TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

FOR

RADIO SETS

AN/ARC-51X (NSN 5821-00-082-3698)

AND

AN/ARC-51BX (NSN 5821-00-082-3926)

Technical Manual

No. 11-5820-518-20P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 4 August 1981

ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST FOR

RADIO SETS AN/ARC-51X (NSN 5821-00-082-3698) AND AN/ARC-51BX (NSN 5821-00-082-3926)

Current as of 27 February 1981

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in back of this manual direct to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703.

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

Table of Contents

				Illus
			Page	Figure
SECTION	I.	Introduction	1	
	II.	Repair Parts List	5	
Group	00	Radio Sets AM/ARC-51X and AN/ARC-51BX	5	1
	01	Control Radio Set C-4677/ARC-51X.	7	2
		Control Radio Set C-6287/ARC-5lBX	11	3
	02	Mounting MT-2653/ARC (No parts authorized)		
	03	Receiver-Transmitter System	12	4
		0301 Air Cooler, Electronic Equipment HD-615/ARC-51X (No parts authorized)		
		0302 Indicator, Standing Wave Ratio ID-1003/ARC (No parts authorized)		
		0303 Receiver-Transmitters, Radio RT-702/ARC-51X and RT-742/ARC-51BX	15	5
		030301 Amplifier, Intermediate Frequency 1 and 2 (No parts authorized)		
		030302 Amplifier, Intermediate Frequency 3 (No parts authorized)		
		030303 Amplifier, Radio Frequency Power (No parts authorized)		
		030304 Spectrum Generator (No parts authorized)		
		030305 Audio Modulator (No parts authorized)		
		030306 Direct Current Power Supply (No parts authorized)		
		030307 Guard Receiver (No parts authorized)		
		030308 Radio Frequency Preamp Receiver (No parts authorized)		
		030309 Receiver-Transmitter Subassembly (No parts authorized)		
		030310 Mechanical Tuner (No parts authorized)		
SECTION	III.	Special tools list (Not applicable)		
	IV.	National stock number and part number index	16	

^{*} This manual supersedes TM 11-5820-518-20P, 29 September 1975.

SECTION I

1. Scope

This manual lists spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE), and other special support equipment required for performance of organizational maintenance of the AN/ARC-51X and AN/ARC-51BX. It authorizes the requisitioning and issue of spares and repair parts as indicated by the source and maintenance codes.

2. General

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

- a. Section II. Repair Parts List. A list of spares and 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 numeric 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 National item identification number (NIIN) sequence, of all National stock numbers (NSN) appearing in the listings, followed by a list, in alphanumeric sequence, of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance.

3. Explanation of Columns

- a. Illustration. This column is divided as follows:
- (1) *Figure number*. Indicates the figure number the illustration on which the item is shown.
- (2) *Item number*. The number used to identify item called out in the illustration.
- b. Source, Maintenance, and Recoverability (SMR) Codes.
- (1) Source code. Source codes 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.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA 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.
- (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:

Code Application/Explanation

- F— The lowest maintenance level capable of complete repair of the support item is the direct support level.
- H— The lowest maintenance level capable of complete repair of the support item is the general support 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.
- F Reparable item. When uneconomically reparable, condemn and dispose at the direct 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 in-

spection 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 708-41/42 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

a. Usable on codes are shown in the description column. Uncoded items are applicable to all models. Identification of the usable on codes used in this publication are:

Code Used on

4AB AN/ARC-51X DCO AN/ARC-51BX AS6 RT-742/ARC-51BX CRM RT-742C/ARC-51BX

b. The following publication pertains to the AN/ARC-51X and AN/ARC-51BX and their components:

TM 11-5820-518-20, Radio Set AN/ARC-51X and AN/ARC-51BX.

c. The illustrations in this manual are identical to those published in TM 11-1520-236-34P. Only those parts assigned the third position SMR maintenance code "C" or "O" are listed in the tabular listing; therefore, there may be a break in the item number sequence. Only illustrations containing organizational authorized items appear in this manual.

