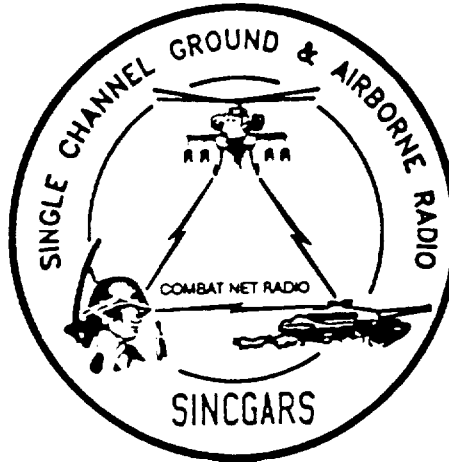


TECHNICAL MANUAL OPERATOR'S MANUAL



SINGARS GROUND COMBAT NET RADIO, ICOM

MANPACK RADIO

AN/PRC-119A (NSN 5820-01-267-9482) (EIC: L2Q)

SHORT RANGE VEHICULAR RADIO

AN/VRC-87A (NSN 5820-01-267-9480) (EIC: L22)

SHORT RANGE VEHICULAR RADIO WITH SINGLE RADIO MOUNT

AN/VRC-87C (NSN 5820-01-304-2045) (EIC: GDC)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT

AN/VRC-88A (NSN 5820-01-267-9481) (EIC: L23)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT AND SINGLE RADIO MOUNT

AN/VRC-88C (NSN 5820-01-304-2044) (EIC: GDD)

SHORT RANGE/LONG RANGE VEHICULAR RADIO

AN/VRC-89A (NSN 5820-01-267-9479) (EIC: L24)

LONG RANGE VEHICULAR RADIO

AN/VRC-90A (NSN 5820-01-268-5105) (EIC: L25)

SHORT RANGE/LONG RANGE VEHICULAR RADIO WITH DISMOUNT

AN/VRC-91A (NSN 5820-01-267-9478) (EIC: L26)

LONG RANGE/LONG RANGE VEHICULAR RADIO

AN/VRC-92A (NSN 5820-01-267-9477) (EIC: L27)

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 SEPTEMBER 1992

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OPERATOR'S MANUAL RADIO SETS

MANPACK (MP)

AN/PRC-119A (NSN 5820-01-267-9482) (EIC: L2Q)

SHORT RANGE VEHICULAR RADIO (SR)

AN/VRC-87A (NSN 5820-01-267-9480) (EIC: L22)

SHORT RANGE VEHICULAR RADIO WITH SINGLE MOUNT (SR)

AN/VRC-87C (NSN 5820-01-304-2045) (EIC: GDC)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT (SR-D)

AN/VRC-88A (NSN 5820-01-267-9481) (EIC: L23)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT AND SINGLE MOUNT (SR-D)

AN/VRC-88C (NSN 5820-01-304-2044) (EIC: GDD)

SHORT RANGE/LONG RANGE VEHICULAR RADIO (SR/LR)

AN/VRC-89A (NSN 5820-01-267-9479) (EIC: L24)

LONG RANGE VEHICULAR RADIO (LR)

AN/VRC-90A (NSN 5820-01-268-5105) (EIC: L25)

SHORT RANGE/LONG RANGE VEHICULAR RADIO WITH DISMOUNT (SR/LR-D)

AN/VRC-91A (NSN 5820-01-267-9478) (EIC: L26)

LONG RANGE/LONG RANGE VEHICULAR RADIO (LR/LR)

AN/VRC-92A (NSN 5820-01-267-9477) (EIC: L27)

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- This manual supersedes TM 11-5820-890-10-1, dated 1 March 1988.

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HOW TO USE YOUR MANUAL

LOCATING INFORMATION

COVER. Information that you will use most often is boxed in on the front cover as well as in the Table of Contents. The boxed in information found on the front cover is thumb-indexed with edge marks so that you may quickly refer to that information.

