TECHNICAL MANUAL

Operator and Organizational Maintenance Repair Parts and SPECIAL TOOLS LIST AND MAINTENANCE ALLOCATION CHART SIGNAL GENERATORS TS-497/URR, TS-497A/URR, TS-497B/URR, AND TS-497C/URR

TM 11-6625-253-12P
CHANGES NO. 2

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *22 August 1962*

TM 11-6625-253-12P, 18 May 1960, is changed as follows:

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* These changes supersede C 1, TM 11-6625-253-12P, 18 September 1961.

TAGO 5877-A

Page	Action	2 Federal stock No.	3 Designation by model 1	2	3	4	4 Description	5 Unit of issue	6 Expend-ability	7 Quantity authorized
4	(As changed by C 1, 18 Sept 61).	5120-224-2504	†	†	†	†	WRENCH, ALLEN: ***			
	(As added by C 1, 18 Sept 61).	5905-230-5162	†	†	†	†	ATTENUATOR, FIXED: Davenco No. RFC-155-50-6	ea	X	1
5	(As changed by C 1, 18 Sept 61).	5960-188-0968 (5960-188-0963)					ELECTRON TUBE: ***			
	(As changed by C 1, 18 Sept 61) Add daggers (†) column 3-3 and 3-4.	5960-116-9978	†	†	†	†	ELECTRON TUBE: ***			
	Add item	5960-166-7663		†	†	†	ELECTRON TUBE: JAN type 12AU7	ea	X	1

Parentheses indicate old stock number preceded by new.

BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

DASA (6)
USASA (2)
CNGB (1)
Tech Stf, DA (1)
except CSigO (14)
Tech Stf Bd (1)
USCONARC
USAARTYBD (1)
USAARAMBD (2)
USAIB(1)
USARADBD (1)
USAAVNBD (1)
USAABELCTBD (1)
USAATBD (1)
ARADCOM (2)
ARADCOM Rgn (2)
OS Maj Comd (3)
OS Base Comd (2)
LOGCOMD (2)
MDW (1)
Armies (2)
Corps (2)
Instl (2) except
Ft Monmouth (63)
USATC Armor (2)
USATC Engr (2)
USATC FA (2)
USATC Inf (2)
USAOMC (3)
Svc Colleges (2)
GENDEP (2) except
Atlanta GENDEP (None)
Sig Sec, GENDEP (5)
Sig Dep (12) except
Sacramento Sig Dep (17)
USA Trans Tml Comd (1)
Army Tml (1)
POE (1)
OSA (1)
WRAMC (1)
Div (2)
USAPRDC (5)
AGP (5)
Blue Grass Ord Dep (5)
Pueblo Ord Dep (5)
Umatilla Ord Dep (5)
Detroit Arsenal (5)
JCA (5)
USAEPG (2)
AFIP (1)
AMS (1)
Army Pic Cen (2)
EMC (1)
USA Strat Comm Comd (4)
USASSA (25)
USASSAMRO (1)
USARCARIB Sig Agcy (1)
USA Sig Msl Spt Agcy (13)
Sig Fld Maint Shops (3)
USA Corps (3)
Def Log Svc Cen (1)
JBUSMC (2)
White House Army Sig Agcy (5)
USASRDL (5)
Units org under fol TOE:
5-500 (AA-AD) (2)
5-600 (2)
5-605 (2)
9-47 (2)
9-87 (2)
9-227 (2)
9-500 (AA-AC) (2)
11-5 (2)
11-6 (2)
11-7 (2)
11-15 (2)
11-16 (2)
11-17 (2)
11-36 (2)
11-55 (2)
11-56 (2)
11-57 (2)
11-85 (2)
11-86 (2)
11-87 (2)
11-96 (2)
11-97 (2)
11-98 (2)
11-117 (2)
11-155 (2)
11-157 (2)
11-500 (AA-AE) (2)
11-500 (RM-RT) (2)
11-555 (2)

11-557 (2)
11-587 (2)
11-592 (2)
11-597 (2)
11-608 (2)
29-1 (2)
29-21 (2)
29-25 (2)
29-26 (2)
29-35 (2)
29-36 (2)
29 56 (2)
32-57 (2)
44-8 (2)
44 435 (2)
44-436 (2)
44-437 (2)
44 445 (2)
44 146 (2)
44-447 (2)
44-448 (2)
44-535 (2)
44-536 (2)
44 537 (2)
44-544 (2)
44 545 (2)
44-546 (2)
44-547 (2)
44-548 (2)

NG: State AC (3); unit-same as active Army except allowance is one copy to each unit.

