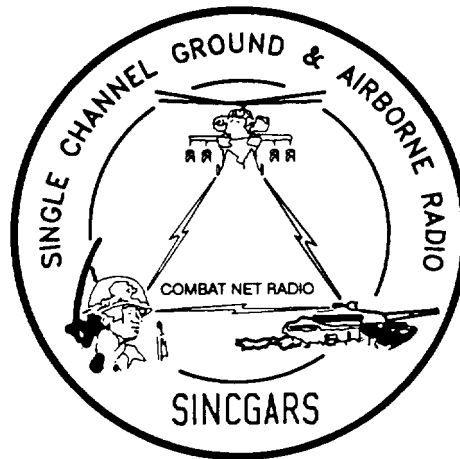


OPERATOR'S MANUAL



SINGARS GROUND COMBAT NET RADIO, NON-ICOM

MANPACK RADIO

AN/PRC-119 (NSN 5820-01-151-9915) (EIC: L2A)

SHORT RANGE VEHICULAR RADIO

AN/VRC-87 (NSN 5820-01-151-9916) (EIC: L2T)

SHORT RANGE VEHICULAR RADIO

AN/VRC-87D (NSN 5820-01-351-5259) (EIC: TBD)

(WITH SINGLE RADIO MOUNT)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT

AN/VRC-88 (NSN 5820-01-151-9917) (EIC: L2U)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT

AN/VRC-88D (NSN 5820-01-352-1694) (EIC: TBD)

(WITH SINGLE RADIO MOUNT)

SHORT RANGE/LONG RANGE VEHICULAR RADIO

AN/VRC-89 (NSN 5820-01-151-9918) (EIC: L2V)

LONG RANGE VEHICULAR RADIO

AN/VRC-90 (NSN 5820-01-151-9919) (EIC: L2W)

SHORT RANGE/LONG RANGE VEHICULAR RADIO

WITH DISMOUNT

AN/VRC-91 (NSN 5820-01-151-9920) (EIC: L2X)

LONG RANGE/LONG RANGE VEHICULAR RADIO

AN/VRC-92 (NSN 5820-01-151-9921) (EIC: L2Y)

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HEADQUARTERS, DEPARTMENT OF THE ARMY

1 SEPTEMBER 1992

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TECHNICAL MANUAL

TM 11-5820-890-10-3

Headquarters
Department of the Army
Washington, D.C., 1 September 1992

**Operator's Manual
RADIO SETS**

MANPACK (MP)

AN/PRC-119 (NSN 5820-01-151-9915) (EIC: L2A)

SHORT RANGE VEHICULAR RADIO (SR)

AN/VRC-87 (NSN 5820-01-151-9916) (EIC: L2T)

SHORT RANGE VEHICULAR RADIO (SR)

AN/VRC-87D (NSN 5820-01-351-5259) (WITH SINGLE RADIO MOUNT) (EIC: TBD)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT (SR-D)

AN/VRC-88 (NSN 5820-01-151-9917) (EIC: L2U)

SHORT RANGE VEHICULAR RADIO WITH DISMOUNT (SR-D)

AN/VRC-88D (NSN 5820-01-352-1694) (WITH SINGLE RADIO MOUNT) (EIC: TBD)

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

AN/VRC-89 (NSN 5820-01-151-9918) (EIC: L2V)

LONG RANGE VEHICULAR RADIO (LR)

AN/VRC-90 (NSN 5820-01-151-9919) (WITH SINGLE RADIO MOUNT) (EIC: L2W)

SHORT RANGE/LONG RANGE VEHICULAR RADIO WITH DISMOUNT

(SR/LR-D) AN/VRC-91 (NSN 5820-01-9920) (EIC: L2X)

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

AN/VRC-92 (NSN 5820-01-151-9921) (EIC: L2Y)

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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 and MODE 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.

CHAPTER 1 INTRODUCTION

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SCOPE

This chapter provides a general introduction to the SINCGARS ground NON-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-119
- Short range vehicular radio (SR), AN/VRC-87 and 87D (with single radio mount)
- Short range vehicular radio with dismount (SR-D), AN/VRC-88 and 88D (with single radio mount)
- Short range/long range vehicular radio (SR/LR), AN/VRC-89
- Long range vehicular radio (LR), AN/VRC-90
- Short range/long range vehicular radio with dismount (SR/LR-D), AN/VRC-91
- Long range/long range vehicular radio (LR/LR), AN/VRC-92