

**ARMY  
NAVY**

**TM 11-5820-401-35-7  
NAVELEX 0967-432-3110**

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**DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE MANUAL  
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS**

**CONTROL, INTERCOMMUNICATION SET  
C-2297/VRC**

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

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**DEPARTMENTS OF THE ARMY AND THE NAVY  
APRIL 1973**



## CHAPTER 1

### INTRODUCTION

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#### 1-1. Scope

*a.* This manual covers direct support (DS), general support (GS), and depot maintenance of Control, Intercommunication Set C-2297/VRC. Repair parts lists are provided in appendix B.

*b.* Operation, operator, and organizational maintenance, and organizational repair parts are provided in TM 11-5830-340-12.

#### 1-2. Maintenance Forms and Records

Department of the Army forms and procedures used for equipment maintenance will be those prescribed in TM 38-750.

#### 1-3. Reporting of Errors

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Report should

be made on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commander, US Army Electronics Command, ATTN: AMSEL-MA-CR, Fort Monmouth, N.J. 07703.

#### 1-4. Purpose and Use

*a.* Control, Intercommunication Set C-2297/VRC is a communication control box which enables the user to talk on the intercommunication (intercom) and radio systems of certain crew served weapons and vehicles.

*b.* The C-2297 VRC is part of Intercommunication Set AN/VIC-1(V) (TM 11-5830-340-12). The AN/VIC-1(V) is part of the electrical harness of such vehicles as tanks, armored personnel carriers, and howitzers to enable the crewmembers to communicate with each other, and on the radio system when such is provided.



## CHAPTER 2

## CIRCUIT FUNCTIONING

### 2-1. C-2297/VRC Circuit Functioning (fig. 2-1)

The C-2297/VRC (fig. B-1) includes cable receptacles for connection to Amplifier, Audio Frequency AM-1780/VRC and Control, Intercommunication Set C-2296/VRC, and to audio accessories; a selector switch; a switch to control connection to the C-2296/VRC; and a microphone amplifier.

#### a. General.

(1) All power and control voltages used in the C-2297/VRC and C-2296/VRC are supplied through receptacle J904. Receptacle J904 connects to the AM-1780/VRC; receptacle J901 connects to the C-2296/VRC.

(2) Audio accessories are connected to receptacles J902 and J903. Terminals A, B, D, and E or J902 are connected in parallel with same terminals in J903. Radio keying control terminal C of J902 is independent of intercom keying control terminal C of J903.

(a) The audio signals from the intercom system or radio system are applied through the VOLUME control to terminals B and E. Terminal B applies the signals to the earphone of audio accessories; terminal E applies the signals to a loudspeaker.

(b) The keying signals (ground) are applied from the audio accessory through pin C to activate the transmit keying relays. From pin C of J902, the transmit relays in the radios are operated; from pin C of J903, the transmit relays in the AM-1780/VRC are operated.

(c) Audio signals from the audio accessory microphone are applied through pin D, microphone amplifier A80, and the AM-1780/VRC to the receive circuits in other control boxes, or to the transmit circuit of the radio transmitter.

(3) The SIG-EXT-OFF switch controls connection of the circuits of the C-2297/VRC, with its intercom and radio functions, to the C-2296/VRC.

