

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

Aviation Intermediate and Depot Maintenance

Repair Parts and Special Tools List

ARMAMENT SUBSYSTEM, HELICOPTER

7.62 MILLIMETER MACHINE GUN:

HIGH RATE M27E1

(NSN 1005-00-933-6242)

(USED ON OH-6A AND OH-58A HELICOPTERS)

**This copy is a reprint which includes
current pages from Changes 1 through 3.**

HEADQUARTERS, DEPARTMENT OF THE ARMY

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To implement the 3-level maintenance concept, the following changes will be made to this manual, as applicable:

- a. Substitute the words Aviation Unit maintenance for Crew/Operator and Organizational maintenance (first level of maintenance). Also, wherever the symbol for Crew/Operator maintenance (C) is used, change to the symbol for Aviation Unit maintenance (O).
- b. Substitute the words Aviation Intermediate maintenance for Direct Support and General Support maintenance (second level of maintenance). Also, wherever the symbol for General Support maintenance (H) is used, change to the symbol for Aviation Intermediate maintenance (F).
- c. The Depot level of maintenance remains the same (third level of maintenance).
- d. Under the new 3-level maintenance concept, the maintenance codes are as follows: Aviation Unit Maintenance (O), Aviation Intermediate Maintenance (F), and Depot Maintenance (D).

This manual is current as of 24 February 1969

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*This manual supersedes TM 9-1005-298-35P, 19 May 1967.

DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

1. Scope.

This manual lists repair parts, special tools and test and support equipment required for the performance of direct support, general support and depot maintenance of the armament subsystem XM27E1.

2. General.

This Repair Parts and Special Tools List is divided into the following sections:

a. Repair Parts-Section II. A list of repair parts authorized for the performance of maintenance at the direct support, general support and depot level in figure and item number sequence.

b. Special Tools, Test and Support Equipment-Section III. A list of special tools, test and support equipment authorized for the performance of maintenance at direct support, general support, and depot level.

c. Federal Stock Number and Reference Number Index-Section IV. A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alpha-numeric sequence, cross-referenced to the illustration figure number and item number.

3. Explanation of Columns.

The following provides an explanation of columns in the tabular lists in Sections II and III.

a. Source, Maintenance, and Recoverability Codes (SMR), Column 1:

(1) Source code, indicates the selection status and source for the listed item. Source codes used are:

Code	Explanation
P	Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system and authorized for use at indicated maintenance categories.
P2	Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system.

Code	Explanation
P9	Assigned to items which are NSA design controlled: unique repair parts, special tools, test, measuring and diagnostic equipment, which are stocked and supplied by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41.
P10	Assigned to items which are NSA design controlled: special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and with are stocked and supplied by the Army COMSEC logistic system.
M	Repair parts which are not procured or stocked, but are to be manufactured at indicated maintenance levels.
A	Assemblies which are not procured or stocked as such, but which are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately, and can be assembled to form the required assembly at indicated maintenance categories.
X	Parts and assemblies which are not procured or stocked and the mortality of which normally is below that of the applicable end item or component. The failure of such part or assembly should result in retirement of the end item from the supply system.
X1	Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component.
X2	Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.
G	Major assemblies that are procured with PEMA funds for initial issue only to be used as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DSU and GSU level or returned to Depot supply level.

(2) Maintenance Code, indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are:

Code	Explanation
C	Operator/crew maintenance
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenance

(3) Recoverability Code, indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	Explanation
R	Applied to repair parts (assemblies and components) which are considered economically repairable at Direct and General support maintenance levels. When the maintenance capability to repair these items does not exist, they are normally disposed of at the GS level. When supply considerations dictate, some of these repair parts may be listed for automatic return to supply for Depot level repair as set forth in AR 710-50. When so listed, they will be replaced by supply on an exchange basis.
S	Repair parts and assemblies which are economically reparable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU activity to be uneconomically repairable, they will be evacuated to a depot for evaluation and analysis before final disposition.
T	High dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.
U	Repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, or high dollar value reusable casings or castings.

b. Federal Stock Number, Column 2. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description, Column 3. This column indicates the Federal item name and any additional description of the item required. The abbreviation "w/e", when used as a part of the nomenclature, indicates the Federal stock number includes all armament, equipment, accessories, and repair parts issued with the item. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses.

d. Unit of Measure (U/AM), Column 4. A 2 character alphabetic abbreviation indicating the amount

or quantity of the item upon which the allowances are based, e.g., ea, pr, ft, etc.

e. Quantity Incorporated in Unit, Column 5. This column indicates the quantity of the item used in the assembly group. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated (eg., shims, spacers, etc.).

f. 30-Day DS/GS Maintenance Allowances, Column 6 and 7.

