

TECHNICAL MANUAL

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

**FREQUENCY COMPARATOR CM-77A/USM  
(NSN 6625-00-080-7204)**

---

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**NOVEMBER 1978**



TECHNICAL MANUAL }  
 No. 11-6625-493-24P }

HEADQUARTERS  
 DEPARTMENT OF THE ARMY  
 WASHINGTON, DC, 8 November 1978

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

FOR

**FREQUENCY COMPARATOR CM-77A/USM  
 (NSN 6625-00-080-7204)**

Current as of 26 June 1978

REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 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 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 Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, 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 Frequency Comparator CM-77A/USM	5	1-5
SECTION III. Special tools list (Not applicable)		
IV. National Stock number and part number index	18	

\*This manual supersedes TM 11-6625-493-24P, 24 November 1976.



# 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 CM-77A/USM.

### 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 number 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 part 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:

<i>Code</i>	<i>Definition</i>
PA-Item procured and stocked for anticipated or known usage.	

<i>Code</i>	<i>Definition</i>
XD - A	support item that is not stocked. When required, item will be procured through normal supply channels.

#### NOTE

Cannibalization or salvage maybe 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:

<i>Code</i>	<i>Application/Explanation</i>
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 position 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:

<i>Code</i>	<i>Application/Explanation</i>
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:

<i>Recoverability codes</i>	<i>Definition</i>
Z-Nonreparable item.	When unserviceable, condemn and dispose at the level indicated in position 3.

*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, subfunctional group, or an assembly.

#### 4. Special Information

The following publication pertains to the CM-77A/USM and its components:

TM 11-6625-493-15, Frequency Comparator CM-77A/USM

#### 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 alphanumeric 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)



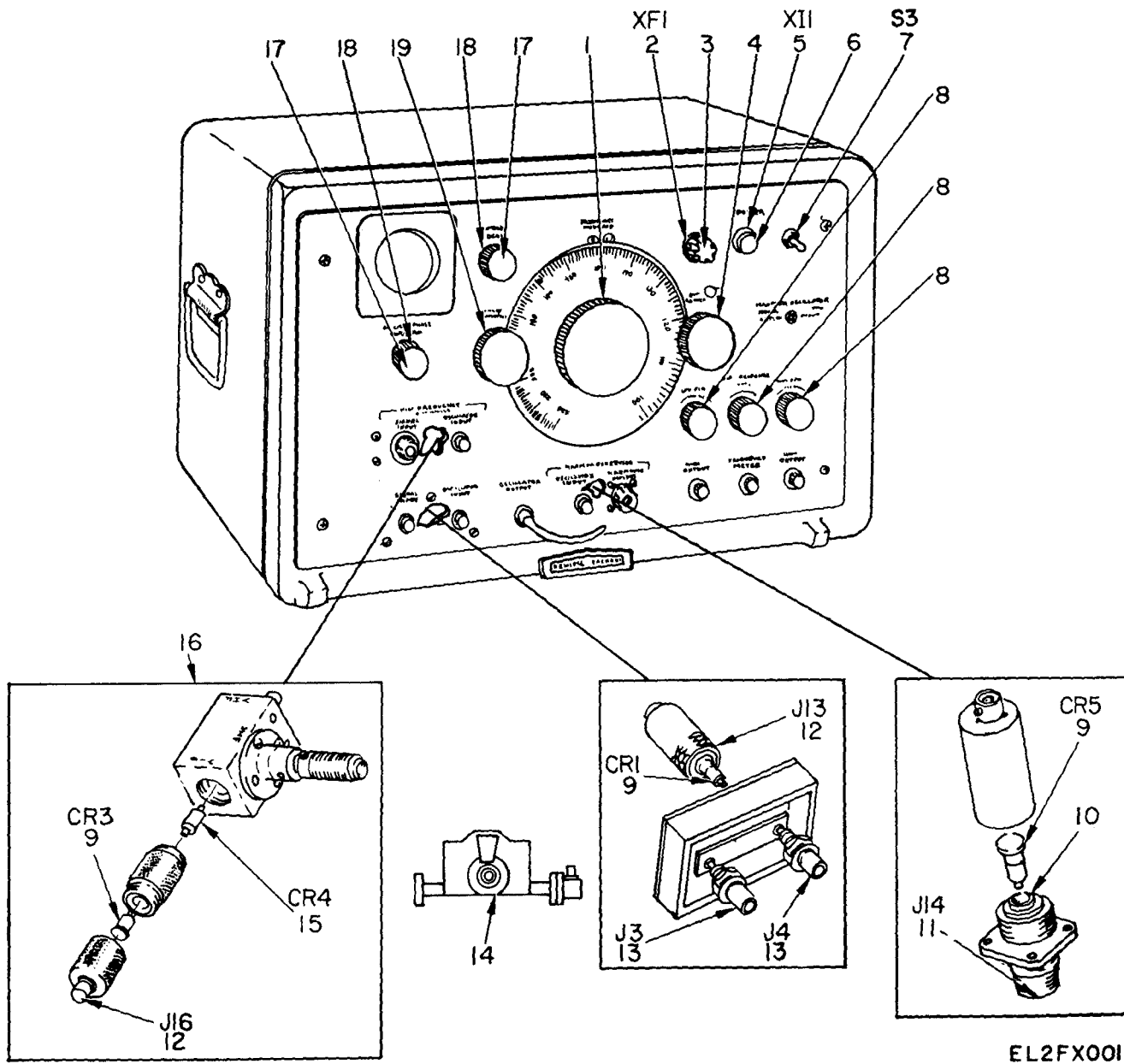


Figure 1. Frequency Comparator CM-77A/USM.



(1) ILLUSTRATION (A) FIG NO.	(2) (B) ITEM NO.	(3) SMR CODE	(4) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
GROUP 00 FREQUENCY COMPARATOR CM-77A/USM								
1	1	PAOZZ	5355-00-680-1601	0370-0045	28480	KNOB	EA	1
1	2	PAHZZ	5920-00-556-0144	342003	75915	FUSEHOLDER	EA	1
1	3	PAOZZ	5999-00-283-7178	342003SA2	75915	CAP, ELECTRICAL	EA	1
1	4	PAOZZ	5355-00-824-7825	0370-0051	28480	KNOB	EA	1
1	5	XDHZZ		810B1	72619	LIGHT, INDICATOR	EA	1
1	6	PAOZZ	6210-00-188-8779	81-121	72619	LENS, INDICATOR LIGHT	EA	1
1	7	PAHZZ	5930-00-231-1491	AHH80994-4	27193	SWITCH, TOGGLE	EA	1
1	8	PAOZZ	5355-00-646-4704	0370-0029	28480	KNOB	EA	3
1	9	XDHZZ		1N21B	81349	SEMICONDUCTOR DEVICE, DIODE	EA	3
1	10	XDHZZ		540B76F	28480	SLEEVE, REXOLITE	EA	1
1	11	PAHZZ	5935-00-031-0993	54MS200	28480	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
1	12	PAHZZ	5935-00-665-5718	UG1094U	80058	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	2
1	13	PAHZZ	5935-00-027-6759	5126	91737	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	2
1	14	PAHZZ	6625-00-869-0657	540B34B	28480	ATTENUATOR ASSEMBLY, LONG	EA	1
1	15	XDHZZ		1N416B	81349	SEMICONDUCTOR DEVICE, DIODE	EA	1
1	16	PAHZZ	6625-00-863-6448	P934A	28480	HARMONIC MIXER ASSEMBLY	EA	1
1	17	PAOZZ	5355-00-584-4163	54MS368-2	28480	KNOB	EA	2
1	18	PAOZZ	5355-00-803-4286	0370-0031	28480	KNOB	EA	2
1	19	PAOZZ	5355-00-543-0066	0370-0038	28480	KNOB	EA	1

