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TM 11-5820-518-20P

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)

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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

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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.

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| | 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) | | |
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*This manual supersedes TM 11-5820-518-20P, 29 September 1975.

SECTION I

INTRODUCTION

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 alphameric 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 repairable, 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.

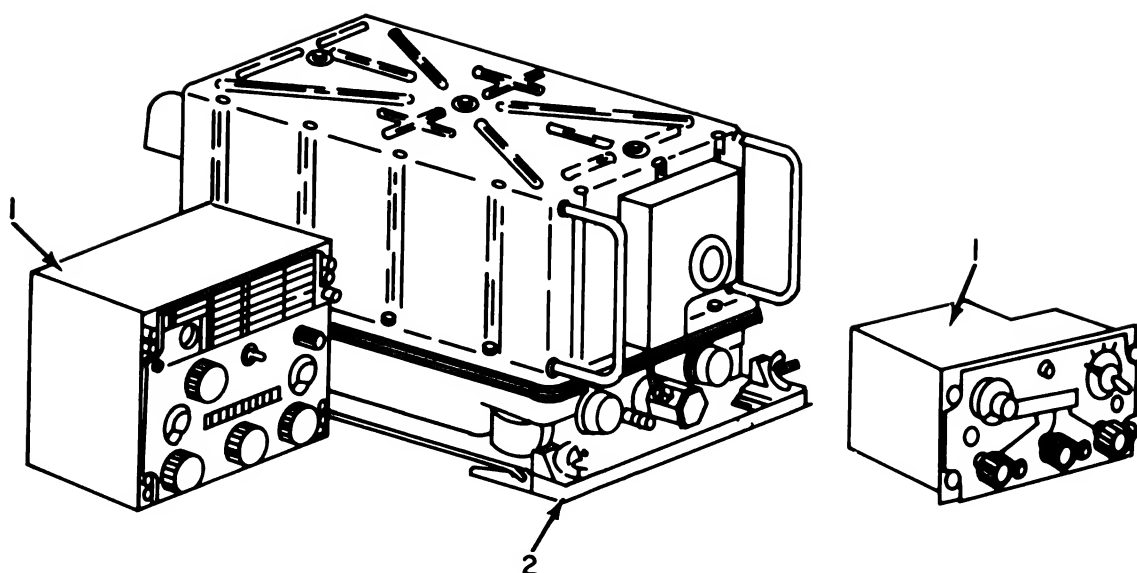
b. When National stock number or part number is known.

(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 NIIN sequence followed by a list of part numbers in 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.



