

MIL-M-83496(USAF)  
15 November 1975

## MILITARY SPECIFICATION

MANUALS TECHNICAL: ORGANIZATIONAL MAINTENANCE  
INSTRUCTIONS, CONDENSED MAINTENANCE GUIDE  
(Avionics Systems)

This specification is approved for use by all departments and agencies of the Department of Defense.

## 1. SCOPE

1.1 This specification covers the detail requirements for preparation of maintenance instructions to be used by highly qualified and trained technicians on aircraft avionics systems. Data for these instructions is condensed and consolidated information extracted from conventional maintenance manuals for use in selected check and adjustment procedures on avionics systems. It also covers the preparation of negatives, printing requirements and binders for Condensed Maintenance Guides. When the requirements of any technical content specification conflict with the requirements herein, the requirements of this specification shall apply.

## 2. APPLICABLE DOCUMENTS

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

## SPECIFICATIONS

## Military

MIL-M-38784

Manuals, Technical: General Style and Format Requirements

MIL-P-38790

Printing Production of Technical Manuals: General Requirements for (Photolithographic Negatives, Reproduction Assembly Sheets, Printing)

(Copies of documents required by contractors, in connection with specific procurement functions, should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1. Preparation of Manual. The general manner of preparation shall be in accordance with MIL-M-38784. The applicable maintenance technical manuals shall be used as the source documents for obtaining the basic Condensed Maintenance Guide Data. The negatives, reproduction assembly sheet and printing requirements of MIL-P-38790 are applicable except as specified herein. Size of manual shall be 3 1/2 x 5 1/4 inches. Consideration should be given to sectionalizing the manual when size dictates to enhance use during maintenance. Maximum utilization shall be made of the space on each page.

3.1.1 Type size: Minimum type size shall be 8 point.

3.1.2 Artwork: Artwork used shall be prepared to MIL-M-38784.

3.1.3 Color: Color shadings will not be used. Cross-hatching, shading or similar techniques will be used in lieu of color.

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3.1.4 Style and Coverage: Sentences need not be complete when the noun is clearly understood. Sentences should begin with a verb and should describe "what" the circuit does; e.g. "(generates 4V, 10 sec pulse with a PRF of 4kh)." Articles (a,an,the) may be dropped to conserve space. If timing of a circuit needs to be described, the sentence shall begin with a "when" clause followed by a main clause beginning with a verb; e.g. "When energized, causes short pulse operation."

3.2 Arrangement. Manual shall be arranged as follows:

- Cover page
- List of Effective Pages
- Table of Contents
- General Information
- Introduction
- Built-in-Test Data
- Checks and Alignments
- Removal and Installation

3.2.1 Cover Page. The Cover page shall be prepared to MIL-M-38784.

3.2.2 List of Effective Pages. The List of Effective Pages shall be prepared to MIL-M-38784.

3.2.3 Table of Contents. A complete Table of Contents will be included for the entire manual. A Table of Contents will not be included before each section.

3.2.3.1 The Table of Contents will include a complete list of illustrations.

3.2.4 General Information. The General Information Section shall include Description and purpose and the Introduction:

3.2.4.1 Description and Purpose. Description and purpose shall include applicable system technical order numbers and titles; list of special abbreviations or reference to applicable technical order; list of common names or reference to applicable technical order; description and use of procedures, Paragraphs, tables, and figures will be numbered exactly as they appear in basic source data manual. This section will also include any precaution, danger, adjustments, circuit breaker/fuse complement and application of external equipment as required.

3.2.4.2 Introduction. Introduction shall be included under general information section and shall begin with the following standard paragraph:

"This guide is a step-by-step guide in abbreviated form for use as a reference to insure accomplishment of selected tasks by a predetermined sequence procedure. The intent of this manual is to eliminate the probability of omission of a step in the accomplishment of the intended task. The procedures contained herein are presented in the shortest practical form for use by personnel who have been certified as qualified to use the Guide, and are not intended to provide full technical instructions. The procedures contained herein are derived from, but do not replace, the detailed procedures in (insert applicable publication numbers). When malfunctions are encountered, reference to the source data (applicable technical manual) shall be made."

3.2.5 Safety Precautions. Applicable cautions and warnings will appear in the text and are repeated for emphasis.

3.2.6 Switch and Adjustment Location. Show location, item and setting of switches, controls and adjustments as specified in the source data manuals for system preparation.

3.2.7 Application of External Equipment. Instructions will be given for connecting and disconnecting external power sources and test equipment as required.

3.2.8 Built-In-Test Data. Data shall contain outline procedures applicable to built-in-test (BIT) capability.

3.2.9 Checks and Alignments. Checks and alignments will be in an abbreviated form of the basic source data manual.

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3.2.10 Servicing. When applicable, procedures for servicing the systems shall be included in appropriate section and shall contain such procedures as draining, filling and bleeding.

3.2.11 Removal and Installation. This section shall contain those common torquing values required for the system, and removal and installation procedures on selected items.

3.2.12 Diagrams. Diagrams/figures shall be included in appropriate section of the manual.

3.3 Index. An alphabetical index is not required.

3.4 Condensed Maintenance Guides shall be furnished in the form of reproducible copy, negatives, printed copies as specified in the contract. Reproducible copy shall be so prepared that printing can be accomplished in 3 1/2 x 5 1/4 inch page size.

