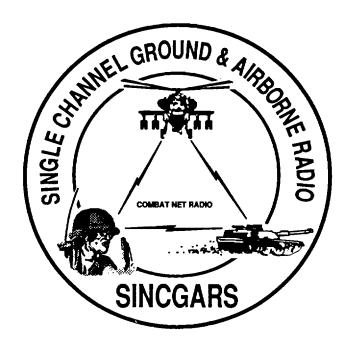
#### **TECHNICAL BULLETIN**



INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT
ELECTRONIC EQUIPMENT MK-2616NRC
TO PERMIT INSTALLATION OF RADIO SETS
AN/VRC-87/88/90 SERIES
IN A
M915A2 TRUCK, TRACTOR
(NSN 5895-01-361-7606) (EIC: N/A)

**DESTRUCTION NOTICE** - Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

HEADQUARTERS, DEPARTMENT OF THE ARMY

NO. 11-5820-890-20-82

# INSTALLATION INSTRUCTIONS FOR INSTALLATION KIT ELECTRONIC EQUIPMENT MK-2616 NRC TO PERMIT INSTALLATION OF RADIO SETS ANNRC-87/88/90 SERIES IN A M915A2 TRUCK, TRACTOR,

M915A2 TRUCK, TRACTOR, (NSN 5895-01-361-7606) (EIC: N/A)

#### REPORTING OF 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-LC-LM-LT, Fort Monmouth, New Jersey 07703-5007.

In either case a reply will be furnished direct to you.

#### TABLE OF CONTENTS

Subject	Section	Page
Scope	0.1	1
General Information	0.2	1
Maintenance Forms, Records and Reports	0.3	1
Reports of Maintenance and Unsatisfactory Equipment	0.3.1	1
Report of Packing and Handling Deficiencies	0.3.2	1
Discrepancy in Transportation Deficiency Report (TDR) (SF 361)	0.3.3	1
Consolidated Index of Army Publications	0.4	1
Purpose of Installation	1.	2
End Item or System to be Modified	2.	2
Application Times	3.	2
Time for Completion of Installation	3.1	2
Time for Installation of One Assembly or Component	3.2	2
Preparation for Installation	4.	2
Preparation of Vehicle	4.1	2
Preparation of MK	4.2	2
MK, Distribution, and Consumable	4.3	3
Tools and Test, Measurement, and Diagnostic		
Equipment (TMDE) Required	4.4	8
nstallation Procedures	5.	9
Installation of Antenna AS-3900NRC (antenna)	5.1	11
Installation of Antenna Mounting Bracket	5.1.1	11
Installation of Antenna Base	5.1.2	12
Installation of Top Antenna Assembly	5.1.3	13
Installation of Antenna Tiedown Clamps	5.1.4	14
Installation of Mounting Base, Electrical Equipment, MT-6352NRC		
(mounting base)	5.2	15
Installation of Loudspeaker, Permanent Magnet LS-454/U (speaker)	5.3	17
Installation of Handset Holder for Handset H-250/U	5.4	18
Installation of Cables	5.5	19
nstallation of MK-2499NRC	5.6	22
Post-Installation and Checkout	5.7	22
Appendix A. References		A-1

#### LIST OF ILLUSTRATIONS

Figure	Title	Page
4-1(1)	MK Illustrated Parts List	. 5
4-1(2)	MK Illustrated Parts List	. 6
4-2	TSEC/KY-57 Illustrated Parts List	
5-1(1)	MK and Radio Installation: MK Equipment Locations	9
5-1(2)	MK and Radio Installation: Radio Equipment Locations	
5-2(1)	Antenna Mounting Bracket Installation (Cab, Rear Curbside)	
5-2(2)	Antenna Base Installation	
5-2(3)	Top Antenna Assembly Installation	. 13
5-2(4)	Antenna Tiedown Clamp Installation	. 14
5-3	Mounting Base Installation	. 15
5-4	Installation of Loudspeaker LS-454/U	
5-5	Installation of Handset Holder for Handset H-250/U	. 18
5-6(1)	Installation of Cables	
5-6(2)	Grommet Installation and RF Cable	
5-7(1)	Cable Diagram: For ANNRC-87A/88A/90A	
5-7(2)	Cable Diagram: For AN/VRC-87/88/90	. 24
	LIST OF TABLES	
Number	Title	Page
4-1	MK Illustrated Parts List	
4-2	Additional Items Required for Installation when using RT-1439NRC	. 7

#### 0.1 SCOPE.

This technical bulletin provides installation instructions for Installation Kit Electronic Equipment MK-261*6N*/VRC, commonly referred to as the Mounting Kit (MK). The MK shall be installed into the following type of vehicle(s):

M915A2 Truck, Tractor

The MK is used for installation of radio set components at field locations. The information contained in this technical bulletin is the official authorization to perform the installation at the unit maintenance level.

#### NOTES

- This technical bulletin is not an authorization for requisition or turn-in of vehicles.
- This technical bulletin does not establish quantity or types of vehicles assigned to using units.

This technical bulletin does not contain information on the maintenance or replacement of the MKs. This information is contained in the MAC of TM 11-5820-890-20-1, TM 11-5820-890-20-2 and RPSTL of TM 11-5820-890-20P.

#### 0.2 GENERAL INFORMATION.

The MK becomes operable when all the radio set components are installed in the vehicle and correct power is supplied. Refer to TM 11-5820-890-20-1 or TM 11-5820-890-20-2 for installation, Operational (OP) Check instructions, and required maintenance procedures. Refer to TM 11-5820-890-20P for repair parts.