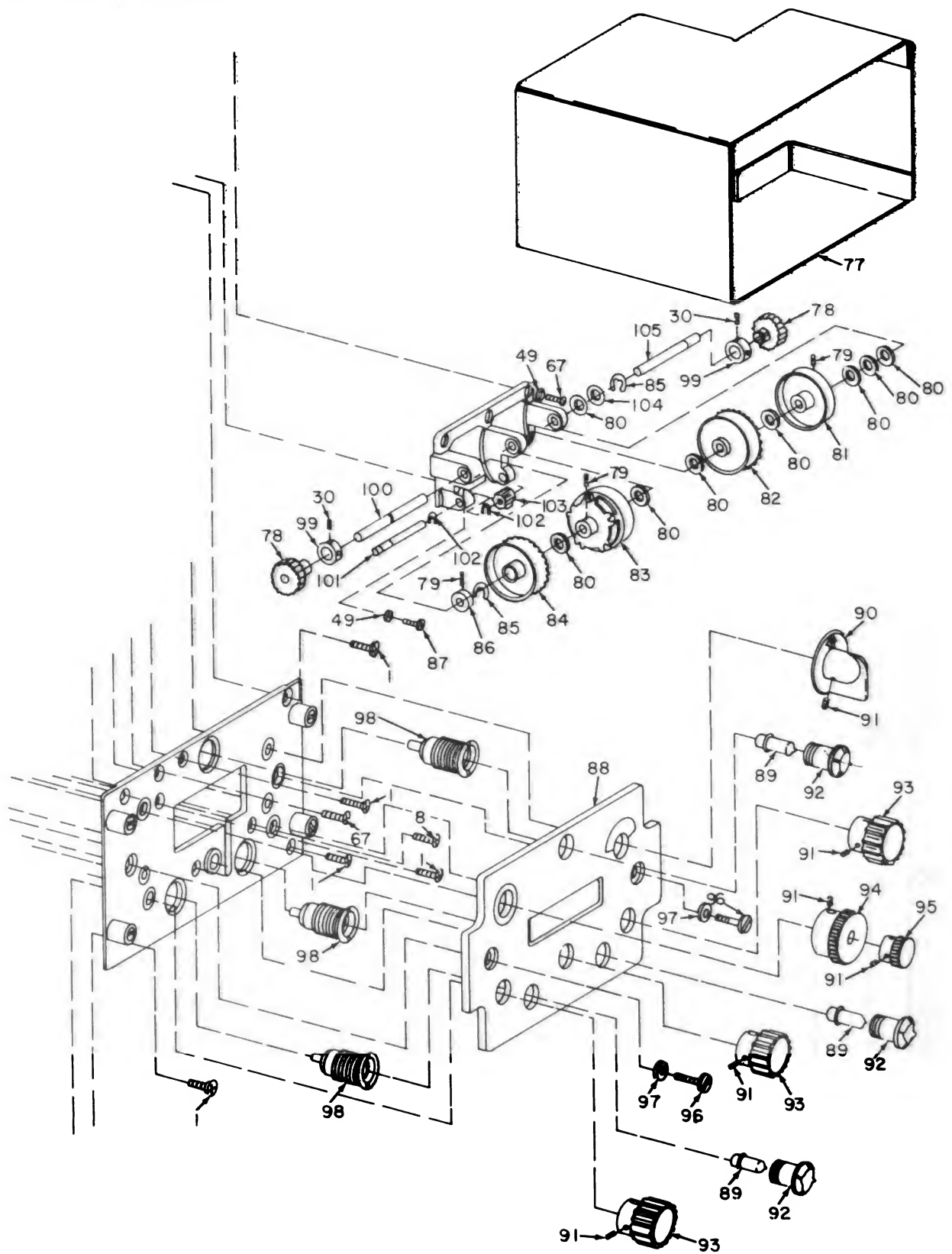
EL6ZJ001

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

SECTION II

TM 11-5820-518-20P

| (1) ILLUSTRATION | | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---------------------|--------------------|-------------|-----------------------------|-----------------|-------|---|-----|--------------------------|
| (a) FIG NO. | (b) ITEM NO. | SMR CODE | NATIONAL STOCK NUMBER | PART NUMBER | FSCM | DESCRIPTION | U/M | QTY INC IN UNIT |
| | | | | | | GROUP 00 RADIO SETS AN/ARC-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 | 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 |
| 5 | | | | | | | | |



RIGHT SIDE

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

SECTION II

TM 11-5820-518-20P

| (1) ILLUSTRATION | | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---------------------|--------------------|-------------|-----------------------------|-------------------------|-------|---|-----|--------------------------|
| (a) FIG NO. | (b) ITEM NO. | SMR CODE | NATIONAL STOCK NUMBER | PART NUMBER | FSCM | DESCRIPTION | 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 | 92 | PAOZZ | 6210-00-691-5422 | 80055-1 | 87034 | LENS,INDICATOR..... | 4AB | EA 3 |
| 2 | 93 | PAOZZ | 5355-00-043-0302 | 544-7905-002 | 13499 | KNOB..... | 4AB | 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 |
| | | | | | | 7/(8 blank) | | |

