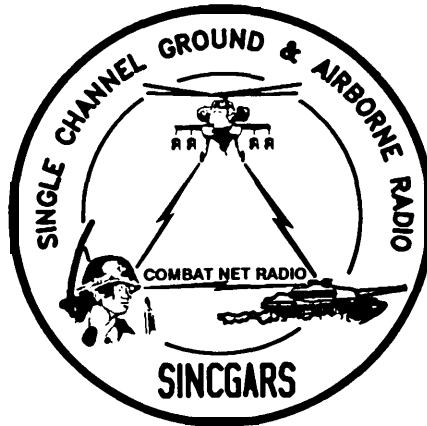

TECHNICAL MANUAL
DIRECT SUPPORT MAINTENANCE MANUAL
(VOLUME 5)



GROUND NON-ICOM RADIO SETS
CONSISTING OF:

RECEIVER-TRANSMITTER, RADIO RT-1439/VRC (NSN 5895-01-195-0827)
MAINTENANCE GROUP, ELECTRICAL EQUIPMENT OA-9263A/GRC (NSN 5820-01-304-2010)
AMPLIFIER-ADAPTER, VEHICULAR
 AM-7239/VRC (NSN 5895-01-188-8819)
 AM-7239B/VRC (NSN 5895-01-334-3164)
AMPLIFIER, RADIO FREQUENCY AM-7238/VRC (NSN 5895-01-195-4844)
CONTROL-MONITOR C-11291/VRC (NSN 5820-01-151-9914)
MOUNTING BASE, ELECTRICAL EQUIPMENT
 MT-6352/VRC (NSN 5975-01-188-8873)
 MT-6353/VRC (NSN 5975-01-235-1962)
 MT-6429/VRC (NSN 5820-01-220-7901)
 MT-6576/VRC (NSN 5975-01-285-2352)
BATTERY BOX CY-8523A/PRC (NSN 6160-01-284-4200)
ANTENNA BASE, ELECTRICAL EQUIPMENT
 AS-3684NRC (NSN 5985-01-189-7925)
 AS-3900/VRC (NSN 5985-01-297-2971)
CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL
 CX-13313/VRC (NSN 5995-01-303-4951)
 CX-13293/VRC (NSN 5995-01-295-5360)
POWER SUPPLY ADAPTER, VEHICULAR MX-10862/VRC (NSN 6130-01-284-4195)
TRAY, BATTERY CY-8664/VRC (NSN 6160-01-339-7723)
LOUDSPEAKER-CONTROL UNIT LS-671/VRC (NSN 5965-01-222-1420)
FILL DEVICE, ELECTRONIC COUNTER COUNTERMEASURES
 MX-10579/VRC (NSN 5895-01-188-8816)
 MX-18290/VRC (NSN 5895-01-270-3935)

Approved for public release; distribution is unlimited.

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Direct Support Maintenance Manual

Receiver-Transmitter, Radio RT-1439/VRC	(NSN 5895-01-195-0827);
Maintenance Group OA-9263A/GRC	(NSN 5820-01-304-2010);
Amplifier-Adapter, Vehicular AM-7239/VRC	(NSN 5895-01-188-8819);
AM-7239B/VRC	(NSN 5895-01-334-3164);
Amplifier, Radio Frequency AM-7238/VRC	(NSN 5895-01-195-4844);
Control Monitor C-11291/VRC	(NSN 5820-01-151-9914);
Mounting Base, Electrical Equipment MT-6352/VRC	(NSN 5975-01-188-8873);
Battery Box CY-8523A/PRC	(NSN 6140-01-284-4200);
Mounting Base, Electrical Equipment MT-6353/VRC	(NSN 5975-01-235-1962);
Antenna Base AS-3684/VRC	(NSN 5985-01-189-7925);
AS-3900/VRC	(NSN 5985-01-297-2971);
Cable Assy, Special Purpose, Electrical CX-13313/VRC	(NSN 5995-01-303-4951);
Mounting Base, Electrical Equipment MT-6429/VRC	(NSN 5820-01-220-7901);
Cable Assy, Special Purpose, Electrical CX-13293/VRC	(NSN 5995-01-295-5360);
Power Supply Adapter, Vehicular MX-10862/VRC	(NSN 6130-01-284-4195);
Tray, Battery CY-8664/VRC	(NSN 6160-01-339-7723);
Mounting Base, Electrical Equipment MT-6576/VRC	(NSN 5975-01-285-2352);
Loudspeaker-Control Unit LS-671/VRC	(NSN 5965-01-222-1420);
Fill Device, ECCM MX-10579/VRC	(NSN 5895-01-188-8816);
MX-18290/VRC	(NSN 5895-01-270-3935)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know 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, U.S. Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-ME-PS, Fort Monmouth, New Jersey 07703-5007. A reply will be furnished direct to you.