Included in the radio set ANNRC-87/88/90 Series are:

- Radio Set ANNRC-87/88/90 (for RT-1439NRC)
- Radio Set ANNRC-87A/88A/90A (for RT-1523(C)/U)

#### 0.3 MAINTENANCE FORMS, RECORDS, AND REPORTS.

- **0.3.1 Reports of Maintenance and Unsatisfactory Equipment.** See Section 4.2.2.3 for information.
- **0.3.2 Report of Packing and Handling Deficiencies.** See Section 4.2.2.1 for information.
- **0.3.3** Discrepancy In Transportation Deficiency Report (TDR) (SF361). See Section 4.2.2.2 for information.

#### 0.4 CONSOLIDATED INDEX OF ARMY PUBLICATIONS.

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

#### 1. PURPOSE OF INSTALLATION.

The Installation Kit Electronic Equipment MK-2616NRC (MK) contains the items needed to mount Radio Set ANNRC-87A/88A/90A in a Heavy Tactical Vehicle, M915A2, Truck, Tractor. If Radio Set ANNRC-87/88/90 are to be installed, communications security equipment (TSEC/KY-57) will need to be installed also; see Section 5.6 for information.

#### 2. END ITEM OR SYSTEM TO BE MODIFIED.

Not applicable.

#### 3. APPLICATION TIMES.

- **3.1 Time for Completion of Installation.** Using two people, a total of 4.5 work hours is required. Typical vehicle downtime is 4.5 hours.
- **3.2 Time for Installation of One Assembly or Component.** The following table lists the time required to install one component. All times have been rounded off to the nearest half hour. The sum of these items will not reflect the typical vehicle downtime.

ITEM	SECTION	TIME
Antenna AS-3900/VRC	- 5.1	1.0
Moundint Base, Electrical Equipment MT-6352/VRC	- 5.3	0.5
Cables	- 5.5	1.0

#### 4. PREPARATION FOR INSTALLATION.

This section explains how to prepare the vehicle and MK for installation.

- **4.1 Preparation of Vehicle.** To prepare the vehicle for installation, insure that the site includes adequate lighting and a power source when drilling is required. Inspect the vehicle for damage that could affect installation. Have any such damage repaired before installing MK.
- **4.1.1 Items to** be Removed. Remove existing ANNRC-12 radio family installation kit/harness. See TM 11-5820- 401-20-2 for removing items used with intercom systems, or TM 11-5820-401-20-1 (used without intercom systems), and TM 9-2320-289-20.
- **4.1.2 Items to be Retained.** Not applicable.
- **4.2 Preparation of MK.** To prepare MK, unpack, inspect and check inventory.
- **4.2.1 Precautions During Handling.** Observe these steps to prevent equipment damage.
  - a. Keep dust cover in place on connectors.
  - b. Do not disassemble or modify parts in MK unless authorized to do so.
  - c. Keep mounting hardware covered and protected until needed.
  - d. When exposed to moisture, rain or salt water, keep all parts dry to prevent corrosion.

- 4.2.2 Unpack and Inspect Equipment.
- **4.2.2.1 Inspect Packaging for Evidence of Damage.** Any shipping damage should be reported on SF364 Report of Discrepancy (ROD) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR 400-64/MCO 4430.3F.
- **4.2.2.2 Unpack and Inventory MK.** If any item is missing, fill out and forward Transportation Deficiency Report (TDR) (SF361) as described in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.
- **4.2.2.3 Examine Each Item for Damage.** If any item is damaged, fill out and forward SF364 Report of Discrepancy (ROD) as prescribed in AR 735-11-2/DLAR 4140.55/NAVMATINST 4355.73A/AFR-400-64/MCO 4430.3F. All damages should be reported as prescribed in DA Pam 738-750, as contained in Maintenance Management Update.
- 4.3 MK, Distribution and Consumable.
- **4.3.1 Items Supplied In MK and/or Required for Installation.** Use Table 4-1 and Figure 4-1(1) to identify and inventory MK parts.
- 4.3.2 Distribution and Issue Instructions.
  - a. US Forces: Do not requisition MK. They will be shipped automatically.
  - b. US Army Depots: Requisition MK through supply channels.
  - Multiservice: Instructions shall be included for multiservice modifications.
  - d. MAP/MAS Countries: Instructions shall be provided for MAP/MAS countries.