Note. Allowances in GS column are for GS maintenance only.

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn opposite the first appearance of each item is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS/GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example, authorized allowance for 51-100 equipments is 40; for 150 equipments, multiply 40 by 1.50 or 60 parts required.

g. 1-Year Allowances Per 100 Equipments/Contingency Planning Purposes, Column 8. This column indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for one year.

h. Depot Maintenance Allowance Per 100 Equipments, Column 9. This column indicates, opposite the first appearance of each item, the total quantity authorized for depot maintenance of 100 equipments. Subsequent appearances of the same item will have the letters "REF" in the allowance column. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

i. *Illustration, Column 10.* This column is divided as follows:

(1) *Figure Number, Column 10a.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number, Column 10b.* Indicates the callout number used to reference the item in the illustration.

4. Special information.

a. Identification of the usable on codes in Column 3 of the publication are:

Code	Used On
A	Control Box Subassemblies 0001-0329
B	Control Box Subassemblies 0330 up

b. The following publications pertain to DS/GS maintenance for helicopter armament sub-system XM27E1 and its components:

LO 9-1005-298-12	Lubrication Order
TM 9-1005-298-12	Operator and Organizational Maintenance Manual
TM 9-1005-298-20P	Organizational Maintenance Repair Parts and Special Tools List
TM 9-1005-298-34	Direct Support and General Support Maintenance Manual
TM 9-4005-298-ESC	Equipment Serviceability Criteria

5. How to Locate Repair Parts.

a. When Federal stock number or reference number is unknown:

(1) *First.* Using the table of contents, determine the assembly group or subgroup i.e. mount assembly, gun assembly, helicopter reflex sight XM70E1, etc., within which the repair part belongs. This is necessary since illustrations are prepared for assembly groups or subgroups, and listings are divided into the same groups.

(2) *Second.* Find the illustration covering the assembly group or subgroup to which the repair part belongs.

(3) *Third.* Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) *Fourth.* Using the Repair Parts Listing, find the assembly group or subgroup to which the repair part belongs and locate the illustration figure and item number noted on the illustration.

b. When Federal stock number or reference number is known:

(1) *First.* Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or reference number. This index is in ascending FSN sequence followed by a list of reference numbers in ascending alpha-numeric sequence, cross-referenced to the illustration figure and item number.

(2) *Second.* Using the Repair Parts Listing, find the assembly group or subgroup of the repair part and the illustration figure number and item number referenced in the Index of Federal Stock Numbers and Reference Numbers.

6. Abbreviations.

Abbreviations	Explanation
AWG -----	American wire gauge
EA -----	Each
NF -----	National fine thread
UNF -----	Unified national fine thread
UNC -----	Unified national coarse thread

7. Federal Supply Codes for Manufacturers.

Code	Manufacturer
00462 -----	Western Gear Corp. Electro Products Division Pasadena, California
02731 -----	Hughes Tool Company-Aircraft Division Culver City, California
06952 -----	Insulation Supply Co. Los Angeles, California
07878 -----	System Engineering Group, Wright Patterson Air Force Base, Dayton, Ohio 45433
15491 -----	Curtis and Curtis Co. Bridgeport, Connecticut
18894 -----	Directorate of Armament Development Research and Technology Division Elgin Air Force Base, Florida
19204 -----	Rock Island Arsenal Rock Island, Illinois
19205 -----	Springfield Armory Springfield, Massachusetts
80205 -----	National Aerospace Standards Committee, Aeronautical Industries Association of America Washington, D. C.
81349 -----	Military Specifications Promulgated by Standardization Division Directorate of Logistic Services DSA
88044 -----	Aeronautical Standards Group Department of Navy and Air Force
96906 -----	Military Specifications Promulgated by Standardization Division Directorate of Logistic Services DSA

* Responsibility for Springfield Armory (19205) has been assumed by Rock Island (19204).