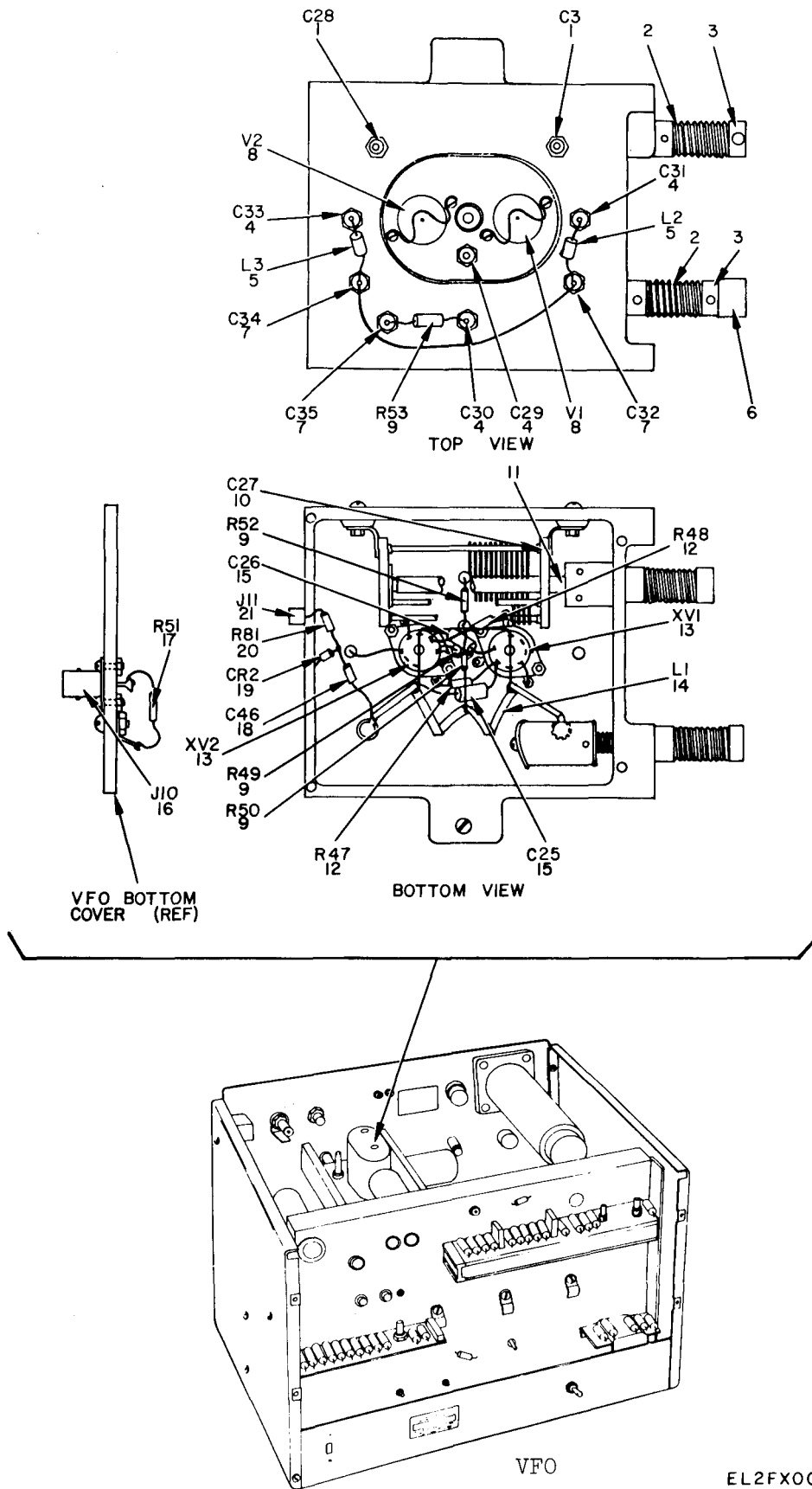


Figure 2. Frequency Comparator CM-77A/USM, exploded view (Sheet 1 of 3).