TABLE OF CONTENTS. Refer to the Table of Contents to find out where information can be found. The Table of Contents lists each chapter title, section heading, and main subject item. Under each chapter title, section headings are listed. Under each section heading, main subjects are listed.

INDEX. Refer to the index at the back of this manual. The information is broken down to subject matter and is alphabetically listed. Look for the subject you need to know about; then turn to the page listed.

GLOSSARY. Refer to the glossary in Appendix E in the back of this manual to find the meaning of an unfamiliar term.

ABBREVIATIONS. Refer to the list of abbreviations in Appendix E in the back of this manual to find the term associated with an unfamiliar abbreviation.

NOMENCLATURE CROSS-REFERENCE LIST. Refer to the nomenclature cross-reference list in Appendix E in the back of this manual to find common names and official nomenclature.

OPERATIONAL NOTES

OPERATOR PROCEDURES. A roadmap and functional flow charts are provided in Appendix A which offer the operator graphic aids that may be helpful in learning and recalling basic operator tasks. Operator information is printed on the yellow pages so that you may easily refer to routine operator tasks,

PROCEDURE INSTRUCTIONS. Procedures can be found under the appropriate heading. Refer to the index to find a procedure quickly. Most procedures have instructions that are lettered a, b, c, and so on. Always begin with step a; then do the rest of the steps in order.

OPERATING DISPLAYS. Examples of display data are shown throughout your manual. The letters you see on equipment displays **must** match the examples shown. However, the numbers (0, 1, 2, 3, 4, 5, 6, 7, 8, 9) you see on your equipment displays may differ from the examples. If equipment displays do not match the examples shown, make sure you have done the procedure correctly.

SWITCH SELECTIONS. All “box” switch selections on FCTN, MODE and COMSEC switches require pull to turn.

HOW TO USE YOUR MANUAL Continued

Your manual has been pre-punched with five holes. You may use a standard three ring notebook, or purchase an Equipment Log Book (NSN 7510-00-889-3494) from your local Self Service Supply Center to place your manual in.

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INTRODUCTION

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SCOPE

This chapter provides a general introduction to the SINCGARS ground ICOM operator's manual. SINCGARS is designed for secure voice and data communication and is the only anti-jam radio that is part of a total system. SINCGARS is capable of two modes of operation: single channel and frequency hopping. The introduction includes information about how to report errors, equipment problems, suggested improvements, and security information. It also contains a section that describes equipment capabilities and features, characteristics, performance, weights, and measurements as well as illustrations and text that show the location and description of major components. The technical principles of operation are detailed descriptions of operational functions of SINCGARS, and are provided only for information. For simplified operator's information, refer to Chapter 2. The following radio sets handle voice and data communications. The operator's manual gives information for the operation and maintenance of the following radio sets:

- Manpack radio (MP) , AN/PRC-119A
- Short range vehicular radio (SR), AN/VRC-87A
- Short range vehicular radio mounted in single radio mount (SR), AN/VRC-87C
- Short range vehicular radio with dismount (SR-D), AN/VRC-88A
- Short range vehicular radio mounted in single radio mount with dismount (SR-D) , AN/VRC-88C
- Short range/long range vehicular radio (SR/LR) , AN/VRC-89A
- Long range vehicular radio (LR), AN/VRC-90A
- Short range/long range vehicular radio with dismount (SR/LR-D), AN/VRC-91A
- Long range/long range vehicular radio (LR/LR), AN/VRC-92A

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MAINTENANCE FORMS, RECORDS AND REPORTS

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.

Reporting of Item end Packaging Discrepancies. Fill out and forward SF 364 (Report of Discrepancy (ROD) as prescribed in AR 735-11-2/DLAR 4140.55/SECNAVINST 4355.18/AFR 400-54/MCO 4430.3J.

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

CONSOLIDATED INDEX OF ARMY PUBLICATIONS AND BLANK FORMS

Refer to the latest issue of DA Pam 25-30 to determine whether there are new editions, changes or additional publications pertaining to the equipment.