DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

TEST SET, RADIO AN/ARM-5A

(NSN 6625-00-926-7768)

This copy is a reprint which includes current pages from Changes 1.

HEADQUARTERS, DEPARTMENT OF THE ARMY

SEPTEMBER 1970

WARNING

Dc voltages up to 75 volts appear between the DEMOD output connector and ground. Be extremely careful when connecting the equipment under test.

Be careful when working on the 115-volts ac line connections. Serious injury or death may result from contact with these terminals.

DON'T TAKE CHANCES!

WARNING

Dangerous Voltages Exist in this Equipment

When servicing the AN/ARM-5A, be extremely careful of high voltages. Dc voltages up to 75 volts appear between the DEMOD output connector and ground. Voltages up to 700 volts ac and 540 dc are present at vacuum tube terminals within the chassis.

DON'T TAKE CHANCES!

TECHNICAL MANUAL
No. 11-662562812

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *11 September 1970*

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
TEST SET, RADIO AN/ARM-5A
(NSN 6625-00-926-7768)

*This manual supersedes so much of TM 11-6625-828-15, 21 July 1967, as pertains to operator and organizational maintenance.

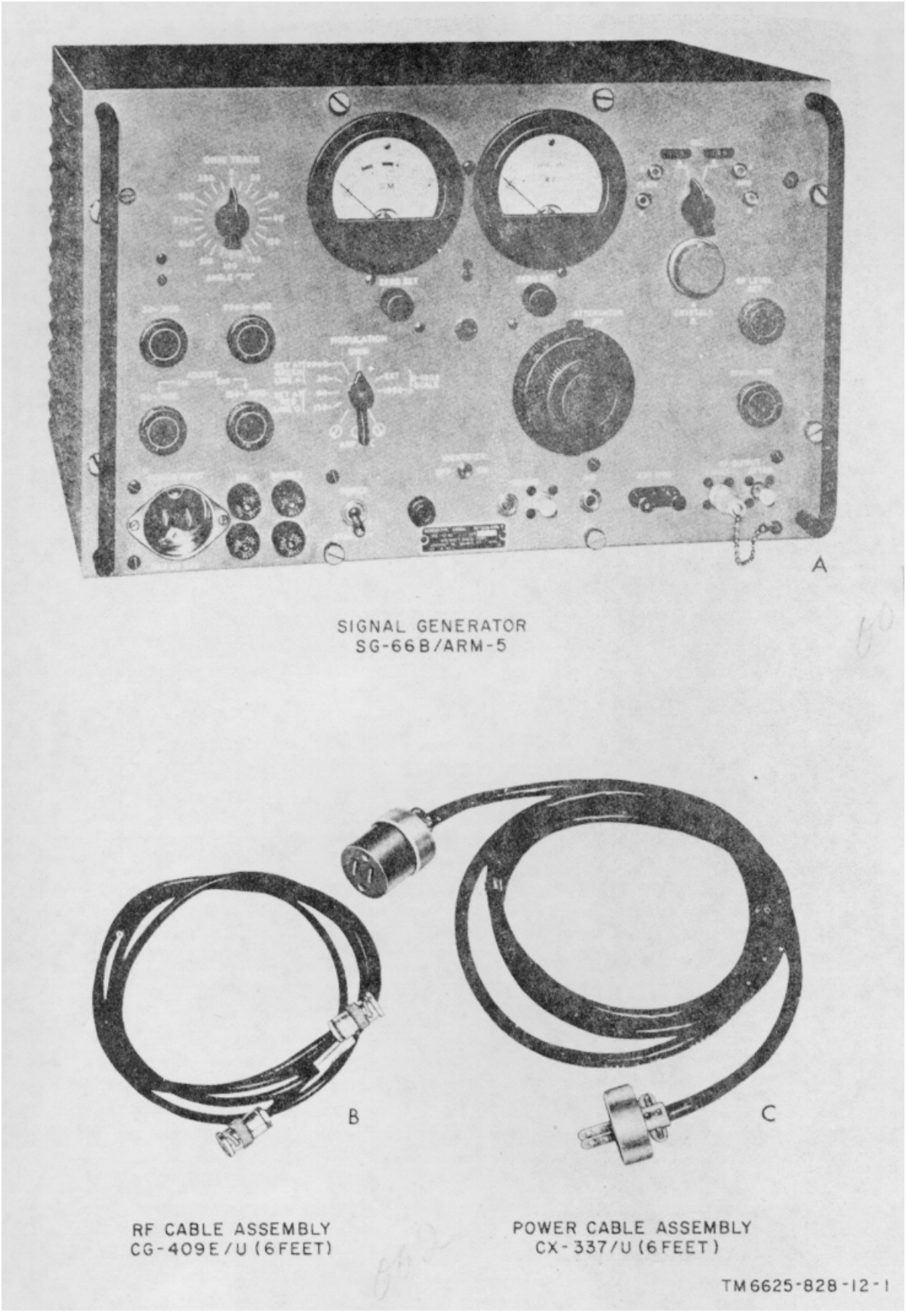

Figure 1-1. Test set, Radio AN/ARM-5A, less running spares.

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual describes Test Set, Radio AN/ARM-5A (fig. 1-1) and provides instructions for installation, operation, and operator and organizational maintenance. It includes instructions for operation under usual and unusual conditions, cleaning, and inspection of the equipment.

b. The maintenance allocation chart appears in appendix C.

NOTE

Appendix C is current as of 4 August 1976.

1-2. Indexes of Publications

a. DA Pam 310-4. Refer to the latest issue of DA Pam 310-4 to determine whether there are any new editions, changes or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 700-58/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, and DSAR 4145.8.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33A/AFR 75-18/MCO P4610.19B and DSAR 4500.15.

1-4. Destruction of Army Electronics Materiel

Destruction of Army Electronics equipment to prevent enemy use shall be in accordance with TM 750-2442.

1-5. Administrative Storage

Administrative storage of equipment issued to and used by Army activities shall be in accordance with TM 740-90-1.

1-6. Reporting of Errors

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forwarded direct to Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, NJ 07703.

1-6.1. Reporting Equipment Improvement Recommendations (EIR).

EIR will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIR's should be mailed direct to the Commander, US Army Electronics Command, ATTN:, DRSEL-MA-Q, Fort Monmouth, New Jersey 07703. A reply will be furnished direct to you.

Section II. DESCRIPTION AND DATA

1-7. Purpose and Use

a. Test Set, Radio AN/ARM-A is a portable signal generator with crystal-controlled frequencies within the 108- to 132-megacycle (me) band. It provides simulated omni and amplitude localizer signals of known frequency, amplitude, and modulation for testing of very high-frequency (vhf) navigational receiving equipment within the covered frequency range.

b. Two crystal-controlled frequencies are provided which may be anywhere within the 108- to 132-mc band. Normally, the signal generator is supplied with crystals which provide carrier frequencies of 110.9 me and 114.9 me, one frequency located in the localizer band and the other located in the omnifrequency band. Crystals for frequencies other than those normally covered may be used as desired within the range specified.

c. When used in conjunction with a 51-ohm antenna mounted on a hangar roof or other high and unobstructed location, the AN/ARM-A can be used to test aircraft radiated signals. The following may be performed on equipment in one aircraft of a squadron simultaneously; either on the flight line or in the air:

(1) 24 omnicourses.

(2) Left-center-right positions on the amplitude localizer, including sensitivity and flag alarm.

(3) Omnicourse width.

(4) Operation of TO-FROM meter.

(5) Operation of omniflag alarm.

d Simultaneously with the test signals, instructions

can be transmitted to the aircraft pilots. Positive, audible identification of the radiated test signals is made possible through the use of a built-in automatically keyed signal.

