

INCH-POUND

MIL-DTL-24784/4D(NAVY)

6 June 2017

SUPERSEDING

MIL-DTL-24784/4C(NAVY)

3 November 2007

DETAIL SPECIFICATION SHEET

COMMERCIAL OFF-THE-SHELF (COTS)
EQUIPMENT MANUAL REQUIREMENTS

This specification is approved for use by the Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-24784.

1. SCOPE

1.1 Scope. This specification covers the review of commercial off-the-shelf (COTS) equipment manuals (see 6.4.1) and establishes requirements for supplemental data for COTS manuals. This specification is intended as a guide to determine the adequacy of existing COTS manuals and for specifying additional data required to supplement an existing COTS manual. The acceptability of a COTS manual and the need for supplemental data is dependent upon the Government's usage philosophy for each particular item of equipment.

1.2 Application. This specification is applicable to manuals that support equipment designed and manufactured for commercial use. It applies to manuals that support commercial equipment used in a commercial or military environment. This specification is not applicable for acquisition of manuals that support developmental items.

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

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-24784 - Manuals, Technical: General Acquisition and Development Requirements,
General Specification for

(Copies of this document are available online at <http://quicksearch.dla.mil/>.)

Comments, suggestions, or questions on this document should be addressed to: Commander, Naval Sea Systems Command, ATTN: SEA 05S, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to CommandStandards@navy.mil, with the subject line "Document Comment". Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

AMSC 9826

AREA TMSS

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

MIL-DTL-24784/4D(NAVY)

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.

DEFENSE LOGISTICS INFORMATION SERVICE CATALOGING HANDBOOKS

H4/H8 - Commercial and Government Entity (CAGE) Codes

(Copies of this document are available online at <https://cage.dla.mil/>.)

FEDERAL ACQUISITION REGULATION (FAR)

Federal Acquisition Regulation (FAR)

(Copies of this document are available online at <https://www.acquisition.gov/far>.)

2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), 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 Review and acceptability. The appropriate Data Item Description (DID) shall be used to acquire a copy of the existing COTS manual for review. The existing COTS manual shall be evaluated as specified by the acquiring activity (see 6.2), to determine whether or not the manual proves acceptable for the intended Government use. An acceptable commercial manual shall contain the data listed in the following subparagraphs, arranged in a sequence that provides continuity. If a manual covers different models, series, or configurations of the equipment, the differences shall be clarified by the use of different data sheets, errata sheets, or change sheets, or be included in the text or table(s) in the manual. The manual shall precisely reflect the hardware configuration of the equipment or system acquired by the Government. The amount of data required shall be determined by the complexity or simplicity of the equipment and the usage philosophy of the Government for a particular item of equipment. Usage philosophy includes installation plans, maintenance concept, operational environment, and spare support approach. The manual shall consist of all data required for operation and maintenance of the equipment or system as determined by the Government.

3.1.1 COTS manual evaluation. Unless otherwise specified by the acquiring activity (see 6.2), candidate COTS manuals shall be evaluated using the Manuals Evaluation Checklist (see [figure 1](#)). Decisions reflected on the completed Manual Acceptability Certification sheet (see 3.1.2) reflect evaluations shown on the completed Manuals Evaluation Checklist. When completed, the Manuals Evaluation Checklist information provides evaluation results and recommended actions(s) to be taken concerning the use and acquisition of COTS manuals only. The Checklist in itself is not to be construed as an acquisition document, but may be helpful in selecting applicable supplemental data (when needed).

3.1.2 COTS Manual Acceptability Certification. Unless otherwise specified by the acquiring activity (see 6.2), candidate COTS manuals shall be certified using the Manual Acceptability Certification sheet (see [figure 2](#)).

3.2 Style and format. The existing COTS manual shall meet the following requirements:

3.2.1 Comprehensibility and readability. The text and text-graphics combination of the manual shall be at the level of understanding of the intended user. The reading grade level shall be that of the intended user.

3.2.2 Arrangement. The overall arrangement of content, even though vendor-unique, shall be organized in a manner sufficient to provide continuity of descriptions, processes, and procedures.