USAR: None.

For explanation of abbreviations used, see AR 320-50.

TAGO 5877-A

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DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST AND MAINTENANCE ALLOCATION CHART SIGNAL GENERATORS TS-497/URR, TS-497A-URR, TS-497B/URR, AND TS-497C/URR

Headquarters, Department of the Army, Washington 25, D. C.
18 May 1960

SECTION I
INTRODUCTION

1. Scope

a. This manual includes an operator's maintenance repair parts and special tools list, an organizational maintenance repair parts and special tools list, and a maintenance allocation chart.

b. The operator's maintenance repair parts and special tools list lists items supplied for initial operation and for running spares. The list includes accessories, parts and material issued as part of the major end item. All items authorized for basic operator maintenance of the equipment are also listed.

* This manual supersedes TM 11-6625-253-12P, 15 July 1959.

c. The organizational maintenance repair parts and special tools list lists the quantities of repair parts for organizational maintenance and is a basis for requisitioning by organizations which are authorized the major item of equipment. End items of equipments are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

d. The maintenance allocation chart assigns maintenance functions and repair operations to be performed by the lowest appropriate maintenance echelon.

e. Columns are as follows:

(1) *Source, maintenance, and recoverability code*. Not used.

(2) *Federal stock number.* This column lists the 11-digit Federal stock number.

(3) *Designation by model.* A dagger (†) indicates the model in which the part is used.

(4) *Description.* Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description on the requisition.

(5) *Unit of issue.* The unit of issue is the supply term applied to the smallest quantity by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

(6) *Expendability.* Expendable items are indicated by the letter X; nonexpendable items are indicated by NX.

(7) *Quantity authorized.* Under "Items Comprising an Operable Equipment" the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spares and Accessory Items" the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

(8) *Quantity incorporated in unit.* This column lists the quantity of each part found in a given assembly, component, or equipment.

(9) *Organizational.* The quantities indicated in these columns are maximum levels of repair parts authorized to be kept on hand by units performing organizational maintenance. The quantities are based on 100 equipments to be maintained for a 15-day period.

(10) *Illustration.* The "Item No." column lists the reference designations used for identification of the items in the illustration or text of the manual.

2. Parts for Maintenance

When this equipment is used by signal service organizations organic to the theater headquarters or communication zones to provide theater communications, those repair parts authorized up to and including fourth echelon are authorized for stockage by the organization operating this equipment.

3. Requisitioning Information

a. The allowance factors are based on 100 equipments. In order to determine the number of parts authorized for the specific number of equipments supported, the following formula will be used and carried out to two decimal places:

$$\text{Specific number of equipments supported} \times \frac{\text{allowance factor}}{100} = \text{Number of parts authorized.}$$

b. Fractional values obtained from above computation will be rounded to whole numbers as follows:

(1) When the total number of parts authorized is less than one, the quantity authorized will be one.

(2) For all values above one, fractional values below 0.50 will revert to the next lower number, fractional values of 0.5 or larger will advance to the next higher whole number.

c. The number of parts authorized, determined after application of a and b above, represent one prescribed load for a 15-day period. The items and computed quantities thereof must be on hand or on order at all times.

d. Major commanders will determine the number of prescribed loads second echelon units and organizations will carry. Unit and organizations authorized additional prescribed loads will utilize the formula explained in a above but will multiply the number of equipments supported by the number of authorized prescribed loads before completing the formula. Fractional values will be rounded to whole numbers as described above.

4. Critical Items

A zero slash (∅) in the "Description" column indicates items that are expected to fail during the first year; also items that will make the equipment inoperative if they fail.

5. Electron Tubes

The consumption rates given for tubes are conservative theoretical estimates, and are provided for use only where no better information, such as data based on operating experience, is available. These figures are based on levels and requirements for equipment actually in use, not on authorizations or equipment stored in depots.

6. Additional Repair Ports

Additional repair parts which may be required for performing organizational maintenance, but are not authorized for stockage in the prescribed load are identified by an asterisk (*) and are to be requisitioned as required, for immediate use only. Refer to AR 700-18.

