NAVSHIPS 900,228.42 *Non-Registered*

MAINTENANCE STANDARDS BOOK

for

RADIO RECEIVING EQUIPMENT

RCK, RCK-a

SERIAL NO._____

OF MODEL _____

DEPARTMENT OF THE NAVY

BUREAU OF SHIPS

Approved by BuShips: 31 March 1958

Change 1: 1 September 1960

LIST OF EFFECTIVE PAGES

PAGE NUMBER	CHANGE IN EFFECT	PAGE NUMBER	CHANGE IN EFFECT
Title Page	Change 1		
ii	Change 1		
iii to vii	Original		
viii to xi	Change 1		
1-0 to 1-2	Original		
1-3	Change 1		
1-4	Original		
1-5 to 1-11	Change 1		
2-0 to 2-6	Original		
2-7 and 2-8	Change 1		
2-9 and 2-10	Original		
2-11	Change 1		

RCA SERVICE COMPANY
CAMDEN, NEW JERSEY

Contract: NObsr 71851

Radio Receiving Equipment RCK, RCK-A
NAVSHIPS 900228.42
REFERENCE STANDARD SUMMARY

Model _____

Serial No. _____

Installed in _____
(Ship or Station)

After Radio Receiving Equipment RCK has been brought up to optimum performance and the reference standards accomplished, record in this summary sheet the standards which have been entered in this book. Forward this sheet to Chief, Bureau of Ships, Navy Department, Washington 25, D.C.

Step No.	Reference Standard	Step No.	Reference Standard	Step No.	Reference Standard
A1	VAC	B1	μA	C1	μV
A2	VDC		KC	C2	μV
A3	VDC	B2	μA	C3	μV
			KC	C4	KC

List all field changes which have been accomplished on this equipment _____

_____

Signature _____

Title-Position _____

Date _____

DEPARTMENT OF THE NAVY
BUREAU OF SHIPS
WASHINGTON 25, D. C.

IN REPLY REFER TO
Code 993-100

From: Chief, Bureau of Ships
To: All Activities concerned with the Operation and Maintenance of the Subject Equipment

Subj: Maintenance Standards Book for Radio Receiving Equipment RCK, RCK-a, NAVSHIPS 900,228.42

1. This is the Maintenance Standards Book for the subject equipment and is in effect upon receipt. This publication applies only to the equipment, the serial number and designation of which appear on the cover and title page.

2. When superseded by a later edition, this publication shall be destroyed.

3. Extracts from this publication may be made to facilitate the preparation of other Department of Defense publications.

4. Errors found in this publication (other than obvious typographical errors), which have not been corrected by means of Temporary Corrections or Permanent Changes, should be reported. Such report should include the complete title of the publication and the publication number (short title); identify the page and line or figure and location of the error; describe the error or indicate what change should be made; and be forwarded to the Electronics Publications Section of the Bureau of Ships.

5. All Navy requests for NAVSHIPS electronics publications should be directed to the nearest Bureau of Supplies and Accounts Forms and Publications Supply Point. When changes or revised books are distributed, notice will be included in the Electronics Information Bulletin, NAVSHIPS 900,022, and in the Index of Bureau of Ships General and Electronics Publications, NAVSHIPS 250-020.

A. G. MUMMA
Chief of Bureau

RECORD OF ENTRIES AND CORRECTIONS

ORIGINAL DATA RECORDED BY _____ DATE _____

AFFILIATION _____ NAVAL LOCATION _____

EQUIPMENT CHANGE			REFERENCE STANDARD CHANGES			
			REQUIRED		MADE	
NUMBER OR DESCRIPTION	MADE BY	DATE	PAGE(S)	STEP(S)	BY	DATE

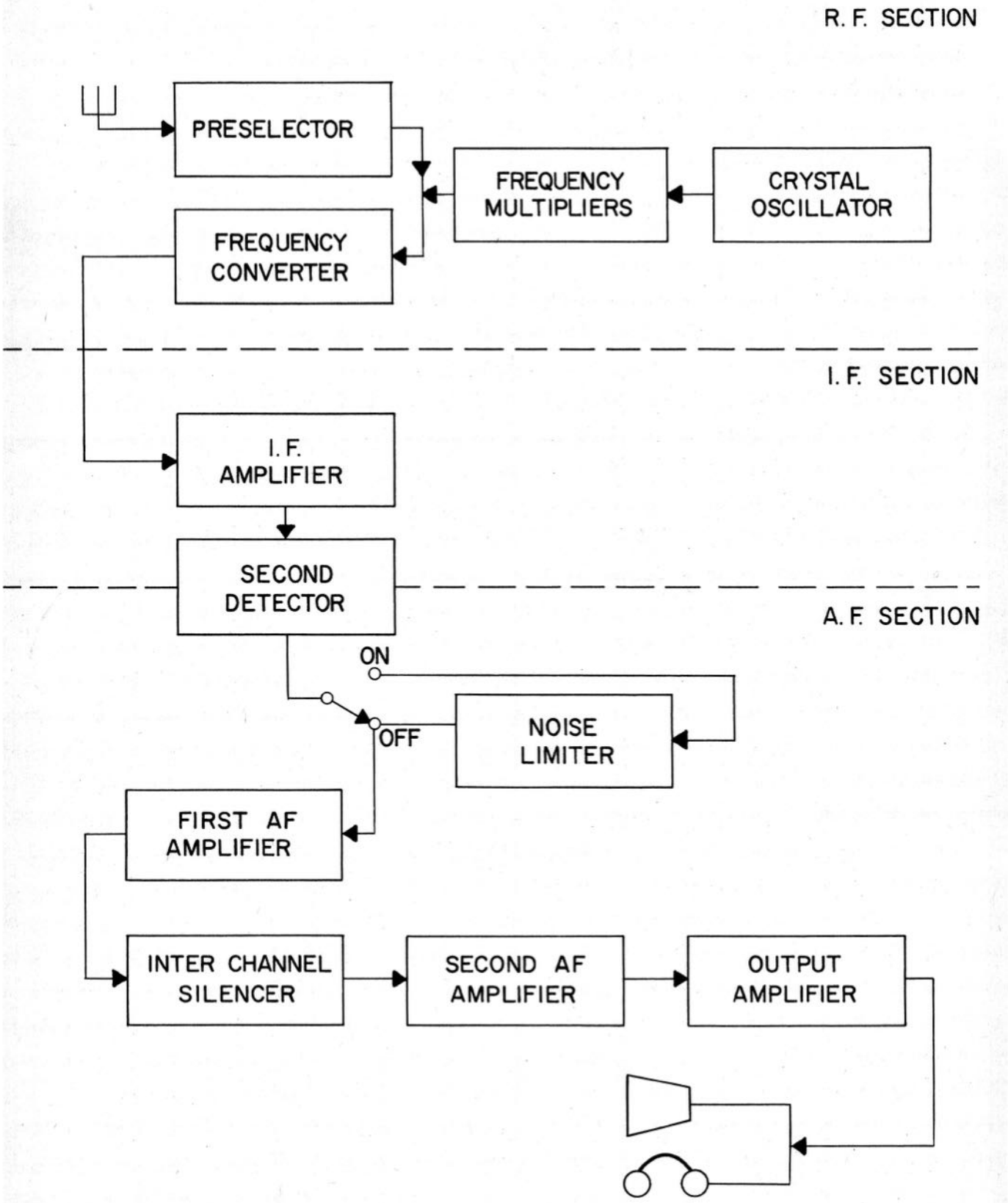
RECORD OF FIELD CHANGES

Field Changes considered in preparation of this book: FC 1 thru 4.