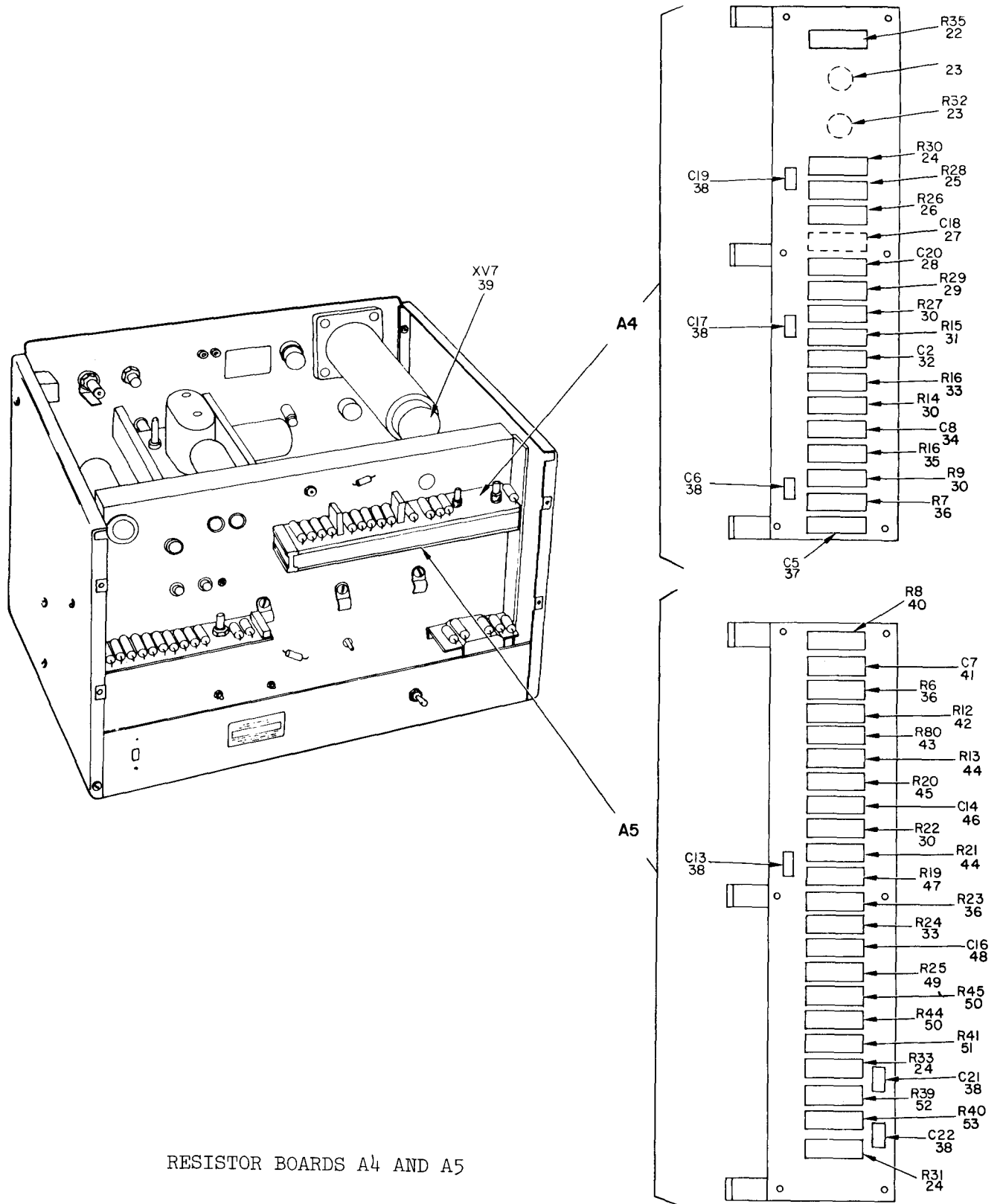
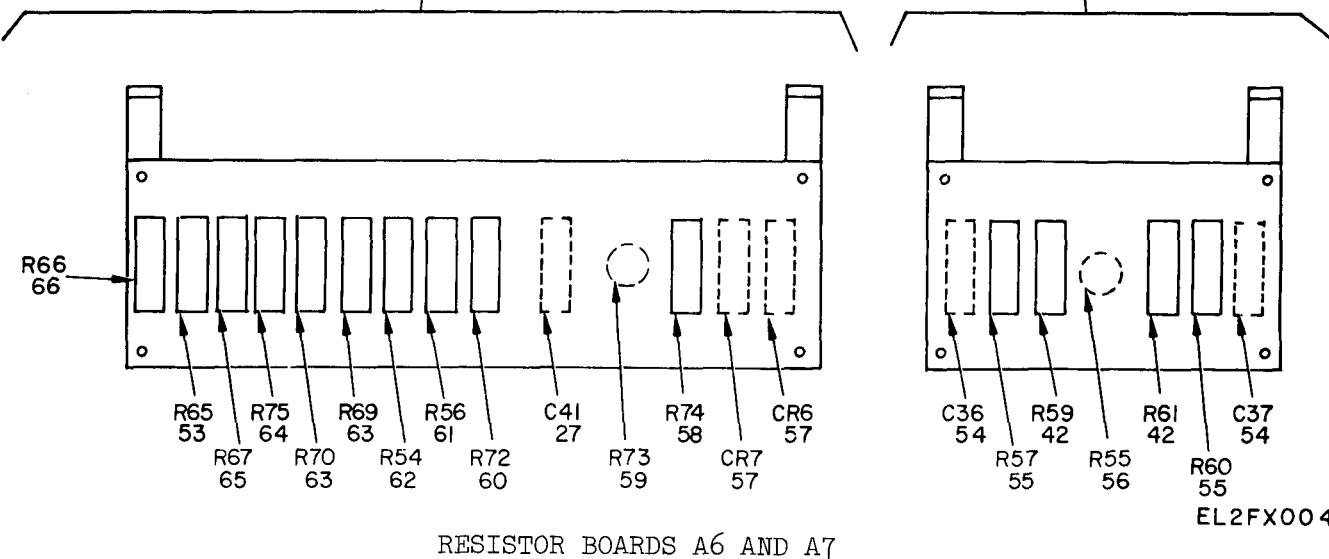
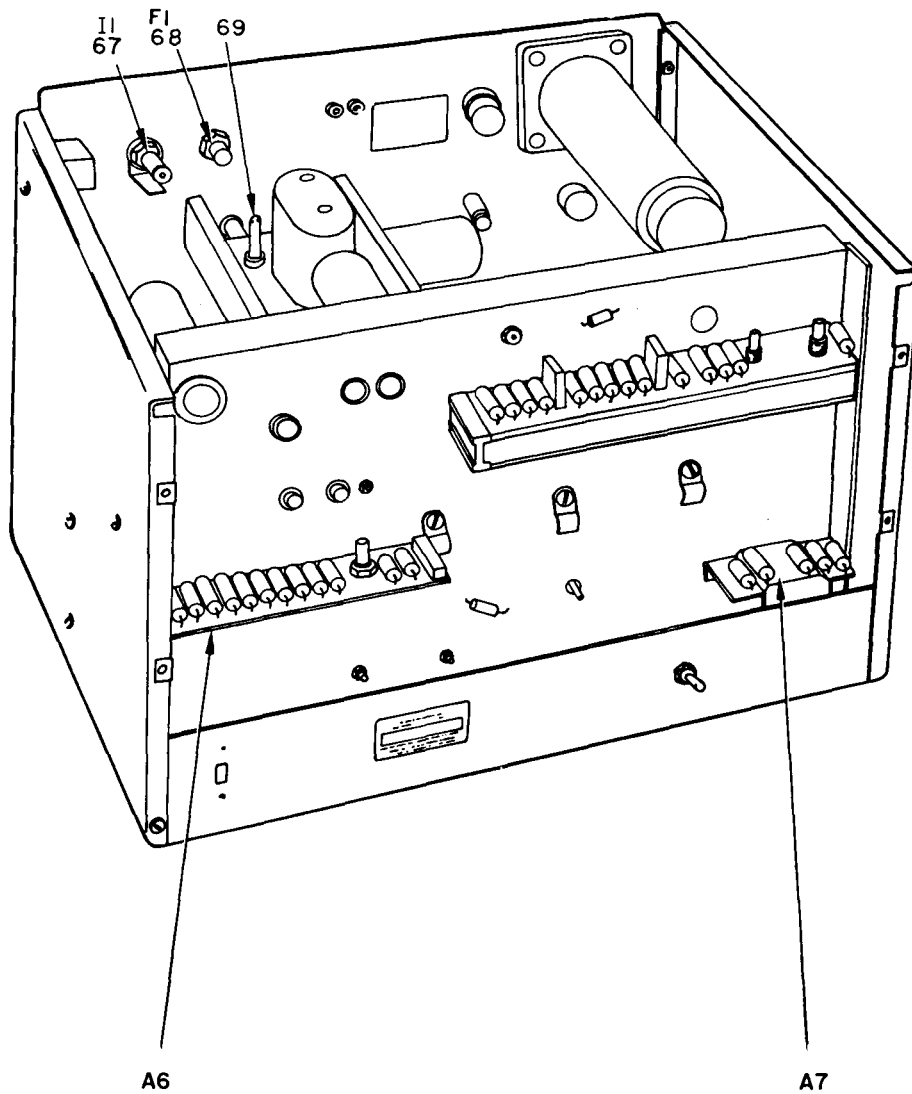


Figure 2. Frequency Comparator CM-77A/USM, exploded view (Sheet 2 of 3).



RESISTOR BOARDS A6 AND A7

EL2FX004

Figure 2. Frequency Comparator CM-77A/USM, exploded view (Sheet 3 of 3).

