

NAVSHIPS 900,269.42

*Non-Registered*

MAINTENANCE STANDARDS BOOK

*for*

RADIO TRANSMITTING AND RECEIVING  
EQUIPMENT TCS-4 THRU 15

SERIAL NO. \_\_\_\_\_

OF MODEL \_\_\_\_\_

RCA SERVICE COMPANY

GOVERNMENT SERVICE DEPARTMENT

CAMDEN, NEW JERSEY

DEPARTMENT OF THE NAVY  
BUREAU OF SHIPS

**Radio Transmitting and Receiving Equipment TCS-4 thru 15**  
**NAVSHIPS 900269.42**  
**Reference Standards Summary**

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Installed in \_\_\_\_\_  
 (Ship or Station)

After Radio Transmitting and Receiving Equipment TCS 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., Attn: Code 975.

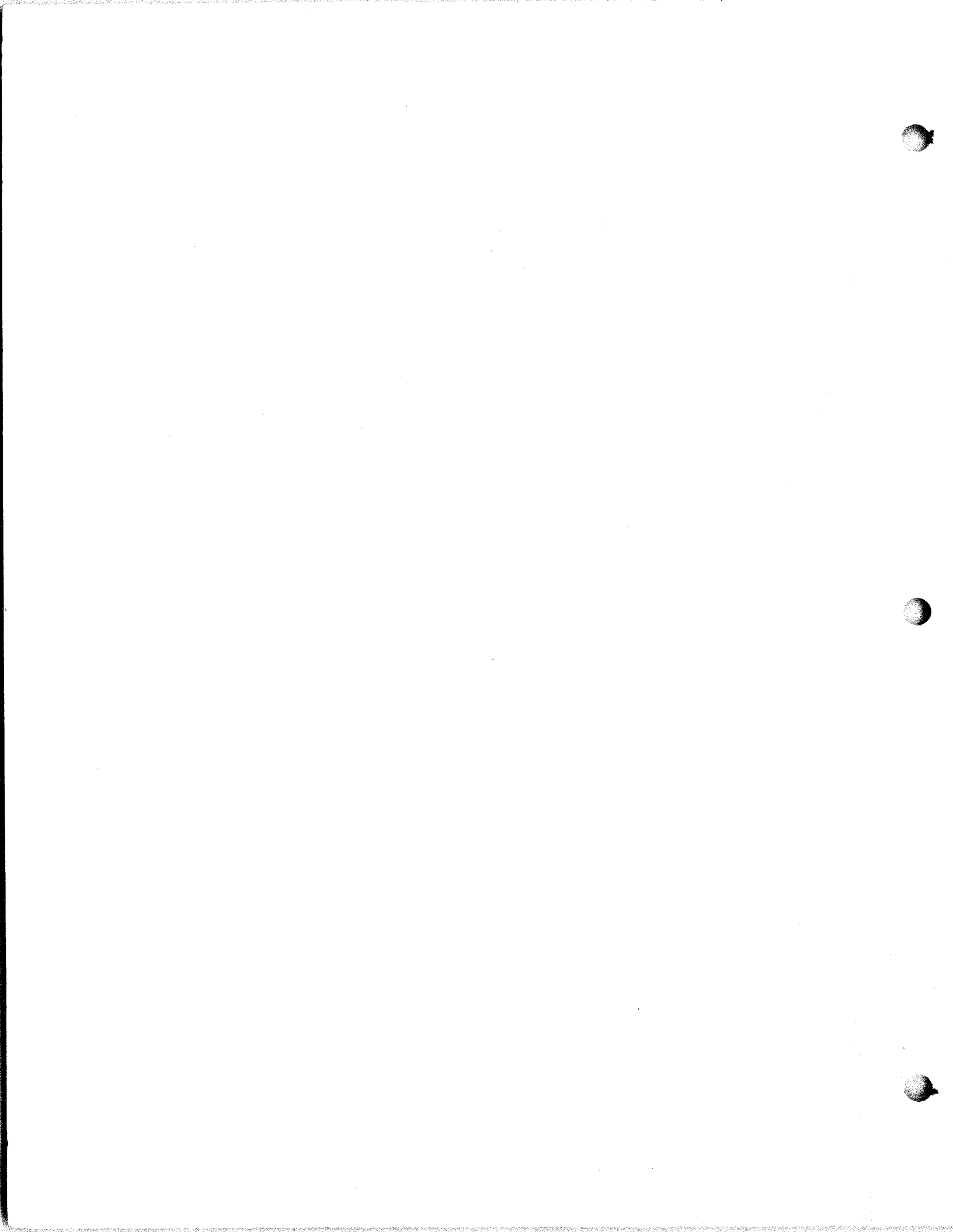
Step No.	Reference Standard	Step No.	Reference Standard	Step No.	Reference Standard
A1	VDC	C1	UV	C2	KC
A2	VDC		UV	C3	GO/NO-GO
B1	WATTS		UV	C4	VAC
	WATTS			C5	VAC
B2	MA				VAC
					VAC

List all field changes which have been accomplished on this equipment \_\_\_\_\_

Signature \_\_\_\_\_

Title-Position \_\_\_\_\_

Date \_\_\_\_\_



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“APPROVED MANUSCRIPT”  
MAINTENANCE STANDARDS BOOK  
*for*  
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EQUIPMENT TCS-4 THRU 15

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Contract: NObsr 71851

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*Approved by BuShips: 11 April 1958*

LIST OF EFFECTIVE PAGES

PAGE NUMBER	CHANGE IN EFFECT	PAGE NUMBER	CHANGE IN EFFECT
Title Page	Original		
ii to xi	Original		
1-0 to 1-13	Original		
2-0 to 2-11	Original		



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 Transmitting  
and Receiving Equipment TCS-4 through 15, NAVSHIPS  
900,269.42

