TM 11-6625-820-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL

TEST SET, RADIO

AN/ARM-92

HEADQUARTERS, DEPARTMENT OF THE ARMY
23 FEBRUARY 1966

CHANGE
No. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *4 January 1972*

Operator and Organizational Maintenance Manual
Including Repair Parts and Special Tool Lists
TEST SETS, RADIO AN/ARM-92 AND AN/ARM-92A

TM 11-6625-820-12, 23 February 1966, is changed as follows:

1. These changes add organizational maintenance data for the AN/ARM-92A.

2. The title is changed as shown above.

3. Remove and insert pages as indicated below.

Remove pages-	*Insert pages—*
i and ii	i and ii
	1-0.1 (1-0.2 blank)
1-1 through 1-6	1-1 through 1-6
2-1 through 2-4	2-1 through 2-4
	2-4.1 (2-4.2 blank)
2-5 and 2-6	2-5 and 2-6
3-3 and 3-4	3-3 and 3-4
	3-4.1 (3-4.2 blank)
3-5 through 3-8	3-5 through 3-8
A-1 and A-2	

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Operator and Organizational Maintenance Manual
Including Repair Parts and Special Tool Lists

TEST SET, RADIO AN/ARM-92

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No. 11–6625–820–12

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ORGANIZATIONAL MAINTENANCE MANUAL

TEST SETS, RADIO AN/ARM-92 AND AN/ARM-92A

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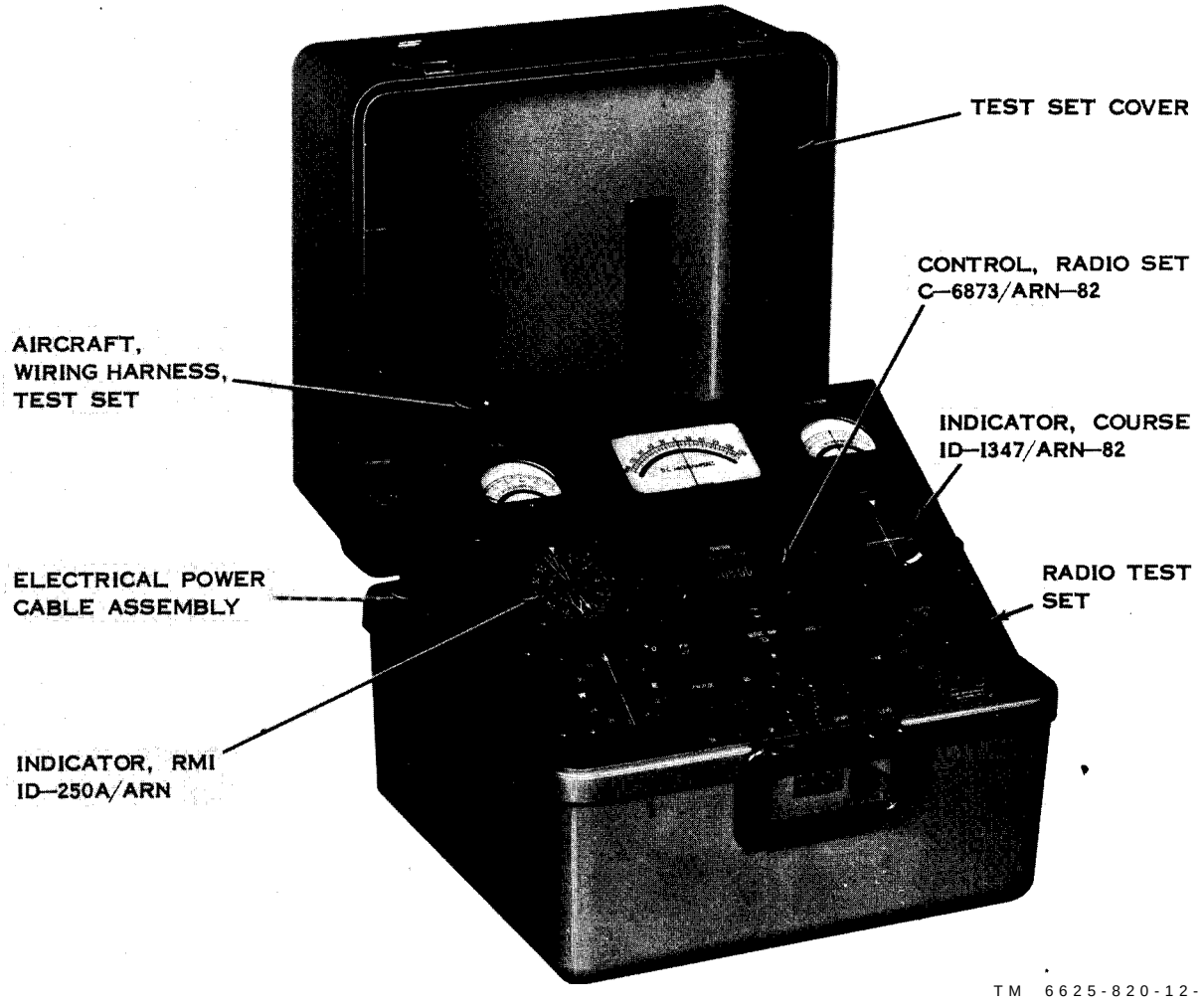

Figure 1-1. Test Set, Radio AN/ARM-92.

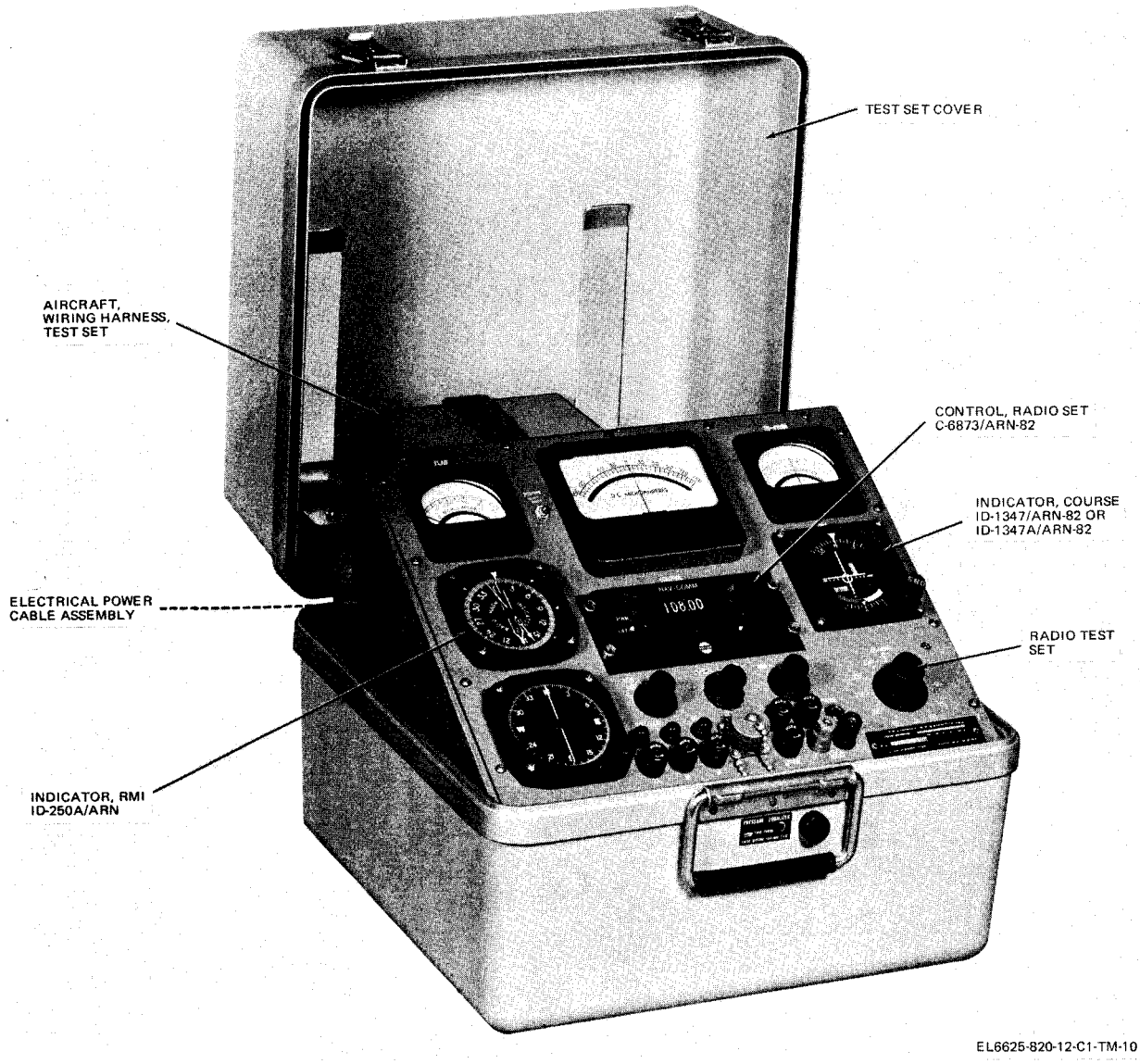

Figure 1-1.1. Test Set, Radio AN/ARM-92A.

CHAPTER1
INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes Test Sets, Radio AN/ARM-92 (fig. 1-1) and AN/ARM-92A (fig. 1-1.1). The manual includes operation, cleaning and inspection of the equipment, and replacement of parts available to organizational level maintenance.

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 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. Use equipment forms and records in accordance with instructions given in TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Report of Packaging and Handling Deficiencies) as prescribed in AR 700-58 (Army), NAVSUP Publication 378 (Navy), AFR 71-4 (Air Force), and MCO P4610-5 (Marine Corps).

c. Discrepancy in Shipment Report (DISREP) (SF361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38 (Army), NAVSUP Publication 459 (Navy), AFM 75-34 (Air Force), and MCO P4610.10 (Marine Corps).

d. Report of Equipment Manual Improvements. 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 forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-AN, Fort Monmouth, N. J., 07703.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Purpose. Test Sets, Radio AN/ARM-92 (fig. l-l) and AN/ARM-92A (fig. 1-1.1) are portable and are comprised of two major units which are the Test Set, Radio TS-2500/ ARM-92 or TS-2500A/ARM-92 and Test Set, Wiring Harness, Aircraft TS-2501/ARM-92. The purposes and uses are as follows.

(1) Test Set, Radio TS-2500/ARM-92 plus the components listed in paragraph 1-6 form Test Set, Radio AN/ARM-92. Test Set, Radio TS-2500/ARM-92 is used with the equipment listed in paragraph 1-11 to test, troubleshoot, and align Radio Receiving Set AN/ARN-82. Power, interconnections, and simulated input signals required by Radio Receiving Set AN/ARN-82 are provided by Test Set, Radio TS-2500/ARM-92. Test Set, Radio TS-2500/ARM-92 also has the capability of testing a glideslope receiver.