3.2.3 Legibility. The entire publication shall be clear and easily read on paper or on a display device. Text shall be no smaller than 8-point (1 point = 1/72 inch). Parts lists shall be no smaller than 6-point. Lettering on diagrams shall be no smaller than 6-point.

MIL-DTL-24784/4D(NAVY)

3.2.4 Size. The size of the manual shall be no smaller than 4 by 5½ inches and no larger than 17 by 11 inches.

3.2.5 Illustrations. The manual shall contain illustrations similar to those specified in MIL-DTL-24784 to support the text. The illustrations shall be integrated with the text or their location shall be referenced in the text.

3.2.6 Copyrights release/rights in data. The manual shall include the appropriate copyright release or rights in data statements in accordance with the Federal Acquisition Regulation (FAR) (and its applicable supplements) and as established by the contract (see MIL-DTL-24784).

3.3 Content requirements. Unless otherwise specified (see 6.2), acceptable COTS manuals shall contain, but not be limited to, the following:

- a. Front matter: Cover/title page, table of contents, and applicable safety precautions.
- b. Introduction.
- c. Preparation for use.
- d. Installation instructions.
- e. Principles of operation (at the level required to support maintenance).
- f. Operating instructions.
- g. Maintenance and servicing instructions (preventive and corrective).
- h. Reprogramming (as applicable).
- i. Preparation for shipment.
- j. Storage.
- k. Parts list.
- l. Illustrations and diagrams.
- m. Overhaul instructions (as applicable).

3.3.1 Front matter.

3.3.1.1 Cover/title page. The manual shall have a cover, title page, or first page showing the date the manual was issued, revision designator (if applicable), the manufacturer's identification name and address, the equipment name, the manufacturer's model designation, and serial or identification numbers for the equipment covered. Contract numbers and markings on publications shall be in accordance with the FAR and its applicable supplements.

3.3.1.2 Table of contents. The manual shall include a table of contents. It shall list all parts, chapters, sections, and paragraphs, as applicable, in the order of presentation and with the same title used in the text. It shall include a list of illustrations and a list of tables.

3.3.1.3 Safety. The manual shall include safety information that is consistent with the safety standards established by Occupational Safety and Health Act (OSHA) standards (see MIL-DTL-24784).

3.3.1.3.1 Safety precautions. The manual shall contain safety precautions where hazards, such as high voltage or electrostatic discharge, may be present during installation, operation, or maintenance of the equipment. Health hazards, such as radio frequency radiation, radioactive materials, the presence of poisonous fumes or explosive gases, and the depletion of oxygen from the air in a closed environment, shall be preceded by a danger or warning at the point in the procedure where the hazard is likely to be encountered. See MIL-DTL-24784 for similar requirements.

3.3.1.3.2 Dangers, warnings, cautions, and notes. When applicable, the manual shall contain dangers, warnings, cautions, and notes similar to those specified in MIL-DTL-24784.

3.3.1.3.3 Federal environmental protection standards. Information concerning the use, transportation, handling, storage, or disposal of fuel, toxic or hazardous substances, chemicals, ordnance, and munitions shall be clearly stated and shall be consistent with Federal Environmental Protection standards.

MIL-DTL-24784/4D(NAVY)

3.3.2 Introduction. The manual shall contain an introduction, or introductory material, containing the following:

- a. Purpose and functions.
- b. Capabilities.
- c. Performance characteristics.
- d. Description (equipment model, dimensions, weight, volume, and center-of-gravity, when applicable).
- e. Power and utility information.
- f. Environmental information.
- g. List of items furnished.
- h. List of additional items required for operation and maintenance, but not supplied with equipment.
- i. Tools and test equipment.
- j. Warranty information.
- k. Shipping and handling precautions.
- l. Storage data.

3.3.3 Preparation for use. The manual shall contain unpacking and assembling instructions. Inspection for in-shipment damage and instructions on how to handle damaged equipment shall be included.

3.3.4 Installation instructions. Special installation instructions shall include requirements for foundations, ventilation, clearances, plumbing and electrical connections, mountings, wiring runs, initial lubrication, and alignment, as applicable.

3.3.5 Principles of operation. The manual shall contain principles of operation information at the technical level necessary for the intended user.

