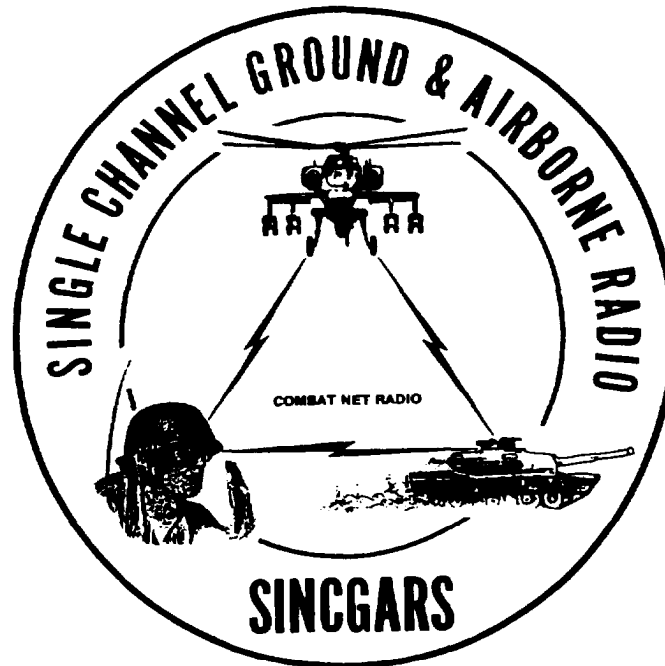


TECHNICAL BULLETIN



**INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT,
ELECTRONIC EQUIPMENT, MK-2848/VRC
(NSN 5895-01-429-2066) (EIC: N/A)
TO PERMIT INSTALLATION OF RADIO SET
AN/VRC-89/91/92 SERIES
IN A
CARRIER, PERSONNEL, FULL TRACKED: ARMORED
M113A3**

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 JULY 1997

**INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT
ELECTRONIC EQUIPMENT MK-2848/VRC
(NSN 5895-01-429-2066) (EIC: N/A)
TO PERMIT INSTALLATION OF RADIO SETS
AN/VRC-89/91/92 SERIES
IN
CARRIER, PERSONNEL, FULL TRACKED: ARMORED M113A3**

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 back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5000. The fax number is 732-532-1413, DSN 992-1413. You may also e-mail your recommendations to AMSEL-LC-LEO-PUBS-CHG@cecom3.monmouth.army.mil

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 Consumables	4.3	3
Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required	4.4	7
Installation Procedures	5.	8
Installation of Antenna, Vehicular, AS-3916/VRC (antenna)	5.1	10
Installation of Antenna Base.....	5.1.1	10
Installation of Top Antenna Assembly.....	5.1.2	12
Installation of Mounting Base, Electrical Equipment MT-6352/VRC.....	5.2	13
Installation of Cables.....	5.3	15
Installation of Mounting Base, Electrical Equipment MT-6353/VRC.....	5.4	18
Post-Installation and Checkout.....	5.5	20

Appendix A References A-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
4-1	MK Illustrated Parts List.....	5
4-2	Illustrated Parts List for Table 4-2	6
5-1 (1)	MK and Radio Installation: MK Equipment Locations	8
5-1 (2)	MK and Radio Installation: Radio Equipment Locations.....	9
5-2	Antenna Base Installation	11
5-3	Top Antenna Assembly Installation.....	12
5-4	Mounting Base Installation	14
5-5	Cable Installation: RF, Power and SP Cabling	16
5-6	MT-6353/VRC Mounting Base Installation.....	19
5-7	Cable Diagram: For AN/VRC-89/91/92 Series	21

LIST OF TABLES

Number	Title	Page
4-1	Parts List for Installation of Radio Set AN/VRC-89/91/92 Series	4
4-2	Additional Items Required for Installation of Radio Set AN/VRC-92 Series	6

0.1 SCOPE.

This technical bulletin provides installation instructions for Installation Kit, Electronic Equipment MK-2848/VRC, commonly referred to as the Mounting Kit (MK). The MK shall be installed into the following type of vehicle(s):

- Carrier, Personnel, Full Tracked: Armored M113A3

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 11-5820-890-20-2 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 11-5820-890-20-4 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 AN/VRC-89/91/92 Series is:

- Radio Set AN/VRC-89/91/92 Series (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-2848/VRC (MK) contains the items needed to mount Radio Set AN/VRC-89/91/92 Series in a Carrier, Personnel, Full Tracked: Armored M113A3 (vehicle). If radio set AN/VRC-92 Series is authorized, see Section 5.4 for instructions to install MT-6353/VRC mounting base.

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 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-3916/VRC	5.1	1.0
Mounting Base, Electrical Equipment MT-6352/VRC	5.2	1.5
Cables	5.4	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 AN/VRC-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 Consumables.

4.3.1 Items Supplied in MK and/or Required for Installation. Use Table 4-1 and Figure 4-1 to identify and inventory MK parts supplied to install Radio Set AN/VRC-89/91/92 Series. Refer to Table 4-2 and Figure 4-2 to identify additional items required to install Radio Set AN/VRC-92 Series.

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.
- c. 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 AN/VRC-89/91/92 Series

NSN	ITEM DESCRIPTION AND PART NUMBER	QUANTITY IN MK	SMR CODE	FIGURE ITEM NO.
5985-01-353-4943	Antenna, Vehicular AS-3916/VRC (A3207487-1)	2	PAOOF A	4-1, 2
5305-00-847-1159	Screw, Cap, Hexagon (3/8-16 x 1-3/4 in) MS35307-365	8	PAOZZA	
5310-00-913-8881	Nut, Hexagon (3/8-16 in) MS51971-3	8	PAOZZA	4-1, 2
5310-00-061-1258	Washer, Lock, Internal/External-Toothed (3/8 in) MS45904-76	16	PAOZZA	
5310-00-889-2527	Washer, Lock, Internal/External-Toothed (5/16 in) MS45904-72	4	PAOZZA	4-1, 2
5306-00-225-9086	Bolt, Machine (5/16 -24 x 5/8 in) MS90726-31 (Not Used)	2	PAOZZA	
5330-01-205-2864	Gasket (A3013655-1)	2	PAOZZA	4-1, 2
4010-01-381-1521	Wire Rope Assembly (A3207523-1)	2	PAOZZA	
5975-01-188-8873	Mounting Base, Electrical Equipment MT-6352/VRC (A3013367-1)	1	PAOOF A	4-1, 1
5306-00-225-9089	Bolt, Machine (5/16-24 x 1 in) MS9072634	5	PAOZZA	
5310-00-889-2527	Washer Lock, Internal/External-Toothed (5/16 in) MS45904-72	10	PAOZZA	4-1, 1
5310-00-880-7746	Nut, Hexagon (5/16-24 in) MS51968-5 (3 Not Used)	5	PAOZZA	
5995-01-219-1848	Cable Assembly, Power Electrical, CX-13306/VRC (2 FT, 0 IN) (A3014043-1)	1	PAOZZA	4-1, 5
5995-01-219-7034	Cable Assembly, Radio Frequency, CG-3855/VRC (15 FT, 0 IN) (A3014031-7)	1	PAOZZA	
5995-01-219-7029	Cable Assembly, Radio Frequency, CG-3855/VRC (5 FT, 0 IN) (A3014031-2)	1	PAOZZA	4-1, 3
5995-01-227-0473	Cable Assembly, Special Purpose, Electrical CX-13300/VRC (4 FT, 0 IN) (A3014044-6)	2	PAOZZA	
5995-01-303-4951	Cable Assembly, Special Purpose, Electrical CX-13313/VRC (2 FT, 7 IN) (A3018360-1)	1	PAOZZA	4-1, 6
5340-00-809-1490	Clamp, Loop (1/4-1/4 in) MS21333-98	2	PAOZZA	
5340-00-809-1500	Clamp, Loop (1-1/4 in) MS21333-107	2	PAOZZA	4-1, 3
5340-00-400-0002	Clamp, Loop (1 1/4-1/4 in) MS9350-19	1	PAOZZA	
5310-00-880-7746	Nut, Plain, Hexagon (5/16-24 in) MS51968-5	1	PAOZZA	4-1, 3
5975-00-111-3208	Strap, Tiedown, Electrical Components MS3367-5-9	10	PAOZZA	
5310-00-582-5965	Washer, Lock (1/4 in) MS35338-44	5	PAOZZA	4-1, 4
5305-00-191-3640	Screw, Tapping, Hex-Head (1/4-20 x 5/8 in) MS51851-85	5	PAOZZA	
5305-00-090-3012	Screw, Tapping, Hex-Head (5/16-18 x 3/4 in) MS51 851-106	1	PAOZZA	4-1, 4