(2) Test Set, Radio TS-2500A/ARM-92 plus the components listed in paragraph l-6.1 form Test Set, Radio AN/ ARM-92A. Test Set, Radio TS-2500A/ARM-92 is used with the equipment listed in paragraph 1-11 to test, troubleshoot, and align Radio Receiving Sets AN/ARN-82 and AN/ARN-82A. Power, interconnections, and simulated input signals required by Radio Receiving Sets AN/ARN-82 and AN/ARN-82A are provided by Test Set, Radio TS-2500A/ARM-92A. Test Set, Radio TS-2500A/ARM-92 also has the capability of testing a glideslope receiver.

(3) Test Set, Wiring Harness, Aircraft TS-2501/ARM-92 provides accurate test signals to check the meters and audio circuits in Test

Sets, Radio TS-2500/ARM-92 and TS-2500A/ARM-92. It also provides a quick test for the Control, Radio Set C-6873/ARN-82 installed in an aircraft or in Test Sets, Radio TS-2500/ARM-92 or TS-2500 A/ARM-92.

b. Use. Test Set, Radio TS-2500/ARM-92 and Test Set, Wiring Harness, Aircraft TS-2501/ARM-92 are used by the repairman to perform bench troubleshooting of Radio Receiving Set AN/ARN-82. Test Set, Radio TS-2500A/ARM-92 and Test Set, Wiring Harness, Aircraft TS-2501/ARM-92 are used by the repairman to perform bench troubleshooting of Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

1-5. Technical Characteristics

Line-voltage input
- Direct current (dc) . . . 27.5 volts.
- Alternating current (ac). . . . 115 volts, 400 cps.

Power consumption
- DC. . . . . 33 watts.
- AC. . . . . 92 watts.

Frequency range . . . . . 108.00 to 126.95 mc.

COMPASS SIMULATOR. . . . Three-inch dial with graduations in two-degree increments through 360 degrees of rotation.

FLAG meter . . . . . A dc ammeter that measures current from 0 to 500 microamperes in 10-microampere increments.

DEVIATION meter . . . A normally centered dc ammeter that measures current flowing in either direction from 0 to 150 microamperes in 5-microampere increments.

TO-FROM meter. . . . . A normally centered (dc ammeter that measures current flowing in either direction from 0 to 500 microamperes in 25-microampere increments.

Bearing accuracy
- Manual. . . . . +0.15 degrees.
- Automatic . . . . . ± 1.50 degrees.

Weight. . . . . 33.38 pounds.

Dimensions. . . . . 13 1/2 in. high x 15 15/16 in. deep x 1 5/8 in. wide.

1-6. Components of Test Set, Radio AN/ARM-92

Quantity	Item	Figure No.	Height (in.)	Depth (in.)	Width (in.)	Unit weight (lb.)
1	Test Set, Radio TS-2500/ARM-92	1-1	12 9/16	16 1/16	15 3/8	19. 29
1	Cover, Test Set CW-878/ARM-92	1-3	6 11/16	15 3/4	15 3/8	5. 5
1	Control, Radio Set C-6873/ARN-82	1-1	2 5/8	5 13/16	5 3/4	1. 5
1	Indicator, RMI ID-250A/ARN	1-1	3 1/4	6 5/16	3 1/4	2. 56
1	Indicator, Course ID-1347/ARN-82	1-1	3 1/4	4 13/16	3 1/4	3. 0
1	Cable Assembly, Power Electrical CX-11568/ARM-92	1-4				. 34
1	Test Set, Wiring Harness, Aircraft TS-2501/ARM-92	1-2	2 7/16	5 1/8	6 5/8	1. 19

1-6.1. Components of Test Set, Radio AN/ARM-92A.

Quantity	Item	Figure No.	Height (in.)	Depth (in.)	Width (in.)	Unit weight (lb.)
1	Test Set, Radio TS-2500A/ARM-92	1-1	12-9/16	16-1/16	15-3/8	19.29
1	Cover, Test Set CW-878/ARM-92	1-3	6-11/16	15-3/4	15-3/8	5.5
1	Control, Radio Set C-6873/ARN-82	1-1	2-5/8	5-13/16	5-3/4	1.5
1	Indicator, RMI ID-250A/ARN	1-1	3-1/4	6-5/16	3-1/4	2.56
1	Indicator, Course ID-1347/ARN-82	1-1	3-1/4	4-13/16	3-1/4	3.0
1	Indicator, Course ID-1347A/ARN-82	1-1	3-1/4	4-13/16	3-1/4	3.0
1	Cable Assembly, Power Electrical CX-11568/ARM-92	1-4	-------	-------	-------	.34
1	Test Set, Wiring Harness, Aircraft TS-2501/ARM-92	1-2	2-7/16	5-1/8	6-5/8	1.19

1-7. Common Names

Nomenclature	Common name
Test Set, Radio TS-2500/ARM-92	Test set.
Test Set, Radio TS-2500A/ARM-92	Test set.
Cover, Test Set CW-878/ARM-92	Test set cover.
Test Set, Wiring Harness, Aircraft TS-2501/ARM-92.	Aid box.
Control, Radio Set C-6873/ARN-82	Control unit.
Indicator, Course ID-1347/ARN-82	OBS indicator.
Indicator, Course ID-1347A/ ARN-82	OBS indicator.
Indicator, RMI ID-250A/ARN	Radio magnetic indicator (RMI).
Cable Assembly, Power, Electrical CX-11568/ARM-92.	Power cable.

1-8. Description of Test Sets, Radio AN/ ARM-92 and AN/ARM-92A

Test Sets, Radio AN/ARM-92 and AN/ ARM-92A include a test set (fig. 1-1 or fig. 1-1.1) and an aid box (fig. 1-2).

a. The test set of Test Set, Radio AN/ ARM-92 (para. 1-6), used without the aid box, performs operational checks on Radio Receiver R-1388/ARN-82 (receiver). The test set of Test Set, Radio AN/ARM-92A (para 1-6.1), used without the aid box, performs operational checks on Radio Receivers R-1388/ARN-82 and R-1388A/ARN-82 (receivers).

b. The aid box, used without the test set, checks the wiring harness in an aircraft installation.

c. The test set, used together with the aid box, provides operational checks for the control unit. While connected to the test set, the aid box also provides performance checks for various circuits in the test set.

1-9. Description of Major Assemblies

a. Test Sets, Radio TS-2500/ARM-92 and TS-2500A/ARM-92. The test sets (fig. l-l) are portable and can be used wherever 27.5-volts dc and 115-volts, 400-cps power is available. When the test set cover is raised or removed, the sloping front panel of the test set is exposed. The test set is used while mounted in the lower half of its fiberglass case. A pendant cable from the test set provides all circuit connections between the receiver and the test set. A storage compartment for this cable, and for the power cable, is located at the rear of the test set. All controls, switches, indicators, and meters are located on the front panel.

b. Control, Radio Set C-6873/ARN-82. The control unit (fig. 1–1) mounts in the center of the test set front panel. The power switch is concentric with the megacycle selector, and the VOL (volume) control is concentric with the kilocycle selector. These controls, selectors and switches remotely control the power, frequency and volume of the receiver. The frequency indicator on the control unit front panel displays the frequency to which the receiver is tuned. All electrical connections between the control unit and the test set are made through a connector on the back of the control unit. This control unit is also a part of Radio Receiving Sets AN/ARN-82 and AN/ ARN-82A.

c. Indicator, RMI ID-250A/ARN. The RMI (fig. 1-1) mounts on the center, right-hand side of the test set front panel. The RMI will give three indications, but the test set utilizes only two of the indications. Each of the two needles on the RMI can indicate the bearing signals received from two separate receivers. But when the RMI is used in the test set, both needles indicate the same bearing signal received from one receiver. The entire dial on the RMI rotates to indicate a magnetic heading. All electrical connections between the RMI and the test set are made through a connector on the back of the RMI.

d. Indicators, Course ID-1347/ARN-82 and ID-1347A/ARN-82. The OBS indicator (fig. 1-1) mounts on the center left-hand side of the test set front panel. It has a nonreflecting black finish with white markings and pointers, and red warning flags with black markings. The dial glass has an antistatic and antireflective coating. The OBS indicator, which is also a part of Radio Receiving Set AN/ARN-82 or AN/ARN-82A, adjusts the receiver to select a desired course from a simulated very high frequency omni-directional radio range (VOR) signal.

e. Test Set, Wiring Harness, Aircraft TS-2501/ ARM-92. The aid box (fig. 1-2) is removed from its storage place in the test set cover for use. When the protective cover on the aid box is removed, all the connectors and indicators on the top panel are exposed. The connectors provide all the electrical connections required by

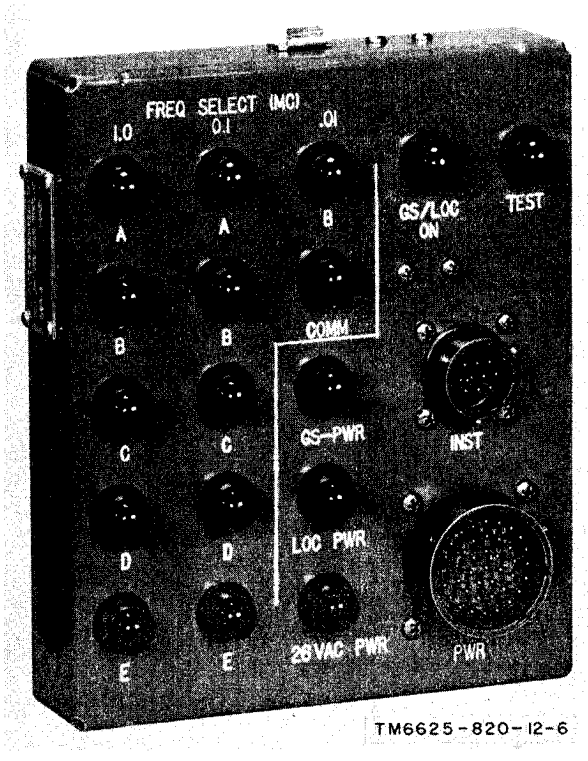

Figure 1-2. Test Set, Wiring Harness, Aircraft TS-2501/ARM-92

the aid box. The indicators provide visual checks of various circuits in the control unit and the glide slope receiver.

1-10. Description of Minor Components

a. Cover, Test Set CW-878/ARM-92. The test set cover (fig. 1–3) provides storage space for the aid box, and protects the test set during transit or storage. The test set cover is mounted by two hinges at the rear of the test set. It is secured with two latches located at the front of the test set to form the upper half of the fiberglass carrying case. With the cover closed, the gasket inserted in the bottom groove of the cover makes the case airtight and moisture proof.

b. Cable Assembly, Power, Electrical CX-11568/ARM-92. The power cable (fig. 1-4) is used to connect primary power to the test set. The cable is a 4-conductor cable, 8 feet long, with a 5-pin female connector on one end that connects to the test set. On the other end are four color-coded, insulated wires protruding from the cable convering. The red wire is connected to the positive side of a 27.5-volt dc power source. The gray wire is connected to the high side of a 115-volt, 400-cps power source. Both the white wire and black wire are connected to ground.

