

INCH-POUND

MIL-DTL-32011(OS)  
14 November 1997

## DETAIL SPECIFICATION

**IGNITION DEVICE, PVU-8/A**

*This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all departments and agencies of the Department of Defense.*

**1. SCOPE**

**1.1 Scope.** This document gives the requirements for the manufacture, assembly, and packaging of the PVU-8/A ignition devices and the methods of inspection and tests upon which product acceptance will be based.

**2. APPLICABLE DOCUMENTS**

**2.1 General.** The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or documents recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of the documents referenced in sections 3 and 4 of this specification, whether or not those documents are listed in this section.

**2.2 Government documents.**

**2.2.1 Specifications, standards, and handbooks.** The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplements thereto, cited in the solicitation (see 6.2).

## STANDARDS

## DEPARTMENT OF DEFENSE

MIL-STD-1168	Ammunition Lot Numbering
DOD-STD-2101	Classification Of Characteristics

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Bldg. 4D, Philadelphia, PA 19111-5094.)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Indian Head Division, Naval Surface Warfare Center, Standardization Team (Code 8410T), 101 Strauss Avenue, Indian Head, MD 20640-5035, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by sending a letter.

AMSC N/A

FSC 1377

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

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**2.2.2 Other Government documents, drawings, and publications.** The following Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DRAWINGS

NAVAL AIR SYSTEMS COMMAND (CAGE Code 30003)

DL844AS300	Ignition Device, PVU-8/A
844AS300	Ignition Device, PVU-8/A
838AS102	Powder, Smokeless
844AS307	Powder, Ignition
2519737	Test Set, Closed Bomb

**2.3 Non-Government publications.** The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

PUBLICATIONS

AMERICAN SOCIETY FOR QUALITY CONTROL

ASQC Z1.4	Sampling Procedures and Tables for Inspection by Attributes
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(Application for copies should be addressed to the American Society for Quality Control, PO Box 3005, 611 E. Wisconsin Ave., Milwaukee, WI 53201-4606.)

AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI Z1.1	Guide for Quality Control Charts
ANSI Z1.2	Control Chart Method of Analyzing Data
ANSI Z1.3	Control Chart Method of Controlling Quality During Production

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS

ASTM D257	Standard Test Methods for DC Resistance or Conductance of Insulating Materials
ASTM E1742	Standard Practices for Radiographic Examination

(Application for copies should be addressed to the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

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**2.4 Order of precedence.** In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

### 3. REQUIREMENTS

**3.1 General.** The PVU-8/A ignition devices shall be manufactured in accordance with Drawing DL844AS300 and all documents and drawings listed thereon. Drawings listed in this specification are included as part of the data package defined by DL844AS300.

**3.2 First article.** When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.3.1.

**3.3 Materials.** All materials used in the manufacture of the ignition devices shall conform strictly with the specifications referred to on the respective Naval Air Systems Command drawings unless specific approval in writing covering a departure therefrom has been obtained from the cognizant Navy design activity prior to manufacture. When alternate materials or methods of manufacture are specified on the drawings, the bidders selections shall be clearly stated in the proposal.

**3.4 Primary components.** For the purposes of this specification, the primary components shall be ignition powder conforming to Drawing 844AS307 and smokeless powder conforming to Drawing 838AS102.

#### 3.5 Explosive charges.

**3.5.1 Quantity.** All explosive charges shall be as specified on Drawing DL844AS300. Charges shall be determined by weight.

**3.5.2 Quality characteristics.** Explosive charge weight shall be a quality characteristic for statistical process control. Sampling for control charting shall be conducted by the contractor in accordance with established procedures.

#### 3.6 Ignition device inspection.

**3.6.1 Visual inspection.** The complete ignition device shall be free of the visible defects noted in 4.6.1.

**3.6.2 Leakage.** The ignition devices shall not exhibit a leak rate in excess of  $10^{-5}$  cm<sup>3</sup>/sec of air when tested in accordance with 4.6.2.

**3.6.3 Radiographic.** Ignition devices shall be free of imperfections when examined in accordance with 4.6.3.

**3.6.4 Bridge circuit resistance.** The resistance of the bridge circuit in each ignition device shall be between 0.95 ohms and 1.25 ohms when measured in accordance with 4.6.4.