5. How to Locate Repair Parts

- a. When National stock number of part number is unknown.
- (1) *First*. Using the table of contents, determine the functional group within which the item 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 item belongs.
- (3) *Third*. Identify the item on the illustration and not the illustration figure and item number of the item.
- (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 know.
- (1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index in in NIIN sequence followed by a list of part numbers in 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.

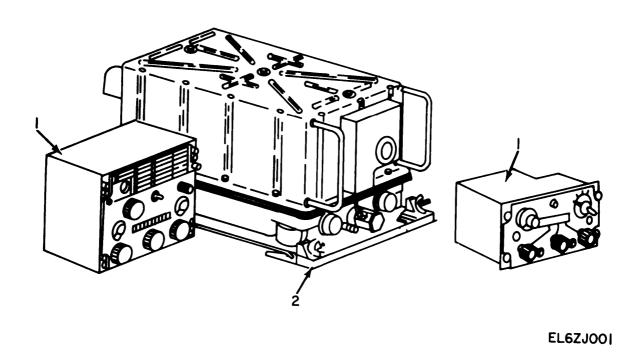


Figure 1. Radio Sets AN/ARC-51X and AN/ARC-51BX.

SECTI	II NC					TM11-5820-518-20P				
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)		
ILLUS'	TRATIO	N								
(a)	(b)		NATIONAL			DESCRIPTION	U/M	QTY		
FIG	ITEM	SMR	STOCK	PART	FSCM			INC		
NO	NO	CODE	NUMBER	NUMBER				IN		
						USABLE ON CODE		UNIT		
						GROUP 00 RADIO SETS AN/AR-51X AND				
						AN/ARC-51BX				
1	1	PAOFF	5821-00-082-3928	C-6287/ARC-51BX	80058	"CONTROL, RADIO SET DCO"	EA	1		
1	1	PAOFF	3021-00-002-3920	C-020//ARC-JIBA	00030	CONTROL, RADIO SEI DCO	EM	1		
1	1	PAOFF	5821-00-082-3700	C-4677/ARC-51X	80058	"CONTROL, RADIO SET 4AB"	EA	1		
_	_					***************************************		_		
1	2	PAOFF	5821-00-980-5789	MT-2653ARC	80058	"MOUNTING 4AB,DCO,CRM"	EA	1		

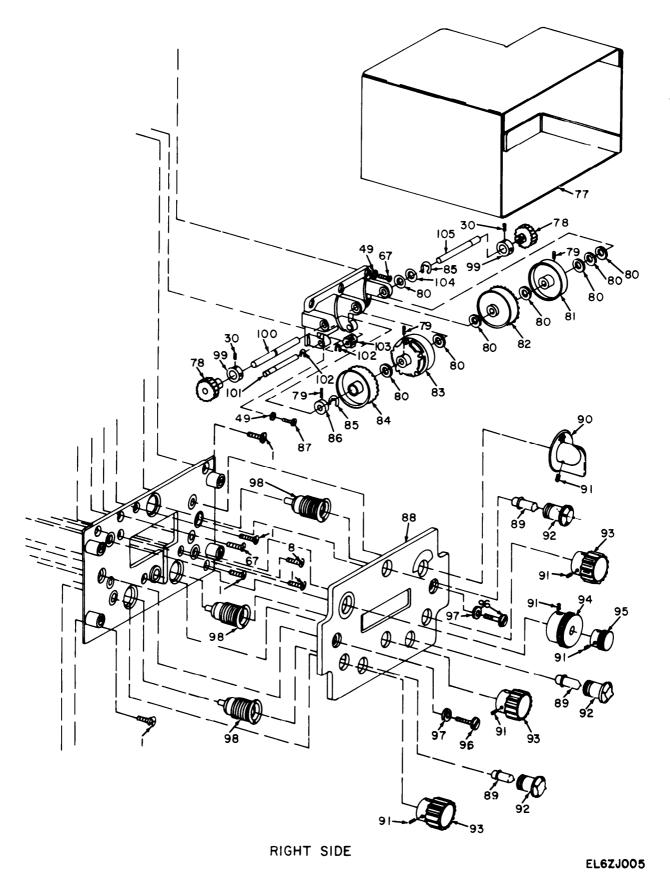


Figure 2. Control, Radio Set C-4677/ARC-51X.

