

TECHNICAL MANUAL

**ORGANIZATIONAL MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LISTS
FOR**

**RADIAC SET AN/PDR-27R
(NSN 6665-00-961-0846**

HEADQUARTERS, DEPARTMENT OF THE ARMY

11 OCTOBER 1978

TECHNICAL MANUAL }
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HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, DC, 11 October 1978

**ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LISTS
 FOR
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Current as of 19 June 1978

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		02 Radiac Detector DT-196/PDR-27J (No parts authorized)
		03 Headset H-43B/U (See TM 11-5965-247-12P for parts)
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* This manual supersedes TM 11 19 August 1977.

**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/PDR-27R. 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 of 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:

<i>Code</i>	<i>Definition</i>
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:

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

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

<i>Recoverability code8</i>	<i>Definition</i>
Z	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
H	Reparable item. When uneconomically repairable, condemn and dispose at the general support level.

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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

a. The following publications pertain to the AN/PDR-27R and its components:

TM 11-6665-230-15, Radiac Set AN/PDR-27R

TM 11-5965-247-12P, Headset, Electrical H-43B/U

b. The illustrations in this manual are identical to those published in TM 11-6665-230-40P. 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 or 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 note 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.

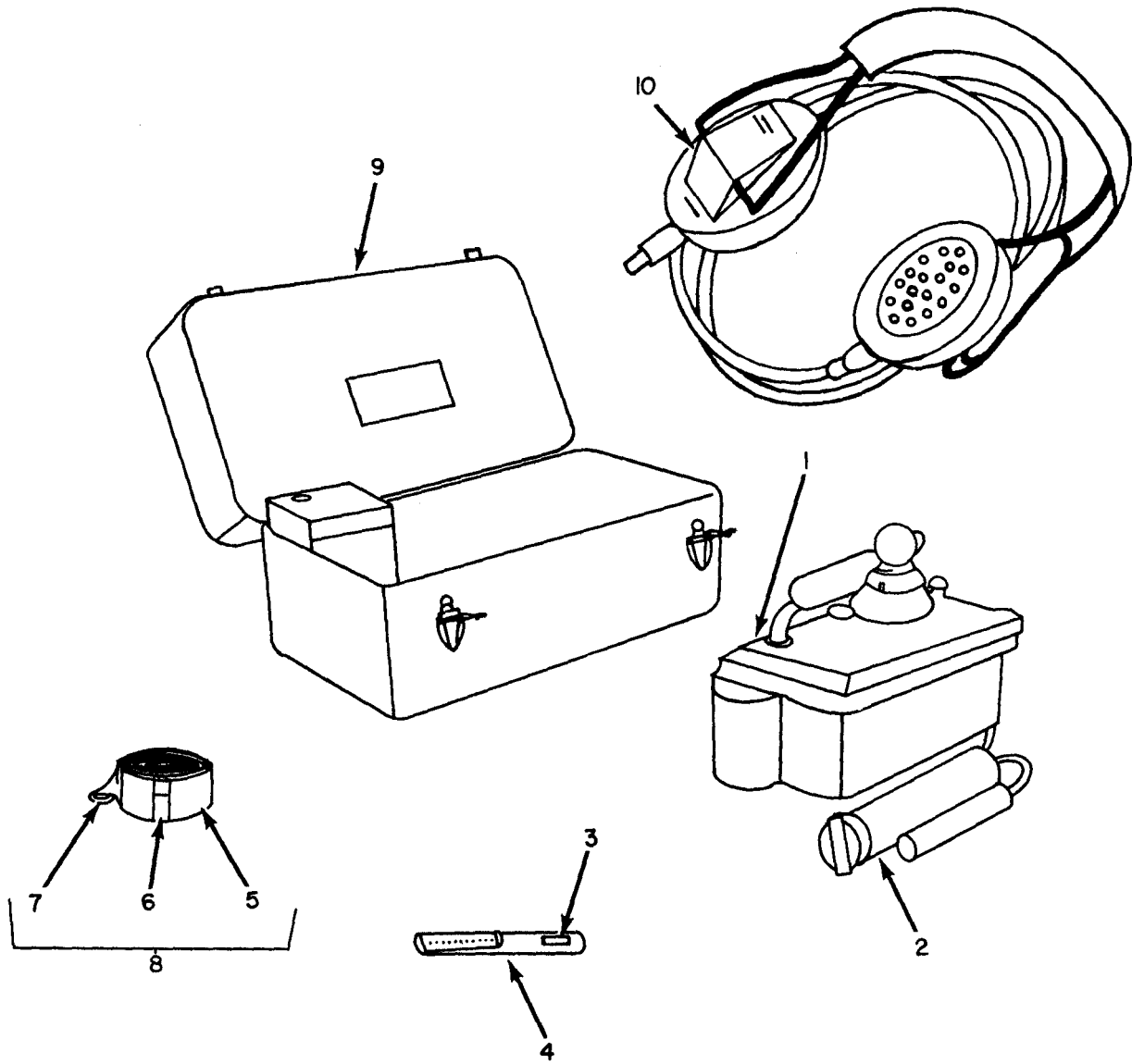
(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in NIIN sequence followed by a list of part numbers in alphanumeric sequence, cross-referenced to the illustration figure number and item number.