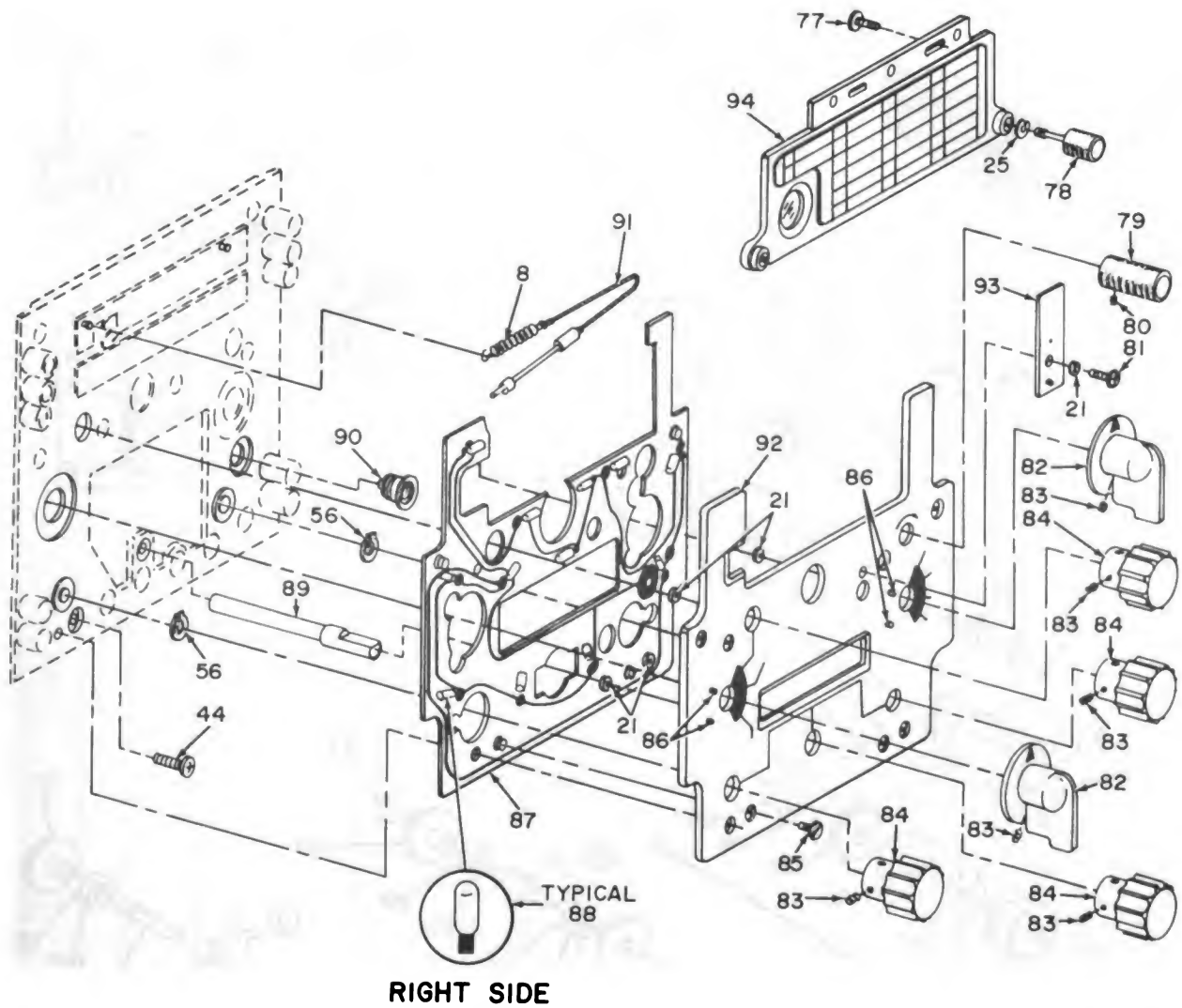


Figure 3. Control, Radio Set C-6287/ARC-51BX (Sheet 1 of 2).

