TM 11-6625-928-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL

MAINTENANCE MANUAL

TEST FACILITIES KIT

MK-994/AR

(NSN 6625-00-802-7191)

This copy is a reprint which includes current pages from Changes 1 through 5. The title was changed by Change 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY

APRIL 1968

WARNING

DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT

Be careful when working around the + 27.5- volt dc and 115-voIt 400-Cycle inputs to the equipment. these voltages are also available at front panel connectors.

DON'T TAKE CHANCES!

CAUTION

To avoid transistor and integrated circuit damage, make sure that all power switches are at OFF before changing cable connections. Check the source voltage and polarity before making connections TRANSISTORS AND INTEGRATED CIRCUITS MAY BE PERMANENTLY DAMAGED BY IMPROPER VOLTAGE OR POLARITY.

CHANGE

No. 5

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 13 September 1985

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL TEST FACILITIES KIT MK-994/AR (NSN 6625-00-802-7191) AND MK-994A/AR (NSN 6625-01-189-7882)

TM 11-6625-928-12, 25 April 1968, is changed as follows:

1. Title of the manual is changed as shown above.
2. This change picks up information reflecting MWO 11-6625-928-30-1.
3. Remove old pages and insert new pages as indicated below. New or changed material is indicated by a vertical bar in the margin of the page. Added or revised illustrations are indicated by a miniature pointing hand.

Remove pages	*Insert pages*
i and ii	i and ii
l-0 through l-4	(iii blank)/l-0 through 1-4
2-5 and 2-6	2-5 and 2-6
2-9 and 2-10	2-9 through 2-13/(2-14 blank)
3-3,3 -4, and 3-5	3-3 through 3-7/(3 -8 blank)
A-l	A-1/(A-2 blank)
B-l, B-2, and B-3	B-l through B-8

4. File this change sheet in the front of the publication for reference purposes,

By Order of the Secretary of the Army:

JOHN A. WICKHAM JR.
General, United States Army
Chief of Staff

Official:

DONALD J. DELANDRO
Brigadier General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-36 literature requirements for MK-994/AR.

TECHNICAL MANUAL
No. 11-6626--928-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *25 April 1968*

Operator and Organizational Maintenance Manual
TEST FACILITIES KIT MK-994/AR (NSN 6625-00-802-7191) AND MK-994A/AR (NSN 6625-01-189-7882)

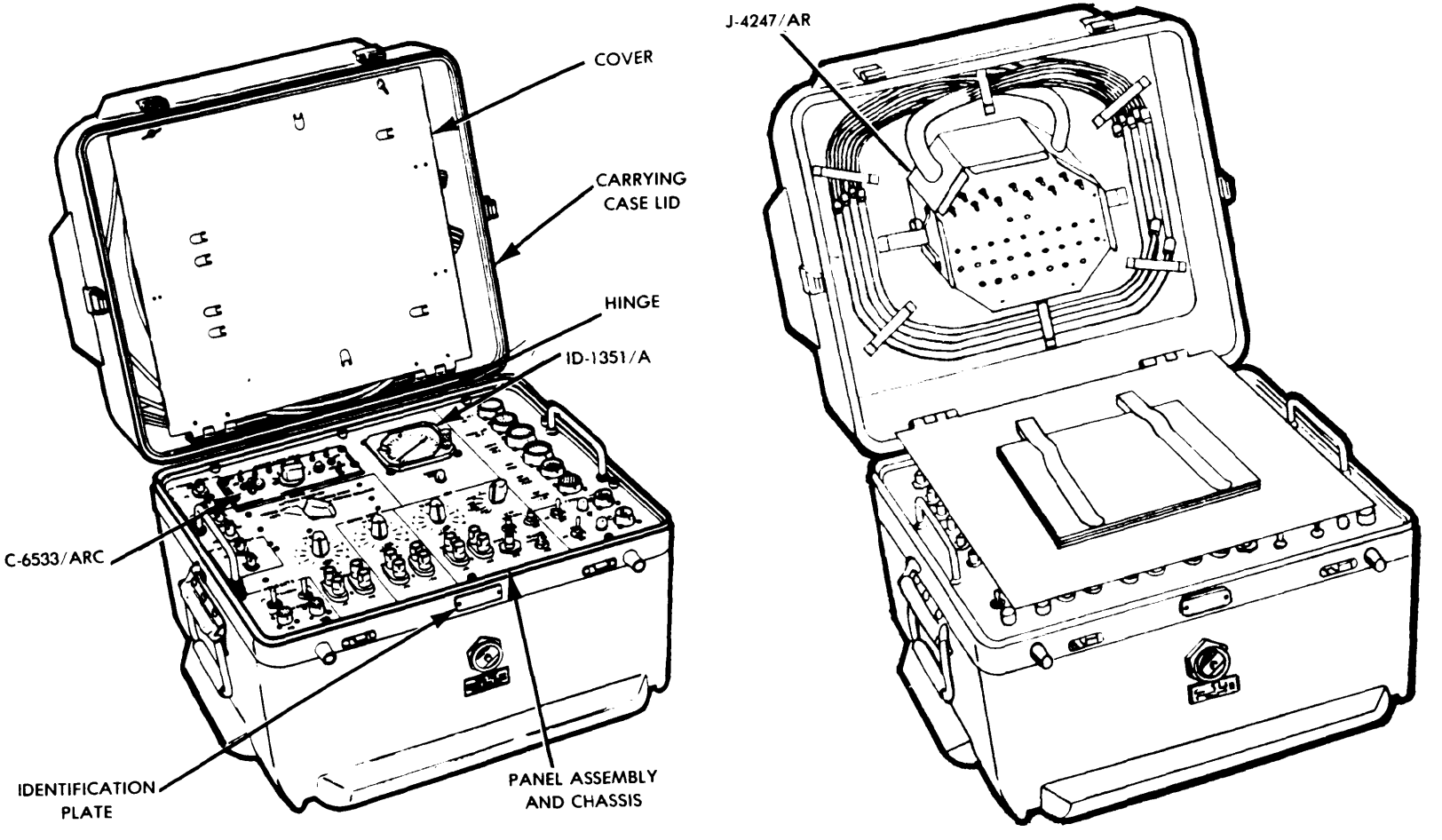


Figure 1-1. Test Facilities Kit

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual describes Test Facilities Kit hlK.994/AR and MK.994A/AR (fig. 1.1) and pro. vides instructions for installation, operation, and operator and organizational maintenance. It includes instructions for operation under usual conditions, cleaning and inspection of the equip. ment, and replacement of parts available to the operator and organizational repairman.

b. The maintenance allocation chart (M.4(') appears in appendix B.

1-2. Consolidated index of Army publi. cations and Blank Forms

Refer to the latest issue of DA Pam 310.1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

1-3. Maintenance Forms, Records, and Reports

a. Reports of Maintence and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738.750 in accor. dance with Maintenance Management update.

b. Report of Packaging and Handling Deficien-tics. Fill out and forward SF *364* (Report of Dis. crepancy (ROD)) prescribed in AR 735.11. 2/DLAR 4140.55 /NAVMATINST 4355.73 A/AFR 400.54/MCO 4430.3F.

c. *Di.screpanc> in Shipment Report (DISREP) (SF 361).* Fill out and forward Discrepancy in Ship. ment Report (DISREP) (SF 361) as prescribed in AR 55.38 /NAVSUPINST 4610.33 C/AFR 75.18/ MCO P4610.19D/DLAR 4500.15.

1-3.1 Reporting Errors and Recommending Improvements

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to Commander, US Army Communciations – Elec. tronics Command and Fort Monmouth, ATTN: AMSEL.ME.MP, Fort Monmouth, NJ 07703.5007. A reply will be furnished direct to you.

1-3.2. Destruction of Army Electronics Mate. riel

Destruction of Army electronics materiel to pre. vent enemy use shall be in accordance with TM *750.244.2.*

1-3.3. Administrative Storage

Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage, the PMCS should be performed to assure operational readiness. Disassembly and repacking of equip. ment for shipment or limited storage are covered in paragraphs 4-1 and 4-3.

1-3.4. Reporting Equipment Improvement Recommendations (EIR)

If your Test Facilities Kit MK.994/AR or MK.994A/AR needs improvement, let US know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications.Electronics Command and Fort Monmouth, ATTN: AMSEL. ME.MP, Fort Monmouth, New Jersey 07703.5007. We'll send you a reply.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Purpose. The Test Facilities Kit MK.994/AR (maintenance kit) provides all the interconnections and terminations necessary for testing the following electronic avionics equipment:

ANIARC- 114	Radio Set
ANIARC-115	Radio Set
AN/ARC- 116	Radio Set
RT-1167/ARC.164	Radio Set
C.6533/ARC	Communications System Control
AN/ARN-89	Direction Finder Set

NOTE

With application of MWO 11-6625-928-30-1, the MK-994/AR is redesignated MK-994A/AR- However, the equipment changes required by TB 43-0001-9-2, MWO 11-6625-928-40-1, and MWO 11-6625 -928-30-1 must be applied to enable the MK-994A/AR to test the AN/AR-186(V) Radio Set- Check equipment to ensure MWO's have been applied and are current-

In addition to the above equipment, Test Facilities Kit MK-994A/AR provide-s the capability to test the following AN/ARC- 186(V) Radio Set units:

RT-1354/ARC-186(V)	Radio Set
RT-1300/ARC-186(V)	Receiver-Transmitter
C-10604 (V)/ARC-186(V)	Radio Set Control
C-10606 (V)/ARC-186(V)	Radio Set Control
CM-482/ARC-186(V)	Signal Data Comparator
CM-492/ARC-186(V)	Signal Data Comparator

b- Use When used at an Aviation Intermediate Maintenance (AVIM) facility, in conjunction with standard test equipment, the hIK-994( )/AR provides a complete test facility for troubleshooting, fault isolation, repair, calibration, alignment, and operational checkout of the above avionics equipment- The MK-994( )/AR is also used in conjunction with Electronics Shops, Shelter Mounted, Avionics AN/ASM-146() and AN/ASM-147( )-

1-5. Technical Characteristics

Refer to the applicable technical manual (app A) for the technical charactiristica of the Communi cation System Control C-6533/ARc (communication control) and Heading-Radio Bearing Indicator ID-1351/A- The characteristics of the maintenance kit are indicated below-

NOTE

Externally generated inputs and outputs from the maintenance kit are not listed below- Refer to appendix A for references applicable to basic test equipment-

Power input requirements ----------115v ± 5, 400 Hz, single phase at 0-6 amp and +28v +0.5, —0.Q at 10 amp-

Power outputs _____ +26.Ov ± 2.0, 400 Hz, single-phaae, at 3.0 amp, +27.5v +0.5, —0.0 at 7.0 amp; and +6.8v ± 0.5 at 0.2 amp-

Input at J9 (POWER METER OUTPUT) __Termimated in 50-ohm dummy load.

Weight (MK-994/AR) ---------- 51 lb.
Weight (MK-994A/AR ---------- 59 lb.

1-6. List of Components

Quantity	Item	Dimensions			Unit weight (lb)	Fig- No-
		Height/ Length	*Depth*	*width*		
1	Test Facilities Kit MK-994/AR less minor components-	16-3 in-	16-6 in,	18-9 in-	36	1-1
1	Cable assembly CG-3476/U (W1)	6 ft.	---	---	0.1	1-2
2	Cable assembly CX-10889/U (W2, W3)	8 ft.	---	---	1.1	1-2
1	Cable assembly CX-10890/U (W4)	a ft.	---	---	0.8	1-2
2	Cable assembly CX-10891/U (W6, W6)	8 ft.	---	---	1.1	1-2
2	Cable assembly CX-10892/U (W7, W8)	8 ft.	---	---	0.7	1-9
1	Cable assembly CX-10808/AR (W9)	8 ft.	---	---	1.8	1-2
1	Cable assembly CG-8477/U (W10)	4 ft.	---	---	0.8	1-2
1	Cable assembly CG-2840A/U (W1l)	4 ft.	---	---	0.8	1-4
8	Cable assembly CG-8476/U (W12, W19, W14)	4ft.	---	---	0.2	1-2
1	Cable assembly CG4478/U (W15)	4ft.	---	---	0.2	1-2
1	Cable assembly CG-8479/U (W16)	4ft.	---	---	0.2	1-S
1	Cable assembly CG4481/U (W17)	4 ft.	---	---	0.2	1-2
1	Cable assembly CG-3482/U (W18)	4ft.	---	---	0.2	1-2
1	Cable assembly CG4480/U (W19)	4 ft.	---	---	0.3	1-2
2	Cable assembly CX-10888/U (W20, W21)	6ft.	---	---	0.4	1-2