(1) ILLUSTRATION (A) FIG NO.	(B) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
2	1	PAHZZ	5910-00-577-1293	680015	14674	CAPACITOR, VARIABLE	EA	2
2	2	PAHZZ	3010-00-043-3357	1500-0014	28480	COUPLING, SHAFT, FLEXIBLE	EA	2
2	3	XDHZZ		540A32A	28480	COUPLING, SHAFT, RIGID	EA	2
2	4	PAHZZ	5910-00-804-7566	CK70AW102M	81349	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	4
2	5	PAHZZ	5950-00-674-0332	H9977	32159	COIL, RADIO FREQUENCY	EA	2
2	6	XDHZZ		540A54A	28480	SPACER, SLEEVE	EA	1
2	7	PAHZZ	5910-00-892-2940	CK80AW152M	81349	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	3
2	8	XDHZZ		6135	81350	ELECTRON TUBE	EA	2
2	9	PAHZZ	5905-00-251-7757	RC20GF270K	81349	RESISTOR, FIXED, COMPOSITION	EA	4
2	10	PAHZZ	5950-00-822-7369	VU45	80583	CAPACITOR, VARIABLE	EA	1
2	11	PAHZZ	3040-00-868-9640	540337A	28480	GEAR, SHAFT, SPUR	EA	1
2	12	PAHZZ	5905-00-106-9351	RC20GF273K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	13	PAHZZ	5935-00-812-9142	316PH3702	80009	SOCKET, ELECTRON TUBE	EA	2
2	14	PAHZZ	5950-00-822-7369	540A60A	28480	COIL, RADIO FREQUENCY	EA	1
2	15	PAHZZ	5910-00-950-1477	CI1-010D	00656	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	2
2	16	PAHZZ	5935-00-897-9351	8427	91737	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
2	17	PAHZZ	5905-00-104-8345	RC20GF560K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	18	XDHZZ		GA47UUF	78488	CAPACITOR, FIXED, ELECTROLYTIC	EA	1
2	19	PAHZZ	5961-00-853-2607	1N933M	81349	SEMICONDUCTOR DEVICE, DIODE	EA	1
2	20	PAHZZ	5905-00-171-2009	RC20GF222K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	21	PAHZZ	5935-00-665-5718	UG1094U	80058	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
2	22	PAHZZ	5905-00-279-1697	RC32GF125J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	23	PAHZZ	5905-00-674-3245	3186	11237	RESISTOR, VARIABLE	EA	2
2	24	PAHZZ	5905-00-190-8885	RC20GF225J	81349	RESISTOR, FIXED, COMPOSITION	EA	3
2	25	PAHZZ	5905-00-299-2012	RC32GF563K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	26	PAHZZ	5905-00-104-8351	RC32GF154K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	27	PAHZZ	5910-00-715-7966	160P22494	56289	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	2
2	28	PAHZZ	5910-00-816-3749	CM30E332GN3	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	29	PAHZZ	5905-00-111-4858	RC20GF471K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	30	PAHZZ	5905-00-409-7616	RC20GF105K	81349	RESISTOR, FIXED, COMPOSITION	EA	4
2	31	PAHZZ	5905-00-299-2040	RC32GF472J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	32	XDHZZ		CM15B820KN3	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	33	PAHZZ	5905-00-121-9861	RC32GF102K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	34	PAHZZ	5910-00-023-1614	CM20ED182G03	09684	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	35	PAHZZ	5905-00-116-8566	RC20GF680K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	36	XDHZZ		RC32GF392K	81349	RESISTOR, FIXED, COMPOSITION	EA	3
2	37	PAHZZ	5910-00-027-7297	CM20B470K	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	38	PAHZZ	5910-00-556-1858	DD203	71590	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	6
2	39	PAHZZ	5935-00-227-7756	9058	72825	SOCKET, ELECTRON TUBE	EA	1
2	40	PAHZZ	5905-00-186-3008	RC20GF101K	81349	RESISTOR, FIXED, COMPOSITION	EA	1

(1) ILLUSTRATION (A) FIG NO.	(B) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
2	41	PAHZZ	5910-00-828-5936	CM20B821KN3	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	42	PAHZZ	5905-00-400-4482	RC32GF333K	81349	RESISTOR, FIXED, COMPOSITION	EA	3
2	43	PAHZZ	5905-00-299-2038	RC32GF562K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	44	PAHZZ	5905-00-549-8986	RC32GF226K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	45	PAHZZ	5905-00-104-8334	RC20GF331K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	46	XDHZZ		K1327B10	09684	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
2	47	XDHZZ		RC32GF332K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	48	PAHZZ	5910-00-781-8666	CP72E1FG106K1	81349	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	1
2	49	PAHZZ	5905-00-185-8518	RC20GF103K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	50	PAHZZ	5905-00-279-2643	RC32GF101J	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	51	PAHZZ	5905-00-195-6502	RC20GF332K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	52	PAHZZ	5905-00-192-9260	RC20GF154K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	53	PAHZZ	5905-00-221-5860	RC20GF334K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	54	PAHZZ	5910-00-722-3782	P87N337	00656	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	2
2	55	PAHZZ	5905-00-299-2010	RC32GF683K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	56	XDHZZ	5905-00-815-5767	43-1000	12697	RESISTOR, VARIABLE	EA	1
2	57	PAHZZ	6130-00-823-2460	SE8L28	08308	RECTIFIER, METALLIC	EA	2
2	58	XDHZZ		RC32GF124K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	59	PAHZZ	5905-00-107-7970	33-010-176	88557	RESISTOR, VARIABLE	EA	1
2	60	PAHZZ	5905-00-247-8715	RC32GF224K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	61	PAHZZ	5905-00-279-1920	RC42GF272K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	62	PAHZZ	5905-00-171-2006	RC20GF271K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	63	PAHZZ	5905-00-113-7346	RC32GF470K	81349	RESISTOR, FIXED, COMPOSITION	EA	2
2	64	PAHZZ	5905-00-247-8749	RC32GF823K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	65	PAHZZ	5905-00-249-3661	RC20GF683J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	66	PAHZZ	5905-00-252-1046	RC20GF275K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
2	67	PAOZZ	6240-00-155-8706	81-101-47	82679	LAMP, INCANDESCENT	EA	1
2	68	PAOZZ	5920-00-131-9817	MDL1-1-4	71400	FUSE, CARTRIDGE OR	EA	1
2	68	PAOZZ	5920-00-284-7734	2110-0016	28480	FUSE, CARTRIDGE	EA	1
2	69	PAHZZ	6625-00-440-9379	37-234	02286	BOOT, DUST AND MOISTURE	EA	1