**3.6.5 Insulation resistance.** The insulation resistance between the electrode (connector pin) and receptacle of each ignition device shall be 20 megohm minimum when tested in accordance with 4.6.5.

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**3.6.6 No fire.** The ignition device shall not fire when one ampere is applied to the bridge circuit in accordance with 4.6.6.

**3.6.7 All fire.** The ignition device shall fire when  $3.0 + 0.1, - 0.0$  amperes is applied the bridge circuit in accordance with 4.6.7.

**3.7 Ballistic requirements.** Ignition devices from each production lot, selected in accordance with 4.2, shall meet the following requirements when subjected to the test prescribed in 4.6.11.1. Any ignition device failing to meet one or more requirements shall be classified as a defective unit and the lot represented rejected.

**3.7.1 Maximum pressure.** When fired in the test fixture of 4.6.11.1, each ignition device shall produce a maximum pressure between 1000 psi and 1900 psi.

**3.7.2 Ignition delay.** The time from application of firing current to the start of pressure rise shall be less than 0.025 seconds.

**3.7.3 Misfire.** There shall be no misfires.

**3.7.4 Quality characteristics.** Maximum pressure and ignition delay shall be a quality characteristics for statistical process control. Sampling and control charting shall be conducted by the contractor in accordance with established procedures.

**3.8 Statistical process control.** Statistical process control in accordance with ANSI Z1.1, Z1.2, and Z1.3 shall be required for quality characteristics cited in this specification (explosive charge weights, ignition delay and maximum pressure). In addition to other requirements for this specification, only ballistic samples from lots that can demonstrate a state of statistical control shall be submitted for lot acceptance ballistic testing. Samples from lots that cannot demonstrate statistical control shall not be submitted for lot acceptance ballistic tests.

**3.9 Workmanship.** Ignition devices shall be constructed and finished in a manner assuring compliance with requirements of this specification and associated drawings. Particular attention should be directed to dimensions, finishes, and seals.

## 4. VERIFICATION

### 4.1 Classification of inspections.

- a. First article inspection (see 4.3.1)
- b. Conformance inspection (see 4.5)

**4.2 Sampling.** Unless otherwise specified, and when applicable, the sampling plans and procedures used in the determination of the acceptability of products submitted by a supplier shall be in accordance with the provisions of ASQC Z1.4. Unless otherwise specified in the contract, order, or requisition, all samples for test purposes shall be provided at the expense of the contractor.

### 4.3 Lots.

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**4.3.1 First article inspection.** Before entering into quantity production, an acceptable first article sample of 120 ignition devices shall be prepared. This sample, manufactured using the same methods and procedures proposed for the production lot, is for the purpose of determining that the contractor, prior to starting production, is capable of producing items which comply with the technical requirements of the contract. One hundred fifteen of these ignition devices shall be expended in the tests below, and five more shall be retained for investigative purposes. A first article sample acceptable for environmental and functional testing shall be defined as a sample which has met the requirements of 3.4 through 3.6.5 of this specification. The contractor shall deliver the ignition devices to the activity designated by the contracting agency for test. First article sample acceptance shall consist of the tests described Table I.

TABLE I. First article inspection.

Test	Test Method	A	B	C	D	E	F	G	H
Visual Inspection	4.6.1	25	6	36	12	12	12	12	5
Leakage	4.6.2	25	6	36	12	12	12	12	5
Radiographic Inspection	4.6.3	25	6	36	12	12	12	12	5
Bridge Resistance	4.6.4	25	6	36	12	12	12	12	5
Insulation Resistance	4.6.5	25	6	36	12	12	12	12	5
40-Foot-Drop	4.6.8		6						
Temperature Shock, Humidity, Altitude Cycling	4.6.9			36					
Vibration	4.6.10				12				
Radiographic Inspection	4.6.3				12				
Bridge Resistance	4.6.4			36	12				
Leakage	4.6.2			36	12				
No-Fire	4.6.6	25							
Bridge Resistance	4.6.4	25							
All Fire	4.6.7	25							
Ballistic at -80°F	4.6.11.1					12			
Ballistic at +70°F	4.6.11.1			36	12		12		
Ballistic at +225°F	4.6.11.1							12	
Retain									5

No ignition device shall produce results outside the limits set forth in 3.7 when fired in the test fixture of 4.6.11.1. Any quantity production prior to notification by the contracting agency of first article sample acceptability shall be at the contractor's risk. The first article ignition devices will not be applied as a part of the quantity specified for delivery by the contract.