1-11. Additional Equipment Required

The following equipment is not supplied as part of the Test Sets, Radio AN/ARM-92 or AN/ARM-92A, but is required for use with it.

a. Dc Power Supply. A 27.5-volt dc power supply is required to supply a maximum of 33 watts to the test set.

b. Ac Power Supply. A 115-voIt, 400-cps power supply is required to supply a maximum of 92 watts to the test set.

c. Headset. A headset with at least 300-ohms impedance (Headset HS-33, or equivalent) is required to monitor the receiver audio output signal.

d. VOR Signal Generator. A VOR signal generator (Signal Generator SG-1A/ARN, or equivalent) is required to supply the rf carrier for the VOR signal applied to the receiver.

e. VOR Modulator. A VOR modulator (Modulator MD-83, or equivalent) is required to amplitude modulate the rf carrier from the VOR signal generator with a 30-cps signal, and a 9960-cps signal which is frequency modulated with a 30-cps signal.

f. Output Meter. An output meter (Output Meter TS-585/U, or equivalent), is required to measure the amplitude of the receiver audio output signal.

g. Multimeter. A multimeter (Multimeter ME-26/U, or equivalent) is required to make voltage measurements on the test set.

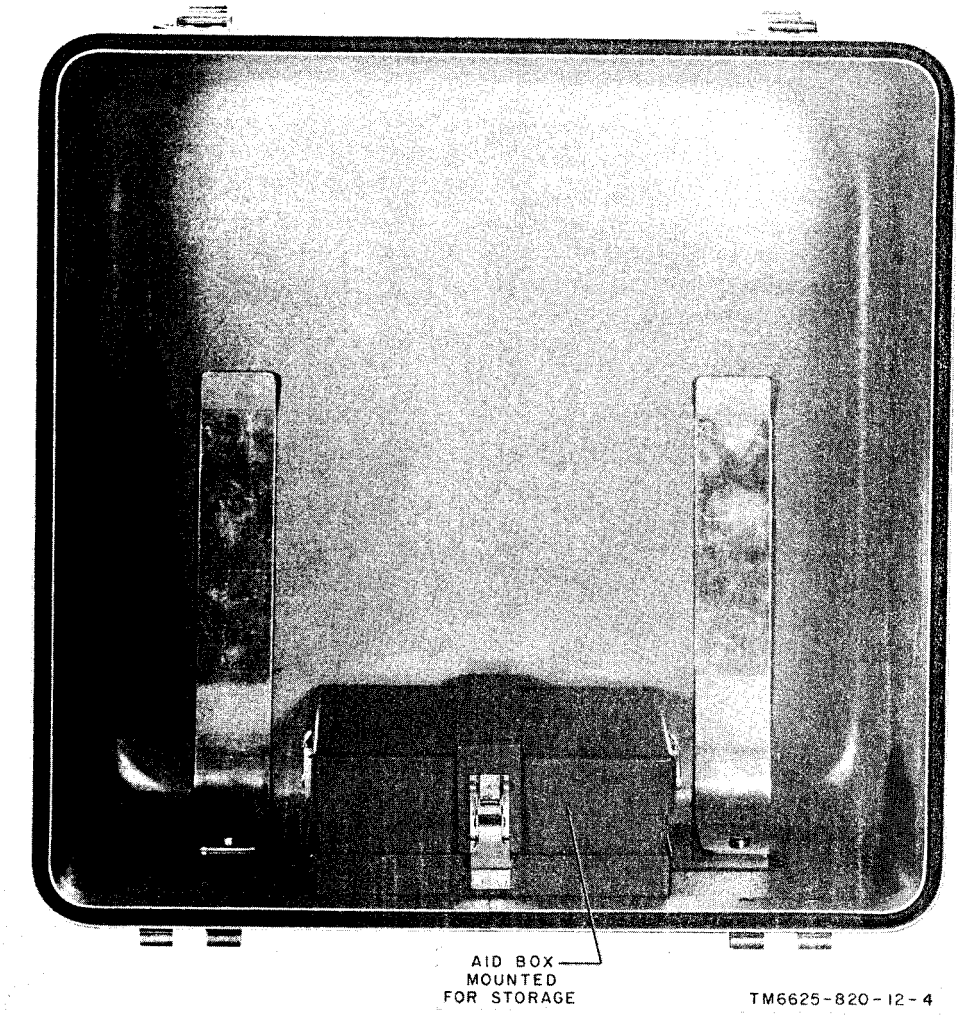

Figure 1-3. Cover, Test Set CW-878/ARM-92

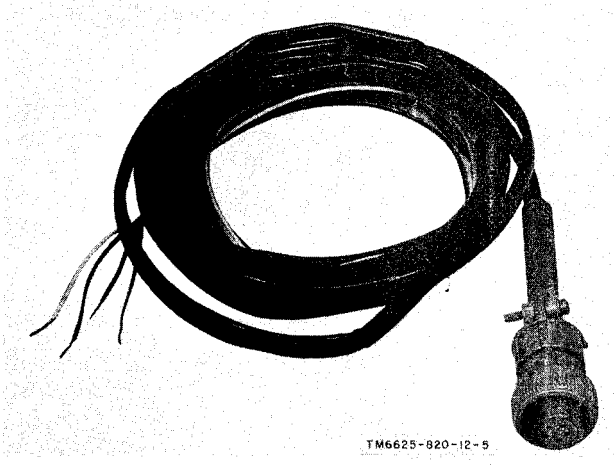

Figure 1-4. Cable Assembly, Power, Electrical CX-11568/ ARM-92

CHAPTER 2

OPERATION

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unpacking

a. Packaging Data. All components of the test set are contained in the carrying case. When packed for shipment the air vent, on the carrying case is opened. The carrying case is placed on four polystyrene corner blocks that are in the four bottom corners of a triple-wall fiberboard box. Four more corner blocks are then placed on the top four corners of the carrying case. The box is then closed and taped shut. The box is 25 x 22x 18 inches, the corner blocks are 6 x 6 x 6 inches with cutouts 4 x 4 x 4 inches. The total weight of the box is 43 pounds, and the volume is 5.7 cubic feet. A typical shipping box and its components are shown in figure 2–1.

b. Removing contents.

(1) Use a knife to cut the tape on the box. Open the four flaps.

(2) Remove the four corner blocks from the top of the carrying case. Remove the carrying case from the box.

(3) Disengage the two twist-lock clamps and open the carrying case.

(4) Remove the technical manual from the lid of the carrying case.

(5) Remove the aid box from its storage compartment in the lid of the carrying case.

(6) Open the storage compartment lid and and take the pendant cables from their storage compartment.

2-2. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, refer to paragraph 1-3b.

b. Check the equipment against the packing list. If no packing list accompanies the equipment, check the equipment against the list of equipment supplied (para 1-6 or para 1-6.1) and report any overages or shortages on DD Form 6 (para 1-3b).

c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If modified, an MWO number will appear on the front panel near the nomenclature plate. Check to see whether the MWO number and the appropriate notations concerning the modification have been entered in this manual.

Note. Current MWO's applicable to the equipment are listed in DA Pam 310–4.

Section II. OPERATING INSTRUCTIONS

2-3. Controls, Indicators, and Connectors

The charts in *a* through *e* below list and indicate the functions of the controls, indicators, and connectors. Figure 2-2 and figure 2-2.1 illustrate the test set front panel (with the control unit, OBS indicator, and RMI) controls, indicators, and connectors.

a. Test Set.

Control, indicator or connector	Function
COMPASS SIMULATOR indicator.	Provides observation of the direction of the simulated magnetic heading signal.
Compass simulator control.	Provides manual control of the direction of the simulated magnetic heading signal.
VOR/LOC-GLIDE SLOPE switch (2-position rotary).	*Switch position* — *Action* VOR/LOC — Connects the DEVIATION and FLAG meters to the receiver through connector P2. GLIDE SLOPE. — Connects the DEVIATION and FLAG meters to a glide slope receiver through GLIDE SLOPE connector J3.
VOR/LOC DC lamp.	When illuminated, it indicates the presence of the 27.5 volts dc used by the receiver.

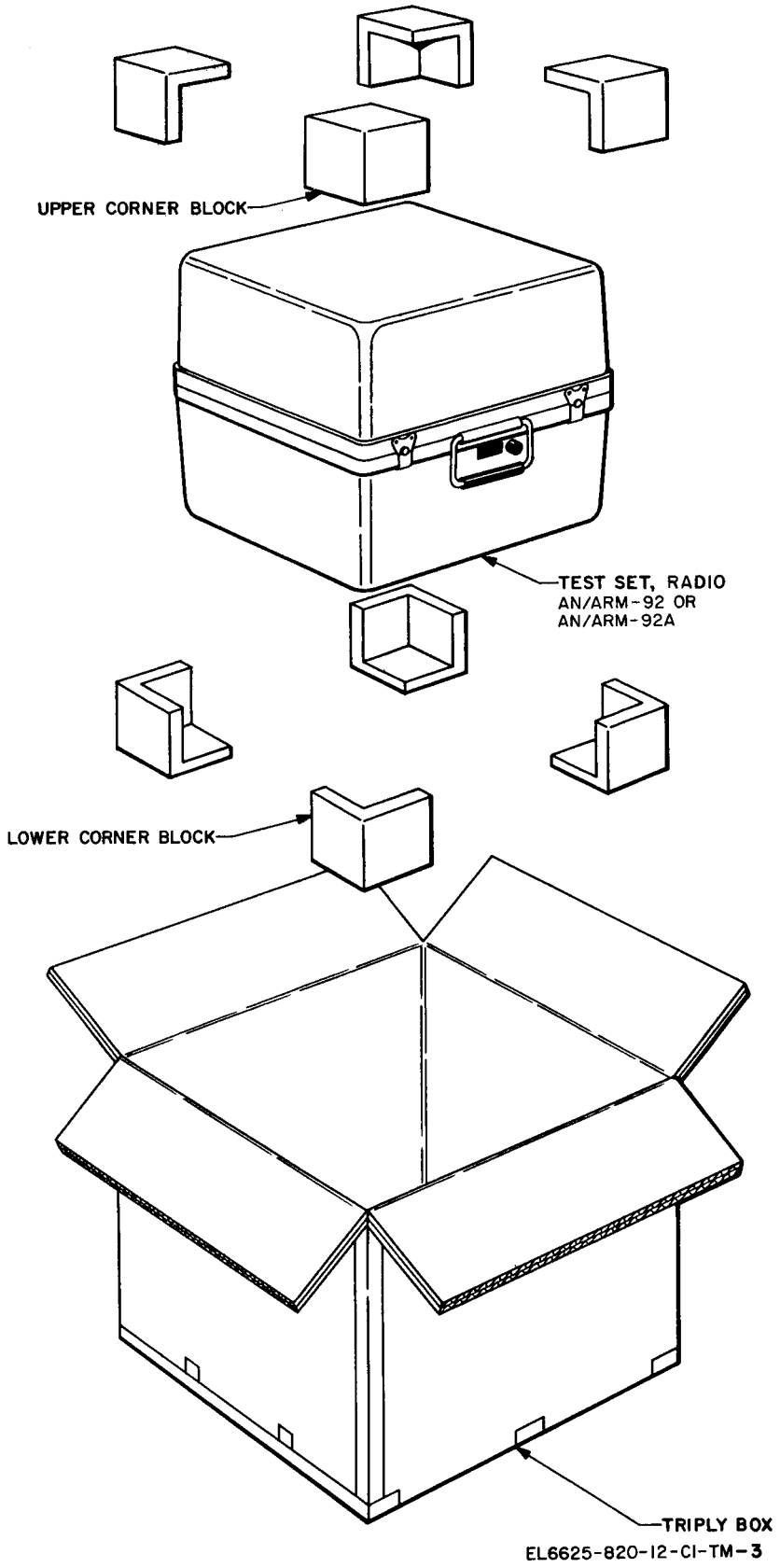

Figure 2-1. Typical packaging.