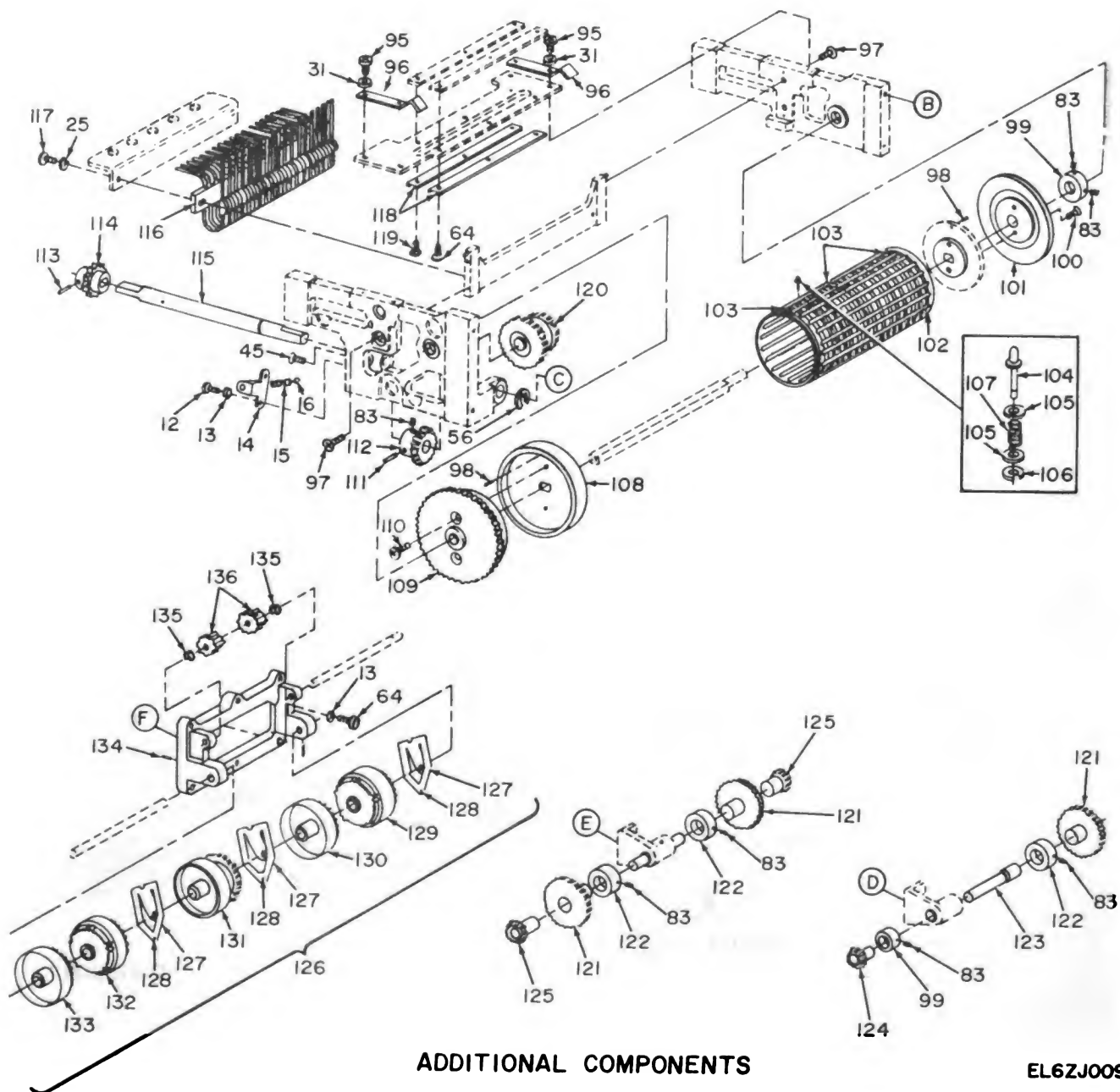
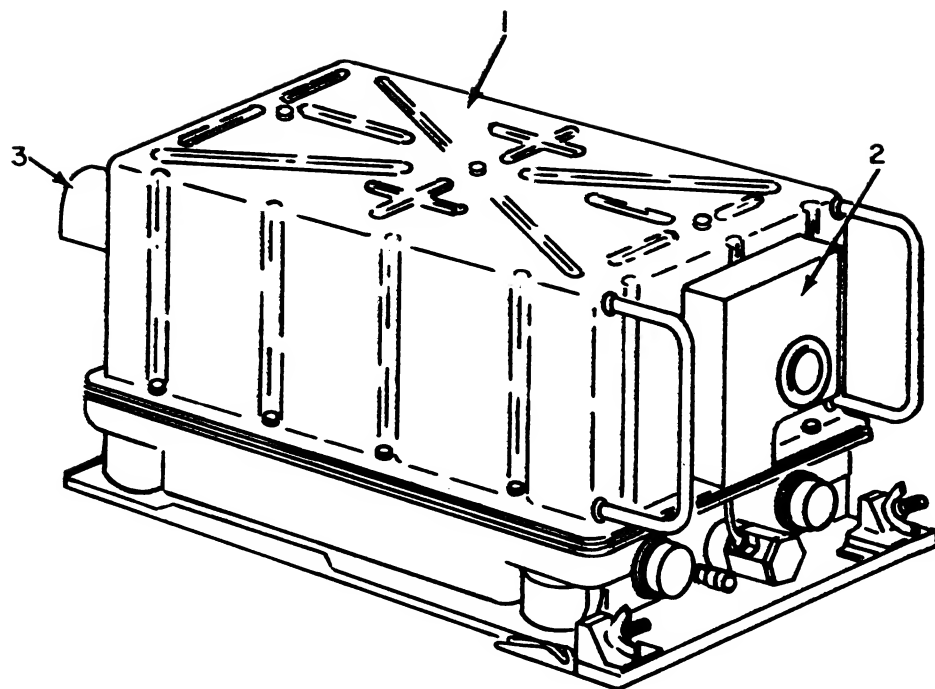


