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SENSITIVE

MIL-DTL-18307H(AS)  
28 April 2006

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SUPERSEDING  
MIL-N-18307G(NAVY)  
15 August 1984

## DETAIL SPECIFICATION

### NOMENCLATURE AND IDENTIFICATION FOR AERONAUTICAL SYSTEMS INCLUDING JOINT ELECTRONICS TYPE DESIGNATED SYSTEMS AND ASSOCIATED SUPPORT SYSTEMS

This specification is approved for use by the Naval Air Systems Command and is available for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

1.1 Scope. This specification establishes requirements for obtaining the official assignment or confirmation of nomenclature and for identification and re-identification marking for electronic and aeronautical equipment, including support equipment and systems; e.g., Test, Utility, Trainers, etc. Nomenclature procedures are explained in MIL-STD-196 for electronic equipment and MIL-HDBK-1812 for aeronautical, aeronautical support equipment, and photographic equipment.

#### 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 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 documents cited in sections 3 and 4 of this specification, whether or not they are listed.

Comments, suggestions, or questions on this document should be addressed to: Commander, Naval Air Systems Command, Code 491000B120-3 Highway 547, Lakehurst, NJ. 08733-5100 or emailed to [thomas.omara@navy.mil](mailto:thomas.omara@navy.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <http://assist.daps.dla.mil>.

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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 cited in the solicitation or contract.

## DEPARTMENT OF DEFENSE SPECIFICATIONS

- |                 |                                                                                      |
|-----------------|--------------------------------------------------------------------------------------|
| MIL-DTL-15024   | - Plates, Tags, and Bands for Identification of Equipment, General Specification for |
| MIL-DTL-15024/1 | - Set or Group Identification Plate                                                  |
| MIL-DTL-15024/2 | - Unit or Plug-In Assembly Identification Plate                                      |
| MIL-DTL-15024/3 | - Identification Cable Band                                                          |
| MIL-DTL-15024/4 | - Modification Identification Plate                                                  |

## DEPARTMENT OF DEFENSE STANDARDS

- |             |                                                    |
|-------------|----------------------------------------------------|
| MIL-STD-130 | - Identification Marking of U.S. Military Property |
| MIL-STD-196 | - Joint Electronics Type Designation System        |

## DEPARTMENT OF DEFENSE HANDBOOKS

- |               |                                                                               |
|---------------|-------------------------------------------------------------------------------|
| MIL-HDBK-505  | - Definitions of Item Levels, Item Exchangeability, Models, and Related Terms |
| MIL-HDBK-1812 | - Type Designation, Assignment and Method for Obtaining                       |

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or <http://assist.daps.dla.mil/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

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

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### DEFENSE LOGISTICS INFORMATION SERVICE (DLIS) CATALOGING HANDBOOKS

- H4/H8 - Commercial And Government Entity Codes (CAGE)
- H6 - Federal Item Name Directory

(Copies of these documents are available online at <http://www.dlis.dla.mil/hardcopy.asp> or from DLIS-VSS Customer Service Office, Defense Logistics Information Service, 74 Washington Avenue N, Suite 7, Battle Creek, MI 49017-3084.)

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 these documents are those cited in the solicitation or contract.

#### AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

- ASME Y14.38M - Abbreviations and Acronyms
- ASME Y14.100 - Engineering Drawing Practices

(Copies of these documents are available from <http://www.asme.org> or ASME Information Central Orders/Inquires, P.O. Box 2300, Fairfield, NJ 07007-2300.)

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 Official nomenclature. Official nomenclature, consisting of an approved item name and a type designation, shall be assigned for units, groups, sets, systems, assemblies, attachments, and accessories developed under contracts requiring compliance with this specification. .

3.1.1 Approved item name. Approved item names (see 6.5.1) shall be obtained and used for the identification marking and documentation for units, groups, sets, systems, assemblies, attachments and accessories in accordance with this specification. An approved item name, listed in Cataloging Handbook H6, shall be used when it appropriately describes the item. When the H6 does not list an approved item name that appropriately describes the item that requires a type designation, a new item name shall be proposed. Proposed item names shall be submitted to the Defense Logistics Information Service (DLIS) by using a DD Form 180, "Item Name Collaboration Action Form," on line at

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<http://www.dlis.mil/forms/dd180.asp>. ASME Y14.100 provides guidance for creating titles (item names) for engineering drawings.