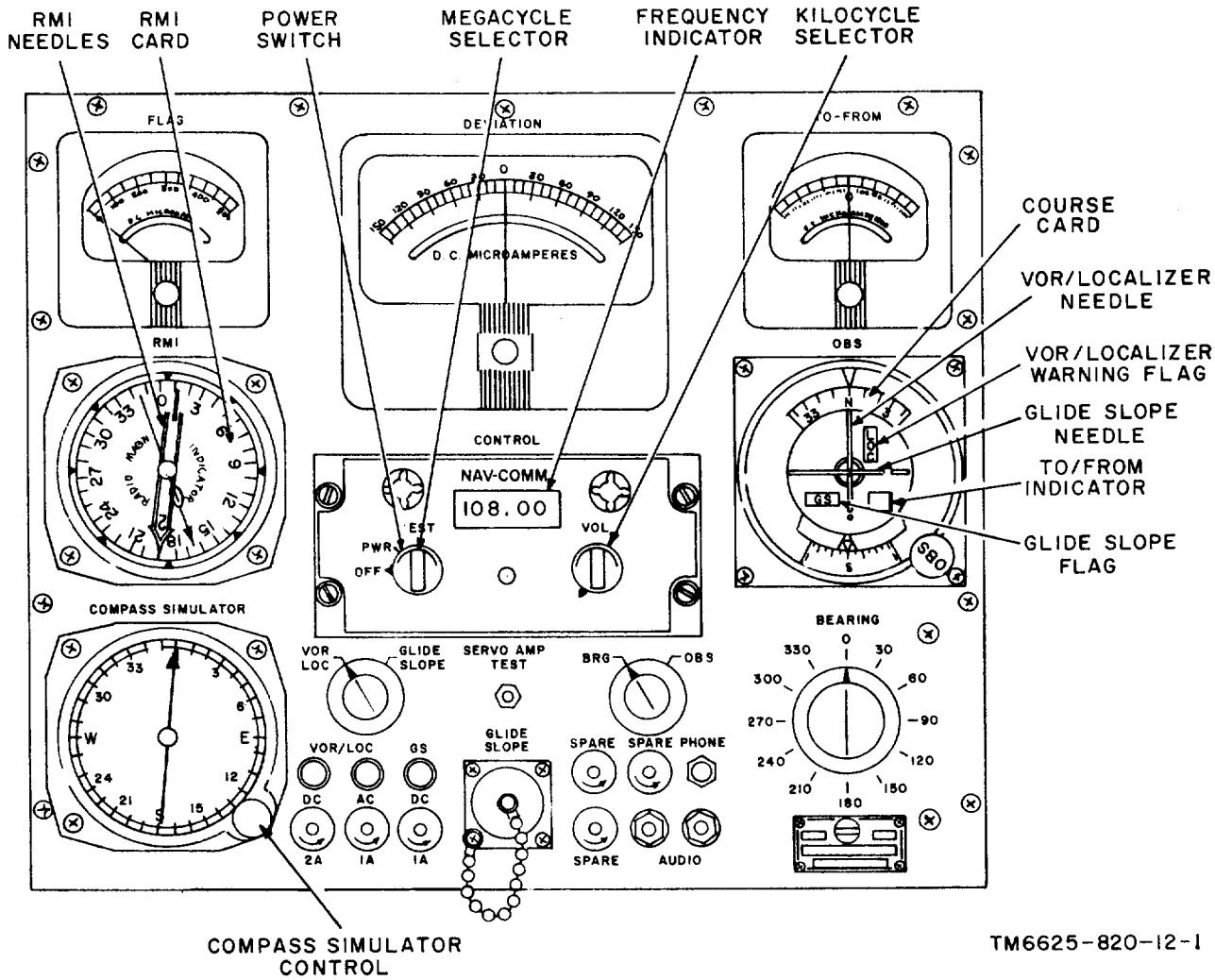

Figure 2-2. Test Set, Radio TS-2500/ARM-92; controls, indicators, and connectors

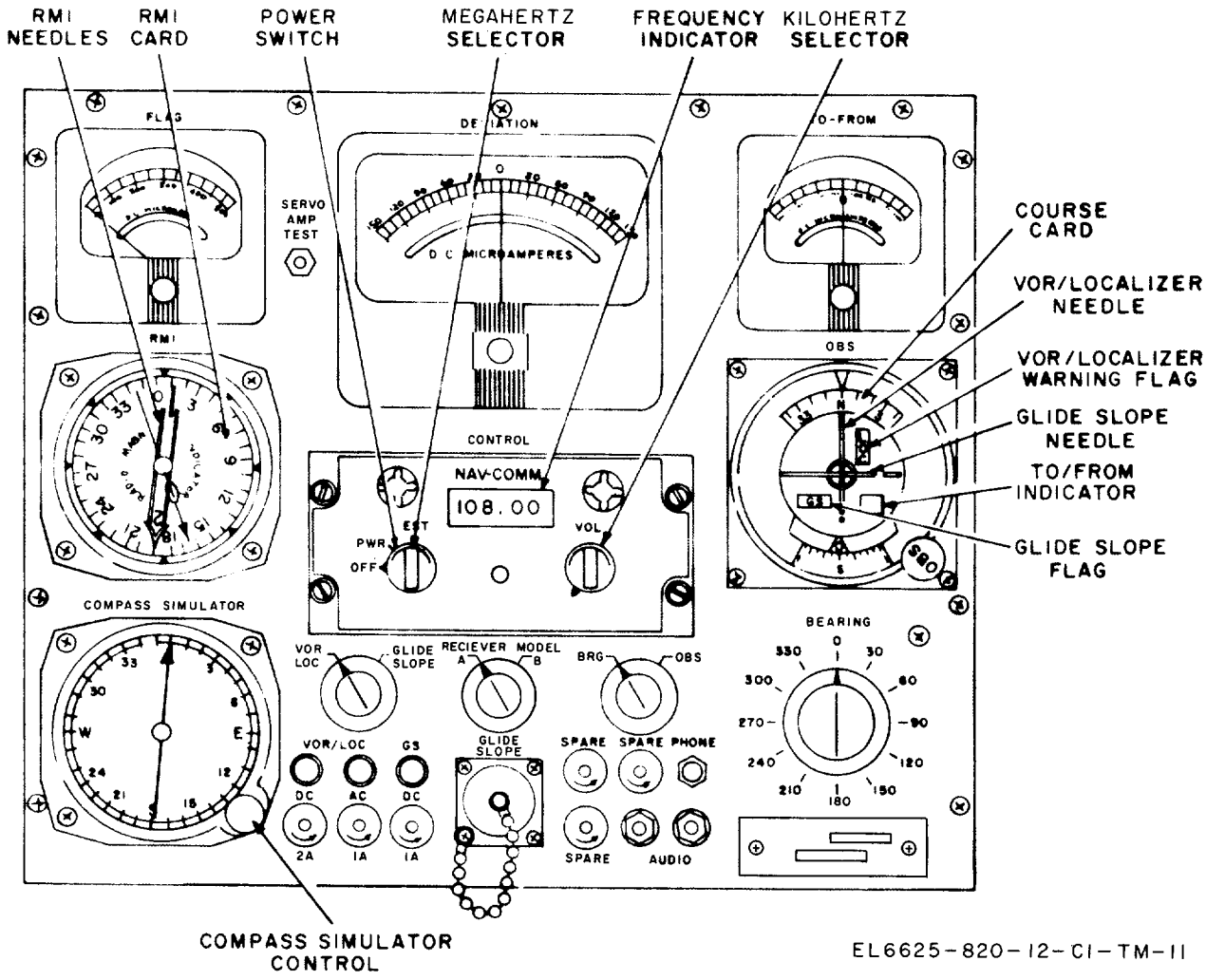

Figure 2-2.1. Test Set, Radio TS-2500A/ARM-92; controls, indicators, and connectors.

Control, indicator or connector	Function
VOR/LOC AC lamp.	When illuminated, it indicates the presence of the 115 volts, 400 cps used by the receiver.
GS DC lamp	When illuminated, it indicates the presence of the 27.5 volts dc used by a glide slope receiver.
VOR/LOC 2A fuse	Provides 2-ampere protection for the 27.5-volt dc line to the receiver.
VOR/LOC 1A fuse	Provides 1-ampere protection for the 115-volt, 400-cps line to the receiver.
GS 1A fuse	Provides 1-ampere protection for the 27.5-volt dc line to the glide slope receiver.
SERVO AMP TEST pushbutton switch (normally open).	Provides a means to check the RMI servo amplifier in the receiver by applying power to the amplifier, and connecting a meter across its output. *Switch position* — *Action* Released — The FLAG is connected to the VOR/LOC flag terminals of connector P2. Pushed — Applies 27.5 volts dc to the RMI servo amplifier pin of P3, and connects the FLAG meter to the RMI servo amplifier output pin on P3.
GLIDE SLOPE connector.	Provides a means of connecting a glide slope receiver to the test set when checking the performance of a glide slope receiver.
BRG-OBS switch (2-position rotary).	Selects either the precision BEARING selector or the OBS indicator to supply course selector information to the receiver. *Switch position* — *Action* BRG (bearing) — Places the precision BEARING selector in the test set circuit. OBS (omni bearing selector) — Places the OBS indicater in the test set circuit.
AUDIO (2 jacks)	Provides a connection for an audio output meter.
PHONE jack	Provides a connection for headphones. When the headphone plug is connected, the PHONE jack disconnects the AUDIO jacks to eliminate the possibility of double loading the audio output circuit of the receiver.
BEARING selector switch (12-position rotary).	Selects simulated bearing signals from 0 to 360 degrees in 30-degree increments. These signals are used to accurately calibrate and test the receiver, and to check the accuracy of the OBS indicator.
TO-FROM meter	Indicates the direction and amplitude of the to-from current of the receiver.
DEVIATION meter	Indicates the direction and amplitude of the deviation current from the receiver.
FLAG meter	Normally indicates the amount of flag current from the receiver. With the SERVO AMP TEST pushbutton pressed, the FLAG meter indicates the output of the RMI servo amplifier in the receiver.
RECEIVER MODEL switch (2-position rotary) on TS-2500A/ARM-92 only.	Alters internal circuit of test set to allow testing of either Radio Receiver R-1388/ARN-82 (position A) or R-1388A/ARN-82 (position B).

b. RMI.