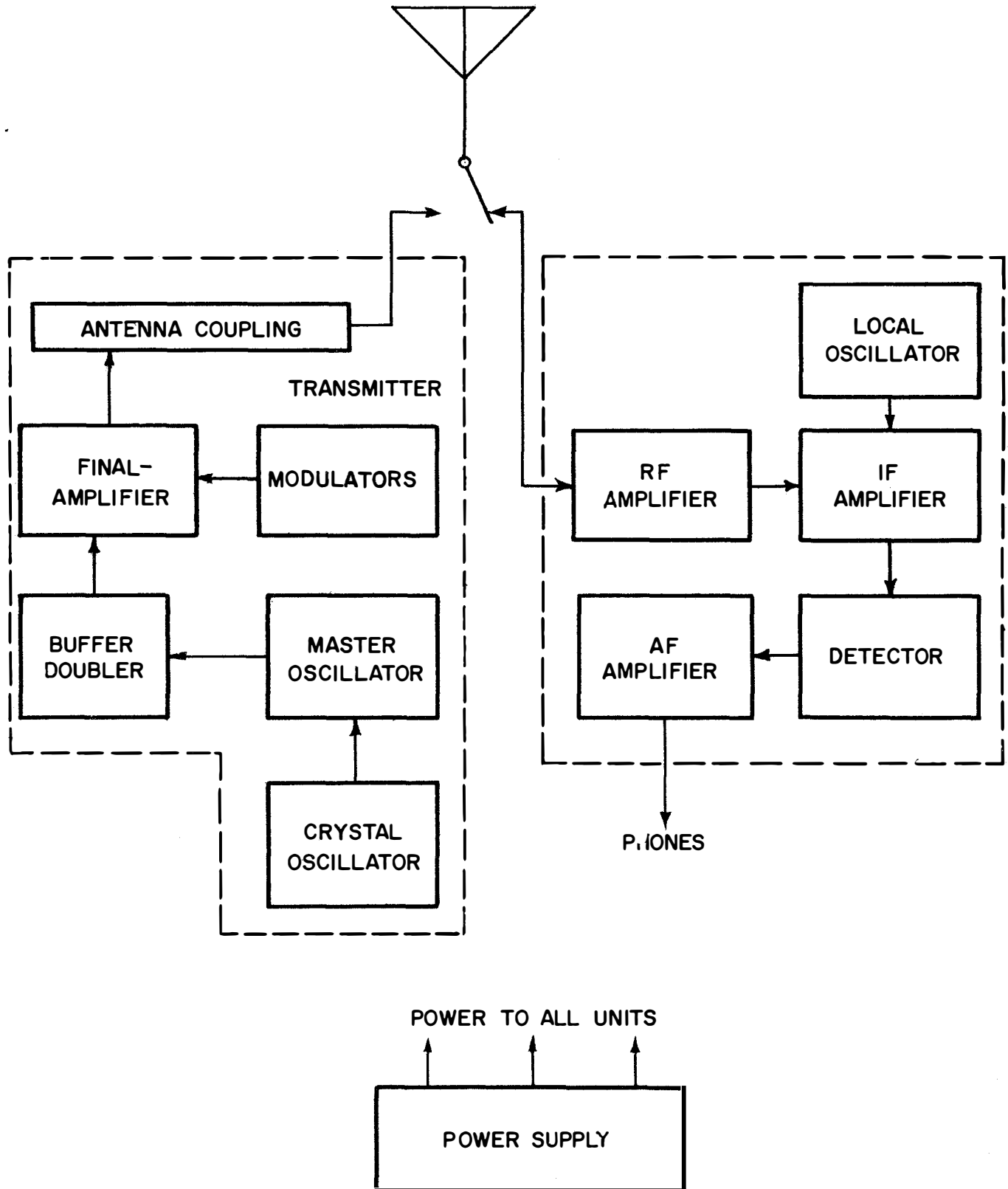
1. This is the Maintenance Standards Book for the subject equipment and is in effect upon receipt. This publication applies only to the equipment, the serial number and designation of which appear on the cover and title page.
2. When superseded by a later edition, this publication shall be destroyed.
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









## 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 useless. 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 900269, Technical Manual for Radio Transmitting and Receiving Equipment TCS for service and repair procedures.

To correlate the reference standard steps with the steps on the Performance Standard Sheet, NAVSHIPS 900269. 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 TCS 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 REFERENCE	
Frequency Period	Time Required	Step Number	Section	Step Number
Daily	5 minutes	1		None
Weekly	10 minutes	1		None
Monthly	90 minutes	1 and 2 3 and 4 5 and 6 7 and 8	A B C C	1 and 2 1 and 2 1 and 2 4 and 5
Quarterly	5 minutes	1	C	3

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

TEST EQUIPMENT AND SPECIAL TOOLS REQUIRED

DESCRIPTION AND NOMENCLATURE	USED IN PART						
	I			II			
	A	B	C	D	W	M	Q
Multimeter AN/PSM-4	x	x	x			x	x
Signal Generator AN/URM-25			x			x	x
Multimeter AN/USM-34		x				x	
Burnishing tool					x		
500 ohm, noninductive, 2 watt resistor		x	x			x	
13 ohm, noninductive, 5 watt resistor		x				x	
10 ohm, noninductive, 1 watt resistor			x			x	
100 uuf capacitor, transmitter type		x	x			x	
Frequency Meter, LM-21			x			x	

## SPECIAL PROCEDURES

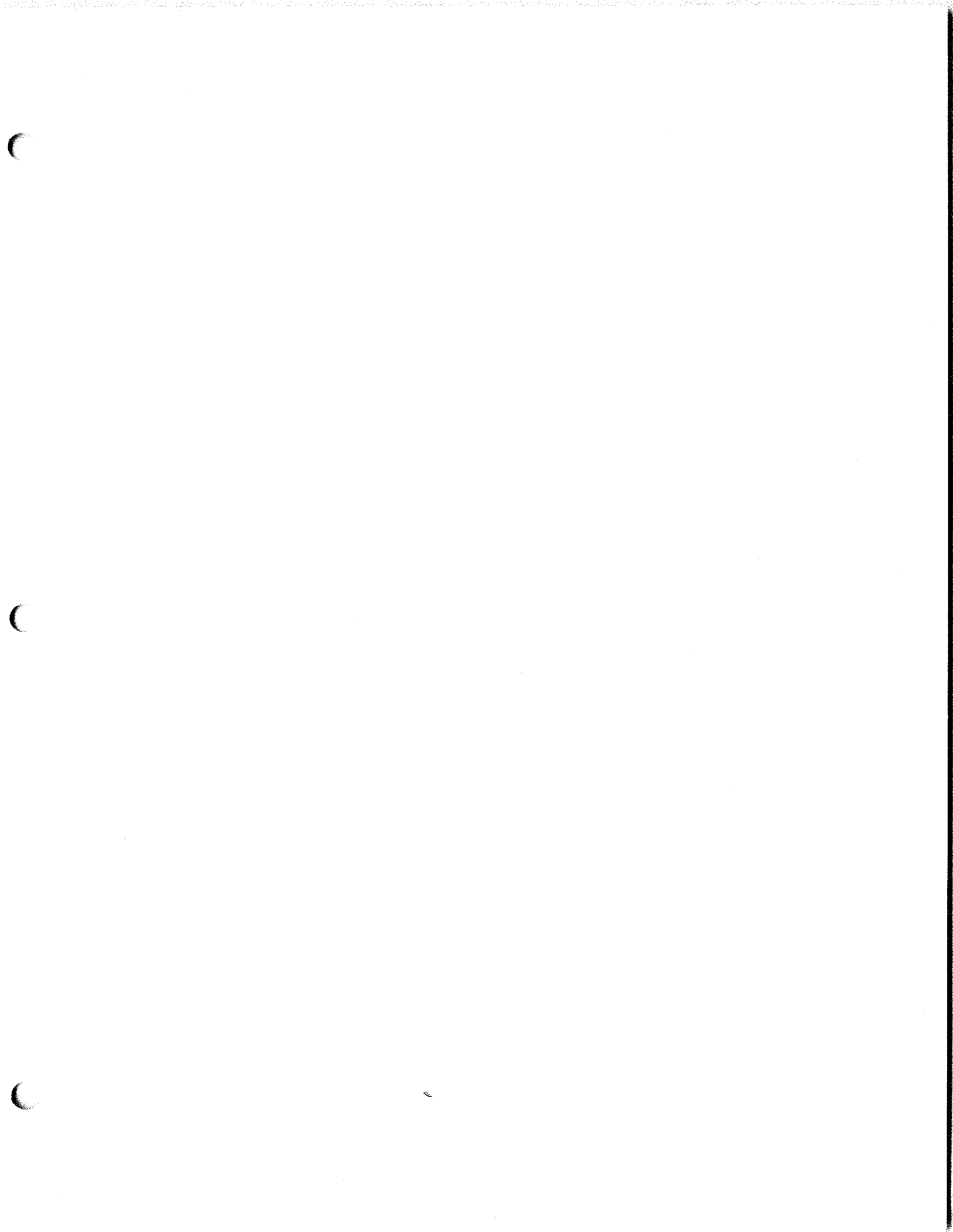
1. Energize Radio Transmitting and Receiving Equipment TCS as instructed in the operating procedure given in the Technical Manual, NAVSHIPS 900269. Allow 5 minutes warm-up time after energizing equipment.
2. The Full Operation Condition referred to in these reference standards means that the equipment 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.