FIELD CHANGE NUMBER *	DATE COMPLETED	STEPS AFFECTED	
		PAGE NO	STEP NO

FIELD CHANGE NUMBER *	DATE COMPLETED	STEPS AFFECTED	
		PAGE NO	STEP NO

*Revisions necessitated by these field changes have been incorporated in this book.


R. F. SECTION
PRESELECTOR
FREQUENCY MULTIPLIERS
CRYSTAL OSCILLATOR
FREQUENCY CONVERTER
I. F. SECTION
I. F. AMPLIFIER
SECOND DETECTOR
A. F. SECTION
ON
OFF
NOISE LIMITER
FIRST AF AMPLIFIER
INTER CHANNEL SILENCER
SECOND AF AMPLIFIER
OUTPUT AMPLIFIER

INTRODUCTION

The purpose of this book is to describe a series of specially developed tests and measurements, the results of which may be used for reference when determining the equipment condition during future tests.

Part I, "Test Procedures and Maintenance References", consists of a series of tests that, when completed, will indicate the relative performance of the equipment. These tests and measurements, known as reference standards, are made at critical or significant points when the equipment is known to be performing at the maximum of its capabilities. The reference standards apply only to the equipment to which this book is permanently assigned, and because of this individuality are of even greater value.

Standards are to be established upon receipt of this book, and should be re-established after equipment overhaul. Prior to establishing the initial standards for equipment, each functional section shall first be checked to insure that the equipment is operating to the optimum of its capabilities. After the overall checking and peaking of sections the prescribed tests and measurements shall be made, and the results entered in the spaces provided. The standards are to be entered in ink, and the person performing the tests shall sign his name and enter the appropriate information on page iv of this book. Extreme care should be taken when making reference standard measurements to insure that the correct procedures are implicitly followed, otherwise the recorded standard will be uselsss. A reference standard summary (tear-out sheet) is in the front of this book. Record on it all standards obtained and list all field changes which have been accomplished, and forward to the address shown thereon.

The tolerances shown in parentheses in the reference standard column of this book are not absolute limits. They are intended merely to serve as a guide for the person performing the tests in establishing the standard.

Steps representing reference standards are of prime importance, for they indicate whether or not the equipment is performing at maximum efficiency. When the performance drops below the minimum acceptable standard, refer to NAVSHIPS 900228, Technical Manual for Radio Receiving Equipment Model RCK for service and repair procedures.

To correlate the reference standard steps with the steps on the Performance Standard Sheet, NAVSHIPS 900228. 32, the step numbers have been designated by a star.

Part II, "Preventive Maintenance Check-Off" contains a series of tests which provide a systematic and efficient method of checking equipment, and of performing routine preventive maintenance.

Upon receipt of this book, use ink to record the serial number of the RCK to which it is permanently assigned. The serial number is entered in the space provided on both the cover and the title page. Also fill in complete date for the two-year period covered.

The book contains daily, weekly, monthly and quarterly steps. A number of these steps are designated "Operational Maintenance" (O. M.) and should be performed by operating personnel to lighten the technician's work load. The time required is not a fixed standard, but an average established by testing personnel of varied experience.

In some cases the illustrations for the maintenance steps are not on the facing page but are referenced elsewhere in the book. On those illustrations used for both reference standards and preventive maintenance steps, the preventive maintenance step is denoted by a

white circle with black figures while the reference standards are denoted by a black circle with white figures.

A cross-reference table is given below so that the Preventive Maintenance Check-Off tests can be accurately related to the Reference Standards accomplished in Part I of this book.

Charts are provided for the initials of the person performing the checks. In cases where the result of the check is a measurable quantity, space is also provided for recording the result.

MAINTENANCE CHECK-OFF			EQUIVALENT REFERENCE STANDARD	
Frequency Period	Time Required	Step Number	Section	Step Number
Daily	10 min.	1 2	 A	None 3
Weekly	1/4 hour	1		None
Monthly	20 min.	1 and 2	B	1 and 2
Quarterly	1-1/2 hour	.1 thru .3 1 and 2 3 and 4 5	C A C	1 thru 3 None 1 and 2 4

The following table lists test equipment and special tools required in the performance of the tests and maintenance procedures described herein.

TEST EQUIPMENT (OR EQUIVALENTS) AND SPECIAL TOOLS REQUIRED

DESCRIPTION AND NOMENCLATURE	USED IN PART						
	I			II			
	A	B	C	D	W	M	Q
Multimeter AN/PSM-4 Series	X	X				X	X
Signal Generator AN/URM-26 Series			X			X	X
Frequency Meter TS-186/UP Series			X				X
Output Meter TS-585/U Series or ME-6( )/U Series*			X				X
Phone Plug Adapter			X				X

* ME-6( )/U Series requires a 600-ohm non-inductive resistor across terminals.

SPECIAL PROCEDURES

1. Energize the Radio Receiving Equipment RCK, RCK-A as instructed in the operating procedure given in the Technical Manual, NAVSHIPS 900228. Allow 10 minutes warm-up time after energizing equipment.

2. The Operate conditions referred to in these reference standards mean that the equipment should be operating under full load with all controls in their normal position for the function listed, unless otherwise specified.