Indicator	Function
RMI needles	Indicates the radio bearing signal obtained from the receiver.
RMI card	Indicates the simulated magnetic heading signal obtained from the COMPASS SIMULATOR.

c. Control Unit.

Control or indicator	Function
Power switch (3-position rotary concentric with megacycle selector).	*Switch position* — *Action* OFF — Removes primary power from the receiver. PWR — Applies primary power to the receiver. TEST — Sets the receiver in a self-test mode.
Megacycle selector	Tunes the receiver in one-megacycle increments.
Kilocycle selector	Tunes the receiver in 50-kilocycle increments.
Frequency indicator	Indicates the frequency to which the receiver is tuned.
VOL control	Controls the audio output level of the receiver.

d. OBS indicator.

Control or indicator	Function
OBS control_ _ _ _ _ _	Provides manual control of the direction of the bearing signal from the OBS indicator.
Course card_ _ _ _ _ _ _	Indicates the direction of the bearing signal from the OBS indicator.
To/from indicator_ _ _	Not used.
Vor/localizer needle_ _ _	Not used.
Vor/localizer warning flag.	Not used.
Glide slope needle_ _ _ _	Not used.
Glide slope flag_ _ _ _	Not used.

e. Aid Box. Figure 2-3 illustrates the aid box front panel indicators and controls.

Indicator or connector	Function
FREQ SELECT (MC) (12 lamps).	Provide indications to check the frequency control information from the control unit.
26 VAC PWR lamp_	When illuminated, it indicates the presence of the 26 volts, 400 cps that is used by the receiver.
LOC PWR lamp_ _ _ _	When illuminated, it indicates the presence of the 27.5 volts dc that is used by the receiver.
GS-PWR_ _ _ _ _	When illuminated, it indicates the presence of the 27.5 volts dc that is used by the glide slope receiver.
PWR connector_ _ _ _	Provides all power connections between the aid box and the test set, or the aircraft wiring.
INST connector_ _ _	Provides all instrument connections between the aid box and the test set, or the aircraft wiring.
TEST lamp_ _ _ _ _ _	When illuminated, it indicates the presence of a ground that is used to set the receiver in a self-test mode.
GS/LOC ON lamp_ _ _	When illuminated, it indicates the presence of a ground that is used to turn on a glide slope receiver by completing its primary power circuit.

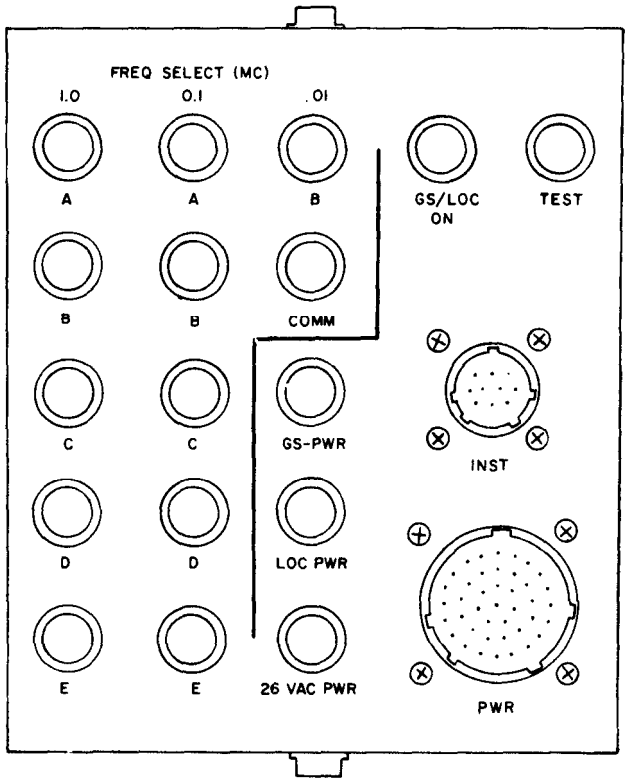

Figure 2-3. Aid box indicators and connectors.

(1) *Test set.*

Control	Position
COMPASS SIMULATOR.	N (0 degrees).
VOR/LOC - GLIDE SLOPE.	VOR/LOC if testing Radio Receiver R-1388/ARN-82 or R-1388A/ARN-82. GLIDE SLOPE if testing a glide slope receiver.
SERVO AMP TEST.	Leave in released position.
BRG-OBS- - - - - - - - -	Either position.
OBS - - - - - - - - - - - - - - - - - -	N (0 degrees).
BEARING- - - - - - - - - -	0.
RECEIVER MODEL (TS-2500A/ ARM-92A only).	A for AN/ARN-82; B for AN/ARN-82A

(2) *Control unit.*

Control	Position
Power switch_ _ _ _ _ _	OFF.
Megacycle selector_ _ _	Set to desired frequency.
Kilocycle selector_ _ _	Set to desired frequency.
VOL_ _ _ _ _ _ _ _ _	Maximum counterclockwise.

2-4. Preliminary Starting Procedures

a. Control Settings. Set the controls on the test set and the control unit to the positions listed in the following charts.

b. Bench Test Connections.

(1) *Testing the receiver.* Figure 2-4 shows typical bench test connections for testing the receiver. The operating procedures to test the receiver are contained in TM 11-5826-266-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A. Test Set, Radio TS-2500/ARM-92 can only be used to test Radio Receiving Set AN/ARN-82. Test Set, Radio TS-2500A/ARM-92 can be used to test both Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

(2) *Testing the control unit.* Figure 2-5 shows typical bench test connections for testing the control unit. The operating procedures to test the control unit are contained in TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

2-5. Stopping Procedures

Perform the following steps to remove the test set from operation.

a. Set the power switch on the control unit to OFF.

b. Disconnect the test set from the 27.5-volt dc and 115-volt, 400-cps power sources.

c. Disconnect the test set cables from any external equipment.

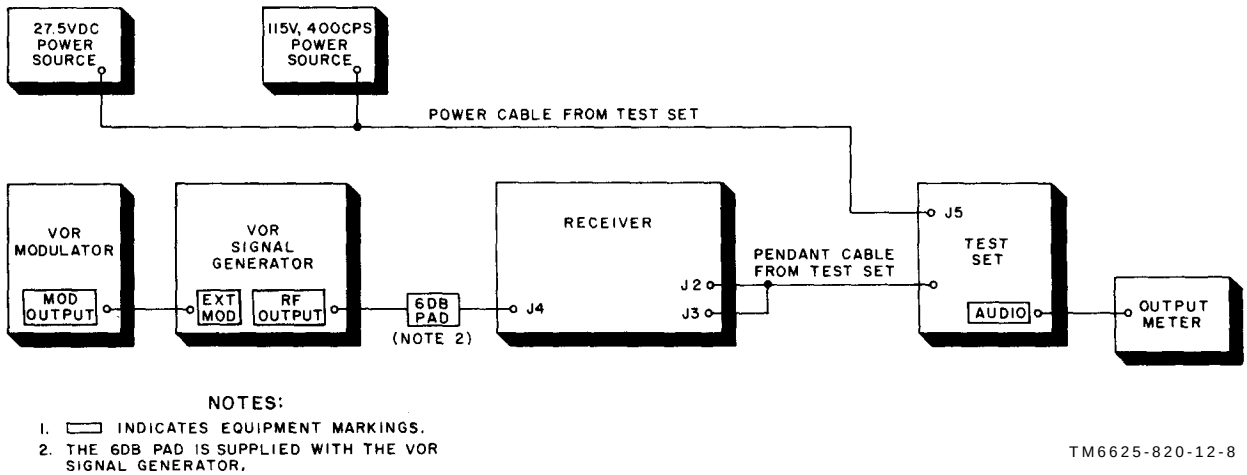

Figure 2-4. Bench test connections to test radio Receiver R-1388/ARN-82 or R-1388A/ARN-82.

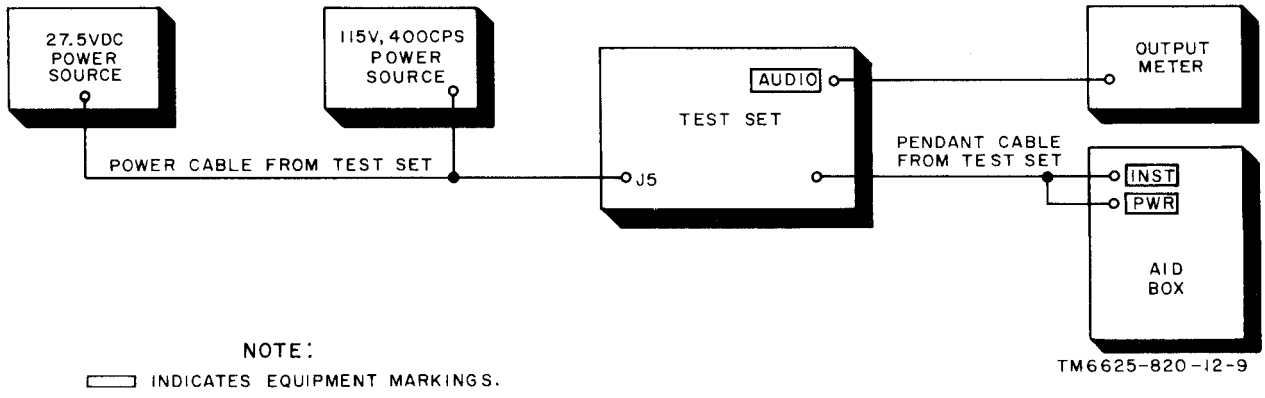

Figure 2-5. Bench test connections to test Control, Radio Set C-6873/ARN-82.

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CHAPTER 3

ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Note. The operator will perform organizational maintenance.

3-1. Scope of maintenance

The maintenance duties assigned to the operator are listed below, together with a reference to the paragraphs covering the specific maintenance functions. The paragraphs include instructions for performing preventive and corrective maintenance. The tools, materials, and test equipment are listed in paragraph 3-2.

a. Daily preventive maintenance checks and services. (para 3-4).

b. Cleaning (para 3-6).

c. Monthly preventive maintenance checks and services (para 3-7).

d. Preservation (para 3-9).

e. Quarterly preventive maintenance checks services (para 3-10).

3-2. Tools, Materials, and Test Equipment Required for Maintenance.

The tools and materials required for organizational maintenance are listed below:

a. Tool Kit, Electrical Equipment TK-105/G.

b. Multimeter ME-26/U.

c. Lint-free cloth.

d. Sandpaper, extra fine #000.

e. Brush MIL-G-7241.

f. Rubber electrician's tape.

g. Materials for repainting. (Refer to TM 9-213).

3-3. 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 3-4 through 3-11 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 (paras 3-5, 3-8, and 3-11) outline functions to be performed at specific intervals. These checks and services maintain Army electronic equipment in a serviceable condition, that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining 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 supplementary information. *If the defect cannot be remedied by performing the corrective action indicated, higher level 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.