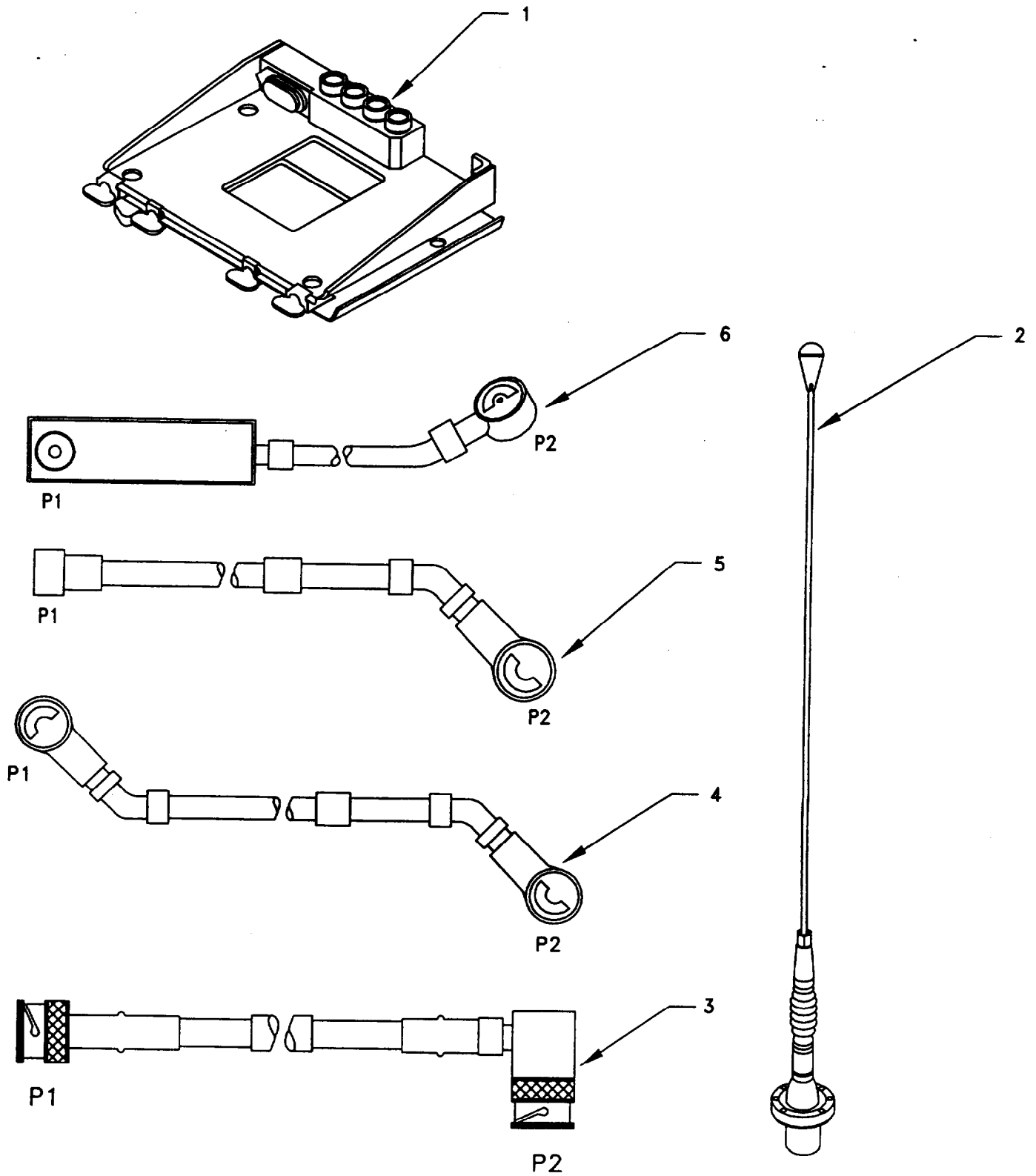


Figure 4-1. MK Illustrated Parts List

Table 4-2. Additional Items Required for Installation of Radio Set AN/VRC-92 Series

NSN	ITEM DESCRIPTION AND PART NUMBER	QUANTITY IN MK	SMR CODE	FIGURE, ITEM NO.
5975-01-235-1962	Mounting Base, Electrical Equipment MT-6353/VRC (A3014053-1)	1	PAOOHA	4-2, 1
5306-00-225-9089	Bolt, Machine (5/16-24 x 1 in) MS90726-34	1	PAOZZA	
5310-00-880-7746	Nut, Hexagon (5/16-24 in) MS51968-5	2	PAOZZA	
5310-00-889-2527	Washer, Lock, Internal/External-Toothed (5/16 in) MS45904-72	6	PAOZZA	
5310-00-081-4219	Washer, Flat (5/16 in) MS27183-12 (Not Used)	2	PAOZZA	
	Nut Strip (A3014064-1)	1	XBOZZA	4-2, 5
5975-00-111-3208	Strap, Tiedown, Electrical Components MS3367-5-9	4	PAOZZA	
5995-01-300-9324	Cable Assembly, Power, Electrical CX-13303/VRC (4 FT, 6 IN) (A3014040-9)	1	PAOZZA	4-2, 4
5995-01-222-4209	Cable Assembly, Special Purpose, Electrical CX-13291NRC (3 FT, 0 IN) (A3014037-1)	1	PAOZZA	4-2, 2
5995-01-219-7025	Cable Assembly, Radio Frequency, CG-3856/VRC (5 FT, 0 IN) (A3014032-3)	1	PAOZZA	4-2, 3