**4.3.2 Production lot.** Lot numbers shall be in accordance with MIL-STD-1168. Ignition devices required for all destructive test purposes are randomly selected from the production lot and will not be applied as a part of the quantity specified for delivery by the contract. Only primary components from a single lot shall be used in a production lot of ignition devices. One primary component production lot may be used in more than one

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ignition device production lot. Ignition devices selected for the ballistic test shall be delivered to the activity designated by the contracting agency. The designated test activity shall perform the ignition device tests and examinations listed in Table I to determine lot acceptance.

**4.4 Classification of characteristics.** The characteristics verified by the tests and examinations herein are classified as Critical, Major or Minor in accordance with DOD-STD-2101. Tests and examinations that verify critical characteristics are identified by the symbol (C) and major characteristics by the symbol (M). The number following the classification symbol indicates the serial number of test or examination. Tests and examinations which are not annotated with a classification code are classified minor.

**4.5 Conformance inspection.** Quality conformance inspection shall consist of verification of the characteristics classified on the drawings of Drawing DL844AS300 and the tests and examinations of Table II.

TABLE II. Conformance inspections.

Item	Nature of Test	Requirement	Test method	Classification (DOD-STD-2101)
Primary component	Single lot verification	3.4	*	(M101)
Propellant charge	Type and weight verification	3.5.1	*	(M102)
Ignition device	Visual inspection	3.6.1	4.6.1	(M103)
Ignition device	Leakage	3.6.2	4.6.2	(M104)
Ignition device	Radiographic Inspection	3.6.3	4.6.3	(M105)
Ignition device	Bridge circuit resistance	3.6.4	4.6.4	(M106)
Ignition device	Insulation resistance	3.6.5	4.6.5	(M107)
Ignition device	Ballistic requirements	3.7	4.6.11	(C1)
Ignition device	Packing, packaging, and marking	Section 5	4.5.1	(M108)

\* see respective drawing(s)

**4.5.1 Packing, packaging and marking.** The inspector shall ascertain that the packing and packaging of the ignition devices and the container markings conform to Section 5 of this specification.

#### 4.6 Tests.

**4.6.1 Visual inspection.** Examine each ignition device produced and reject for deep dents or scratches, missing incomplete or excessive application of sealant, incorrect or illegible markings or other visible defects which might adversely affect ignition device installation or ballistic properties.

**4.6.2 Leakage.** Each ignition device will be leak tested in a dry gas leak tester. Ignition devices which exhibit a leak rate in excess of  $10^{-5}$  cm<sup>3</sup>/sec of air at a pressure differential of one atmosphere shall be considered defective. Ignition devices which exhibit a leak rate in excess of that specified above shall be rejected.

**4.6.3 Radiographic examination.** All ignition devices shall be radiographically examined in accordance with ASTM E1742 for X-ray. The ignition device shall be positioned on their sides for the most revealing exposure. All ignition devices shall be identified with serial numbers prior to examination. The ignition device serial numbers shall be in consecutive order beginning with the number 001 in each production lot. The ignition devices shall be arranged on trays or boards in consecutive numerical order, and each radiograph shall carry a

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permanent identification of the ignition devices displayed thereon. The radiograph identification shall include the complete lot number, as stamped on the ignition devices, and the span of serial numbers displayed. Discontinuities in serial numbers shall be identified on the radiograph. Defective ignition devices found by the vendor shall be clearly identified on the radiograph and those defectives removed from the production lot. The serial numbers shall be pen or ink stamped on the ignition devices with approximately 1/8-inch-high characters. The serial numbers shall be located apart from the other ignition device markings. Each ignition device shall be X-rayed to confirm the presence and proper assembly of all parts. Any observable imperfections in assembly shall be cause for rejection.