(1		(2)	(3)	(4)	(5)	TM11-5820-518-20P (6)	(7)	(8)
IL (a FI NO	G ITEM		NATIONAL STOCK NUMBER	PART NUMBER	FSCM	DESCRIPTION USABLE ON CODE	U/M	QTY INC IN UNIT
						"GROUP 01 CONTROL, RADIO SETS C-4677/ARC-51X"		
						AND C-6287/ARC-51BX		
2	89	PAOZZ	6240-00-155-7836	MS25237-327	96906	LAMP 4AB	EA	3
2	90	PAOZZ	5355-00-519-3547	505-5720-002	13499	"KNOB,SWITCH 4AB"	EA	1
2	91	PAOZZ	5305-00-206-2080	6-40X1-84SPLINE4 16S	08664	SETSCREW 4AB	EA	12
2 2	92 93	PAOZZ PAOZZ	6210-00-691-5422 5355-00-043-0302	80055-1 544-7905-002	87034 13499	"LENS,INDICATOR 4AB" KNOB 4AB	EA EA	3
2	94	PAOZZ	5355-00-804-6071	544-1938-002	13499	"KNOB, VOLUME 4AB"	EA	1
2	95	PAOZZ	5355-00-045-3045	544-7865-002	13499	"KNOB, VOLUME 4AB"	EA	1

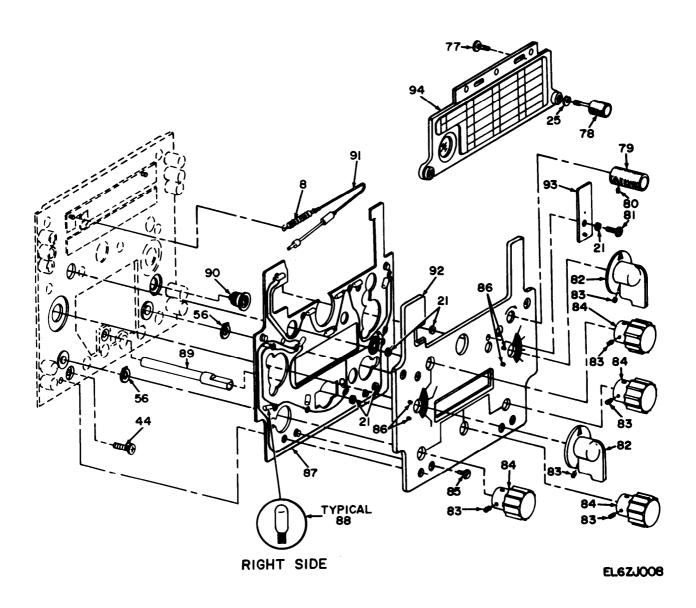


Figure 3. Control, Radio Set C-6287/ARC-51BX (Sheet 1 of 2).