3-4. Daily Preventive Maintenance Checks and Services

Preventive maintenance checks and services of the test set are required daily. A daily period is defined as 8 hours of equipment operation. Paragraph 3-5 specifies checks and services that must be accomplished daily or under the special conditions listed below.

a. When the equipment is initially installed.

b. When the equipment is reinstalled after removal for any reason.

c. At least once each week if the equipment is maintained in a standby condition.

3-5. Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedures	References
1	Exterior surfaces	Clean the test set panel and indicator glasses. Check for broken indicator and meter glass.	Para 3-6.
2	Knobs, switches and lamps.	*a.* During operation see that the knobs, switches, and lamps operate properly. *b.* Tighten any loose knobs. *c.* If trouble remains, contact higher level maintenance for repair.	None.
3	Operational test	During operation be alert for any unusual operating indications. If any unusual indications occur, remove all power and contact higher level maintenance for repair.	Paras 2–4 to 3-11.

3-6. Cleaning

Inspect the exterior of the test set and the carrying case. The exterior surface should be free of dirt, grease, and fungus.

Caution: **Do not press on the face of any indicaters or meters when cleaning; the meter or indicator may be damaged.**

a. Remove all loose foreign material with a clean lint-free cloth.

b. Remove grease, fungus, and ground-in dirt with a cloth dampened (not wet) with water and a mild soap.

Caution: **Do not use any cleaning solvent on the front panels or anywhere there is silk screening.**

c. Remove dust or dirt from the connectors with a soft-bristled brush.

3-7. Monthly Preventive Maintenance Checks and Services

Perform the maintenance functions indicated in the monthly preventive maintenance checks and services chart (para 3-8) once each month in addition to the daily preventive maintenance checks and services (para 3-5). A month is defined as approximately 30 calendar days of 8-hour-per-day operation. Adjustment of the maintenance interval must be made to compensate for unusual operating conditions. Equipment maintained in a *standby* (ready for immediate operation) condition must have monthly preventive maintenance checks and services performed on it. Equipment in limited storage (required service before operation) does not require monthly preventive maintenance.

3-8. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Cables	Inspect the cables for deterioration and damage, such as cuts, cracks, or frayed insulation. Repair minor damage to insulation by covering the damaged area with rubber electrician's tape. Replace defective cables.	None
2	Connectors, jacks, and screws.	*a.* Hand check these exterior items for looseness. Tighten all loose exterior items. *b.* See that there are no loose or missing screws and tighten all loose screws.	None
3	Exterior surfaces	Inspect all exposed metal surfaces for rust and corrosion. Touch up surfaces.	Para 3-9.

3-9. Preservation

Remove rust and corrosion from metal surfaces by lightly sanding them with #000 sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in TM 9–213.

3-10. Quarterly Preventive Maintenance Checks and Services

Perform the maintenance functions indicated in the quarterly preventive maintenance checks and services chart (para 3–11) once each 3 months (quarterly interval) in addition to the daily (para 3-5) and monthly (para 3-8) preventive maintenance checks and services. A quarterly interval is defined as 90 calendar days of 8-hour-per-day operation. All deficiencies or shortcomings will be recorded, and those not corrected during the maintenance service and inspection will be immediately reported to higher echelon by the use of forms and procedures specified by TM 38-750. Equipment with a deficiency that cannot be corrected at the organizational level should be deadlined in accordance with TM 38-750.

3-11. Quarterly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure			References
1	Completeness----	See that Test Set, Radio AN/ARM-92 or AN/ARM-92A is complete----------			Para 1-6 or 1-6.1.
2	Publications-----	Check to see that all pertinent publications are available. The technical manuals must be complete and in usable condition without missing pages. All changes pertinent to the publications must be on hand.			DA Pam 310-4.
3	Modification Work Orders.	Check to see that all urgent MWO's have been applied to the equipment and that all routine MWO's have been scheduled.			DA Pam 310-4.
4	Operational Checks.	Connect the equipment as shown in the block diagram (fig. 2-4) for this test. Test Set Radio TS-2500/ARM-92 may be used to test Radio Receiving Set AN/ARN-82 only. Indicator, Course ID-1347/ARN-82 must be used with Test Set, Radio TS-2500/ ARM-92. Test Set, Radio TS-2500A/ARM-92 may be used to test either Radio Receiving Set AN/ARN-82 or AN/ARN-82A. Indicator, Course ID-1347/ARN-82 must be used with Test Set, Radio TS-2500A/ARM-92 if Radio Receiving Set AN/ ARN-82 is being tested. Indicator, Course ID-1347A/ARN-82 must be used with Test Set, Radio TS-2500A/ARM-92 if Radio Receiving Set AN/ARN-82A is being tested. Refer to higher level of maintenance if test set does not function properly.			
		Equipment control setting	Test procedure	Performance standard	
	a. Power test----	Set the Power switch on the control unit to PWR. (All other switches and controls may be in any position.)	a. Observe VOR/LOC DC and AC lamps, and the GS DC lamp.	a. All three lamps should light.	Para 3-5.
			b. Insert the probe of the multimeter into the test point provided in the center of the VOR/LOC 2A fusecap.	b. The multimeter should indicate 27.5 ±0.5 volts dc.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A
			c. Insert the probe of the multimeter into the test point provided in the center of the VOR/LOC 1A fusecap.	c. The multimeter should indicate 115 ±5 volts ac.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A
			d. Insert the probe of the multimeter into the test point provided in the center of the GS 1A fusecap.	d. The multimeter should indicate 27.5 ±0.5 volts dc.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A

b. BEARING selector switch test.	On Test Set, Radio TS-2500A/ARM-92 only, set the RECEIVER MODEL switch to A if testing Radio Receiving Set AN/ARN-82 or to B if testing Radio Receiving Set AN/ARN-82A. Set the VOR/LOC-GLIDE SLOPE switch to VOR/LOC. Set the BRG-OBS switch to BRG. Set the BEARING selector switch to 0. Set the COMPASS SIMULATOR to N (0 degrees). Adjust the control unit to indicate 114.90 mc. Set the power switch to PWR. Adjust the frequency of the	a. Observe the indication on the DEVIATION meter. b. Observe the indication on the FLAG meter. c. Observe the indication on the TO-FROM meter. d. Observe the indication on the RMI.	a. The DEVIATION meter should indicate 0 ±15 microamperes. b. The FLAG meter should indicate 300 ±5.0 microamperes. c. The TO-FROM meter should give a FROM indication. (Needle to the right of 0.) d. The RMI needle should indicate 180 ±2.0 degrees.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

	VOR signal generator to 114.9 mc. Set the OSC SEL switch on the VOR signal generator to XTAL. Set the XTAL switch on the VOR signal generator to 114.9. Set the main frequency dial on the VOR signal generator to 114.9 mc. Adjust the RF LEVEL control on the VOR signal generator for a red-line indication on the RF MONITOR meter. Adjust the vernier frequency dial on the VOR signal generator for a peak indication on the RF MONITOR meter. Readjust the RF LEVEL control for a red-line indication on the RF MONITOR meter. Set the output level of the VOR signal generator to 100 microvolts. Set the MOD switch on the VOR signal generator to EXT. On the VOR modulator, set the 1000 switch to OFF. Set the PHASE ANGLE SELECTOR on the VOR modulator to 0. Set the FUNCTION SELECTOR on the VOR modulator to CAL. Set the SPECIFIC SIGNAL SELECTOR on the VOR modulator to 30~ VAR ø. On the VOR modulator, adjust the 30 VAR potentiometer (located behind the hinged door on the front panel) for a one-volt indication on the OUTPUT meter. On the VOR signal generator, adjust the MOD	*e.* Set the BEARING selector switch to 180. *f.* Set the BEARING selector switch to 210. Set the PHASE ANGLE SELECTOR on the VOR modulator to 30. *g.* Set the BEARING selector switch to 240. Set the PHASE ANGLE SELECTOR on the VOR modulator to 60. *h.* Set the BEARING selector switch to 270. Set PHASE ANGLE SELECTOR to 90. *i.* Set the BEARING selector switch to 300. Set PHASE ANGLE SELECTOR to 120. *j.* Set the BEARING selector switch to 330. Set the PHASE ANGLE SELECTOR in the VOR modulator to 150. *k.* Set the BEARING selector switch to 30. Set the PHASE ANGLE SELECTOR on the VOR modulator to 210.	*e.* The TO-FROM meter should give a TO indication. (Needle to the left of 0.) The RMI needle should indicate 0 ±2.0 degrees. The DEVIATION meter should indicate 0 ±15 microamperes. The FLAG meter should indicate 300 ±5.0 microamperes. *f.* Performance standard is the same as in step *e* above. *g.* Performance standard is the same as in *e* above. *h.* Performance standard is the same as in step *e* above. *i.* Performance standard is the same as in step *e* above. *j.* Performance standard is the same as in step *e* above. *k.* Performance standard is the same as in setp *e* above.	Higher level maintenance for test set. Higher level maintenance for test set. Higher level maintenance for test set. Higher level maintenance for test set. Higher level maintenance for test set. Higher level maintenance for test set.

Sequence No.	Item	Procedure			References
		Equipment control setting	*Test procedure*	*Performance standard*	
4	*b.* BEARING selector switch test—Continued	LEVEL control for a 30-percent indication on the PERCENT MODULATION meter. Set the SPECIFIC SIGNAL SELECTOR on the VOR modulator to 9960 FM. Adjust the 9960 FM potentiometer (located behind the hinged door on the VOR modulator front panel) for a 30-percent indication on the VOR signal generator PERCENT MODULATION meter. Set the FUNCTION SELECTOR switch on the VOR modulator to ODR. *NOTE:* When the FUNCTION SELECTOR switch is set to ODR, the indication on the VOR signal generator PERCENT MODULATION meter will increase to approximately 52 percent.	*l.* Set the BEARING selector switch to 60. Set the PHASE ANGLE SELECTOR on the VOR modulator to 240.	*l.* Performance standard is the same as in step *e* above.	Higher level maintenance for test set.
			m. Set the BEARING selector switch to 90. Set the PHASE ANGLE SELECTOR on the VOR modulator to 270.	*m.* Performance standard is the same as in step *e* above.	Higher level maintenance for test set.
			n. Set the BEARING selector switch to 120. Set the PHASE ANGLE SELECTOR on the VOR modulator to 300.	*n.* Performance standard is the same as in step *e* above.	Higher level maintenance for test set.
			o. Set the BEARING selector switch to 150. Set the PHASE ANGLE SELECTOR on the VOR modulator to 330.	*o.* Performance standard is the same as in step *e* above.	Higher level maintenance for test set.
	c. OBS test	Set the BRG–OBS switch on the test set to OBS. Set PHASE ANGLE SELECTOR on the VOR modulator to 0.	Repeat the test procedure in item *b* above, but adjust the course card on the OBS indicator in place of the BEARING selector switch settings.	The performance standards are the same as in item *b* above.	Higher level maintenance for test set.
	d. SERVO AMP TEST.	Leave the equipment settings the same as in item *b* above.	Press the SERVO AMP TEST pushbutton switch.	The FLAG meter should indicate no less than 250 microamperes.	Higher level maintenance for test set.
	e. COMPASS SIMULATOR test.	Leave the equipment settings the same as in item *b* above.	With the compass simulator control, rotate the COMPASS SIMULATOR 360 degrees.	The RMI card should follow the COMPASS SIMULATOR indication within 2 degrees.	Higher level maintenance for test set.
		Connect the equipment as shown in the block diagram (fig. 2–5) for the following test.			
	f. FLAG meter, DEVIATION meter, TO-FROM meter,	Set the BRG-OBS switch on the test set to BRG.	*a.* Set the power switch on the control unit to PWR.	*a.* The 26 VAC PWR lamp on the aid box should light. The output meter should indicate 100 ±15 milliwatts.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

