

T M 11-5820-919-40-1

TECHNICAL MANUAL

GENERAL SUPPORT MAINTENANCE MANUAL

RADIO SET AN/PRC-104(A)
(NSN 5820-01-141-7953)

HEADQUARTERS, DEPARTMENT OF THE ARMY

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Technical Manual

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Washington, DC, 15 January 1986

GENERAL SUPPORT
MAINTENANCE MANUAL

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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 the back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, NJ 07703-5007. A reply will be furnished to you.

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SECTION 0

GENERAL

0-1. SCOPE. This manual covers general support maintenance for Radio Set AN/PRC-104(A). This manual provides instructions for general support maintenance repair personnel. Throughout this manual AN/PRC-104 should be AN/PRC-104(A).

0-2. CONSOLIDATED INDEX OF ARMY PUBLICATIONS AND BLANK FORMS. Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

0-3. MAINTENANCE FORMS, RECORDS, AND REPORTS

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750 as contained in Maintenance Management Update.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55 /NAVMATINST 4355.74A/AFR-400-54/MCO 4430.3F.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38 /NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19/DLAR 4500.15.

0-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR). If your Radio Set AN/PRC-104(A) needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, New Jersey 07703-5007. We'll send you a reply.

0-5. ADMINISTRATIVE STORAGE. Administrative Storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage the PMCS should be performed to assure operational readiness. Disassembly and repacking of equipment for shipment or limited storage are covered in TM 740-90-1.