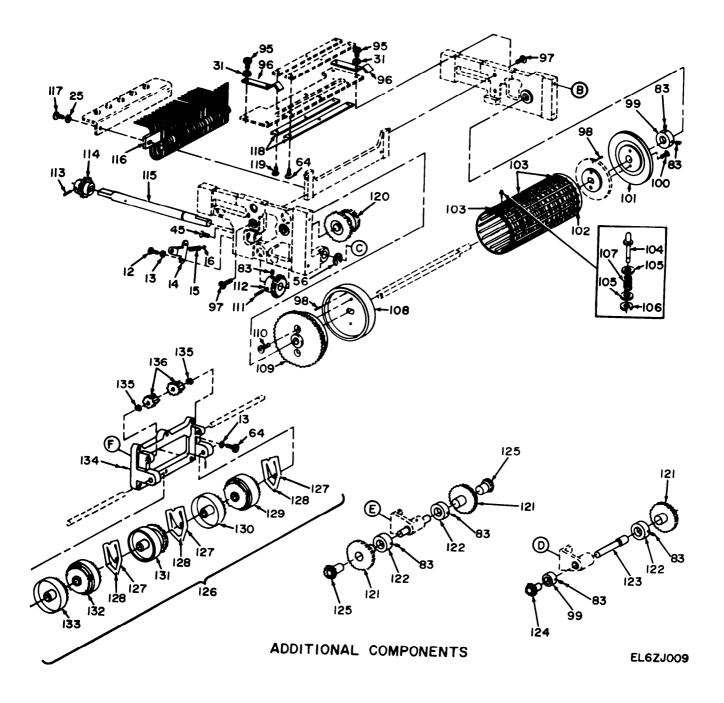


Figure 3. Control, Radio Set C-6287/ARC-51BX (Sheet 2 of 2).

SECTI	ION II					TM11-5820-518-20P		
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
ILLUS	STRATIO	ON						
(a)	(b)		NATIONAL	PART		DESCRIPTION	U/M	QTY
FIG.	ITEM	SMR	STOCK	NUMBER	FSCM			INC
NO.	NO.	CODE	NUMBER					IN
						USABLE ON CODE		UNIT
3	79	PAOZZ	5355-00-763-4877	757-0414-001	13499	"KNOB, AUDIO DCO"	EA	1
3	80	PAOZZ	5305-00-787-2197	MS51053-101	96906	SETSCREW DCO	EA	2
3	82	PAOZZ	5355-00-866-6791	757-0972-001	13499	"KNOB, SWITCH DCO"	EA	2
3	83	PAOZZ	5305-00-206-2080	6-40X1-84SPLINE4		SETSCREW DCO	EA	22
				16S	08664			
3	84	PAOZZ	5355-00-043-0302	554-7905-002	13499	KNOB DCO	EA	4
3	88	PAOZZ	6240-00-060-2941	CM8-683	71744	"LAMP, INCANDESCENT DCO"	EA	12

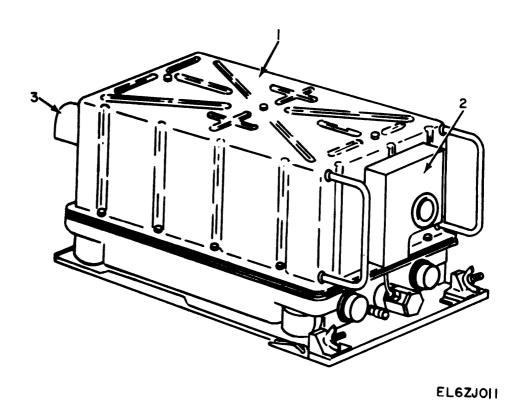


Figure 4. Receiver-Transmitter System.

5	SECTI	ON II				TM11-5820-518-20P			
((1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
		TRATIO	N						
	(a)	(b)		NATIONAL	PART		DESCRIPTION	U/M	QTY
	FIG	ITEM	SMR	STOCK	NUMBER	FSCM			INC
1	40.	NO.	CODE	NUMBER			USABLE ON CODE		IN UNIT
							COADDE ON CODE		01411
							GROUP 03 RECEIVER-TRANSMITTER SYSTEM		
4	1	1	PAOHD	5821-00-134-6239	RT742CARC51BX	80058	"RADIO SET DCO,CRM"	EA	1
			DAOUD	F001 00 000 3007	D#7403D451DV	00050	IDADTO CEE DOO ACCII		
- 4	4	1	PAOHD	5821-00-082-3927	RT742ARC51BX	80058	"RADIO SET DCO, AS6"	EA	1
4	1	1	PAOHD	5821-00-082-3699	RT702ARC51X	80058	RECEIVER-TRANSMITTER 4AB	EA	1
4	4	2	PAOFF	6625-00-892-5523	ID-1003/ARC	80058	"INDICATOR, STANDING 4AB, DCO"	EA	1
4	4	3	PAOFF	5821-00-082-3701	HD-615/ARC-51X	80058	"COOLER, AIR, ELEK 4AB, DCO"	EA	1