7. Comments or Suggestions

Any comments concerning omissions and discrepancies in this manual will be prepared on DA Form 2028 and forwarded direct to Commanding Officer, U. S. Army Signal Equipment Support Agency, Fort Monmouth, N. J., ATTN: SIGFM/ES-ML.

SECTION II. FIRST ECHELON FUNCTIONAL PARTS LIST

(1) SOURCE MAINT AND RECOV CODE	(2) FEDERAL STOCK NO.	(3) DESIGNATION BY MODEL				(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPEND-ABILITY	(7) QTY INC. IN UNIT	(8) ILLUS-TRATIONS FIG. NO.	(9) ILLUS-TRATIONS ITEM NO.
		1	2	3	4						
						ITEMS COMPRISING AN OPERABLE EQUIPMENT					
						SIGNAL GENERATOR TS-497/URR: TS-.497A, B, C/URR					
						NOTE: Model Column 1 refers to TS-197/URR: Column 2 refers to TS-1974/URR: Column 3 refers to TS-497B/URR: Column 4 refers to TS-197C/URR					
	6625-669-025	†	†	†	†	SIGNAL GENERATOR TS-497/URR:; TS-197A, B, C/URR	ea	NX			
	Order thru AGC		†			TECHNICAL MANUAL TM 11-5030	ea	X	2		
	Order thru AGC			†	†	TECHNICAL MANUAL TM 11-5030A	ea	X	2		
	Order thru AGC	†	†	†	†	TECHNICAL MANUAL TM 11-6625-253-12P	ea	X	2		
	6625-191-3732	†	†	†	†	CABLE ASSEMBLY. RADIO FREQUENCY GC-683/U	ea	X	1		
	5945-280-3922	†	†	†	†	CABLE ASSEMBLY, RADIO FREQUENCY CG-550/U	ea	x	1		
	6625-503-2363	†	†	†	†	CABLE ASSEMBLY, RADIO FREQUENCY CG-935/U	ea	x	1		
	6625-203-1549			†	†	COVER, TEST SET: Daven Co No. 6+23	ea	x	1		
	5120-224-2504	†				WRENCH, ALLEN: 5/64 in across flats; fits No. 8 setscrew	ea	x	1		

(1) SOURCE MAINT AND RECOV CODE	(2) FEDERAL STOCK NO.	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPEND-ABILITY	(7) QTY INC. IN UNIT	(8) ILLUS-TRATIONS FIG. NO.	(9) ILLUS-TRATIONS ITEM NO.
		1 2 3 4	TS-497/URR; TS-497A, B, C/URR (continued)					
			RUNNING SPARES AND ACCESSORY ITEMS					
			SIGNAL GENERATOR TS-497/URR: TS-497A, B, C/URR					
	5960-224-4868		∅ CRYSTAL UNIT, RECTIFYING: MIL type IN21B	ea	X	2		
	5960-188-3565		∅ ELECTRON TUBE: JAN type 0A3	ea	X	1		V4
	5960-188-0963		∅ ELECTRON TUBE: JAN type 0C3W	ea	X	1		V6
	5960-262-0218		∅ ELECTRON TUBE: JAN type 5Y3WGTA	ea	X	1		V5
	5960-262-0162		∅ ELECTRON TUBE: JAN type-6AU6WA	ea	X	1		V7
	5960-100-5268		∅ ELECTRON TUBE: JAN type 6SJ7Y	ea	X	1		
	5960-235-9106		∅ ELECTRON TUBE: JAN type 6SL7GT	ea	X	1		
	5960-188-3577		∅ ELECTRON TUBE: JAN type 6SN7WGT	ea	X	1		
	5960-100-5893		∅ ELECTRON TUBE: JAN type 6V6	ea	X	1		
	5960-166-7664		∅ ELECTRON TUBE: JAN type 12AX	ea	X	1		
	5960-116-9978		∅ ELECTRON TUBE: JAN type 955	ea	X	1		
	5960-248-3089		∅ ELECTRON TUBE: JAN type 6005/6AQ5W	ea	X	2		V1 V2
	5920-142-7383		∅ FUSE. CARTRIDGE: MIL type F02G1800A	ea	X	5		F1
	6240-057-2887		∅ LAMP, INCANDESCENT: GE No. 44	ea	X	1		E1
	6240-143-7510		∅ LAMP, INCANDESCENT: GE No. 3S6/5	ea	X	1		E4
	5120-198-5401		WRENCH, SOCKET HEAD SCREW: Allen type hex, "L" shape 0.50	ea	X	1		
	5120-198-5398		WRENCH, SOCKET HEAD SCREW TL-567/U	ea	x	1		
	5120-242-7410		WRENCH, SOCKET HEAD SCREW: Allen No. 3/32	ea	X	0		