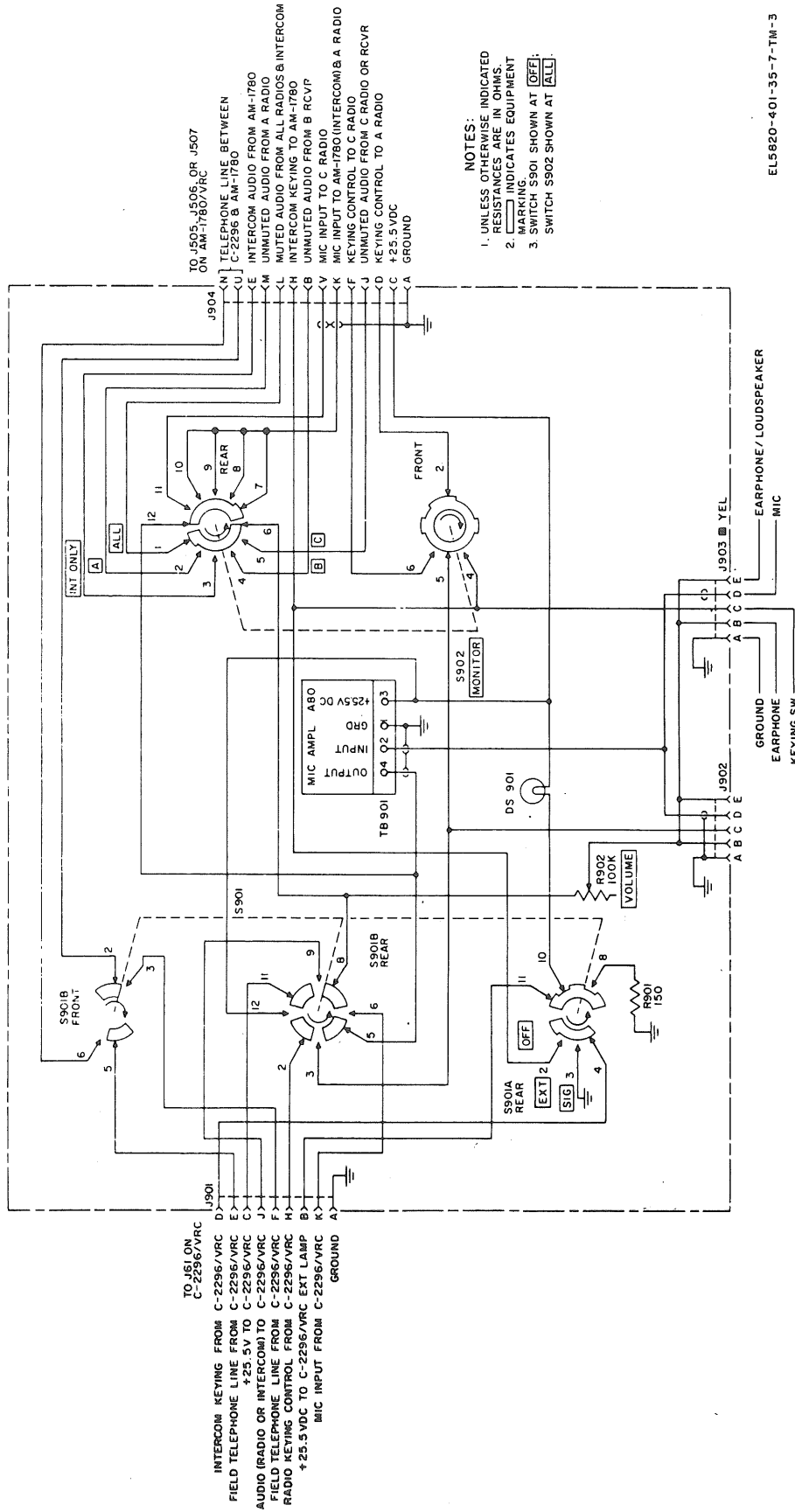
(4) The MONITOR switch controls connection of the circuits of the audio accessories ((2) above).

(5) There are different quantities of radios that can be connected to the AN/VIC-1(V). When there is one receiver-transmitter, it is identified as "A" radio; when there is a second receiver-transmitter, it is identified as "C" radio. When there is one radio receiver, it is identified as "B" radio receiver; when there are two radio receivers, the second receiver is identified as "C" radio receiver. These radio designations are assigned to identify the radio controlled by the radio control positions of the C-2297/VRC MONITOR switch (ALL, A, B, and C positions).