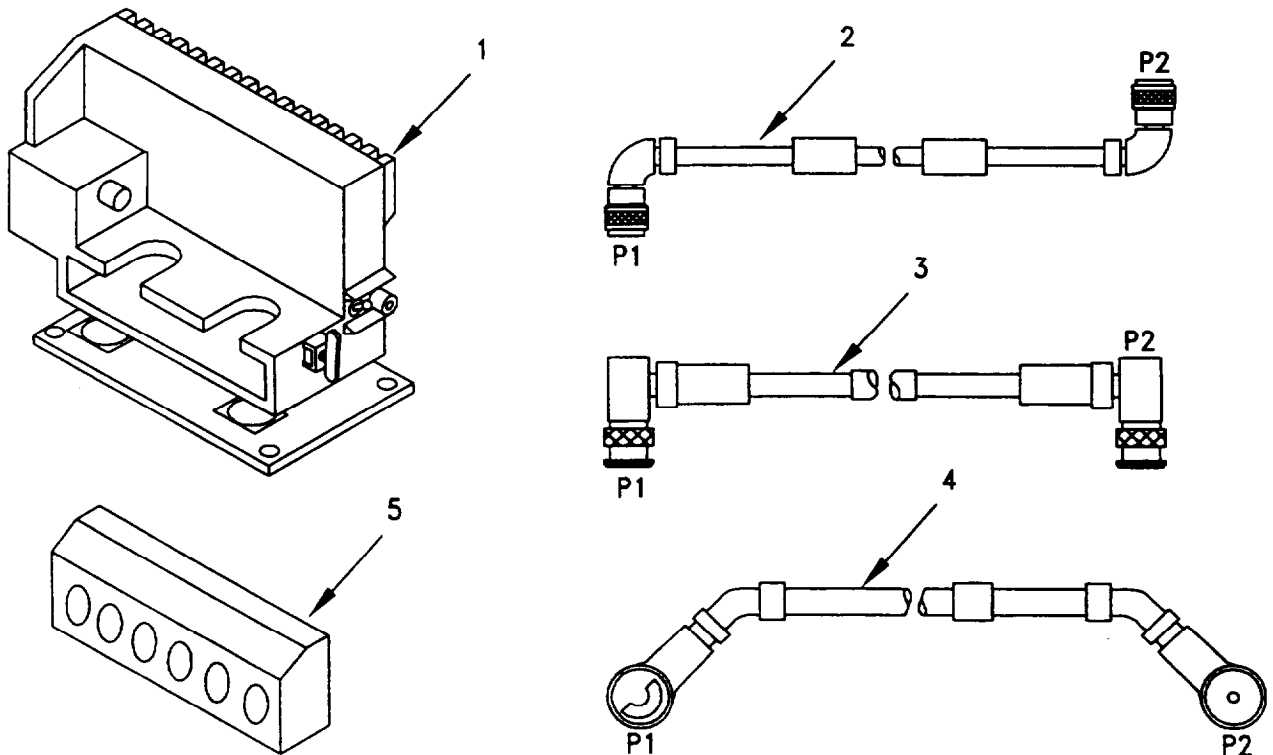


Figure 4-2. Illustrated Parts List for Table 4-2

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

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

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	
Screwdriver, No. 2 Point Phillips, 4 in	5120-00-234-8913	
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:		
3/8 in	5120-00-228-9504	1
1/2 in	5120-00-228-9506	1
9/16 in	5120-00-228-9507	1
Handle, Socket Wrench:		
Socket	5120-00-240-5364	1
3/8 in	5120-00-227-6702	1
1/2 in	5120-00-237-0977	1
9/16 in	5120-00-227-6704	1

* 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 for an overall view of where vehicular and MK equipment, as well as radio components, typically will be installed. When installing MK equipment, be sure to read and follow instructions carefully. See Section 5.4 for instructions to install Mounting Base MT-6353/VRC.

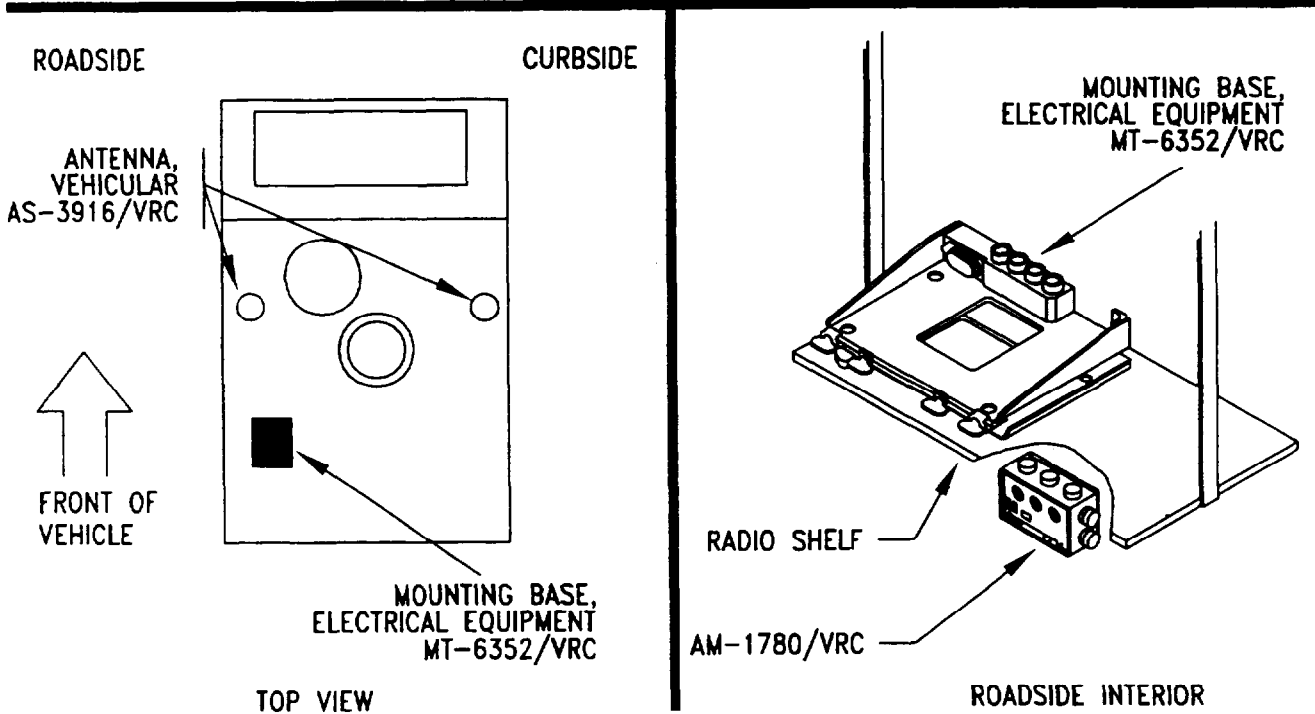
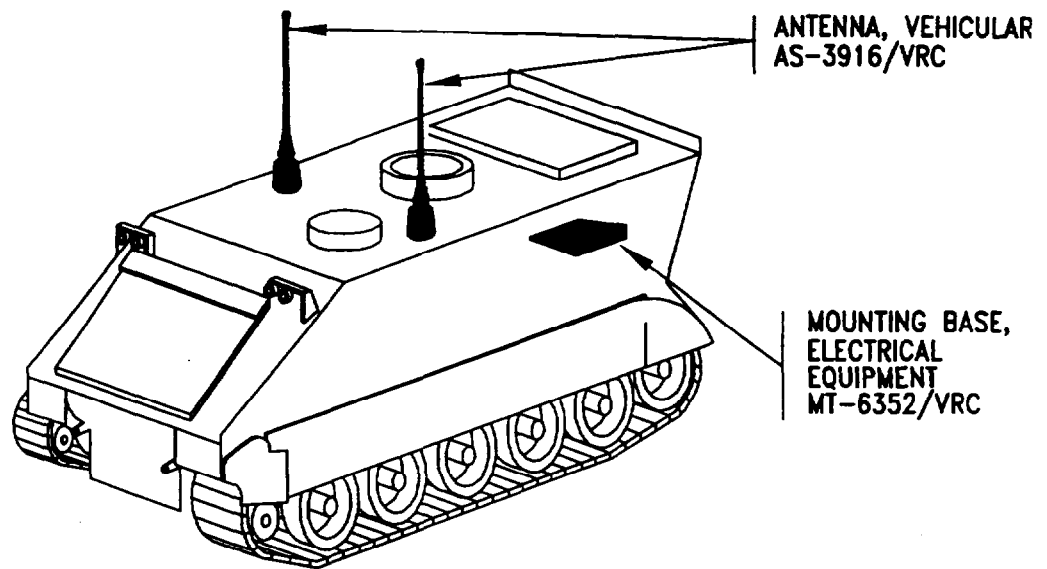