3.3.6 Operating instructions. Operating instructions shall include:

- a. Illustrations and explanations of the uses and functions of all controls and indicators (including settings and readings, if applicable).
- b. Initial adjustments and control settings.
- c. Start up procedures.
- d. Normal operation.
- e. Operation under emergency, adverse, or abnormal conditions (if different from normal operating procedures).
- f. Shut down procedures.
- g. Emergency shutdowns (if required).
- h. Interface instructions.

3.3.7 Maintenance and servicing instructions (preventive and corrective). Instructions shall include a list of test equipment, special tools, and materials needed for maintenance and service. This list shall include nomenclature, part and model number, application, range, and accuracy. Instructions or illustrations shall explain or show how test connections are made. Actions and normal indications shall be defined for each test.

3.3.7.1 Cleaning and lubrication. Periodic cleaning and lubrication information, covering types of cleaning agents or lubricants (commercial or military) shall be included. Frequency of lubrications and intervals (monthly, quarterly, and semiannually; hours of operation; mileage; and so forth) shall be presented. Lubrication points and required amounts shall be identified. When applicable, pictorial format for lubrication instructions shall be included to clearly illustrate location of each lubrication point. Cleaning and lubrication during repair, replacement, or reassembly shall be included in the instructions covering those actions (see 3.3.7.5).

MIL-DTL-24784/4D(NAVY)

3.3.7.2 Performance verification. Instructions for calibration of the test, measurement, and diagnostic equipment needed to restore the equipment to serviceable accuracy (performance verification) shall be provided. These instructions shall be complete step-by-step procedures that will enable the user to check the accuracy of the indications or readings. The location of test connections and the values expected at these points shall be included. Adjustment of built-in self test features shall be included when applicable. Data shall include the recommended frequency of adjustments and verification checks required. When appropriate, the data shall allow for the accomplishment of these adjustments by utilizing a wiring harness, test points, etc. that are accessible from outside the equipment case. Data shall include a list of the additional equipment, such as temperature, vacuum, pressure, hydraulic or pneumatic gauges, decade boxes, voltmeters, signal generators, required to accomplish the verification. The listing shall show methods of use or application, range of scales, and specific minimum tolerances or percentages of accuracy.

3.3.7.3 Inspection. Instructions, including scheduling, for inspection of equipment for damage and wear shall be provided with emphasis on allowable service limits such as wear, backlash, end play, balance, and length and depth of scoring. Allowable service limits are acceptable wear tolerances that will not impair performance. They are not to be confused with manufacturing tolerances.

3.3.7.4 Troubleshooting. Malfunctions that might occur during operation of the equipment shall be identified. Troubleshooting data and fault isolation techniques shall include:

- a. The indication or symptom of trouble.
- b. The instructions necessary, including test hookups, to determine the cause.
- c. Action or reference to action to restore the equipment to operating conditions.

Applicable information shall be in chart form; logic tree form; in tabular format with appropriate headings; or as logic, block, or schematic diagrams. The established maintenance concept for the associated equipment shall dictate the depth of the troubleshooting (for example, localizing a defective circuit card assembly and ending the action by removing and replacing the circuit card assembly as opposed to carrying out the troubleshooting process on the defective circuit card assembly to determine the specific piece part that is defective).

3.3.7.5 Disassembly, repair, replacement, and reassembly. Sequential instructions for disassembling, repairing, replacing, and reassembling the equipment shall be provided. Test, adjustment, and check-out data after reassembly shall be provided. Illustrations, including exploded views, shall be used as necessary to support each of these functions.

3.3.8 Reprogramming. A description of reprogrammable memory, reprogramming theory, program setup, program confidence check-out, program loading, and programming procedures shall be provided for equipment having a reprogrammable memory.

3.3.9 Preparation for shipment. Manuals shall contain instructions for the following, as applicable:

- a. Disassembly, removal, and separate packaging of electrostatic sensitive discharge devices or fragile components.
- b. Use of reusable shipping cases or containers.
- c. Special cradles.
- d. Mounting.
- e. Securing.
- f. Covering and preservation.
- g. Precautions for shipment.
- h. Shipment and unloading.

