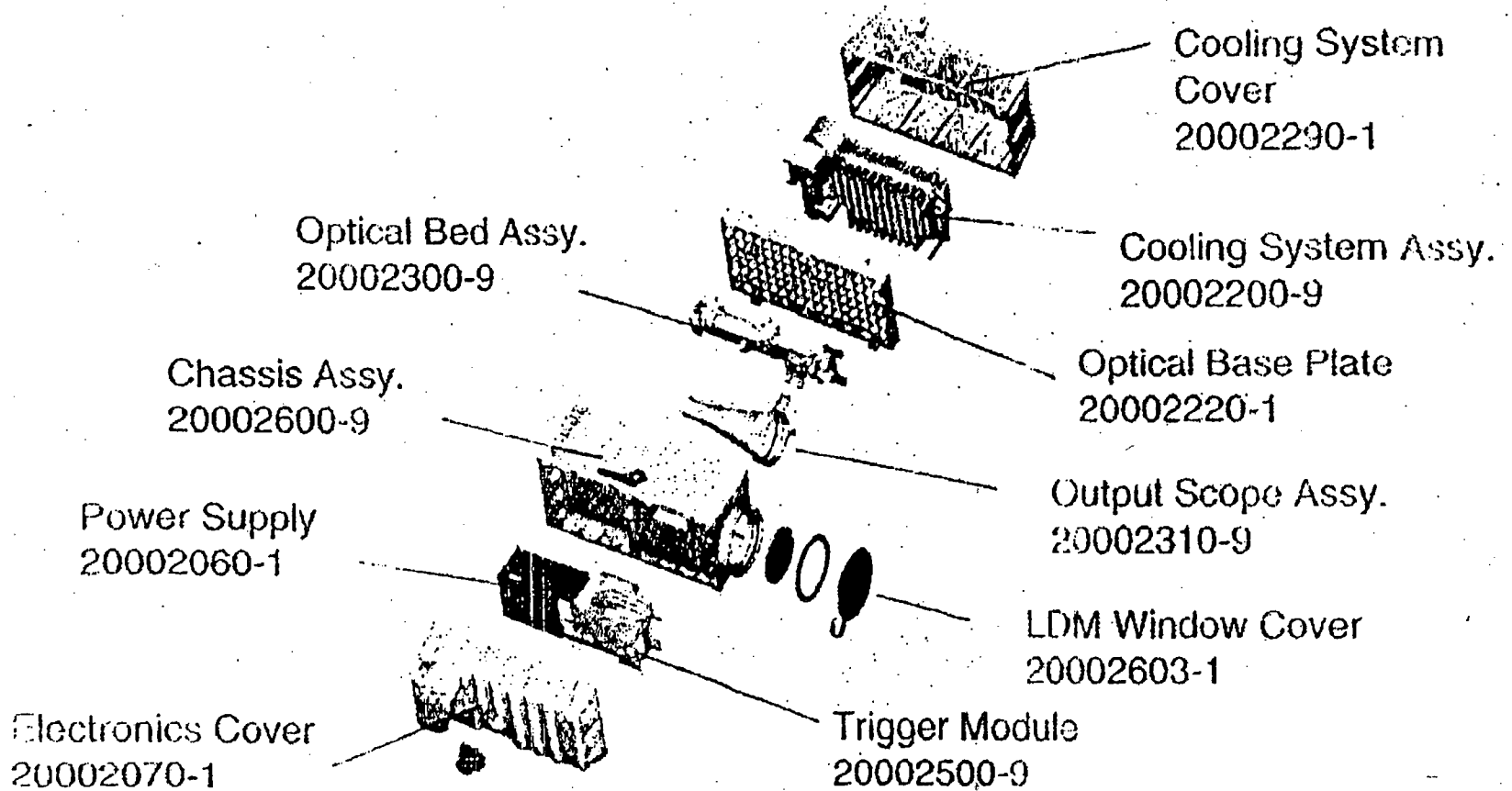


Encl 2

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LDM Exploded View



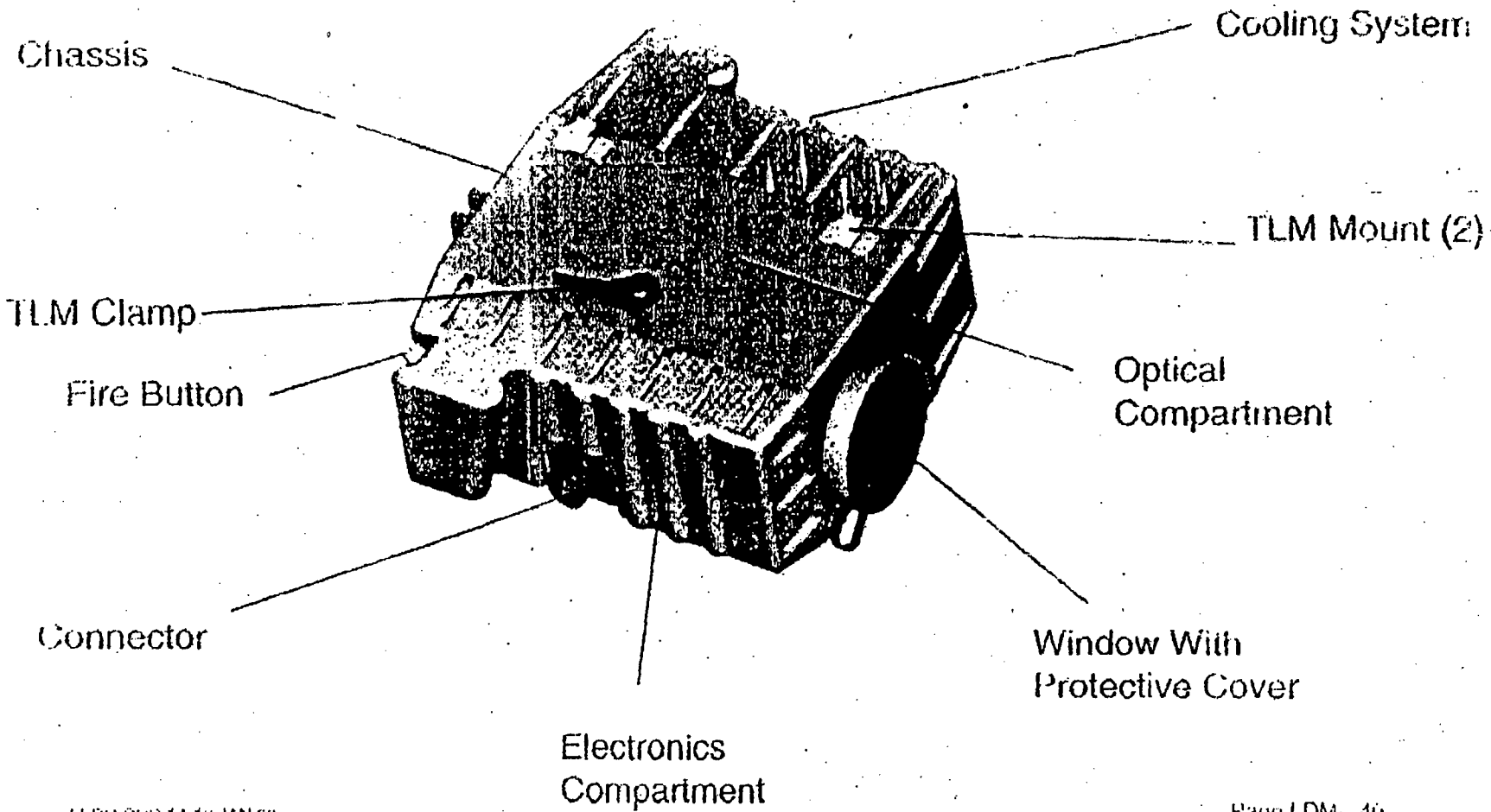
C A 2

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Laser Systems Division