Figure 5-1(1). MK and Radio Installation: MK Equipment Locations

5. INSTALLATION PROCEDURES. Continued.

INSTALLATION
FOR
AN/VRC-89/91/92 SERIES

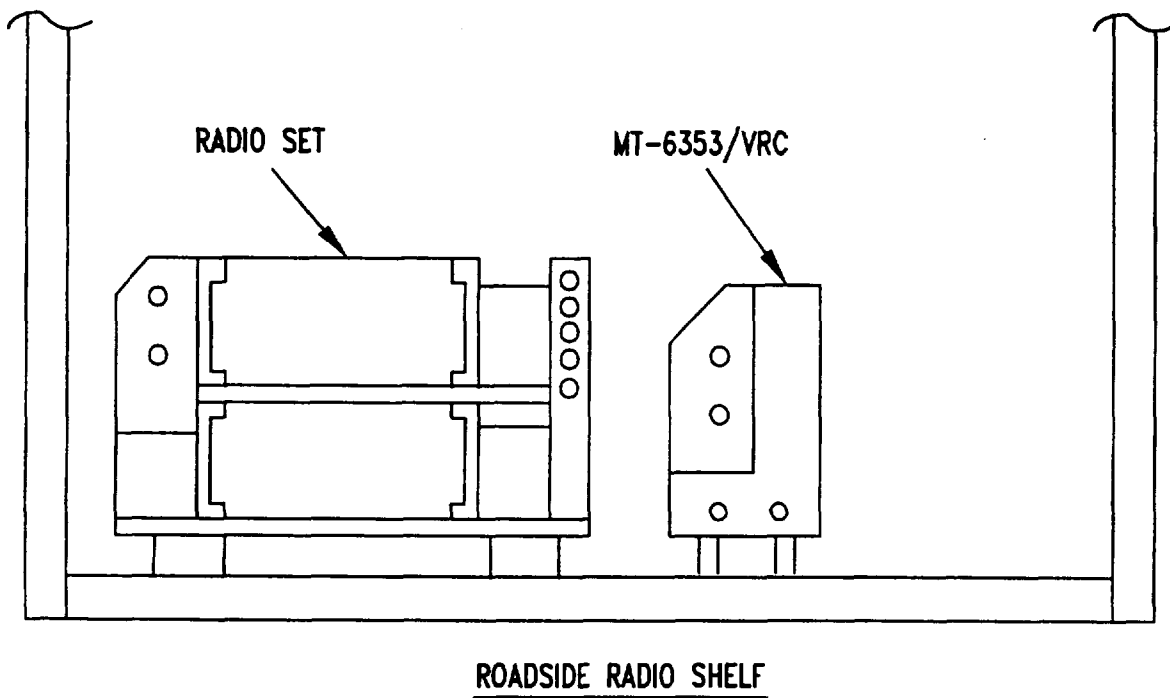


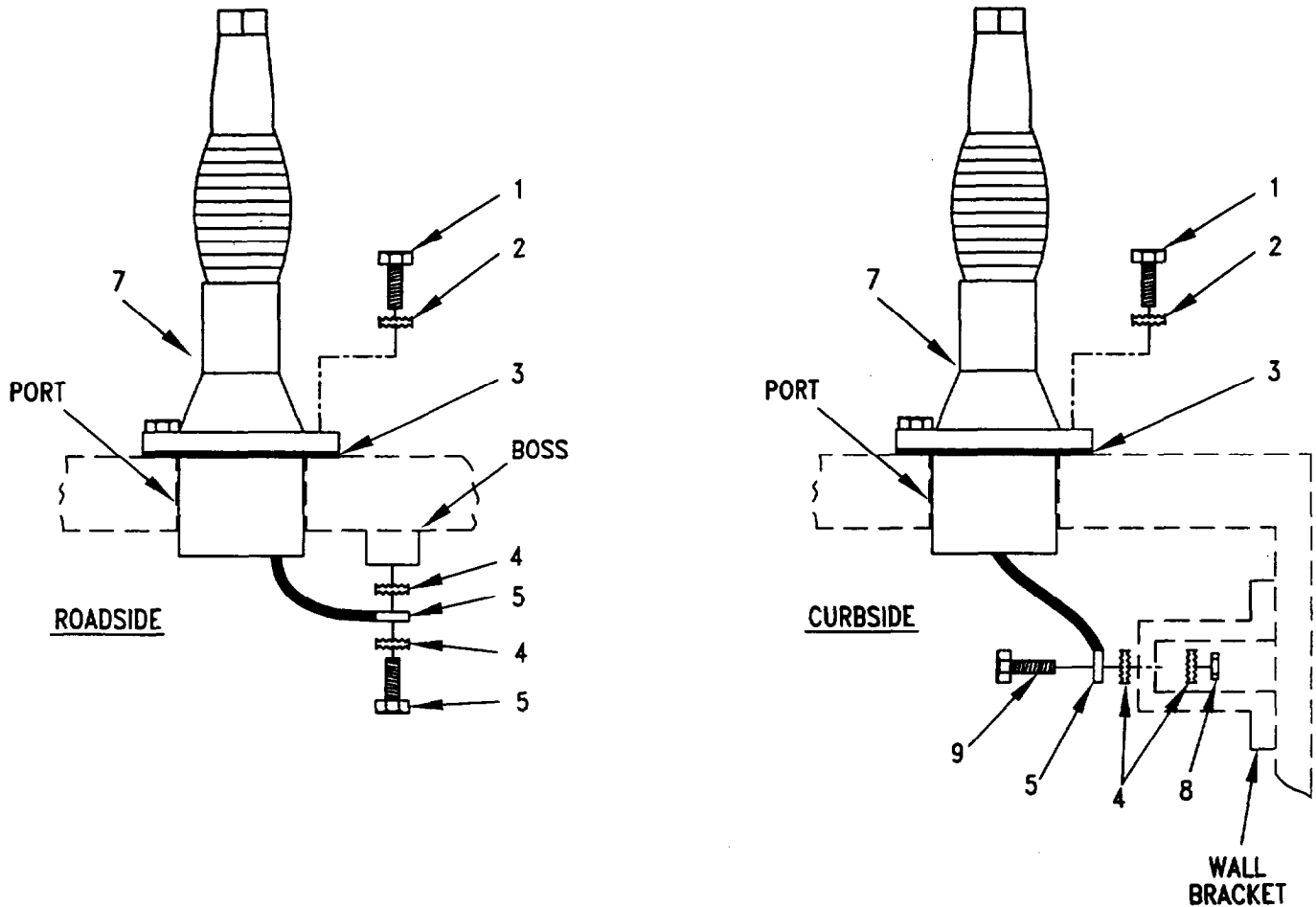
Figure 5-1(2). MK and Radio Installation: Radio Equipment Locations

5.1 Installation of Antenna, Vehicular, AS-3916/VRC (antenna).

5.1.1 Installation of Antenna Base. Use the following procedures to install both antenna bases: See Figure 5-1(1) for locations. Perform steps a through d to install roadside antenna base. Perform steps a through c and e to install curbside antenna base.