**4.6.4 Bridge circuit resistance.** The bridge circuit resistance shall be measured with a circuit that limits current to 25 milliamperes maximum and has an accuracy of 1.0 percent. Ignition devices which exhibit a bridge circuit resistance greater than 1.25 ohms or less than 0.95 ohms shall be considered defective. Ignition devices which exhibit a bridge circuit resistance other than that specified above shall be rejected.

**4.6.5 Insulation resistance.** The insulation resistance of each ignition device shall be determined with an applied voltage of  $350 \pm 10$  volts direct current. A suitable commercially available meter or test circuit per ASTM D257, may be used for the test. Ignition devices which exhibit an insulation resistance less than 20 megohms shall be rejected.

**4.6.6 No fire.** Each ignition device shall be conditioned at  $+70^{\circ}\text{F}$  for a minimum of 6 hours and then tested. A current 1 ampere minimum with an associated power of 1 watt minimum shall be passed through the bridgewire circuit for 5 minutes minimum. An ignition device that fires shall be considered defective and shall cause rejection of the lot represented. An ignition device that has a bridge circuit resistance not in conformance with 4.6.4 shall be considered defective and shall cause rejection of the lot represented.

**4.6.7 All fire.** The ignition devices shall be conditioned at  $+70 \pm 5^{\circ}\text{F}$  for a minimum of 6 hours and then tested. A current of  $3.0 + 0.1, - 0.0$  amperes shall be applied to the bridge circuit. Current shall be measured within an accuracy of 1 percent. An ignition device that fails to fire with in 0.025 seconds shall be considered defective and shall cause rejection of the lot represented.

**4.6.8 Forty-foot drop.** Each unprotected ignition device shall be dropped from a height of 40 feet  $+2, -0$  inches onto a 2-inch-thick steel plate embedded in concrete. The ignition devices shall be guided to impact the steel plate in one of the three orientations: connector up, connector down, horizontal. A different ignition device shall be used for each drop. After the forty foot drop test, the ignition devices shall be safe to handle and dispose of.

**4.6.9 Temperature shock, humidity and altitude cycling.** The ignition devices shall be placed on screen trays or in wire baskets to allow air to circulate freely, exposing all surfaces. They shall then be subjected to the following 28-day test. There shall be no interim withdrawals. Protective caps may remain on the units.

Monday	0800	Place test items in a chamber maintained at $+70^{\circ}\text{F}$ at 50% relative humidity (RH).
	1200	Raise chamber temperature to $+160^{\circ}\text{F}$ and the RH to 95%. The chamber temperature shall reach $+160^{\circ}\text{F}$ at 95% RH not later than 1300.
	1600	Remove test items from above chamber and immediately place in a chamber

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		maintained at $-65^{\circ}\text{F}$ at a pressure altitude of 70,000 feet (0.65 psi).
Tuesday	0800	Remove test items from above chamber and immediately place in a chamber maintained at $+70^{\circ}\text{F}$ at 50% RH.
	1200	Remove test items from above chamber and immediately place in a chamber maintained at $-65^{\circ}\text{F}$ at a pressure altitude of 70,000 feet (0.65 psi).
	1600	Remove test items from above chamber and immediately place in a chamber maintained at $+160^{\circ}\text{F}$ at 90% RH.
Wednesday	0800	Reduce chamber temperature to $+70^{\circ}\text{F}$ at 50% RH. The chamber temperature shall reach $+70^{\circ}\text{F}$ at 50% RH not later than 0900.
	1200	Raise chamber temperature to $+160^{\circ}\text{F}$ at 95% RH. The chamber temperature shall reach $+160^{\circ}\text{F}$ at 95% RH no later than 1300.
	1600	Remove test items from above chamber and immediately place in a chamber maintained at $-65^{\circ}\text{F}$ at a pressure altitude of 70,000 feet (0.65 psi).
Thursday	0800	Remove test items from above chamber and immediately place in a chamber maintained at $+70^{\circ}\text{F}$ at 50% RH.
	1200	Remove test items from above chamber and immediately place in a chamber maintained at $-65^{\circ}\text{F}$ and pressure altitude of 70,000 feet (0.65 psi).
	1600	Remove test items from above chamber and immediately place in a chamber maintained at $+160^{\circ}\text{F}$ at 95% RH.
Friday	0800	Reduce chamber temperature to $+70^{\circ}\text{F}$ at 50% RH. The chamber temperature shall reach $+70^{\circ}\text{F}$ at 50 % RH not later than 0900.
	1200	Raise chamber temperature to $+160^{\circ}\text{F}$ at 95% RH. The chamber temperature shall reach $+160^{\circ}\text{F}$ at 95% RH not later than 1300.
	1600	Remove test items from above chamber and immediately place in a chamber maintained at $-65^{\circ}\text{F}$ at standard ambient pressure.