SECTION III. SECOND ECHELON FUNCTIONAL PARTS LIST

(1) SOURCE MAINT AND RECOV CODE	(2) FEDERAL STOCK NO.	(3) DESIGNATION BY MODEL	(4) DESCRIPTION	(5) UNIT OF ISSUE	(6) EXPEND-ABILITY	(7) QTY INC. IN UNIT	(8) ORGANI-ZATIONAL 15 DAYS MAINT ALLOW PER 100 EQUIPS 2ND	(9) (10) ILLUS-TRATIONS FIG. NO.	ITEM NO.
			SIGNAL GENERATOR TS-497A, B, C/URR						
			NOTE: Model Column 1 refers to TS-107A/URR: Column 2 refers to TS-197B/URR; Column 3 refers to TS-497C/URR						
	6625 669-0258	† † †	SIGNAL GENERATOR TS-497A, B, C/URR	ea	NX				
	5905-230-5162	† †	∅ ATTENUATOR, FIXED: Daven Co No. RFC-155-50-6	ea	X	1	*		Z1
	5920-281-9203	† † †	CAP, ELECTRICAL: for fuseholder: Buss No. HKP-BL	ea	X	1	*		
	5940-177-1694	†	CLIP, ELECTRICAL: ruse clip; Littelfuse No. 121002	ea	X	6	*		
	5935-516-9653	† † †	∅ CONNECTOR, PLUG. ELECTRICAL: MTL type UP-121M	ea	X	1	*		
	5960-188-3565	† † †	∅ ELECTRON TUBE: JAN type OA3	ea	X	1	*		V4
	5960-188-0963	† † †	∅ ELECTRON TUBE: JAN type OC3W	ea	X	1	*		V6
	5960-262-0218	† † †	∅ ELECTRON TUBE: JAN type 5Y3WGTA	ea	X	1	*		V5
	5960-262-0152	† † †	∅ ELECTRON TUBE: JAN type 6AU6WAA	ea	X	1	*		V7
	5960-166-7664	†	∅ ELECTRON TUBE: JAN type 12AX	ea	X	1	2		
	5960-248-3089	† † †	∅ ELECTRON TUBE: JAN type 6005/6AQ5W	ea	X	2	*		V1 V2
	5920-142-7353	† † †	∅ FUSE, CARTRIDGE: MIL type F02G1R00AA	ea	X	1	2.9		F1
	6625-692-6508	† †	KNOB: 2 white lines; Munston No. 361.149	ea	X	1	*		
	5355-667-9547	†	KNOB: single white dot: Daven Co No. 6269	ea	X	1	*		
	6625-668-9383	†	KNOB: Mod: Daven Co No. 6270	ea	X	1	*		
	5355-667-9051	† † †	KNOB: her type: SigC dwg No. SC-B-60963	ea	x	1	*		
	5355-668-1381	† †	KNOB: ext pulse; Molded insulation No. VIZ-A	ea	X	3	*		
	6240-057-2887	† † †	∅ LAMP, INCANDESCENT: GE No. 44	ea	X	1	0.8		E1
	6240-143-7516	† † †	∅ INCANDESCENT: GE No. 3S6/5	ea	X	1	0.8		E4
	5960-273-2460	†	RETAINER, ELECTRON TUBE: Timesfax type No. 2T hat	ea	X	1	*		
	5960-241-2909	†	RETAINER, ELECTRON TUBE: Timesfax type 3 hat	ea	X	2	*		
	5960-537-4085	†	RETAINER, ELECTRON TUBE: Cinch No. Elco No. ST-129	ea	X	1	*		
	5960-262-0015	† †	SHIELD, ELECTRON TUBE: JAN type TS102U01	ea	X	1	*		
	5960-295-76S2	† † †	SHIELD, ELECTRON TUBE: JAN type TS102U03	ea	X	2	*		
	5960-264-3004	† † †	SHIELD, ELECTRON TUBE: JAN type TS103U02	ea	X	2	*		
	5960-272-9094	† † †	SHIELD, ELECTRON TUBE: JAN type TS102U02	ea	X	1	*		