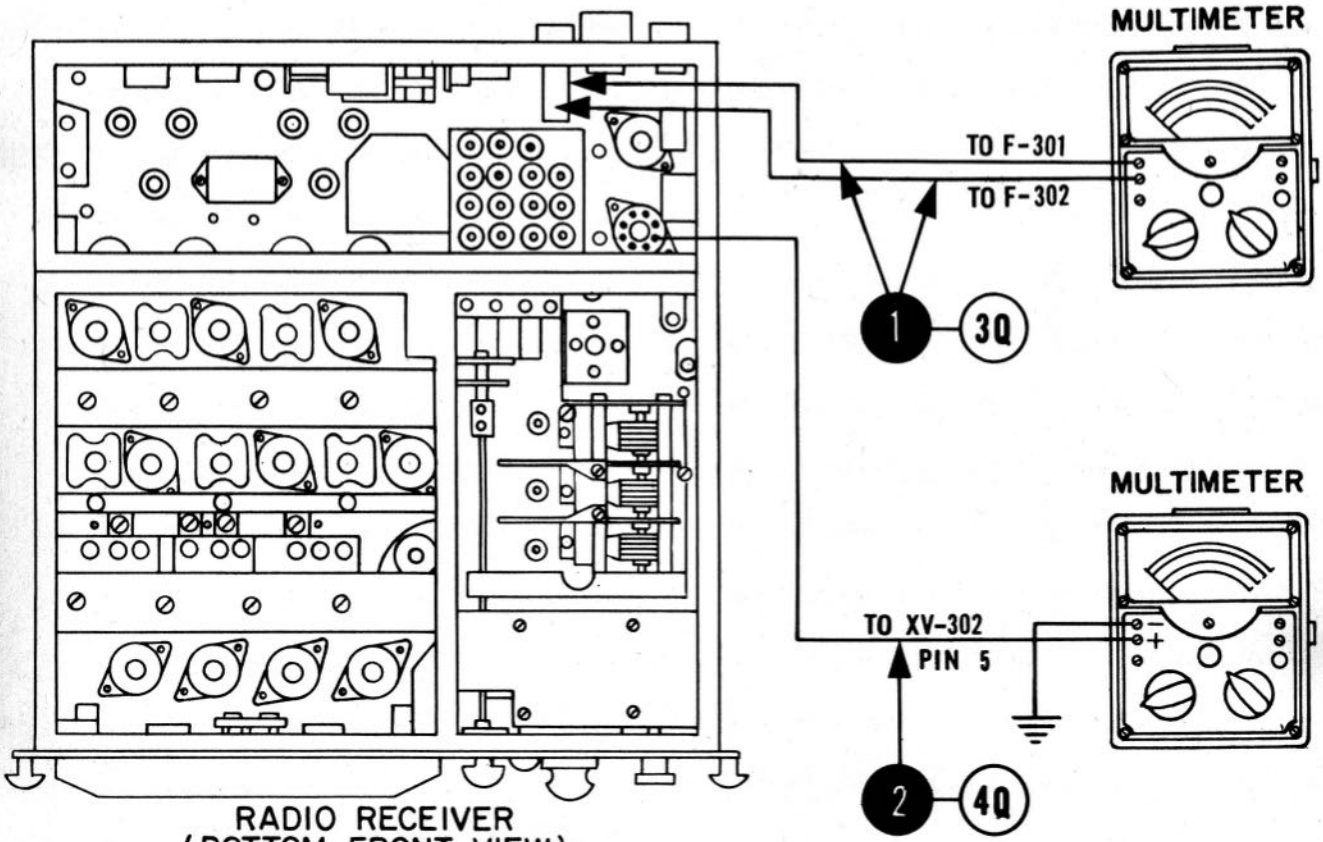
3. All test equipment should be disconnected at the completion of a reference standard. All cables, terminal board connections, tubes, etc., which have been disconnected or removed in the course of a reference standard should be restored to their original position at the completion of the reference standard.

4. Unless specifically instructed in a reference standard test procedure the following controls should be set in the indicated position. If the setting of any of these controls is changed in the course of a reference standard measurement, the control should be returned to the specified position upon completion of the reference standard.

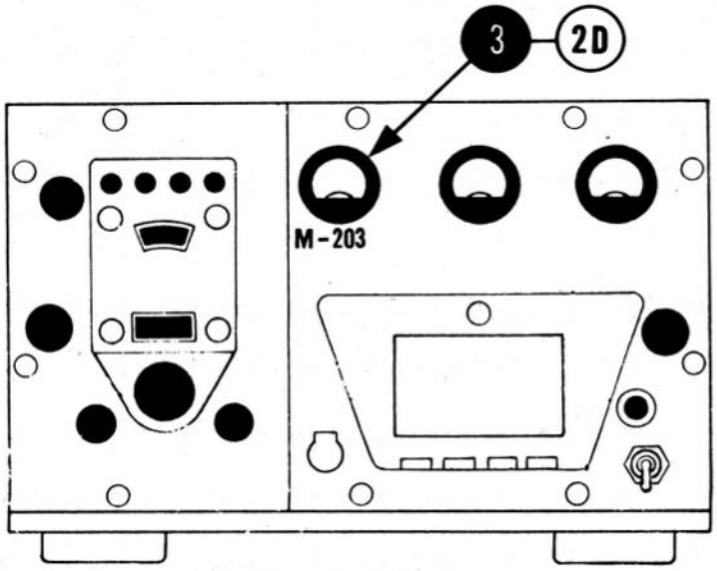
   NOISE LIMITER OUTPUT METER switch (S-202): OM
   PHONES volume control (R-255): Maximum
   SILENCER control (R-240): O
   RECEPTION switch (S-201): AVC OFF
   AF GAIN control (R-251): Maximum gain
   AF BAND switch (S-204): BROAD
   RF GAIN control (R-232): Maximum gain
   POWER switch (S-205): ON

PART I

TEST PROCEDURES AND MAINTENANCE REFERENCES



RADIO RECEIVER
(BOTTOM FRONT VIEW)