This schedule shall be followed for a total of 4 weeks (28 days) except that on the second and fourth weekends the soak time from 1200 on Friday until 0800 on Monday shall be at a temperature of  $+160^{\circ}\text{F}$  at 95% RH.

**4.6.10 Vibration.** Ignition devices shall be submitted to the vibration profile of Figure 1 at  $-65^{\circ}\text{F}$ ,  $+70^{\circ}\text{F}$ , and  $+200^{\circ}\text{F}$ . The ignition devices shall be mounted on a fixture at the same time and vibrated along each of the three mutually perpendicular axes. The ignition devices shall be subjected to the sinusoidal vibration cycling along axis I at  $+70^{\circ}\text{F}$  with the frequency varying logarithmically from 5 Hz to 2,000 Hz and back to 5 Hz in approximately 20 minutes. The test levels are shown in Figure 1. The ignition devices shall be vibrated for 60 minutes. After



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completion of vibration along axis I, the procedure shall be repeated along the axis II orientation. After completion of vibration along axis II, the procedure shall be repeated along the axis III orientation. After completing vibration at +70°F, the procedure outlined above shall be conducted at -65°F. After completing vibration at -65°F, the procedure outlined above shall be conducted at +200°F.

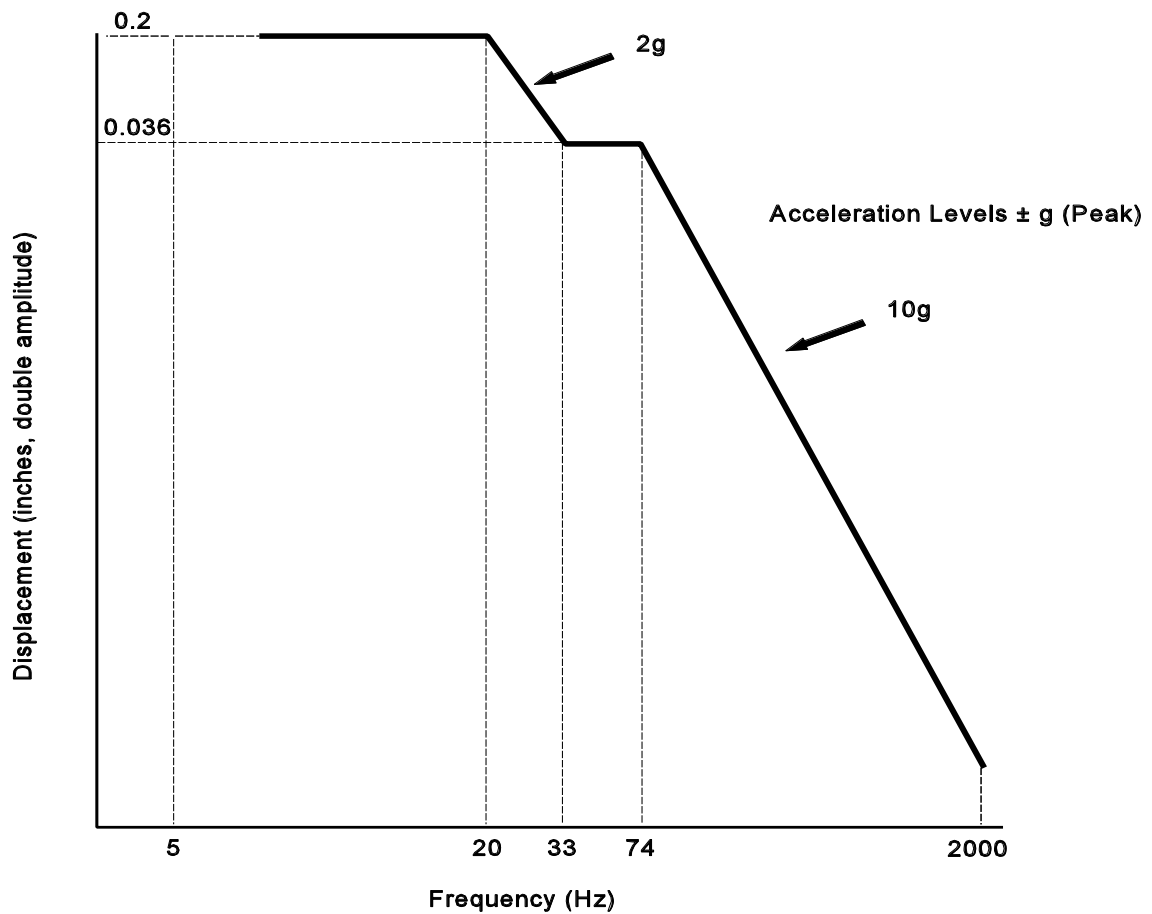


FIGURE 1. Vibration test levels.

#### 4.6.11 Ballistic test.

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**4.6.11.1 Test.** The number of ignition devices selected from each production lot for the ballistic test shall be in accordance with Table I, General Inspection Level I, and Table IIA of ASQC Z1.4, and 2 more for investigative purposes. The randomly selected ignition devices shall be equally divided for conditioning at  $+70 \pm 5^\circ\text{F}$ ,  $-80 \pm 5^\circ\text{F}$ , or  $+225 \pm 5^\circ\text{F}$ . Any extra ignition devices shall be placed in the group for conditioning at  $-80 \pm 5^\circ\text{F}$ . The ignition devices shall be conditioned for 6 hours minimum and fired in a Drawing 2519737 test fixture within three minutes after removal from the conditioning chamber. The ignition device shall be fired by passing  $5.0 + 0.1, - 0.0$  amperes through the bridge circuit (see 6.8). Instrumentation shall be provided to measure current and voltage applied, maximum pressure, time to maximum pressure, and ignition delay.