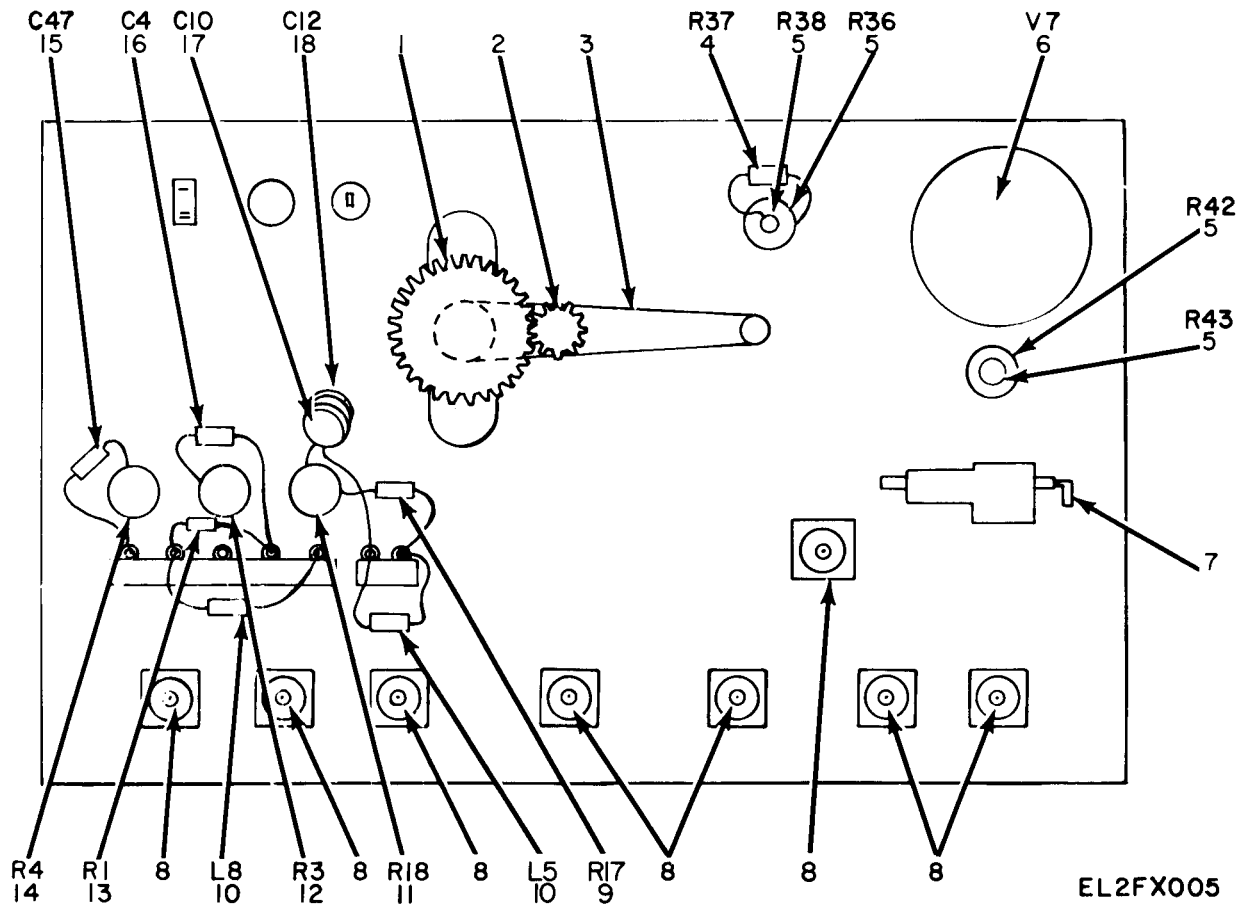


Figure 3. Frequency Comparator CM-77A/USM, Front Panel, Rear View, VFO Removed.



(1) ILLUSTRATION (A) FIG NO.	(B) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
3	1	PAHZZ	3020-00-677-4928	5060-0021	28480	GEAR, SPUR	EA	1
3	2	PAHZZ	3020-00-289-9755	5060-0020	28480	GEAR, SPUR	EA	1
3	3	XDHZZ		5050-0140	28480	ESUTCHEON PLATE	EA	1
3	4	PAHZZ	5905-00-247-8715	RC32GF224K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
3	5	PAHZZ	5905-00-061-8162	2100-0131	28480	RESISTOR, VARIABLE	EA	4
3	6	PAHZZ	5960-00-170-4573	2BP1	81349	ELECTRON TUBE	EA	1
3	7	PAHZZ	5935-00-847-2600	UG306U	81349	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
3	8	PAHZZ	5935-00-149-4066	UG88U	81349	CONNECTOR, PLUG, ELECTRICAL	EA	8
3	9	PAHZZ	5905-00-141-0592	RC20GF122K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
3	10	PAHZZ	5950-00-674-0332	H9977	32159	COIL, RADIO FREQUENCY	EA	2
3	11	PAHZZ	5905-00-080-3880	2100-0083	28480	RESISTOR, VARIABLE	EA	1
3	12	PAHZZ	5905-00-552-5478	2100-0024	28480	RESISTOR, VARIABLE	EA	1
3	13	PAHZZ	5905-00-116-8566	RC20GF680K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
3	14	PAHZZ	5905-00-583-5146	RV4NAYSD254E	81349	RESISTOR, VARIABLE	EA	1
3	15	PAHZZ	5910-00-194-9271	CM20E681KN3	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1
3	16	PAHZZ	5910-00-781-8666	CP72E1FG106K1	81349	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	1
3	17	PAHZZ	5910-00-797-4909	33C17A	56289	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	1
3	18	PAHZZ	5910-00-984-8373	CM15E101KN3	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	1

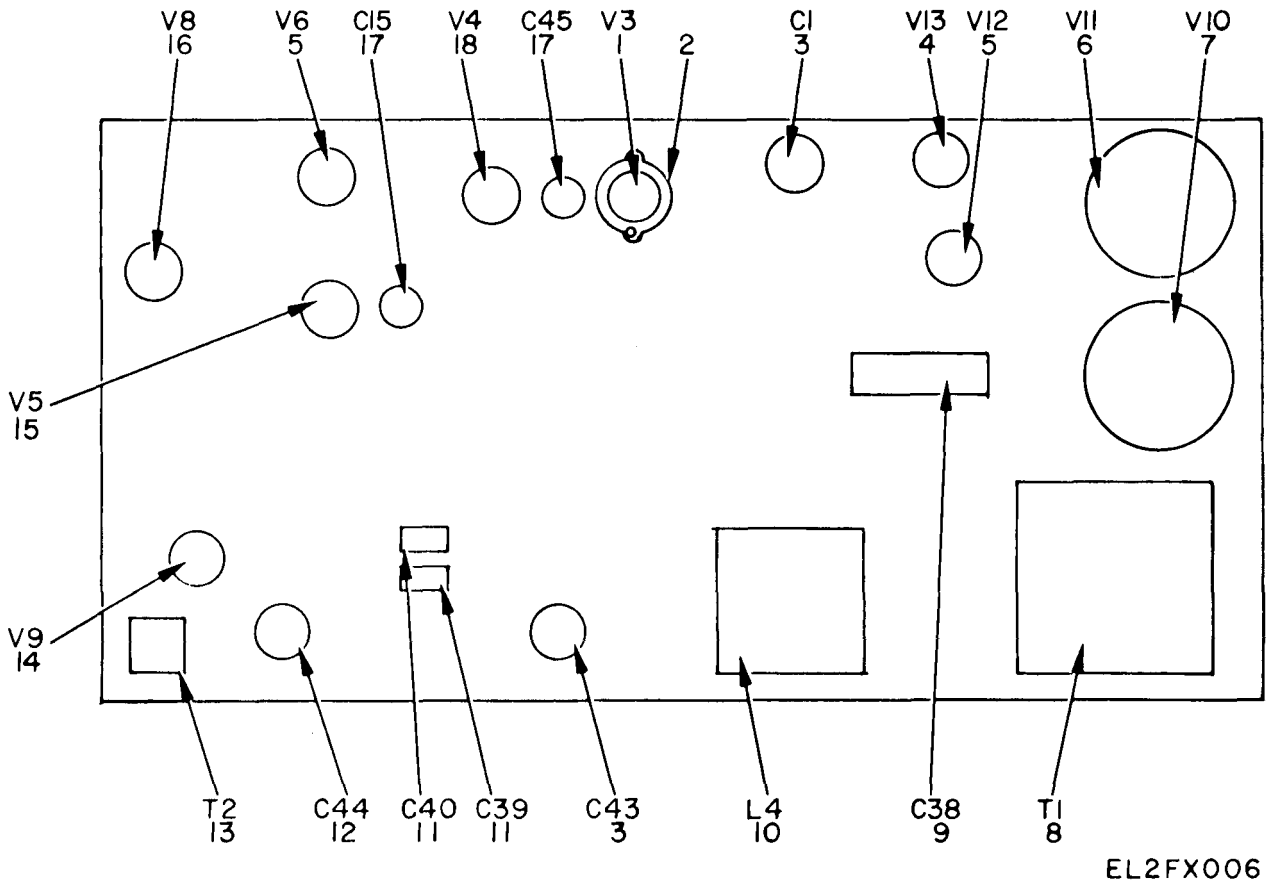


Figure 4. Frequency Comparator CM-77A/USM, Chassis, Front View.

