

SIGNAL CORPS
REPAIR STANDARD

NO. REP-439
ISSUE NO. 1

REPAIRED EQUIPMENT STANDARD
FOR
RADIO TRANSMITTER SECTION OF
RADIO SET AN/PRC-5

PROJECT 4422D

28 April 1954



PROPERTY OF TECHNICAL LIBRARY
FOR REFERENCE

NOT TO BE TAKEN FROM THIS ROOM

SIGNAL CORPS ENGINEERING LABORATORIES
FORT MONMOUTH, N. J.

Copy 1

SC-SC
REV. 23
Army-FI
MON. NO. 219
1946
Fort Monmouth, N.J. - MON 853-54

**SIGNAL CORPS ENGINEERING LABORATORIES
FORT MONMOUTH, NEW JERSEY**

28 April 1954

Signal Corps Repair Standard #439 has been prepared under the supervision of PM&E Division and is published for the information and guidance of all concerned. Suggestions or criticisms relative to the form, contents, purpose, or use of this publication should be referred to Signal Corps Engineering Laboratories, Fort Monmouth, N.J., Attn: Chief, Maintenance Engineering Branch.

F. F. UHRHANE
Colonel, Signal Corps
Commanding

OFFICIAL:
MAX P. BUTLER
Capt, SigC
Adjutant

DISTRIBUTION:
Special

PREFACE

Signal Corps Repair Standards (formerly Signal Corps Repaired Equipment Requirements) are prepared by the Maintenance Engineering Branch, Procurement-Maintenance Engineering Division, Signal Corps Engineering Laboratories, and cover various items of signal equipments which are subject to repair, test and inspection. These repair standards are documents which set forth the specific repair requirements and test standards to be applied to the individual equipments being repaired and tested.

Signal Corps Repair Standards are prepared for the specific use of the fifth echelon Signal Repair Shops in repairing and determining the quality and acceptability of repaired signal equipments covered by these standards. The use of Signal Corps Repair Standards is recommended as a guide and reference for any agency having occasion to repair, test or inspect an item of signal equipment for which a repair standard has been prepared.

Signal Corps Repair Standard No. REP-1001 is a general standard and is subsidiary to any individual standard prepared. No individual standard is to be considered complete in itself, but is to be used in conjunction with Signal Corps Repair Standard No. REP-1001, "General Standards for Repaired Signal Equipment."

Reports of any discrepancies or any other constructive comments bearing upon this repair standard are invited. A series of Comments and/or Notes pages will be found in the back of this standard which are designed to facilitate reporting any inaccuracies noted. All such reports or comments as well as requests for additional copies, should be addressed to:

COMMANDING OFFICER
Signal Corps Engineering Laboratories, SIGEL-PMM-3
Fort Monmouth, New Jersey.

TABLE OF CONTENTS

Section	Text	Paragraph	Page
	Preface		II
I.	Statement Covering Applicability		1
II.	Applicable References		1
	Repair Standards	A	1
	Technical Publications	B	2
III.	Test and Additional Equipment		2
	Test Equipment	A	2
	Additional Equipment	B	2
	Test Data Sheet for Radio Transmitter Section of AN/PRC-5		3

REPAIRED EQUIPMENT STANDARD
FOR
RADIO TRANSMITTER SECTION OF RADIO SET AN/PRC-5

I. STATEMENT COVERING APPLICABILITY

This repair standard covers inspection requirements to be used in determining the quality and acceptability of repaired Radio Transmitter Section of Radio Set AN/PRC-5. This must be used in conjunction with Signal Corps Repair Standard No. REP-1010, Radio Transmitter, General Standards which form a part of this standard. Its use is mandatory in the Maintenance Divisions of Signal Depots and the Signal Sections of General Depots. The use, insofar as limitations of test and calibration equipment permit, is highly recommended for all Signal Repair organizations.

II. APPLICABLE REFERENCES

A. Repair Standards. Applicable paragraphs of the repair standards listed below form a part of this standard:

	Title	Number	Paragraph
1.	General Standards for Repaired Signal Equipment	REP-1001	
2.	Class "C" Receiver and Low Power Transmitter Vacuum Tubes	REP-242	B4, D1, D2, D3
3.	Electrical Indicating Instruments (Meters)	REP-85	D1, D2, D4, D5, D6, D8, D10
4.	Pressure or spacer Mounted crystal units in FT-243 holders in class "C" stock.	REP-12	

Meters showing signs of sluggishness or suspected of incorrect indications shall conform to the requirements of all paragraphs of REP-85.

B. Technical Publications. The following technical publications form a part of this standard to the extent referenced herein:

Title	Number
Technical Manual for Radio Set AN/PRC-5	TM 11-265

NOTE: All applicable Modification Work Orders pertaining to this equipment shall be performed.

III. TEST, AND ADDITIONAL EQUIPMENT

The following equipments, or suitable equivalents of known accuracy, will be employed in determining compliance with the requirements of this Signal Corps Repair Standard and will be capable of conforming to their respective Repair Standards:

A. Test Equipment

Equipment	Stock Number	Number Used	REP
Frequency Meter FR-4/U	3F2435-4	1	-

B. Additional Equipment

Equipment	Stock Number	Number Used	REP
1. Crystal Unit CR5/U 4920 kc	2X186T-4920	1	REP-12
2. Crystal Unit CR5/U 6645 kc	2X186T-6645	1	-
3. Key, J47, telegraph w/cord	3Z3447.1	1	-
†4. Resistor, fixed non-inductive 100 ohms	3Z6010-187	4	-

5. RF Milliammeter 3F950-35 1 -
 0-500 ma

†NOTE: Use 4 ea in series.

TEST DATA SHEET
FOR
RADIO TRANSMITTER SECTION OF AN/PRC-5

A. General Test Conditions

1. Dummy antenna 400 ohms NI, 40 watts.
2. Power source shall be 110/220 volts AC \pm 10 volts, single phase.
3. Equipment tuned per paragraph 22 of Technical Manual TM 11-265.
4. Warm up period of at least 15 minutes.

B. Detailed Tests

1. Frequency Range

From 4000 kcs

To 16,000 kcs

Covered in 4 Bands

Band 1 4000 to 6000 kc

Band 2 6000 to 8000 kc

Band 3 8000 to 12000 kc

Band 4 12000 to 16000 kc

2. RF Power Output

At 4920 kc 200 ma (16 watts)

At 6645 kc 200 ma (16 watts)

At 9840 kc 158 ma (10 watts)

At 13290 kc 158 ma (10 watts)

----- ma
----- ma
----- ma
----- ma

C. Operational Test

CW

satisfactory

Tests listed in REP-1010 but which do not appear on this Test Data Sheet do not apply to the Transmitter Section of Radio Set AN/PRC-5.

Faint, illegible text block.

COMMENTS AND / OR NOTES

SIGNAL CORPS
REPAIR STANDARD

NO. REP - _____

ISSUE NO. _____

COMMENTS AND / OR NOTES

SCEL

Signal Corps Repair Standard REP-439

AUTHOR

TITLE

28 April 1954

Copy 1

DATE DUE

BORROWER'S NAME