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

6. Abbreviations

Not applicable.

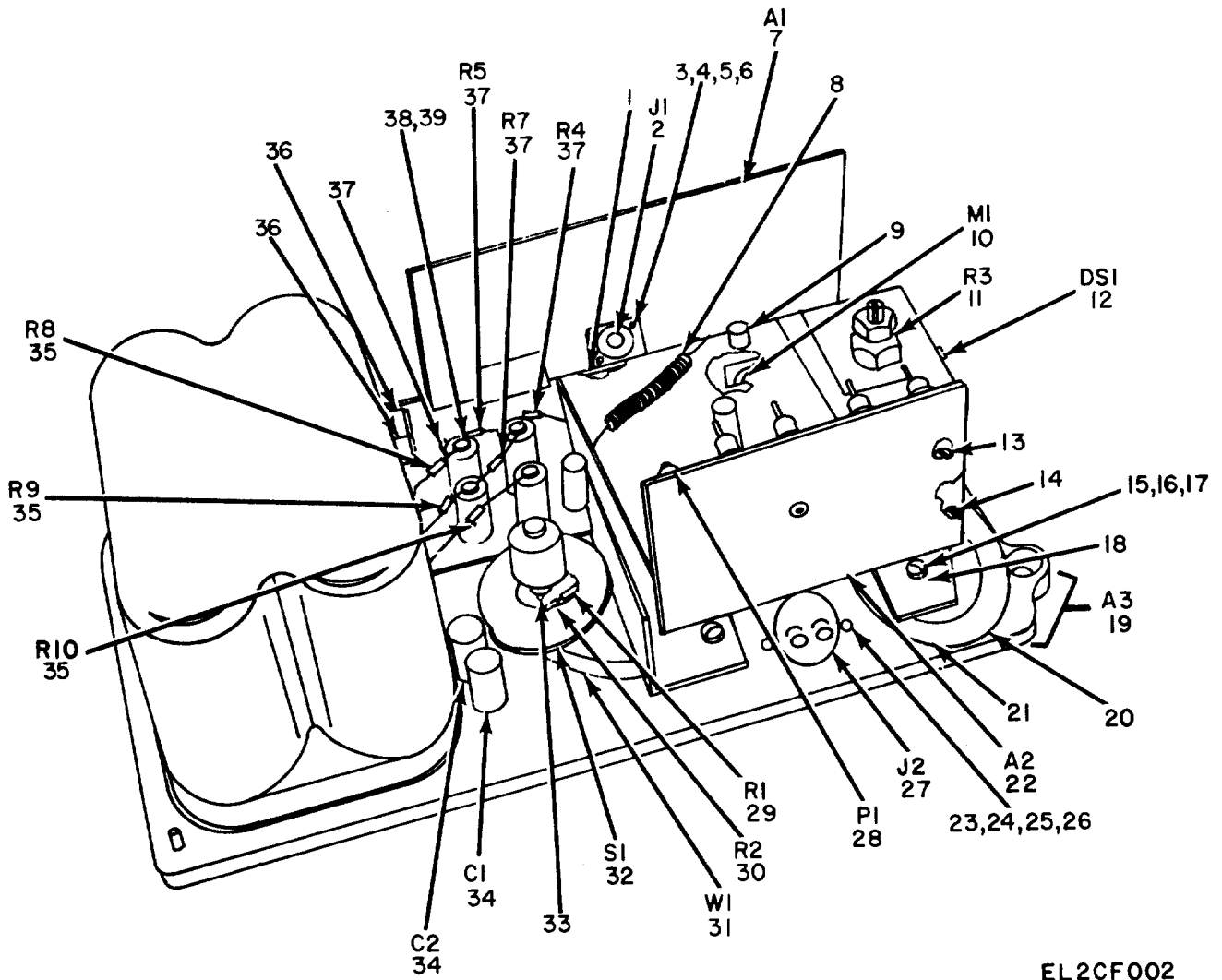
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EL2CF001