SECTION IV
MAINTENANCE ALLOCATION

8. General

a. The maintenance allocation portion of this manual assigns maintenance functions and repair operations to be performed by the lowest appropriate maintenance echelon.

b. Columns in the maintenance allocation chart are as follows:

(1) *Part or component*. Only the nomenclature or standard item name is shown in this column. Additional descriptive data is included only where clarification is necessary to identify the part. Components and parts comprising a major end item are listed alphabetically. Assemblies and subassemblies are in alphabetical sequence with their components listed alphabetically immediately below the assembly listing.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelon capable of performing the operations. These are defined as follows:

(a) Adjust. To regulate periodically to prevent malfunction.

(b) Inspect. To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(c) Test. To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc.

(d) Replace. To substitute serviceable assemblies, subassemblies, and parts for unserviceable components.

(e) Repair. To restore to a serviceable condition by replacing unserviceable parts or by any other action required utilizing tools, equipment, and skills available, to include welding, grinding, riveting, straightening, adjusting, etc.

(f) Align. To adjust two or more components of an electrical system so that their functions are properly synchronized.

(g) Calibrate. To determine, check, or rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.

(3) *1st, 2d, 3d, 4th, 5th echelon.* The symbol X indicates the echelon responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than the echelon marked by X are authorized to perform the indicated operation.

(4) *Tools required*. This column indicates codes assigned to each individual tool equipment, test equipment, and maintenance equipment referenced. The grouping of codes in this column of the maintenance allocation chart indicate the tool, test, and maintenance equipment required to perform the maintenance function.

(5) *Remarks*. Entries in this column will be utilized when necessary to clarify any of the data cited in the preceding columns.

c. Columns in the section allocation of tools for maintenance functions are defined as follows:

(1) *Tools required for maintenance functions.* This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* A dagger (†) symbol indicates the echelons allocated the facility.

(3) *Tool Code.* This column lists the tool code - assigned.

(4) *Remarks.* Entries in this column are used to clarify data in the other columns.

9. Maintenance by Using Organizations

When this equipment is used by signal service organizations organic to theater headquarters or communication zones to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

10. Mounting Hardware

The basic entries of the maintenance allocation chart do not include mounting hardware such as screws, nuts, bolts, washers, brackets, clamps, etc.

MAINTENANCE ALLOCATION CHART

PART OR COMPONENT (1)	MAINT. FUNCTION (2)	1ST ECH. (3)	2ND ECH. (4)	3RD ECH. (5)	4TH ECH. (6)	5TH ECH. (7)	TOOLS REQUIRED (8)	REMARKS (9)
SIGNAL GENERATOR TS-497A, B, C/URR								
	repair					X		
	inspect				X	X	18	
	test				X	X	1,2,3,4,5,6,7 8,9,10,11,12,13 14, 15, 16	
	adjustment				X	X	5,17	
	align				X	X	10,17,18	
	calibrate				X	X	5,8,10,15,17,18	
AMMETER	replace				X			
ARM	replace				X			
ATTENUATOR, FIXED	replace		X					
CLAMP, ELECTRICAL	replace				X			
ATTENUATOR, VARIABLE	replace				X			
CABLE, ATTENUATOR DRIVE	replace				X			
BLOCK	replace				X			Fabricated if required
BOLOMETER KIT	replace				X			
BRACKET	replace				X			Fabricate it required
BUSHING	replace				X			Fabricate it required
CABLE ASSEMBLY, POWER ELECTRICAL	repair			X				
CABLE, POWER, ELECTRICAL	replace			X				
CONNECTOR, PLUG, ELECTRICAL	replace		X					
CABLE ASSEMBLY, RADIO FREQUENCY	repair			X				
BINDING POST ASSEMBLY	repair					X		
HOUSING ALUMINUM	replace					X		Fabricate it required
PLATE, PHENOLIC, MOUNTING	replace					X		Fabricate it required
POST, BINDING	replace			X				
RESISTOR	replace				X			
CABLE, RADIO FREQUENCY	replace			X				
CONNECTOR, PLUG, ELECTRICAL	replace			X				
CAN ASSEMBLY	repair				X			
CAN	replace				X			Fabricate if required
BUSHING	replace				X			Fabricate it required
CAP, ELECTRICAL	replace				X			Fabricate if required
CAPACITORS	replace				X			
CASE ASSEMBLY	repair					X		Fabricate if required
CASE (less front panel end front and back covers)	replace					X		Fabricate it required