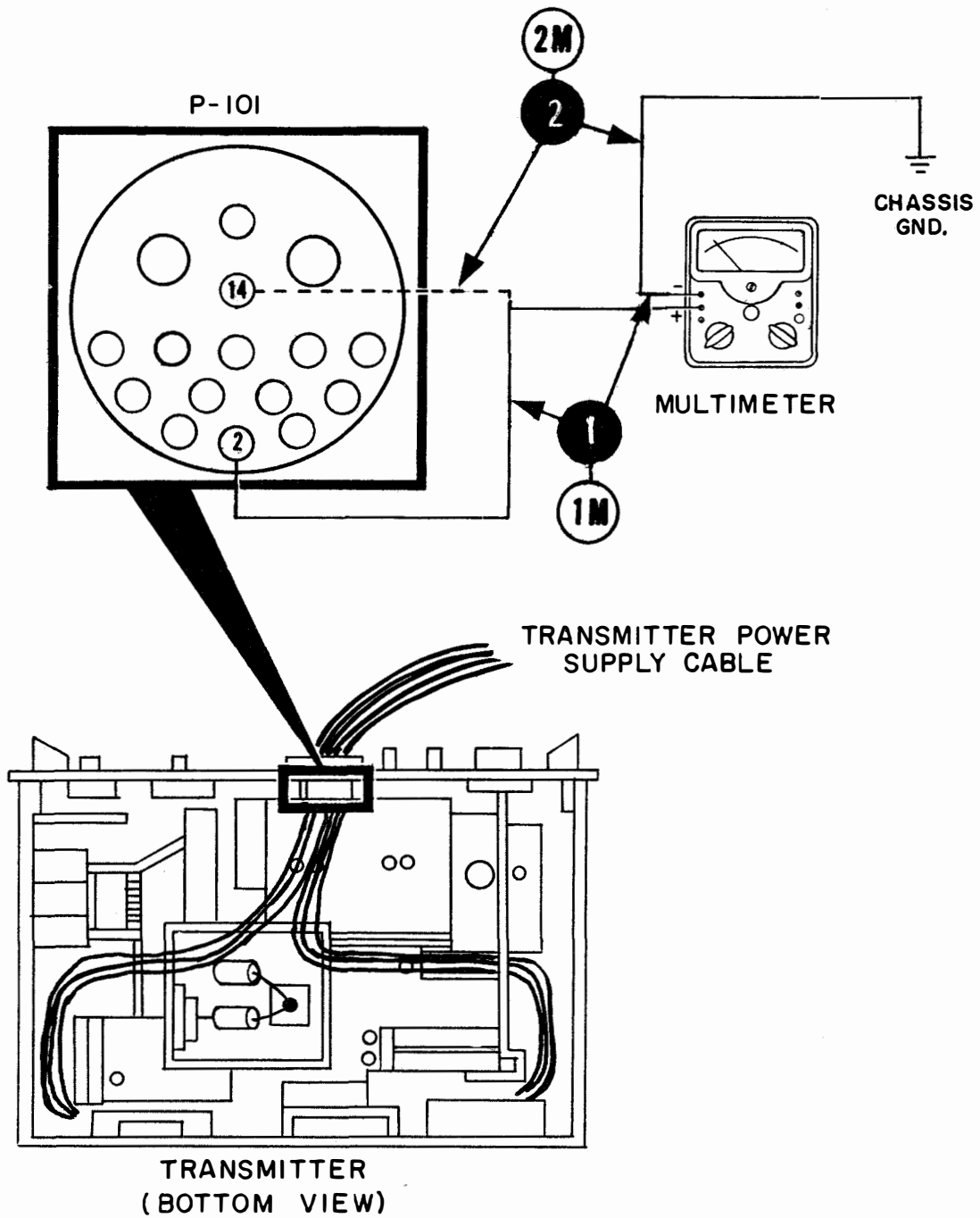
## Transmitter

POWER switch (S-107): ON  
OSCILLATOR SELECTOR (S-104): MO  
EMISSION switch (S-105): CW

## Receiver

POWER switch (S-205): ON  
OSCILLATOR SELECTOR (S-202): MO  
VOICE - CW switch (S-203): CW  
AF GAIN control (R-220): Fully clockwise  
RF GAIN control (R-216): Fully clockwise





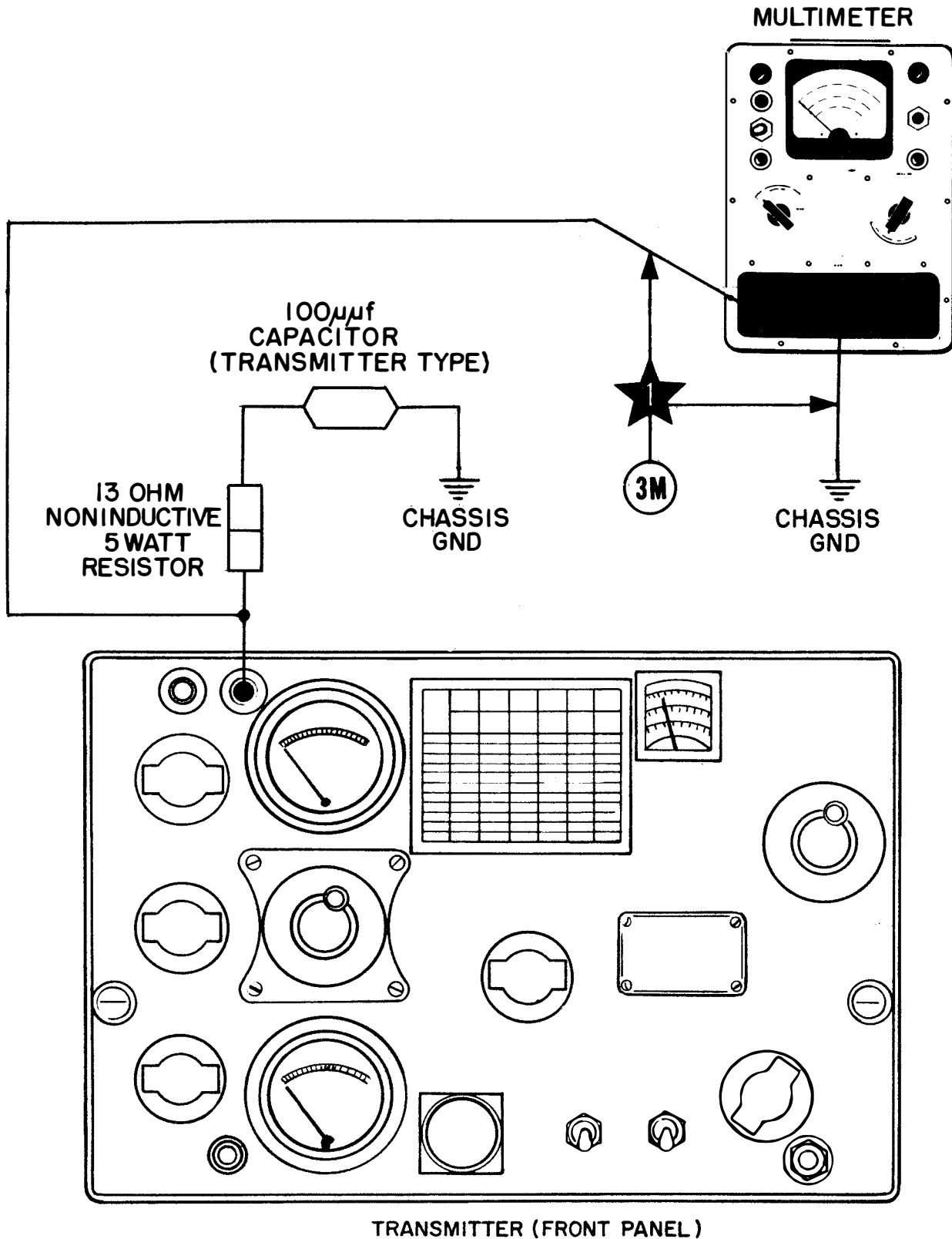
TCS Completely De-energized.