1-8. Tabulated Data

Frequency range ... 108 to 132 mc (any two preselected fixed frequencies). Types of output.

RF ..... Unmodulated and modulated.
Modulated ..... Variable type determined by switch setting.
Unmodulated ..... Adjustable voltage from 0.35 to 17 volts (rms).
Line-voltage input ..... 115 volts ±10 percent, 60 ±0.2 cycles per second.
Power consumption ... 160 watts.
Weight ..... 48.5 pounds

1-9. Items Comprising an Operable Test Set, Radio AN/ARM-5A

Quantity	*Item*	*Height*	*Dimensions (in) Depth*	*Width*	*Unit Weight (lb)*	*Figure No.*
1	Signal Generator SG-66B/ARM-5	10 1/2	12 1/4	17 3/8	48.5	1-1
1	RF Cable Assembly CG-409E/U (6 feet)				1/4	1-1
1	Power Cable Assembly CX-337/U (6 feet)				3/4	1-1
1	TM 11-6625-828-12					

1-10. Description of Signal Generator SG-66B/ARM-5

The SG-66B/ARM-5 (fig. 1-1) is of ruggedized construction and includes a wraparound louvered case to protect the internal components from dirt and damage. Two front panel handles permit the SG-66B/ARM-5 to be moved about easily. All connectors and operating controls and indicators are on the font panel. An internal power supply produces regulated direct current (dc) and alternating current (ac) voltages for use by the equipment An internal tone generator consisting of two motor-driven tone wheels produces signals of 30, 90 150, and 9,960 cycles per second (Hz) and an oscillator unit produces signal at 1,000 Hz. These signals are selected by a MODULATION switch on the front

1-11. Description of Minor Assemblies

The minor assemblies of Test Radio AN/ARM-5A are included in figure 1-1. Special feature listed below.

a. RF Cable Assembly CG-409E/U is composed of a 6-foot length of RG-58/U coaxial cable, both ends of which are terminated with Plug UG-88C/U.

b. Power Cable Assembly CX-337/U (6 ft) is used to connect the SG-66B/ARM-5 to a power source. It is terminated on one end with a receptacle and terminated on the other end with a plug.

Figure 1-2 Deleted

CHAPTER 2
INSTALLATION

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unpacking

a. Packaging Date. When packed for shipment, AN/ARM-5A is placed in a cardboard carton which, in turn, is sealed in a second cardboard carton, and with the running spares package, packed in a third cardboard carton as shown in figure 2-1. The final shipping package is 14 ¼ inches wide by 23 ¼ inches long by 2034 inches high, weighs 75 pounds, and contains 4 ⅕ cubic feet of space.

b. Removing Contents.

(1) Cut the pressure-sensitive tape and open the outer carton.

(2) Remove the package of running spares and the sealed carton from the outer carton.

(3) Cut the pressure-sensitive tape and open the sealed carton.

(4) Remove the technical manuals and the inner carton that is wrapped in water-vaporprof barrier material.

(5) Remove the barrier material and open the inner carton.

(6) Remove the two cable assemblies and the corrugated pad and lift out the corrugated fillers from each corner of the inner carton.

(7) Grasp the two front-panel handles, and lift the SG-66B/ARM-5 straight up and out of the carton.

2-2. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 4-3).

b. See that the equipment is complete as listed on the packing slip. Report all discrepancies in accordance with TM 38-750. Shortage of a minor assembly or part that does affect proper functioning of the equipment should not prevent use of the equipment.

c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the front panel near the nomenclature plate. If modified, see that any operational instruction changes resulting from the modification have been entered in the equipment manual.

NOTE

Current MWO's applicable to the equipment are listed in DA Pam 310-7.

2-3. Tools and Test Equipment Required for Installation

No tools or test equipment are required for installation of Test Set, Radio AN/ARM-A.

2-4. Installation of Equipment

Place the SG-66B/ARM-5 signal generator on any convenient well-lighted work surface or test bench that is close (within 6 feet) to 115-volt, 60-cycle ac power.

2-5. Installation of Fuses and Crystals I The SG-66/ARM-5 is shipped with the tubes, fuses, and crystals installed.

a. Check fuses F101 through F104 for breakage by removing them from the fuseholders on the equipment front panel (fig. 3-1). Fuses F101 and F102 are operational while F103 and F104 are spares.

b. Remove the crystal cover located on the front panel, and check crystals Y101 and Y102 for proper placement and contact (fig. 3-1). Be sure that the crystals are of the desired frequency.

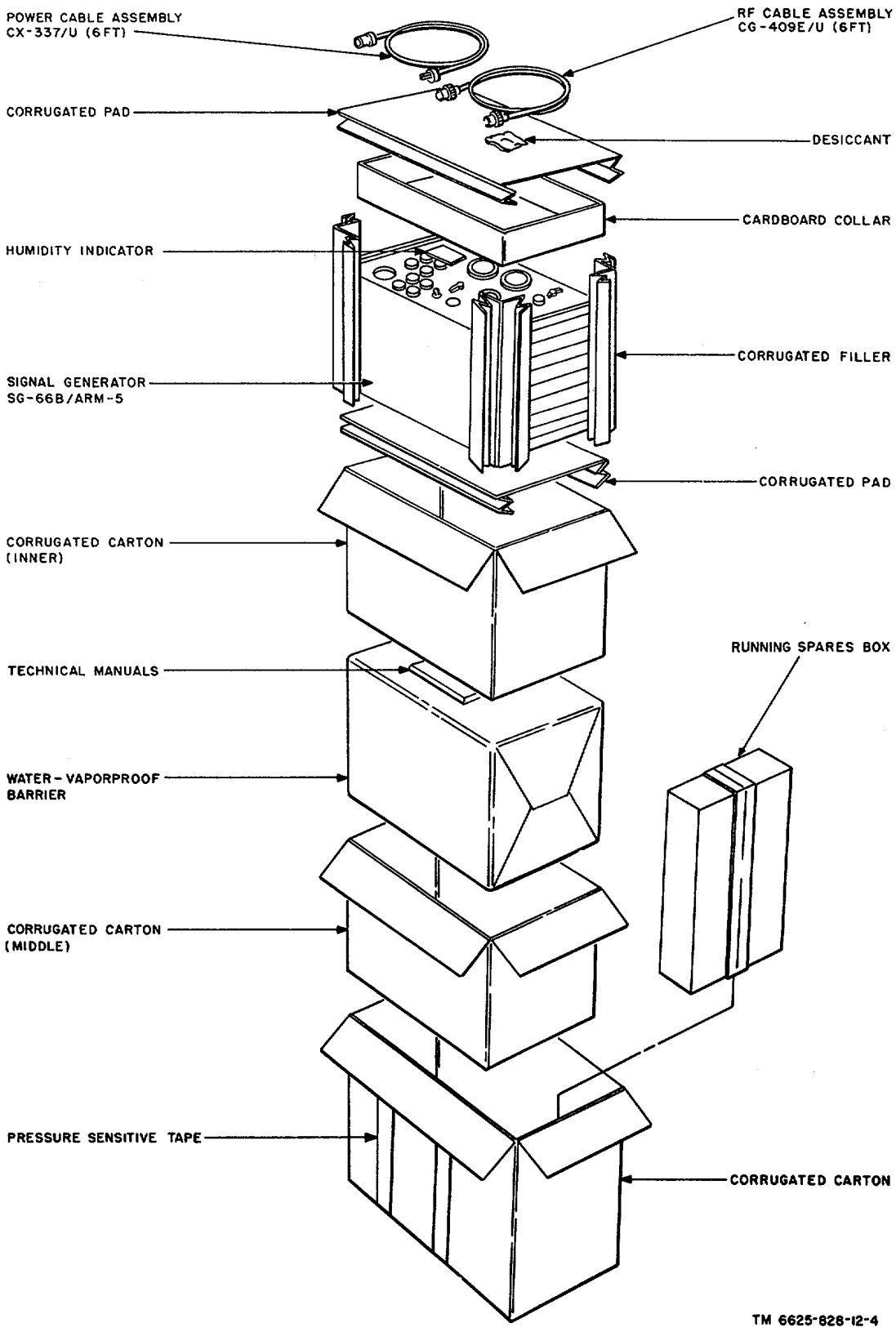

Figure 2-1. Packaging of Test Set, Radio AN/ARM-5A

Figure 2-2. Deleted.