3.3.10 Storage. Manuals shall contain instructions for the following:

- a. Indoor and outdoor storage.
- b. Temperature and other environmental limitations.

MIL-DTL-24784/4D(NAVY)

- c. Storage facilities.
- d. Dunnage.
- e. Ventilation.
- f. Revetting.
- g. Drainage.
- h. Staking.
- i. Grounding.
- j. Covering.
- k. Preservation.

3.3.11 Parts list. The manual shall include a parts list containing positive identification of parts for support of the equipment and shall include actual manufacturer or vendor part numbers or generic description necessary to obtain replacement parts.

3.3.11.1 Parts list illustrations. Clear and legible illustrations shall identify component parts and parts relationships.

3.3.11.2 Parts listings. Part numbers and part names shall be shown on illustrations or separately listed. When the illustrations do not contain part numbers and part names, both the illustrations and separate listings shall show either index, reference, or key numbers that will cross-reference illustrated parts to listed parts. The parts list shall cite the actual manufacturer or vendor and their part number or generic description. Parts in the listings shall be grouped by assemblies, subassemblies, and modules with the parts identified to the assembly from which they are components.

3.3.11.3 Common commercial parts. Common commercial hardware and items that are not of special design, such as bolts, washers, nuts, screws, fittings, keys, hinges, wire, cable, gasket material, tubing, hose, and so forth, and are obtainable from a wide range of sources, shall be identified by part number or the notation "Commercial" instead of a part number. The part name (nomenclature or description) shall be complete enough to facilitate substitution of equivalent items from existing Government stock as in [table I](#).

TABLE I. Examples of part number descriptions.

| Figure and index no. | Part no. | Part name (nomenclature or description) |
|-----------------------------|-----------------|--|
| 2-4 | Commercial | NUT, Hex head, plain steel, 1/4-20 UNC-3B |
| 2-5 | Commercial | WIRE, Electrical, copper, tin plated, No. 14 AWG, 19 strands of No. 27 AWG, 0.250-in. dia. |

3.3.12 Illustrations and diagrams.

3.3.12.1 Illustrations. Manuals shall contain illustrations (line drawings, photographs, or halftones) for locating and identifying all components significant to operation and maintenance and to show configuration and parts relationship for removal and disassembly procedures. When photographs are used, they shall be prescreened and shall be detailed and sharp; free of heavy shadows, distorted objects, cluttered foregrounds or backgrounds; and give good contrast from white, middle tones, and black. Free-hand sketches shall not be acceptable.

3.3.12.2 Diagrams. As applicable, the following diagrams shall be included in the manual:

- a. Simplified functional block.
- b. Locator.
- c. Piping.
- d. Plumbing.

MIL-DTL-24784/4D(NAVY)

- e. Hydraulic.
- f. Schematic.
- g. Electrical.
- h. Digital.
- i. Other (as necessary).

3.3.12.3 Symbols. Symbols used on illustrations and diagrams shall be standard or common to the trade or commodity. Where nonstandard symbols are used, explanations shall be provided.

3.3.13 Overhaul instructions. When applicable, the manual shall include overhaul instructions to return the equipment to mission capable condition. As a minimum, the instructions shall include the following:

- a. List of support equipment, special tools, and facilities required.
- b. List of mandatory parts.
- c. Preshop analysis, as applicable.
- d. Step-by-step procedures for performing all functions including disassembly, removing, replacing, diagnosing, installing, repairing, assembly, in-process testing, adjusting, and inspecting.
- e. Final tests to ensure satisfactory performance of the equipment or system overhauled.

3.4 Supplemental data. After it has been determined that the existing COTS manual meets the style, format, and content criteria of 3.1, 3.2, and 3.3, and that supplemental data (see 6.4.2) is required, supplemental data shall be developed as specified by the acquiring activity (see 6.2). Supplemental data shall be in accordance with the appropriate DID.

3.4.1 Supplemental data content and format selection. The completed Content and Format Selection Summary Sheet ([figure 3](#)) may be used to identify supplemental data requirements for COTS manuals. The Content and Format Selection Summary Sheet ([figure 3](#)) may be reproduced or adapted for specific application; however, the content and format should remain unchanged. The Government is responsible for filling in the pertinent information (contract number, manufacturer, model number, acquiring or contracting activity, and so forth) at the top of the sheet and for indicating data required. All supplemental data required for a specific acquisition should be indicated by an "X" in the "Selected Content" column.