Quantity	Item	Dimensions			Unit (lb) weight	Fig. No.
		Height/ Length	Depth	Width		
1	Cable assembly CX-10886/AR (W22)	6 ft- 5 in-	------	------	0-7	1-2
1	Cable assembly CX-10887/AR (W23)	6 ft-	------	------	0-9	1-2
1	Cable assembly CG-3483/[J (W24)	1 ft-	------	------	0-1	1-2
1	Cable assembly CG-3474jU (w26)	1 ft-	------	------	0-1	1-2
1	Cable assembly CX-10894iAR (W26)	1 ft-	------	------	0-4	1-2
5	Cable assembly CG-3484iAR (W27, W28, W29, W30, W31)	12-7 in-	------	------	0-1	1-2
1	Cable assembly CX-11985JAR (W32)	3 ft. 4 in.	------	------	1-0	1-2
1	Printed Wiring Board Extractor MX-812WAR (MP2)	-----	------	------	-----	1-2
1	Printed Wiring Board Extractor NIX-8129/AR (MP8) (not shown)-		------	------	-----	1-2
1	TM 11-6625-928-12 (not shown)-					
3	Indicator Lamp (MS2527-327)	-----		------	-----	1-2
1	Dummy Load, Electrical DA-657/ A R	1¾ in.	¾ in.	1 5/8	0-4	1-1.1
1	Dummy Load, Electrical DA-6!NA R	1¾ in.	¾ in.	1 5/8	0-4	1-1.1
1	Dummy Load, Electrical DA-669/AR	1¾ in.	¾ in.	1 5/8	0-4	1-1.1
1	Interconnecting Box -J-4247/AR	7 in.	7 in.	4 in.	7.0	1-1.2
3	Adapter, Connector UC-1428/U	1 in.	¼ in.	¼ in.	0.01	1-1.3

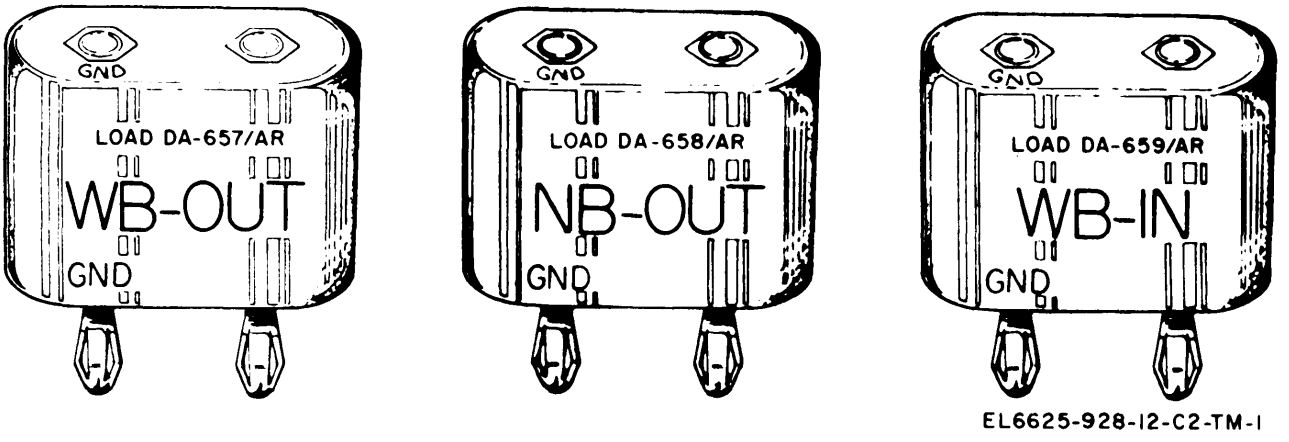


Figure 1-1.1. Dummy Load, Electrical DA-657/AR, DA-658/AR, and DA-659/AR.

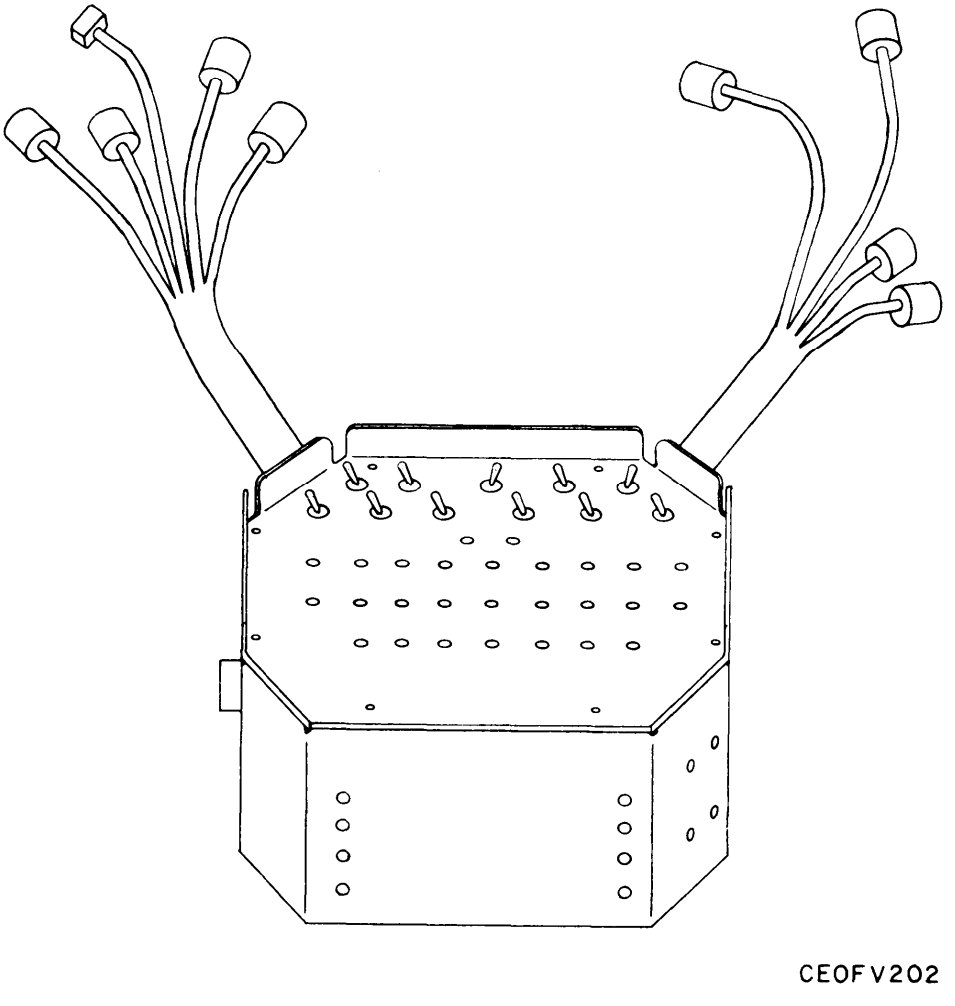


Figure 1-1.2. Interconnecting Box, J-4247/AR

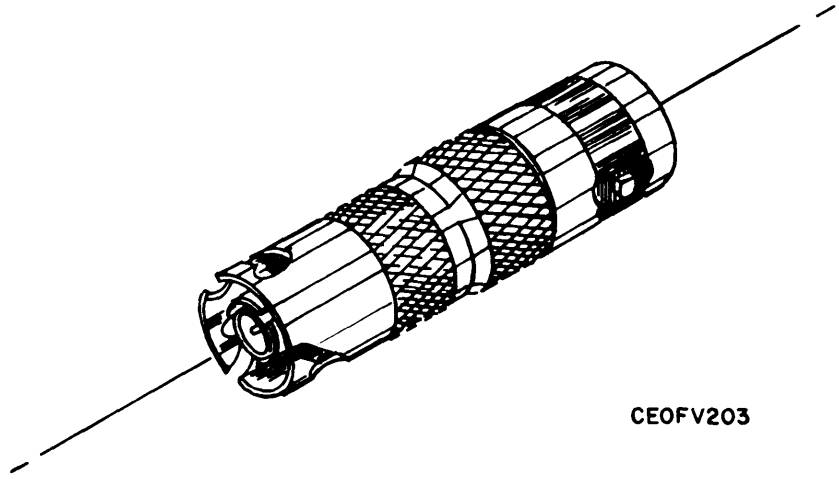


Figure 1-1.3. Adapter, Connector UG-1428/U

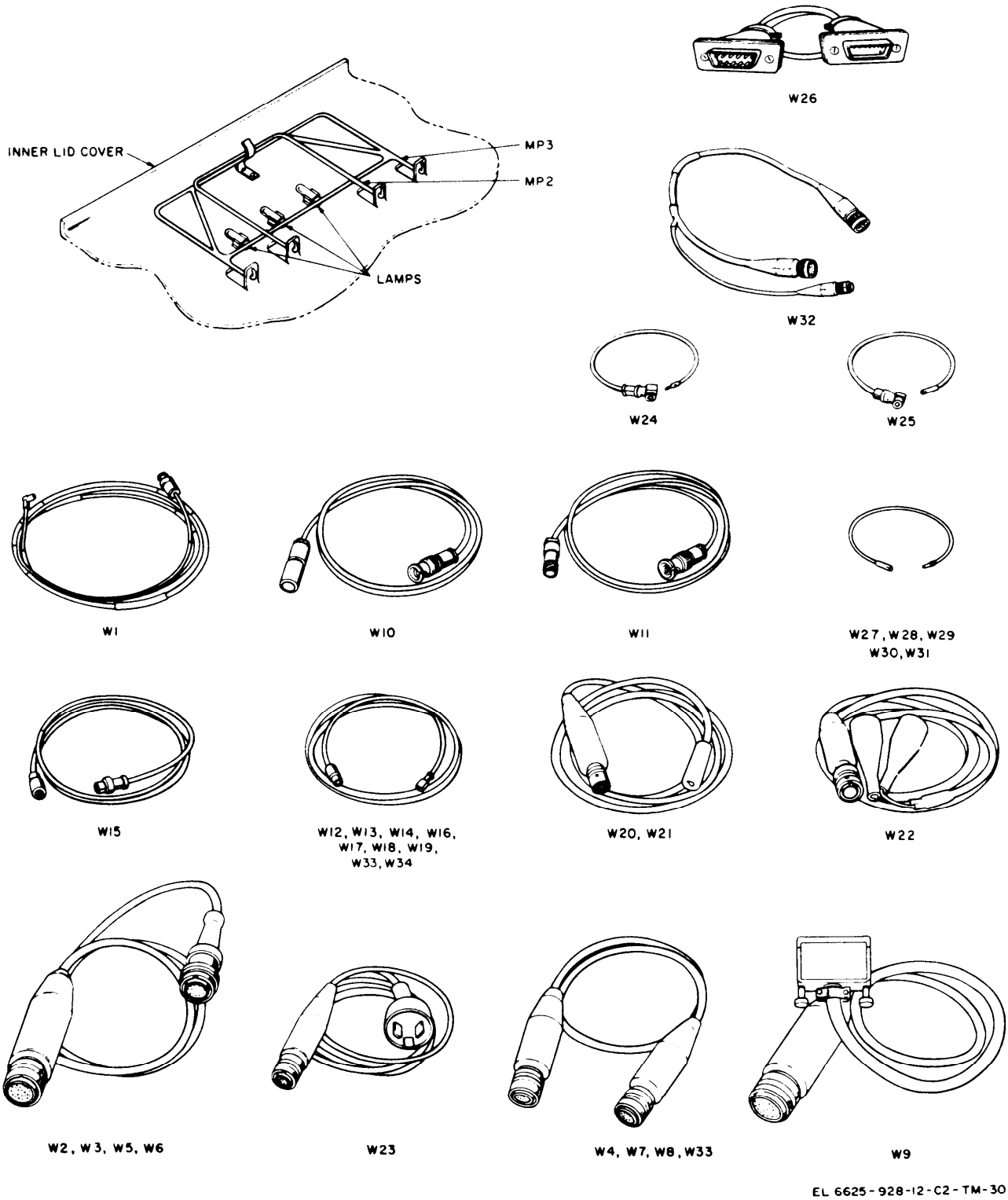


Figure 1-2. Test Facilities Fit MK-9941AR, minor components less fechnical manuals- **change 4 1-3**

1-7. Description of Equipment

The maintenance kit consists of Heading-Radio Bearing Indicator ID-1351/A and Communication System Control C-6533/ARC, and the front panel and chassis assembly housed in an impact plastic case (fig- l-l)- The front panel and chassis assembly contains the controls and termination devices necessary to apply power and connect the equipment under test to the standard test equipment- The necessary test cables, adapters, extractor tools, spares, and the maintenance kit operation and maintenance manuals are stored *in* the case cover- and test equipment, and the equipment under test. The various tests are accomplished 1 by setting the maintenance kit switches, standard test equipment controls, and equipment under test controls to the proper positions and interpreting the results. Heading-Radio Bearing Indicator ID-1351/A and Communication System Control C-6533/ARC are mounted on the front panel and are electrically connected to the maintenance kit circuitry-

1-8. Description of Major Assemblies

a. Refer to TM 11-6605-202-12 for the description of Heading-Radio Bearing Indicator ID-1351/A; also, refer to TM 11-5821-262-20 for the description of Communication System Corltrol C-6533/ARC.

b. The front panel and chassis assembly contains the selector switches, mating connectors, circuit breakers, terminations, electrical components, adapters, and wiring necessary to provide interconnections and switching between the standard test equipment and the electronic equipment under test- Test cables are provided to interconnect the maintenance kit, the stancl-

c. The NIK-994A/AR also contains an Interconnecting Box J-4247/AR that interfaces the test set with components of the AN/ARC-186(V) Radio Set-