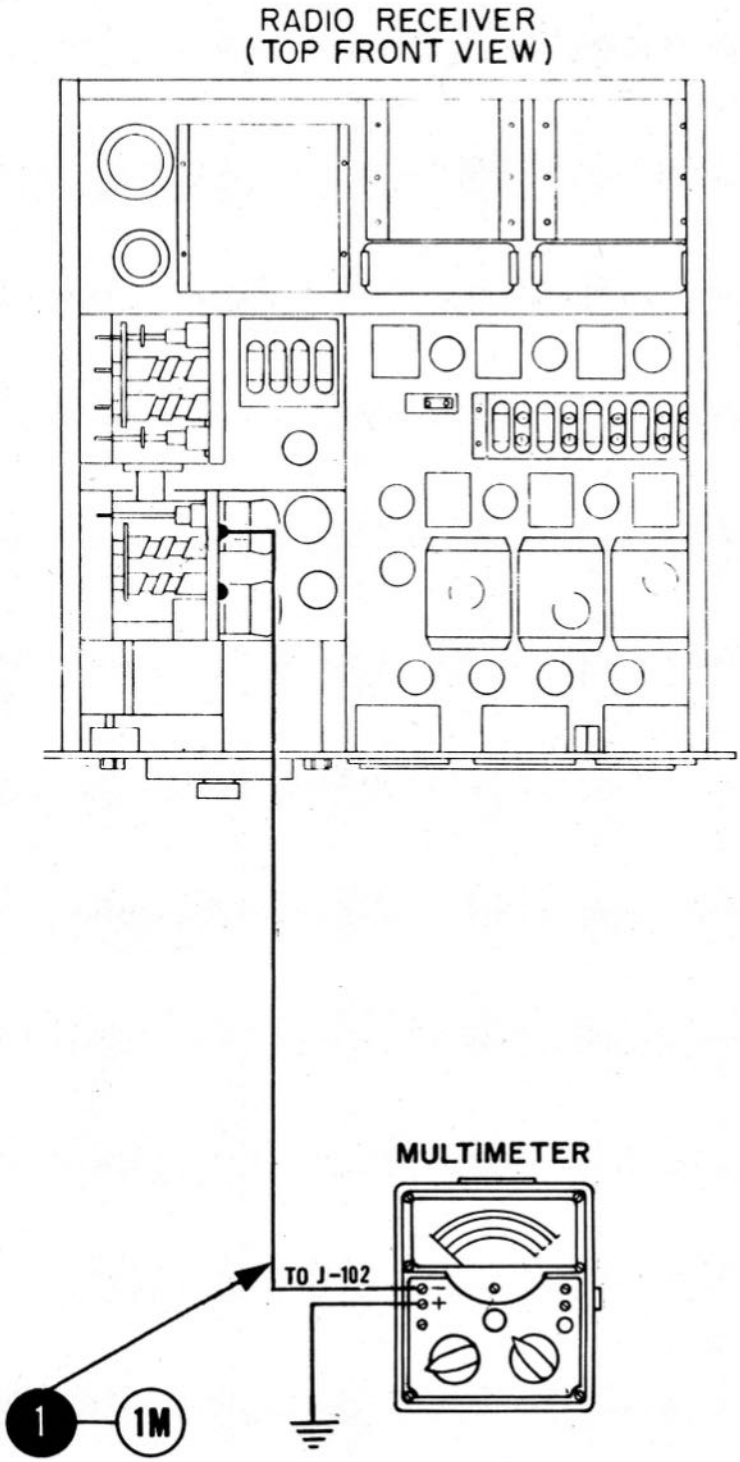


RADIO RECEIVER
(FRONT VIEW)

NOTE
THE POWER VOLTAGE MEASUREMENTS DEPEND UPON THE PROPER SETTING OF POWER INPUT PRIMARY SWITCH S-301.

RCK, RCK-A in Operate Condition.
AF GAIN control (R-251): 0
RF GAIN control (R-232): 0

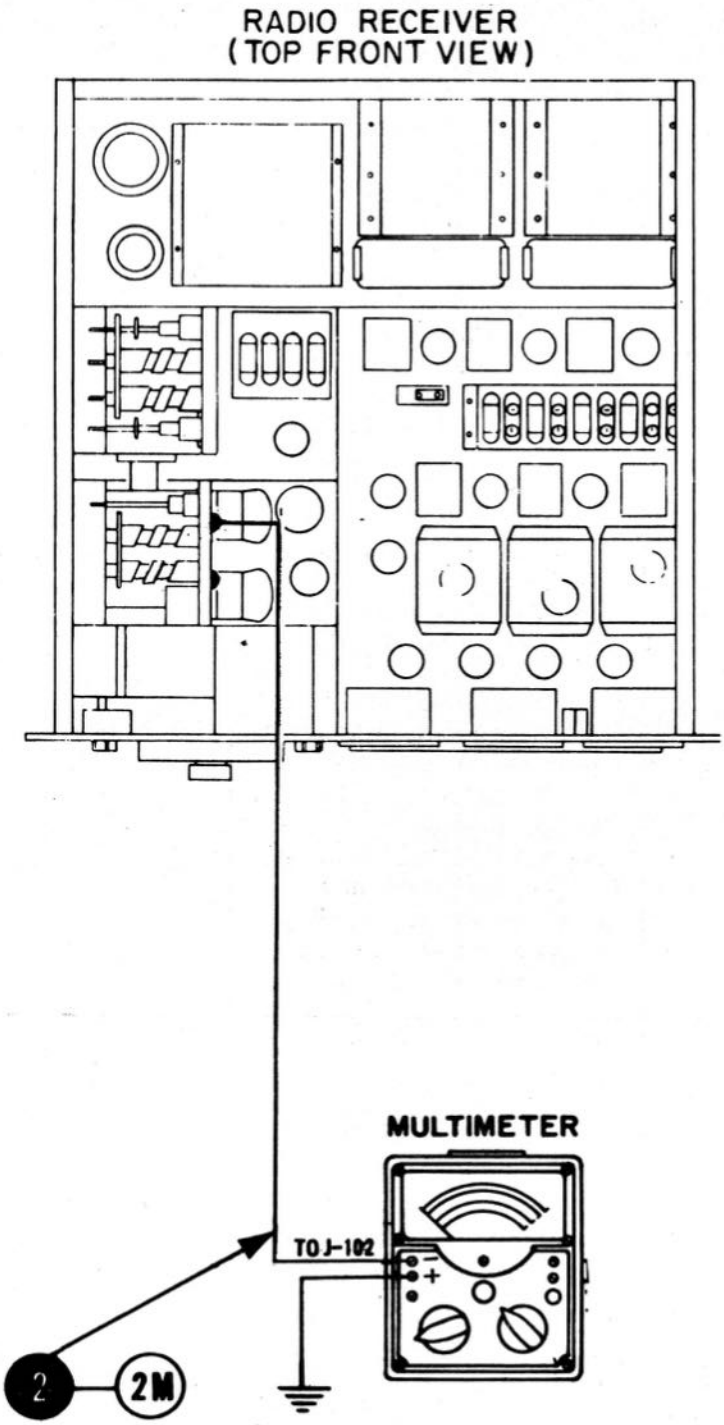
STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
1	Measure and record input line voltage.	Turn the POWER switch (S-205) OFF. Connect Multimeter AN/PSM-4 to fuse holder terminals F-301 and F-302. Turn the POWER switch (S-205) ON.	Multimeter AN/PSM-4	VAC (105 to 125)
2	Measure and record regulated B+ voltage.	Turn the POWER switch (S-205) OFF. Connect the multimeter positive lead to pin 5 of V-302 and the negative lead to chassis ground. Turn the POWER switch (S-205) ON.	Multimeter AN/PSM-4	VDC (148 to 152)
3	Measure and record nominal B+ voltage.	None.	Plate Meter (M-203)	VDC (170 to 180)


RADIO RECEIVER
(TOP FRONT VIEW)
MULTIMETER
TO J-102
1
1M

RCK, RCK-A in Operate Condition.

AF GAIN control (R-251): 10
RF GAIN control (R-232): 10
CHANNEL switch (S-101): Position 4

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
1	Measure and record oscillator multiplier grid current and alignment.	Turn POWER switch (S-205) OFF. Set the multimeter to the 0 - 100 microamp scale. Connect the multimeter negative lead to jack J-102 and positive lead to chassis ground. Insert a crystal with an approximate frequency of 150 MC in the number 4 crystal holder (X-109). Turn the POWER switch (S-205) ON. Tune the dial carefully to the channel frequency as marked on the crystal for a maximum indication on the multimeter. Record the multimeter reading. Record the difference between the tuning dial reading and frequency marked on crystal.	Multimeter AN/PSM-4 Receiver Tuning Dial	_____ μA (5 to 12) _____ KC (500 max.)