8. Recommendations for Maintenance Publication Improvements.

Report of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form

2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, Headquarters, U. S. Army Weapons Command, ATTN: AMSWE-SIMM-P, Rock Island, Illinois 61201.

Section II. REPAIR PARTS LIST

(1) SMR Code	(2) Federal Stock No.	(3) Description Reference Number & Mfr. Code & Mfr. Code Usable on Code	(4) Unit of meas	(5) Qty inc in unit	(6) 30-Day DS maint. allowance			(7) 30-Day GS maint. allowance			(8) 1-yr alw per 100 equip cntgcy	(9) Depot main alw per 100 equip	(10) Illustration	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) Figure No.	(b) Item No.
		COMPONENTS OF MAJOR COMBINATION												
A O		GUN ASSEMBLY ----- 11697410 (02731)	EA	1	..	..	..	..	..		..	...	1	1
P O	1005-443-9907	RAM AIR DUCT ASSEMBLY ----- 1697793 (19204)	EA	1	2	2	2	2	2	2	24	12	1	2
X1		MOUNT ASSEMBLY ----- 11697405 (02731)	EA	1	..	..	..	..	..	..	..	..	1	3
P O R	1270-832-5895	SIGHT ASSEMBLY REFLEX XM70E1 W/CARRYING CASE----- 10549665 (02731)	EA	1	*	2	2	*	2	2	24	15	1	4
X2	1005-464-3014	DECAL ----- 11697403 (02731)	EA	1	..	..	..	..	..	..	..	..	1	5
		GUN ASSEMBLY 11697410 (02731)												
P O	5305-059-3662	SCREW, MACHINE ----- MS51958-66 (96906)	EA	1	2	2	2	2	2	2	..	100	2	1
P O	5305-059-3660	SCREW, MACHINE ----- MS51958-64 (96906)	EA	1	2	2	2	2	2	2		100	2	2
P O	5340-998-0611	CLAMP, LOOP ----- MS25281F3 (96906)	EA	2	2	2	2	2	2	2	..	24	2	3
P O	9505-331-3275	WIRE, CORROSION - RESISTANT STEEL ----- MS20995C41 (96906)	FT	V	*	*	2	*	2	2	..	1	2	4
P O	5305-898-6498	SCREW SHOULDER ----- 11697842 (02731)	EA	2	*	2	2	*	2	2		24	2	5
P O	1005-990-9281	SENSING UNIT AND CABLE ASSEMBLY ----- 1169476 (02731)	EA	1	*	*	2	*	*	2	..	8	2	6
P O	5340-921-5135	PIN, QUICK, RELEASE ----- 63B10948 (19205)	EA	2	..	..	..	..	..	..	..	..	2	7
P O	1005-115-2607	LANYARD ASSEMBLY ----- 8447994 (02731)	EA	1	..	..	..	..	..	..	..	..	2	8
P O	1005-921-6241	FEEDER, DELINKING: MAU-56/A ----- 11701120 (19205)	EA	1	..	..	..	..	..	..	..	..	2	9
P O	5305-912-4818	SCREW, MACHINE----- MS35276-261 (96906)	EA	1	2	2	3	2	2	2	..	500	2	10
P O	1005-891-7924	GUIDE, NOSE ----- 11697451 (02731)	EA	1	*	*	2	*	*	2	..	4	2	11
P O	1005-938-8226	CHUTE, EJECTION ----- 11697411 (02731)	EA	1	*	2	2	*	2	2	..	12	2	12
P O	1005-933-6236	CHUTE, EJECTION ----- 11697604 (02731)	EA	1	2	2	2	2	2	2	..	24	2	13
P F	5320-117-6936	RIVET ----- MS20426AD3-2 (96906)	EA	6	2	3	5	2	2	3	..	2400	2	14