3.1.2 Type designation. Type designations shall be obtained for systems, sets, groups, and units for electronic items, aeronautical and aeronautical support equipment, and photographic equipment in accordance with this specification (see 6.5.10).

3.1.2.1 Electronic items. Type designations are required for engineering development, preproduction and production models of systems, sets, groups and units including plug-in units within the scope of MIL-STD-196. Equipment shall be type designated in accordance with MIL-STD-196 and shall not apply below the unit level, as defined in MIL-HDBK-505.

3.1.2.2 Aeronautical and aeronautical support equipment. Type designations are required for engineering development, preproduction and production models of equipments (sets) and components (units) within the scope of MIL-HDBK-1812. Equipment shall be type designated in accordance with MIL-HDBK-1812 and shall not apply below the unit level, as defined in MIL-HDBK-505.

3.1.2.3 Photographic equipment. Type designations are required for photographic equipment as explained in MIL-HDBK-1812.

3.2 Official nomenclature assignments. The appearance of nomenclature for items covered by this specification in invitations for bid, contracts, specifications, drawings and associated documents does not constitute the official assignment. Prior to the use of such nomenclature, a request to obtain official nomenclature assignment or confirmation of previously assigned nomenclature shall be submitted to the activity shown on the DD Form 1423 "Contract Data Requirements List (CDRL)." Official assignment of nomenclature on other contracts does not wave or provide relief from the requirements of this specification.

3.2.1 Requesting official nomenclature assignment. A request for nomenclature assignment (DD Form 61) shall be submitted electronically through either the Joint Electronic Type Designation Automated System (JETDAS) or the Aeronautical and Support Equipment Type Designation System (ASETDS), online at <https://tdas6.monmouth.army.mil/jetdas> or <https://tdas6.monmouth.army.mil/asetds>. Preparation of the DD Form 61 is fully explained in MIL-STD-196 for Electronic Equipment and in MIL-HDBK-1812 for Aeronautical Support Equipment. A DD Form 61 shall be submitted for each new item requiring a type designation or for each modified item requiring a change in type designation. Modifications to units, which have been assigned nomenclature, shall require the submittal of a DD Form 61 for each unit modified including a DD Form 61 for the group or set of which the unit is a part.

3.2.2 Requesting official confirmation of previously assigned nomenclature. If the system, set, group, or unit is an interchangeable item with one previously supplied to the Government, a letter with a statement to that effect, listing the current contract number, item name, type designation, design activity CAGE code (see Cataloging Handbook H4/H8) and part number, and manufacturer's CAGE code, shall be submitted in lieu of a DD Form 61. Such

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a letter shall be sent to the requiring activity shown in Block 14 on the CDRL DD Form 1423 (see 6.3).

3.3 Changes to type designation of systems, sets, groups, and units. Whenever an engineering change or other modification affects substitute item or interchangeable item status, as defined in MIL-HDBK-505, a changed type designation shall be assigned (see 3.2.1) as follows:

3.3.1 Type designation change when the modified unit is not an interchangeable item for the previous unit. When the modified unit is not an interchangeable item with the previous unit, a new type designation will be assigned. For example, in accordance with MIL-STD-196, a modified RT-1835/APX will be assigned a new type designation such as RT-1850/APX and in accordance with MIL-HDBK-1812; a modified FMU-148/B will be assigned a new type designation such as FMU-162/B.

3.3.2 Type designation change when the modified unit becomes a substitute item for all the previous units. When the modified unit becomes a substitute item for the previous unit, a suffix letter will be added to the type designation. For example, in accordance with MIL-STD-196, an RT-1835/APX would become RT-1835A/APX and in accordance with MIL-HDBK-1812, an FMU-148/B would become FMU-148A/B.