PART OR COMPONENT (1)	MAINT. FUNCTION (2)	1ST ECH. (3)	2ND ECH. (4)	3RD ECH. (5)	4TH ECH. (6)	5TH ECH. (7)	TOOLS REQUIRED (8)	REMARKS (9)
TS-497A, B, C/URR (continued)								
CATCH, LUGGAGE	replace				X			
HANDLE, LUGGAGE	replace					X		Fabricate or obtain from salvage
RAIL	replace					X		Fabricate it required
COMPARTMENTS	replace					X		Fabricate if required
	repair					X		
DOOR	replace					X		Fabricate it required
POUCH	replace				X			Fabricate it required
COVERS, FRONT AND BACK	replace					X		Fabricate it required
CLAMP	replace					X		Fabricate if required
STRIKE, CATCH	replace				X			
CLIP, SPRING TENSION	replace				X			Fabricate it required
COIL, RADIO FREQUENCY	replace				X			
CONNECTORS, RECEPTACLE, ELECTRICAL	replace				X			
COVER, ELECTRICAL CONNECTOR	replace					X		Fabricate if required
DETENT	replace				X			Fabricate if required
DIAL, CONTROL	replace				X			For A Model only
DIAL, CONTROL	replace		X					For Model B, C only
DIAL, LOCK	replace				X			Obtain free salvage or local procurement
DISC	replace				X			Fabricate if required
ELECTRON TUBES: except Ref Vll	replace	X						
ELECTRON TUBE: Ref VII	replace				X			
FUSE, CARTRIDGE	replace	X						
FUSE CLIP	replace			X				
FUSEHOLDER	replace			X				
CAP, ELECTRICAL	replace		X					
GROMMET, RUBBER	replace			X				
HOLDER, SEMICONDUCTOR DEVICE	replete				X			
CAP, ELECTRICAL	replace				X			
CAPACITOR	replace				X			
INDICATOR	replace				X			Fabricate if required
INSULATED TERMINAL (STANDOFF)	replace				X			

PART OR COMPONENT (1)	MAINT. FUNCTION (2)	1ST ECH. (3)	2ND ECH. (4)	3RD ECH. (5)	4TH ECH. (6)	5TH ECH. (7)	TOOLS REQUIRED (8)	REMARKS (9)
TS-497A, B , C/URR (continued)								
INSULATOR, WASHER	replace				X			Fabricate it required
JACK, TELEPHONE	replace				X			
KNOBS	replace		X					
LAMPS, INCANDESCENT	replace		X					
LAMPHOLDER	replace			X				
LOCKWASHER	replace		X					Available in Maintenance Equipment NE-9 and Tool Equipment TE-113
MASK, DIAL	replace					X		Fabricate it required
NUT, PLAIN, HEXAGONAL	replace		X					Available in Maintenance Kit ME-9 and Tool Equipment TE-113
NUT, PLAIN, KNURLED	replace				X			
PAD	replace				X			Fabricate if required
PANEL CHASSIS ASSEMBLY	repair					X		
FRAME	replace					X		Fabricate if required
PANEL	replace					X		Fabricate it required
COVER, DIAL MECHANISM	replace					X		Fabricate it required
HANDLE, BOW	replace					X		Fabricate if required
PLATE	replace				X			Fabricate if required
PLATE, CALIBRATION, DIAL	replace					X		Fabricate if required
PLUGS, BUTTON	replace				X			
POST, RETAINER, ELECTRICAL SHIELD	replace				X			Fabricate if required
REACTOR	replace				X			
RESISTORS	replace				X			
RETAINER, ELECTRICAL SHIELD	replace		X					
RETAINING RING	replace				X			Fabricate if required
RING ASSEMBLY	replace					X		
	repair					X		
BUSHING	replace					X		Fabricate if required