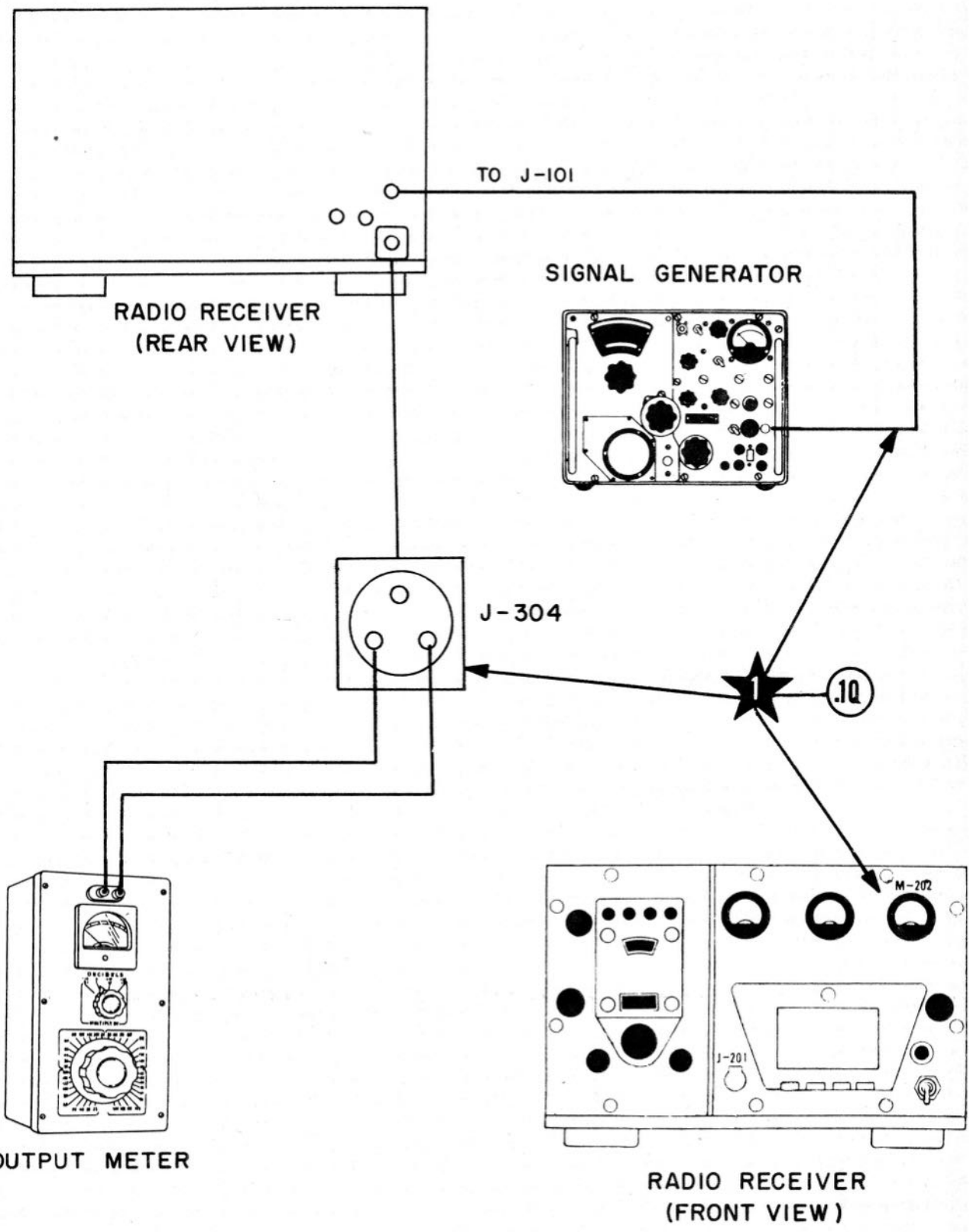

RADIO RECEIVER
(TOP FRONT VIEW)
MULTIMETER
TO J-102
-
+
2
2M

RCK, RCK-A in Operate Condition.

AF GAIN control (R-251): 10
RF GAIN control (R-232): 10
CHANNEL switch (S-101): Position 1

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
2	Measure and record oscillator multiplier grid current and alignment.	Repeat Step 1, except insert a crystal with an appropriate frequency of 118 MC in the number 1 crystal holder (X-106).	Multimeter AN/PSM-4 Receiver Tuning Dial	_____ μA (5 to 12) _____ KC (500 max.)

STEP 1


TO J-101
SIGNAL GENERATOR
RADIO RECEIVER
(REAR VIEW)
J-304
1
.1Q
M-202
J-201
OUTPUT METER
RADIO RECEIVER
(FRONT VIEW)

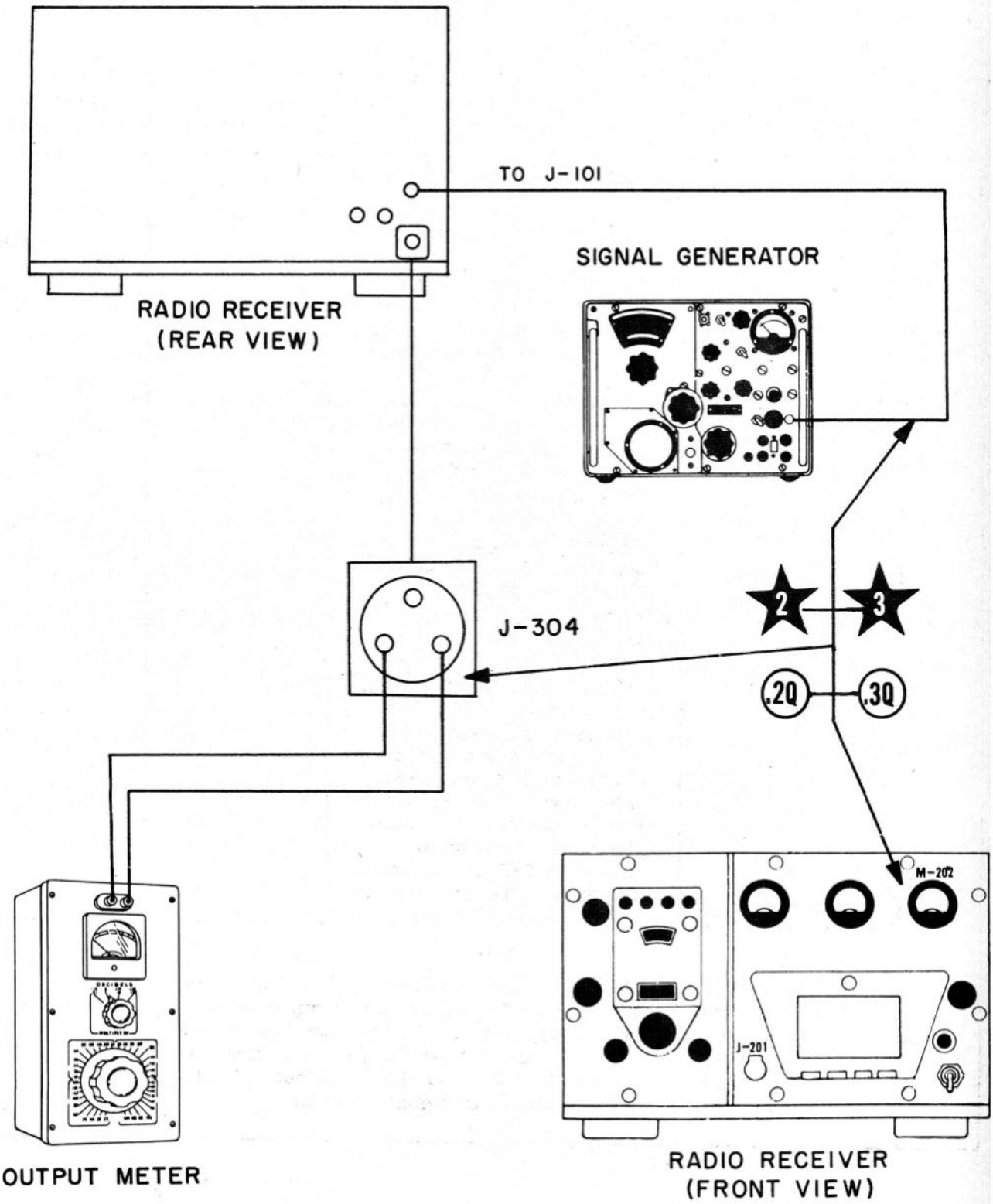
RCK, RCK-A in Operate Condition.