3.3.3 Type designation change to higher level elements resulting from modifications to lower level type designated units. Whenever a type designated unit is modified in accordance with 3.3.1 or 3.3.2, the type designation of its next higher assembly and all progressively higher assemblies shall be changed, up to and including the assembly where interchangeability or substitutability is maintained. For example, if an RT-1820/ARC-232 (unit level) is modified and becomes RT-1820A/ARC-232, the AN/ARC-232 (set level) would become AN/ARC-232A to indicate a modification has been made to the unit of the set to which it was originally introduced. Since the RT-1820/ARC-232 is part of the AN/ARC-232, and then modified, the type designation of the unit will not become RT-1820A/ARC-232A. Any new unit introduced after the set becomes AN/ARC-232A, and then modified, would carry the suffix letter after the set designation, such as RT-1827A/ARC-232A. This means that the RT-1827 was introduced at the AN/ARC-232A level and then modified to a RT-1827A.

3.3.4 Exploratory development, advanced development or engineering development nomenclature assignment requests for systems, sets, or groups. Application of nomenclature assignment to exploratory development, advanced development or engineering development shall be in accordance with MIL-STD-196 or MIL-HDBK-1812.

3.3.5 Exploratory development, advanced development or engineering development nomenclature assignment for units. Developmental type designations are not required for each unit, which is a part of a system, set, or group. The type designation for these units shall take the form of Unit-1, Unit- 2, and etc. of AN/ASQ-XX (XN-1) or Unit-1 of A/E32M-XX (XN-1). In such cases, a separate DD Form 61 will not be required for each unit but each unit shall be listed on the top assembly DD Form 61, in Block 14.7. If the unit is being developed independently of a system, set or group or if the unit is to be a general purpose item (used with more than one system, set, or group) a DD Form 61 shall be submitted.

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3.3.6 Type designation change to preproduction or production equipment. Engineering development indicators shall be deleted from the nomenclature when equipment reaches preproduction or production status. For example an AN/ALE-57 (XN-1) or an A/E32M-117 (XN-1) would become an AN/ALE-57 or an A/E32M-117; however, an updated DD Form 61 shall be submitted. A separate DD Form 61 shall be submitted for each unit previously identified as Unit-1 of 1, Unit-1 of 2 and etc. (see 3.3.5).

3.4 Item identification for non-type designated parts and assemblies. Item identification for non-type designated parts and assemblies shall be in accordance with MIL-STD-130, except that the name, insignia or trademark of the design activity or manufacturer shall not appear on identification plates, identification bands, or direct markings.

3.5 Application of marking information. The marking information required for items covered by this specification shall be applied to such items as specified herein. When an identification plate or direct marking cannot be used, approval shall be obtained from the acquiring activity.

3.5.1 Unique Identification (UID) and serialization. All type designated items, regardless of dollar value, shall have a serial number and a Unique Item Identification (UII) assigned in accordance with MIL-STD-130 (see 6.2). Serialization shall be an integral part of the UID. Methods of UII construct are described in MIL-STD-130.

3.5.2 Identification, modification, information, serial number plates, and identification band marking data formats. The identification plate and band marking format shall be in accordance with MIL-DTL-15024/1, /2, /3, and /4. Abbreviations in accordance with ASME Y14.38M may be used.

3.5.3 Identification plates for sets and groups. Whenever all units of a set or group are housed or mounted together on the same rack, or in the same cabinet, or as a single structure, an identification plate is required on the structure, rack or cabinet in accordance with MIL-DTL-15024/1. A serial number shall be engraved, etched or metal stamped on the equipment in such a manner as to allow it's being visible during use. If the serial number cannot be applied in this way, a serial number plate shall be attached directly below or adjacent to the identification plate. Identification plates shall also be furnished when re-identification is required.

3.5.4 Identification plates for units. A unit identification plate is required and shall be located in such a manner as to allow it's being visible during use in accordance with MIL-DTL-15024/2. A serial number shall be engraved, etched, or metal stamped on the equipment in such a manner as to allow its being visible during use. If the serial number cannot be applied in this way, a serial number plate shall be attached directly below or adjacent to the identification plate. Identification plates shall also be furnished when re-identification is required.