Section II. INITIAL ADJUSTMENT OF EQUIPMENT

2-6. Extent of Initial Adjustments

Before using Test Set, Radio AN/ARM-5A for routine operation, perform the procedures outlined in paragraphs 2-7 and 2-8.

2-7. Preliminary Adjustments of SG-66B/ARM-5

a. Before connecting the SG-66B/ARM-5A to the 115-volt, 60-cycle power source, set the front-panel controls as indicated in the chart below.

Control	*Position*
POWER-STANDBY ---	STAND BY
30 ~ MOD----------	Fully counterclockwise
90 ~ MOD----------	Fully counterclockwise
9960 ~ MOD----------	Fully counterclockwise
150 ~ MOD ----------	Fully counterclockwise
RF LEVEL SET--------	Fully counterclockwise
1000 ~ MOD----------	Fully counterclockwise
MODULATION---------	9960 ~
IDENTIFIER----------	OFF
MC switch----------	A
ATTENUATOR uv ----	Midscale position

b. Make sure that the RF OUTPUT 1 VOLT jack is capped with the 51-ohm termination cap chained to the front panel.

c. Check to see that the crystal frequency tabs on the front panel agree with the frequencies of the crystals installed. The upper crystal corresponds with the A position; the lower crystal corresponds with the B position.

d. Use Power Cable Assembly CX-33/U to connect the SG-66B/ARM-5 to the 115-volt, 60-cycle power source. Allow the equipment to warm up for at least 5 minutes.

NOTE

The S-66B/ARM will operate only from a 60-cycle power supply because of a synchronous motor the speed of which determines the frequency of the generated modulation voltages.

2-8. Initial Adjustments

After the preliminary adjustments have been completed, check and adjust the operating controls and indicators as described below.

a. Set the POWER-STAND BY switch to POWER. See that the red indicator lamp lights and that the tone generator motor start.

NOTE

In addition to the bearing noise of the motor, a slight high-pitched (10-kilocycle (kc)) whine may be heard This sound is characteristic of the tone wheel and does not indicate bearing trouble.

b. Calibrate the % M meter pressing in the ZERO SET knob and rotating it to the left or right. The meter needle will move to the lower (left-hand) stop pin and remain there for approximately 2 seconds. Hold the ZERO SET knob in until the needle returns to the vicinity of the 0 marking. Rotate the knob to the left or right to align the needle with the meter ZERO SET line.

c. Calibrate the RF meter by pressing in on its ZERO SET knob and rotating it to the left or right to align the meter needle with the ZERO SET line on the meter scale.

d. With the MC switch set to A, adjust the trimmers for the A crystal by carefully inserting a small screwdriver in the front panel PLATE A tuning hole and the GRID A toning hole in turn, and adjusting the trimmers for a maximum indication on the RF meter.

NOTE

Be careful not to press the screwdriver any harder than necessary to engage the trimmer screw slots, as damage or false se tings may result.

e. Set the MC switch to B and adjust the trimmers for the B crystal by carefully inserting a small screwdriver in the front panel PLATE B tuning hole and the GRID B tuning hole in turn, and adjusting the trimmers for a maximum indication on the RF meter.

f. Adjust the RF LEVEL SET control until the RF meter needle is aligned with the meter scale red LEVEL SET line.

g. Set the MODULATION switch to 9960~. Adjust the 9960~ MOD control until the % M meter needle is aligned with the green line at the high (right hand) end of the meter scale. This adjustment sets the 9960~ modulation level at 30 percent when the RF LEVEL SET control is adjusted to align the needle of the RF meter with the red LEVEL SET line on the meter scale.

h. Set the MODULATION switch to 30 ~. Adjust the 30 ~ MOD control until the % M meter needle is aligned with the green line at the high end of the meter scale. This adjustment sets the 30 ~ modulation level at 30 percent when the RF LEVEL SET control is adjusted to the RF meter red LEVEL SET line.

NOTE

Do not change the settings of the 9960 ~ MOD and the 30 ~ MOD controls after the MODULATION switch is set to the OMNI position. Otherwise, an improperly modulated output signal will result.

i. Set the MODULATION switch to 90 ~. Adjust the 90 ~ MOD control until the % M meter needle is aligned with the redline on the upper scale of the meter. This adjustment sets the 90~ modulation level at 20 percent when the RF LEVEL SET control is adjusted to the RF meter red LEVEL SET line.

j. Set the MODULATION switch to 150~. Adjust the 150~ MOD control until the % M meter needle is aligned with the redline on the upper scale of the meter. This adjustment sets the 150~ modulation level at 20 percent when the RF LEVEL SET control is adjusted to the RF meter red LEVEL SET lie.

NOTE

Do not change the settings of the 90~ MOD and the 150~ MOD controls after the MODULATION switch is set to the AMP LOC positions. Otherwise, an improperly modulated output signal will result

k. Set the MODULATION switch to OMNI See that the RF meter needle is aligned with the red LEVEL SET line and that the % M meter needle is in the broad green area on the lower scale of the meter. Both meters must always indicate these levels during omnitesting.

l. Set the MODULATION switch to the three AMP LOC positions, ⌀, ⌀, and ⌀, in turn, and see that the RF meter needle is aligned with the red LEVEL SET line and that % M meter needle is in the broad red area on the lower scale of the meter. Both meters must always indicate these levels during amplitude localizer testing.

m. Plug a single button carbon microphone into the MIC jack. Normal talking into the microphone should produce slight fluctuations of the % M meter needle while the RF meter needle should remain, steady.

n. Set the MODULATION switch to 1000~. Rotate the 1000~ MOD control to obtain readings between 0 to 100 on the lower scale of the M meter.

o. Set the IDENTIFIER switch to ON. See that the % M meter needle pulses slightly. This is an indication that the identifier circuit is modulating the carrier signal US

CHAPTER 3
OPERATING INSTRUCTIONS

3-1. Test Set, Radio AN/ARM-5A Operator's Controls and Indicators

(fig. 3-1).

Control or indicator — *Function*

POWER-STAND BY switch. — In the POWER position, turns on SG-66B/ARM-5. In the STAND BY position, turns off SG-66B/ARM-5 and turns on internal heaters.

Indicator lamp (red) ------- Lights when power is applied to SG-66B/ARM-5.

MC switch ---------- Selects desired crystal frequency as follows:

Position	*Crystal*
A	Y101 (110.9 mc nom)
B	Y102 (114.9 mc nom)

RF LEVEL SET control. — Adjusts RF level to LEVEL SET line on RF meter.

000 ~ MOD control -------- Adjusts percentage of 1,000 cps modulation level as indicated on % M meter.

51-ohm termination ------- Provides a 51-ohm resistive load across the RF OUTPUT 1 VOLT connector.

ATTENUATOR uv — Adjusts RF output from 1 to control. 10,000 microvolts.