ITEM	ACTION	REMARKS
NOTE		
Apply a tin 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 (3).	Apply thin coat of silicon compound to both sides. Place on antenna port and align with mounting holes. See Figure 5-2.	
b. Antenna base (7).	Place on top of gasket (3) and antenna port; then align mounting holes.	
c. Four cap screws (1) and four internal/external-toothed (IET) washers (2).	Install and secure to antenna base (7) and antenna port.	Tools: 9/16 in socket.
d. Roadside: Ground strap (5), hex-head tapping screw (6) and two IET washers (4).	Install and secure to the existing boss.	Tools: 1/2 in socket.
e. Curbside: Ground strap (5), machine bolt(9), two IET washers (4) and nut (8).	Install and secure to wall bracket.	Tools: 1/2 in socket and 1/2 in open/box wrench.

5.1.1 Installation of Antenna Base. Continued.



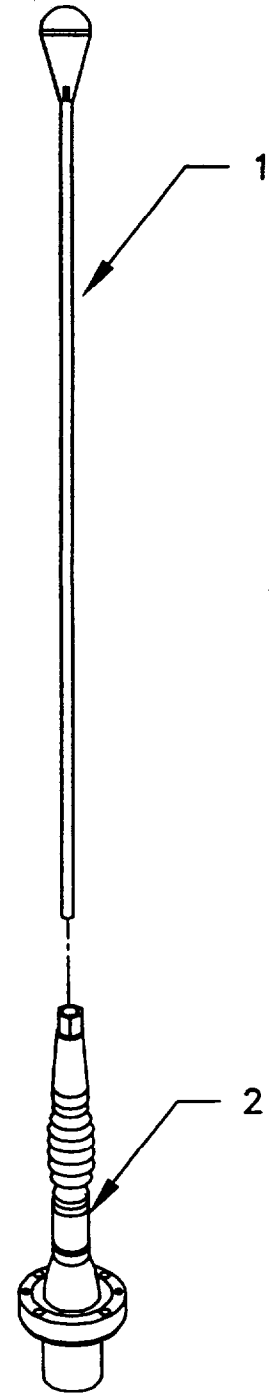
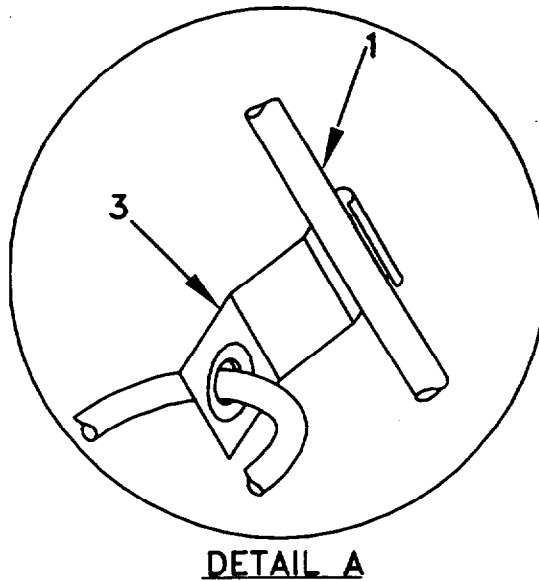
- 1. CAP SCREW (3/8-16 x 1 3/4 IN)
- 2. IET WASHER (3/8 IN)
- 3. GASKET
- 4. IET WASHER (5/16-IN)
- 5. GROUND STRAP

- 6. TAPPING SCREW (5/16-18 x 3/4 IN)
- 7. ANTENNA BASE
- 8. NUT (5/16-24 IN)
- 9. MACHINE BOLT (5/16-24 x 5/8 IN)

Figure 5-2. Antenna Base Installation

5.1.2 Installation of Top Antenna Assembly. The top portion of the antenna consists of one element (with installed cap). Use the following procedure to install and tie down antenna.

ITEM	ACTION	REMARKS
a. Antenna element (1).	Install and secure to antenna base (2).	
b. Wire rope assembly (3).	Attach clip to antenna element (1). Tie rope to vehicle to position antenna in desired location. See Figure 5-3, Detail A.	