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3.5.5 Identification plates for spares. Whenever the part or assembly of a unit, on which the identification plate of that unit is affixed, is procured as a spare item and not as a complete unit; e.g., a chassis without plug-in modules; the following shall apply:

- a. The identification plate shall contain the type designation of the completed unit.
- b. The serial number and UID requirements of MIL-STD-130 shall apply.

3.5.6 Identification bands and marking for cable assemblies. Cable assemblies shall not be assigned type designations in accordance with MIL-STD-196 or MIL-HDBK-1812. Cable assemblies shall be identified as W-1, W-2, etc., of the basic equipment of which they are a part or with which they are used (see MIL-DTL-15024/3); e.g. W-1 of AN/ARM-20, W-2 of AN/ARM-20, W-1 of AN/USN-99 (XN-1), W-2 of AN/USN-99 (XN-1), etc. The cable assemblies shall be assigned "W-" numbers in consecutive order; however, identical cables within the same equipment shall be assigned the same "W-" number. A note to this effect shall be stated in the technical manual.

3.5.6.1 Identification bands. Identification bands shall be used on cable assemblies. All cable assemblies shall have one band around the cable near each end. Cable assemblies exceeding 15 feet in length shall have one band at least every 10 feet (see MIL-DTL-15024/3). In addition to the markings specified above, cables which are connected to specific units shall also have attached, near the terminal ends of such cables, an identification band marked to indicate the appropriate unit and receptacle designation to which that end of the cable connects; e.g., J15 RT-250/ARD-85, J106 MD-160/APS-99, etc.. In addition to such marking, cables to which connectors are not attached shall have each wire identified by a temporary, removable tag to enable the proper connector to be wired to the cable without reference to wiring diagrams or technical manuals.

3.5.6.2 Test bench harness cable assemblies. All cable assemblies that are used with or are a part of test bench harnesses shall be marked in accordance with 3.5.6.

3.5.7 Identification plates for modified items.

3.5.7.1 Identification plates for items modified during production. Items, which are modified during production, shall be marked with the new identification information in accordance with this specification. Item identification numbering shall conform to ASME Y14.100.

3.5.7.2 Identification plates for items modified after delivery to the Government. Items, which are modified after delivery to the Government, shall be marked with the new identification information in accordance with this specification. When a new identification plate is required, it shall be affixed to each unit or set being modified. The activity that provides the modification kit shall provide the new identification plate, which shall be the same size as the one it replaces. If a modification kit is not required, the activity that performs the modification shall install a new identification plate, which shall be the same size as the one it replaces.

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3.5.7.3 Recording modifications to items after delivery to the Naval Air Systems Command. In addition to the marking information required in 3.5.7.2, when modifications are accomplished by a Technical Directive (TD), a modification plate in accordance with MIL-DTL-15024/4 shall be furnished. One such plate shall be affixed to each unit or set being modified.

3.5.8 Approval of identification plate drawings. Identification plate drawings, illustrating the marking information that will appear on the identification plate, shall be submitted for approval to the cognizant Defense Contract Management Agency (DCMA) Office responsible for acceptance of the end item, or as specified on the CDRL DD Form 1423.

3.5.9 Manufacture and installation of identification, modification and serial number plates for equipment. These plates shall be fabricated and installed in accordance with MIL-DTL-15024/1, /2, or /4 as applicable. Identification bands for cables and cable harnesses shall be in accordance with MIL-DTL-15024/3. The bands shall be plastic or aluminum material, with natural background and black letters.

#### 4. VERIFICATION

4.1 Classification of inspection. The inspection requirements specified herein are classified as conformance inspection.

4.1.1 Conformance inspection. Prior to submission, all nomenclature requests for each item for which nomenclature is required shall be inspected for use of proper format, correctness, completeness of information and technical data, and conformance to security requirements.