(6) There are three audio outputs of the radios: fixed, unmuted, and unmuted audio signals. The fixed audio signals are not controlled by the VOLUME control of the radio; the unmuted audio signals are in series with the VOLUME control; the muted audio signals are not available to the C-2297/VRC and other control boxes of the AN/VIC-1(V).

b. MONITOR switch S902 selects the audio output and microphone circuits to be connected to connectors J902 and J903. Switch S902 has five positions: position A permits control of receiver-transmitter "A"; position B permits monitoring of receiver "B" and control of receiver-transmitter "A"; position C permits control of receiver-transmitter "C" or monitoring of receiver "C"; position ALL provides monitoring of the intercom system from the other control boxes and control of receiver-transmitter "A"; and position INT ONLY provides control and monitoring of the intercom circuits only and has no control of the radios. The radio equipment cannot be controlled from J903. The keying circuit of an audio accessory connected to J903 can control talking on the intercom circuit on all positions of the MONITOR switch except position C.

(1) In position A, receiver-transmitter "A" unmuted audio is applied to terminal M of J904 and through VOLUME control R902 to terminals B and E of J902 and J903; the receiver-transmitter "A" keying relay can be controlled from terminal C of J902 through terminal D of J904 and the output of microphone amplifier A80 can



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Figure 2-1. C-2297/VRC, schematic diagram.

modulate the receiver-transmitter "A" through terminal K of J904.

(2) In position B, receiver "B" unmuted audio output is applied to terminal B of J904 and through VOLUME control R902 to terminals B and E of J902 and J903. Keying control and microphone modulating signals are the same as those in (1) above.

(3) In position C, receiver-transmitter "C" or receiver "C" unmuted audio output is applied to terminal J of J904 and through VOLUME control to terminals B and E of J902 and J903. The receiver-transmitter "C" keying relay can be controlled from terminal C of J902 through terminal F of J904, and the output of the microphone amplifier can modulate the receiver-transmitter "C" through terminal V of J904.

(4) In position ALL, the fixed audio output of all radios is applied to terminal L of J904 and through the VOLUME control R902 to terminals B and E of J902 and J903. Keying relay control and microphone modulating signals are the same as those described in (1) above.

(5) In position INT ONLY, neither receiver-transmitter "A" or "B" can be controlled because terminal C of J902 is open through the front section of switch S902; however, terminal C of J903 is connected through terminal H of J904 to the intercom keying relays in the AM-1780/VRC. The intercom signals from other control boxes in the intercom system are applied to terminal E of J904 and through VOLUME control R902 to terminals B and E of J902 and J903. The output of A80 is applied through terminal K of J904 to the intercom amplifier circuits of the AM-1780/VRC.

*c.* SIG-EXT-OFF switch S901 controls the application of the C-2297/VRC circuits to a C-2296/VRC mounted on the outside of the vehicle.

(1) When switch S901 is in OFF position, MONITOR switch S902, audio amplifier assembly A80, and control and audio circuits function as described in *b* above.

(2) When switch S901 is in OFF position, +25.5 volts dc is applied from terminal C of J904 through EXT lamp DS901 and switch S901 to terminal B of J901. When the push-to-talk switch of Handset H-207/VRC in the associated C-2296/VRC is pressed, a ground is applied through switch S901 to lamp DS901, which lights the lamp. This indicates to the operator of the C-2297/VRC that someone wants to communicate with the personnel inside the vehicle.

(3) When switch S901 is in SIG position, the switch connects terminal D of J901 to ground.

The call indicator lamp in the associated C-2296/VRC completes a path from the 25.5-volt dc line through terminal B of connector J901, switch S901, and lamp DS901. Both indicator lamps light: the one in the C-2296/VRC and DS901 in the C-2297/VRC.

(4) When switch S901 is in EXT position, the power and control facilities of the C-2296/VRC are connected to the same circuits in the C-2297/VRC. Lamp DS901 is connected through voltage-dropping resistor R901 to ground. Lamp DS901 lights as an indication that switch S901 is in EXT position.

*d.* A field telephone can be connected to the binding posts of the C-2296/VRC. The field telephone line circuit is applied between terminals N and U of J901 and J904 and through the intercom circuits of the AM-1780 VRC. From the AM-1780/VRC, the signals are applied to the C-2297/VRC (*b*(5) above) and other control boxes in the intercom system.