Table 4-1. Parts List for Installation of Radio Set ANNRC-87/88/90 Series

NSN	ITEM DESCRIPTION AND PART NUMBER	QUANTITY	SMR	FIGURE,
		IN MK	CODE	ITEM NO.
5985-01-297-2971	Antenna, Vehicular AS-3900/VRC (A3017899-1)	1	PAOOFA	4-1,2
5305-01-847-1159	Screw, Cap, Hexagon (3/8-16 x 1 ¾ in) MS35307-365	4	PAOZZA	
5310-00913-8881	Nut, Hexagon (3/8-16in) MS51971-3	4	PAOZZA	
5310-00-061-1258	Washer, Lock, Internal/External Toothed (3/8 in) MS45904-76	8	PAOZZA	
5310-00-889-2527	Washer, Lock, Internal/External Toothed (5/16 in) MS45904-72 (Not Used)	2	PAOZZA	
5306-00-225-9086	Bolt, Machine, (5/16-24 x 5/8 in) MS90726-31 (Not Used)	1	PAOZZA	
5330-01-205-2864	Gasket (A3013655-1)	1	PAOZZA	
5975-01-188-8873	Mounting Base, Electrical Equipment MT-6352/VRC (A3013367-1)	1	PAOZZA	4-1,1
5306-00-225-9089	Bolt, Machine (5/16-24 x 1 in) MS90726-34 (Not Used)	5	PAOZZA	
5310-00-889-2527	Washer, Lock, Internal/External Toothed (5/16 in) MS45904-72	10	PAOZZA	
5310-00-880-7746	Nut, Hexagon (5/16-24 in) MS51968-5	5	PAOZZA	
5995-01-219-7031	Cable Assembly, Radio Frequency CG-3855/VRC 9 FT 0 IN) (A3014031-4)	1	PAOZZA	4-1,8
5995-01-363-1140	Cable Assembly, Power, Electrical CX-13305/VRCf 13 FT 0 IN) (A3014042-1)	1 PAOZZA 4-1,9		4-1,9
4020-01-341-8795	Fiber Rope Assembly, Single Leg (A3167672-1)	1	PAOZZA	4-1,4
5340-00-809-1490	Clamp, Loop (1/4-1/4 in) MS2133-98	2	PAOZZA	
5310-00-582-5965	Washer, Lock (1/4 in) MS35338-44	4	PAOZZA	
5965-00-876-2375	Loudspeaker, Permanent Magnet LS-454/U	1	PAOZZA	4-1,5
5324-00-174-9008	Grommet, Nonmetallic MS35489-15	1	PAOZZA	
5325-00-074-3301	Grommet, Nonmetallic, Plastic Edging MS21266-2N	1	PAOZZA	
	Bracket, Mounting (A3050655-1)	1	XB0ZZA	4-1,3
5965-01-247-4723	Handset, H-250/U	1	PAOZZA	4-1, 6
	Holder, Handset (A3046323	1	XBOZZA	4-1, 7
5305-01-096-3062	Screw, Tapping, Thread (8-18 x 3/4 in) MS51850-46	1	PAOZZA	,
5306-00-225-9087	Screw, Cap, Hexagon (5/16-24 x 3/4 in)	5	PAOZZA	
5310-00-582-5677	Washer, Flat (1/4 in) MS15795-810	2	PAOZZA	
5305-00-225-3839	Screw, Cap, Hexagon (1/4-20 x 1 in) MS90725-8	2	PAOZZA	
5310-00-889-2528	Washer, Lock, Internal/External Toothed (1/4 in) MS45904-68	7	PAOZZA	
5310-00-761-6882	Nut, Plain, Hexagon (1/4-20) MS51967-2	4	PAOZZA	
5305-00-068-0502	Screw, Cap, Hexagon (1/4-20 x 3/4 in) MS90725-6	8	PAOZZA	

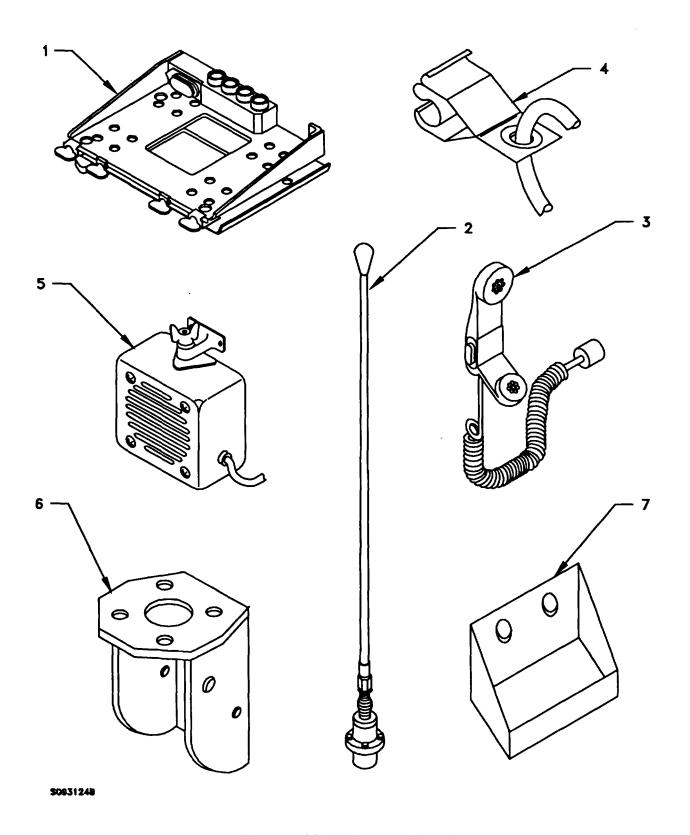


Figure 4-1(1). MK Illustrated Parts List

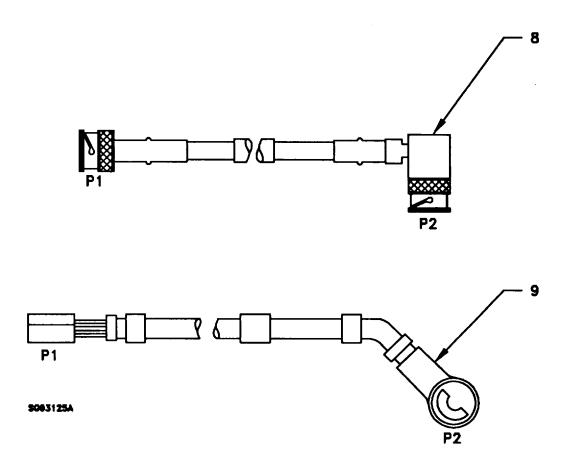


Figure 4-1(2). MK Illustrated Parts List

Table 4-2. Additional Items Required for Installation when using RT-1439NRC

NSN	ITEM DESCRIPTION AND PART NUMBER	QUANTITY IN MK	SMR CODE	FIGURE, ITEM NO.
	Plate, Mounting (A3050676-1)	1	XBOZZA	4-2, 1
5995-01-222-4120	Cable Assembly, Special Purpose, Electrical CX-13293NRC (4 FT, 0 IN) (A3014034-1)	1	PAOZZA	4-2, 2
5995-01-226-5482	Cable Assembly, Power, Electrical CX-13303NRC (2 FT, 6 IN) (A3014040-5)	1	PAOZZA	4-2, 3
5305-00-984-7350	Screw, Machine, Flat-Head (5/16-24 x 1 in) MS35191-308	4	PAOZZA	

