DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL, TEST SET, TELEPHONE AN/ USM-181

Headquarters, Dopartment of the Army, Washington, D.C. 20315
28 September 1964

WARNING

Be careful when working with the 115-volt ac line connection. Serious injury or death may result from contact with these terminals.

DON'T TAKE CHANCES!

		Paragraph	Page
CHAPTER 1.	INTRODUCTION		
Section I.	General		
	Scope	1	3
	Index of equipment publications	2	3
	Forms and records	3	3
II.	Description and data		
	Purpose and use	4	3
	Technical characteristics	5	4
	Components of AN/USM-181 test set	6	4
	Description of AN/USM-181 test set	7	5
	Description of oscillator	8	5
	Description of ac voltmeter	9	5
	Description *of* patch panel	10	5
	Description of minor component	11	5
CHAPTER 2.	OPERATION		
Section I.	Service upon rceipt of equipment		
	Unpacking	12	9
	Checking unpacked equuipment	13	9
	Overload fuse	14	9
	Connections	16	9
	Initial adjustment of equipment	16	9
II.	Operator's controls, Indicators, and connectors		
	Damage from improper settings	17	11
	Oscillator operating controls, indicators, and connectors	18	12
	Patch panel operating controls and connectors	19	12
	Voltmeter operating controls, indicators, and connectors	20	12
III.	Operation under usual conditions		
	Types of operation	21	13
	Starting procedure	22	13
	Measurements of filters, amplifiers, or attenuators	23	14
	Measurement of transmission	24	14
	Voltage measurements	25	15
	Decibel measurements	26	16
	Use of oscillabr with other equipment	27	16
	Stopping procedure	28	17
CHAPTER 3.	MAINTENANCE		
Section I.	Operator's maintenance		
	Scope of operator's maintenance	29	19
	Preventive maintenace	30	19
	Preventive maintenance checks and services periods	31	19

This reprint includes all changes in effect at the time of publication; changes 2, 4 and 5.

		Paragraph	Page
	Daily preventive maintenance checks and services chart	32	19
	Cleaning	33	20
II.	Organizational maintenance		
	Scope of organization maintenance	34	20
	organizational preventive maintenance	36	20
	Weekly and monthly preventive maintenance	36	20
	Weekly preventive maintenance checks and services chart	37	21
	Monthly preventive maintenance checks and services chart	38	21
	Touchup painting instructions	39	21
	General troubleshooting information	40	22
	Troubleshooting chart	41	22
	Replacement of easily accessible items	42	22
CHAPTER 4	SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE		
	Disassembly of equipment	43	25
	Repacking for shipment *or* limited storage	44	26
	Authority for demolition	46	26
	Methods of destruction	46	25
APPENDIX I.	REFERENCES		29
II	MAINTENANCE ALLOCATION		27

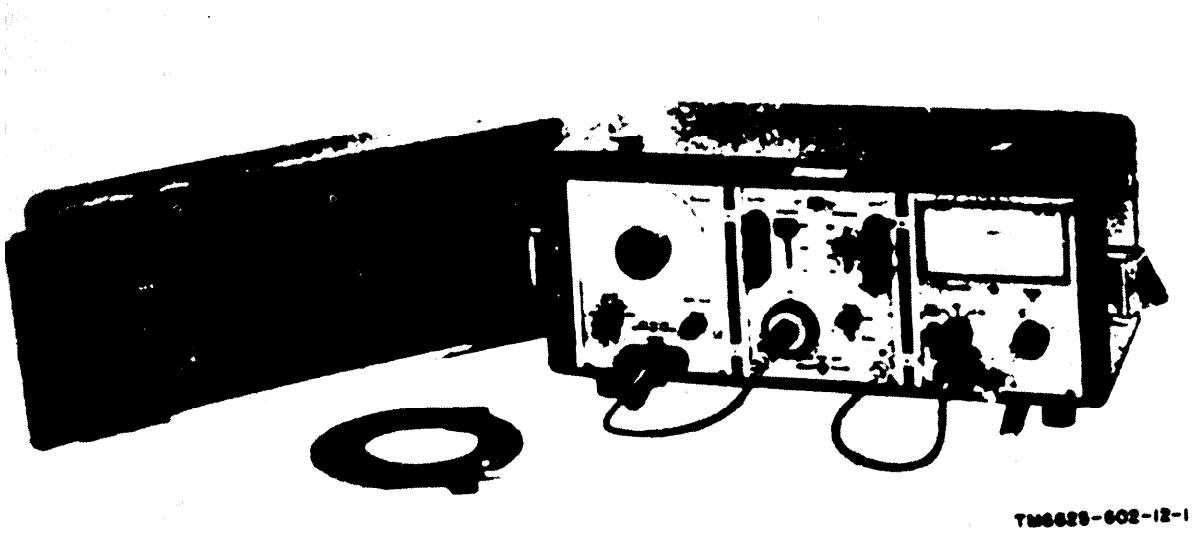

Figure 1. Test Set, Telephone AN/USM-181 (front view).

TM 11-6625-602-12
C 2

CHANGE
No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 17 December 1965

Organizational Maintenance Manual Including Repair Parts and Special Tools List

TEST SET, TELEPHONE AN/USM 181

TM 11-6625-602-12, 26 September 1964, is changed as follows:

The title of the manual is changed as shown above.

Page 3, paragraph 3. Delete subparagraph c and substitute:

c. Reporting of Equipment Manual Improve ments The direct reporting by the individual user, of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA publications) will be used for reporting these improvement. This form will be completed using pencil, pen, or typewriter and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-MR-(NMP)-MA, Fort Monmouth, N. J., 07703.

Page 32. Add appendix IV after appendix III.

APPENDIX IV
ORGANIZATIONAL REPAIR PARTS LIST

Section I. INTRODUCTION

1. General

a. This appendix lists the quantities of repair parts authorized for organizational maintenance and constitutes a basis of requisitioning when the major item of equipment is authorized to the organization. These equipments are issued on the basis of allowances prescribed in equipment authorization tables and other documents which are a basis of requisitioning.

b. Columns are as follows:

(1) *Federal stock number.* This column lists the 1l-digit Federal stock number.

(2) *Designation by model.* Not used.

(3) *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.

(4) *Unit of issue.* The unit of issue is each unless otherwise indicated and is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

(5) *Expendability.* Nonexpendable items are indicated by NX. Expendable items are not annotated.

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

(7) *Organizational.* The quantities indicated in this column 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. An asterisk (*) indicates that an item is not authorized for stockage but if required, may be requisitioned for immediate use only.

(8) *Illustration.* The "Item No." column lists the reference designations that appear on the part in the equipment. These same designations are also used on any illustrations of the equipment. The numbers in the "Figure No." column refer to the illustrations where the part is shown.

2. Parts for Maintenance

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

3. Serial Numbers

Components bearing serial numbers 1 through 60, Order No. FR–36–039–L4–05379 (E) are identified by Hewlett-Packard Model numbers. Serial numbers 101 and above are identified by JCENS nomenclatures.

4. 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 :