1-9. Description of Minor Assemblies

The minor assemblies or components of the maintenance kit are shown in figure 1-2. Electrical interfaces between the maintenance kit, the repair shop facilities, the equipment under test, and the standard test equipment are provided by the maintenance kit test cable: that are supplied as part of the maintenance kit- The char-t below, lists the test cables by reference designation and identifies the normal connection points- All cables are labeled and connectors are keyed for proper use-

Ref des	*Nomenclature*	*Connects from-* Funtion (maintenance kit)	*To-*	
W1	Cable Assembly, Radio Frequency CG-34751U (6 ft).	RF coaxial test points.	AN/ URM-25D or AN/USM-207 (para 1-10)-	Direction Finder Set AN/ ARN–89 Internal test points-
			AN/USM–98 (para 1-10)-	Radio Set AN/-\ RC-ll4, AN/A Rc-115, ANIARC-116 or AN/ARC-164 internal test points-
W2, W3 Cable Assembly, Special Purpose, Electrical CX-10889/u (3 ft)-		Signal and power	Jl or J2	J1 on Radio Set AN/ARC-114.
W4	Cable Assembly, Special Purpose, Electrical CX-10890/U (3 ft).	Signal and power	J4	1J1 on Radio Recceiver R-1496/ARN-89.
W5, W6	Cable Assembly, Special Purpose, Electrical CX-10891/U (3 ft.)	Signal and power	Jl or J2	J1 on Radio Set AN/ARC-115 or J1 on Radio Set AN/ARC-116.
W7, W8	Cable Assembly, Special Purpose, - Electrical CX-10892/U (3 ft).	Signal and power	J5	1J2 on Radio Receiver R-1496/ARN-89.
			J6	2J1 on Radio Set Control C-7392/ARN-89.
W 9	Cable Assembly, Special Purpose, Electrical CX-10893/AR (3 ft).	Signal and power	J3.	J1 on Communication System Control C-6533 ARC-
W l 0	Cable Assembly, Radio Frequency CG-3477/U (4 ft).	RF coaxial signal	J 9	Wattmeter

Ref des	Nomenclature	Function	Connects From - (maintenance kit)	Connects to-
Wll	Cable Assembly, Radio Frequency CG-2340A/U (4 ft).	RF coaxial signal	J10	Wattmeter
W12, W13, W14.	Cable Assembly, Radio Frequency CG-3476/U *(4* ft).	RF coaxial signal	J1l, J13, or J14	J2, J3, or J4 on Radio Set AN/ARC-l 14, J2 on Radio Set AN/ARC-llS, or J2 on Radio Set AN/ARC-116-
W15	Cable Assembly, Radio Frequency CG-3478/U (4 ft)-	RF coaxial signal	J12 or J23	Signal generator
W16	Cable Assembly, Radio Frequency CG-3479/U (4 ft)-	Antenna RF coaxial signal-	J24	1J4 on Radio Receiver R-1496/ARN-89-
W17	Cable Assembly, Radio Frequency CG-3481/U *(4* ft)-	Antenna RF coaxial signal-	J25	1J5 on Radio Receiver R-1496/ARN-89-
W18	Cable Assembly, Radio Frequency CG-3482/U (4 ft)-	Antenna RF coaxial signal-	J26	1J6 on Radio Receiver R-149WARN-89-
W19	Cable Assembly, Radio Frequency CG-3480/U (4 ft)-	RF coaxial signal	1J3 on R-1496/ ARN-89.	2J2 on Radio Set Control C-7392/ARN-89-
W20, W21	Cable Assembly, Special Purpose, Electrical CX-10888 /{1 (6 ft)-	Headset extension	J15 or J16	Headset
W22	Cable Assembly, Power, Electrical CX-1088WAR-	I)c power	J28	*+28v* power source in repair facility-
W23	Cable Assembly, Power, Electrical CX-10fN7/AR-	Ac power . . . . . .-	J27	115v, 400-cycle single-phase receptacle in repair facility-
W24	Cable Assembly, Radio Frequency CC-3483/lJ (1 ft).	RF coaxial test Imints-	AN/ URM-25D or AN/ USM-207 (para 1-10)-	Direction Finder Set AN/ AR N-89 internal test point8-
W25	Cable Assembly, Radio Frequency CG-3474/U (1 ft)-	RF coaxial test points-	AN/ URM-25D or AN/USM-207 (para l-10).	Direction Finder Set AN/ AR N-89 internal test points-
W26	Cable Assembly, Special Purpose, Electrical CX-10894/AR.	Signal and power adf extender-	R-1496 /A RN-89 chassis wiring- C-73921 ARN-89	R-1496/ARN-89 modules
W27 through W31-	Cable Assembly, Radio Frequency CG-3484/AR (12-7 in)-	RF coaxial signal and power adf extender-	C-7392 /A RN-89 chassis wiring-	C-7392/ARN-89 modules
W32	Cable -Assembly, Special Purpose, Electrical Branched CX-11985/AR.	Signal and power	Jl or J2	J1 on AN/ARC-114 and to antenna tuner
W33	Cable Assembly SC-D-972432	Dc power.	J1	J1 on Radio Set R-1354/ ARC-186(V)

1-10- Additional Equipment Required

a- Geverat- The facilities and test equipments listed in b below, or equivalents, are not supplied as part of the maintenance kit and therefore must be provided at the electronic repair facility to test and troubleshoot the SLAE- Note that the letter in parenthesis immediately following the nomenclature and type designation indicates the lowest category of maintenance at which the test equipment is required, where:

O = Organizational maintenance
F = Direct support maintenance
G = General support maintenance
D = Depot maintenance

b- Equipment List-

Nomenclature and type designation	*Use*	*Application requirements*
Generator, Signal AN/URM-103' (F)	Fm signal source for Radio Set AN/ARC-114-	Output voltage—0.5 µ v to 0.5 v Output impedance—50 ohms Frequency range-20 to 80 MHz Type of emission—fm Frequency swing-0 to 30 KHz deviation
Voltmeter, Electronic AN/USM-98 (F)	Accurate dc voltage measurements for check of SLAE power supplies-	Voltage range-O to 500 v dc Accuracy—?O-05Yc
Attenuator CN-796( )/U (F)	For attenuating AN/URM-25D output when testing Direction Finder Set AN/ARN-89-	Frequency range-O to 1,000 MHz Impedance—50 ohms Attenuation range—O to 132 db in one db steps
Signal Generator Set AN/URM-25D (F)	RF signal source for Direction Finder Set AN/ARN-89 testing-	Frequency range—10 KHz to 50 MHz Type of emission—am-, cw Output voltage—O-l µv to 1 v Output impedance-50 ohms
Signal Generator AN/ USM-44A (F)	RF signal source for Radio Set AN/ARc-115 and AN/ARC–116 testing-	Frequency range—10 to 420 MHz Type of emission—am-, pm, cw Output voltage—0.1 µv to 0.5 v when operated into rated load of 50 ohms
Generator, Signal AN/URM-127 (F)	Audio frequency signal source for SLAE testing-	Frequency range—20 to 200,000 Hz Output voltage—10 µv to 10 v
Oscilloscope AN/USM-140A (F)	Signal tracing and measuring device for SLAE testing-	Frequency range-de to 30 MHz Sensitivity—O-l v/cm to 10 v/cm
Digital Readout Electronic Counter AN/USM-207' (F)	Frequency measuring device for SLAE testing-	Frequency range—O to 500 MHz Accuracy—1 x 10^{-8}/week
Multimeter ME-26 B/U (F)	Voltage and resistance measuring device for SLAE testing-	Ffequency range—20 Hz to 700 MHz Voltage range-0 to 300 v ac O to 1,000 *V* dc Resistance range—O-2 ohm to 500 mego
Voltmeter, Electronic ME-30A/U (F)	Ac voltage measuring device for SLAE testing-	Frequency range—10 Hz to 4 MHz Voltage range—100 µv to 300 v
Multimeter TS-352 B/U (F)	Voltage, current, and resistance measuring device for SLAE testing-	Frequency range—25 to 5,000 Hz Voltage range—0 to 100 v ac and dc Current range—0 to 0-5, 2-5, 10 amp dc Resistance range—0 to 0.3, 3, 30 mego
Voltmeter, Electronic AN/URM-145 (F)	RF voltmeter for SLAE testing-	Frequency range—10 KHz to 600 MHz Voltage range—300 µv to 3 v Probe input capacitance—2-5 µµf Probe adapter impedance—52 ohm

b- Equipment List (cont.)

Nomenclature *and type* designation	Use	*Application requirements*
Wattmeter AN/URM-120* (F)	RF power output meter for tests of Radio Sets AN/ ARC-114, AN/ARc-115, and AN/ARC–116-	Frequency range-2 to 1,000 MHz Power range—O to 10, 50, 100, 500 watts
Meter, Modulation ME-57/U* (F)	Frequency deviation meter for Radio Set AN/ARC-114 testing-	Frequency range-20 to 1,000 MHz Deviation, full-scale—20, 50, 100, 300, 1,000 KHz Input sensitivity-0-005 v required for limiting Input impedance—50 ohms Input impedance—150 ohms
Headset, Microphone H-10IA/U (F)	For monitoring audio and sidetone outputs of SLAE.	Frequency range—300 to 6,000 Hz
Power source, dc (F)	For maintenance kit and SLAE operation-	Voltage—0 to 36 v dc Current—10 amp
Power source, ac (F)	For maintenance kit and SLAE operation-	Voltage—l15v ± 5 Frequency—400 Hz, singlephase Current—0-5 amp
Multimeter AN/URM-105” (0)	Voltage and resistance measuring device for SLAE testing-.	Voltage range: O to 1,000 v ac and dc Resistance range: 0 to 30 mego Accuracy: 3% in dc ranges, *4%* on ac ranges
Spectrum Analyzer TS-723A/ U’ (F)	Distortion measuring device for SLAE testing-	Distortion measurement range: any fundamental frequency, 20 Hz to 20 kHz
Maintenance Accessories Kit MK-1192/ ARM’ (F)	Provides test facilities for checking SLAE.	Provides required breakout boxes, cables, and special tools for direct support testing-
Test Facilities Kit MK-1191/AR (H)	Provide test facilities and tools for checking and repairing SLAE.	Provides required breakout boxes, cables, and special tools for general support
Detector DT-307/G (F)	Used for performing adjustments of SLAE.	Frequency range: 0-1 to 1,000 MHz Voltage: 3 v rms (max)
Wattmet-er AN/USM-260” (D)	Used for testing and performing adjustments of SLAE.	Frequency: 10 MHz—10 GHz Power: 0-10 mw Accuracy: 3?’- full scale
Frequency Comparator CM-77 /USM[a] (F)	Used for performing adjustments of SLAE-	Frequency: 10 MHz to 12-4 GHz Input: CW, fm, am, pluse Output: 1 v rms into 1,000 ohms
Variable Attenuator CN-318/Gs (F)	Used during testing of SLAE-	Frequency: 100 MHz to 4 GHz Attenuation: 120 db, Power: 0-5 w
Meter, Marconi TF2300[1] (D)	Used during testing of SLAE-	Am- Carrier frequency range: 4 to 500 MHz Fm, Carrier frequency range: 4 to 1,000 MHz Deviation: 5, 15, 50, 150 and 500 kHz
Indicator, Standing Wave Ratio IM-157/U (H)	Used during testing of SLAE.	Sensitivity: 0-1 µv at 200 ohms for full-scale deflection Range: 70 db Accuracy : ±0.1 db per 10 db steps, maximum accumulative error of ±0.2 db

b- Equipment List (cont.)

