

SIGNAL CORPS
REPAIR STANDARD

NO. REP-890
ISSUE NO. 1

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

PROJECT 4422D

31 March 1954



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SIGNAL CORPS ENGINEERING LABORATORIES

FORT MONMOUTH, N. J.

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REP-890

SIGNAL CORPS ENGINEERING LABORATORIES
FORT MONMOUTH, NEW JERSEY

31 March 1954

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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.

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REPAIRED EQUIPMENT STANDARD
FOR
RADIO RECEIVER 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 Receiver Section of Radio Set AN/PRC-5. This standard must be used in conjunction with Signal Corps Repair Standard No. REP-1009, Radio Receivers (AM), 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

Meters showing signs of sluggishness or suspected of incorrect indications shall conform to the requirement 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 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
1.	Multi-meter TS-352/U	3F4325-352	1	420
2.	AN/URM-25B	3F3901.2-25B	1	-
3.	Frequency Meter FR-4/U	3F2435-4	1	-

B. Additional Equipment

	Equipment	Stock Number	Number Used	REP
1.	Resistor, fixed: 10,000 ohms	3RC30BF103J	1	-
2.	Resistor, fixed: 390 ohms, 1/2 w	3RC30BF391J	1	-
3.	Headset HS-30	2B830 ()	1	-

TEST DATA SHEET
FOR
RADIO RECEIVER OF RADIO SET AN/PRC-5

IV: GENERAL CONDITIONS

1. Dummy Antenna 390 ohms.
2. Output Load 10,000 ohms across phones jack ref-
symbol J2.
3. Standard Output 10 volts.
4. Supply Voltage 110/220v AC, ±10 volts.
5. RF signal modulation 400 cps.

Test	Specified Value			Measured Value		
	High	Middle	Low	High	Middle	Low
1. Sensitivity (uv)						
Standard noise output	Band 1, 10	10	10	-----	-----	-----
3.1 voltage ratio 1	Band 2, 25	25	25	-----	-----	-----
	Band ,					
2. CW Sensitivity						
	Band 1, 5	5	5	-----	-----	-----
	Band 2, 10	10	10	-----	-----	-----
	Band ,					
3. Selectivity:	Input	Bandwidth		Bandwidth		
Standard input	20 uv	3 kc min,				
10 microvolts at		7 kc max		-----		
5,000 kc	100 uv	20 kc max		-----		
	1000 uv	40 kc max		-----		
	10,000 uv	80 kc max		-----		
				Min	Max	
4. Frequency Range:	Band 1	4500 kc to 8000 kc		----- kc	----- kc	
	Band 2	8000 kc to 16000 kc		----- kc	----- kc	
5. Calibrations and Resetability:		Frequency				
	Band 1	±55 kc 5000-8000 kc		-----	-----	kc
	Band 2	±55 kc 8000-16000 kc		-----	-----	kc

TEST DATA SHEET (CONTD.)

<u>Test</u>	<u>Specified Value</u>	<u>Measured Value</u>
6. Frequency drift: (in 30 min at 5,000 kc)	±15 kc	_____ kc
7. Special Tests	The audio output shall be not less than 16 volts with inputs of 100,1000, 10,000 and 100,000 microvolts.	Satisfactory _____ Not Satisfactory _____
8. Operation Check		
Quality of Signals (Voice and CW)	Band 1 Satisfactory Band 2 Satisfactory	_____ _____
Visual tuning	Function properly	_____
Controls	Function properly	_____
Vibration	No effect	_____

Tests listed in REP-1009 but which do not appear on this
Test Data Sheet do not apply to Radio Receiver Section of
Radio Set AN/PRC-5.

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COMMENTS AND / OR NOTES

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