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HOW TO USE THIS MANUAL

This manual is divided into 18 chapters. Chapter 1 is an introduction to the equipment. Chapters 2 thru 18 are on the units maintained by the Direct Support (DS) Maintenance. Each chapter begins with an index to the sections. Most of the sections also begin with indexes.

How to Find Something Fast. Check the index on the front cover. The sections you will use most often are boxed on the front cover. The boxes line up with edge marks on the pages. If you need something that is not listed there, use the alphabetical index in the back of this manual.

Operating Procedures and Unit Maintenance Instructions. Procedures for operating the equipment are not included in this manual. You should read the Operator's Manual TM 11-5820-890-10-3 and be familiar with the procedure in it prior to performing DS maintenance. Also, the information in the Unit Maintenance Manual TM 11-5820-890-20-2 is not repeated in the Direct Support Maintenance Manual.

Read all preliminary information found at the beginning of each procedure. It has important information and safety instructions you must follow before beginning work.

Warning pages are at the beginning of this manual. You should learn the warnings before doing maintenance on the equipment. Always follow appropriate safety procedures and precautions.

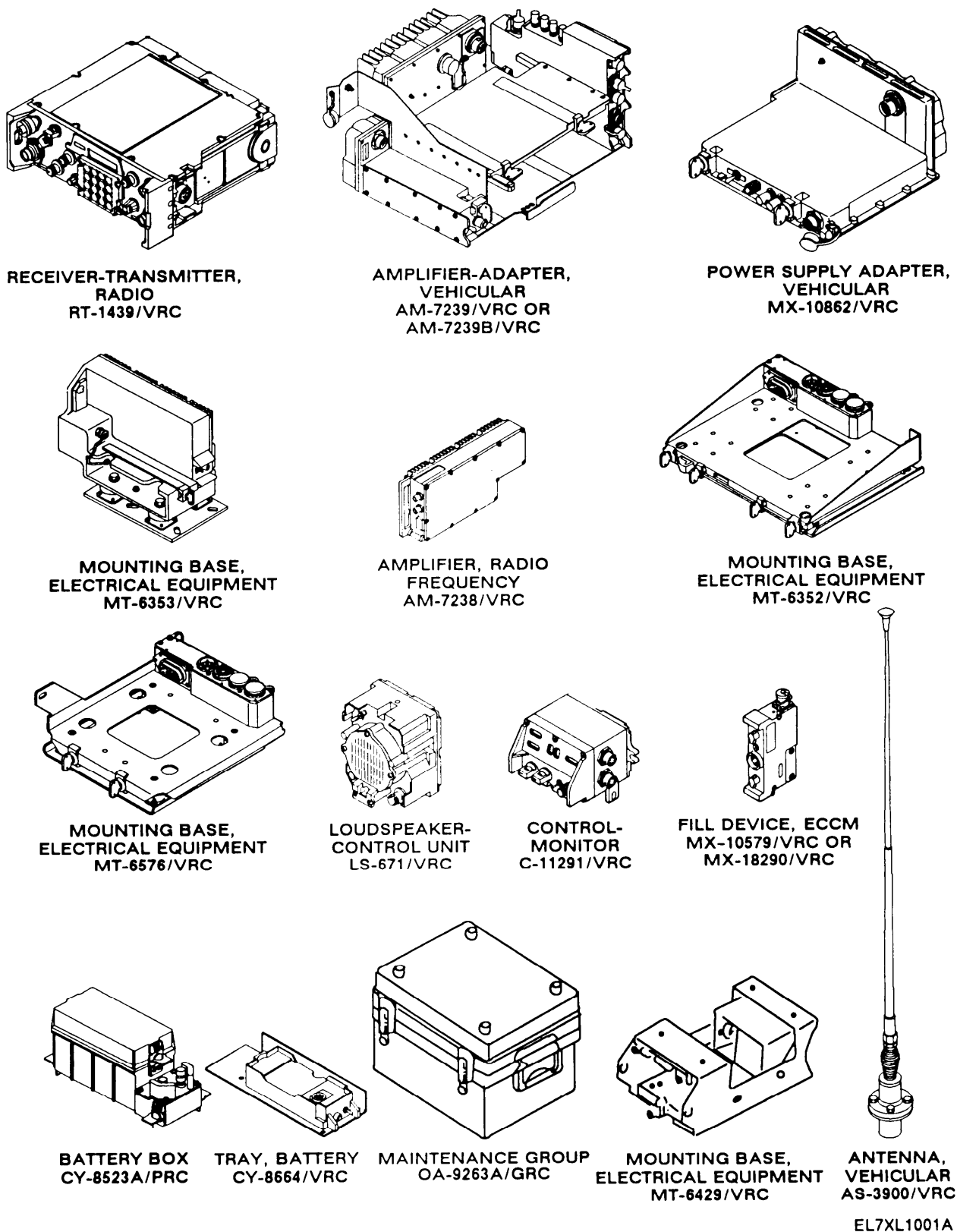


Figure 1-1. RT-1439/VRC Series Radio components

CHAPTER 1

INTRODUCTION

Subject	Section	Page
General information	I	1-1
Equipment Description and Data	II	1-3

OVERVIEW

This chapter provides general information about the communication-electronics (C-E) items of equipment that make up the RT-1439/VRC series of radio sets.

The principles of operation and specific maintenance instructions for the components are included in the maintenance chapters.

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1-1. SCOPE.

Type of Manual: This manual covers the direct support level of maintenance for the RT-1439 series of radio sets.

Model Numbers and Equipment Names: The following equipment is covered:

- Receiver-Transmitter, Radio RT-1439/VRC
- Maintenance Group OA-9263A/GRC
- Amplifier-Adapter, Vehicular AM-7239/VRC and AM-7239B/VRC
- Amplifier, Radio Frequency AM-7238/VRC
- Control-Monitor C-11291/VRC
- Mounting Base, Electrical Equipment MT-6352/VRC