Figure 1. Radiac Set AN/PDR-27R.

(1) ILLUSTRATION (a) FIG NO.	(2) (b) ITEM NO.	(3) SMR CODE	(4) NATIONAL STOCK NUMBER	(5) PART NUMBER	(6) DESCRIPTION USABLE ON CODE	(7) U\M	(8) QTY INC IN UNIT
					GROUP 00 RADIAC SET AN/PDR-27R		
1	4	PAOHH	6665-00-832-6159	MX7338PDR27R	80058 RADIOACTIVE T SAMP	EA	1
1	8	PAOHH	5999-00-685-9470	ST136PDR27J	80058 HARNESS	EA	1
1	9	PAOHH	6665-00-832-6157	CY4995PDR27R	80058 CASE, CARRYING	EA	1
1	10	PAOHH	5965-00-651-7372	H43BU	80058 HEADSET	EA	1



EL2CF002

Figure 2. Radiac Meter IM-203/PDR-27R.

(1) ILLUSTRATION (a) FIG NO.	(2) (b) ITEM NO.	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION USABLE ON CODE	(7) U\M	(8) QTY INC IN UNIT
					GROUP 01 RADIAC METER IM-203/PDR-27R		
2	3	PAOZZ 5305-00-281-3118	320/505	97913	SETSCREW	EA	2