(1) ILLUSTRATION (A) FIG NO.	(B) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
4	1	XDHZZ		6135	81350	ELECTRON TUBE	EA	1
4	2	PAHZZ	5960-00-322-8538	8661	71785	SHIELD, ELECTRON TUBE	EA	1
4	3	PAHZZ	5910-00-195-8716	D27774	56289	CAPACITOR, FIXED, ELECTROLYTIC	EA	2
4	4	PAHZZ	5960-00-262-0286	5651WA	81349	ELECTRON TUBE	EA	1
4	5	PAHZZ	5960-00-822-9222	6CB6A	81349	ELECTRON TUBE	EA	2
4	6	PAHZZ	5960-00-166-7674	6AS7GA	81349	ELECTRON TUBE	EA	1
4	7	PAHZZ	5960-00-642-8341	5U4GB	81350	ELECTRON TUBE	EA	1
4	8	PAHZZ	5950-00-822-8312	9100-0068	24880	TRANSFORMER, POWER, STEP-DOWN AND STEP-UP	EA	1
4	9	PAHZZ	5910-00-666-8475	CP55B1EG254K	81349	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	1
4	10	PAHZZ	5950-00-883-7725	9110-0017	28480	REACTOR	EA	1
4	11	PAHZZ	5910-00-945-9557	CP72B1FH254K1	81349	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	2
4	12	PAHZZ	5910-00-818-6855	D27364	56289	CAPACITOR, FIXED, ELECTROLYTIC	EA	1
4	13	PAHZZ	5950-00-556-0198	9120-0022	24880	TRANSFORMER, AUDIO FREQUENCY	EA	1
4	14	PAHZZ	5960-00-620-7233	6350	81349	ELECTRON TUBE	EA	1
4	15	PAHZZ	5960-00-262-0167	12AT7WA	81350	ELECTRON TUBE	EA	1
4	16	PAHZZ	5960-00-166-7664	12AX7	81349	ELECTRON TUBE	EA	1
4	17	XDHZZ		MQCS4-68	25801	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	2
4	18	PAHZZ	5960-00-729-6963	6U8A	81350	ELECTRON TUBE	EA	1

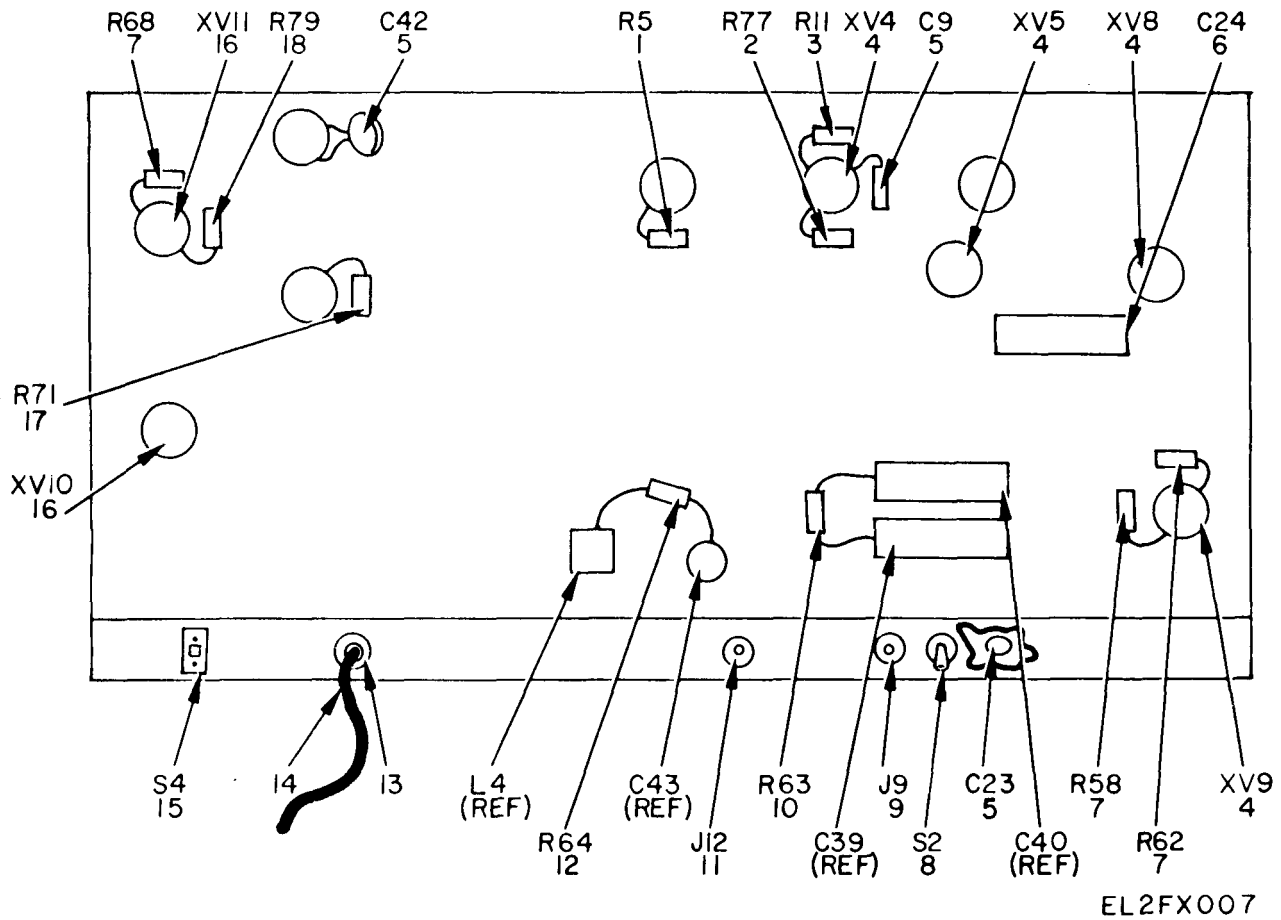


Figure 5. Frequency Comparator CM-77A/USM, Chassis, Rear View.

(1) ILLUSTRATION (A) FIG NO.	(B) ITEM NO.	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) USABLE ON CODE U/M	(8) QTY INC IN UNIT
5	1	PAHZZ	5905-00-256-0409	RC20GF221K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	2	PAHZZ	5905-00-190-8883	RC20GF100J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	3	PAHZZ	5905-00-299-2038	RC32GF562K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	4	PAHZZ	5935-00-721-0124	44F16388	71785	SOCKET, ELECTRON TUBE	EA	4
5	5	PAHZZ	5910-00-556-1858	DD203	71590	CAPACITOR, FIXED, CERAMIC DIELECTRIC	EA	3
5	6	PAHZZ	5910-00-715-7966	160P22494	56289	CAPACITOR, FIXED, PAPER DIELECTRIC	EA	1
5	7	PAHZZ	5905-00-110-0196	RC20GF102K	81349	RESISTOR, FIXED, COMPOSITION	EA	3
5	8	PAHZZ	5930-00-112-5105	10051877	18876	SWITCH, TOGGLE	EA	1
5	9	PAHZZ	5935-00-665-5718	UG1094U	80058	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
5	10	PAHZZ	5905-00-299-2004	RC32GF104K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	11	PAHZZ	5935-00-850-8876	UG909AU	81349	CONNECTOR, PLUG, ELECTRICAL	EA	1
5	12	PAHZZ	5905-00-106-1245	RC32GF272K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	13	PAHZZ	5975-00-273-0788	SR6P1	28520	BUSHING, STRAW RELIEF	EA	1
5	14	PAHZZ	6145-00-284-0579	C0-02MGF3-18-033 -0	81349	CABLE ASSEMBLY, POWER, ELECTRICAL	EA	1
5	15	PAHZZ	5930-00-977-1760	4633	54110	SWITCH, SLIDE	EA	1
5	16	PAHZZ	5935-00-257-6870	51A12272	71785	SOCKET, ELECTRON TUBE	EA	2
5	17	PAHZZ	5905-00-409-7616	RC20GF105K	81349	RESISTOR, FIXED, COMPOSITION	EA	1
5	18	PAHZZ	5905-00-279-1740	RC32GF180J	81349	RESISTOR, FIXED, COMPOSITION	EA	1

NATIONAL STOCK NUMBER AND PART NUMBER INDEX  
 NOTE: LAT INCLUDED AT END OF INDEX.