- Battery Box CY-8523A/PRC
- Mounting Base, Electrical Equipment MT-6353/VRC
- Antenna, Vehicular AS-3684/VRC or AS-3900/VRC
- Mounting Base, Electrical Equipment MT-6429/VRC
- Power Supply Adapter, Vehicular MX-10862/VRC
- Tray, Battery CY-8664/VRC
- Mounting Base, Electrical Equipment MT-6576/VRC
- Loudspeaker-Control Unit, LS-671/VRC
- Fill Device, ECCM MX-10579/VRC and MX-18290/VRC

They are shown in figure 1-1.

Purpose of Radio Sets: The purpose of the RT-1439/VRC series of radio sets is to provide short-range, two-way radio communication in the 30 to 87.975 MHz range, using frequency-modulated (FM) transmission and reception.

1-2. 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.

1-3. 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. **Reporting of Item and Packaging Deficiencies.** Fill out and forward a Report of Discrepancy (ROD) (SF 364) as prescribed by AR 735-11-2/DLAR 4140.55/SECNAVINST 4355.18/AFR 400-54/MCO 4430.3J.
- c. **Transportation Discrepancy Report (TDR) (SF 361).** Fill out and forward Transportation Discrepancy Report (TDR) (SF 361) as prescribed by AR 55-38/NAVSUPINST 461 0.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

If your RT-1439 radio set component needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-ME-PS, Fort Monmouth, New Jersey, 07703-5023. We'll send you a reply.

1-5. 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 operational check should be performed to insure operational readiness. Disassembly and repacking of equipment for shipment or limited storage are covered in paragraphs 2-55, 3-41, 4-79, 5-23, 6-25, 7-18, 8-25, 9-19, 10-11, 11-11, 12-10, 13-12, 14-42, 15-37, 16-18, 17-22, and 18-12.

1-6. DESTRUCTION OF ARMY ELECTRONICS MATERIEL TO PREVENT ENEMY USE.

Destruction of Army C-E to prevent enemy use shall be in accordance with TM 750-244-2.

1-7. NOMENCLATURE CROSS-REFERENCE LIST.

This list contains common names used throughout this manual in place of official nomenclature.

Common Name	Official Nomenclature
Battery box	Battery Box CY-8523A/PRC
Battery tray	Tray, Battery CY-8664/VRC
Control-monitor	Control-Monitor C-11291/VRC
Frequency counter	Frequency Counter TD-1225(V)1/U
DMM	Digital Multimeter AN/USM-486
ECCM fill device	Fill Device, Electronic Counter-Countermeasures MX-10579/VRC or MX-18290/VRC
Function generator	Function Generator SG-1171/U