Nomenclature and type daignation	*Use*	Applicdion requirement
Sweep Generator AN/USM-203' (H)	Used for performing adjustments of SLAE.	Frequency range: (vhf wide and narrow) 500 kHz to 400 MHz Sweep width: (vhf narrow) 10 kHz or less to 400 MHz or more Output voltage : (vhf) 0-25 *V* rms (rein) into 50-ohm load Impedance: 50 ohms, nominal
Spectrum Analyzer Set AN/ UPM–84A' (D)	Used for testing and performing adjustments on SLAE-	Frequency range: 10 MHz to 10 GHz Spectrum widths: 10 calibrated spectrum widths, 100 kHz to 2 GHz in a 1, 3, 10 sequency to 1 GHz
Noise Source Hewlett-Packard 343A* (D)	Used for performing adjustments on SLAE.	Frequency range: 10 to 600 MHz Excess noise: 5.2 db ±0.25 db, 200 to 400 MHz Impedance: 50 ohms
Noise Figure Meter Hewlett-Packard 340B'	Used for performing adjustments on SLAE-	Noise figure range: 5.2 db noise source, O to 15 db, indication to infinity Input frequency: 30 or 60 MHz, selected by switch Impedance: 50 ohms
Circuit Breaker Sensi-tronics 200' (D)	Used to limit current during test and adjustment on SLAE.	Input voltage: 4 to 6 v dc Break current range: 10 to 1,000 ma Break speed: approx 1 µsec
Directional Coupler Narda 3000-20* (D)	Used for testing and performing adjustments on SLAE.	Frequency range: 225 to 460 MHz Coupling: 20 db Absolute calibration accuracy: ±0.1 db
Attenuator Microlab AD–1ON' (D)	Used for performing adjustments on SLAE-	Attenuation: 10 db Power rating: 10 watts
Vector Voltmeter Hewlett-Packard 8406A' (D)	Used for performing adjustments on SLAE-	Frequency range: 1 MHz to 1 GHz Max ac input: 2 v peak Max dc input: ±5O v Voltage ratio accuracy: less than 0.2 db Phase range: 360° Phase accuracy: &1-5" (at sin gle frequency)

l Not required for maintenance for MK-994/AR-

CHAPTER 2

INSTALLATION AND OPERATING INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unpacking

a- Packaging Data. When packed for shipment, the maintenance kit is placed in a corrugated shipping carton- A typical shipping carton and its contents are shown in figure 2–1. The shipping carton is approximately 21¼ inches high by 22½ inches deep by 25 inches wide, weighs approximately 5½ pounds, and provides a total capacity of 6-9 cubic feet-

b- Removing Contents-

(1) Cut the paper tape along the top of the corrugated shipping carton (fig- 2–1) and old back the flaps-

(2) Remove the envelope that contains the technical manuals-

(3) Remove the corner cushioning pads from each of the top four corners of the inner carton-

(4) Carefully lift out the corrugated inner carton-

(5) Cut the paper tape along the top of the corrugated inner carton and fold back the flaps-

(6) Remove the equipment-

2-2- Checking Unpacked Equipment

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

b- See that the maintenance kit is complete as listed on the packing slip- If a packing slip is not included, check the maintenance kit against the equipment list (para 1-6) Report all discrepancies in accordance with TM 38-750- Shortage of a minor assembly or part that does not affect proper functioning should not prevent use of the maintenance kit-

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

ZVoi!e- Current MWO's applicable to the maintenance kit are listed in DA Pam 310-7.

2-3- Damage From Improper Settings

To avoid damage to the maintenance kit or ~~ECHAP equipment~~ under test, be sure that all power switches and circuit breakers are at OFF before making or changing any test set-up cable connections-

Note. Paragraph 2-4 describes only items used by organizational maintenance repairmen; items used by higher maintenance personnel are covered in instructions for the appropriate maintenance category- Refer to the applicable technical manual (app- A) for the description of the controls on Communication System Control C-6533/ARC-

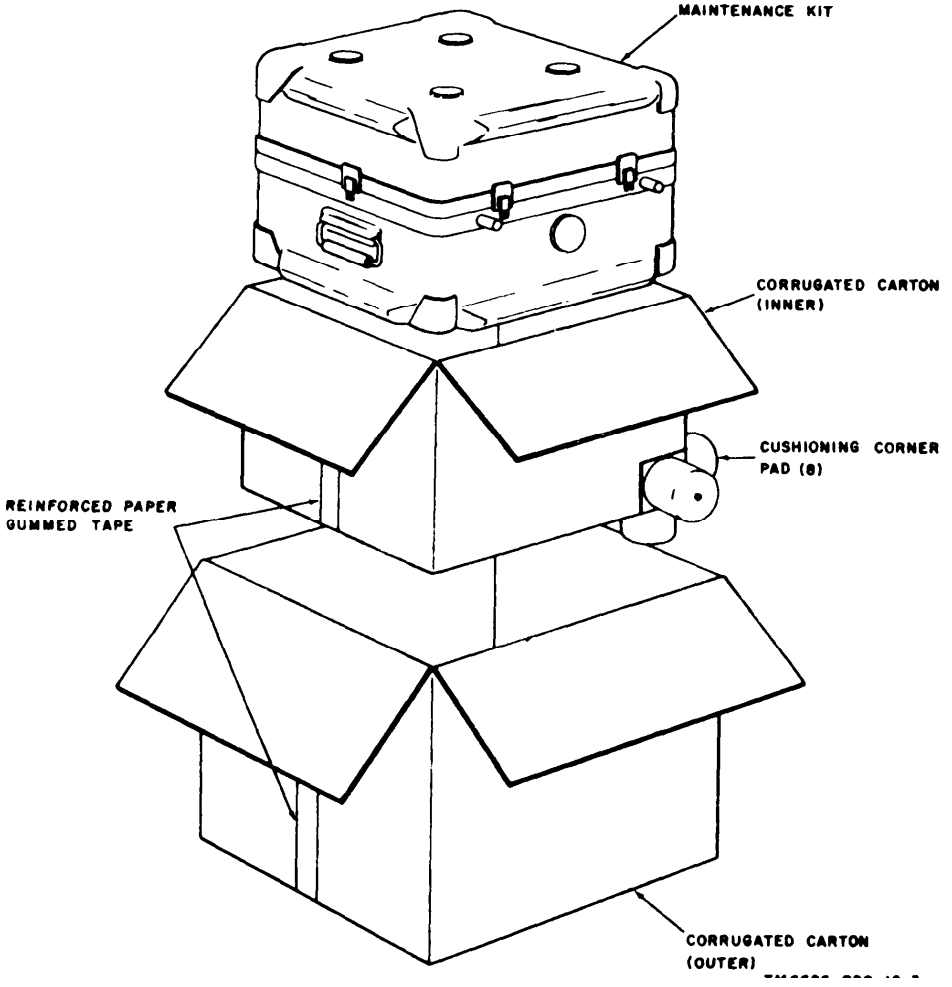


*Figure 2-1. Packaging **of** maintance kit.*

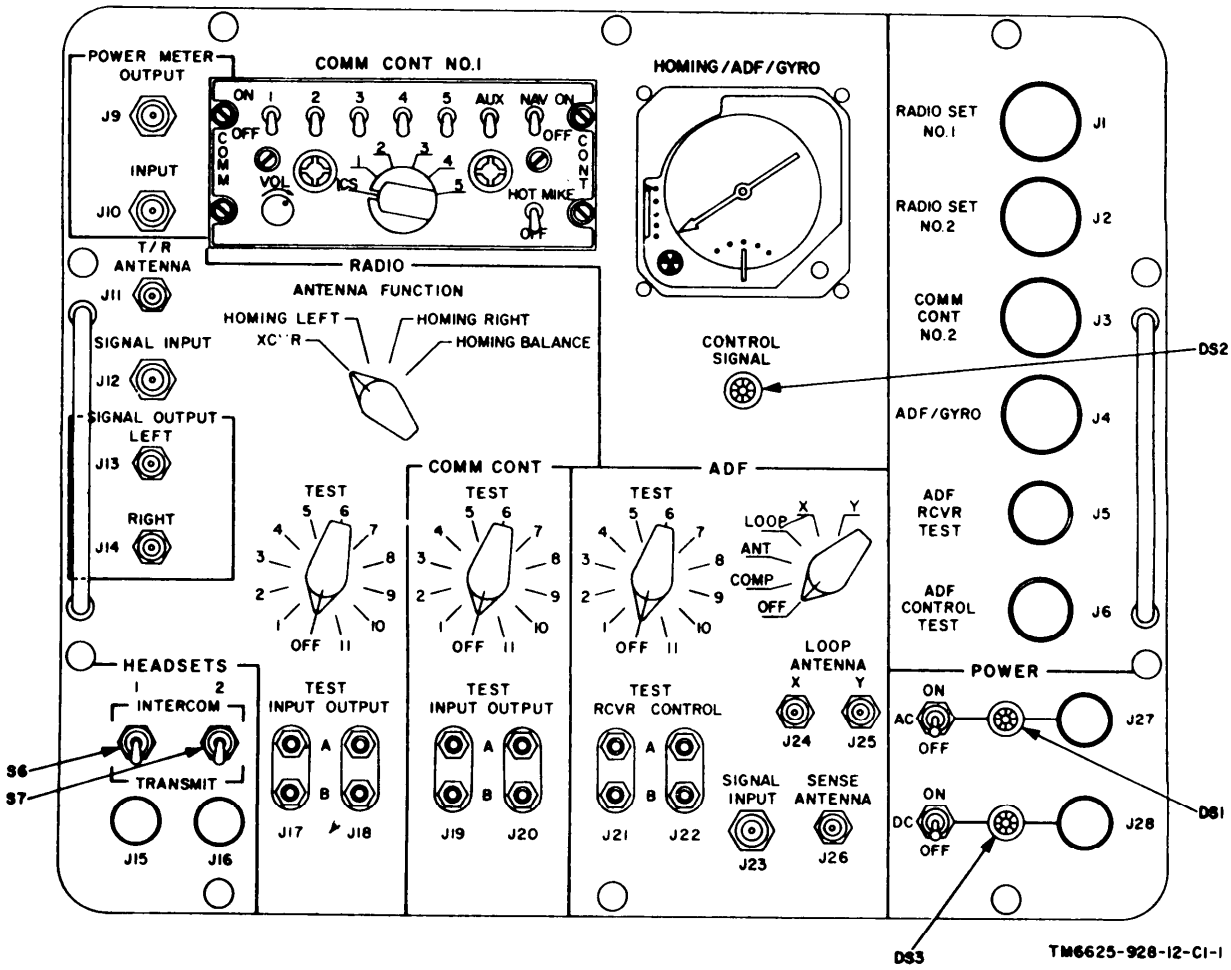


Figure 2-2. Front panel.

2-4. Controls, Indicators, and Connectors

(fig. 2-2)

Control, indicator, or connector	*Sw pos*	*Function* / Function
AC POWER input circuit breaker, 0-6 amperes-	ON	*Applies* power to 115-volt, 400-cps, single-phase transformer circuit-
	OFF	Removes power from 116-volt, 400-cps, single-phase transformer circuit-
DC POWER input circuit breaker, 10,0 amperes-	ON	Applies dc power to circuits and connectors of maintenance kit-
	OFF	Removes dc power from circuits and connectors of maintenance kit-
DC POWER lamp, red, DS3-		Indicates when dc power is applied to maintenance kit through circuit breaker-
AC POWER lamp, red, DS1-		Indicates when ac power is applied to maintenance kit through circuit breaker-
AC POWER connector J27, ten pin-		Interface connector for 115-volt, 400-cPs, single-phase supply from repair facility-
DC POWER connectmr J28, three pin-		Interface connector for 27-6-volt dc power from repair facility-

		Function
RADIO ANTENNA FUNCTION selector switch (four-position rotary)-	XCVR	Permits checking of radio sets in all modes except homing mode. Used in conjunction with RADIO TEST switch.
	HOMING LEFT	-Connects external rf signal generator output signal from signal input connector J12 to radio set under test through SIGNAL OUTPUT LEFT and RIGHT connectors- Output at connector J14 is attenuated 3 db more than output at connector J13-
	HOMING RIGHT-	Same as HOMING LEFT except that output at connector J13 is attenuated 3 db more than output at connector J14-
	HOMING BALANCE-	Same as HOMING LEFT and RIGHT except that outputs at connectors J13 and J14 are equal-
RADIO TEST selector switch (12-position rotary)-	1	Connects X mode guard rcvr output signal of radio set under test from RADIO SET NO. 1 connector J1 to RADIO TEST OUTPUT connector J18.
	2	Connects retransmit audio output signal of radio set under test from RADIO SET NO. 1 connector J1 to RADIO TEST OUTPUT connector J18. The retransmit control output signal of radio set under test from RADIO SET No- 1 connector J1 controls operation of the CONTROL SIGNAL indicator lamp by connecting a ground whenever signal strength is adequate-
	3	Connectscts X mode receive audio output signal of radio set under test from RADIO SET NO- 1 connector J1 to RADIO TEST OUTPUT connector J18- Connects an internal ground terminal to X mode control circuit *of* radio set under test Connects J17 to Jl-J for X mode transmit tests-
	4	With RADIO ANTENNA FUNCTION switch in XCVR position, the radio set under test is changed to transmit mode and connects T/R ANTENNA output to the wattrneter- Connects external audio oscillator signal from RADIO TEST INPUT connector J 17 to the retransmit audio input of radio set under test through RADIO SET NO- 1 connector J1- Permits monitoring the retransmit audio input from RADIO SET NO- 2 connector J2 at RADIO TEST OUTPUT connector J18-