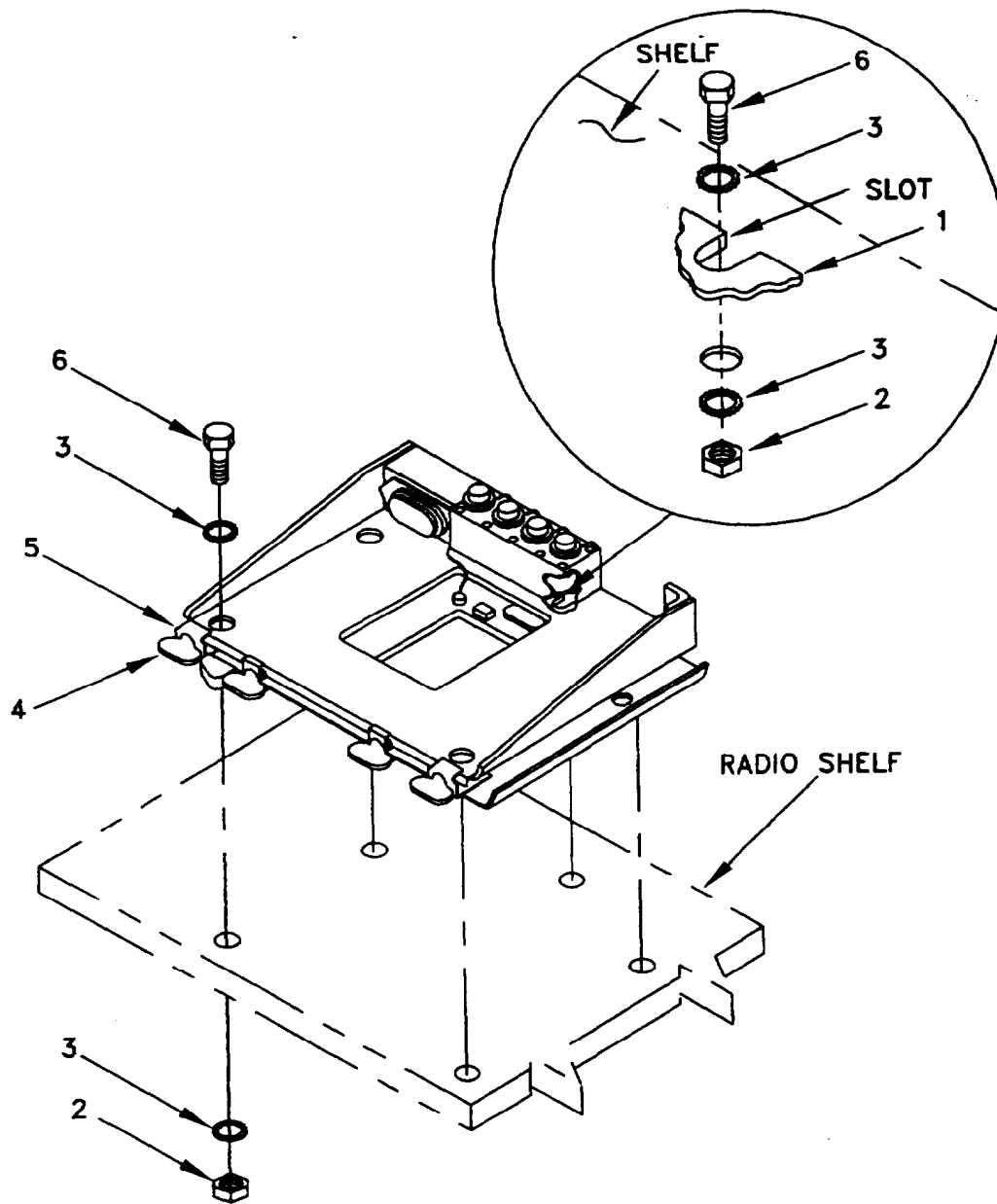
- 1. ANTENNA ELEMENT
- 2. ANTENNA BASE
- 3. WIRE ROPE ASSEMBLY

Figure 5-3. Top Antenna Assembly Installation

5.2 Installation of Mounting Base, Electrical Equipment MT-6352/VRC (mounting base). Remove and retain attaching bag of 5/16 mounting hardware. To insure good electrical grounding, any rust, corrosion or paint around mounting holes in mounting plate should be removed before installing the mounting base. See Figure 5-1(1) for location; then see Figure 5-4 and perform the following steps.

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 (1).	Place on radio shelf over existing holes. See Figure 5-4.	
b. Two outer thumbscrews (4).	Turn ccw until both sets of threads have cleared center of holes.	
c. Mounting base (1).	Align four holes and rear slot with matching hole pattern in shelf.	
d. Five machine bolts (6), ten internal/external-toothed (IET) washers (3) and five nuts (2).	Install and secure to mounting base (1) and radio shelf.	Tools: 1/2 in socket and 1/2 in open/box wrench.
e. Two potter thumbscrews (4).	Tighten and secure to rim clenching clamps (5) and mounting base (1).	

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



- 1. MOUNTING BASE
- 2. NUT (5/16-24 IN)
- 3. IET WASHER (5/16 IN)
- 4. THUMBSCREW
- 5. RIM CLENCHING CLAMP
- 6. MACHINE BOLT (5/16-24 x 1 IN)

Figure 5-4. Mounting Base Installation

5.3 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, clips and tiedown straps.

WARNING

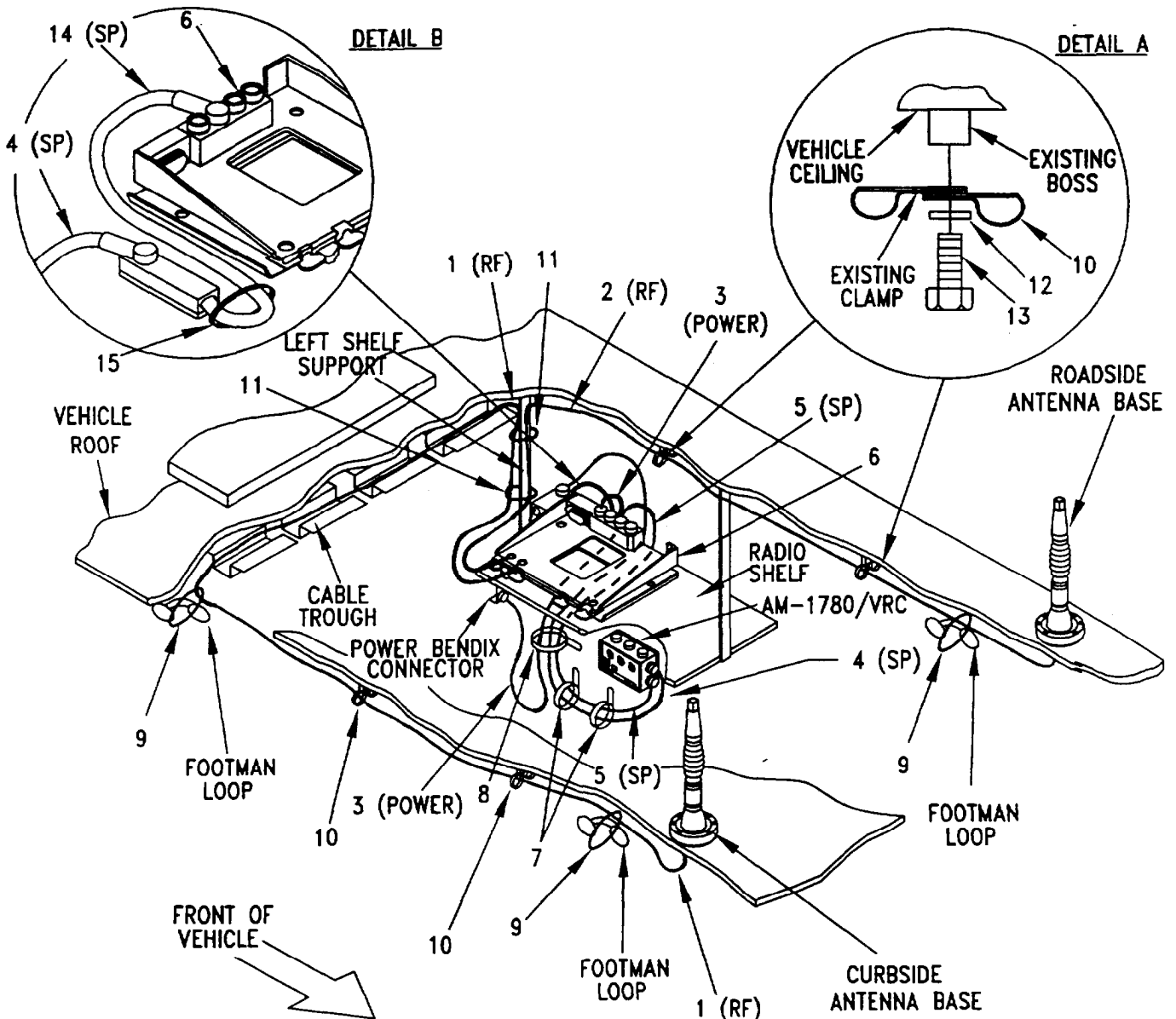
Make sure vehicle power source is positioned OFF or disconnected before installing cables.

ITEM	ACTION	REMARKS
a. RF cable (1) connector P1.	Connect and secure to curbside antenna base (1) connector J1. See Figure 5-5.	
b. RF cable (1).	Route across ceiling through existing cable trough to roadside wall.	
c. Two loop clamps (10), two hex-head tapping screws (13) and two lock washers (12).	Wrap clamps around RF cable (1); then install to existing bosses and clamps. See Figure 5-5 for location(s) and Figure 5-5, Detail A for hardware stackup.	Tools: 3/8 in socket.
d. Two tiedown straps (9).	Install loosely around RF cable (1) and footman loops. See Figure 5-5 for location(s).	
e. RF cable (2) connector P1.	Connect and secure to roadside antenna base connector J1. See Figure 5-5.	
f. RF cables (1, 2).	Route down left shelf support to radio shelf.	
g. Connector P2 of RF cables (1, 2).	Position on top of mounting base (6).	
h. Two tiedown straps (11).	Install loosely around RF cables (1, 2) and left shelf support. See Figure 5-5 for location(s).	
i. SP cable (14) connector P2.	Connect and secure to mounting base (6) connector J3. See Figure 5-5, Detail B.	Tools: 1/2 in socket.
j. SP cable (14).	Position on left side of mounting base (6); then secure with tiedown strap (15).	
k. SP cable (4) connector P2.	Connect and secure to SP cable (14) connector P1.	
l. SP cable (5) connector P2.	Connect and secure to mounting base (6) connector J4. See Figure 5-5.	
m. Power cable (3) connector P2.	Position on top of mounting base (6).	
n. SP cables (4, 5) and power cable (3).	Route down wall behind radio shelf.	
o. Power cable (3) connector P1.	Connect and secure to power bendix connector.	
p. SP cable (4) connector P1.	Connect and secure to AM-1780/VRC connector J501	
q. SP cable (5) connector P1.	Connect and secure to AM-1780/VRC connector J503.	