STOCK NUMBER	FIGURE NO.	ITEM NO.	STOCK NUMBER	FIGURE NO.	ITEM NO.
5935-00-027-6759	1	13	5905-00-299-2038	2	43
5935-00-031-0993	1	11	5905-00-299-2038	5	3
3010-00-043-3357	2	2	5905-00-409-7616	2	30
5905-00-061-8162	3	5	5905-00-409-7616	5	17
5905-00-080-3880	3	11	6625-00-440-9379	2	69
5905-00-104-8334	2	45	5355-00-543-0066	1	19
5930-00-112-5105	5	8	5905-00-549-8986	2	44
5920-00-131-9817	2	68	5905-00-583-5146	3	14
5935-00-149-4066	3	8	5355-00-584-4163	1	17
6240-00-155-8706	2	67	5355-00-646-4704	1	8
5960-00-166-7664	4	16	3020-00-677-4928	3	1
5960-00-170-4573	3	6	5355-00-680-1601	1	1
5905-00-171-2009	2	20	5935-00-721-0124	5	4
5905-00-185-8518	2	49	5910-00-781-8666	2	48
5905-00-186-3008	2	40	5910-00-781-8666	3	16
6210-00-188-8779	1	6	5355-00-803-4286	1	18
5905-00-190-8883	5	2	5910-00-804-7566	2	4
5905-00-190-8885	2	24			
5905-00-192-9260	2	52			
5905-00-195-6502	2	51	5905-00-815-5767	2	56
			5910-00-818-6855	4	12
5910-00-195-8716	4	3	5950-00-822-7369	2	14
5905-00-221-5860	2	53	5960-00-822-9222	4	5
5935-00-227-7756	2	39	5910-00-828-5936	2	41
5905-00-247-8749	2	64	5961-00-853-2607	2	19
5905-00-249-3661	2	65	6625-00-863-6448	1	16
5905-00-251-7757	2	9	3040-00-868-9640	2	11
5905-00-256-0409	5	1	6625-00-869-0657	1	14
5935-00-257-6870	5	16	5950-00-883-7725	4	10
5975-00-273-0788	5	13	5910-00-892-2940	2	7
5905-00-279-2643	2	50	5935-00-897-9351	2	16
3020-00-289-9755	3	2	5910-00-945-9557	4	11
5905-00-299-2004	5	10	5930-00-977-1760	5	15
5905-00-299-2012	2	25			

PART NUMBER	FSCM	FIG NO	ITEM NO	PART NUMBER	FSCM	FIG NO	ITEM NO
AHH80994-4	27193	1	7	RC20GF271K	81349	2	62
B1-101-47	82679	2	67	RC20GF273K	81349	2	12
CI1-010D	656	2	15	RC20GF275K	81349	2	66
CK70AW102M	81349	2	4	RC20GF331K	81349	2	45
CK80AW152M	81349	2	7	RC20GF332K	81349	2	51
CM15B820KN3	81349	2	32	RC20GF334K	81349	2	53
CM15E101KN3	81349	3	18		81349	2	29
CM20B470K	81349	2	37	RC20GF560K	81349	2	17
CM20B821KN3	81349	2	41	RC20GF680K	81349	2	35
CM20E681KN3	81349	3	15	RC20GF680K	81349	3	13
	81349	2	28	RC20GF683J	81349	2	65
CP55B1EG254K	81349	4	9	RC32GF101J	81349	2	50
CP72E1FH254K1	81349	4	11	RC32GF102K	81349	2	33
CP72E1FG106K1	81349	2	48	RC32GF104K	81349	5	10
CP72E1FG106K1	81349	3	16	RC32GF124K	81349	2	58
CO-02MGF3-18-033-0	81349	5	14	RC32GF125J	81349	2	22
				RC32GF154K	81349	2	26
DD203	71590	2	38	RC32GF180J	81349	5	18
DD203	71590	5	5	RC32GF224K	81349	2	60
D27364	56289	4	12	RC32GF224K	81349	3	4
D27774	56289	4	3	RC32GF226K	81349	2	44
GA47UUF	78488	2	18	RC32GF272K	81349	5	12
H9977	32159	2	5	RC32GF332K	81349	2	47
H9977	32159	3	10	RC32GF333K	81349	2	42
K1327B10	9684	2	46	RC32GF392K	81349	2	36
MDL1-1-4	71400	2	68	RC32GF470K	81349	2	63
MQCS4-68	25801	4	17	RC32GF472J	81349	2	31
P87N337	656	2	54	RC32GF562K	81349	2	43
P934A	28480	1	16	RC32GF562K	81349	5	3
RC20GF100J	81349	5	2	RC32GF563K	81349	2	25
RC20GF101K	81349	2	40	RC32GF683K	81349	2	55
RC20GF102K	81349	5	7	RC32GF823K	81349	2	64
RC20GF103K	81349	2	49	RC42GF272K	81349	2	61
RC20GF105K	81349	2	30				
RC20GF105K	81349	5	17				
RC20GF122K	81349	3	9	RV4NAYS254E	81349	3	14
RC20GF154K	81349	2	52	SE8L28	8308	2	57
RC20GF221K	81349	5	1	UG1094U	80058	1	12
RC20GF222K	81349	2	20	UG1094U	80058	2	21
RC20GF225J	81349	2	24	UG1094U	80058	5	9
RC20GF270K	81349	2	9	UG306U	81349	3	7

## NATIONAL STOCK NUMBER AND PART NUMBER

PART NUMBER	FSCM	FIG. NO.	ITEM NO.	PART NUMBER	FSCM	FIG. NO.	ITEM NO.
UG88U	81349	3	8	5U4GB	81350	4	7
UG909AU	81349	5	11	5050-0140	28480	3	3
VU45	80583	2	10	5060-0020	28480	3	2
0370-0029	28480	1	8	5060-0021	28480	3	1
0370-0031	28480	1	18	51A12272	71785	5	16
0370-0038	28480	1	19	5126	91737	1	13
0370-0045	28480	1	1	54MS200	28480	1	11
0370-0051	28480	1	4	54MS368-2	28480	1	17
1N21B	81349	1	9	540A32A	28480	2	3
1N416B	81349	1	15	540A54A	28480	2	6
1N933M	81349	2	19	540A60A	28480	2	14
10051877	18876	5	8	540B34B	28480	1	14
12AT7WA	81350	4	15	540B76F	28480	1	10
12AX7	81349	4	16	540337A	28480	2	11
1500-0014	28480	2	2	565WA	81349	4	4
160P22494	56289	2	27	6AS7GA	81349	4	6
160P22494	56289	5	6	6CB6A	81349	4	5
2BP1	81349	3	6				
2100-0024	28480	3	12	6U8A	81350	4	18
2100-0083	28480	3	11	6135	81350	2	8
2100-0131	28480	3	5	6135	81350	4	1
				6350	81349	4	14
316PH3702	80009	2	13	680015	14674	2	1
3186	11237	2	23	81-121	72619	1	6
33-010-176	8-557	2	59	810B1	72619	1	5
33C17A	56289	3	17	8427	91737	2	16
342003	75915	1	2	8661	71785	4	2
342003SA2	75915	1	3	9058	72825	2	39
37-234	2286	2	69	9100-0068	24880	4	8
43-1000	12697	2	56	9110-0017	28480	4	10
44F16388	71785	5	4	9120-0022	24880	4	13
4633	54110	5	15				