LDM P/N 20002000-9

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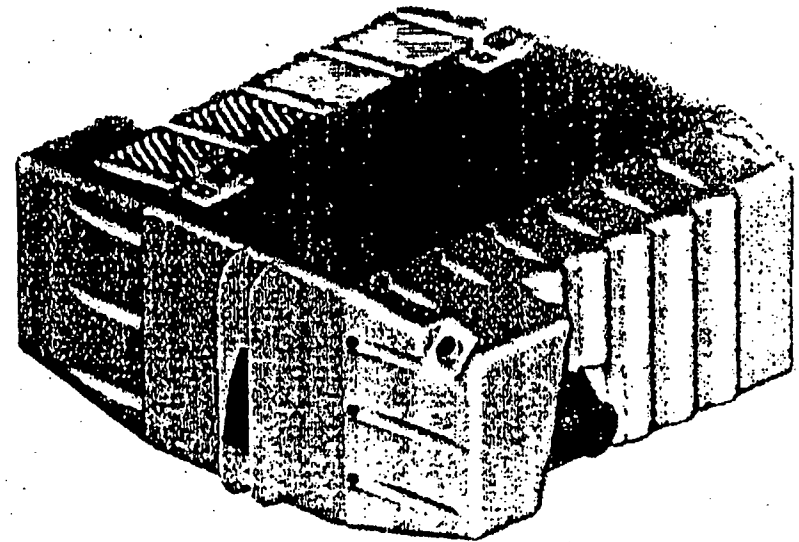
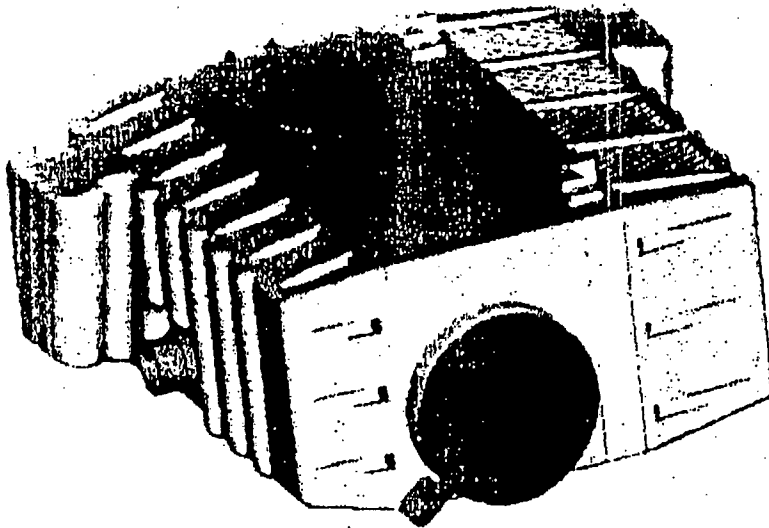
Encl 4

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Laser Designator Module (LDM)

*