**NOTE**  
THIS CHECK INVOLVES THE MEASUREMENT OF HIGH  
VOLTAGE. OBSERVE ALL SAFETY PRECAUTIONS.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
1	Measure and record the high voltage supply.	Remove the transmitter chassis from its cabinet. Connect the positive lead of Multimeter AN/PSM-4 to pin 2 of the front panel POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and record the multi-meter reading.	Multimeter AN/PSM-4	VDC (360 to 450)
2	Measure and record the low voltage supply.	Connect the positive lead of the multimeter to pin 14 of POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and record the multi-meter reading.	Multimeter AN/PSM-4	VDC (200 to 245)



STEP



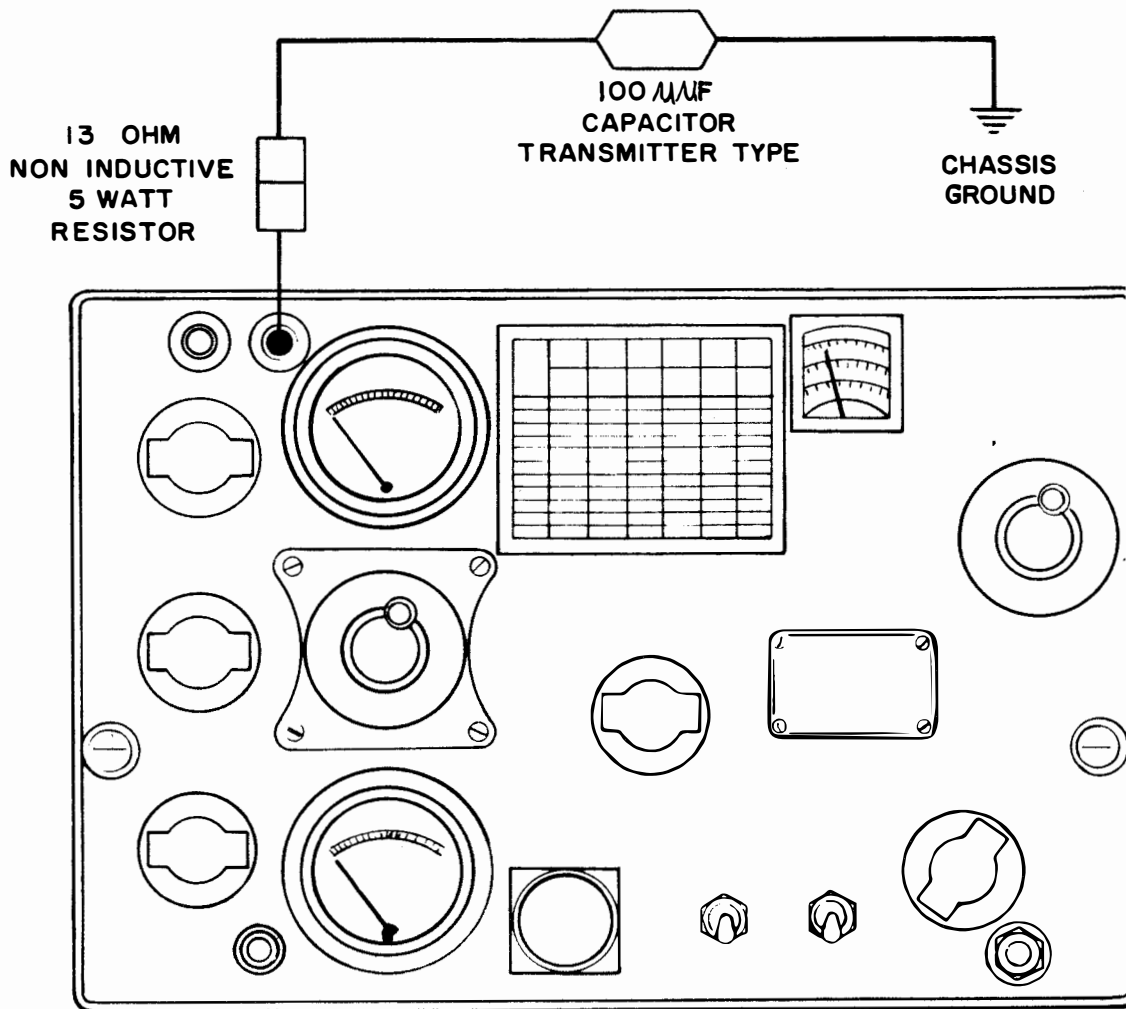


TCS in Full Operation.  
Transmitter: Off.

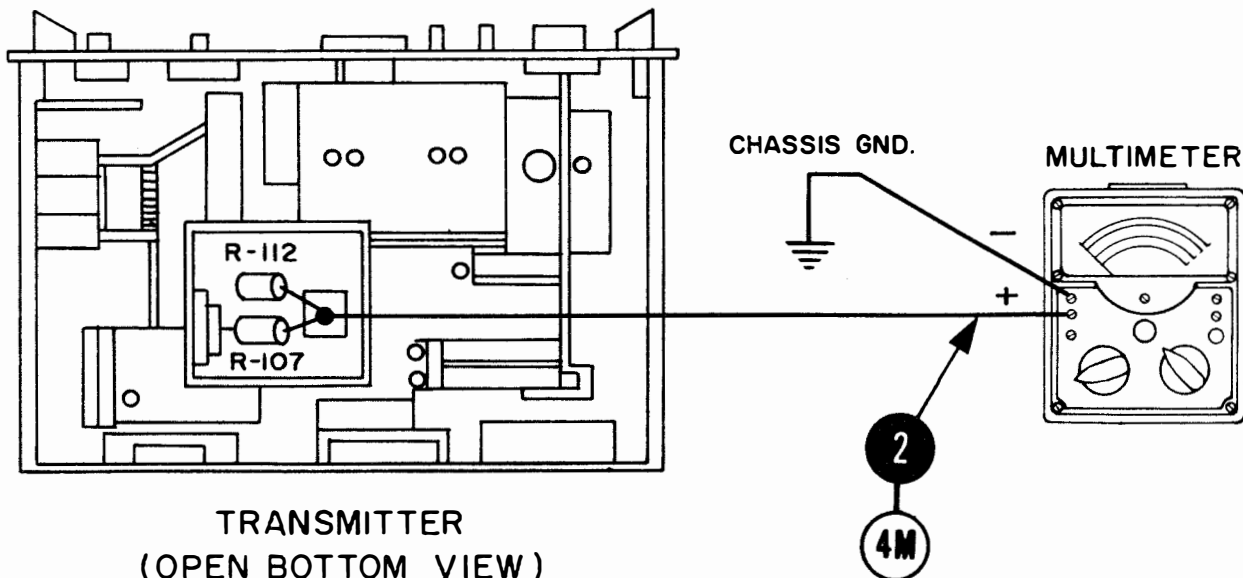
STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
	<p>Measure and record the transmitter power output.</p>	<p>Connect a 13 ohm, non-inductive, 5 watt resistor in series with a 100 uuf transmitter type capacitor between the antenna post/receptacle and chassis ground to serve as a dummy load.</p> <p>Connect the RF Probe of the multimeter (AN/USM-34) between the antenna post/receptacle and chassis ground. Turn the POWER switch (S-107) ON and allow five minutes to warm up. Key the transmitter and note the reading on the multimeter.</p> <p>Calculate the true power output by using the formula:  <math display="block">P = \frac{E^2}{R}</math>                     where R= 13 ohms.</p> <p>Repeat the above procedure with the EMISSION switch (S-105) in the VOICE position.</p>	<p>Calculate</p>	<p><u>CW</u>                      Watts                      (25 minimum)</p> <p><u>VOICE</u>                      Watts                      (14 minimum)</p>

