TECHNICAL MANUAL

ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS)

FOR

OSCILLOSCOPE AN/USM-281A

(NSN 6625-00-228-2201)

HEADQUARTERS, DEPARTMENT OF THE ARMY

December 1976

TECHNICAL MANUAL

No. 11-8625-1703-24P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC. *31 December 1976*

ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS) FOR OSCILLOSCOPE AN/USM-281A

(NSN 6625-00-228-2201)

Current as of 20 September 1976

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 (Test) located in the back of the manual. Simply tear out the self addressed form, fill it out as shown on the sample, fold it where shown, and drop it in the mail.

If there are no blank DA Form 2028-2 {Test) in the back of your manual, use the standard DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward to the Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, New Jersey 07703.

In either case a reply will be furnished direct to you.

Table of Contents

			Page	Illus Figure
SECTION	I.	Introduction	1	
	II.	Repair parts list	5	
Group	00	Oscilloscope AN/USM-281A	5	1
	01	Oscilloscope Assembly OS-189A(P)/UFM-281	9	2
		0101 Circuit card assembly A1A1	15	3
		0102 Circuit card assembly A1A2	19	4
		0103 Circuit card assembly A1A3	22	5
		0104 Circuit card assembly A1A4	27	6
		0105 Circuit card assembly A1A5	29	7
		0106 Circuit card assembly A1A6	31	8
		0107 Circuit card assembly A1A7	35	9
	02	Plug-in unit, dual trace oscilloscope	37	10
		0201 Variable attenuator A2A1	39	11
		0202 Variable attenuator A2A2	41	12
		0203 Circuit card assembly A2A3	45	13
		0204 Circuit card assembly A2A4	49	14,15
		0205 Circuit card assembly A2A5	53	16
		0206 Circuit card assembly A2A6	55	17
	03	Plug-in unit, time and base oscilloscope	59	18
		0301 Circuit card assembly A3A1	83	19
		0302 Circuit card assembly A3A2	69	20
		0303 Rotary switch assembly A3A3	73	21
	04	Cover, Ocilloscope CW-1082/UWM-281A	75	22
SECTION	III.	Special Tools list (Not applicable)		
	IV.	National stock number and part number index	76	

* This manual supersedes so much of TM 11+6625-1703-15, 4 February 1970, as pertains to repair parts and special tools lists.

SECTION I

INTRODUCTION

1. Scope

This manual lists repair parts and special tools required for performance of organizational, direct support, and general support maintenance of the AN/USM-281A.

2. General

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

a. Section II. Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numerical sequence, with the parts in each group listed in figure and item numbers sequence.

b. Section III. Special Tools List. Not applicable.

c. Section IV. National Stock Number and Part Number Index. A list, in ascending National item identification number (NIIN, last 9 digits) sequence, of all National stock numbers appearing in the listings, followed by a list, in alphameric sequence, of all pert numbers appearing in the listings. National stock number and part numbers are cross-referenced to each illustration figure and item number appearance.

3.Explanation of Columns

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number.* The number used to identify each item called out in the illustration.

b. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source code.* source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	*Definition*
PA	Item procured and stocked for anticipated or known usage.
PD	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfittings. Not subject to automatic replenishment.
XD	A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA, XD, and aircraft support items as restricted by AR 700-42.

(2) *Maintenance code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

Code	*Application/Explanation*
O	Support item is removed, replaced, used at the Organizational level.
H	Support item is removed, replaced, used at the general support level.

(b) The maintenance code entered in the fourth positions indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

Code	*Application/Explanation*
H	The lowest maintenance level capable of complete repair of the support item is the general support level.
D	The lowest maintenance level capable of complete repair of the support itemis the depot level.
Z	Nonreparable. No repair is authorized.

(3) *Recoverability code.* Recoverability codes

are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

Recoverability codes	*Definition*
Z-	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
H -	Reparable item. When uneconomically reparable, condemn and dispose at the general support level.
D-	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.

c. National Stock Number. Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

d. Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

NOTE

When a stock numbered item is requisitioned, the repair part received may have a different part number than the part being replaced.

e. Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item.

g. Unit of Measure (U/M). Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

h. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, sub functional group, or an assembly.