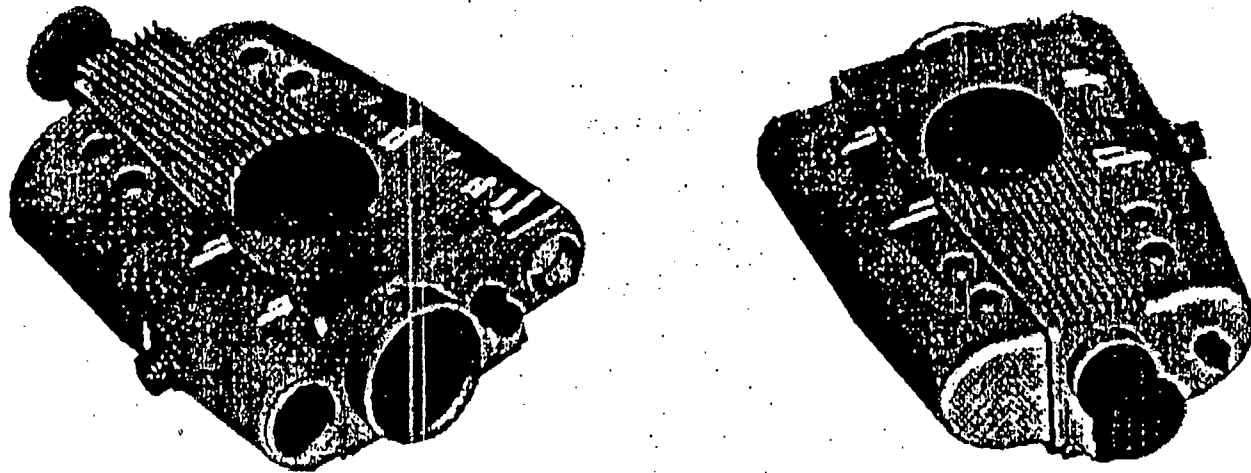


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10

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Target Locator Module (TLM) Mechanical Design



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LLDR Top Assembly