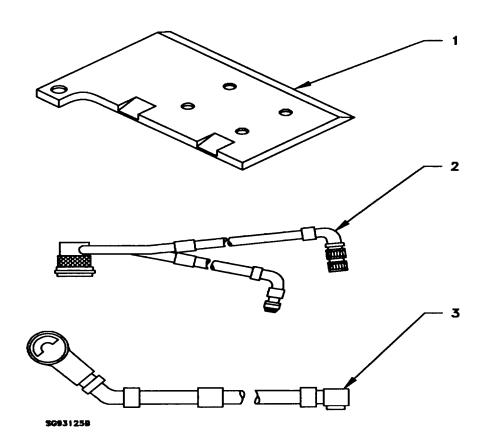


Figure 4-2. TSEC/KY-57 Illustrated Parts List

#### **4.3.3 Consumable Materials**. The table below lists materials required for installation but not supplied with MK.

NSN	NOMEMCLATURE	
8040-00-117-8510	Adhesive-Sealant, Clear, RTV	
6850-00-880-7616	Silicone Compound, MIL-S-8660-(81349	

### **4.4 Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required.** The following tools and TMDE are needed for Installation.

NOMENCLATURE	NSN	QUANTITY
Radio Set*		1
Pocket Knife, Electrician's	5110-00-240-5943	1
Screwdriver, No. 2 Point Phillips, 4 in	5120-00-234-8913	1
Screwdriver, 1/4 in Flatblade, 4 in	5120-00-222-8852	1
Pliers, Round Nose	5120-00-240-6172	1
Pliers, Diagonal Cutting	5110-00-965-0974	1
Wrench, Open/Box 7/16 ir	5120-00-228-9505	1
1/2 ir	5120-00-228-9506	1
9/16 ir	5120-00-228-9507	1
Handle, Socket Wrench	5120-00-240-5364	1
Socket 7/16 ir	5120-00-227-6703	1
1/2 ir	5120-00-237-0977	1
9/16 ir	5120-00-227-6704	1
Electric Drill	5120-00-889-8994	1
Drill Bits 9/32 ir	5133-00-189-9246	1
1/8 ir	5133-00-227-9650	1

<sup>\*</sup> Use radio issued with your vehicle if available.

#### 5. INSTALLATION PROCEDURES.

This section describes where and how to install MK items in the vehicle. See Figure 5-1(1) for an overall view of where the MK equipment, as well as radio components, will be installed. When installing MK equipment, be sure to read and follow instructions and illustrations carefully.

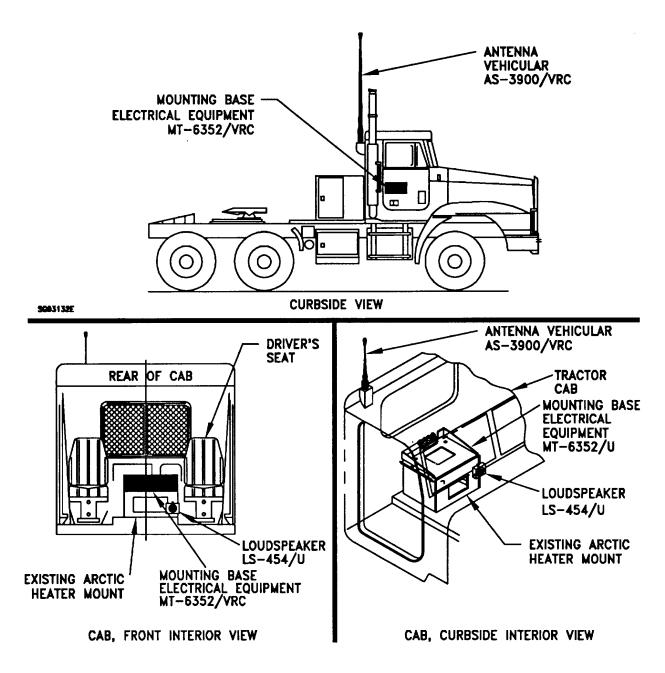
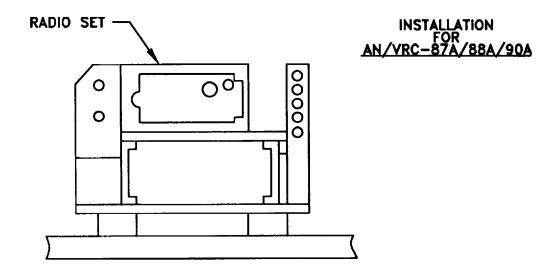


Figure 5-1(1). MK and Radio Installation: MK Equipment Locations

#### 5. INSTALLATION PROCEDURES. Continued.



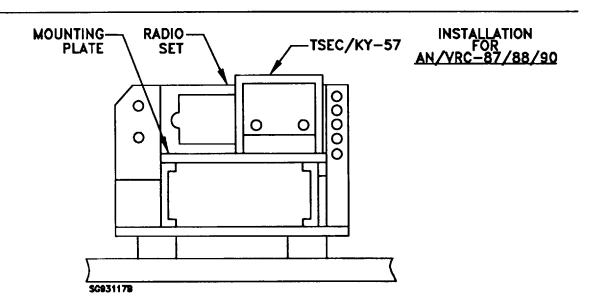


Figure 5-1(2). MK and Radio Installation: Radio Equipment Locations

#### 5.1 Installation of Antenna, Vehicular AS-3900NRC (antenna).

**5.1.1 Installation of** Antenna Mounting Bracket. Use the following procedures to install mounting bracket. See Figure 5-1(1) for location.