STEP

2



TRANSMITTER (FRONT PANEL)



TRANSMITTER  
(OPEN BOTTOM VIEW)

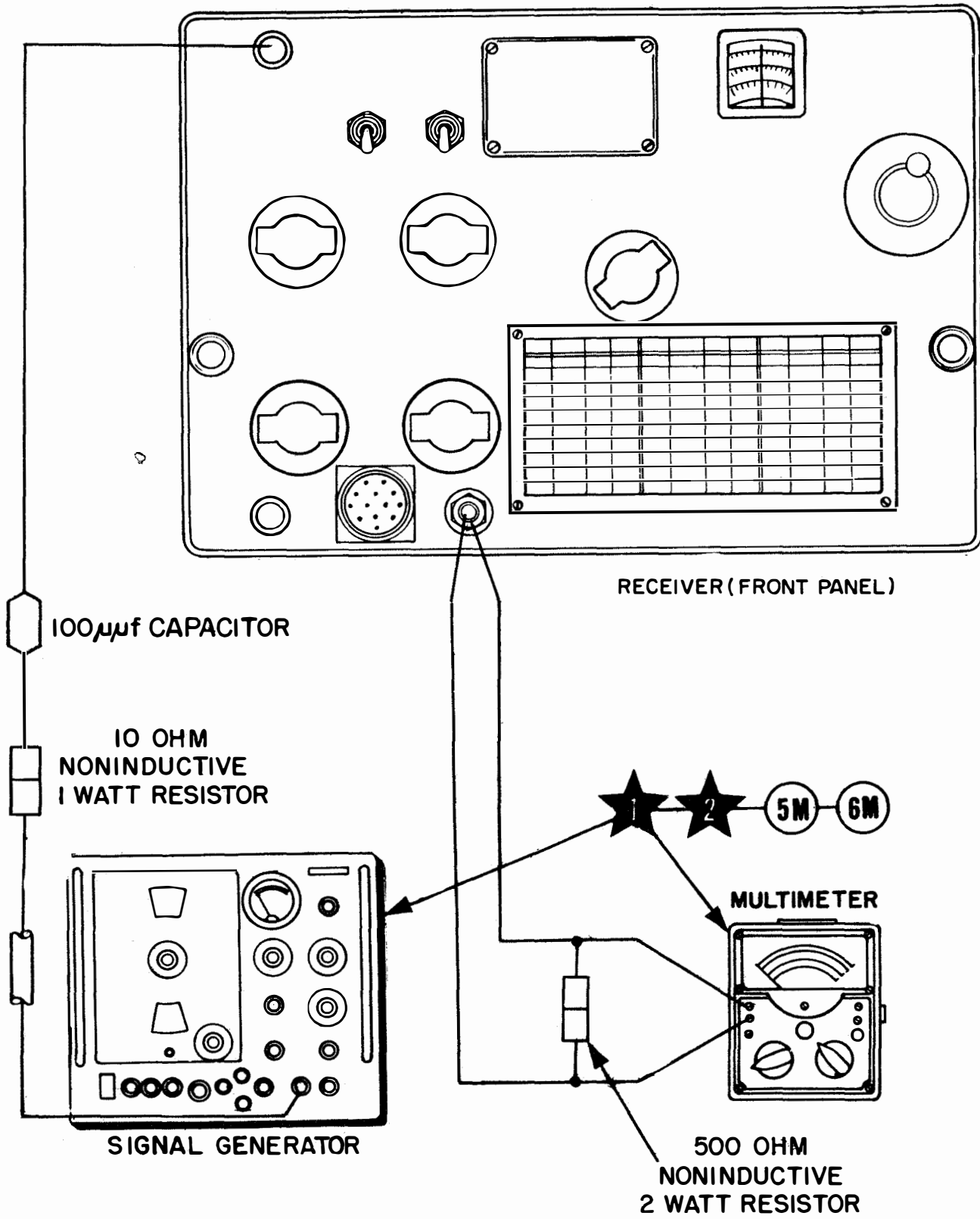
TCS in Full Operation.  
Transmitter: Off.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
2	Measure and record the final amplifier grid current.	<p>Connect the transmitter and the dummy load as described in Section B; Step 1.</p> <p>Remove the screw holding the grounding lug connecting the final amplifier grid resistors R-107 and R-112. Remove this lug from the chassis and connect the multimeter (AN/PSM-4 set to measure ma current) in series with the junction of the resistors (R-107 and R-112) and ground.</p> <p>Turn the equipment on and allow five minutes for warm up.</p> <p>Using the BAND SWITCH (S-101) and the TUNING control (C-101), tune to all the available frequencies of the transmitter and observe the multimeter indication.</p>	Multimeter AN/PSM-4	<p style="text-align: right;">MA</p> <hr style="width: 100px; margin-left: auto; margin-right: 0;"/> <p style="text-align: center;">(3 to 5)</p>