3.4.2 Accuracy. Essential corrections or changes to the manual shall be included in the supplemental data.

3.4.3 Style, format, and form. The format of the supplemental data shall be in accordance with the appropriate DID. Supplemental data may be developed as a separately numbered and bound manual or as changed/added material inserted into the existing COTS manual. Requirements for review draft copies, preliminary Technical Manuals (TMs), and digitized media shall be as specified by the acquiring activity (see 6.2).

3.4.4 Content. Content of the supplemental data shall be as specified on the Content and Format Selection Summary Sheet (see [figure 3](#)) or other contractual document provided by the acquiring activity (see 6.2). Unless otherwise specified by the acquiring activity (see 6.2), the data shall be presented in accordance with the requirements specified and in the following order:

- a. Cover/title page (see 3.3.1.1).
- b. Safety precautions (see 3.3.1.3.1).
- c. Table of contents (see 3.3.1.2).
- d. Technical assistance and deficiency reporting using the Technical Manual Deficiency/Evaluation Report (TMDER) form, as provided by the acquiring activity (see 3.4.11).
- e. Maintenance forms and records.
- f. Administrative storage.
- g. Destruction of military material to prevent enemy use.
- h. Lubrication instructions (see 3.4.12).

MIL-DTL-24784/4D(NAVY)

- i. Preventive maintenance checks and services.
- j. Spare and repair parts (see 3.4.13).
- k. Other requirements as specified (when using Manuals Evaluation Checklist as a guide, other required data may be indicated thereon).

3.4.5 Copyrights and proprietary information credit line. The supplemental data shall include appropriate copyright release or rights in data statements, in accordance with the FAR (and its applicable supplements and as established by the contract [see 6.2 and MIL-DTL-24784]).

3.4.6 Warranty information. If applicable, the COTS manual supplemental data shall contain warranty information pertinent to the equipment covered. It shall include data such as duration of warranty and serial numbers of equipment covered. If warranty is covered separately or in another available document, reference shall be made to that document.

3.4.7 Advertising. Except for the identity of the manufacturer or contractor, supplemental data shall not contain advertising.

3.4.8 Equipment and model coverage. Only equipment and models, accessories, and components specified shall be covered in the supplemental data.

3.4.9 End item identification. Unless otherwise specified by the acquiring activity (see 6.2), the federal item name, national stock number (NSN), part number, model number, and applicable contract number shall be overprinted on the cover or the first page of the manual.

3.4.10 Publication number and date. The TM identification number, as assigned by the Government, and the publication date shall be printed on the cover of the supplemental data if developed as a standalone document. When the supplemental data is to be inserted into the existing COTS manual, the TM identification number and publication date shall be overprinted on the cover of the existing manual with placement in accordance with MIL-DTL-24784.

3.4.11 Technical assistance and deficiency reporting. The technical assistance and deficiency information text on figure 1 of MIL-DTL-24784 shall be included verbatim in the TM prior to distribution of the COTS TM for Government use.

3.4.12 Lubrication instructions. If provided, separate lubrication charts or instructions shall be included in the manual. All lubricants, fluids, and associated products identified in the manual, supplemental data, or separate lubrication chart shall have a Government identifier (military specification number, NSN, and so forth) or manufacturer and part number that identify the product beyond the product name and provide the user with requisitioning information.

3.4.13 Spare and repair parts. If required, the COTS manuals shall be supplemented with applicable spare and repair parts breakdown information. Supplemental data shall not duplicate data in the existing manual. The parts breakdown data shall be presented in contractor format and in the following order:

- a. Introduction (Section I).
- b. Parts list and illustrations (Section II).
- c. Special support equipment list and illustrations (Section III).
- d. Cross-reference indices (Section IV).

3.4.13.1 Introduction - Section I. The introduction shall contain how-to-use information. The introduction shall explain the use of the parts equipment breakdown listings and the reference indices. The column headings, symbols, abbreviations, codings, notes, and other data used shall be explained in detail.