PART OR COMPONENT (1)	MAINT. FUNCTION (2)	1ST ECH. (3)	2ND ECH. (4)	3RD ECH. (5)	4TH ECH. (6)	5TH ECH. (7)	TOOLS REQUIRED (8)	REMARKS (9)
TS-497A, B, C/URR (continued)								
PIN	replace					X		Fabricate it required
PLATE	replace					X		Fabricate it required
SCREW, CAP, HEX HEAD	replace					X		Available from Maintenance Support shop Stock
SETSCREW	replace					X		Available, from Maintenance Support shop Stock
RIVETS	replace				X			Available, from Maintenance Support shop Stock
ROLLER ASSEMBLY	replace				X			
SCREW, MACHINE	replace		X					Available in Maintenance Kit ME-9 and Tool Equipment TE-113
SEMICONDUCTOR DEVICE, DIODE IN21B	replace				X			
SHAFT	replace					X		Fabricate if required
SHIELD	replace					X		P/o Drum Assemb. fabricate if required
SHIELD, ELECTRON TUBE	replace		X					
SOCKET, ELECTRON TUBE	replace				X			
SPACER	replace				X			Fabricate if required
SPRING, ELECTRICAL CONTACT	replace				X			
SPRING, HELICAL EXTENSION	replace				X			
STUD	replace					X		SC-B-61074, fabricate if required
STUD, THREADED	replace				X			Fabricate if required
SUPPORT	replace				X			Fabricate it required
SWITCH, ROTARY	replace				X			
SWITCH, TOGGLE	replace			X				
TERMINAL BOARD	replace				X			Fabricate if required
TRANSFORMER, POWER, STEP-DOWN, STEP-UP	replace				X			
TROUGH	replace				X			Fabricate it required
WASHER, FINISHING	replace				X			Available from Maintenance Support Shop Stock
WASHER, FLAT	replace		X					Available in Maintenance Equipment ME-9 and Tool Equipment TE-113
WRENCH SET: HEX SOCKET	replace		X					Available in Tool equipment TE-113

ALLOCATION OF TOOLS FOR MAINTENANCE FUNCTIONS

TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	ECHELON 1	2	3	4	5	TOOL CODE	REMARKS
TS-497A, B. C/URR (continued)							
AUDIO SIGNAL GENERATOR				†	†	1	
CRYSTAL RECTIFIER TEST SET TS-268/U				†	†	2	
FREQUENCY METER AN/URM-79				†	†	3	
FREQUENCY METER AN/URM-80				†	†	4	
FREQUENCY METER AN/URM-81				†	†	5	
FREQUENCY METER FR-67/U				†	†	6	
MULTIMETER AN/URM-105				†	†	7	
MULTIMETER, METER ME-26/U				†	†	8	
PULSE GENERATOR SET AN/URM-15				†	†	9	
WATTMETER AN/URM-98				†	†	10	Standardization action initiated
RESISTANCE BRIDGE ZM-4/U				†	†	11	
TEST SET, ELECTRICAL METER TS-656/U				†	†	12	
TEST SET, ELECTRON TUBE TV-2/U					†	13	
TEST SET, ELECTRON TUBE TV-7/U				†		14	
TEST SET, SIGNAL GENERATOR AN/USM-65				†	†	15	In development, Interim items AN/USM-50 and TS-382/U
VOLTAGE STANDARD AN/URM				†	†	16	
TOOL EQUIPMENT TK 21/G				†	†	17	
WRENCH TL-112				†	†	18	

By Order of *Wilber M. Brucker*, Secretary of the Army:

L. L. LEMNITZER
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

Distribution:
Active Army:

To be distributed in accordance with DA Form 127 requirements for TM 11 Series (UNCL), plus the following additional formula:

USASA (2)
Def Atomic Spt Agcy (5)
CNGB (1)
Tech Stf, DA (1) except
CsigO (18)
US ARADCOM (2)
US ARADCOM Rgn (2)
7th & 8th Army (5)
Corps (2)
MDW (1)
JBUSMC (2)
USASCS (25)
AMS (1)
Eire Ord Dep (5)
Pueblo Ord Dep (5)
USAINT (5)
Units org under fol TOE:-
5-500 (AA-AD) (2)
5-600(2)
5-605 (2)
5-630 (2)
7 (2)
9-217 (2)
11-5 (2)
11-7 (2)
11-15 (2)
11-16 (2)
11-55 (2)
11-56 (2)
11-57 (2)
11-97 (2)
11-117 (2)
11-155 (2)
11-500 (AA-AE) (2).
11-557 (2)
11-587 (2)
11-592 (2)
11-597 (2)
11-608 (2)
17 (2)
44-8 (2)
44-445 (2)
44-446 (2)
57 (2)

NG: State AG (3).
USAR: None.
For explanation of abbreviations used, see AR 320-50.

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RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

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IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

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PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 018875-000