CHANNEL switch (S-101): Position 1
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
1	Measure receiver sensitivity on 119 MC.	Turn POWER switch (S-205) OFF. Insert a crystal with an approximate frequency of 119 MC in the number 1 crystal holder (X-106). Turn the POWER switch (S-205) ON. Tune the receiver for maximum indication on OUTPUT meter (M-202). Disconnect the antenna from jack J-101, and connect Signal Generator AN/URM-26. Set Output Meter TS-585/U to 5-millivolt range, impedance to 600 ohms, and connect to jack J-304 at rear of receiver. Tune the signal generator to receiver frequency, modulated 30 percent at 1000 cycles. Increase signal generator output until that setting is reached which produces a difference in output indication (when switching signal generator modulation on and off) of 10 db on Output Meter TS-585/U. Record the signal generator output microvolts knob setting.	Signal Generator AN/URM-26	_____ μV (7 max.)

NOTE

If a difference power indication of 10 db on output meter is impossible to obtain, the receiver audio amplifier may be limiting. In this case, reduce AF GAIN control (R-251) setting and repeat the above procedure until a setting is reached which will allow a 10 db rise in output indication when modulation is applied to signal generator.


TO J-101
SIGNAL GENERATOR
RADIO RECEIVER
(REAR VIEW)
J-304
2
3
.2Q
.3Q
M-202
J-201
OUTPUT METER
RADIO RECEIVER
(FRONT VIEW)

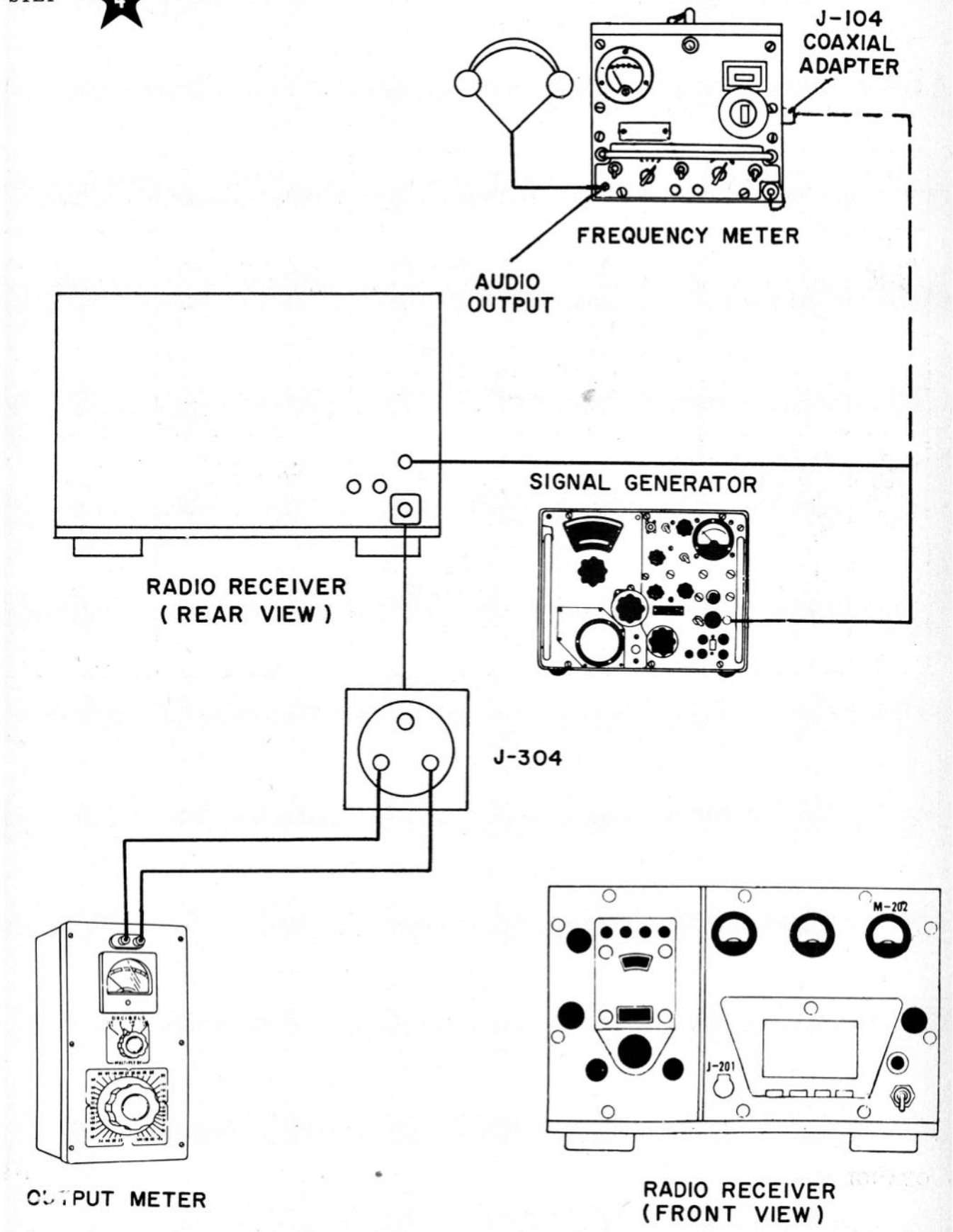
STEPS ★2 AND ★3

RCK, RCK-A in Operate Condition.