3.4.13.2 Parts list and illustrations - Section II. All spare and repair parts shall be listed by assembly. They shall be shown on the associated parts breakdown illustration. Unless otherwise specified by the acquiring activity (see 6.2), these assembly illustrations and parts lists shall be arranged in top-down breakdown (next higher assembly) sequence.

MIL-DTL-24784/4D(NAVY)

3.4.13.2.1 Illustrations. Illustrations shall be detailed line drawings and identify all repairable or replaceable parts. Each assembly illustration (or set of illustrations, if multi-sheets) shall precede the associated parts listing. Exploded views shall be provided when specified by the acquiring activity (see 6.2). Figures shall be numbered in ascending numerical sequence, and each item illustrated shall be assigned an item or index number. Item or index numbers shall be arranged in numerical clockwise sequence. Leader lines, with arrowheads, shall be drawn from each of the callouts (item or index no.) to the items.

3.4.13.2.2 Parts list. The parts list for the associated illustration shall bear the same title as the illustration and shall contain the columns listed below:

- a. Column (1), FIGURE-ITEM NO.
- b. Column (2), SOURCE, MAINTENANCE, AND RECOVERABILITY (SM&R) CODE.
- c. Column (3), CAGE (Commercial and Government Entity code per H4/H8).
- d. Column (4), PART NO. (actual manufacturers, vendors part, drawing, and military specification number).
- e. Column (5), DESCRIPTION AND USABLE ON CODE (UOC) (item name and provisioning nomenclature [if required] and UOC when more than one model or configuration is covered in the manual).
- f. Column (6), QTY (amount or number per figure or assembly).

3.4.13.3 Special support equipment - Section III. This section shall include special tools, test equipment, and special support equipment. Each tool or equipment shall be illustrated and a list prepared in the same format as for the parts list in Section II. The basis of issue (BOI) shall be stated for each kit or set on the last line of the "Description and Usable on Code" column. The BOI provided by the Government shall state the quantity per unit, division, company (CO), battery, or other organizational structure or division (for example, BOI: 1 PER LETTERED CO). Items listed as part of a kit or set shall be shown as quantity per kit or set as applicable, and the BOI for the kit or set shall be stated for the kit or set line item entry.

3.4.13.4 Cross-reference indices - Section IV. Unless otherwise specified by the acquiring activity (see 6.2), this section shall include the following indices in the order presented:

- a. Figure and item number index: This index, keyed on figure and item number in numerical sequence, shall cross-reference applicable CAGE code number, part number, and the NSN.
- b. Part number index: This index shall key on part number in alphanumeric sequence and reference applicable CAGE code, NSN, figure, and item number.
- c. NSN index: This index shall list the NSN by ascending national item identification number, (the last nine digits). The NSN shall reference the applicable figure and item number.
- d. Reference designator index: When figures or illustrations, such as electronic circuit diagrams, use reference designators in lieu of item numbers, an index listed by reference number in alphanumeric order shall cross-reference the applicable figure and item numbers.
- e. Original equipment manufacturer (OEM) or true vendor: When applicable, the OEM part number shall be cross-referenced to the true vendor part number. The part numbers shall be in alphanumeric sequence.

3.5 Revisions to supplemental data. When the Government determines that revisions are required to correct or update supplemental data, the data shall be revised. Revisions to the supplemental manual should be specified only when they pertain to TM corrections resulting from a hardware change or modification. They may also be specified if it has been determined that significant omissions of technical data or information have been identified. Do not specify a change revision to correct minor or editorial corrections. Revisions shall be a final reproducible copy and in the same style and format as the original supplemental data. Revisions shall be in accordance with MIL-DTL-24784.

4. VERIFICATION

4.1 Verification. The verification requirements for delivery of review draft copies, preliminary TMs, final TMs, supplemental data, and revisions shall be in accordance with MIL-DTL-24784.

MIL-DTL-24784/4D(NAVY)

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. 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 that may be helpful, but is not mandatory.)