Control, indicator, or connector	*Su* pos	*Function* *Function*
	5	Connects external audio oscillator output signal from RADIO TEST INPUT connector J 17 to X mode through RADIO SET NO- 1 connector J1- also provides a+6-8 vdc main receiver agc disable signal for radio set under test-
	6	Connects received audio output signal of radio set under test from RADIO SET NO. 1 connector J1 to RADIO TEST OUTPUT connector J18.
	7	Provides a +6-8-volt guard receiver agc disable for radio set under test.
	8	Connects homing enable output signal of radio set under test from RADIO SET NO- 1 connector J1 to RADIO TEST OUTPUT connector J18.
	9	Connects band switch output signal of radio set under test from RADIO SET NO. 1 connector J1 to RADIO TEST OUTPUT connector J18.
	10	Connects antenna tuner test 1-5 MHz output signal of radio set under test from RADIO SET NO- 1 connector J1 to RADIO TEST OUTPUT connector J18.
	II	Connects antenna tuner test 6-10 MHz output signal of radio set under test from RADIO SET NO 1 connector J1 to RADIO TEST OUTPUT connector J18-
	OFF	In this position, no continuity is established by the RADIO TEST selector switch-
RADIO TEST INPUT connector J17 (two-pin).		Provides for connection of an external audio oscillator signal output to radio set under test-
RADIO TEST OUTPUT connector J18 (two-pin)		Provides for connection of an external multlmet-er for monit-cmng the output from radio set under test-
POWER METER OUTPUT connector J9 (coaxial)		Provides for connection between an external wattmeter output and an Interrnal 50-ohm dummy load.
POWER METER lNPUT connector J10 (coaxial).		Provides for connection of an external wattmeter Input to enable *power* output measurements of the radio set under test
T/R ANTENNA connector J11 (coaxial)		Provides for connection of RF Input/output signal of radio set under test-
SIGNAL lNPIJTconnect-or J12 (coaxial)		Provides for connection of an external signal generator output to provide Input signals LO the radio set under test-
SIGNAL OUTPUT LEFT connector J13 (coaxial)		Provides for connection of homing antenna Input of radio set under test
SIGNAL OUTPUT RIGHT connector J14 (coaxial)		Provides for connection of homing antenna Input of radio set under test
HEADSETS 1 switch (three-position toggle)	Center	Places radio set or communication connrol No- 2 under test and COMM CONT NO. 1 In receive mode of operation-
	INTERCOM	Enables microphone amplifier in COMM CONT NO. 1 for intercom operation- Radio set or communication control No- 2 under test IS In receive mode of operation-
	TRANSMIT	Enables microphone amplifier in COMM CONT NO. 1 for transmit operation Places radio set under test, connected to RADIO SET NO. 1 connector Jl, in transmit mode of operation- Communication control No- 2 under test remains in receive mode of operation- If COMM CONT NO. 1 seletor switch is in ICS position, intercom operation is accomplished when HEADSETS 1 or 2 switch is placed to TRANSMIT-
HEADSETS 2 switch (three-position toggle)-	Center	Places radio set or communication control No- 2 under test and COMM CONT NO. 1 in receive mode of operation-
	INTERCOM	Enables microphone amplifier in communication control No. 2 under test for intercom operation Radio set under

Control, indicator, or connector	*Function*
	Sw *pos* *Function*
	test amd COMM CONT NO.1 are in receive mode of operation-
	TRANSMIT..... Enables microphone amplifier in communication control No- 2 under test for transmit operation- Radio set under test and COMM CONT NO. 1 are in receive mode of operation-
HEADSETS connectors J15 and J16 (six-pin).	Provides for connection of external headset extention cables-
CONTROL SIGNAL indicator lamp, green, DS2.	Indicates when communication control No. 2 under test is providing a transmit control signal. Also indicates when radio set under test, connected to RADIO SET NO. 1 connector J 1, is providing a transmit control signal when the RADIO TEST switch is in position 2.
RADIO SET NO. 1 connector, J1 (32-pin)	Provides for connection for signals and power to Radio Set AN/ARC-l14- Radio Set AN/ARC-l15, Radio Set AN/ARC- l16(V). Radio Set RT-1167/ARC-l64(V), or Interconnecting Box J-4247/AR.
RADIO SET NO. 2 connector J2 (32-pin)	same as RADIO SET NO. 1 connector J 1 except used for connection of another radio set to operate in the retransmit mode- If only one radio set is to be checked it should always be connected to connector J1.
COMM CONT TEST selector switch (12-position rotary).	1. . . . . .Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J119 to microphone amplifier of communication control under test connected to COMM CONT NO. 2 connector J3- Connects Intercom output of microphone amplifier to COMM CONT TEST OUTPUT connector J20-
	2 . . . . . Connects external audio oscillator output signal as described for switch position 1- Connects transmit audio output (5 outputs) of communication control under test microphone amplifier to COMM CONT TEST OUTPUT connector J20 and connects transmit control output (5 outputs) to CONTROL SIGNAL lamp-

Control. indicator, or connector		*Function*
	Sw pos	*Function*
	3	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to the five transceiver received audio input lines and AUX audio input line of headset amplifier (through switching circuit) of communication control under test connected to COMM CONT NO. 2 connect-ar J3. Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.
	4	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to IFF received audio input line of headset amplifier of communication control under test connected to COMM CONT NO. 2 connector J3. Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20-
	5	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to NAV No. 2 adf received audio input line of headset ampiitier (through switching circuit) of communication control under test connected to COMM CONT NO. 2 connector J3- Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.
	6	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to the NAV No. 1 received audio input line of headset amplifier (through switching circuit) of communication control under test connected to COMM CONT NO. 2 connector J3. Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.
	7	Connects external audio oscillator COMM CONT TEST INPUT connector J19 to the interphone received audio input line of the headset amplifier of communication control under test connected to COMM CONT NO. 2 connector J3. Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.
	8	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to the controlled audio No- 2 received audio input line of headset amplifier of communication control under test connected to COMM CONT NO. 2 connector J3. Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.
	9	Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to the uncontrolled audio No- 1 received audio input line of headset amplifier of communication control under test connected to COMM CONT NO. 2 connector J3- Connects output of this headset amplifier to COMM CONT TEST OUTPUT connector J20.

Control. indicator, or connector	*Function*
	SW pos — *Function*
	10 — Connects external audio oscillator output signal from COMM CONT TEST INPUT connector J19 to the uncontrolled audio No. 2 received audio input line of headset amplifier of communication control under test connected to COMM CONT NO. 2 connector J3- Connects output of this headset l mplifier to COMM CONT TEST OUTPUT connector J20.
	11 and OFF — In these two positions, no continuity is established by the COMM CONT TEST selector switch-
COMM CONT TEST INPUT conncwtor J19 (two-pin).	Provides for connection of an external audio oscillator output signal to communication control under test-
COMM CONT TEST OUTPUT connector J20 (two-pin)-	Provides for connection of an external multimeter for measuring output of communication control under test-
COMM CONT NO. 2 connector J3 (41-pin)-	Provides for connection of signals and *power* for Communication System Control C-6533/ARC-
ADF antenna function selector switch (six-position rotary)-	OFF — Disconnects external signal generator output to SIGNAL INPUT *connector* 323 *from* LOOP ANTENNA X, LOOP ANTENNA Y, and SENSE ANTENNA connectors J24, J25, and J26 respectively.
	COMP — Connects external signal generator output from SIGNAL INPUT connector J23 to LOOP ANTENNA X, LOOP ANTENNA Y, and SENSE ANTENNA connectors J24, J25, and J26 respectively-
	ANT — Connects external signal generator output from SIGNAL INPUT connector J23 to SENSE ANTENNA connector J26 only-
	LOOP — Connects external signal generator output from SIGNAL INPUT connector J23 to LOOP ANTENNA X and LOOP ANTENNA Y connectors J24 and J25 respectively-
	X — Connects external signal generator output from SIGNAL INPUT connector J23 to LOOP ANTENNA X connector J24 only-
	Y — Connects external signal generator output from SIGNAL INPUT connector J23 to LOOP ANTENNA Y connector J25 only-
ADF TEST selector switch (12-position rotary) .	**1** — Connects +28 volts of R-1496/ARN-89 under test from ADF RCVR TEST connector J5 to ADF TEST RCVR connector J21- Connects +28 volts of C-7392 ~ARN-89 under test from ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22-
	2 — Connects 26-volt, 400-cPs signal of R-1496 /ARN-89 under test from ADF/GYRO connector J4 to ADF TEST RCVR connector J21- Connects bfo + 15 v of C–7392/ARN-89 under test from ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22-
	3 — Connects +15 volts stabilized voltage of R-1496/ ARN-89 under test from ADF RCVR TEST connector J5 to ADF TEST RCVR connector J21- Connects loop preamplifier +15 v of C-7392/ ARN-89 under test from ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22.

Control. indicator, or *connector*	Sw pos	*Function* / *Funtion*
	4	Connects tuning meter input signal of R-1496/ARN-89 under test from ADF RCVR TEST connector J5 to ADF TEST RCVR connector J21- Connects sense preamplifier + 15 v *of* C-7392 /ARN-89 under test from ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22-
	5	Connects audio output signal of R-1496 /ARN-89 under test from ADF/GYRO connector J4 to ADF TEST RCVR connector J21. Connects LOOP L-R and test switch +16 v of C-7392 /A RN-89 under test from ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22-
	6	Connects 26-volt, 400-cps output of maintenance kit to ADF TEST RCVR connector J21- Connects audio gain control output signal of G7392/ARN-89 under test *from* ADF CONTROL TEST connector J6 to ADF TEST CONTROL connector J22.
	7, 8, 9, 10, 11, OFF.	In these six positions, no continuity is eatabliahed by ADF TEST selector switch-
ADF SIGNAL INPUT connector J23 (coaxial).		Provides for connection of an external signal generator output to R-1496/ARN-89 under tist-
ADF LOOP ANTENNA X connector J24 (coaxial), ADF LOOP ANTENNA Y connector J26 (coaxial)-		Provides for connection of an input signal to loop antenna inputs *of* R-1496 /A RN-89 under test-
ADF SENSE ANTENNA connector J26 (coaxial).		Provides for connection *of* an input signal to sense l ntenna input of R-1496/ARN-89 under test-
ADF RCVR TEST connector J6 (19-pin),		Provides *for* connection of signals and power for Radio Receiver R-1496 /A RN-89-
ADF/GYRO connector J4 (32-pin).		Provides for connection of signals and power for Radio Receiver R-1496/ARN-89.
ADF CONTROL TEST connector J6 (19-pin)-		Provides for connection of signals and power for Radio Set Control G7392/ARN-89.
ADF TEST RCVR connectar J21 (two-pin).		Provides for connection *of* an external multimeter to monitor output signals from R-1496/ARN 89 under test,
ADF TEST CONTROL connector J22 (two-pin)-		Provides for connection of at, external multimeter to monitor output signals from C 7392/ARN 89 under Wst-

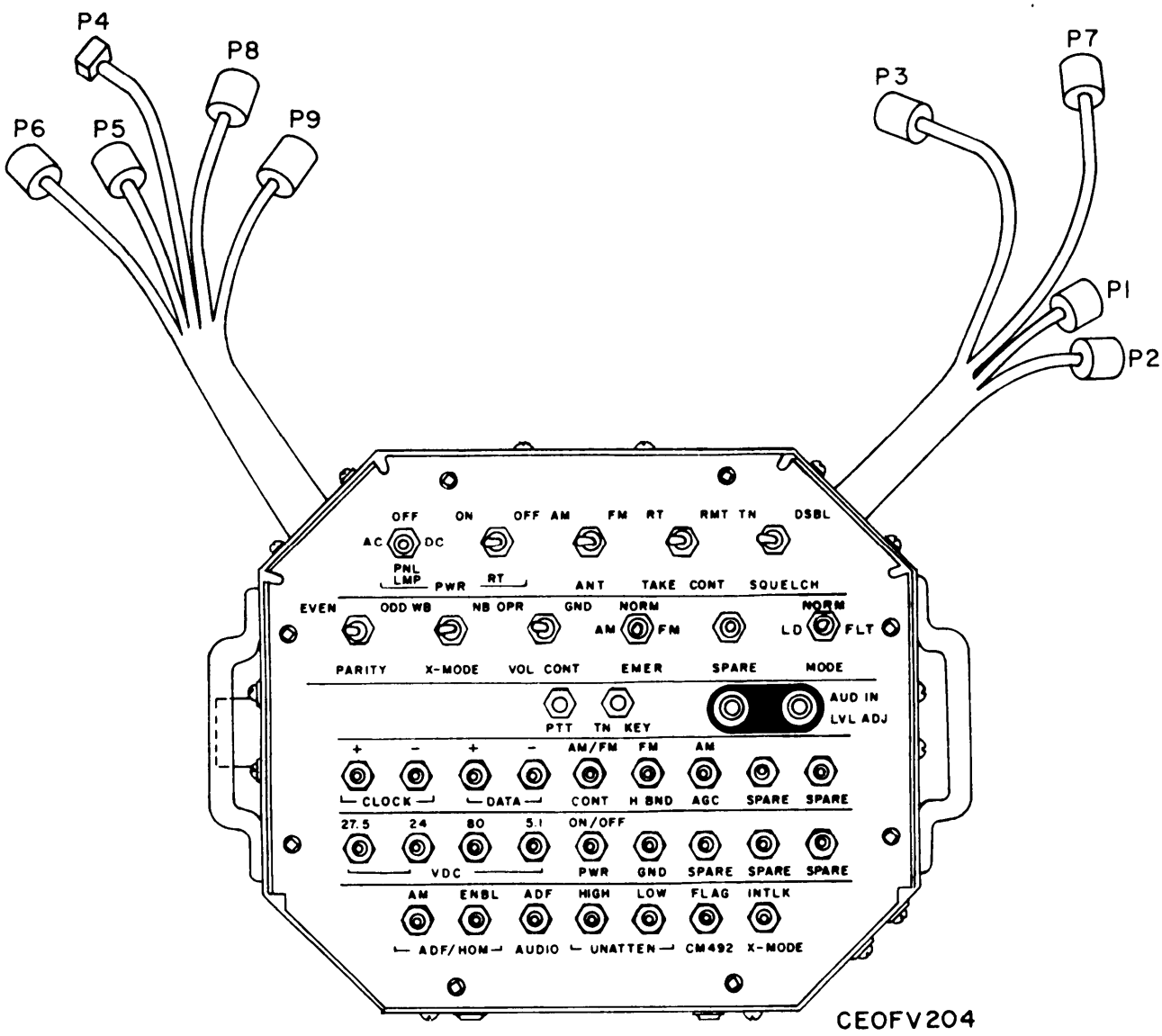


Figure 2-3. Front Panel, Interconnecting Box J-4247/AR

2-4.1 Interconnecting Box J-4247/AR Controls and Connectors (fig. 2-3)