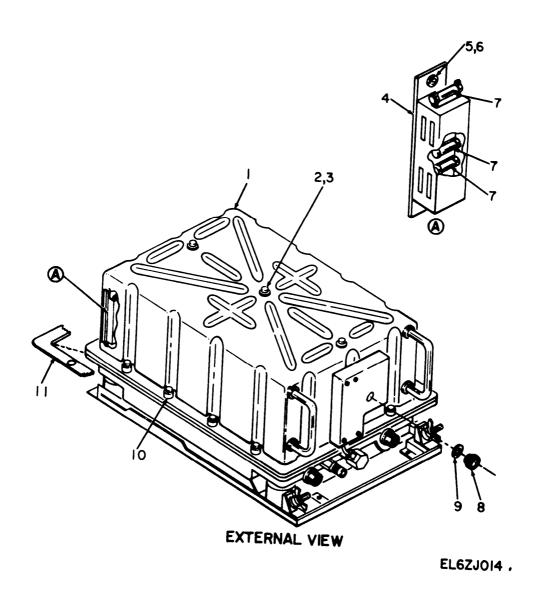


Figure 5. Receiver-Transmitters, Radio RT-702/ARC-51X and RT-742/ARC-51BX.

SECTI	ON TT					TM11-5820-518-20P		
(1)	ON II	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ILLUS	TRATIO	N						
(a)	(b)		NATIONAL	PART		DESCRIPTION	U/M	QTY
FIG	ITEM	SMR	STOCK	NUMBER	FSCM			INC
NO.	NO.	CODE	NUMBER					IN
						USABLE ON CODE		UNIT
						"GROUP 0303 RECEIVER-TRANSMITTERS,RADIO" RT-702/ARC-51X AND RT-742/ARC-51BX		
5	7	PAOZZ	5920-00-243-3788	F03A250V15AS	81349	"FUSE, CARTRIDGE 4AB, DCO"	EA	3

ITEM FIGURE STOCK NUMBER STOCK NUMBER NO. NO. NO. NO. 93 5305-00-206-2080 5355-00-043-0302 91 5355-00-043-0302 5355-00-045-3045 5305-00-206-2080 5920-00-243-3788 84 95 83 7 5355-00-519-3547 6210-00-691-5422 5355-00-763-4877 5305-00-787-2197 6240-00-060-2941 5821-00-082-3699 88 90 92 79 80 5821-00-082-3700 5821-00-082-3701 5355-00-804-6071 5355-00-866-6791 6625-00-892-5223 5821-00-082-3927 5821-00-082-3928 5821-00-134-6239 1 94 82 2 6240-00-155-7836 89 5821-00-980-5789 FIGURE ITEM FIGURE PART NUMBER FSCM FSCM PART NUMBER NO. 80058 C-4677/ARC-51X 80058 RT742CARC51BX 80058 74744 C-6287/ARC-51BX CM8-683 13499 13499 505-5720-002 544-1938-002 88 CM8-683 F03A250V15AS HD-615/ARC-51X ID-1003/ARC MS25237-327 MS51053-101 544-7865-002 544-7905-002 544-7905-002 81349 80058 13499 13499 80058 13499 96906 96906 89 80 08664 08664 6-40X1-84SPLINE416S 6-40X1-84SPLINE416S

13499 13499

87034

757-0414-001 757-0972-001 80055-1

80058 80058

80058

MT2653ARC RT702ARC51X

RT742ARC51BX

ITEM

NO.

92

2



SOMETHING WRONG WITH THIS PUBLICATION?