Figure 3. Control, Radio Set C-6287/ARC-51BX (Sheet 2 of 2).

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| (1) ILLUSTRATION | | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---------------------|-------------------|-------------|-----------------------------|-------------------------|-------|-----------------------------------|-----|--------------------------|
| (a) FIG NO | (b) ITEM NO | SMR CODE | NATIONAL STOCK NUMBER | PART NUMBER | FSCM | DESCRIPTION USABIT ON CODE | U/M | QTY INC IN UNIT |
| 3 | 79 | PA0ZZ | 5355-00-763-4877 | 757-0414-001 | 13499 | KNOB, AUDIO..... DCO | EA | 1 |
| 3 | 80 | PA0ZZ | 5305-00-787-2197 | MS51053-101 | 96906 | SETSCREW..... DCO | EA | 2 |
| 3 | 82 | PA0ZZ | 5355-00-866-6791 | 757-0972-001 | 13499 | KNOB, SWITCH..... DCO | EA | 2 |
| 3 | 83 | PA0ZZ | 5305-00-206-2080 | 6-40X1-84SPLINE4 165 | 08664 | SETSCREW..... DCO | EA | 22 |
| 3 | 84 | PA0ZZ | 5355-00-043-0302 | 554-7905-002 | 13499 | KNOB..... DCO | EA | 4 |
| 3 | 88 | PA0ZZ | 6240-00-060-2941 | CMB-683 | 71744 | LAMP, INCANDESCENT..... DCO | EA | 12 |
| 11 | | | | | | | | |