Control or Connector	*Switch Position*	*Function*
PNLLMP Switch S1	AC	When testing 115 volt 400 Hz panel lit radio, routes panel light power from connector J1 to connectors P4, P8, and P9.
	OFF	Disconnects all panel lighting to the radio set under test.
	DC	When testing 0-28 volt direct current panel lit radio, routes 28 VDC primary power from connector P3 to connectors P4, P8, and P9.
RT PWR Switch S2	ON	Enables receiver-transmitter to power itself internally.
	OFF	Disables primary power internally to the receiver-transmitter.
ANT Switch S3	-Ahl	Directs receiver-transmitter to transmit/receive AM signals through RF connector J4 on receiver-transmitter and FM signals through RF connector J3 on receiver-transmitter.
	EM	Directs receiver-transmitter to transmit/receive both AM and FM signals through RF connector J3 on receiver-transmitter-
TAKE CONT switch S4	RT	Directs receiver-transmitter control via controls on receiver-transmitter-
	RMT	Directs receiver-transmitter control via control on remote control unit.
SQUELCH switch S5	TN	Directs receiver-transmitter to transmit as low-level 150 Hz tone on top of normal transmit signal.
PARITY switch S6	EVEN	Estahlishes even parity for MIL-STD-1553 buss address connector P1.
	ODD	Establishes odd parity for MIL-STD-1553 buss address connector P1.
X-MODE switch S7	WB	Directs *receiver-transmitter to* process wideband X-mode audio signals-
	NB	Direct~ receive-tranmitter to process narrowhand X-mode audio signals,
VOL CONT switch S8	OPR	Directs remote control unit to process received audio signals out to a specified minimum level-
	GND	Directs remote control unit to process received audio signals out to a zero minimum level.
EMER switch S9	AM	Directs the MIL-STD-I553 receiver-transmitter to tune to 121.5MHz for AM operation.
	NORM	Allows the MIL-STD-1553 receiver-transmitter to be controlled by normal buss address signals-
	FM	Directs the hlIL-STD-1553 receiver-transmitter to turn to 40.5MHz for FM operation-
SPARE switch S10	Not connected	
MODE switch S11	LD	Directs the MIL-STD-l553 receiver-transmitter to load a new frequency into memory through buss address connector PI-
	NORM	Directs the MIL-STD-1553 receiver-transmitter to operate via routine buss commands-
	FLT	Directs the MIL-STD-1553 receiver-transmitter to operate on the preselected channel 1 frequency-
PTT test point TP1		Provides access to monitor push-to-talk control link,
TN KEY test point TP2		Provides access to monitor 1000 Hz transmit tone control line,
A(-1D IN LVL ADJ test points TP28 and TP29		Connects to audio signal generator to provide transmit audio in.
CLOCK test points TP3 and TP4		Provides access to monitor clock control lines.
DATA test points TP5 and TP6		Provides access to monitor Data control lines.

Control or Connector	*Switch Position*	*Function*
AM/FM CONT test point TP7		Provides access to monitor AM/FM control line-
FM H BND test point TP8		Provides access to monitor FM high band control line-
AM AGC test point TP9		Provides access to the AM AGC control line-
SPARE test points TP10 and TPll		Not connected-
27.5 VDC test point TP12		Provides access to monitor primary DC power provided by the MK-994A/AR-
24 VDC test point TP13		Provides access to monitor 24 VDC generated by the receiver-transmitter-
80 VDC test point TP14		Provides access to monitor 80 VDC generated by the receiver-transmitter-
5.1 VDC test point TP15		Provides access to monitor 5-1 VDC generated by the receik'er-transmitter-
ON/OFF PWR test point TP 16		Provides access to monitor receiver-transmitter power control lines-
GND test point TP17		Provides ground reference point for monitoring other J-4247/AR test points-
SPARE test points TP18, TP19, and TP20		Not connected.
ADF/HOM AM test point TP21		Provides access to monitor homing AM audio signal generated by receiver-transmitter-
ADF/HOM ENBL test point TP22		Provides access to monitor homing enable logic control line-
ADF AUDIO test point TP23		Provides access to monitor homing FM audio signal generated by receiver-transmitter-
UTNATTEN HIGH, LOW test points TP24 and TP25		Provides access to monitor the unattenuated audio output signals generated by the receiver-transmitter-
FLAG CM-492 test point TP26		Provides access to monitor the homing indicator flag signal generated by the CM-492/ARC-186(V).
INTLK X-MODE test point TP27		Provides access to monitor emergency X-mode interlock control signal-
J1 connector		Connects to 115 volt, 400 Hz power supply through cable assembly CX-10887/AR when testing the panel light operation of blue-green panel lit models of the AN/ARC-186(V) Radio Set-
PI connector		Connects to P7 of MIIL-STD-1553 receiver-transmitter when testing radio operations of this model only-
P2 connector		Connects to P2 of AN/ARC-186(V) receiver-transmitter-
P3 connector		Connects to P1 of the MK-994A/AR-
P4 connector		Connects to P1 of AN/ARC- 186(V) receiver-transmitter-
P5 connector		Connects to P-1 of the CM-482/ARC-186(V) when testing operation of this unit only-
P6 connector		Connects to P6 of CM-492/ARC-186(V) when testing operation of this unit only-
P7 connector		Connects to P1 of the CM-492/ARC-186(V) when testing operation of this unit only-
P8 connector		Connects to P1 of the C-10604/ARC- 186(V).
P9 connector		Connects to P1 of the C-10606/ARC-186(V).

Section II. OPERATING PROCEDURES

2-5. Types of Operation

The MK-994/AR and MK-994A/AR are used to test and repair the avionics equipment listed in paragraph 1-4- Each equipment requires the proper MK-994/AR or MK-994A/AR test set-up as identified in its individual technical manual- Refer to DA Pam 310-1 for identification of proper editions of these manuals-

2-6. Preliminary Starting Procedures

Peform the preliminary starting procedures outlined below before operating the maintenance Kit-

a. Place the maintenance kit on a clean workbench, and remove the hinged lid by unlatching and sliding it to the right until the hinges (fig- 1-1) separate.

b. Set the maintenance kit AC and DC POWER circuit breakers to OFF.

c- Connect dc power cable CX–10886/AR (W22) as follows:

(1) Connect cable connector W22P1 to maintance kit connector J28-

(2) Connect the two alligator clips at the opposite end of cable W22 to a suitable +27.5-volt power source- The dc power source should be variable and adjusted to 28 volts + .5, .0 to compensate for dc losses attributable to internal wiring of the maintenance kit-

d. As required, connect ac power cable CX-10887/AR (W23) as follow's:

(1) Connect cable connector W23P1 to maintenance kit POWER connector J27.

(2) Connect cable connector W23P2 to a suitable 115-volt, 400-Hz single-phase power receptacle-

e. Set the ME-26 B/U controls for 50 volts ac and connect the multi meter to the maintenance kit ADF TEST RCVR connector J21.

f. Set the maintenance kit ADF TEST selector switch to position 6.

g. Set the maintenance kit AC and DC POWER circuit breakers to ON. The AC and DC POWER indicator lamps should light and the multimeter should indicate 26.0±2.0 volts ac-

h- Set the maintenance kit AC and DC POWER circuit breakers to OFF- The indicator lamps and the multimeter should indicate no power presence.

i- Disconnect the multimeter from the maintenance kit and proceed with the applicable procedures stipulated in the applicable equipment technical manual.

CAUTION

To avoid transistor or integrated circuit damage, make sure that all power switches are OFF when changing cable connections- Check source voltages and polarity before making connections-

NOTE

Rf losses in the maintenance kit must be considered when measuring receiver sensitivity and rf power output- The maintenance kit losses (including interconnecting cables) are approximately 22 db and 3 db respectively for these tests- These losses should be verified for each maintenance kit when performing these tests-

CHAPTER 3

MAINTENANCE

Section I GENERAL

3-1. Scope of Maintenance

The maintenance duties assigned to the operator and organizational repairman of the equipment are listed below, together with a reference to the paragraphs covering the specific maintenance functions.

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

b. Monthly preventive maintenance checks and services (para 3-5).

c. Quarterly preventive maintenance checks and services (para 3-6).

d. Cleaning (para 3-7).

e. Touchup painting (para 3-8).

3-2. Preventive Maintenance

Preventive maintenance is the systematic care, servicing, and inspection of the 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 3-8 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment-

b- Preventive Maintenance Check and Services- The preventive maintenance checks and services charts (paras 3-4, 3-5, and 3-6) 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 operatars 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 actions listed, higher category maintenance or repair is required. Records and reports of these checks and services must be made in accordance with the requirementand fourth in TM 38-750.

3-3. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the equipment are required daily, monthly, and quarterly.

a. Paragraph 3-4 specifies the checks and services that must be accomplished daily (or at least once each week if the equipment is maintained in standby condition)-

b. Paragraphs 3-5 and 3-8 specify additional checks and services that must be performed on a monthly and quarterly basis, respectively.

3-4. Daily Preventive Maintenance Checks and Services Chart

Sequence No.	*Item to be inspected*	*Procedure*	References
1	Completeness - - -	See that the equipment is complete-	Para 1-6
2	Exterior surfaces -	Clean the exterior surfaces, including the panel meter glass- Check the meter glass and all indicator lenses for cracks-	Para 3-7
3	Connectors	Check the tightness of all connectors-	None
4	Controls and indicators -	Observe that the mechanical action of each knob, dial, and switch is smooth and free of external or internal binding, and that there is no excessive looseness.	None
5	Operation - -	Operate the equipment	Para 2-6

3-5. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to *be* inspeated	*Procedures*	*References*
1	Cables	Inspect cables and wires for chafed, cracked, or frayed insulation- Replace connectors that are broken, arced, stripped, or worn excessively-	None
2	Handles and latches	Inspect handles, latches, and hinges for looseness- Replace or tighten as necessary-	None
3	Metal surfaces	Inspect exposed metal surfaces to rust and corrosion- Touch up paint as required-	Para 3-8
4	Pluckout items	Inspect seating of pluckout items	None
5	Transformer terminals	Inspect the terminals on the power transformer- There should be no evidence of dirt or corrosion-	None
6	Resistors and capacitors	Inspect the resistors and capacitors for cracks, blistering, or other detrimental defects-	None
7	Gaskets	Inspect gaskets for cracks, chipping, and excessive wear-	None
8	Interior	Clean interior of chassis and cabinet	None

3-6. Quarterly Preventive Maintenance Checks and Services Chart

Sequence No-	item *to be inspected*	*Procedure*	deference
1	Publications	See that all publications are complete, serviceable, and current	DA Pam 310-4
2	Modifications	Check DA Pam 310-7 to determine whether new applicable MWO's have been published- All URGENT MWO's must be applied immediately- All NORMAL MWO's must be scheduled.	DA Pam 310–7
3	Spare parts	Check all spare parts (operator and organizational) for general condition and method of storage- There should be no evidence of overstock, and all shortages must be on valid requisitions-	Para 1-6

3-7. Cleaning

Inspect the exterior of the equipment- The exterior surfaces should be clean, and free of dust, dirt, grease, and fungus-

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

Warning: **Cleaning compound is flammable and its fumes are toxic- Provide adequate ventilation- DO NOT use near a flame.**

b- Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with Cleaning Compound (FSN 7930-395-9542).

c. Remove dust and dirt from plugs and jacks with a brush-

Caution: Do not press on the meter face (glass) when cleaning; the meter may become damaged-

d- Clean the front panel, meters, and control knobs; use a soft clean cloth- If dirt is difficult to remove, dampen the cloth with water; mild soap may be used for more effective cleaning-

3–8. 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 the applicable cleaning and refinishing practices specified in TM 746-10-

Section II TROUBLESHOOTING PROCEDURES

3–9. Troubleshooting

Troubleshooting of the maintenance kit is based on the operational checks contained in the daily preventive maintenance checks and services chart- To troubleshoot the equipment, perform the procedure given in paragraph 2-6. Proceed through this paragraph until an abnormal condition or result is observed- When an abnormal condition or result is observed, turn to the troubleshooting chart (para 3-10). Perform the checks and corrective measures in the troubleshooting chart- If the corrective measures indicated do not result in correcting the trouble, higher category maintenance is required- It is assumed that the repair facility ac and direct current (de) power sources are operating correctly, this item is not listed in the Checks and corrective *measures* column of the troubleshooting chart.