**4.6.11.2 Acceptance criteria.** The total number of allowed defective units in a lot acceptance sample, as a result of tests and inspections of 4.4 through 4.6, shall be zero. Any defects will reject the lot represented. Screening of defects as a corrective action is at contractor's expense and the method of screening shall be subject to approval by the contracting officer.

**4.6.11.3 Retest.** There shall be no retests.

**4.6.11.4 Test failure.** If test failure is attributable to an assignable cause, excluding the test ignition devices, original test results should be discarded and the complete test reconducted.

## 5. PACKAGING

**5.1 Packaging.** For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DOD personnel, these personnel need to contract the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

## 6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

**6.1 Intended use.** The PVU-8/A ignition device is intended for use as an igniter for cartridges, or as the power source for the operation of an aircraft store jettison mechanism.

**6.2 Acquisition requirements.** Acquisition documents must specify the following:

- a. Title, number, and date of the specification.
- b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1, 2.2.2, and 2.3).
- c. Designation of ignition device (PVU-8/A).
- d. Sampling plans and procedures, if other than as specified (see 4.2).

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- e. Activity responsible for payment of samples (see 4.2).
- f. Whether first article inspection is required and, if so, specify the test activity (see 4.3.1).
- g. Production lot size and test activity (see 4.3.2).
- h. Packaging requirements (see 5.1)
- i. Items of data required for each production lot (see 6.3).
- j. Shipping container marking. (see 6.4).
- k. That the safety precaution requirements of the "DOD Contractors' Safety Manual for Ammunition, and Explosives," DOD 4145.26-M are applicable. NOTE: When this specification is used as part of the description of work to be accomplished by a Government activity, the safety precaution requirements of "Ammunition and Explosives Ashore," OP 5, are applicable.