6.1 Intended use. COTS manuals and supplemental data are intended for support of COTS equipment used by the Department of Defense. The intent of this specification is not to standardize the style, format, size, or content of COTS manuals, but to provide evaluation criteria for acceptance of COTS manuals and provide the requirements for supplemental data for selection by the Government.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification (or any Technical Manual Contract Requirement [TMCR] referencing this specification).
- b. A copy of the COTS manual for Government reproduction and use as required to determine whether it is acceptable for use or whether supplemental data is required (see 3.1).
- c. If the Manuals Evaluation Checklist shall be used to evaluate candidate COTS manuals (see 3.1.1).
- d. When an existing COTS manual is reviewed, the Acceptability Certificate should be provided (see 3.1.2).
- e. Content requirements other than those specified (see 3.3).
- f. Specification tailoring requirements for supplemental data by selection of content and format requirements (see 3.4).
- g. Deliverable products as specified (see 3.4.3).
- h. When supplemental data is required, contents should be specified (see 3.4.4).
- i. When a copyright license has been granted to the COTS manual or data, and permission for Government reproduction and use is required (see 3.4.5).
- j. Overprint the end item identification information, unless otherwise specified (see 3.4.9).
- k. Illustrated parts lists if other than as specified (see 3.4.13.2).
- l. If exploded views are required (see 3.4.13.2.1).
- m. If cross-reference indices are not required (see 3.4.13.4).
- n. Packaging requirements (see 5.1).

6.3 Technical manuals. The requirement for technical manuals should be considered when this specification is applied on a contract. If technical manuals are required, specifications and standards that have been authorized and assigned an Acquisition Management Systems Control (AMSC) number or a TMCR based on those specifications and standards must be listed on a separate Contract Data Requirements List (DD Form 1423), which is included as an exhibit to the contract. The technical manuals must be acquired under separate contract line item in the contract.

6.3.1 Sample COTS manual. When COTS manuals are required for evaluation to determine their acceptability, the solicitation should state how many samples of the COTS manuals should be included in the bid package.

MIL-DTL-24784/4D(NAVY)

6.3.2 Qualification. Sample COTS manuals should be evaluated by use of the Manuals Evaluation Checklist or other applicable document(s) determined by the acquiring activity. It should be noted that pre-established checklists may not contain all requirements, but each manual's content requirements depend on the item(s) covered by the manual. As well, the same concept applies when using the Content and Format Selection Summary Sheet or other equivalent contractual document(s) to solicit or contract for supplemental data to augment the acceptable COTS manual.

6.4 Definitions. The words or phrases used throughout this specification are defined in MIL-DTL-24784 and as follows:

6.4.1 COTS manuals. Manuals available off-the-shelf from the commercial source that include operation, maintenance, and other instructions for commercial equipment. Commercial manuals are developed to support the equipment in the commercial market.

6.4.2 Supplemental data. Any data, whether by change, addition, or separately numbered manual, that augments or complements a COTS manual to make the manual acceptable for use by the Department of Defense.

6.5 Subject term (key word) listing.

Supplemental data

6.6 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.

MIL-DTL-24784/4D(NAVY)

MANUALS EVALUATION CHECKLIST
(Commercial-off-the-Shelf)

| Procurement/Contract No.: _____ | | Equipment Model No.: _____ | | | |
|--|------------|----------------------------|-------------------|----|---------|
| Manual Pub No.: _____ | | Equipment Name: _____ | | | |
| REQUIREMENTS - (PARAGRAPH) (Make an "x" in applicable blocks. Fill in additional requirements, if applicable) | ACCEPTABLE | | | | REMARKS |
| | YES | NO | INCOR/ INCOMPL | NA | |
| Comprehensibility and readability | | | | | |
| Arrangement | | | | | |
| Legibility | | | | | |
| Size | | | | | |
| Illustrations | | | | | |
| Cover/title page | | | | | |
| Table of contents | | | | | |
| Safety | | | | | |
| Safety precautions | | | | | |
| Dangers, warnings, cautions, notes | | | | | |
| Federal environmental protection standards | | | | | |
| Introduction | | | | | |
| Preparation for use | | | | | |
| Installation instructions | | | | | |
| Principles of operation | | | | | |
| Operating instructions | | | | | |
| Maintenance and servicing instructions (preventive and corrective) | | | | | |
| Cleaning and lubrication | | | | | |
| Performance verification | | | | | |
| Inspection | | | | | |
| Troubleshooting | | | | | |
| Disassembly, repair, replacement, reassembly | | | | | |

FIGURE 1. Manuals Evaluation Checklist.