IDENTIFIER switch. — In ON position, applies a 1000 - audio tone, keyed at approximately 4 cps, to omni and amplitude localizer signals.

MODULATION switch. — Selects type of modulation to be applied to carrier signal as follows:

Position	*Modulation*
Position	*Modulation*
90 ~	20 percent when adjusted to 20 on the upper scale of % M meter.
AMP LOC	Applies modulation of 90/150 cps as follows:

Position	Percentage of 90	Percentage of 150	90/150~
⊘	15.9	25.2	−2 db +2 db
①	20.0	20.0	0 db 0 db
⊘	25.2	15.9	+2 bd −2 db

Control or indicator — *Function*

150~	20 percent when adjusted to 20 on the upper scale of the % M meter.
30~	30 percent when adjusted to 30 on the upper scale of the % M meter.
9960~	30 percent when adjusted to 30 on the upper scale of the % M meter.
OMNI	30 percent of 30 ~ and 30 percent of 9960 ~.
EXT	Percentage of modulation may be read directly from the lower scale of the % M meter.
1000~	Percentage of modulation is adjustable from 0 to 100 percent as read on % M meter.

90 ~ MOD control — Adjusts percentage of 90-cps modulation level as indicated on the C7 M meter.

150~ MOD control — Adjusts percentage of 150-cps modulation level as indicated on the % M meter.

30~ MOD control — Adjusts percentage of 30-cps modulation level as indicated on the % M meter.

9960~ MOD control — Adjusts percentage of 9960-cps modulation level as indicated on the % M meter.

OMNI TRACK switch. — Selects the desired track setting in degrees for testing omni equipment.

% M meter — Indicates percentage of modulation level applied to carrier.

ZERO SET controls — Permits calibration and adjustment of both the % M and the RF meter circuits.

RF meter — Indicates level of RF outputs.

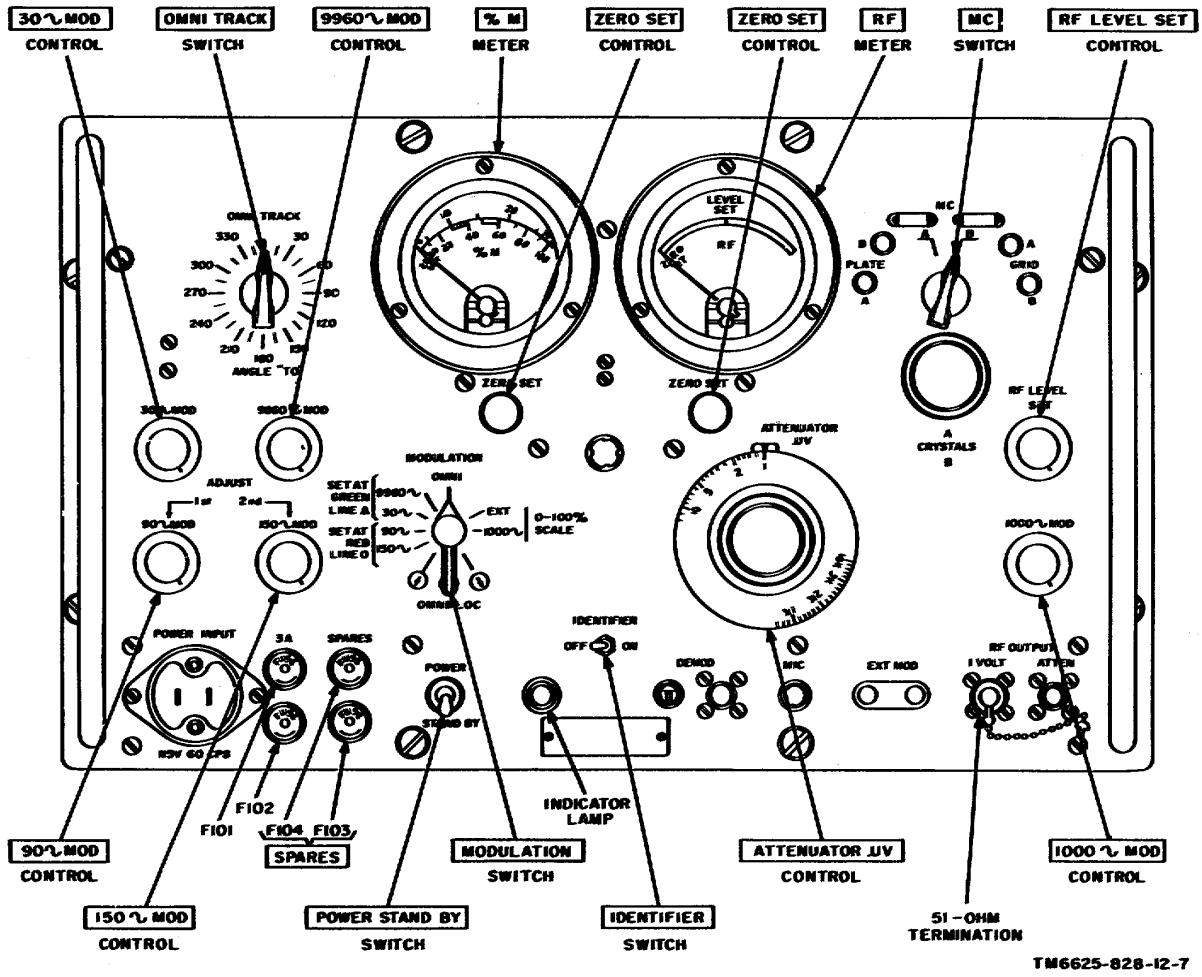

Figure 3-1. Test Set, Radio AN/ARM 5-A, controls and indicators..

3-2. Types of Operation.

a. Test Set, Radio AN/ARM-4A is a signal generator which provides omni and amplitude localizer signals for vhf navigational receiving equipment operating in the frequency range of 108 to 132 megacycles. It can be used for bench testing and for radiated signal testing of equipment installed in aircraft, either on the flight line or in the air.

b. For either type of operation, perform the following procedures:

(1) Starting procedure (para 3-3).

(2) Operating procedure (para 3-4).

(3) Stopping procedure (para 3-5).

3-3. Starting Procedure

Make sure that the initial adjustments described in paragraphs 2-7 and 2-8 have been performed before performing the starting procedure.

a. Preliminary.. Set the SG-66B/ARM-5 front panel controls as follows:

a. Preliminary (cont).

Switch or control	*Position*
POWER-STAND BY ----	STAND BY.
30 - MOD ----------	Fully counterclockwise.
90 - MOD ----------	Fully counterclockwise.
9960 - MOD ----------	Fully counterclockwise.
150 - MOD----------	Fully counterclockwise.
RF LEVEL SET----------	Fully counterclockwise.
1000 - MOD ----------	Fully counterclockwise.
MODULATION ----------	9960 ~.
IDENTIFIER----------	OFF.
MC----------	A.
ATTENUATOR uv -------	Midscale.

(1) Connect the 51-ohm termination to the RF OUTPUT 1 VOLT connector.

(2) Unscrew the crystal receptacle cover located below the MC switch and check the frequency rating of the installed crystals. Insure that the panel frequency tabs agree with the crystal frequencies. The upper crystal corresponds with the A position; the lower crystal corresponds with the B position.

(3) Connect Power Cable Assembly CX-337/U between the SG-66-B/ARM-5 and a 115-volt, 60-cycle power source. Allow the equipment to warm up for a minimum of 5 minutes.

NOTE

Omnireceivers show course errors when the modulation frequencies deviate from 30 cycles. The 30-cycle frequency generated by the SG-66B/ARM-5 is directly proportional to the primary power frequency, therefore, it is necessary that the primary power frequency be 60 cycles and stable.

b. Starting. Set the POWER-STAND BY switch on the front panel to POWER.