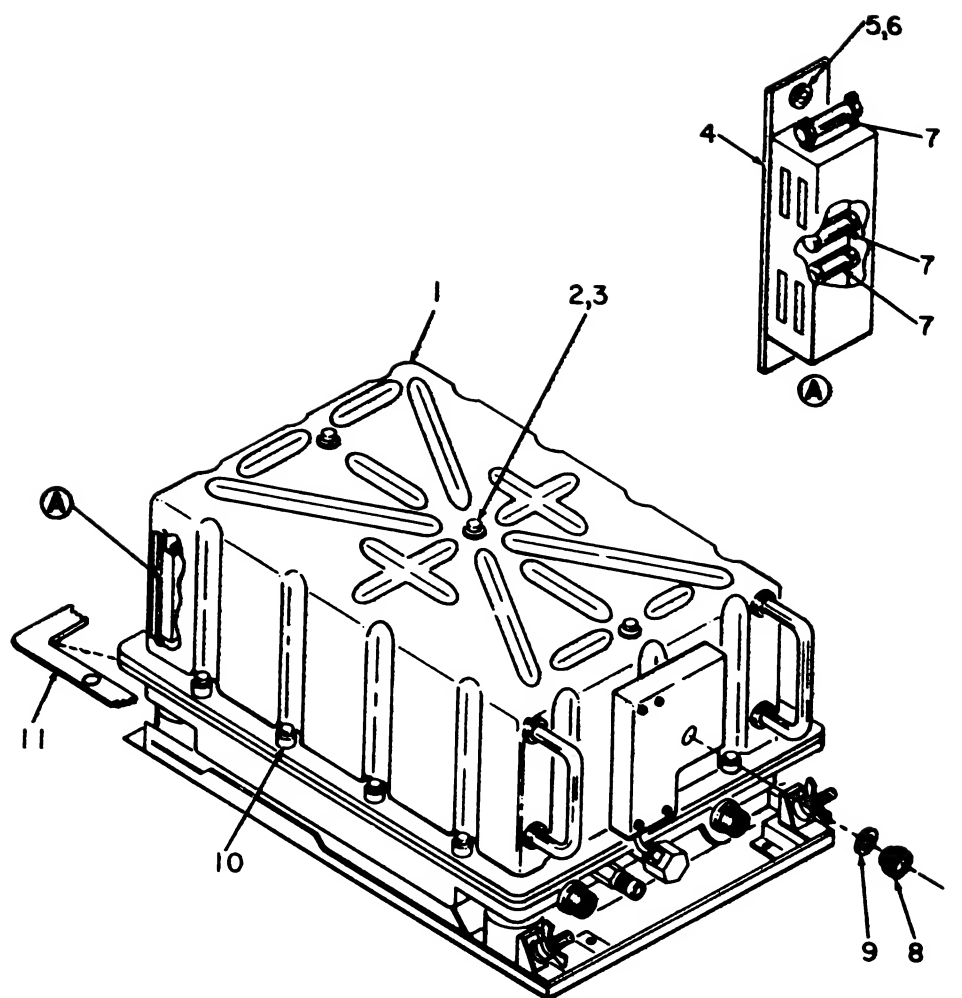
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Figure 4. Receiver-Transmitter System.

SECTION II

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| (1) ILLUSTRATION | | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|--------------------------------------|--------------------|-------------|-----------------------------|----------------|-------|-----------------------------------|-----|--------------------------|
| (a) FIG NO. | (b) ITEM NO. | SMR CODE | NATIONAL STOCK NUMBER | PART NUMBER | F8CM | DESCRIPTION USABLE ON CODE | U/M | QTY INC IN UNIT |
| GROUP 03 RECEIVER-TRANSMITTER SYSTEM | | | | | | | | |
| 4 | 1 | PAOHD | 5821-00-134-6239 | RT742CARC51BX | 80058 | RADIO SET..... DCO,CRM | EA | 1 |
| 4 | 1 | PAOHD | 5821-00-082-3927 | RT742ARC51BX | 80058 | RADIO SET..... DCO,AS6 | EA | 1 |
| 4 | 1 | PAOHD | 5821-00-082-3699 | RT702ARC51X | 80058 | RECEIVER-TRANSMITTER..... 4AB | EA | 1 |
| 4 | 2 | PAOFF | 6625-00-892-5223 | ID-1003/ARC | 80058 | INDICATOR,STANDING..... 4AB,DCO | EA | 1 |
| 4 | 3 | PAOFF | 5821-00-082-3701 | HD-615/ARC-51X | 80058 | COOLER,AIR,ELEK..... 4AB,DCO | EA | 1 |