STEPS



AND

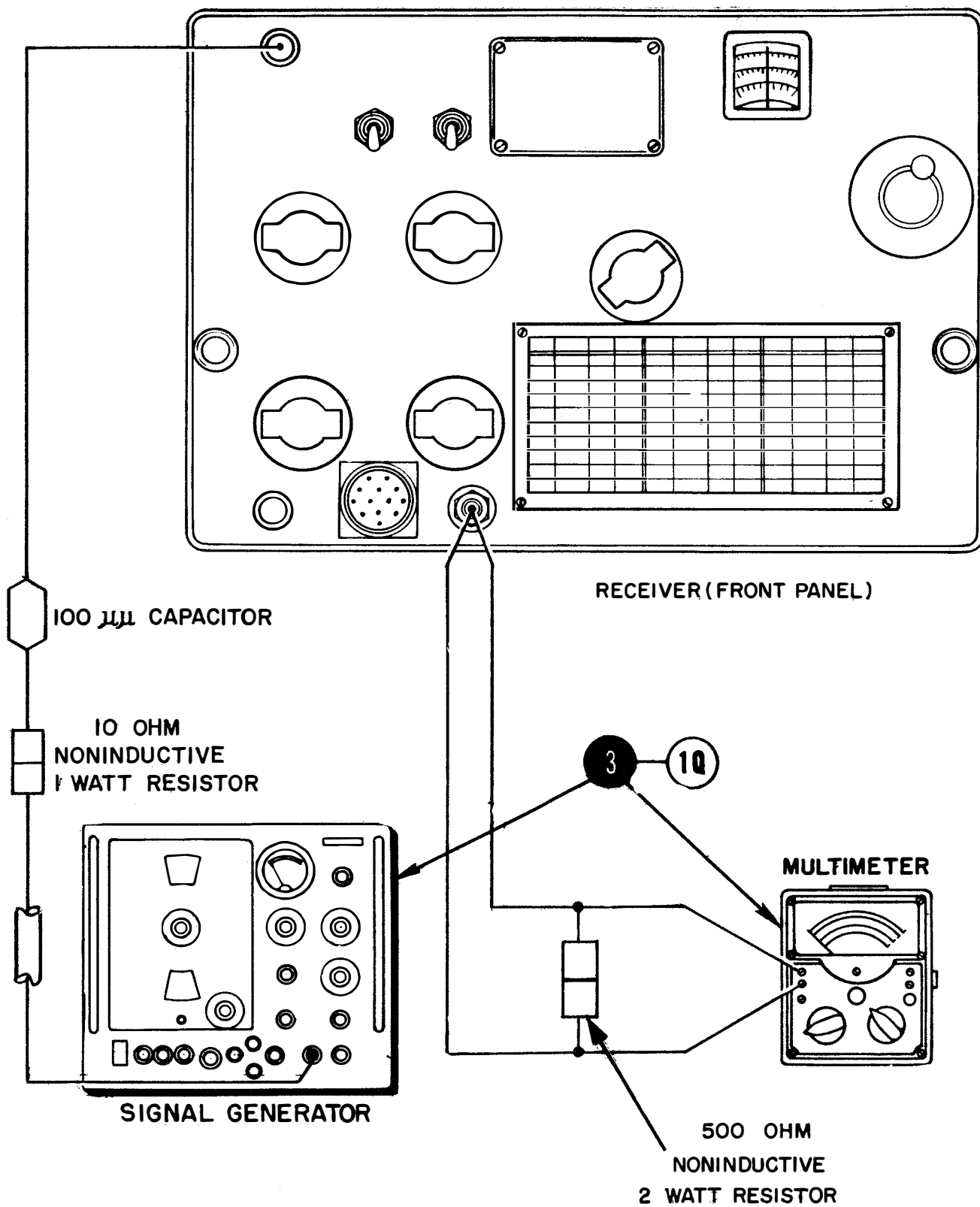


TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD												
	Measure and record the receiver sensitivity.	Disconnect the receiver antenna from the antenna post/receptacle. Connect Signal Generator AN/URM-25 in series with a 10 ohm non-inductive resistor and a 100 uaf capacitor to the antenna post/receptacle. Connect a 500 ohm non-inductive resistor across the receiver output using a standard phone plug. Connect a multimeter (AN/PSM-4 set to OUTPUT) across the resistor. Tune the signal generator to 1.5 MC and modulate the output 30% with 400 cycles. Place the receiver in full operation and tune to the signal generator. Attenuate the signal generator output to zero (absolute minimum) and adjust the RF GAIN control (R-216) for 1.73 volts indication on the multimeter. Increase the signal generator output until the multimeter reads 17.3 volts. Record the signal generator output. Repeat the above procedure at 3 MC and again at 6 MC. Touch nothing. Proceed to step 2.	Signal Generator AN/URM-25	<table border="0"> <tr> <td>1.5 MC</td> <td>UV</td> </tr> <tr> <td colspan="2">(9.7 max.)</td> </tr> <tr> <td>3 MC</td> <td>UV</td> </tr> <tr> <td colspan="2">(5.6 max.)</td> </tr> <tr> <td>6 MC</td> <td>UV</td> </tr> <tr> <td colspan="2">(3.9 max.)</td> </tr> </table>	1.5 MC	UV	(9.7 max.)		3 MC	UV	(5.6 max.)		6 MC	UV	(3.9 max.)	
1.5 MC	UV															
(9.7 max.)																
3 MC	UV															
(5.6 max.)																
6 MC	UV															
(3.9 max.)																
	Measure and record the receiver bandwidth.	After the receiver sensitivity has been measured, increase the signal generator output to twice that obtained in step 1. Increase the signal generator frequency until its output decreases to the original value of step 1. Using Frequency Meter LM-21 determine the signal generator frequency. _____ KC. Now decrease the signal generator frequency for the same reading as obtained above and determine this frequency. _____ KC Subtract the second reading from the first reading and record the difference as the bandwidth.	Calculate	_____ KC (Refer to the appropriate Technical Manual for value.)												

STEP

3



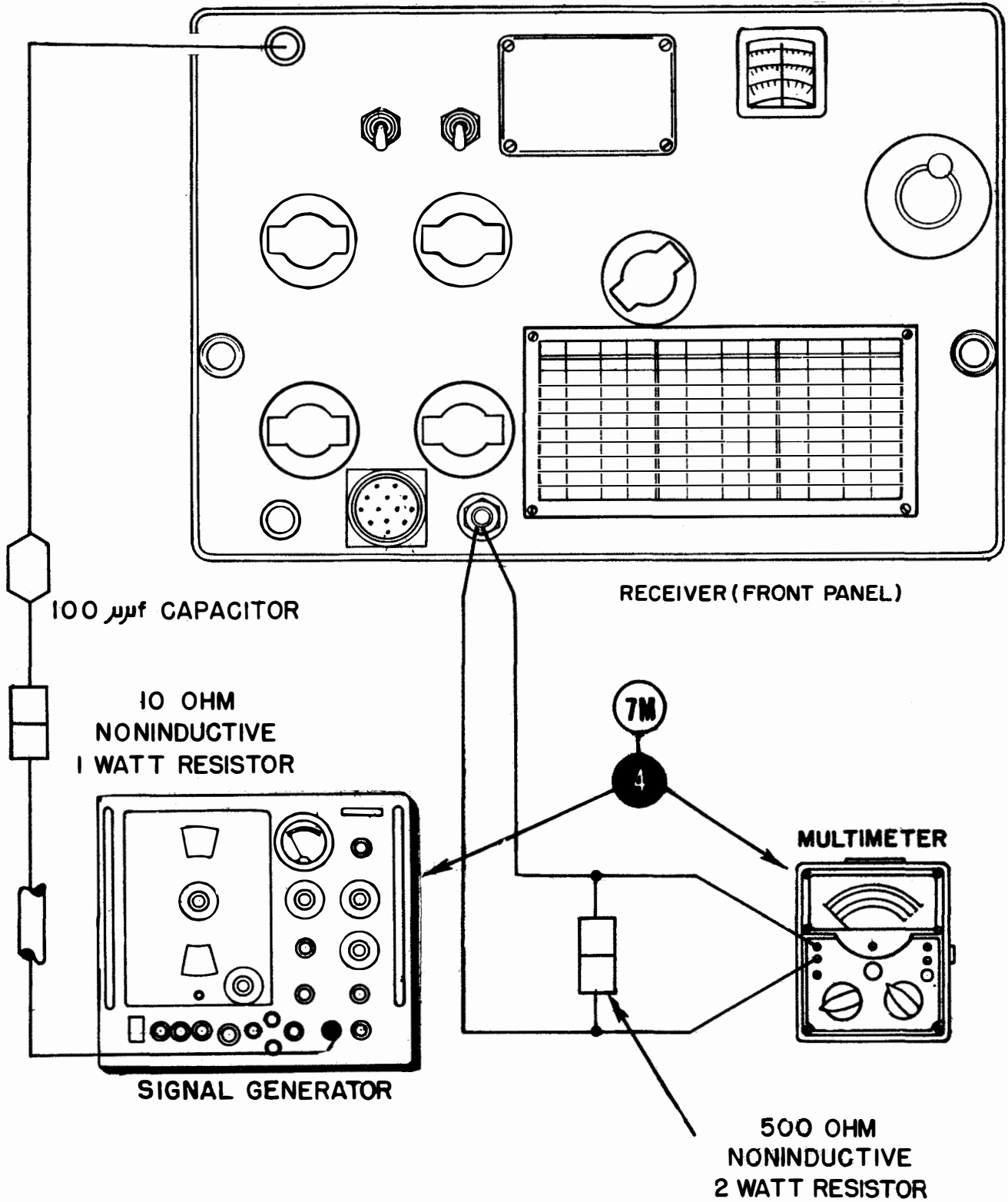
TCS Receiver in Full Operation.  
VOICE - CW switch (S-206): VOICE.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>3</b>	Record the BFO operation.	<p>Connect the signal generator and the multimeter as described in Section C, Step 1.</p> <p>Tune the receiver and the signal generator to 3 MC. Adjust the signal generator output to 10 microvolts modulated 30% with 400 cycles. Adjust the receiver tuning control for the maximum indication on the multimeter.</p> <p>Without changing the tuning of the receiver, place the VOICE - CW switch (S-206) in CW position. The multimeter indication should drop to zero.</p>	Multimeter AN/PSM-4	<u>(GO/NO-GO)</u>