3.5 Style and Format of Text Pages. Pages will be printed head to foot and shall show the publication number in the lower right-hand corner.

3.5.1 Margins. The printing area of each page is as follows:

Over-All Page Size	Printing area	Top/Bottom Margin	Unbound/Bound or Right/Left Margin
3 1/2 x 5 1/4"	3 x 4 1/4" image	# T 3/4" B 1/4"	U 1/4"

# for odd-numbered pages, reverse for even numbered pages. See Figure 1 for dimensions.

3.5.2 Printing. Printing and drilling will be as follows:

Size	Paper	Color	Arrangement	Drilling
3 1/2 x 5 1/4"	JCP o4o, 160 lbs	White	Head to Foot	* 3 1/4" holes

\* 3 holes 1/4" - dead centered and 1" center to center; center hole - dead center of book - across top - head to foot.

3.6 Changes and revisions. The requirements of MIL-M-38784 are applicable.

4. QUALITY ASSURANCE. Quality assurance provisions shall be in accordance with MIL-M-38784 and MIL-P 38790.

#### 5. PREPARATION FOR DELIVERY

5.1 Packaging, packing and marking for shipment shall be in accordance with MIL-M-38784 and MIL-P-38790.

#### 6. NOTES

6.1 Intended use. Technical manuals prepared in accordance with the requirements of this specification are intended for use by trained and highly qualified personnel in accomplishing daily routine maintenance of aircraft avionics systems. These manuals are for use in conjunction with conventional avionics maintenance manuals.

CUSTODIAN:  
Air Force - 16

PREPARING ACTIVITY:  
Air Force - 16

REVIEW ACTIVITIES:  
Air Force -01,10,11,70,71,80,82,84

PROJECT NO. TMSS - F419

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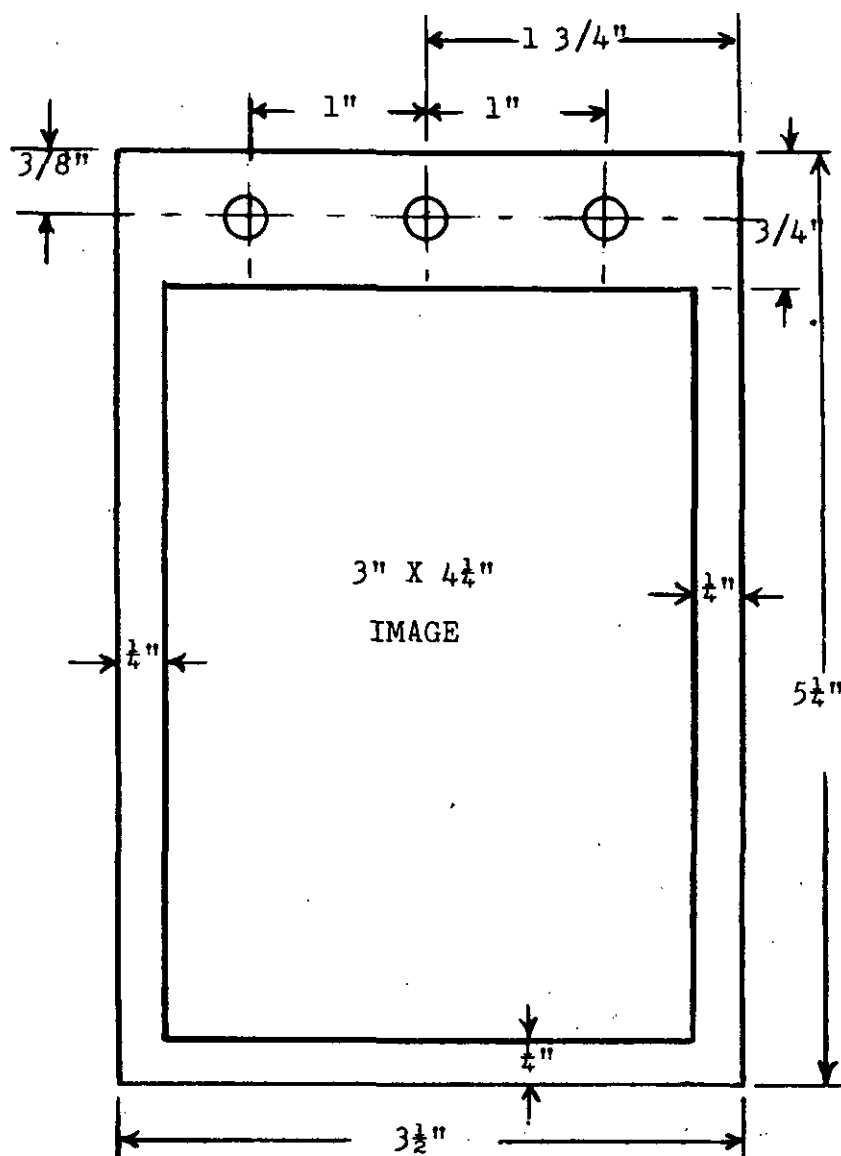


Figure 1. Condensed Maintenance Guide Printing and Drilling Dimensions.