3-10. Troubleshooting Chart

item No.	*Trouble sysptom*	*Probable trouble*	*Checks and* correction, measurement
1	AC POWER indicator lamp does not light-	Defective lamp or (W23)- AC POWER Indicator defective power cable CX-10887/AR-	Replace AC POWER indicator lamp or replace ac power cable (W2X)
2	DC POWER indicator lamp does not liRht-	Defective lamp or (W22)- DC POWER lndicator defective dc power cable CX-10886/AR.	Rt'place DC POWER Indicator lamp or replace dc power cable (W22)
3	Unable to operate equipment under test due to absence of test signals or primary power.	Defective interconnecting cables, Interconnecting Box J-4247/AR, or COMM CONT NO. 1.	Replace interconnecting cables, Interconnecting Box, or COMM CONT NO- 1 (C-6533/ARC) (para- 3-12a).
4	Unable to perform basic adf test or homing test due to loss of visual output-	Defective HOhlING/-ADF/GYRO-	Replace HOMING/ADF/GYRO (ID-1351/A) (para- 3-12b).
5	Unable to perform basic 115 volt 400 Hz Radio Set panel light test-	Blown fuse (Fl) in J-4247/AR or defective AC power cable (W23) CX-10887/AR-	Replace fuse in ,J-42417/AR or AC power cable (W23).

3-11- Repairs

Repair procedures available to the organizational maintenance repairman are limited to replacement of the front panel indicator lamps (provided as spare parts), C-6533/ARC, ID-1351/A, J4247/AR, and fuse F1 contained in J-4247/AR- Front panel indicator lamps are replaced as follows:

a- Turn the lens counterclockwise and remove it to expose the defective lamp-

b- Pull out the defective lamp from within the lens and replace it with a new one. Push the lamp in until it is seated securely within the lens.

c- Replace the lens and screw it in clockwise until secure.

3-12. Replacement of COMM CONT NO. 1 C-6533/ARC, HOMING/ADF/GYRO ID-1351/A and INTERCONNECTING BOX J-4247/AR

a- COMM CONT NO. 1 C–6533/ARC (fig- 3–1)-

(1) Loosen the 10 captive screws securing panel assembly to case and lift out panel assembly and the attached chassis assembly from case-

CAUTION

Loosen the two screws together so as not to damage connector pins of COMM CONT NO. 1

(2) Remove connector P1 from COMM CONT NO. 1 by loosening the two screws securing P1 to connector of COMM CONT NO. 1.

(3) Loosen the COMM CONT NO. 1 from the panel assembly by turning each of the four turn-lock fasteners securing COMM CONT NO. 1 to the panel assembly one-quarter turn counterclockwise, then push COMM CONT NO. 1 out through its opening in the panel assembly-

(4) Insert and fasten replacement COMM CONT NO. 1 to the panel assembly by using the above procedures in the reverse order-

(5) Replace the panel assembly.

b. HOMING/ADF/GYRO ID-1351/A(fig. 2-2 and 3-1).

(1) I-oosen the 10 captive screws securing the panel assembly and the attached chassis assembly from the case-

(2) Remove connector- P2 from ID-1351/A by turning connector P2 coupler one-quarter turn counterclockwise-

(3) Loosen the eight screws (H15 through Hl8) securing four clamps (MP9, MP10, and MP13, and MP14) to the ID–1351 A and pull the lD-1351/A out from its opening in the panel assembly-

NOTE

Four screws (Hll) on MP104 and four screws (H20) on the front panel may he loosened slightly to effect an easier removal of ID–1351 A.

(4) Insert replacement ID–1351/A through the panel opening and secure with clamps MP9, MP10, MP13, and MP14 by reversing the above procedures. Secure all hardware and connectors- Replace the front panel-

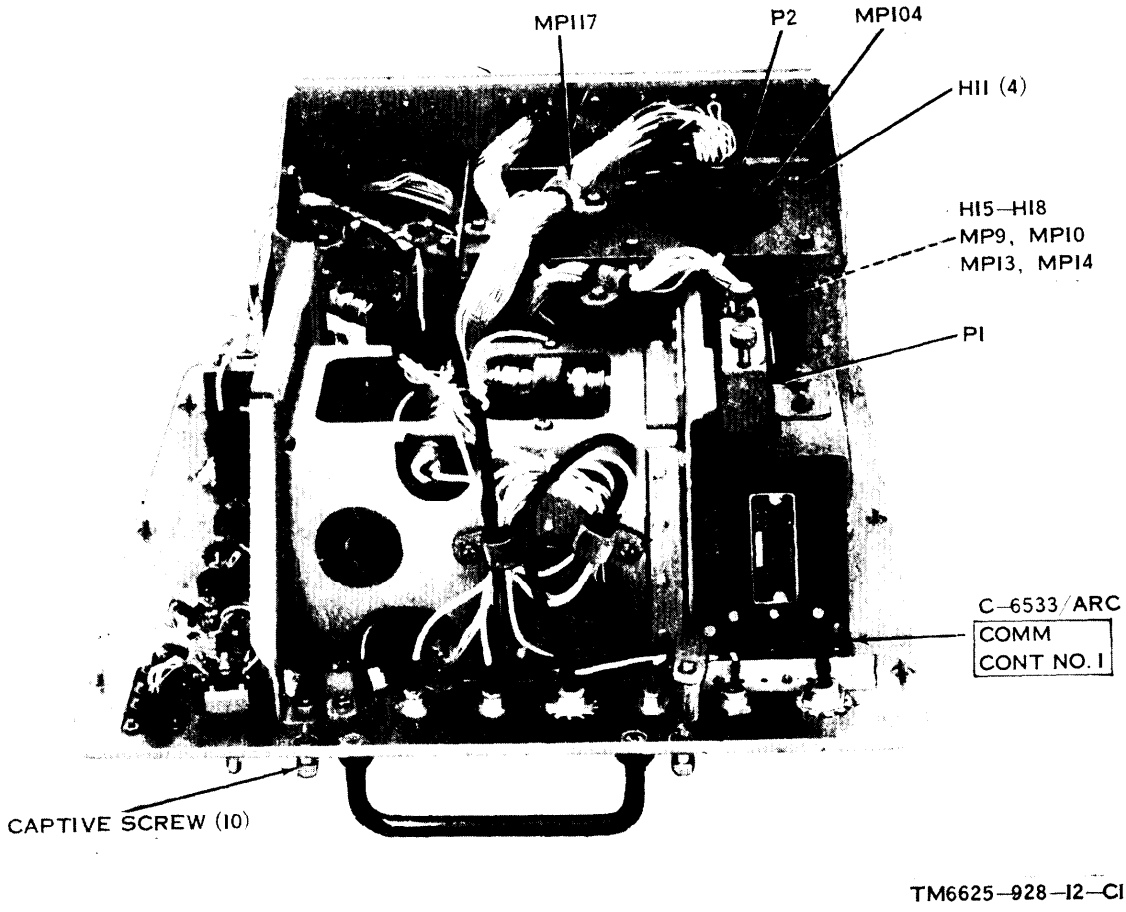


Figure 3-1. Front panel with case removed, rear view.

c. INTERCONNECTING BOX J-4247/-AR.

(1) Detach carrying case lid from Test Facilities Kit; lift cover inside carrying case-

(2) Unfasten two straps and remove Interconnecting BOX.

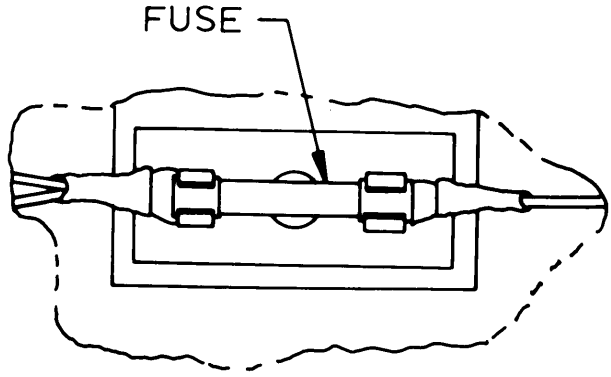
(3) Position replacement Interconnecting Box and secure. Close cover inside carrying case lid; attach carrying case lid to test Facilities Kit.

d. REPLACEMENT OF FUSE WITHIN INTERCONNECTING BOX J-4247.

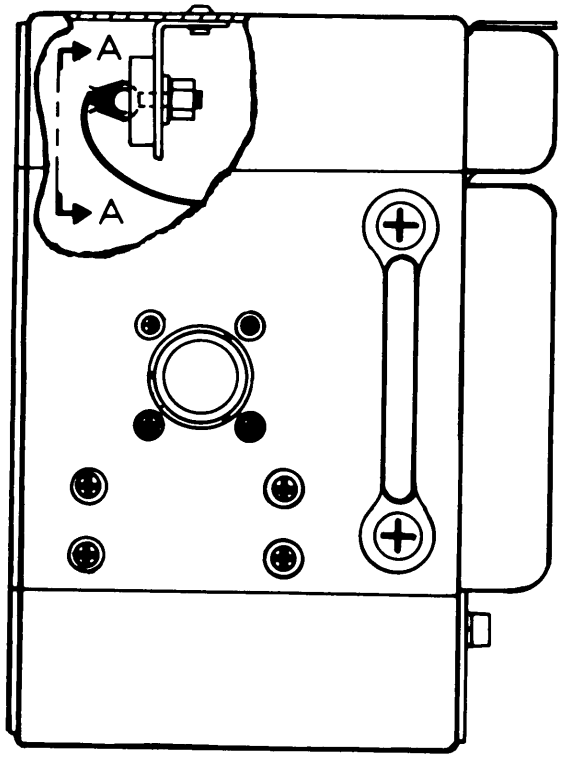
(1) Remove bottom panel of' J-4247//AR by unscrewing the eight screws attaching the bottom panel to the sides of the J-4247/-AR, exposing the defective fuse.

(2) Pull out the defective fuse from the fuse holder and replace it with a new one (fig, 3-2.

(3)) Replace the bottom pane] of' l J-4247/AR.



VIEW A - A



SIDE VIEW OF INTERCONNECTING BOX

CEOFV205

Figure 3-2. Location of Fuse within Interconnecting Box J-4247/AR.

CHAPTER 4
SHIPMENT, LIMITED STORAGE, AND DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

4-1. Disassembly of Equipment

Prepare the maintenance kit for shipment of storage as follows:

a. Disconnect all cables from the maintenance kit front panel connectors.

b. Check to see that all retaining screws along the perimeter of the front panel are secure-

c. Coil each cable assembly carefully and place the cables into the cover of the maintenance kit carrying case. Secure the cables with the retaining straps- Insert the dummy loads in their shipping containers and place them in the center of the coiled cables.

d. Insert the technical manual and the instruction card set behind the spring clips at the rear of the inner cover.

e. If the cover has been disconnected, insert the hinge pins into the mating hinge sections (fig- 1-1) on the carrying case lid- Slide the lid to the extreme left- Close and secure the maintenance kit latches-

4-2. packaging for Shipment

Packaging of the maintenance kit for shipment is essentially the reverse of the unpacking procedure outlined in paragraph 2-1. Use reinforced gummed tape for sealing the corrugated inner and outer cartons- Use corner cushioning pads (para 4-3) for each of the corrugated inner carton corners,

4-3. packaging for Storage

The exact procedure for packaging the maintenance kit for limited storage depends on the material available and the conditions under which the maintenance kit is to be shipped or stored. Generally, the procedures outlined in paragraph 4-2 should suffice. However, for extended storage, it may be desirable to enclose the maintenance kit in a waterproof, barrier material wrap before insertion in the corrugated inner carton- The following materials are recommended for use in packaging- For stock numbers of these, or equivalent materials, refer to SB-38-1OO.

Material	*Quantity*
Tape, gummed, paper, reinforced	30 ft
Corner pad, cushioning	8
Fiberboard, corrugated	44 sq ft
Barrier material, waterproof	22 sqft

Section II DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

4-4. Authority for Demolition

demolition of the equipment will be accomplished only upon the order of the commander- The procedures given in paragraph *4-5* will be used to prevent further use of the equipment-

4-5. Methods of Destruction

Use any of the following methods to destroy the equipment-

a- Smash- Smash the controls, switches, capacitors, transformers, and meters; use sledges, axes, handaxes, pickaxes, hammers, or crowbars-

b- *Cut*- Cut the interconnecting wiring and slash the RF shield; use axes, handaxes, or machetes-

c. Burn- Burn cables and technical manuals; use gasoline, kerosene, oil, flamethrowers, or incendiary grenades-

d.Bend. Bend panel and cabinet-

WARNING

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

e. *Explode*- If explosives are necessary, use firearms, grenades, or TNT.

f. *Dispose*- Bury or scatter the destroyed parts in slit trenches, foxholes, or throw them into streams.