ITEM ACTION REMARKS

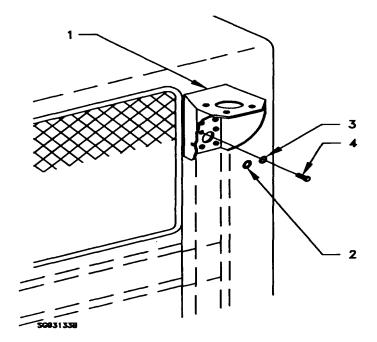
#### **NOTE**

Apply a thin coat of adhesive-sealant to both sides of each internal/external toothed (IET) washer during installation, and to the area of contact where IET washer is to be placed.

a. Bracket Mounting (1).

Locate existing hat section on exterior rear curbside of cab. Fasten mounting bracket to hat section as shown in Figure 5-2(1). Leave the left center screw off at this time. It will be used later to mount the ground strap.

Tools: 7/16 in socket.



- 1. BRACKET, MOUNTING
- 2. GROMMET, NONMETALLIC
- 3. IET WASHER (1/4 IN)
- 4. CAP SCREW (1/4-20 X 3/4 IN)

Figure 5-2(1). Antenna Mounting Bracket Installation, (Cab, Rear Curbside)

5.1.2 Installation of Antenna Base. Use this procedure to install the antenna base at location shown in Figure 5-1(1).

ITEM ACTION REMARKS

#### **NOTE**

Apply a thin coat of adhesive-sealant to both sides of each internal/external toothed (IET) washer during installation, and to the area of contact where IET washer is to be placed.

a. Gasket (2). Place on mounting bracket and align with mounting holes. See Figure 5-2(2).

b. Antenna base (1). Place on top of gasket (2) and mounting

bracket. Align mounting holes.

c. Four cap screws (7), eight internal/externaltoothed (IET) washers (6) and four nuts (5). Install and secure.

Tools: 9/16 in socket, 3 in socket extension, 6 in socket extension and 9/16 in open/box wrench.

d. Ground strap (3),two IET washers (4), and cap screw (9).

Install to mounting bracket and secure.

- 1. ANTENNA BASE
- 2. GASKET
- 3. GROUND STRAP (P/O 1)
- 4. IET WASHER (1/4 IN)
- 5. NUT (3/8-16 IN)
- 6. IET WASHER (3/8 IN)
- 7. CAP SCREW (3/8-16 X 1 3/4 IN)
- 8. BRACKET, MOUNTING
- 9. CAP SCREW (1/4-20 X 3/4 IN)

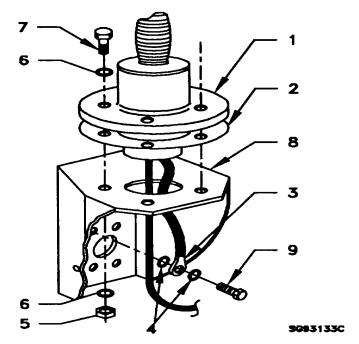


Figure 5-2(2). Antenna Base Installation

**5.1.3 Installation of Top Antenna Assembly.** The top portion of the antenna includes a lower element and an upper element (with cap installed). Use the following procedure to assemble, install and tie down all antennas.

ITEM	ACTION	REMARKS
a. Antenna elements (1,2).	Apply silicone compound to element	$\cap$
	threads and assemble. See Figure 5-2(3).	
b. Antenna element (2).	Install and hand-tighten to antenna base (3).	1
c. Lock wire (4).	Install to antenna element (2) and antenna base (3). See Figure 5-2(3), Detail A.	
	Cut and remove excess wire with diagonal cutting pliers.	
d. Antenna tiedown assembly (5).	Attach clip to antenna element (1). Tie rope to vehicle to position antenna in desired location. See Figure 5-2(3),	
		2
5	1 2 4 3	
. (8-1)		
D 9093124A	ETAIL B DETAIL A	3
1. ANTENNA ELEMEN	NT UPPER	S083132A

- 1. ANTENNA ELEMENT UPPER
- 2. ANTENNA ELEMENT (LOWER)
- 3. ANTENNA BASE
- 4. LOCK WIRE
- 5. TIEDOWN KIT

Figure 5-2(3). Top Antenna Assembly Installation

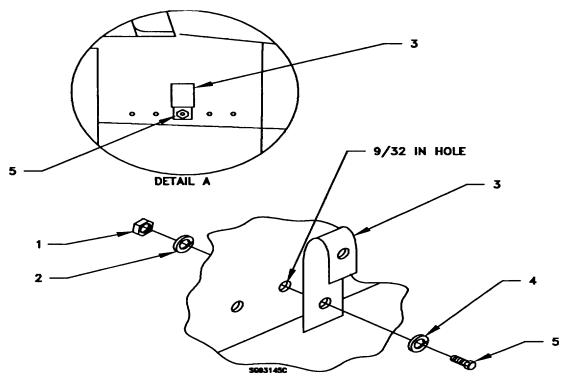
**5.1.4 Installation of Antenna Tiedown Clamps.** The antenna tie down clamp installation includes two clamp loops. Use the following procedure to assemble and install antenna tiedown clamps.

a. Clamp loops (3), cap screw (5), lock washer (2), flat washer (4) and nut (1).

Refer to Figure 5-1(1) and Figure 5-2(4), Detail A. Drill out the center rivet on both sides of the cab. Secure clamp nut (1).

Refer to Figure 5-1(1) and Figure 5-2(4), Tools: Electric drill, 9/32 in drill bit.