3-4. Operating Procedure

Operation of Test Set, Radio AN/ARM-5A is determined by the requirements of the type of equipment under test, and the type of tests to be performed. The type of output signal required from the SG-66B/ARM-5 will determine the setting and use of the front panel controls. The different output signals available for testing are as follows:

a. RF Output. The radiofrequency (RF) output of the SG-66B/ARM-5 is available at the RF OUTPUT ATTEN- and 1 VOLT connectors. A variable output of from 1 to 10,000 microvolts is available at the ATTEN connector. This output has a source impedance of 51 ohms and is adjustable continuously by means of the ATTENUATOR uv control. Normally, the ATTEN output is used for receiver testing and, under such circumstances, the 1 VOLT connector must be capped with the 51-ohm termination cap. This termination is necessary as the ATTENUATOR uv control scale is calibrated to indicate microvolts appearing across an external 51-ohm load when the 1VOLT connector is properly terminated.

NOTE

If the receiver under test has an impedance of other than 51 ohms, some method other than reading the ATTENUATOR uv control scale to determine the output voltage will be required.

WARNING

Dc voltages up to 75 volts appear between the DEMOD output connector and ground. Be careful when connecting the equipment under test.

b. Demodulated Output. Modulation voltages generated by the SG-66B/ARM-5 are made available for bench test use through the DEMOD connector. The output from the DEMOD connector is derived from the RF carrier and the demodulating circuits are designed so that, when connected to a resistive load, the demodulated output will have the same wave shape and phase as the modulation envelope. If the demodulated output is connected to a reactive load, a phase shift will result which must considered when testing omni equipment. The demodulated output may be adjusted by means of a screwdriver adjustment, to the left of the DEMOD connector, to any desired value within the limits shown below.

b. Demodulated output (cont).

MODULATION switch position	*Condition*	*Approx volts (rms)*
1000 ~	With 1000 - MOD control adjusted for 100%.	1.4 to 17
9960~	With 9960 ~ MOD control set for 30%.	0.5 to 6
30~	With 30 - MOD control set for 30%.	0.5 to 6
AMP LOC	Normal adjustments.	0.5 to 6
OMNI	Normal adjustments.	0.6 to 8
90~	With 90~ MOD control set for 20%.	0.35 to 4
150~	With 150 ~ MOD control set for 20%.	0.35 to 4

c. Modulated Output. The SG-66B/ARM-5 provides internal modulation for omni and ampli

tude localizer receiver testing and for the identification of radiated test signals. The type of modulation applied to the carrier is determined by the setting of the MODULATION switch. With the switch set to EXT, the percentage of modulation may be read directly from the lower scale of the % M meter. With an audiofrequency (af) source capable of supplying approximately 1.5 volts root mean square (rms) across 20,000 ohms connected to the EXT MOD terminals, approximately 100 percent modulation will be obtained.

d. Radiated Signal Testing. Test Set, Radio AN/ARM-5A can be used to perform a flight check of one or more omni tracks and the left-center-right localizer indication with the aircraft within 5 miles of the antenna location as follows:

(1) Use the RG-58/U coaxial cable to connect the RF OUTPUT 1 VOLT connector to an unobstructed suitable antenna.

(2) Plug a standard single button carbon microphone into the MIC jack on the SG-66B/ARM-5 front panel.

(3) Set the IDENTIFIER switch to ON. This will modulate the SG-66B/ARM-5 test signals by a keyed 1,000-cps signal and therefore provide positive identification of radiated test signals.

NOTE

Radiated signals should be in agreement with test signal frequencies authorized by Federal Communications Commission (FCC).

(4) Set the OMNI TRACK switch to 30 and observe the following conditions on the omnireceiving equipment:

(a) Warning flag should be down out of sight.

(b) Vertical pointer should be centered and steady when omnicourse selector is set on, 30°.

(c) TO-FROM meter should indicate TO.

(d) The number of degrees shift in the course selector required for deflection of the vertical pointer from the last dot on the right to the last dot on the left will depend on the type of omni equipment being tested. Twenty degrees of shift is considered standard.

(e) See that the audio output resulting from identification signals or voice transmission from the SG-66B/ARM-5 is loud and clear and relatively free from extraneous noise.

(5) Set the MODULATION switch to the three AMP LOC positions, in turn, and observe the following conditions:

(a) Switch set to A. The warning flag is down out of sight and the vertical pointer moves near the outer edge of the blue sector or 3-dot deflection.

(b) Switch set to B. The warning flag is down out of sight and the vertical pointer is in the center.

(c) Switch set to C. The warning flag is down out of sight and the vertical pointer move near the outer edge of the yellow sector or 3-dot deflection.

3-5. Stopping Procedure

a. To place the SG-66B/ARM-5 in standby condition, set the POWER-STAND BY switch to STAND BY.

b. To shut down the equipment completely, remove Power Cable Assembly CX-337/U from the POWER INPUT connector on the front panel.

CHAPTER 4
MAINTENANCE

NOTE

Sealing and locking compounds have been used in this equipment. Do not apply torque to check bolts, screws, or nuts for tightness.

4-1. Scope of Maintenance

The maintenance duties assigned to the operator of Test Set, Radio AN/ARM-A are listed below together with a reference to the paragraph covering the specific maintenance function. These duties do not require special tools or test equipment.

a. Daily preventive maintenance checks and services (para 4-5).

b. Quarterly preventive maintenance checks and services (para 4-6).

c. Cleaning (para 4-7).

d. Lubrication (para 4-9).

e. Troubleshooting (para 4-10).

f. Repairs and adjustments.

(1) Replacement of indicator lamp (para 4-13a).

(2) Replacement of fuses (para 4-13b).

4-2. Special Tools and Equipment Required for Maintenance

a. Tool Equipment. The only tool equipment required is Tool Kit Electronic Equipment TK-101/G (NSN 5180100610~177).

b. Special Tools. No special tools are required for maintenance of the Test Set, Radio AN/ARM-A.

c. Test Equipment. The only test equipments required are Multimeter AN/USM-223 (NSN 662500~999-7465).

WARNING

The fumes of Trichloroethane are toxic. Provide thorough ventilation whenever used. DO NOT USE NEAR AN OPEN FLAME. Trichloroethane is not flammable, but exposure of the fumes to an open flame or hot metal forms highly toxic phosgene gas.

d. Material. Trichloroethane is required for cleaning the equipment and electrical contacts.

4-3. Preventive Maintenance.

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to assure that the equipment is serviceable.

a. Systematic Care. The procedures given in paragraphs 4-4 through 4-9 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. Preventive Maintenance Checks and Services. The preventive maintenance checks and services charts (para 4-5 and 4-6) outline functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in a combat serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining combat serviceability, the charts indicate what to check, how to check, and what the normal conditions are; the References column lists the illustrations, paragraphs, or manuals that contain detailed repair or replacement procedures. If the defect cannot be remedied by performing the corrective action indicated, higher category of maintenance or repair is required. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38-750.

4-4. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the AN/ARM-5A are required daily and quarterly.

a. Paragraph 4-5 specifies checks and services that must be accomplished daily and under the special conditions listed below:

(1) When the equipment is initially prepared for use.

(2) At least once each week if the equipment is maintained in standby condition.

b. Paragraph 4-6 specifies *additional* checks and services that must be performed quarterly.