MIL-DTL-24784/4D(NAVY)

MANUALS EVALUATION CHECKLIST – (Cont'd)
(Commercial-off-the-Shelf)

| REQUIREMENTS - (PARAGRAPH) (Make an "x" in applicable blocks. Fill in additional requirements, if applicable) | ACCEPTABLE | | | | REMARKS |
|--|------------|----|-------------------|----|---------|
| | YES | NO | INCOR/ INCOMPL | NA | |
| Reprogramming | | | | | |
| Preparation for shipment | | | | | |
| Storage | | | | | |
| Parts list | | | | | |
| Illustrations and diagrams | | | | | |
| Illustrations | | | | | |
| Diagrams | | | | | |
| Overhaul instructions | | | | | |

APPLICABLE REQUIREMENTS HAVE BEEN EVALUATED AS INDICATED ABOVE

PUBLICATIONS REVIEW ACTIVITY: _____

ACTIVITY REVIEWER: _____ DATE: _____
 (signature)

FIGURE 1. Manuals Evaluation Checklist – Continued.

MIL-DTL-24784/4D(NAVY)

MANUAL ACCEPTABILITY CERTIFICATION

Procurement/Contract No.: _____
Equipment Model No.: _____
Equipment Name: _____
Manual Publication No.: _____

- ACCEPTABLE:
 - No further action required - use as is.
 - Make corrections/substitutions - (attach sheet specifying details).
 - Supplemental data is required - use completed Manuals Evaluation Checklist to fill in the Content/Format/Selection Summary Sheet.
- NOT ACCEPTABLE (Prepare TM per applicable military specification).

The above recommendation(s) are based on the completed Manuals Evaluation Checklist.

PUBLICATIONS REVIEW ACTIVITY: _____

ACTIVITY REVIEWER: _____ DATE: _____
(signature)

FIGURE 2. Manual Acceptability Certification.

MIL-DTL-24784/4D(NAVY)

CONTENT AND FORMAT SELECTION SUMMARY SHEET

SUPPLEMENTAL DATA FOR:

Manual/Publication No. _____

Procurement/Contract No. _____

Equipment Model No. _____

Equipment Name _____

Manufacturer _____

| | (1) Requirements | (2) Fill in Applicable Paragraph No. From the TMCN/TMSR | (3) Selection | |
|--|--|---|----------------------------|----------------------------|
| | | | (a) Selected Content | (b) Explanation/Remarks |
| | Style, format, form | | | |
| | Cover/title page | | | |
| | Safety precautions | | | |
| | Table of contents | | | |
| | Technical assistance and deficiency reporting | | | |
| | Maintenance forms and records | | | |
| | Administrative storage | | | |
| | Destruction of military material | | | |
| | Lubrication instructions | | | |
| | Preventive maintenance, checks and services | | | |
| | Spare and repair parts | | | |

Sheet 1 of ____

FIGURE 3. Content and Format Selection Summary Sheet.

MIL-DTL-24784/4D(NAVY)

CONTENT AND FORMAT SELECTION SUMMARY SHEET (Cont'd)

CONTRACT NO: _____

| | (1) Requirements | (2) Fill in Applicable Paragraph No. from the TMCR/TMSR | (3) Selection | |
|--|---|---|----------------------------|----------------------------|
| | | | (a) Selected Content | (b) Explanation/Remarks |
| | Other requirements | | | |
| | Copyrights and proprietary information credit line | | | |
| | Warranty information | | | |
| | Advertising | | | |
| | Equipment and model coverage | | | |
| | End item identification | | | |
| | Publication number and date | | | |

Sheet 2 of ____

FIGURE 3. Content and Format Selection Summary Sheet – Continued.

MIL-DTL-24784/4D(NAVY)

CONCLUDING MATERIAL

Custodian:
Navy – SH

Preparing activity:
Navy – SH
(Project TMSS-2017-004)

Review activity:
Navy – EC

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 <https://assist.dla.mil>.