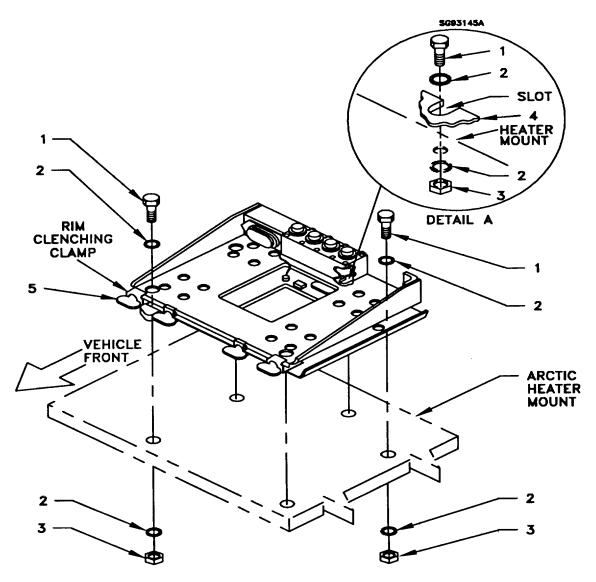
Tools: 7/16 in socket and 7/16 in open/box wrench.



- 1. NUT HEXHEAD (1/4-20)
- 2. LOCK WASHER (1/4 IN)
- 3. CLAMP LOOP
- 4. FLAT WASHER (1/4 IN)
- 5. CAP SCREW (1/4-20 X 3/4 IN)

Figure 5-2(4). Antenna Tiedown Clamp Installation

**5.2 Installation of Mounting Base, Electrical Equipment, MT-6352/VRC (mounting base).** Remove and retain attaching bag of 5/16 in mounting hardware for installation. See Figure 5-1(1) for location; then see Figure 5-3 and perform the following steps. To insure good electrical grounding, any rust, corrosion or paint around mounting holes in arctic heater mount should be removed before installing the mounting base.



- 1. SCREW, CAP, HEXAGON (5/16-24 X 3/4 IN)
- 2. IET WASHER (5/16 IN)
- 3. NUT (5/16-24 IN)
- 4. MOUNTING BASE
- 5. THUMBSCREW

Figure 5-3. Mounting Base Installation

#### 5.2 Installation of Mounting Base, Electrical Equipment, MT-6352NRC (mounting base). Continued.

ITEM	ACTION	REMARKS
	NOTE	

Apply a thin coat of adhesive-sealant to both sides of each internal/external toothed (IET) washer during installation, and to the area of contact where IET washer is to be placed.

a. Mounting base (4). Place on arctic heater mount over

existing holes. See Figure 5-4.

b. Two outer thumbscrews

(5).

Turn ccw until both sets of threads have

cleared center of holes.

c. Mounting base (4). Align four holes and rear slot with

matching hole pattern in arctic heater

mount.

d. Five cap screws (1), ten internal/external toothed

(IET) washers (2) and five nuts (3).

Install and tighten to mounting base (4)

and arctic heater mount.

Tools: 1/2 in socket and 1/2 in

open/box wrench.

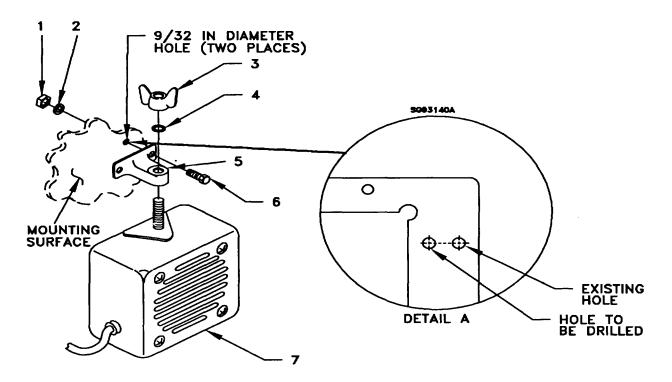
e. Two outer thumbscrews

(5).

Tighten and secure to rim clenching clamps and mounting base (4).

**5.3 Installation of Loudspeaker, Permanent Magnet LS-454/U (speaker).** Mount the speaker LS-454/U to the front roadside of arctic heater mount (Figure 5-1(1)). Refer to Figure 5-4, Detail A for location of mounting holes. Note that right hand hole already exists.

ITEM	ACTION	REMARKS
a. Bracket (5).	Use bracket (5) as template .Drill one 9/32 in diameter hole. See Figure 5-4, Detail A.	Tools: Drill, 9/32 in drill bit.
b. Two nuts (1), two lo washers (2) and two screws (6).		
c. Speaker (7).	Insert stud on speaker (7) through bracket (5). Secure with wing nut (3)	

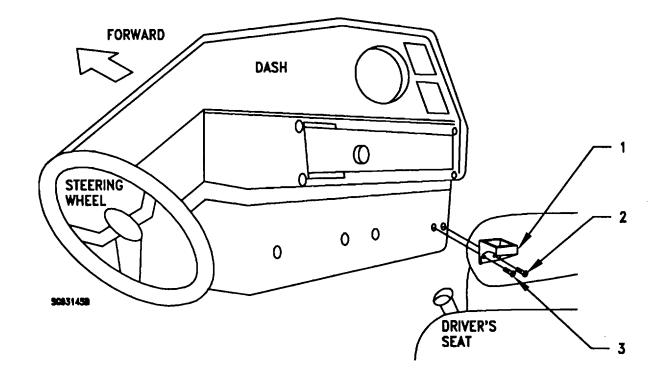


- 1. NUT (1/4-20 IN)
- 2. LOCK WASHER (1/4 IN)
- 3. WING NUT (P/O 7)
- 4. LOCK WASHER (P/O 7)
- 5. SPEAKER BRACKET (P/O 7)
- 6. CAP SCREW (1/4-20 X 1 IN)
- 7. LS-454/U LOUDSPEAKER

Figure 5-4. Installation Loudspeaker, LS-454/U

**5.4 Installation of Handset Holder for Handset H-250/U.** For mounting location for handset holder refer to Figure 5-5. The details below show the method of mounting the holder.