**6.3 Data.** For the information of contractors and contracting officers, any of the data specified in (a) subparagraphs below, (b) applicable documents listed in section 2 of this specification or (c) referenced lower-tier documents need not be prepared for the Government unless specified in the contract or order.

**6.3.1 Standard deliverables.** In addition to the delivery of ignition devices, the contract may require delivery of the following:

- a. Radiographic plates
- b. Radiographic review report
- c. Radiographic sample plates and techniques
- d. Requests for waiver/deviation and engineering change proposal (ECP)
- e. Progress and management report
- f. Test and inspection report if contractor tested
- g. Ammunition data cards
- h. Performance oriented packaging (POP) test report
- i. Process control charts.

**6.4 Contract packaging and marking.** The following packaging and marking requirements should be specified in the contract.

**6.4.1 Preservation and packing.** Level A and commercial preservation and packing should be in accordance with Code of Federal Regulations 49 CFR 171-179. The contractor is responsible for performance oriented packing certification and documentation in accordance with Regulation 49 CFR 171-179.

**6.4.1.1 Packaging for service use.** Level A and commercial packing should be used for packaging of all production lots for service use.

**6.4.1.2 Packaging for immediate use.** Commercial preservation and packing may be used for packing of all cartridges which are intended for expenditure in first article and production lot acceptance tests. A tight pack is

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required. For an explanation of terms see 6.4.2.

**6.4.2 Explanation of terms.** For the purpose of this specification, NAVSUPINST 4030.28 (20 June 1975) paragraphs 1-4, 2-2, 203 and Appendix A, when applicable, is used to clarify terms.

### 6.4.3 Markings.

**6.4.3.1 Special markings.** Marking of exterior containers should be in accordance with 49 CFR 171-179. Markings should be applied by the contractor or his agent.

**6.4.3.2 Normal markings.** Unless otherwise specified in the contractor order, the marking information on unit packages and shipping containers should be as specified below:

#### Inner Container Marking:

- a. NSN 1377-01-149-3506/MG66
- b. NAVAIR Drawing 844AS300
- c. Ignition device, PVU-8/A
- d. Quantity
- e. Lot Number
- f. DOT/DOD Hazard Classification
- g. UN Ser No.

#### Outer Container

- a. NSN 1377-01-149-3506/MG66
- b. NAVAIR Drawing 844AS300
- c. Ignition device, PVU-8/A
- d. Quantity
- e. Lot Number
- f. Placard and markings per 49 CFR 149-178

The specified marking information should be applied to the containers in accordance with the applicable provisions of MIL-STD-129. Lot number should be in accordance with MIL-STD-1168.

**6.5 First article.** When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the items should be first article sample selected from the first production items (see 3.2) and the number of items to be tested as specified in 4.3.1. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examination, approval of first article test results, and disposition of first articles, Invitations for bids should provide that the Government reserves the right to waive the requirements for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

**6.6 Ballistic Test.** A Bendix connector PT06E-8-5 or equivalent is recommended for electrical connection to the ignition device.

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**6.7 Subject term (keyword) listing.**

Ignition device  
Initiator  
Initiator, electric

Preparing activity:  
Navy – OS  
(Project 1377-0073)

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

### I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER  
MIL-DTL-32011 (OS)

2. DOCUMENT DATE (YYMMDD)  
971114

3. Ignition Device, PVU-8/A

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

### 6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)  
(1) Commercial  
(2) AUTOVON  
(if applicable)

7. DATE SUBMITTED  
(YYMMDD)

### 8. PREPARING ACTIVITY

a. NAME

COMMANDER, INDIAN HEAD DIVISION

b. TELEPHONE (Include Area Code)

(1) Commercial (2) AUTOVON  
(301) 743-4700 X1958 354-4700 X1958

c. ADDRESS (Include Zip Code)

NAVAL SURFACE WARFARE CENTER (CODE 8410T)  
101 STRAUSS AVENUE  
INDIAN HEAD, MD 20640-5035

**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:**

DEFENSE QUALITY AND STANDARDIZATION OFFICE  
5203 Leesburg Pike, Suite 1403, Falls Church, VA 22401-3466  
Telephone (703) 756-2340 AUTOVON 289-2340