4. Special Information

The following publication pertains to the AN/USM-281A and its components:
TM 11-6625-1703-15, Oscilloscope AN/USM-281A.

5. How to Locate Repair Parts

a. When National stock number or part number is unknown.

(1) *First.* Using the table of contents, determine the functional group within which the repair part belongs. This is necessary since illustrations are prepared for functional groups and listings are divided into the same groups.

(2) *Second.* Find the illustration covering the functional group 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 figure and item number noted on the illustration.

b. When National stock number or part number is known.

(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in ascending NIIN sequence followed by a list of part numbers in ascending alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second.* After finding the figure and item number, locate the figure and item number in the repair parts list.

6. Abbreviations

Not applicable.

(Next printed page is 4)

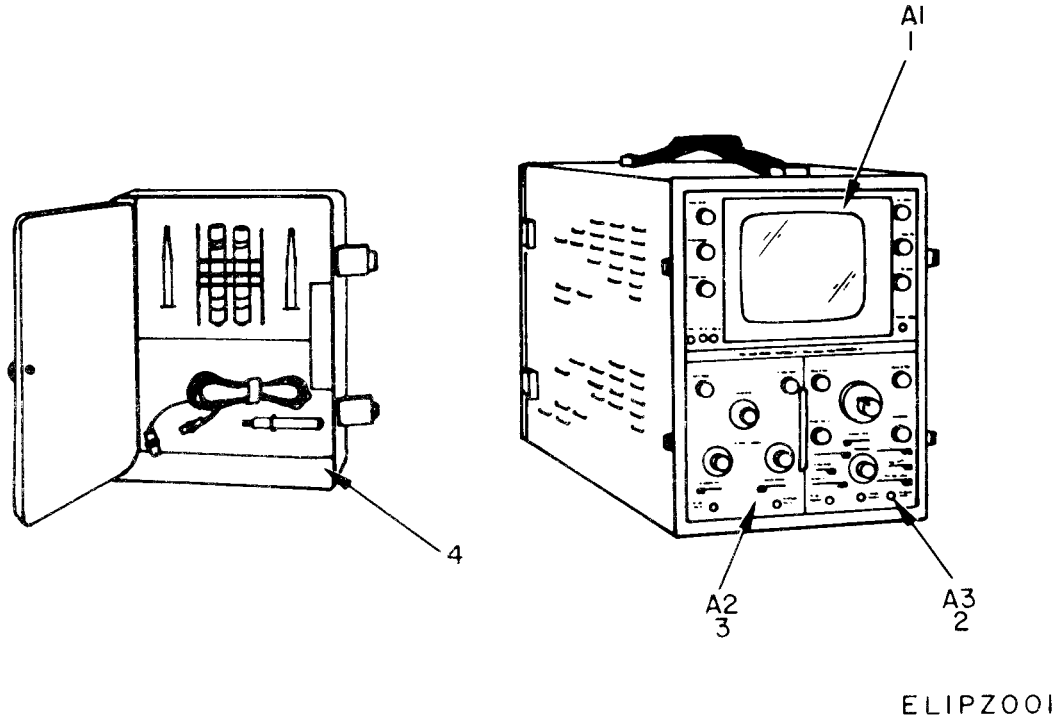

Figure 1. Oscilloscope AN/USM-281A.

(1) ILLUSTRATION (a) FIG NO.	(b) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
						GROUP 00 OSCILLOSCOPE AN/USM-281A			
1	1	PDHHD	6625-00-437-1833	OS189APUSM281	80058	OSCILLOSCOPE		EA	1
1	2	PDODD	6625-00-410-2406	PL1187AUSM	80058	PLUG IN UNIT,TIME BASE AND DELAY,OSCILLOSCOPE		EA	1
1	3	PDODD	6625-00-234-6117	PL1186AUSM	80058	PLUB IN UNIT,DUAL TRACE,OSCILLOSCOPE		EA	1
1	4	XDHHH	6625-00-403-6897	CW1082USM281A	80058	COVER,OSCILLOSCOPE		EA	1