ITEM	ACTION	REMARKS
a. Handset holder (1).	Remove the indicated existing screw from dash.	Tools: No. 2 Phillips screwdriver.
b. Existing screw (3).	Temporarily mount the holder (1) and mark the location for the hole to be drilled.	
c. Dash.	Remove the holder (1) and drill a 1/8 <sup>th</sup> in hole.	Tools: Drill, 1/8 in bit.
d. Handset holder (1).	Using the existing screw (4) and self tapping screw (2), secure the handset holder to the dash.	Tools: No. 2 Phillips screwdriver.



- 1. HANDSET HOLDER
- 2. SELF-TAPPING #8 X 3/4 IN
- 3. EXISTING SCREW

Figure 5-5. Installation of Handset Holder for H-250/U

**5.5 Installation of Cables.** To accomplish the installation, leave loop clamps and tiedown straps loose enough to adjust cable slack and allow easy adjustment of equipment. When installation is complete, tighten and secure all clamps and tiedown straps.

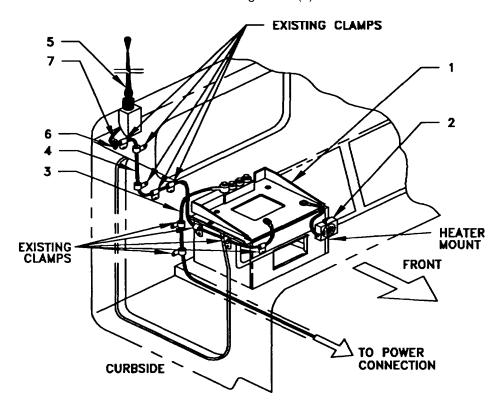
#### **WARNING**

Make sure vehicle power source is positioned OFF or disconnected before installing cables.

ITEM ACTION REMARKS

a. RF cable (4) connector P1.

Connect and secure to antenna base (5) Connector J1. See Figure 5-6(1)



- 1. MOUNTING BASE
- 2. LOUDSPEAKER
- POWER CABLE, CX-13305/VRC (13 FT, 0 IN)
- 4. RF CABLE, CG-3855NRC (9 FT, 0 IN)
- 5. ANTENNA BASE
- 6. GROMMET, PLASTIC EDGING
- 7. GROMMET, NONMETALLIC

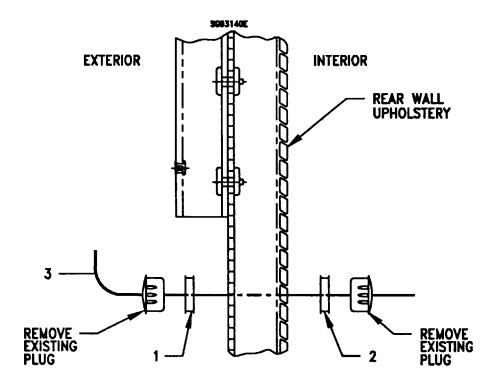
Figure 5-6(1). Installation of Cables

ITEM ACTION REMARKS

#### **NOTE**

Apply a thin coat of adhesive-sealant to the exterior grommet and the area of contact, and around the RF cable.

b. Exterior grommet (1), Interior grommet (2) and RF cable (3). On exterior and interior curbside of cab, locate and remove existing plug beneath hat section and route RF cable (3) through the holes. Install grommet (1) and grommet (2).



- 1. GROMMET, NONMETALLIC, PLASTIC EDGING (EXTERIOR)
- 2. GROMMET, NONMETALLIC (INTERIOR)
- 3. RF CABLE

Figure 5-6(2). Grommet Installation and RF Cable

#### 5.5 Installation of Cables. Continued.

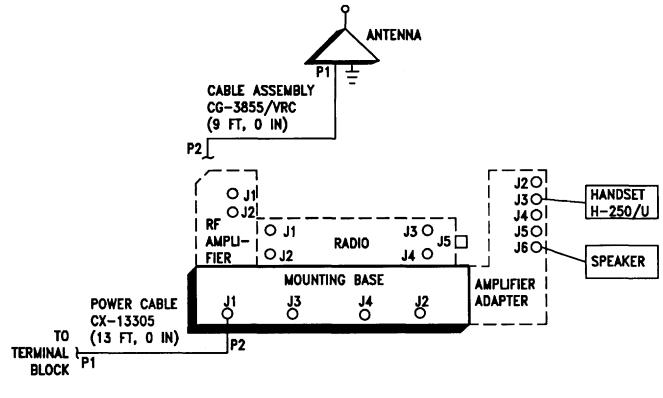
	ГЕМ	ACTION	REMARKS
C.	Eight existing clamps.	Remove clamps and wrap around RF cable (4) then install clamps with existing hardware. See Figure 5-6(1) for locations.	Tools: Phillips screwdriver.
d.	RF Cable (4) Connector P2.	Position on top of mounting base.	
e.	Two existing clamps.	Remove clamps and existing power cable and wrap clamps around power cable (3) then install clamps using existing hardware. See Figure 5-6(1) for locations.	Tools: Phillips screwdriver.
f.	Power cable.	Connect to vehicle power source and secure to mounting base (1) connector J1.	

**5.6 Installation MK-2499NRC.** For Radio Set ANNRC-87/88/90, install MK-2499NRC (TSEC/KY-57 security equipment) in the location shown in Figure 5-1(2) with four (4) each screws and mounting plate. Refer to Section 5.8 for connection of cables.

**5.7 Post Installation and Checkout.** After equipment is installed and cables are connected, perform the following steps.