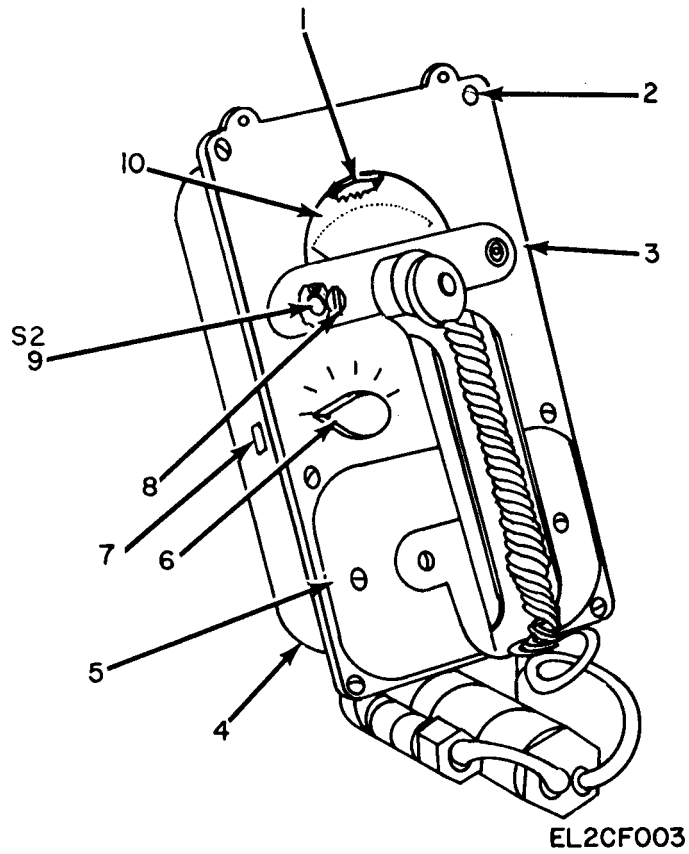


Figure 3. Radiac Meter IM-203/PDR-27R, Cover Assembly.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ILLUSTRATION							QTY
(a)	(b)	NATIONAL			DESCRIPTION		INC
FIG	ITEM	SMR	PART				IN
NO.	NO.	CODE	NUMBER	FSCM	USABLE ON CODE	U\M	UNIT
3	6	PAOZZ	5355-00-656-1275	521-3651527	15249	KNOB	EA 1

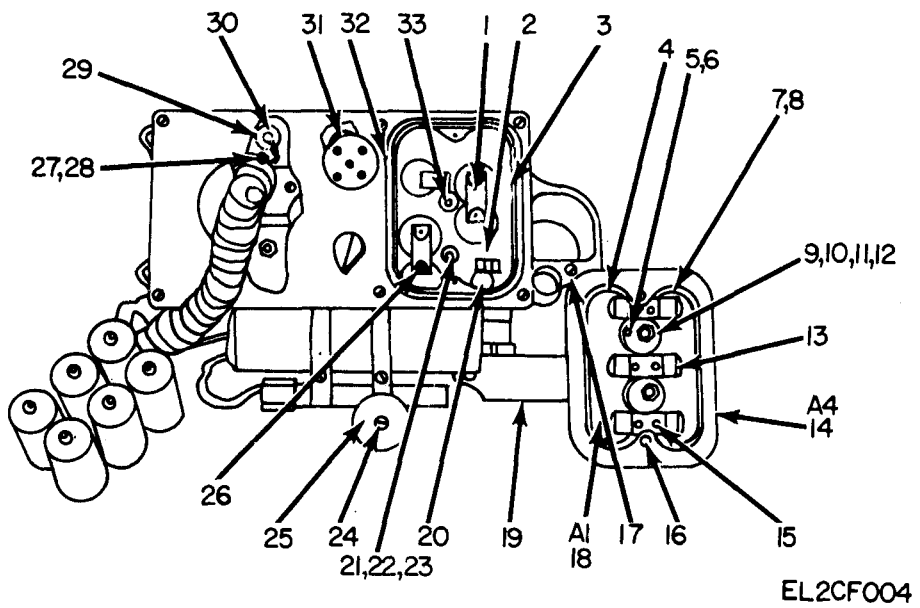


Figure 4. Radiac Meter IM-203/PDR-27R, Battery Cover Assembly.

(1) ILLUSTRATION (a) FIG NO.	(2) (b) ITEM NO.	(3) SMR CODE	(4) NATIONAL STOCK NUMBER	(5) PART NUMBER	(6) DESCRIPTION USABLE ON CODE	(7) U\M	(8) QTY INC IN UNIT
4	2	PAOHH	6665-00-832-6167	521-11372	15249 TRAY, BATTERY, BOTTOM	EA	1
4	5	PAOZZ	5340-00-936-3019	521-3241517	15249 SPACER, NEOPRENE	EA	2
4	7	PAOZZ	5330-00-222-2767	902-1	86579 GASKET, RUBBER	EA	2
4	14	PAOHH	6665-00-832-6168	521-11378	15249 BATTERY COVER ASSY	EA	1
4	16	PAOZZ	5305-00-947-7033	521-11364	15249 SCREW, SEAL	EA	2
4	18	PAOHH	6665-00-832-6166	521-11371	15249 TRAY, BATTERY, TOP	EA	1
4	24	PAOZZ	5305-00-947-7033	521-11364	15249 SCREW, SEAL	EA	1
4	29	PAOZZ	5935-00-885-2264	M39012-25-0006	81349 COVER, ELEC CONN	EA	1
4	32	PAOZZ	5330-00-542-1753	1320047A	15249 GASKET, RUBBER	EA	1