0-6. DESTRUCTION OF ARMY ELECTRONICS MATERIEL. Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

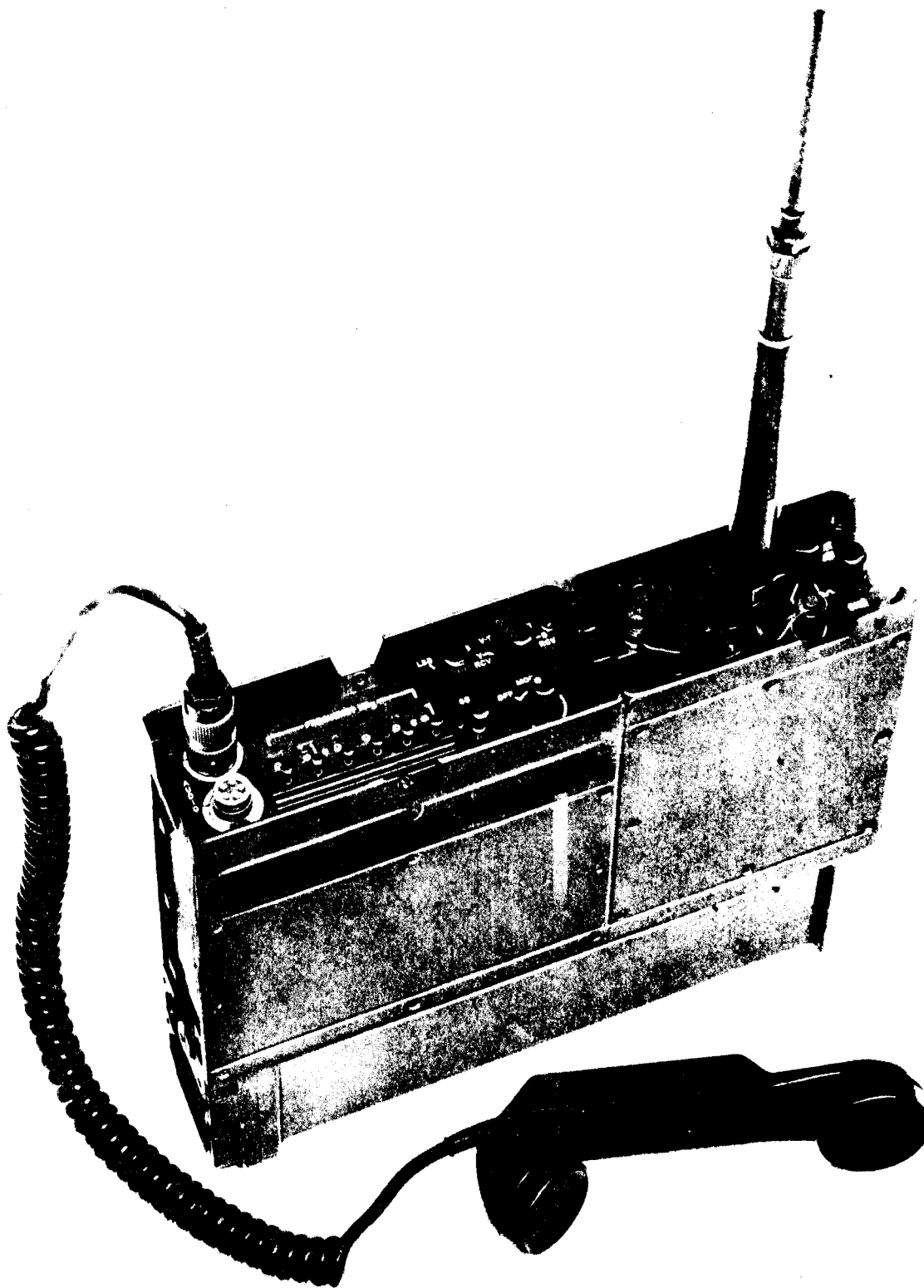


Figure 1-0. Radio Set AN/PRC-104

CHAPTER 1

GENERAL INFORMATION

1-1. SCOPE OF THE TECHNICAL MANUAL

1-2. This technical manual provides field maintenance information covering Radio Set AN/PRC-104 (radio set), and two of its units: Receiver-Transmitter RT-1209/URC (receiver/exciter) and Radio Frequency Amplifier AM-6874/PRC-104 (amplifier/coupler). The third unit, Battery Case CY-7541/PRC-104 (battery pack) is maintained entirely at the organizational level and is covered in Operator's and Organizational Maintenance Manual TM 11-5820-919-12.

1-3. The field maintenance information includes reference data, theory of operation and disassembly and reassembly for the complete radio set. It also provides test troubleshooting, alignment and repair data for the radio set and the receiver/exciter and amplifier/coupler units necessary to replace unit components and modules. Maintenance information for the individual modules is contained in General Support Maintenance Manual TM 11-5820-919-40-2. Depot-unique information is covered in Rebuild Standards RS-07748A-50/4. For parts ordering data refer to Repair Parts and Special Tools List TM 11-5820-919-24P.

NOTE

Air Force maintenance philosophy limits maintenance to removal and replacement of modules. Repair beyond that level must be performed at depot only.

1-4. Chapter 1 of this technical manual provides information on the physical aspects and performance characteristics of the radio set and its support equipment, and provides general reference data.

1-5. Chapter 2 contains system, overall and detailed functional theory of operation of the radio set, with supporting functional block diagrams.

1-6. Chapter 3 provides general maintenance data that is applicable to all the assemblies, including the modules in the General Support Maintenance Manual. It includes circuit card assembly (module) repair procedures; cleaning and examination; fabrication of test cables, adapters and fixtures; and instruction for use of the maintenance diagrams for performance test and troubleshooting. It also contains maintenance data and drawings for the following accessory equipments:

1. Bench Test Cable (Electrical Power Cable Assembly CX-13030/PRC-104)
2. Battery Extender Cable (Electrical Power Cable Assembly CX-13031/PRC-104)
3. Antenna Base (Antenna Base AB-1241/PRC-104)
4. Telegraph Key (Telegraph Key KY-872/PRC-104)
5. Transit Case (Radio Set Case CY-7542/PRC-104)

1-7. Chapters 4 thru 6 provide the maintenance information necessary to test, troubleshoot and repair the radio set and the receiver/exciter and amplifier/coupler units. It is sectionalized in the following sequence: (1) support equipment and materials, (2) disassembly and reassembly, (3) cleaning and examination, (4) performance test and troubleshooting, (5) repair and replacement, (6) component location and parts list, and (7) maintenance diagrams.