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

(PRINT YOUR UNIT'S COMPLETE ADDRESS)
Commander

Stateside Army Depot ATTN: AMSTA-US Stateside, N.J. 077 07703

DATE SENT

10 July 1975

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

TM 11-5840-340-20P

23 Jan 78

Radar Set AN/PRC-76

	T	M 11-58	340-340)-20P		23 Jan 78	Radar Set AN/PRC-/6	
	BE EXACT. PIN-POINT WHERE IT IS			IN THIS SPACE TELL WHAT IS WRONG				
	PAGE NO	PARA- GRAPH	FIGURE NO	TABLE NO	AND W	HAT SHOULD BE DON	E ABOUT IT:	
1	33						ne NSN to read: 5835-00-134-9186.	
Ì					Reaso	<u>n</u> : Accuracy.		
Ì	44		19		Ident	ify the cover on	the junction box (item no. 5).	
ł						Reason: It is a separate item and s not called out on figure 19.		
						on figure 19.		
	45				Add t	he cover of the	junction box as an item in the	
١					Reaso	ng for figure 19 n: Same as abov		
							·	
ı								
ı								
						No.		
				4				
		:			7			
				a				
1)(
ı								
I								
ı								

DA 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

999-1776

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

SSG I. M. DeSpirit of

PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER

	SOMETHING	WRONG WITH THIS PUBLICATION?							
THEN. JOT DOW'N THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT									
OUT. FOLD IT AND DROP IT IN THE MAIL! DATE SENT									
PUBLICATION NUMBER TM 11-5820-518-20P	PUBLICATION DATE 4 Aug 81	PUBLICATION TITLE Radio Sets AN/ARC-51X and AN/ARC-51BX							
BE EXACT PIN-POINT WHERE IT IS PAGE PARA FIGURE TABLE NO NO NO	IN THIS SPACE TELL WHAT AND WHAT SHOULD BE DON	IS WRONG							
	1								
PRINTED NAME GRADE OR TITLE AND TELEPHI	ONE NUMBER SIGN H	ERÊ							

DA 1 JUL 79 2028-2

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

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314



OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

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

SOMETHING WRONG WITH THIS PUBLICATION? THEN JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL. DATE SENT								
PUBLICATION NUMBER	PUBLICATION	DATE PUE	BLICATION TITLE					
TM 11-5820-518-20P	4 Aug	81 Ra	adio Sets AN/ARC-51X & AN/ARC-51					
PAGE PARA FIGURE TABLE NO	IN THIS SPACE TELL AND WHAT SHOULD	WHAT IS WE BE DONE AS	RONG BOUT IT:					
PRINTED NAME GRADE OR TITLE AND TELEPH	HONE NUMBER	SIGN HERE						

DA : 50RM 2028-2

PREVIOUS FOITIONS ARE URSCLETE PS IF YOUR DUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.



FOLD BACK

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID
DEPARTMENT OF THE ARMY
DOD 314



OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

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

abla	["]	\			ning	MING WRONG WITH THIS PUBLICATION?			
2	THEN. JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT								
	OUT. FOLD IT AND DROP IT IN THE MAIL: DATE SENT								
PUBLICATION NUMBER PUBLICAT							PUBLICATION TITLE Radio Sets AM	I/ARC-51X and	
TM 1:	1-5820-	-518-20 OINT WHE			4 Aug		AN/ARC-51BX		
PAGE	PARA-	FIGURE	TABLE	IN THIS	B SPACE TELL HAT SHOULD	WHAT I	B WRONG E ABOUT IT:		
NO	GRAPH	NO	NO						
		į							
	# 								
			<u> </u>						
		i							
PRINTED	NAME GRAC	E OR TITLE	AND TELEP	PHONE NUM	BEP	SIGN HE	RE		

DA 1 501 79 2028-2

PREVIOUS EDITIONS ARE OBSCIETE

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

FILL IN YOUR UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

POSTAGE AND FEES PAID DEPARTMENT OF THE ARMY DOD 314



OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

Commander
US Army Communications and

Electronics Materiel Readiness Command

ATTN: DRSEL-ME-MQ

Fort Monmouth, New Jersey 07703

By Order of the Secretary of the Army:

E. C. MEYER General, United States Army Chief of Staff

Official:

ROBERT M. JOYCE

Brigadier General, United States Army The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-36, Organizational Maintenance requirements for AN/ARC-51.

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