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NOTE: LATEST STOCK NUMBER AND PART NUMBER ASSIGNMENT IS INCLUDED AT END OF INDEX

STOCK NUMBER	FIGURE NO.	ITEM NO.	STOCK NUMBER	FIGURE NO.	ITEM NO.
5330-00-222-2767	4	7	6665-00-832-6166	4	18
5305-00-281-3118	2	33	6665-00-832-6167	4	2
5330-00-542-1753	4	32	6665-00-832-6168	4	14
5965-00-651-7372	1	10	5340-00-936-3019	4	5
5355-00-656-1275	3	6	5305-00-947-7033	4	16
5999-00-685-9470	1	8	5305-00-947-7033	4	24
6665-00-832-6157	1	9			
6665-00-832-6159	1	4			

PART NUMBER	FSCM	FIG NO	ITEM NO	PART NUMBER	FSCM	FIG NO	ITEM NO
CY4995PDR27R	80058	1	9	521-11364	15249	4	24
H43BU	80058	1	10	521-11371	15249	4	18
MX7338PDR27R	80058	1	4	521-11372	15249	4	2
M39012-25-0006	81349	4	29	521-11378	15249	4	14
ST136PDR27J	80058	1	8	521-324-1517	15249	4	5
1320047A	15249	4	32	521-3651527	15249	3	6
320/505	97913	2	33	902-1	86579	4	7
521-11364	15249	4	16				

LATEST NATIONAL STOCK NUMBER ASSIGNMENT

STOCK NUMBER	FIG. NO.	ITEM NO.
5935-00-885-2264	4	29

By Order of the Secretary of the Army:

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DATE 10 July 1975

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TM 11-5840-340-12

DATE

23 Jan 74

TITLE

Radar Set AN/FSC-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		
------	------	--	--

Recommend that the installation antenna alignment procedure be changed throughout to specify a 2° IFF antenna lag rather than 1°.

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.

3-10	3-3		
------	-----	--	--

			3-1
--	--	--	-----

Item 5, Function column. Change "2 db" to "3db."

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.

5-6	5-8		
-----	-----	--	--

--	--	--	--

			FO3
--	--	--	-----

Add new step f.1 to read, "Replace cover plate removed in step e.1, above."

REASON: To replace the cover plate.

Zone C 3. On J1-2, change "+24 VDC to "+5 VDC."

REASON: This is the output line of the 5 VDC power supply. + 24 VDC is the input voltage.

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PARA-
GRAPH

FIGURE
NO.

TABLE
NO.

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AND WHAT SHOULD BE DONE ABOUT IT.

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TEAR ALONG DOTTED LINE

THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

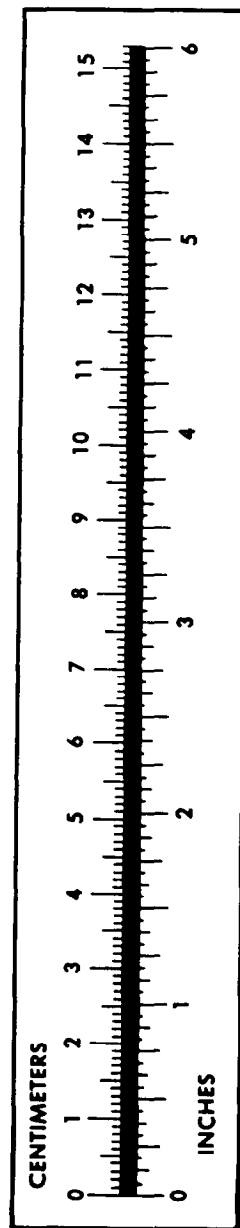
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



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