4-5. Daily Preventive Maintenance Checks and Services Chart

Sequence No	*Item to be inspected*	*Procedure*	*References*
1	Completeness	See that the equipment is complete	Para 1-9
2	Connectors	Check tightness of all connectors.	
3	Meter glasses and indicator lens	Check both meter glasses and indicator lens for cracks.	
4	Fuses	Check both operating and spare fuses for proper rating and good condition.	Para 2-5*a*
5	Crystals	See that crystals are of desired frequency and that frequency tabs on front panel agree with crystals.	Para 1-7*b*, 2-5*b*
6	Controls and indicators	While making the operating checks (items 7 through 19), see that the mechanical action of each knob, dial, and switch is smooth and free of external or internal binding and no excessive looseness is apparent. Also, check both meters for sticking or bent pointers.	
7	Preliminary	Set the controls as follows: *a.* POWER-STAND BY switch to STAND BY. *b.* 30 - MOD control full ccw. *c.* 90 - MOD control fully ccw. *d.* 9960 - MOD control fully ccw. *e.* 150 -MOD control fully ccw. *f.* RF LEVEL SET control fully ccw. *g.* 1000~ MOD control fully ccw. *h.* MODULATION control to 9960~. *i.* IDENTIFIER switch to OFF. *j.* MC switch to A. *k.* ATTENUATOR uv control to midscale.	
8	POWER-STAND BY switch	Set to POWER and note that red indicator lamp lights and that the tone generator starts.	
9	% M meter	Calibrate % M meter by pressing in the ZERO SET knob and rotating left or right as required.	Para 2-8*b*; fig. 3-1.
10	RF meter	Calibrate RF meter by pressing in the ZERO SET knob and rotating left or right to align the needle with the ZERO SET line on the meter scale.	Para 2-8*c*; fig. 3-1.
11	Crystal trimmers	Adjust crystal trimmers for maximum indication on RF meter.	Para 2-8*d* and fig. 3-1.
12	RF LEVEL SET control	Adjust RF LEVEL SET control until RF meter needle is aligned with the red LEVEL SET line on the meter scale.	Fig. 3-1.
13	9960~ MOD control	Adjust 9960 - MOD control until % M meter needle is aligned with the green line at the high end c' the meter scale.	Para 2-8*g*, fig. 3-1.
14	30~ MOD control	Set MODULATION switch to 30~ and adjust 30~ MOD control until % M meter needle is aligned with the green line at the high end of the meter scale.	Para 2-8*h*; fig. 3-1.
15	90~ MOD control	Set MODULATION switch to 90~ and adjust the 90~ MOD control until the % M meter needle is aligned with the red line on the upper meter scale.	Para 2-8*i*; fig. 3-1.
16	150~ MOD control	Set MODULATION switch to 150~ and adjust the 150~ MOD control until the % M meter needle is aligned with the red line on the upper meter scale.	Para 2-8*j*; fig. 3-1.

Sequence No	*Item to be inspected*	*Procedure*	*References*
17	MODULATION switch	Check MODULATION switch as follows: a. Set MODULATION switch to OMNI and see that RF meter needle indicates LEVEL SET and that % M meter needle is in the broad green area on the lower meter scale. b. Set MODULATION switch to three AMP LOC positions, in turn, and see that RF meter needle indicates LEVEL SET and that % M meter needle is in the broad red area of the lower meter scale.	Para 2-8*k*, fig. 3-1. Para 2-8*l.*
18	1000~ MOD control	Set MODULATION switch to 1000 - and rotate 1000~ MOD control fully clockwise and fully counterclockwise. See that % M meter indicates 100 to 0.	Para 2-8*n*.
19	IDENTIFIER switch	Set IDENTIFIER switch to ON and observe that % M meter needle pulses slightly.	Para 2-8*o*; fig. 3-1.

4-6. Quarterly Preventive Maintenance Checks and Services Chart

Sequence No	*Item to be inspected*	*Procedure*	*References*
1	Publications	See that all publications are complete, serviceable, and current.	DA Pam 310~4.
2	Modifications	Check DA Pam 310~7 to determine if new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	TM 38-750 and DA Pam 310-7
3	Spare parts	Check all spare parts (operator and organizational) for general condition and method of storage. No overstock should be evident and all shortages must be on valid requisitions.	Para 1-6.
4-A	Lubrication	Lubricate the equipment	Para 4-9 and fig. 4-1.
5	Pluckout items	Inspect seating of pluckout items. Make sure that tube clamps grip tube bases tightly.	Para 2-5*c*.
6	Switches	Inspect MODULATION and OMNI TRACK switches for dirt, corrosion, and burned contacts.	
7	MIC jack	Inspect MIC jack for snug fit and good contact.	
8	Transformer terminals	Inspect terminals on power transformers. All nuts must be tight. No dirt or corrosion should be evident.	Para 4-7.
9	Tone generator motor	Inspect tone generator for security of mounting and condition of vibration mounts.	
10	Cables	Inspect CG-409E/U and CX-337/U cables, cords, and wires for chafed, cracked, or frayed insulation.	
11	Handles	Inspect handles on front panel of SG-66B/ARM-5 for looseness. Replace or tighten as necessary.	
12	Metal surfaces	Inspect exposed metal surfaces for rust and corrosion. Clean and touch up paint as required.	Para 4-8.

4-7. Cleaning.

Inspect the exterior surfaces of the SG-66B/ARM-5. The exterior surfaces should be cleaned free of dust, dirt, grease, and fungus.

a. Remove dust and loose dirt with a clean, soft cloth.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation as exposure of the fumes to an open flame converts the fumes to highly toxic, dangerous gases.

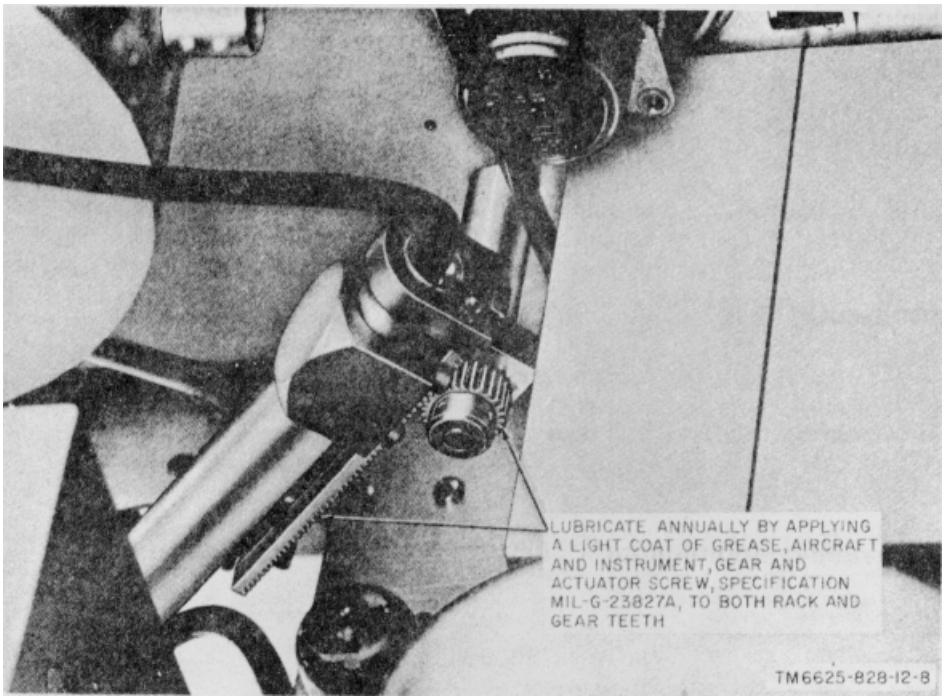

Figure 4-1. Lubrication of Test Set, Radio AN/ARM-5A.

b. Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with trichloroethane.

c. Remove dust or dirt from plugs, connectors, and jacks; use a stiff-bristled brush.