and control unit check.		b. Set the VOR/LOC-GLIDE SLOPE switch on the test set to VOR/LOC.	b. The LOC PWR lamp on the aid box should light. The FLAG meter should indicate 250 ± 15.0 microamperes. The DEVIATION meter should indicate 75 ± 5.0 microamperes to the right of 0. The TO-FROM meter should indicate 250 ± 15.0 microamperes to the left of 0.	TM 11-5825-226-35 for Radio Receiv-Sets AN/ARN-82 and AN/ARN-82A.
		c. Set the power switch on the control unit to TEST.	c. The TEST lamp on the aid box should light.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.
		d. Set the megacycle selector on the control unit in one-megacycle steps from 108.00 to 126.00 mc.	d. The 1.0 FREQ SELECT lamps on the aid box should light in the combinations listed in the chart in paragraph 3-12.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.
		e. Use the kilocycle selector on the control unit to set the frequency in 0.05-megacycle steps from 108.00 to 108.95 mc.	e. The 0.1 and .01 FREQ SELECT (MC) lamps on the aid box should light in the combinations listed in the chart in paragraph 3-13.	TM 11-5826-226-35 for Radio Receiving Sets AN/ARN-82 and AN/ARN-82A.

3-12. Aid Box Light Combinations for One-Megacycle Steps on Control Unit.

The X indicates which lamps on the aid box should light for each mc-megacycle step on the control unit.

FREQUENCY (MC)	108.00	109.00	110.00	111.00	112.00	113.00	114.00	115.00	116.00	117.00	118.00	119.00	120.00	121.00	122.00	123.00	124.00	125.00	126.00
1.0 FREQ SELECT (MC) lamps: A	X	X		X	X						X	X		X	X				
B			X	X		X	X						X	X		X	X		
C					X	X		X	X						X	X		X	X
D	X						X	X		X	X						X	X	
E		X	X						X	X		X	X						X
COMM											X	X	X	X	X	X	X	X	X

3-13. Aid Box Light Combinations for 0.05-Megacycle Steps on Control Unit.

The X indicates which lamps on the aid box should light for each 0.05-megacycle step on the control unit.

FREQUENCY (MC)	108.00	108.05	108.10	108.15	108.20	108.25	108.30	108.35	108.40	108.45	108.50	108.55	108.60	108.65	108.70	108.75	108.80	108.85	108.90	108.95
0.1 FREQ SELECT (MC) lamps: A			X	X	X	X											X	X	X	X
B	X	X	X	X			X	X	X	X										
C					X	X	X	X			X	X	X	X						
D									X	X	X	X			X	X	X	X		
E	X	X											X	X	X	X			X	X
.01 FREQ SELECT (MC) lamp	X		X		X		X		X		X		X		X		X		X	
GS/LOC ON lamp			X				X				X				X				X	

CHAPTER 4

SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

4-1. Disassembly of Equipment

Prepare the test set for shipment and storage as follows :

a. Roll up the cables and place them in the storage space provided behind the sloped front panel.

b. Place the technical manual and the aid box in the test set cover.

c. Place the test set cover on the lower half of the carrying case.

d. Secure the two twist-lock clamps located on the front of the carrying case.

4-2. Repackaging for Shipment and Limited Storage

The exact procedure for repackaging depends on the material available and the conditions under which the equipment is to be shipped *(b* below) or stored *(c* below). 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 the test set for shipment. For stock numbers of materials, consult SB 38–100.

Material	*Quantity*
Tri-ply fiberboard box	25 x 22 x 18 inches.
Polystyrene blocks	6 x 6 x 6 inches, 8 each.
Barrier, MIL-B-131	17 x 17 x 23-inch bag.
Nylon tape	10 feet.

b. Packaging for Shipment

Caution: **Be sure the air vent on the front of the case is open prior to packaging for air shipment.**

See paragraph 2-1 for detailed packaging instructions.

c. Packaging for Limited Storage. The carrying case provides adequate protection for the other components of the test harness during limited storage. The case is corrosive-resistant and is sealed by a rubber gasket which, with the air vent closed, makes the case interior airtight and moisture proof.

Section II. DEMOLITION OF MATERIAL TO PREVENT ENEMY USE

4-3. Authority for Demolition

The demolition procedures given in paragraph 4-4 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

4-4. Methods of Destruction

The tactical situation and time available will determine the method to be used when destruction of equipment is ordered. In most cases, it is preferable to demolish completely some portions of the equipment rather than partially destroy all the equipment units.

a. Smash. Use sledges, axes, hammers, crowbars, and any other heavy tools available to smash the equipment.

b. Cut. Use axes, handaxes, machetes, and similar tools to cut cables and wiring. Use a heavy axe or machete to cut the power and pendant cable. Cut the cables in a number of places.

Warning: **Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.**

c. Burn. Burn the technical manuals first. Burn as much of the equipment as is flammable; use gasoline, oil, flamethrowers, and similar materials. Pour gasoline on the cut cables and internal wiring and ignite it. Use a flamethrower to burn spare parts or pour gasoline on the spares and ignite them. Use incendiary grenades to complete the destruction of the unit.

d. Explode. Use explosives to complete demolition or to cause maximum damage, before burning, when time does not permit complete demolition by other means. Powder charges, fragmentation

grenades, or incendiary grenades may be used. Incendiary grenades usually are most effective if destruction of small parts and wiring is desired.

(1) Use a fragmentation grenade to destroy the interior of the test set. Remove the test set far enough to provide room and drop the grenade into the interior.

(2) For quick destruction of the test set, explode an incendiary grenade on the front panel of the unit.

e. Dispose. Bury or scatter destroyed parts or throw them into nearby waterways. This is particularly important if a number of parts have not been completely destroyed.

APPENDIX A

BASIC ISSUE ITEMS

Section 1. INTRODUCTION

A–1. General

This appendix lists items supplied for initial operation and for running spares. The list includes parts and material issued as part of the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

Note. For technical manual requisition through pinpoint account number is assigned; otherwise through nearest Adjutant General facility. A quantity of one technical manual is packed with each equipment. Where a valid need exists, additional copies may be requisitioned and kept on hand.

A–2. Explanation of Columns

The following is a list of explanations of columns in section II.

a. Source, Maintenance, and Recoverability Code Column. Source, maintenance, and recoverability codes indicate the commodity command responsible for supply, the maintenance category at which an item is stocked, categories at which an item is installed or repaired, and whether an item is repairable or salvageable. The source code column is divided into four parts.

(1) *Column A.* This column indicates the material code and designates the area of responsibility for supply. AR 310–1 defines the basic numbers used to identify the material code. If the part is electronic materiel responsibility, the column is left blank.

(2) *Column B.* This column indicates the point within the maintenance system where the part is available. Source codes and their explanations are as follows:

Code	*Explanation*
P	Applies to repair parts that are stocked in or supplied from the GSA / DSA, or Army supply system, and authorized for use at indicated maintenance categories.
AH	Applies to parts that require manufacture or assembly at a category higher than that authorized for installation will indicate in the source code column the higher category.

(3) Column C. This column indicates the lowest maintenance category authorized to install the part.

Code	*Explanation*
O	Organizational Maintenance
H	General Support Maintenance

(4) *Column D.* The symbol in this column indicates whether the item is repairable or salvageable. Recoverability code and its explanation is as follows:

Code	*Explanation*
R	Applies to repair parts and assemblies that are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis.

b. Federal Stock Number Column. This column lists the Ii-digit Federal stock number.

c. *Description Column.* The Federal item name, a five-digit manufacturer's code, and a part number are included in this column.

d. Unit of Issue Column. The unit of issue is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

e. Expendability Column. Nonexpendable items are indicated by NX. Expendable items are not annotated.

f. Quantity Authorized Column. Under "Items Comprising an Operable Equipment", the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spare Items" the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

g. *Illustrations* Column.

(1) *Figure number.* This column lists the figure number used for the identification of the items in the illustration or text of the technical manual.

(2) *Item number.* This column lists the item number used for the identification of the items in the illustration or text of the technical manual.

(3) *Reference symbol.* This column lists the reference symbols used for 'the identification of the items in the illustration or text of the technical manual.

SECTION II. BASIC ISSUE ITEMS

1 SOURCE MAINTENANCE AND RECOVERABILITY CODE				2 FEDERAL STOCK NUMBER	3 DESCRIPTION	4 UNIT OF ISSUE	5 EXPENDABILITY	6 QUANTITY AUTHORIZED	7 ILLUSTRATIONS FIGURE NUMBER	8 ILLUSTRATIONS ITEM NUMBER	9 ILLUSTRATIONS REFERENCE SYMBOL
				6625-999-5118	TEST SET, RADIO, AN/ARM-92 (This item is nonexpendable) ITEMS COMPRISING AN OPERABLE EQUIPMENT: TECHNICAL MANUAL TM11-6625-820-12	EA		1			
	AH	O	R	6625-944-9758	Cable Assembly, Power, Electrical, CX-11568/ARM-92	EA	NX	1	2-3	2	
	AH	O	R		Control, Radio Set, C-6873/ARN-82	EA	NX	1	2-2		
	AH	H	R	6625-944-9750	Cover, Test Set, CW-878/ARM-92	EA	NX	1	2-2		
	P	H		5826-988-9171	Indicator, Course, ID-1347/ARN-82	EA		1	2-2		
	P	H		5826-305-3094	Indicator, Course, ID-250A/ARN	EA		1	2-2		
	AH	O	R	6625-087-7924	Test Set, Radio, TS-2500/ARM-92	EA	NX	1	2-3		
	AH	O	R	6625-930-8064	Test Set, Wiring Harness, Aircraft, TS-2501/ARM-92	EA	NX	1	2-2		
					RUNNING SPARES						
	P	O		5920-280-8342	Fuse, Cartridge: F02A250V1AS: 81349	EA		10	2-2		F2, F3, F5, F6
	P	O		5920-280-4960	Fuse, Cartridge: F02A250V2AS: 81349	EA		5	2-2		F1, F4
	P	O		6240-155-7836	Lamp, Incandescent: MS25237-327: 96906	EA		4	2-6		DS1 thru DS17
	P	O		6240-272-8601	Lamp, Incandescent: MS25237-327R; 969068	EA		1	5-8		DS5

APPENDIX B

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Test Set, Radio AN/ARM-92. It authorizes levels 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.