## LATEST NATIONAL STOCK NUMBER ASSIGNMENTS

STOCK NUMBER	FIGURE NO.	ITEM NO.	STOCK NUMBER	FIGURE NO.	ITEM NO.
			6156-00-284-0579	5	14
5910-00-027-7297	2	37	5905-00-299-2010	2	55
5905-00-104-8351	2	26	5905-00-299-2040	2	31
5905-00-106-1245	5	12	5960-00-322-8538	4	2
5905-00-107-7970	2	59	5905-00-400-4482	2	42
5905-00-110-0196	5	7			
5905-00-113-7346	2	63	5920-00-556-0144	1	2
5905-00-116-8566	2	35	5950-00-556-0198	4	13
5905-00-116-8566	3	13	5910-00-577-1293	2	1
5905-00-121-9861	2	33	5960-00-620-7233	4	14
			5960-00-642-8341	4	7
5905-00-141-0592	3	9			
			5935-00-665-5718	1	12
5960-00-166-7674	4	6	5935-00-665-5718	2	21
			5935-00-665-5718	5	9
5905-00-171-2006	2	62	5910-00-666-8475	4	9
			5950-00-674-0332	2	5
5910-00-194-9271	3	15	5950-00-674-0332	3	10
			5905-00-674-3245	2	23
5930-00-231-1491	1	7	5910-00-722-3782	2	54
5905-00-247-8715	2	60	5960-00-729-6963	4	18
5905-00-247-8715	3	4	5910-00-797-4909	3	17
5960-00-262-0167	4	15	5950-00-822-8312	4	8
5960-00-262-0286	4	4	6130-00-823-2460	2	57
5905-00-279-1697	2	22	5355-00-824-7825	1	4
5905-00-279-1740	5	18	5935-00-847-2600	3	7
5905-00-279-1920	2	61	5935-00-850-8876	5	11
5999-00-283-7178	1	3	5910-00-984-8373	3	18

NATIONAL STOCK NUMBER AND PART NUMBER

ADDITIONAL LATEST NATIONAL STOCK NUMBER ASSIGNMENTS LATEST PART NUMBER ASSIGNMENTS

STOCK NUMBER	FIGURE NO.	ITEM NO.	PART NUMBER	FSCM	FIG. NO.
5910-00-023-1614	2	34	CM20FD182G03	09684	2
5905-00-104-8345	2	17	CM30E332GN3	81349	2
5905-00-106-9351	2	12	RC20GF471K	81349	2
5905-00-111-4858	2	29	SR6P1	28520	5
5905-00-252-1046	2	66	2110-0016	28480	2
5920-00-284-7734	2	68			
5905-00-552-5478	3	12			
5910-00-556-1858	2	38			
5910-00-556-1858	5	5			
5910-00-715-7966	2	27			
5910-00-715-7966	5	6			
5935-00-812-9142	2	13			
5910-00-816-3749	2	28			
5950-00-822-7369	2	10			
5910-00-950-1477	2	15			



RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS



**SOMETHING WRONG WITH THIS MANUAL?**

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

Commander  
Stateside Army Depot  
ATTN: AMSTA-US  
Stateside, N.J. 07703

DATE 10 July 1975

PUBLICATION NUMBER TM 11-5840-340-12	DATE 23 Jan 74	TITLE Radar Set AN/SPC-76
---	-------------------	------------------------------

BE EXACT... PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.	
2-25	2-28			<p>Recommend that the installation antenna alignment procedure be changed throughout to specify a 2° IFF antenna lag rather than 1°.</p> <p>REASON: Experience has shown that with only a 1° lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing strain to the drive train. Hunting is minimized by adjusting the lag to 2° without degradation of operation.</p>
3-10	3-3		3-1	<p>Item 5, Function column. Change "2 db" to "3db."</p> <p>REASON: The adjustment procedure for the TRANS POWER FAULT indicator calls for a 3 db (500 watts) adjustment to light the TRANS POWER FAULT indicator.</p>
5-6	5-8			<p>Add new step f.1 to read, "Replace cover plate removed in step e.1, above."</p> <p>REASON: To replace the cover plate.</p>
		FO3		<p>Zone C 3. On J1-2, change "+24 VDC to "+5 VDC."</p> <p>REASON: This is the output line of the 5 VDC power supply. + 24 VDC is the input voltage.</p>

TEAR ALONG DOTTED LINE

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER SSG I. M. DeSpiritof 999-1776	SIGN HERE: <i>SSG I. M. DeSpiritof</i>
---	---

DA FORM 2028-2  
1 AUG 74

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

HISA 1686-75



RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS



# SOMETHING WRONG WITH THIS MANUAL?

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

DATE

PUBLICATION NUMBER

TM 11-6625-493-24P

DATE

8 NOV 78

TITLE

Frequency Comparator CM-77A/USM

BE EXACT. . . PIN-POINT WHERE IT IS

PAGE NO.

PARA-GRAPH

FIGURE NO.

TABLE NO.

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

TEAR ALONG DOTTED LINE

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

DA FORM 2028-2  
1 AUG 74

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

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD-314



Commander  
US Army Communications and  
Electronics Materiel Readiness Command  
ATTN: DRSEL-ME-MQ  
Fort Monmouth, New Jersey 07703

TEAR ALONG DOTTED LINE

FOLD BACK

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS



# SOMETHING WRONG WITH THIS MANUAL?

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

DATE

PUBLICATION NUMBER

TM 11-6625-493-24P

DATE

8 NOV 78

TITLE

Frequency Comparator CM-77A/USM

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.
----------	------------	------------	-----------

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

TEAR ALONG DOTTED LINE

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

DA FORM 1 AUG 74 2028-2

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

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD-314



Commander  
US Army Communications and  
Electronics Materiel Readiness Command  
ATTN: DRSEL-ME-MQ  
Fort Monmouth, New Jersey 07703

TEAR ALONG DOTTED LINE

FOLD BACK

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL MANUALS



**SOMETHING WRONG WITH THIS MANUAL?**

THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

DATE

PUBLICATION NUMBER

TM 11-6625-493-24P

DATE

8 NOV 78

TITLE

Frequency Comparator CM-77A/USM

BE EXACT... PIN-POINT WHERE IT IS

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

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

TYPED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

TEAR ALONG DOTTED LINE

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD-314



Commander  
US Army Communications and  
Electronics Materiel Readiness Command  
ATTN: DRSEL-ME-MQ  
Fort Monmouth, New Jersey 07703

FOLD BACK

TEAR ALONG DOTTED LINE



Order of the Secretary of the Army:

**BERNARD W. ROGERS**  
*General, United States Army*  
*Chief of Staff*

Official:

**J. C. PENNINGTON**  
*Brigadier General, United States Army*  
*The Adjutant General*

**DISTRIBUTION:**

*Active Army:*

USAINSCOM (2)  
COE (1)  
TSG (1)  
USAARENBD (1)  
DARCOM (1)  
TRADOC (1)  
OS Maj Comd (4)  
TECOM (2)  
USACC (4)  
MDW (1)  
Armies (2)  
Corps (2)  
Svc Colleges (1)  
USASIGS (5)  
USAADS (2)  
USAFAS (2)  
USAARMS (2)  
USAIS (2)  
USAES (2)  
USAICS (3)  
MAAG (1)  
USARMIS (1)

USAERDAA (1)  
USAERDAW (1)  
Fort Gillem (10)  
Fort Gordon (10)  
Fort Huachuca (10)  
Fort Carson (5)  
Ft Monmouth (HISA) (26)  
Ft Richardson (CERCOM) (2)  
Army Dep (1) except  
LBAD (14)  
SAAD (30)  
TOAD (14)  
SHAD (3)  
USA Dep (1)  
Sig Sec USA Dep (2)  
Units org under fol TOE:  
(1 cy each unit, UNOINDC)  
29-207 (2)  
29-610 (2)  
11-302  
11-500 (AA-AC)  
29-134  
29-136

*NG:* State AG (3)

*USAR:* None

For explanation of abbreviations used, see AR 310-50.

DEPARTMENT OF THE ARMY  
**US ARMY AG PUBLICATIONS CENTER**  
1655 WOODSON ROAD  
ST. LOUIS, MISSOURI 63114

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD 314  
FOURTH CLASS