5.4 Installation of Cables. Continued.

ITEM	ACTION	REMARKS
r. Two loop clamps (7), two hex-head tapping screws (1/4-20 x 5/8 in) and two lock washers (1/4 in).	Wrap clamps around SP cables (4, 5); then install to existing bosses below AM-1780/VRC. See Figure 5-5 for location(s).	
s. Loop clamp (8), hex-head tapping screw (1/4-20 x 5/8 in) and lock washer 1/4 in).	Wrap clamp around power cable (3) and SP cables (4, 5); then install to existing boss. See Figure 5-5 for location(s).	
t. Power cable (3) connector P2.	Connect and secure to mounting base (6) connector J1. See Figure 5-5.	

5.4 Installation of Cables. Continued.



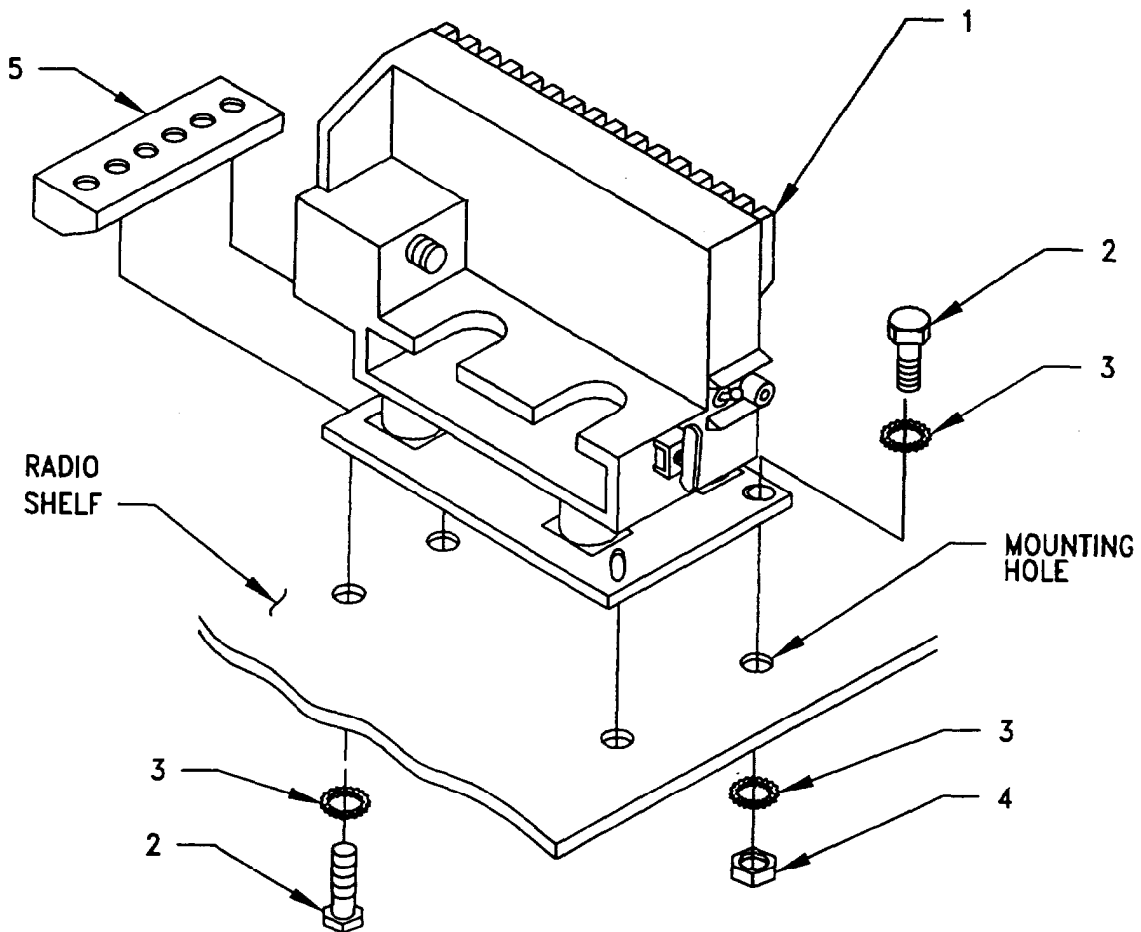
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|---|--|
| <ol style="list-style-type: none"> 1. RF CABLE, CG-3855/VRC (15 FT, 0 IN) 2. RF CABLE, CG-3855/VRC (5 FT, 0 IN) 3. POWER CABLE, CX-13306/VRC (2 FT, 0 IN) 4. SP CABLE, CX-13300/VRC (4 FT, 0 IN) 5. SP CABLE, CX-13313/VRC (4 FT, 0 IN) 6. MOUNTING BASE 7. LOOP CLAMP (1-1/4 IN)
TAPPING SCREW (1/4-20 x 5/8 IN)
LOCK WASHER (1/4 IN) | <ol style="list-style-type: none"> 8. LOOP CLAMP (1 1/4-1/4 IN)
TAPPING SCREW (1/4-20 x 5/8 IN)
LOCK WASHER (1/4 IN) 9. TIEDOWN STRAP 10. LOOP CLAMP (1/4-1/4 IN) 11. TIEDOWN STRAP 12. LOCK WASHER (1/4 IN) 13. TAPPING SCREW (1/4-20 x 5/8 IN) 14. SP CABLE, CX-13313/VRC (2 FT, 7 IN) 15. TIEDOWN STRAP |
|---|--|

Figure 5-5. Cable Installation: RF, Power and SP Cabling

5.4 Installation of Mounting Base, Electrical Equipment MT-6353/VRC. Use the following instructions to install MT-6353/VRC mounting base. Refer to Section 5.5 for connection of cables.

ITEM	ACTION	REMARKS
NOTE		
<p>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. Before proceeding, connect and secure CX-13291/VRC control cable and CX-13303/VRC power cable to MT-6353/VRC mounting base. (Refer to Section 5.5, step b.)</p>		
a. MT-6353/VRC mounting base (1).	Place on radio shelf over existing holes. See Figure 5-6.	
b. MT-6353/VRC mounting base (1).	Align front holes and rear slots with matching hole pattern in radio shelf. See Figure 5-6.	
c. Two machine bolts (2) two IET washers (3) and nut strip (5).	Install and secure to rear slots in MT-6353/VRC mounting base (1) and radio shelf.	Tools: 1/2 in socket.
d. Two machine bolts (2), four IET washers (3) and two nuts (4).	Install and secure to front holes in MT-6353/VRC mounting base (1) and radio shelf.	Tools: 1/2 in socket and 1/2 in open/box wrench.

5.5 Installation of Mounting Base, Electrical Equipment MT-6353/VRC. Continued.



- 1. MOUNTING BASE
- 2. NUT (5/16-24 IN)
- 3. IET WASHER (5/16 IN)
- 4. MACHINE BOLT (5/16-24 X 1 IN)
- 5. NUT STRIP

Figure 5-6. MT-6353/VRC Mounting Base Installation

5.5 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 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 11-5820-890-20-4 for installation and operational (OP) checks and instructions.	
f. MK line replaceable units.	See TM 11-5820-890-20P for Repair Parts and Special Tools List (RPSTL) information.	