#### 5. PACKAGING (Not Applicable)

#### 6. NOTES

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

6.1 Intended use. This specification establishes the requirements for obtaining official assignment of nomenclature, confirmation of existing nomenclature, and approval of identification plates or marking methods for electronic items, aeronautical and support equipment, and photographic equipment acquired by the Naval Air Systems Command. This method of nomenclature identification is unique to the military.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Serial number / UID (see 3.5.1)
- c. Data Item Description (see 6.3)

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6.3 Associated Data Item Descriptions (DIDs). This specification has been assigned an Acquisition Management Systems Control (AMSC) number authorizing it as the source document for the following DIDs. When it is necessary to obtain the data, the applicable DIDs must be listed on the Contract Data Requirements List (DD Form 1423).

<u>DID Number</u>	<u>DID Title</u>
DI-CMAN-81254A	Request for Nomenclature.(DD Form 61)
DI-SESS-81652	Request for Confirmation of Nomenclature
DI-SESS-81655	Request for Approval of Identification Plate Drawings

The above DIDs were current as of the date of this specification. The ASSIST database should be researched at <http://assist.daps.dla.mil/quicksearch> or <http://assist.daps.dla.mil> to ensure that only current and approved DIDs are cited on the DD Form 1423.

6.4 Equipment approval. The assignment of Joint Electronics Type Designation System or Aero/Support System Nomenclature and approval of identification plates or markings does not constitute approval of any item of equipment, or approval for the use of any particular item in a specific equipment and does not waive any requirement of the contract involved.

6.5 Definitions. Terms used in this specification, that are not defined below, shall be interpreted in accordance with the applicable documents listed under Section 2 herein.

6.5.1 Approved item name. An approved item name (see 3.1.1) is an item name having an Item Name Code (INC) and Federal Item Identification Guide (FIIG) Code assigned by DLIS and listed in the Cataloging Handbook H6.

6.5.2 Cable assembly. A cable assembly is a definite continuous length of cable, power; electrical; cable, radio frequency; or cable, special purpose, electrical (as defined in the H6 Handbook) having one or more ends processed or terminated, or both, in fittings which provide for connection to other items. Cable assembly, radio frequency, includes multiple cable assemblies in a common jacket or shield.

6.5.3 Cable assembly, branched. An item conforming to the definition of cable assembly (see 6.5.2) with branches (forks).

6.5.4 Design activity. A design activity is an activity having responsibility for the design of an item. The activity may be a Government activity, contractor or vendor. It is the activity indicated by the five digit number Commercial and Government Entity (CAGE) code in the drawing title block; however, when hardware is procured from a specification control drawing, the vendor of this hardware becomes the design activity.

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6.5.5 Equipment division. The following are as defined in MIL-HDBK-505: Accessory, Assembly, Attachment, Group, Part, Set, Subassembly, System and Unit.

6.5.6 Interchangeable item. As defined in MIL-HDBK-505. (The new item must be two way interchangeable with an existing item.)

6.5.7 Models. The following are as defined in MIL-HDBK-505: Development model, Preproduction model and Production model.

6.5.8 Parts list. A parts list is a tabulation of all parts and bulk materials (except those materials which support a process) used in the item to which the list applies.

6.5.9 Substitute item. As defined in MIL-HDBK-505. (The new item must be one way interchangeable with an existing item, but not vice versa).

6.5.10 Type designation. A combination of letters and numbers arranged in a specific sequence to provide a short significant method of identification (see MIL-STD-196).

6.5.11 Wiring harness. An item consisting of two or more individually insulated conductors (solid, stranded, or tinsel) of a definite length with or without shielding, held together by lacing cords, metal bands, or similar type binding. The individual conductors are usually identified by color or by alphabetic or numeric codes or symbols. The item may include fittings, which provide for connection to other items. Exclude items that are branched, forked, jacketed, sleeved, or contained in a common covering (as defined in H6 Handbook).

6.5.12 Wiring harness, branched. An item conforming to the definition of wiring harness (see 6.5.11) with branches (forks).

6.6 Subject term (key word) listing.

Approved Item Name

Item Name

Name Plates

Serial Number

Type Designator

Unique Identification (UID)

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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CONCLUDING MATERIAL

Custodian:  
Navy- AS

Preparing activity:  
Navy - AS

(Project SESS-2005-014)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.