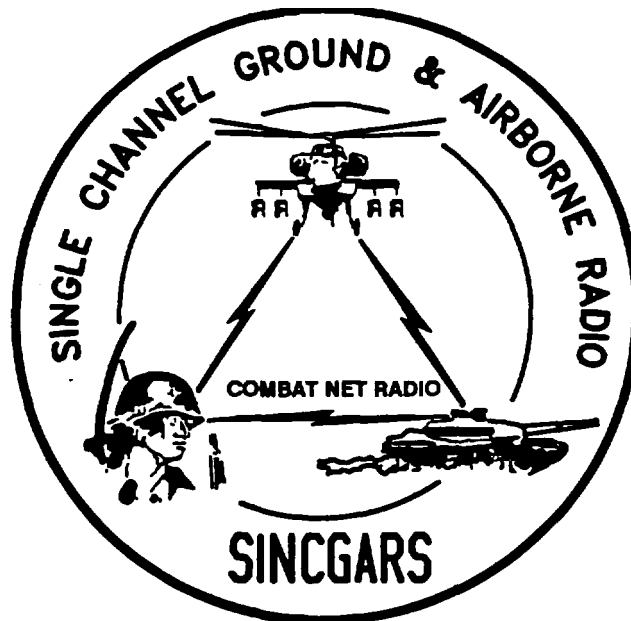

TECHNICAL BULLETIN



INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT, ELECTRONIC EQUIPMENT,
MK-2190/VRC (NSN 5895-01-285-2349) (EIC: N/A)
TO PERMIT INSTALLATION OF
RADIO SET AN/VRC-92 SERIES
IN A
RADAR SET, AN/TPQ-32 (NORMALLY P/O MPQ-49)

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

1 SEPTEMBER 1993

TECHNICAL BULLETIN

NO. 11-5820-890-20-6

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 1 September 1993

INSTALLATION INSTRUCTIONS FOR
INSTALLATION KIT, ELECTRONIC EQUIPMENT
MK-2190/VRC (NSN 5895-01-285-2349) (EIC: N/A)
TO PERMIT INSTALLATION OF
RADIO SET AN/VRC-92 SERIES
IN A
RADAR SET, ANITPQ-32 (NORMALLY P/O MPQ-49)

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 Shelter	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	10
Installation Procedures	5.	11
Installation of Antenna AS-3900/VRC (antenna)	5.1	13
Installation of Antenna Base	5.1.1	13
Installation of Top Antenna Assembly	5.1.2	15
Installation of Mounting Base, Electrical Equipment MT-6352/VRC (mounting base)	5.2	16
Installation of Cables	5.3	18
Installation of MK-2499/VRC	5.4	23
Installation of Mounting Base, Electrical Equipment MT-6353/VRC	5.5	23
Post-Installation and Checkout	5.6	25
Appendix A. References		A1

LIST OF ILLUSTRATIONS

Figure	Title	Page
4-1	MK Illustrated Parts List	6
4-1	MK Illustrated Parts List	6
4-2	Illustrated Parts List for Table 4-2	8
4-2	TSEC/KY-57 Illustrated Parts List	9
5-1	MK and Radio Installation	11
5-2	Antenna Base Installation	13
5-3	Top Antenna Assembly Installation	15
5-4	Mounting Base Installation	16
5-5	Cable Installation	18
5-6	MT-6353/VRC Mounting Base Installation	23
5-7	Cable Diagram	26

LIST OF TABLES

Number	Title	Page
4-1	MK Parts List for Installation of Radio Set AN/VRC-92 Series.....	4
4-2	Additional Items Required for Installation of Radio Set AN/VRC-92 Series	8
4-3	Additional Items Required for Installation When Using RT-1439/VRC	9

0.1 SCOPE

This technical bulletin provides Installation Instructions for Installation Kit, Electronic Equipment MK-2190/VRC, commonly referred to as the Mounting Kit (MK). The MK shall be installed into the following type of shelter(s):

- Radio Set, AN/TPQ-32 (normally p/o MPQ-49)

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 shelters.**
- **This technical bulletin does not establish quantity or types of shelters 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 11-5820-890-2)-2, TM 11-5820-890 -204 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 shelter and correct power is supplied. Refer to TM 11-5820-890-20-1 or TM 11-5820-890-2g4 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-92 Series are:

- Radio Set AN/VRC-92 (for RT-1439/VRC)
- Radio Set AN/VRC-92A (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 Packaging 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 Pain 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-2190/VRC (MK) contains the items needed to mount Radio Set AN/ VRC-92A in a Radar Set, ANrPQ-32 (shelter). If Radio Set AN/VRC-92 is to be installed, communications security equipment (TSEC/KY-57) will need to be installed also; see section 5.4 for information. To install MT-6353/VRC mounting base, see section 5.5 for instructions.

2. END ITEM OR SYSTEM TO BE MODIFIED.

Not applicable.

3. APPLICATION TIMES.

3.1 Time for Completion of Installation. Using one person, a total of 3.5 work hours is required. Typical shelter downtime is 3.5 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 times will not reflect the typical shelter downtime.

ITEM	SECTION	TIME
Antenna AS-3900/VRC	5.1	0.5
Mounting Base, Electrical Equipment MT6352VNRC	5.2	0.5
Cables	5.3	1.0

4. PREPARATION FOR INSTALLATION.

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

4.1 Preparation of Shelter. To prepare the shelter for installation, insure that the site includes adequate lighting and a power source when drilling is required. Inspect the shelter 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 9-1430588-20.

4.1.2 List of 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 covers 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. -