CAUTION

Do not press on the meter faces (glass) when cleaning; the meters may become damaged.

d. Clean the front panel, meters, and control and switch knobs; use a soft, clean cloth. If dirt is difficult to remove, dampen the cloth with water; if necessary, use mild soap.

e. Remove the case from the chassis and blow out all accumulated dust with low-pressure compressed air.

4-8. Touchup Painting Instructions

Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to applicable cleaning and refinishing practices specified in TM 9-213.

4-9. Lubrication

(fig. 4-1)

NOTE

No lubrication, other than of the attenuator gear and rack, is required for maintenance of Test Set, Radio AN/ARM-5A. All bearings are lubricated and factory-sealed before installation.

a. The symbol A stands for a period of 1 year. A year consists of 360 days of normal 8-hour operation. When the equipment is operated more than 8 hours a day, adjust the lubrication interval accordingly. For example, when the equipment is operated 24 hours a day instead of 8, lubricate the attenuator gear and rack quarterly (Q) instead of annually.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation as exposure of the fumes to an open flame converts the fumes to highly toxic, dangerous gases.

b. Turn the SG-66B/ARM-5 upside down on the bench to reach the gear and rack. Clean the gear and rack teeth to be lubricated with

a brush dipped in trichoroethane. Remove excess cleaning compound from the brush to prevent it from dripping into the equipment.

c. Apply a thin coating of Grease, Aircraft and Instrument (MIL-23827) both the gear and rack teeth, and rotate the ATTENUATOR iv control to distribute the grease evenly over ,he gear and rack.

4-10. General Troubleshooting Information

Troubleshooting the AN/ARM-5A is based on the operational check contained in the daily preventive maintenance checks and services chart. To troubleshoot the equipment, perform all functions starting with item No. 8 in the daily preventive maintenance checks and services chart (para 4-5) and proceed through the items until an abnormal condition or result is observed. When an abnormal condition or result is observed, perform the checks and corrective actions indicated in the troubleshooting chart. If the corrective measures indicated do not result in correction of the trouble, higher category of maintenance is required. Paragraphs 4-12, and 4-13 (referenced in the chart) contain additional information and step-by-step instructions for performing equipment tests and adjustments to be used during the troubleshooting procedures.

4-11. Troubleshooting Chart

Item NO.	*Trouble symptom*	*Probable trouble*	*Checks and corrective measures*
1	*a.* Red indicator lamp does not light and tone generator does not start.	*a.* Power cable loose, no input power, defective fuse F101 or F102, or defective switch S106.	*a.* Tighten power cable connections, check availability of input power (para 4-12), or replace fuse F101 or F102 (para 4-13*b*). Refer to higher category of maintenance for repair.
	b. Red indicator lamp does not light and tone generator starts.	*b.* Defective indicator lamp DS101 ----------	*b.* Replace defective indicator lamp - DS101 (para4-13*a*. Refer to higher category of maintenance.
	c. Red indicator lamp lights but tone generator does not start.	*c.* Defective tone gener-motor B101 of MG101.	*c.* Refer to higher category of maintenance.
2	% M meter needle does not zero.	Defective resistor R216, electron tube V115, ZERO SET control R219, or defective meter M102.	Refer to higher category of maintenance.
3	RF meter needle does not zero.	Defective ZERO SET control R218 or defective meter M101.	Refer to higher category of maintenance for repair.
4	Very slight or no indication on RF meter.	Defective crystals Y101 or Y101, defective switch S105, defective electron tubes V108, V109, or V110, defective capacitors C141, C145, C150, or C152, defective trimmer capacitors C143A, C143B, C149A, or C149B, defective chokes L119 or L120, defective resistor R185, R208, or R212.	Replace defective crystals Y101 or Y102 (para 4-13*c*). Refer to higher category of maintenance for repair.
5	RF meter needle does not align with the red LEVEL SET line.	Defective electron tube V102, resistors R115 or R186, capacitor C112, chokes L116, or L118, switch S103, or RF LEVEL SET control R119.	Refer to higher category of maintenance.
13	% M meter needle does not align with the green line on the upper scale.	Defective capacitors C109, C110, C162A, or C162B: resistors R112, R209, R213, R215, or R224, electron tube V116, 9960~ MOD control R109, or % M meter M102.	Refer to higher category of maintenance.
14	% M meter needle does not align with the green line on the upper scale.	Defective electron tube V104, OMNI TRACK switch S101C, MODULATION switch S102B, S102E, or S102H, capacitors C121A, C121B, or C121C, discriminator Z101, choke L106, resistors R133, R138, R139, R142, R143, R161, or R231, or 30 - MOD control R131.	Refer to higher category of maintenance.

Item NO.	Trouble symptom	Probable trouble	Checks and corrective measures
15	% M meter needle does not align with the red line on the upper scale.	Defective electron tube V105, filter Z102, capacitor C124, resistors R145, R149, R155, R156, or R158, MODULATION switch S102G, or 90~ MOD control R130.	Refer to higher category of maintenance.
16	% M meter needle does not align with the red line on the upper scale.	Defective filter Z103, resistors R147, R154, or R157, or 150~ MOD control R144.	Refer to higher category of maintenance for repair.
17	% M meter needle does not indicate 100 to 0.	Defective 1000~ MOD control R163	Refer to higher category of maintenance for repair.
18	% M meter needle does not Pulse.	Defective electron tubes V106 or V107 other 1,0000-cycle oscillator components, or IDENTIFIER switch S104.	Refer to higher category of maintenance.

4-12. Power Troubleshooting

When it is apparent that power is not being applied to the SG-66B/ARM-5, check to see if power is available from the power source. Use Multimeter AN/USM-223 to perform a continuity check between terminals on the connectors of Power Cable Assembly CX-337/U.

Figure 4-2. Deleted

4-13. Repairs

a. Replacement of Indicator Lamp.

(1) Turn the indicator lens cap (fig. 3-1) counterclockwise and remove it to expose the defective lamp.

(2) Remove the defective lamp by pressing it in and turning counterclockwise.

(3) Replace the defective lamp with a new one. Push the lamp in and turn it clockwise to lock it.

b. Replacement of Fuses. The SG-66B/ARM-5 contains two active and two spare 3-ampere fuses located in the lower left portion of the front panel (fig. 3-1). To replace a fuse, turn the fuse-holder cap counterclockwise, remove the cap, and extract the defective fuse. Install a new fuse of the proper rating and replace the fuseholder cap, locking it in place with a clockwise turn.

c. Replacement of Crystals.

(1) Unscrew the crystal cover cap (fig. 3-1) and remove it to expose the two crystals.

(2) Grasp the crystal to be replaced between the thumb and forefinger and work the crystal out of its socket.

CAUTION

Do not use pliers or similar metal-jawed tools to remove crystals.

(3) Seat the replacement crystal securely in its socket and screw on the crystal cover cap.

NOTE

If the replacement crystal is for a frequency different from that shown by the corresponding front panel tab, replace the tab with one showing the new crystal frequency.

Figure 4-3. Deleted

CHAPTER 5
SHIPMENT AND LIMITED STORAGE

5-1. Disassembly of Equipment

No disassembly of the AN/ARM-A is required for shipment and storage. Power Cable Assembly CX-337/U and RF Cable Assembly CG-409E/U are coiled separately and packed in the same package with the SG-66B/ARM-5.