5.6 Post-Installation and Checkout. Continued.

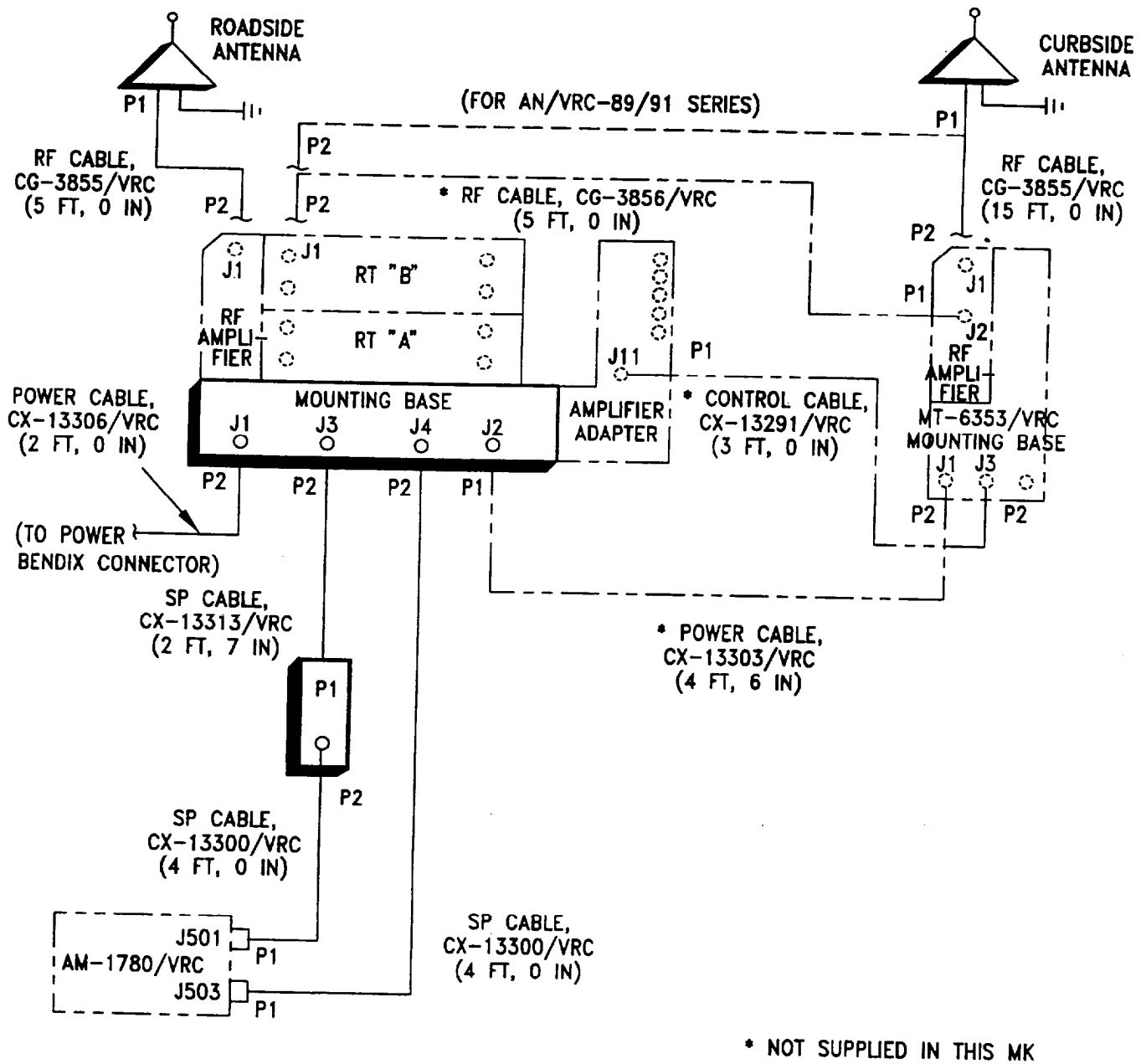


Figure 5-7. Cable Diagram: For AN/VRC-89/91/92 Series

5.5 Post-Installation and Checkout. Continued.

CABLE ASSEMBLY	FROM			TO		
	CABLE CONN.	UNIT	UNIT CONN.	CABLE CONN.	UNIT	UNIT CONN.
CX-13306/VRC (2 FT, 0 IN)	P2	Mounting base	J1	P1	Power bendix connector	
CX-13300/VRC (4 FT, 0 IN)	P2	CX-13313/VRC (2 FT, 7 IN)	P1	P1	AM-1780/VRC	J501
CX-13313/VRC (2 FT, 7 IN)	P1	CX-13300/VRC (4 FT. 0 IN)	P2	P2	Mounting base	J3
CX-13300/VRC (4 FT, 0 IN)	P2	Mounting base	J4	P1	AM-1780/VRC	J503
CG-3855/VRC (5 FT, 0 IN)	P1	Roadside antenna base	J1	P2	RF Amplifier (RT)	J1
CG-3855/VRC (15 FT, 0 IN)	P1	Curbside antenna base	J1	P2	RF amplifier (MT-6353/VRC) or RT	J1
*CX-13291/VRC (3 FT, 0 IN)	P1	Amplifier-adapter	J11	P2	MT-6353/VRC mounting base	J3
*CG-3856/VRC (5 FT, 0 IN)	P2	RT "B"	J1	P1	RF amplifier (MT-6353/VRC)	J2
*CX-13303/VRC (4 FT, 6 IN)	P1	Mounting base	J2	P2	MT-6353/VRC mounting base	J1

*Not supplied in this MK.

Figure 5-7. Cable Diagram: For AN/VRC-89/91/92 Series. Continued.

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 Supply UPDATE
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, Vol. 1)
TM 11-5820-890-20-2	Unit Maintenance Manual (ICOM Radio Sets, Vol. 2)
TM 11-5820-890-20-3	Unit Maintenance Manual Handbook (ICOM Radio Sets)
TM 11-5820-890-20-4	Unit Maintenance Manual (Non-ICOM Radio Sets)
TM 11-5820-890-20P	Repair Parts and Special Tools List

By Order of the Secretary of the Army:

DENNIS J. REIMER
General, United States Army
Chief of Staff

Official:


JOEL B. HUDSON

Administrative Assistant to the
Secretary of the Army
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BE EXACT PIN-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	
2-25	2-28			<p>Recommend that the installation antenna alignment procedure be changed throughout to specify a 2⁰ IFF antenna lag rather than 1⁰.</p> <p>REASON: Experience has shown that with only a 1⁰ lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing stress to the drive train. Hunting is minimized by adjusting the lag to 2⁰ without degradation of operation.</p>
3-10	3-3		3-1	<p>Item 5, Functions. Change "2 dB" to "3 dB".</p> <p>REASON: The adjustment procedure for the TRANS POWER FAULT indicator calls for a 3 dB (500 watts) adjustment to light the TRANS POWER FAULT indicator.</p>
5-6	5-8			<p>and new step f.1 to read, "Replace cover plate removed in step above."</p> <p>REASON: To replace the cover plate.</p>
		FO-3		<p>Zone C 3. On J1-2, change "+24 VDC" to "+5 VDC".</p> <p>REASON: This is the output line of the 5 VDC power supply. +24 VDC is the input voltage.</p>

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