STEP

4

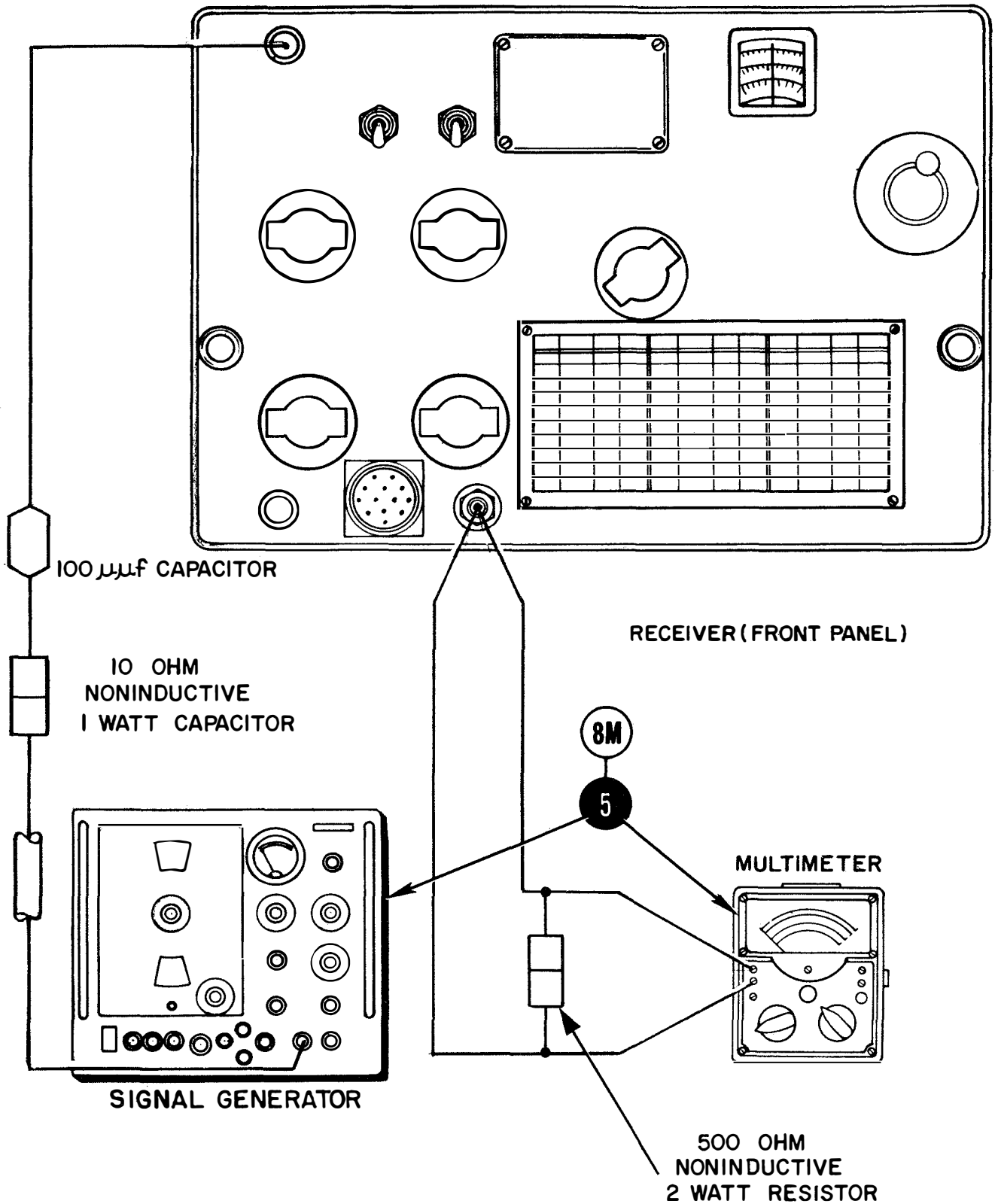


TCS Receiver in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<p><b>4</b></p>	<p>Measure and record the Audio Amplifier Gain.</p>	<p>Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 1.5 MC. Adjust the signal generator output to 15 microvolts modulated 30% with 400 cycles. Record the indication of the multimeter.</p>	<p>Multimeter AN/PSM-4</p>	<p>VAC (23 to 26)</p>

STEP

5



TCS Receiver in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<p><b>5</b></p>	<p>Measure and record the receiver AVC characteristics.</p>	<p>Connect the signal generator and the multimeter as described in Section C, Step 1.                      Tune the receiver and the signal generator to 2.3 MC.                      Adjust the generator for 100,000 uV output modulated 30% with 400 cycles. Adjust the AF GAIN control (R-220) for 17.3 volts indication on the multimeter.                      Attenuate the signal generator output to 1000 uV output and record the indication on the multimeter.                      Repeat the above procedure at 4.5 MC and again at 9.0 MC.</p>	<p>Multimeter AN/PSM-4</p>	<p>2.3 MC                      _____ VAC                      (8 to 10)                      4.5 MC                      _____ VAC                      (8 to 10)                      9.0 MC                      _____ VAC                      (8 to 10)</p>

STEP

10

## PART II

O. M. - Designates PREVENTIVE MAINTENANCE CHECK OFF  
 Operationa Maintenance

TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PROCEDURE
10 O. M.	Clean and inspect the equipment externally.	Dust the outside of the equipment with a clean dry cloth and check all the controls to assure free movement in their operation.  <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;"><b>IN PORT PROCEDURE</b></p> <p>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 blanks when appropriate.</p> </div>





NOTE

THIS CHECK INVOLVES THE MEASUREMENT OF HIGH VOLTAGE. OBSERVE ALL SAFETY PRECAUTIONS.

TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD								
<b>1M</b>	Measure and record the high voltage supply.	Refer to the illustration on page 1-0. Remove the transmitter chassis from its cabinet. Connect the positive lead of Multimeter AN/PSM-4 to pin 2 of the front panel POWER CONNECTOR (P-101) and the negative lead to chassis ground. Energize the equipment and and record the multimeter reading.	Multimeter AN/PSM-4	VDC (360 to 450)								
Step No.	Month											
<b>1M</b>	VDC											
	Initial											
	Date											
Step No.	Month											
<b>1M</b>	VDC											
	Initial											
	Date											



STEP **(2M)**

TCS in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>(2M)</b>	Measure and record the low voltage supply.	Refer to illustration on page 1-0. Connect the positive lead of the multimeter to pin 14 of POWER CONNECTOR P-101 and the negative lead to chassis ground. Energize the equipment and record the multimeter reading.	Multimeter AN/PSM-4	VDC (200 to 245)

Step No.	Month												
<b>(2M)</b>	VDC												
	Initial Date												
Step No.	Month												
<b>(2M)</b>	VDC												
	Initial Date												

TCS in Full Operation.  
Transmitter: Off

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
3M	Measure and record the transmitter power output.	Refer to the illustration on page 1-2. Connect a 13 ohm, non-inductive, 5 watt resistor in series with a 100 uuf transmitter type capacitor between the antenna post/receptacle and chassis ground. Connect the RF Probe of the Multimeter (AN/USM-34) between the antenna post/receptacle and chassis ground. Turn the POWER switch (S-107) ON and allow five minutes to warm up. Key the transmitter and note the reading on the multimeter. Calculate the true power output by using the formula: $P = \frac{E^2}{R} \text{ where } R = 13 \text{ ohms}$ Repeat the above procedure with the EMISSION switch (S-105) in the VOICE position.	Calculate	<u>CW</u> Watts (25 minimum) VOICE Watts (14 minimum)

Step No.	Month												
3M	Initial												
	Date												
	Watts												
Step No.	Month												
3M	Initial												
	Date												
	Watts												

STEP **4M**

TCS in Full Operation.  
Transmitter: Off

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>4M</b>	Measure and record the final amplifier grid current.	Refer to the illustration on page 1-4. Connect the transmitter and the dummy load as described in Section B, Step 1. Remove the screw holding the grounding lug connecting the final amplifier grid resistors R-107 and R-112. Remove this lug from the chassis and connect the multimeter (AN/PSM-4 set to measure ma current) in series with the junction of the resistors (R-107 and R-112) and ground. Turn the equipment on and allow five minutes for warm up. Using the BAND SWITCH (S-101) and the TUNING control (C-101), tune to all the available frequencies of the transmitter and observe the multimeter indication.	Multimeter AN/PSM-4	<div style="text-align: right;">MA</div> <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> (3 to 5)

Step No.	Month													
<b>4M</b>	MA Initial Date													

Step No.	Month													
<b>4M</b>	MA Initial Date													

TCS Completely De-energized.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD								
<b>5M</b>	Measure and record the receiver sensitivity.	<p>Refer to the illustration on page 1-3.</p> <p>Disconnect the receiver antenna from the antenna post/receptacle and ground.</p> <p>Connect the signal generator in series with a 10 ohm, non-inductive, 1 watt resistor and a 100 uuf capacitor to the antenna post/receptacle.</p> <p>Connect a 500 ohm, non-inductive, 2 watt resistor across the receiver output using a standard phone plug.</p> <p>Connect a multimeter (AN/PSM-4 set to OUTPUT) across the resistor.</p> <p>Tune the signal generator to 1.5 MC and modulate the output 30% with 400 cycles. Place the receiver in full operation and tune to the signal generator. Attenuate the signal generator output to zero (absolute minimum) and adjust the RF GAIN control (R-216) for 1.73 volts indication on the multimeter.</p> <p>Increase the output of the signal until the multimeter reads 17.3 volts. Record the output of the signal generator.</p> <p>Repeat the above procedure at 3 MC and again at 6 MC.</p> <p>Touch nothing. Proceed to Step 6M.</p>	Signal Generator AN/URM-25	<p>1.5 MC: uV (9.7 maximum)</p> <p>3 MC: uV (5.6 maximum)</p> <p>6 MC uV (3.9 maximum)</p>								
Step No.	Month											
<b>5M</b>	Initial											
	Date											
	uV											
Step No.	Month											
<b>5M</b>	Initial											
	Date											
	uV											

STEP **6M**

TCS Receiver in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>6M</b>	Measure and record the receiver bandwidth.	Refer to the illustration on page 1-6. After the receiver sensitivity has been measured, increase the signal generator output to twice that obtained in step 5M. Increase the signal generator frequency until its output decreases to the original value of step 5M. Using Frequency Meter LM-21 determine the signal generator frequency. _____ KC Now decrease the signal generator frequency for the same reading as obtained above and determine this frequency _____ KC. Subtract the second reading from the first reading and record the difference as the bandwidth.	Calculate	_____ KC (Refer to the appropriate Technical Manual for proper value.)

Step No.	Month													
<b>6M</b>	KC Initial Date													
Step No.	Month													
<b>6M</b>	KC Initial Date													

TCS Receiver in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>7M</b>	Measure and record the Audio Amplifier Gain.	Refer to the illustration on page 1-10. Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 1.5 MC. Adjust the signal generator output to 15 microvolts modulated 30% with 400 cycles. Record the indication on the multimeter.	Multimeter AN/PSM-4	VAC (23 to 26)

Step No.	Month													
<b>7M</b>	VAC													
	Initial Date													
Step No.	Month													
<b>7M</b>	VAC													
	Initial Date													

STEP **8M**

TCS Receiver in Full Operation.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD
<b>8M</b>	Measure and record the receiver AVC characteristics.	Refer to the illustration on page 1-12. Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 2.3 MC. Adjust the generator for 100,000 uV output modulated 30% with 400 cycles. Adjust the AF GAIN control (R-220) for 17.3 volts indication on the multimeter. Attenuate the output of the signal generator to 1000 uV and record the indication of the multimeter. Repeat the above procedure at 4.5 MC and again at 9.0 MC.	Multimeter AN/PSM-4	2.3 MC _____ VAC (8 to 10) 4.5 MC _____ VAC (8 to 10) 9.0 MC _____ VAC (8 to 10)

Step No.	Month												
<b>8M</b>	Initial Date												
	VAC												
Step No.	Month												
<b>8M</b>	Initial Date												
	VAC												

TCS Receiver in Full Operation.  
 VOICE - CW switch (S-206): VOICE.

STEP NO.	ACTION REQUIRED	PRELIMINARY ACTION	READ INDICATION ON	REFERENCE STANDARD								
<b>10</b>	Record the BFO operation.	Refer to the illustration on page 1-8. Connect the signal generator and the multimeter as described in Section C, Step 1. Tune the receiver and the signal generator to 3 MC. Adjust the signal generator output to 10 microvolts modulated 30% with 400 cycles. Adjust the receiver tuning control for the maximum indication on the multimeter. Without changing the tuning of the receiver, place the VOICE - CW switch (S-206) in CW position. The multimeter indication should drop to zero.	Multimeter AN/PSM-4	(GO/NO-GO)								
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	1st QUARTER		2nd QUARTER		3rd QUARTER		4th QUARTER					
	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date
<b>10</b>												
	5th QUARTER			6th QUARTER			7th QUARTER			8th QUARTER		
	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date	Record	Initial	Date
<b>10</b>												