CHANNEL switch (S-101): Position 2
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
★2	Measure receiver sensitivity on 135.5 MC.	Repeat step 1, except insert a crystal with an approximate frequency of 135.5 MC in the number 2 crystal holder (X-107). Record the signal generator output microvolts knob setting.	Signal Generator AN/URM-26	_____ μV (7 max.)
★3	Measure receiver sensitivity on 152 MC.	Repeat step 1, except insert a crystal with an approximate frequency of 152 MC in the number 3 crystal holder (X-108). Record the signal generator output microvolts knob setting.	Signal Generator AN/URM-26	_____ μV (7 max.)

STEP 4


J-104
COAXIAL
ADAPTER
FREQUENCY METER
AUDIO
OUTPUT
SIGNAL GENERATOR
RADIO RECEIVER
(REAR VIEW)
J-304
M-202
J-201
OUTPUT METER
RADIO RECEIVER
(FRONT VIEW)

RCK, RCK-A in Operate Condition.

AF BAND switch: NARROW
CHANNEL switch (S-101): Position 1
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
4	Record receiver bandwidth on 135.5 MC.	Turn POWER switch (S-205) OFF. Insert a crystal with an approximate frequency of 135.5 MC in the number 2 crystal holder (X-107).	Calculate	_____ KC (190 to 210)

Turn POWER switch (S-205) ON, and tune the receiver for maximum indication on output meter (M-202).
Disconnect the antenna from jack J-101 and connect Signal Generator AN/URM-26.
Set Output Meter TS-585/U range to X1, impedance to 600-ohms, and connect to jack J-304 at rear of receiver.
Modulate signal generator 30 percent at 1000 cycles, tune to receiver frequency (peak on output meter), and increase the output level until Output Meter TS-585/U reads 10 milliwatts.
Slowly increase signal generator output frequency until Output Meter TS-585/U drops 6 db.
Disconnect signal generator cable from J-101 and connect to frequency meter r-f input.
Increase signal generator output level to 10,000 μV, determine exact r-f frequency, and record. _____ MC.
Decrease signal generator output level to minimum.
Reconnect signal generator cable to J-101 on receiver and repeat above procedure, except decrease signal generator output frequency below 135.5 MC, and record. _____ MC.
Subtract the second frequency from the first frequency and record as the bandwidth.

O.M. - Designates Operational Maintenance

PREVENTIVE MAINTENANCE CHECK OFF

RCK, RCK-A in Operate Condition.

STEP NO.	ACTION REQUIRED	PROCEDURE
(1D) O.M.	Perform operational check on radio receiving equipment.	Refer to Technical Manual NAVSHIPS 900228, Section 5 for Operating Instructions.

In Port Procedure

The equipment should not be energized for the sole purpose of making daily checks. The equipment should, however, be energized at least twice a week and at least two days before getting underway. Enter "In Port" in the chart when appropriate.

STEP (1D)

Enter the name of the month in which the maintenance step is begun in the first empty block of the top row. Fill in the names of the months consecutively thereafter for a period of two years. Initial the chart after performing step 1D.

DAY																								
1																								
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31																								

STEP (2D)

NOTE

THE POWER VOLTAGE MEASUREMENTS DEPEND UPON THE PROPER SETTING OF POWER INPUT PRIMARY SWITCH S-301.

O. M. - Designates Operational Maintenance

RCK, RCK-A in Operate Condition.
AF GAIN control (R-251): 0 RF GAIN control (R-232): 0

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(2D) O. M.	Measure and record nominal B+ voltage.	Refer to page 1-0 for illustration.	Plate Meter (M-203)	VDC (170 to 180)

STEP 2D

Enter the name of the month in which the maintenance step is begun in the first empty block of the top row. Fill in the names of the months consecutively thereafter for a period of two years. Initial the chart and log the results after performing step 2D.

DAY																											
1																											
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31																											

STEP (1W)

O. M. - Designates Operational Maintenance

RCK, RCK-A De-energized.

STEP NO.	ACTION REQUIRED	PROCEDURE
(1W) O. M.	Clean and inspect equipment exterior.	Using a soft dry clean cloth wipe the entire surface area of the receiver to remove dust. Inspect externally for loose connections and corrosion.

(1W)	Month												
Week 1	Initial												
2	Initial												
3	Initial												
4	Initial												
5	Initial												

(1W)	Month												
Week 1	Initial												
2	Initial												
3	Initial												
4	Initial												
5	Initial												

RCK, RCK-A in Operate Condition.

AF GAIN control (R-251): 10
RF GAIN control (R-232): 10
CHANNEL switch (S-101): Position 4

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(1M)	Measure and record oscillator multiplier grid current and alignment.	Refer to page 1-2 for illustration. Turn POWER switch (S-205) OFF. Set the multimeter to the 0-100 microamp scale. Connect the multimeter negative lead to jack J-102 and positive lead to chassis ground. Insert a crystal with an approximate frequency of 150 MC in the number 4 crystal holder (XY-104). Turn the POWER switch (S-205) ON. Tune the dial carefully to the channel frequency as marked on the crystal for a maximum indication on the multimeter. Record the multimeter reading. Record the difference between the tuning dial reading and frequency marked on crystal.	Multimeter AN/PSM-4 Receiver Tuning Dial	μA (5 to 12) KC (500 max.)

STEP NO.													
(1M)	Month												
	Initial												
	Date												
	Record												

STEP NO.													
(1M)	Month												
	Initial												
	Date												
	Record												

STEP (2M)

RCK, RCK-A in Operate Condition.
AF GAIN control (R-251): 10
RF GAIN control (R-232): 10
CHANNEL switch (S-101): Position 1

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(2M)	Measure and record oscillator multiplier grid current and alignment.	Refer to page 1-4 for illustration. Repeat Step 1M, except insert a crystal with an approximate frequency of 118 MC in the number 1 crystal holder (XY-101).	Multimeter AN/PSM-4 Receiver Tuning Dial	μA (5 to 12) KC (500 max.)

STEP NO.													
	Month												
(2M)	Initial												
	Date												
	Record												

STEP NO.													
	Month												
(2M)	Initial												
	Date												
	Record												

STEP (.1Q)

RCK, RCK-A in Operate Condition.

CHANNEL switch (S-101): Position 1
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(.1Q)	Measure receiver sensitivity on 119 MC.	Refer to page 1-6 for illustration. Turn POWER switch (S-205) OFF.	Signal Generator AN/URM-26	_____ μV (7 max.)