ITEM	ACTION	REMARKS
a. Equipment.	Check for secure mounting. Check for loose parts, connectors, and mounting hardware.	
b. Cables.	Check for proper installation and connection of cables. See Figure 5-7(1) for cable connections. Unused cables should be stowed in appropriate place inside the vehicle.	
c. Loop clamps.	Check that all have been properly installed and tightened.	
d. Protective covers.	Insure that all installed cables are covered when not in use or connected.	
e. Radio issued with vehicle.	Install and connect cables. See TM 11-5820-890-20-1 or TM 11-5820-890-20-2 for installation and operational (OP) checks and instruction.	
f. MK line replaceable units.	See TM 11-5820-890-20-P for Repair Parts and Special Tools List (RPSTL) information.	

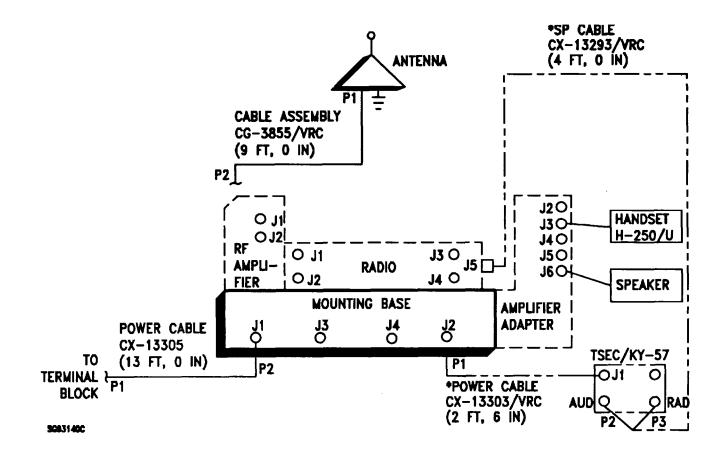
#### 5.7 Post-Installation and Checkout. Continued.



SC831408

FROM			ТО		
CABLE	UNIT	UNIT	CABLE	UNIT	UNIT
CONN		CONN.	CONN		CONN.
P2	RF Amplifier	J1	P1	Antenna Base	J1
P2	Mounting Base	J1	P1	Vehicle Power Source	Terminal Block
	Amplifier Adapter	J6		Speaker	
	Amplifier Adapter	J3		Handset	
	CONN P2	CABLE UNIT CONN P2 RF Amplifier P2 Mounting Base Amplifier Adapter	CABLE UNIT UNIT CONN CONN.  P2 RF Amplifier J1  P2 Mounting Base J1  Amplifier Adapter J6	CABLE UNIT UNIT CABLE CONN. CONN P2 RF Amplifier J1 P1 P2 Mounting Base J1 P1 Amplifier Adapter J6	CABLE CONN     UNIT CONN.     CONN       P2     RF Amplifier     J1     P1     Antenna Base       P2     Mounting Base     J1     P1     Vehicle Power Source Speaker

Figure 5-7(1). Cable Diagram: For ANNRC-87AJ88A/90A



		FROM	TO			
CABLE	CABLE	UNIT	UNIT	CABLE	UNIT	UNIT
ASSEMBLY	CONN		CONN.	CONN.		CONN.
CG-3855/VRC	P2	RF Amplifier	J1	P1	Antenna Base	J1
(9 FT, 0 IN)						
CX-13305	P2	Mounting Base	J1	P1	Vehicle Power	Terminal
(13 FT, 0 IN)					Source	Block
Speaker Cable		Amplifier Adapter	J6		Speaker	
Handset Cable		Amplifier Adapter	J3		Handset	
*CX-13303/VRC	P1	Mounting Base	J2	P2	MT-6429/VRC	J1
(2FT, 6 IN)						
*CX-13293/VRC	P1	Radio	J5	P2	TSEC/KY-57	AUD
(4 FT, 0 IN)				P3		RAD

<sup>\*</sup> Not supplied In this MK.

Figure 5-7(2). Cable Diagram: For ANNRC-87/88/90

#### **APPENDIX A**

#### **REFERENCES**

AMDF	Army Master Data File (Microfiche)
AR 710-2	Supply Policy Below the Wholesale Level as Contained in Unit Supply UPDATE
AR 725-50	Requisitioning, Receipt and Issuing System in UPDATE
DA Pam 25-30	Consolidated Index of Army Publications (Microfiche)
DA Pam 710-2-1	Using Unit Supply System Manual Procedures as Contained in Unit SupplyUPDATE
SB 11-131-2	Vehicular Radio Sets and Authorized Installations (SINCGARS)
TM 11-5820-890-10-1	Operator's Manual (ICOM Radio Sets)
TM 11-5820-890-10-3	Operator's Manual (Non-ICOM Radio Sets)
TM 11-5820-890-20-1	Unit Maintenance Manual (ICOM Radio Sets)
TM 11-5820-890-20-2	Unit Maintenance Manual (Non-ICOM Radio Sets)

A-1/(A-2 blank)

Repair Parts and Special Tools List

TM 11-5820-890-20P

#### By Order of the Secretary of the Army:

GORDON R. SULLIVAN General, United States Army Chief of Staff

Official: Wetter of Samuelos

MILTON H. HAMILTON Administrative Assistant to the Secretary of the Army 06147

#### DISTRIBUTION:

To be distributed in accordance with DA Form 12-36-E, block 9649 requirements for TB 11-5820-890-20-82.

\*U.S. GOVERNMENT PRINTING OFFICE: 1994 - 510-106/0016

## RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS SIMPLING WRONG WITH THIS PUBLICATION?



THEN. JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL! FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

TM 11-5825-270-10

23 Jul 81

Radio Frequency R-2176/FRN

	BE EXACTPIN-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:	ARU WHAT SHOULD	BE DONE ABOUT IT:		
2								
1								
2								
5								
۱								
			:					
i	PRINTED NAME, GRADE OR TITLE, AND TELEPHONE N				HONE MANBER	SIGN HERE:		

DA 1 JUL 70 2028-2

PREVIOUS EDITIONS • ARE OBSOLETE. P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

PIN: 072247-000