EXTERNAL VIEW

EL6ZJ014

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

SECTION II

TM 11-5820-1

| (1) ILLUSTRATION | | (2) | (3) | (4) | (5) | (6) |
|---------------------|--------------------|-------------|-----------------------------|----------------|-------|--|
| (a) FIG NO. | (b) ITEM NO. | SMR CODE | NATIONAL STOCK NUMBER | PART NUMBER | FSCM | DESCRIPTION |
| | | | | | | USABLE ON CODE |
| 5 | 7 | PA0ZZ | 5920-00-243-3788 | F03A250V15AS | 81349 | GROUP 0303 RECEIVER-TRANSMITTERS, RADIO RT-702/ARC-51X AND RT-742/ARC-51BX FUSE, CARTRIDGE 4AB, DCO |

SECTION IV

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

TM 11-5820-518-20P

| STOCK NUMBER | FIGURE NO. | ITEM NO. | STOCK NUMBER | FIGURE NO. | ITEM NO. |
|------------------|------------|----------|------------------|------------|----------|
| 5355-00-043-0302 | 2 | 93 | 5305-00-206-2080 | 2 | 91 |
| 5355-00-043-0302 | 3 | 84 | 5305-00-206-2080 | 3 | 83 |
| 5355-00-045-3045 | 2 | 95 | 5920-00-243-3788 | 5 | 7 |
| 6240-00-060-2941 | 3 | 88 | 5355-00-519-3547 | 2 | 90 |
| 5821-00-082-3699 | 4 | 1 | 6210-00-691-5422 | 2 | 92 |
| 5821-00-082-3700 | 1 | 1 | 5355-00-763-4877 | 3 | 79 |
| 5821-00-082-3701 | 4 | 3 | 5305-00-787-2197 | 3 | 80 |
| 5821-00-082-3927 | 4 | 1 | 5355-00-804-6071 | 2 | 94 |
| 5821-00-082-3928 | 1 | 1 | 5355-00-866-6791 | 3 | 82 |
| 5821-00-134-6239 | 4 | 1 | 6625-00-892-5223 | 4 | 2 |
| 6240-00-155-7836 | 2 | 89 | 5821-00-980-5789 | 1 | 2 |

| FSCM | PART NUMBER | FIGURE NO. | ITEM NO. | FSCM | PART NUMBER | FIGURE NO. | ITEM NO. |
|-------|-----------------|------------|----------|-------|---------------------|------------|----------|
| 80058 | C-4677/ARC-51X | 1 | 1 | 80058 | RT742CARC51BX | 4 | 1 |
| 80058 | C-6287/ARC-51BX | 1 | 1 | 13499 | 505-5720-002 | 2 | 90 |
| 71744 | CMB-683 | 3 | 88 | 13499 | 544-1938-002 | 2 | 94 |
| 81349 | F03A250V15AS | 5 | 7 | 13499 | 544-7865-002 | 2 | 95 |
| 80058 | HD-615/ARC-51X | 4 | 3 | 13499 | 544-7905-002 | 2 | 93 |
| 80058 | ID-1003/ARC | 4 | 2 | 13499 | 544-7905-002 | 3 | 84 |
| 96906 | MS25237-327 | 2 | 89 | 08664 | 6-40X1-84SPLINE416S | 2 | 91 |
| 96906 | MS51053-101 | 3 | 80 | 08664 | 6-40X1-84SPLINE416S | 3 | 83 |
| 80058 | MT2653ARC | 1 | 2 | 13499 | 757-0414-001 | 3 | 79 |
| 80058 | RT702ARC51X | 4 | 1 | 13499 | 757-0972-001 | 3 | 82 |
| 80058 | RT742ARC51BX | 4 | 1 | 87034 | 80055-1 | 2 | 92 |

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PUBLICATION DATE
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| PAGE NO | PARA- GRAPH | FIGURE NO | TABLE NO |
|------------|----------------|--------------|-------------|
| 33 | | | |
| 44 | | 19 | |
| 45 | | | |

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

For item 2, change the NSN to read: 5835-00-134-9186.
Reason: Accuracy.

Identify the cover on the junction box (item no. 5).
Reason: It is a separate item and is not called out
on figure 19.

Add the cover of the junction box as an item in the
listing for figure 19.
Reason: Same as above

EXAMPLE

PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER
SSG I. M. DeSpirit of 999-1776

SIGN HERE
SSG I. M. DeSpirit

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