Insert a crystal with an approximate frequency of 119 MC in the number 1 crystal holder (X-106).
Turn the POWER switch (S-205) ON.
Tune the receiver for maximum indication on OUTPUT meter (M-202).
Disconnect the antenna from jack J-101, and connect Signal Generator AN/URM-26.
Set Output Meter TS-585/U to 5-millivolt range, impedance to 600 ohms, and connect to jack J-304 at rear of receiver.
Tune the signal generator to receiver frequency, modulated 30 percent at 1000 cycles.
Increase signal generator output until that setting is reached which produces difference in output indication (when switching signal generator modulation on and off) of 10 db on Output Meter TS-585/U.
Record the signal generator output microvolts knob setting.

NOTE

If a difference power indication of 10 db on output meter is impossible to obtain, the receiver audio amplifier may be limiting. In this case, reduce AF GAIN control (R-251) setting and repeat the above procedure until a setting is reached which will allow a 10 db rise in output indication when modulation is applied to signal generator.

STEP NO.	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER		
	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date
(.1Q)												
STEP NO.	5th QUARTER			6th QUARTER			7th QUARTER			8th QUARTER		
	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date
(.1Q)												

STEPS (.2Q) AND (.3Q)

RCK, RCK-A in Operate Condition.

CHANNEL switch (S-101): Position 2
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(.2Q)	Measure receiver sensitivity on 135.5 MC.	Refer to page 1-8 for illustration. Repeat step .1Q, except insert a crystal with an approximate frequency of 135.5 MC in the number 2 crystal holder (XY-102). Record the signal generator output microvolts knob setting.	Signal Generator AN/URM-26	_____ μV (7 max.)
(.3Q)	Measure receiver sensitivity on 152 MC.	Refer to page 1-8 for illustration. Repeat step .1Q, except insert a crystal with an approximate frequency of 152 MC in the number 3 crystal holder (XY-103). Set CHANNEL switch (S-101): position 3. Record the signal generator output microvolts knob setting.	Signal Generator AN/URM-26	_____ μV (7 max.)

STEP NO.	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER		
	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date
(.2Q)												
(.3Q)												
STEP NO.	5th QUARTER			6th QUARTER			7th QUARTER			8th QUARTER		
	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date	μV	Initial	Date
(.2Q)												
(.3Q)												

RCK, RCK-A De-energized.

STEP NO.	ACTION REQUIRED	PROCEDURE
1Q	Clean equipment.	Remove the main chassis from cabinet. Remove chassis covers. Clean the chassis and the cabinet with a vacuum cleaner. Remove all dirt and lint from switches, terminal boards, tubes, tube sockets, etc. If all dirt cannot be removed by vacuum cleaning, use a dry brush to loosen or remove deposits. Remove especially stubborn deposits with a clean lint free cloth moistened with solvent, Navy Type 140-F. Remove all corrosion and rust. Polish connectors, terminals, jacks, etc. with crocus cloth or #0000 sandpaper when necessary.
2Q	General inspection of electrical components.	Visually inspect all components of each unit. Replace all bulged or leaking capacitors and remove all residue deposited by the faulty unit. Inspect resistors and wiring for indications of overheating. If such indication is observed, further maintenance is necessary. Refer to the appropriate Technical Manual and correct the condition. Inspect all cables and wiring for frayed cut, deteriorated, or cracked insulation, kinks or strain and correct all such conditions found.

STEP NO.	1st QUARTER		2nd QUARTER		3rd QUARTER		4th QUARTER	
	Initial	Date	Initial	Date	Initial	Date	Initial	Date
1Q								
2Q								
STEP NO.	**5th QUARTER**		**6th QUARTER**		**7th QUARTER**		**8th QUARTER**	
	Initial	Date	Initial	Date	Initial	Date	Initial	Date
1Q								
2Q								

STEPS (3Q) AND (4Q)

NOTE

THE POWER VOLTAGE MEASUREMENTS DEPEND UPON THE PROPER SETTING OF POWER INPUT PRIMARY SWITCH S-301.

RCK, RCK-A in Operate Condition.
AF GAIN control (R-251): 0
RF GAIN control (R-232): 0

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
(3Q)	Measure and record input line voltage.	Refer to page 1-0 for illustration. Turn the POWER switch (S-205) OFF. Connect the multimeter to fuse holder terminals F-301 and F-302.	Multimeter AN/PSM-4	VAC (105 to 125)
(4Q)	Measure and record regulated B+ voltage.	Refer to page 1-0 for illustration. Turn the POWER switch (S-205) OFF. Connect the multimeter positive lead to pin 5 of V-302 and the negative lead to chassis ground. Turn the POWER switch (S-205) ON.	Multimeter AN/PSM-4	VDC (148 to 152)

Upon completion of the sixth quarterly check, order a new copy of this book from the nearest Forms and Publications Supply Distribution Point.

STEP NO.	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER		
	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record
(3Q)												
(4Q)												
STEP NO.	5th QUARTER			6th QUARTER			7th QUARTER			8th QUARTER		
	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record
(3Q)												
(4Q)												

STEP 5Q

RCK, RCK-A in Operate Condition.

AF BAND switch: NARROW
CHANNEL switch (S-101): Position 2
A-V-C circuit disabled (see page x, xi).

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
5Q	Record receiver bandwidth on 135.5 MC.	Turn POWER switch (S-205) OFF. Insert a crystal with an approximate frequency of 135.5 MC in the number 2 crystal holder (X-107).	Calculate	_____ KC (190 to 210)

Turn POWER switch (S-205) ON, and tune the receiver for maximum indication on output meter (M-202).
Disconnect the antenna from jack J-101 and connect Signal Generator AN/URM-26.
Set Output Meter TS-585/U range to X1, impedance to 600-ohms, and connect to jack J-304 at rear of receiver.
Modulate signal generator 30 percent at 1000 cycles, tune to receiver frequency (peak on output meter), and increase the output level until Output Meter TS-585/U reads 10 milliwatts.
Slowly increase signal generator output frequency until Output Meter TS-585/U drops 6 db.
Disconnect signal generator cable from J-101 and connect to frequency meter r-f input.
Increase signal generator output level to 10,000 μV, determine exact r-f frequency, and record. _____ MC.
Decrease signal generator output level to minimum.
Reconnect signal generator cable to J-101 on receiver and repeat above procedure, except decrease signal generator output frequency below 135.5 MC, and record. _____ MC.
Subtract the second frequency from the first frequency and record as the bandwidth.

STEP NO.	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER		
	KC	Initial	Date	KC	Initial	Date	KC	Initial	Date	KC	Initial	Date
5Q												
STEP NO.	5th QUARTER			6th QUARTER			7th QUARTER			8th QUARTER		
	KC	Initial	Date	KC	Initial	Date	KC	Initial	Date	KC	Initial	Date
5Q												