4-6. Degree of Damage

a- General. Methods of destruction should achieve such damage to equipment and essential spare parts that it will not be possible to restore the equipment to a usable condition in the combat zone either by repair or cannibalization.

b. New Equipment- This equipment must be destroyed to prevent duplication by, or revealing means of operation or function, whenever possible, to the enemy-

c. *Associated Classified Documents*- Any associated documents, notes, instructions, or other written material pertaining to function, operation, maintenance, or employment, including drawings or parts lists, must be destroyed to render them useless to the enemy-

4-7 Priorities for Destruction

a- Priority must always .be given to the destruction of classified equipment and associated documents-

b. When lact of time and/or stores prevents destruction of equipment, priority is to be given to the destruction of essential parts, and the same parts are to be destroyed on all like equipment-

c- A guide to priorities for destruction of parts for various groups of equipment is contained in paragraph 4-12-

4-8. Equipment Installed in vehicles

Equipment installed in vehicles should be destroyed in accordance with the priorities for the equipment itself, taking into account the relative importance of the installed equipment and the vehicle itself-

4-9. Spare Parts

The same priority, for destruction of component parts of a major item necessary to render that item inoperable, must be given to the destruction of similar components in spare parts storage areas.

4-10. Authorization

The authority for ordering the destruction of equipment is to be vested in the divisional and higher commanders, who may delegate authority to subordinate commanders when the situation requires-

4-11. Reporting

The reporting of the destruction of equipments is to be done through command channels.

4-12. Priorities

The chart below provides a numerical priority rating between 1 and 6 for general radio equipment destruction.

Priority	*Parts/equipment*
1	Transmitter (oscillators and frequency generators).
2	Receiver.
3	Remote control units or switchboards (exchanges) and operating terminals.
4	Power supply and/or generator set.
5	Antenna.
6	Tuning heads.

APPENDIX A

REFERENCES

AR 55-38	Reporting of Transportation Discrepancies in Shipments-
AR 735-11-2	Repelling of Item and Packaging Discrepancies-
DA Pam 310-1	Consolidated Index of Army Publications and Blank Forms-
DA Pam 738-750	The Army Maintenance Management System (TAMMS)-
SB 38-100	Preservation, Packaging, Packing and Marking Materials, Supplies, and Equipment Used by the Army.
TM 11-4940 -238-14-1	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Electronic Shops, Shelter Mounted, Avionics AN/ASM-14613 (NSN 4940-00-435-7764), AN/ASM-146C (4940-01-110-9560) and AN/ASM-147B (4940-00-435-7765)-
T-M 11-4940-238-15	Operator, Organizational, Direct Support, General Support and Depot Maintenance Manual: Electronic Shops, Shelter Mounted, Avionics, AN/ASM-146A (NSN 4940-00-877-8726) and AN/ASM-147A (4940-00-912-3532)-
TM 11-5821-259-20	organizational Maintenance Manual for Radio Sets, AN/ARC-l14 (NSN 5821-00-935-5071) and AN/ARC-l14A (5821-00-165-2970): Network, Impedance Matching, CU-1794/ARC-l14 (5915-00-056-4953) and Network, Impedance Matching-Quadrature Hybrid, CU-1796/ARC-114 (5915-00-056-4951).
TM 11-5821 -260-12-1	Operator's and Organizational Maintenance Manual: Radio Set, AN/ARC-ll5(V)1 (NSN 5821-01-057-4037).
TM 11-5821-260-20	Organizational Maintenance Manual: Radio Set AN/ARC-l15.
TM 11-5821-261-20	Organizational Maintenance Manual: Radio Set AN/ARC-l16.
TM 11-5821-262-20	Organizational Maintenance Manual: Control, Communication System, C-6533/ARC.
TM 11-5821-311-12	Operator's and Organizational Maintenance Manual for Receiver-Transmitter, Radio RT-1167/ARC-164(V) (NSN 5821-00-138-7990).
TM 11-5826-227-20	Organizational Maintenance Manual: Direction Finder Sets AN/ARN-89 (NSN 5826-00-790-6453), AN/ARN-89A (5826-00-151-2685) and AN/ARN-89B (5826-00-021-3289)
TM 11-6605-202-12	Operator's and organizational Maintenance Manual Aviation Unit Maintenance (AVUM) for Compass Sets AN/ASN-43, and AN/ASN-43A (NSN 6605-00-069-8762)-
TM 11-6625-200-15	operator's Organizational, Direct Support, General Support and Depot Maintenance Manual: Multimeters ME-26A/U (NSN 6625-00-360-2493), ME-26B/U and ME-26 C/U (6625-00-646-9409), and ME-26 D/U (6625-00-913-9781)-
TM 11-6625-928-20P	Organizational Maintenance Repair Parts and Special Tools Lists for Test Facilities Kit MK-994/AR (NSN 6625-00-802-7191)-
TM 740-90-1	Administrative Storage of Equipment-
TM 746-10	Marking, Packaging and Shipment of' Supplies and Equipment: General Packaging Instructions for Field Units.
TM 750-244-2	Procedures for Destruction of Electronics Materiel to Prevent Enemy Use (Electronics Command).

APPENDIX B

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Test Facilities Kit MK–994/AR- 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 operation-

B-2. Explanation of Format for Maintenance Allocation Chart

a. Group Number- Group numbers correspond to the reference designation prefix assigned in accordance with ASA Y3Z-16, Electrical and Electronics Reference Designations- They indicate the relation of listed items to the next higher aasembly-

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 category at which performance of the specific maintenance function is authorized- Authorization to perform a function at any category also includes authorization to perform that function at higher categories- The codes used represent the various maintenance categories as follows:

Code	*Maintenance Category*
C_____	-- Operator/crew
O _ _ _ _ _	- Organizational maintenance
F _____	Direct support maintenance
H_____	General support maintenance
D _ _ _ _ _	Depot maintenance

d. Toools 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-3. Explanation of Format for Tool and Test Equipment Requirements

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 tool for the maintenance function-

b. Maintenance Category- The codes in this column indicate 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
FOR
TEST FACILITIES KIT

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQPT	(6) REMARKS
00	Test Facilities Kit	Inspect		.25					
	MK-994/AR	Test		.25					
	NSN 6625-00-802-7191	Service		.5					
	MK-994A/AR	Replace		.1					
	NSN 6625-01-189-7882	Repair		.5				6	A
		Repair			1.0			1 thru 16	
		Repair				1.0		5, 8	B
		Rebuild					40		
01	Case, Test Facilities	Inspect		.10					
	Kit, SM-E-625549	Service		.25					
		Replace		. 40					
		Repair		-40!				2-5	c
		Repair				.5			
02	Control Communication	Inspect		0					
	System, C-6533/ARC	Test				.20		1 thru 16	
	5895-00-895-4175	Replace		.25					
		Repair				.5			D
03	Heading Radio Bearing	Inspect		.10					
	Indicator, ID-1351/A	Test			.20			1 thru 16	
	5826-00-999-7143	Replace		.50					
		Repair					.5		
04	Panel Assembly	inspect		.10					
		Service		.25					
		Replace				.5		2, 5, 8	
		Test				.3		1 thru 16	
		Repair				.5			
		Repair		.2					E
)401	Circuit Card Assembly,	Inspect			.10				
	A, SM-D-625671	Test				.5		8, 9, 13	
		Replace			-10				
		Repair				.5		2, 5	
05	Cable Assembly, Radio	Inspect		.10					
	SC-D-972432	Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	

SECTION II- MAINTENANCE ALLOCATION CHART

FOR

TEST FACILITIES KIT

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQPT-	(6) REMARKS
06	Cable Assembly, Power	Inspect		.10					
	CX-1086/AR (6 Ft)	Test		.20				1	
	6625-00-935-5239	Replace		.10					
		Repair				.5		2, 5, 8	
07	Cable Assembly, Power	inspect		.10					
	CX-10887/AR (6 Ft)	Test		.20				1	
	6625-00-935-5240	Replace		.10					
		Repair				.5		2, 5, 8	
08	Cable Assembly, Radio	Inspect		.10					
	CG-3480/V (4 Ft)	Test		.20				1	
	6625-00-935-5231	Replace		.10					
		Repair				.5		2, 5, 8	
09	Cable Assembly, Special	Inspect		.10					
	CX-1088/U (6 Ft)	Test		.20				1	
	6625-00-935-5214	Replace		.10					
		Repair				.5		2, 5, 8	
10	Cable Assembly, Special	Inspect		.10					
	CX-10891/U (3 Ft)	Test		.20				1	
	6625-01-157-8900	Replace		.10					
		Repair				.5		2, 5, 8	
11	Cable Assembly, Special	inspect		.10					
	CX-10889/U (3 Ft)	Test		.20				1	
	6625-00-935-5210	Replace		.10					
		Repair				.5		2, 5, 8	
12	Cable Assembly, Special	Inspect		.10					
	CX-10890/U	Test		.20				1	
	6625-01-157-8899	Replace		.10					
		Repair				.5		2, 5, 8	
13	Cable Assembly, Special	Inspect		.10					
	CX-10892/U (3 Ft)	Test		.20				1	
	6625-00-935-5211	Replace		.10					
		Repair				.5		2, 5, 8	

SECTION II MAINTENANCE ALLOCATION CHART

FOR

TEST FACILITIES KIT

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQPT-	(6) REMARKS
14	Cable Assembly, Special CX-10893/V 6625-00-935-5212	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
15	Cable Assembly, Radio CG-3483/V (1 Ft) 6625-01-8901	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
16	Cable Assembly Radio CG-347/U (1 Ft) 6625-00-935-5223	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
17	Cable Assembly, Special CX-10894/AR 6625-00-935-5213	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
18	Cable Assembly, Radio CG-3484/U (12 Ft) 6625-00-935-5230	inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
19	Cable Assembly, Special CX-11985/AR	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
20	Cable Assembly, Radio CG-3475/V (6 Ft) 6625-00-935-5227	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
21	Cable Assembly, Radio CG-2340 A/U (9 Ft) 5995-00-935-0389	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
22	Cable Assembly, Radio CG-3477/V (4 Ft) 6625-00-935-5226	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	

SECTION II. MAINTENANCE ALLOCATION CHART
FOR
TEST FACILITIES KIT

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT.	(6) REMARKS
			C	O	F	H	D		
23	Cable Assembly, Radio CG-3476/U (4 Ft) 6625-00-935-5225	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
24	Cable Assembly, Radio CG-3478/U (4 Ft) 6625-01-157-8902	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
25	Cable Assembly, Radio CG-3479/V (4 Ft) 6625-00-935-5233	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
26	Cable Assembly, Radio CG-3481/U (4 Ft) 6625-00-935-5222	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
27	Cable Assembly, Radio CG-3482/U (4 Ft) 6625-00-935-5221	Inspect		.10					
		Test		.20				1	
		Replace		l 10					
		Repair				.5		2, 5, 8	
28	Cable Assemlby, Special SC-D-972429	Inspect		.10					
		Test		.20				1	
		Replace		.10					
		Repair				.5		2, 5, 8	
29	Interconnecting Box J-4247 (A Model Only)	Inspect		.10					
		Service		.15					
		Test		l 30					
		Install		l 10					
		Replace		10					
		Repair		.40				2	F
		Repair			1.0				G
		Repair				.10		6 thru 11,13 14, 16	H

SECTION II. MAINTENANCE ALLOCATION CHART FOR TEST FACILITIES KIT

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQPT	(6) REMARKS
901	Housing Assembly	Inspect		.10					
		Repair			.10			2, 5, 8	
902	Panel Assembly	Inspect		.10					
		Test				.5		6 thru 11, 13, 14, 16	
		Replace				.10			
		Repair				.5		), 5, 8	

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS FOR TEST FACILITIES KIT

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL/NATO STOCK NUMBER	TOOL NUMBER
		MK-994/AR		
1	F	RF Signal Generator Set AN/URM 25D	6625-649-5193	
2	F	Signal Generator AN/URM 127	6625-783-5965	
3	F	Multimeter ME 26B/U	6625-360-2493	
4	F	Multimeter TS 352B/U	6625-242-5023	
5	F	Electronic Voltmeter AN/USM-98	6625-753-2115	
6	F	Tool Kit, Electronic Equipment TK 100/G	5180-605-0079	
7	F	Tool Kit, Electronic Equipment TK 105/G	5180-610-8177	
8	F	Electronic Voltmeter ME 30A/U	6625-643-1670	
9	F	Electronic Voltmeter AN/URM 145	6625-973-3986	
10	F	Signal Generator AN/USM 44A	6625-538-9879	
11	F	Headset Microphone H 101A/U	5965-627-8382	
12	F	Attenuator CN 796( )/U	5985-831-5991	
13	F	Oscilloscope AN/USM 140A	6625-987-6603	
14	H	Test Facilities Kit MK 1191/AR	6625-179-2528	
15	H	Indicator, Standing Wave Ratio IM-157/U	6625-682-4493	
16	H	Detector DT 307/G	6625-876-3106	

SECTION IV. REMARKS

REFERENCE CODE	REMARKS
A	organizational repair by replacement of ID-1351/A and c-6533/ARCo
B	Repair of J-4247 interconnecting box and all test cables.
C	Repair by interchanging hinges, handles and gaskets.
D	Refer to TM 11-5821-262-35.
E	Repair limited to knobs and lamps.
F	Replace fuse.
G	Replace hold-downs and components internal to housing assembly.
H	Repair of hardwired cables and panel connections.

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

KENNETH G. WICKHAM,
Major General, United States Army,
The Adjutant General.

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