5-2. Repackaging for Shipment of Limited Storage

Storage The exact procedure for repackaging depends on the material available and the conditions under which the equipment is to be shipped or stored. Adapt the procedures outlined below whenever circumstances permit. The information concerning the original packaging (para 2-1) will also be helpful.

a. Material Requirements. The following materials are required for packaging Test Set, Radio AN/ARM-A. For stock numbers of materials, refer to SB 38100.

Material	*Quantity*
Barrier material, waterproof	9 sq ft
Tape, cloth backing, waterproof	185 ft
Tape, pressure-sensitive	28 ft
Twine, cotton	10 ft
Fiberboard, corrugated	21 sq ft
Desiccant	1 package
Indicator, humidity	1 strip

b. Packaging. Package the AN/ARM-5A as outlined below.

(1) Place a 19 inch by 31 inch corrugated fiberboard cushion on the bottom of the inner carton. Place the SG-66B/ARM-, front panel up, in the carton and protect all four corners with 20 inch by 14 inch corrugated fiberboard fillers. Place a 3 ¼ inch by 50 inch corrugated fiberboard collar around the bails on the front panel. Place a 12 ½ inch by 49 inch corrugated fiberboard cushion on top of the collar.

(2) Wrap each cable assembly separately into a coil and tie securely with cotton twine. Place the two coiled cables and a bag of desiccant on top of the top cushion and seal the carton with pressure-sensitive tape.

(3) Wrap the sealed inner carton in waterproof barrier material, heat-seal the barrier material, and place the wrapped carton in the waterproof middle carton. Place the technical manual and the humidity indicator on top of the inner carton and seal the middle carton with pressure-sensitive tape along all seams and the four edges.

(4) Place the sealed middle carton in the three-walled outer carton and seal the outer carton with black strapping tape (waterproof, cloth backed tape).

All data on page 5-2 deleted.

APPENDIX A
REFERENCES

Following is a list of references available to the operator and organizational technician of Test Set, Radio AN/ARM-5A:

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	US Army Equipment Index of Modification Work Orders.
SB 38-100	Preservation, Packaging, Packing and Marking Materials, Supplies, and Equipment Used by the Army.
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters.
TM 11-6625-274-12	Operator's and Organizational Maintenance Manual: Test Sets, Electron Tube TV-7/U, TV-7A/U, TV-7B/U, and TV-7D/U.
TM 11-6625-654-14	Operator's, Organizational, Direct Support, and General Support Maintenance Repair Parts and Special Tool Lists (Including Depot Maintenance Repair Parts and Special Tools List) for Multimeter AN/USM-223.
TM 38-750	The Army Maintenance Management System (TAMMS).
TM 740-90-1	Administrative Storage of Equipment.
TM 750-244-2	Procedure for Destruction of Electronics Materiel to Prevent Enemy Use (Electronics Command).

APPENDIX C
MAINTENANCE ALLOCATION

Section I. INTRODUCTION

C-1. General.

This appendix provides a summary of the maintenance operations for Test Set, Radio, AN/ARM-A. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

C-2. Maintenance Function.

Maintenance functions will be limited to and defined as follows:

a. Inspect To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. Test To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean, preserve, drain, paint, or to replenish fuel/lubricants/hydraulic fluids or compressed air supplies.

d. Adjust Maintain within prescribed limits by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. Align. To adjust specified variable elements of an item to about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used in precision measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install . The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment/system.

h Replace. The act of substituting a serviceable like-type part, subassembly, model (component or assembly) for an unserviceable counterpart.

i Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module/component/assembly, end item or system. This function does not include the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

j. Overhaul That periodic maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (e.g., MWDR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like-new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment/components.

C-3. Column Entries.

a. Column 1, Group Number. Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. When items are listed without maintenance functions, it is solely for purpose of having the group numbers in the MAC and RPSTL coincide.

d. Column 4, Maintenance Category. Column 4 specifies, by the listing of a "worktime" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate "worktime" figures will be shown for each category. The number of task-hours specified by the "worktime" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time and quality

assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. Subcolumns of column 4 are as follows:

C - Operator/Crew
O - Organizational
F - Direct Support
H - General Support
D - Depot

e. Column 5, Tools and Equipment. Column 5 specifies by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

C-4. Tool and Test Equipment Requirements (Table I).

a. Tool or Test Equipment. Reference Code. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool or test equipment for the maintenance functions.

b. Maintenance Category. The codes in this column indicate the maintenance category allocated the tool or test equipment.

c. Nomenclature. This column lists the noun name and nomenclature of the tools and test equipment required to perform the maintenance functions.

d. National/NATO Stock Number. This column lists the National/NATO stock number of the specific tool or test equipment.

e. Tool Number. This column lists the manufacturer's part number of the tool followed by the Federal Supply Code for manufacturers (5-digit) in parentheses.

Section II. Maintenance allocation chart
For
TEST SET, RADIO AN/ARM-5A

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQUIPMENT
00	TEST SET, RADIO AN/ARM5A	Inspect		0.2				1,6
		Test				0.5		1,5,6
		Repair [1]		0.2				1,6
		Repair				0.5		2 thru 5, 7,8
01	SIGNAL GENERATOR SG-66B/ARM-5	Inspect		0.2				1,6
		Repair [1]		0.2				1,6
		Repair				0.5		2 thru 5, 7 thru 19
02	RF CABLE ASSEMBLY CG-409E/U	Inspect		0.1				1,6
		Replace				0.2		1,6
		Repair				0.5		1,6
03	POWER CABLE ASSEMBLY CX-337/U\	Inspect		0.1				1,6
		Replace				0.2		1,6
		Repair				0.5		1,6

1. Repair is limited to replacement of lamps, lenses, crystals, and fuses only.

TABLE I. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR TEST SET, RADIO AN/ARM-5A

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
1	0	MULTIMETER AN/USM-223	6625-00-999-7465	
		(TS-352B REPLACED BY AN/USM-223 OR EQUIVALENT AN/URM-105)	6625-00-581-2036	
2	H,D	AUDIO OSCILLATOR AN/URM-127 OR EQUIVALENT	6625-00-783-5965	
3	H,D	ELECTRONIC VOLTMETER ME-30/U	6625-00-643-1670	
4	H,D	OSCILLOSCOPE AN/USM-281A OR EQUIVALENT	6625-00-228-2201	
5	H,D	TEST SET, ELECTRON TUBE TV-7/U OR EQUIVALENT	6625-00-820-0064	
6	0	TOOL FIT, ELECTRONIC EQUIPMENT TK-101/G	5180-00-610-8177	
7	H,D	TOOL KIT, ELECTRONIC EQUIPMENT TK-100/G	5180-00-605-0079	
8	H,D	MULTIMETER ME-26B/U	6625-00-646-9409	
9	H,D	RESISTANCE- BRIDGE ZM-4/U	6625-00-500-0937	
10	H,D	TEE COUPLER UG-274/U	5935-00-201-2411	
11	H,D	TEST SET, SIGNAL GENERATOR AN/GSM-21	6625-00-538-9015	
12	H,D	ELECTRONIC COUNTER AN/USM-207	6625-00-694-2054	
13	H,D	IMPEDANCE MATCHING ATTENUATOR CN-947/USM-181	6625-00-763-2390	
14	H,D	TRANSFORMER CN-16A/U	5950-00-235-2086	
15	D	FILTER UNIT, AIRCRAFT RADIO TYPE F12		
16	H,D	SIGNAL GENERATOR AN/USM-44A	6625-00-539-9685	
17	D	AUDIO SIGNAL GENERATOR (COLLINS MODEL 479A-3)	6625-00-669-4031	
18	H,D	ELECTRONIC VOLTMETER AN/URM-145	6625-00-973-3986	
19	H,D	FREQUENCY METER AN/USM-26	6625-00-543-1356	

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