B -2. Explanation of Format

a. Group Number. Group numbers correspond to the reference designation prefix assigned in accordance with ASA Y32.16, Electrical and Electronics Reference Designations. They indicate the relation of listed items to the next higher assembly.

b. Component Assembly Nomenclature. This column lists the item names of component units, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Maintenance Function. This column indicates the maintenance level at which performance of the specific maintenance function is authorized. Authorization to perform a function at any level also includes authorization to perform that function at higher levels. The digits used represent the various maintenance levels as follows:

Digit	Maintenance Category (or level)
1	Operator's
2	Organizational
3	Direct support
4	General support
5	Depot

d. Tools and Equipment. The numbers appearing in this column refer to specific tools and equipment which are identified by these numbers in section III.

e. Remarks. Self explanatory.

B 1-3. Explanation of Tools Chart Format

The columns in the tool and test equipment requirements chart are as follows:

a. Tools and Equipment. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tools for the maintenance function.

b. Maintenance Category. The abbreviation in this column indicates the maintenance category normally allocated the facility.

c. Nomenclature. This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

d. Federal Stock Number. This column lists the Federal stock number.

e. Tool Number. Not used.

SECTION II. MAINTENANCE ALLOCATION CHART

MAINTENANCE ALLOCATION CHART

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL	REBUILD		
	TEST SET, RADIO AN/ARM-92	2		2										External
			2											Functional tests
										2			11	Replaces fuses, knobs, lamps, etc.
											4		1 thru 10	
	TEST SET, RADIO TS-2500/ARM-92									4			1 thru 10	
	TEST SET, WIRING HARNESS, AIRCRAFT TS-2501/ARM-92								2					
										4			2 thru 10	
										2			11	Replace lamps
											4		2 thru 10	
	CABLE ASSEMBLY, POWER ELECTRICAL CX-11568/ARM-92	2												External
			2										11	
									2					
										4			8,10	
	CONTROL, RADIO SET C-6873/ARN-82								4				10	
										4			1 thru 10	
	INDICATOR, COURSE ID-1347/ARN-82								4				10	
										5				NOTE: ID-1347/ARN-82 is gas filled and should be contractor repaired.
	INDICATOR, COURSE ID-250A/ARN								4				10	
										#				See TM 11-5826-211-50
														# Indicates that maintenance guidance will be found in documents referenced in remarks column.

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOLS AND EQUIPMENT	MAINTENANCE CATEGORY	NOMENCLATURE	FEDERAL STOCK NUMBER	TOOL NUMBER
		AN/ARM-92 (continued)		
1	General Support and Depot	VOLTMETER, METER ME-20A/U	6625-669-0742	
2	General Support and Depot	SIGNAL GENERATOR AN/USM-44	6625-669-4031	
3	General Support and Depot	MODULATOR MD-83/ARN	6625-539-8563	
4	General Support and Depot	AUDIO LEVEL METER TS-585( )/U	6625-244-0501	
5	General Support and Depot	OSCILLOSCOPE AN/USM-140A	6625-987-6603	
6	General Support and Depot	MULTIMETER ME-26( )/U	6625-542-6407	
7	General Support and Depot	TEST SET, RESOLVER AN/ASM-101	6625-086-7844	
8	General Support and Depot	OHMMETER ZM-21( )/U	6625-581-2466	
9	General Support and Depot	METER TEST SET TS-682/GSM-1	6625-669-0747	
10	General Support and Depot	TOOL KIT, ELECTRONIC EQUIPMENT TK-100( )/G	5180-605-0079	
11	Organizational	TOOLS AND TEST EQUIPMENT NORMALLY AVAILABLE TO THE REPAIRMAN-USER BECAUSE OF HIS ASSIGNED MISSION		

APPENDIX C

ORGANIZATIONAL REPAIR PARTS

Section I. INTRODUCTION

C-1. Scope

This appendix contains a list of repair parts required for the performance of organizational maintenance for TEST SET, RADIO AN/ARM-92.

Note. No special tools, test, and support equipment are required.

C–2. General

The repair parts list is divided into the following sections.

a. Prescribed Load Allowance (PLA), Section II. The PLA is a consolidated listing of repair parts allocated for initial stockage at the organizational maintenance category. This is a mandatory minimum stockage allowance.

b. Repair Parts for Organizational Maintenance, Section III. Repair parts authorized for organizational maintenance are included in this section.

Note. All indexes noted below are cross referenced to index numbers. The index numbers appear in ascending sequence in column 1 of the repair parts list (para *3a).* The index number for the particular item will be the same for the item in all sections of this appendix.

d. Reference Designation Cross Reference to Index Number, Section V. This is a cross reference index of reference and/or item numbers to index numbers.

C-3. Explanation of Columns

An explanation of the columns is given below.

a. Source, Maintenance, and Recoverability Codes (SMR) and Index Number Column. The first line in this column lists the applicable SMR codes for the part. Listed in ascending order directly below the SMR codes is the index number assigned to the repair part.

(1) *Source codes.* The selection status and source for the listed item is noted here. Source code and its explanation is as follows:

Code	*Explanation*
P -	Applies to repair parts that are stocked in or supplied from the GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.

(2) *Maintenance code (M).* The lowest category of maintenance authorized to install the listed item is noted here.

Code	*Explanation*
O	Organizational Maintenance

(3) *Recoverability code (R).* Not used.

Note. When no code is indicated in the recoverability column, the part will be considered expendable.

b. Federal Stock Number Column. The Federal stock number for the item is listed in this column.

c. Description Column. This column includes the Federal item name and any additional description of the item required, the manufacturer's part number (reference number), and the applicable five-digit Federal Supply Code for Manufacturers (para C-5). Usable on code column is not used.

d. Unit of Measure Column. The unit used as a basis of measure (e.g., ea, pr, ft, yd, etc.) is indicated in this column.

e. Quantity Incorporated in Unit Column. The quantity of repair parts in an assembly is given in this column.

f. Maintenance Allowances Column.

(1) The maintenance columns are divided into subcolumns. Indicated in each subcolumn is the total quantity of items authorized for the number of equipments supported. Items authorized for use as required, but not for initial stockage, are identified with an asterisk (*) in the allowance column.

(2) The quantitative allowances for organizational category of maintenance represents one initial prescribed load for a 15-day period for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of repair parts authorized.

(3) Subsequent changes to organizational allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-AN, Fort Monmouth, N.J. 07703, for exception or revision to the allowance

list. Revisions to the range of items will be made by the USA ECOM National Maintenance Point based upon engineering experience, demand, data, or TAERS information.

g. Illustrations Column.

(1) *Figure number (a).* Not used.

(2) *Item No. or reference designation (b).* This column lists the reference designation that appears on the part in the equipment.

C–4. Location of Repair Parts

a. This manual contains two cross-reference indexes (sect. IV and V), to be used to locate a repair part when either the Federal stock number or reference designation is known. The first column in each cross-reference index is prepared, as applicable, in numerical or alphanumerical sequence. The second column of each cross-reference index lists the index number assigned to the part.

b. Refer to the appropriate cross-reference index (para C-2 *c, d)* and note the index number in the second column; then refer to the repair parts list to locate the index number which is listed in ascending order in column 1 of the repair parts list.

C-5. Federal Supply Codes

This paragraph lists the Federal supply code and the associated manufacturer's name.

Code	*Manufacturer*
13499	Collins Radio Co.
72619	Dialight Corp.
81349	Military Specifications
96906	Military Standards

SECTION II. PRESCRIBED LOAD ALLOWANCE

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION / USABLE ON CODE	(3) 15-DAY ORG. MAINT. ALLOWANCE (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-10
	CASE ASSEMBLY, TOPCW-878/ARM-92				
6210-892-4386	LENS, RED: 162-931; 72619	*	2	3	5
6240-155-7836	LAMP, INCANDESCENT: MS25237-327; 96906	3	10	25	47
	TEST SET TS-2500/ARM-92				
5355-579-6390	KNOB: MS91528-3F2B; 96906	*	*	*	2
5355-680-1357	KNOB: MS91528-1F2B; 96906	*	*	2	2
5920-280-4960	FUSE, CARTRIDGE: FO2A250V2AS; 81349	2	4	10	18
5920-280-8342	FUSE, CARTRIDGE: FO2A250V1AS; 81349	3	7	18	33
6240-272-8601	LAMP, INCANDESCENT: MS25237-327R; 96906	2	2	3	6

SECTION III. REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE

(1) SMR CODE / INDEX NO.	(2) FEDERAL STOCK NUMBER	DE / Reference Number & Mfr Code / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) ILLUSTRATIONS (a) FIG No.	(b) ITEM NO. OR REFERENCE DES
A001	25-999-5118	TEST SET, RADIO AN/ARM-92: 522-4459-001; 13499 (This item is nonexpendable.								
		CASE ASSEMBLY, TOP CW-878/ARM-92								
P-0 A007	40-155-7836	MP, INCANDESCENT: MS25237-327; 96906	ea	26	3	10	25	47		31, DS17
P-0 A009	10-892-4386	NS, RED: 162-931; 72619	ea	20	*	2	3	5		
		TEST SET TS-2500								
P-0 A206	40-272-8601	MP, INCANDESCENT: MS25237-327R; 96906	ea	2	2	2	3	6		DS5, DS6
P-0 41	20-280-4960	SE, CARTRIDGE: F02A250V2AS; 81349	ea	7	2	4	10	18		F1, F4
P-0 A442	20-280-8342	SE, CARTRIDGE: F02A250V1AS; 81349	ea	14	3	7	18	33		F2, F3, F5, F6
P-0 A443	55-680-1357	OB: MS91528-1F2B; 96906	ea	2	*	*	2	2		02, 03
P-0 A444	55-	OB: MS91528-3F2B; 96906	ea	1	*	*	*	2		04

SECTION IV. INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE

TO INDEX NUMBER

FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.
5920-280-8342	A442				

REF NUMBER	INDEX NUMBER
F02A250V2AS	A441
MS25237-327	A007
MS25237-327R	A286
MS91528-1F2B	A443
MS91528-3F2B	A444
162-931	A009
522-4459-001	A001

SECTION IV. INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE TO INDEX NUMBER

FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK	INDEX NO.
5355-579-6390	A444				
5355-680-1357	A443				
5920-280-4960	A441				
5920-280-8342	A442				
6210-892-4386	A009				
6240-155-7836	A007				
6240-272-8601	A286				
6625-999-5118	A001				

SECTION V. INDEX-REFERENCE DESIGNATION CROSS REFERENCE

TO INDEX NUMBER

REFERENCE DESIGNATION	INDEX NO.	REFERENCE DES	INDEX NO.	REFERENCE DESIGNATION	INDEX NO.
DS1	A007				
DS5, DS6	A286				
DS17	A007				
F1	A441				
F2, F3	A442				
F4	A441				
F5, F6	A442				
02, 03	A443				
04	A444				