## 2-2. Microphone Amplifier Assembly A80, Circuit Functioning

(fig. 2-2)

Microphone amplifier assembly A80 is a three-stage, direct-coupled amplifier used in the C-2297/VRC (fig. 2-2). The A80 receives its input signal from the dynamic microphone connected to J902 and J903. Its output is fed to the speech amplifier of the associated radio receiver-transmitter or to the interphone amplifier of the AM-1780/VRC.

*a.* The input from the dynamic microphone is fed through an RF filter network composed of capacitors C81 and C82 and inductor L81; through impedance-matching resistor R81 and coupling capacitor C83 to the base of transistor Q81. The amplified output of transistor Q81 is direct-coupled to the base of transistor Q82 which, in turn, applies the signal to the base of transistor Q83. Resistor R92 reduces the level of the signal from transistor Q83. Capacitor C88 is a coupling capacitor.

*b.* The dc voltage for A80 is fed from the 25.5-volt dc power supply through filter network consisting of resistor R93 and capacitor C87. Resistors R82 and R83 set the base voltage on transistor Q81. Resistors R84 and R86 are load resistors for transistors Q81 and Q82, respectively. Resistors R87, R89, and R90 are bias resistors for transistors Q82 and Q83. Capacitor C85 is a high audiofrequency bypass capacitor.

*c.* The microphone amplifier uses degenerative

ac and dc feedback to stabilize the operation of the transistors. Capacitors C84 and C86 and resistors R85, R88, and R91 form the ac feedback

circuit. Resistor R88 is the principle component of the dc feedback circuit from the emitter of transistor Q83 to the emitter of transistor Q81.

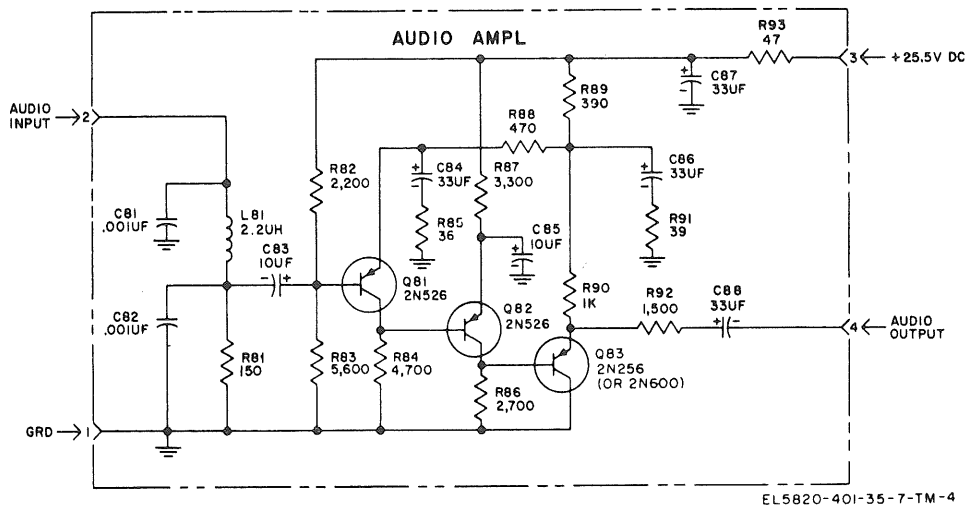


Figure 2-2. Microphone amplifier assembly A80, schematic diagram.



### CHAPTER 3

### DIRECT SUPPORT MAINTENANCE

#### 3-1. General

The C-2297/VRC is maintained at organizational (TM 11-5830-340-12), direct support, and depot maintenance levels. Repair parts for the C-2297/VRC are listed in appendix B.

#### 3-2. Test Equipment and Facilities Required

##### a. Test Equipment.

- (1) Multimeter TS-352B U.
- (2) Generator, Signal AN URM-127.
- (3) Spectrum Analyzer TS-723(\*) U. (TS-

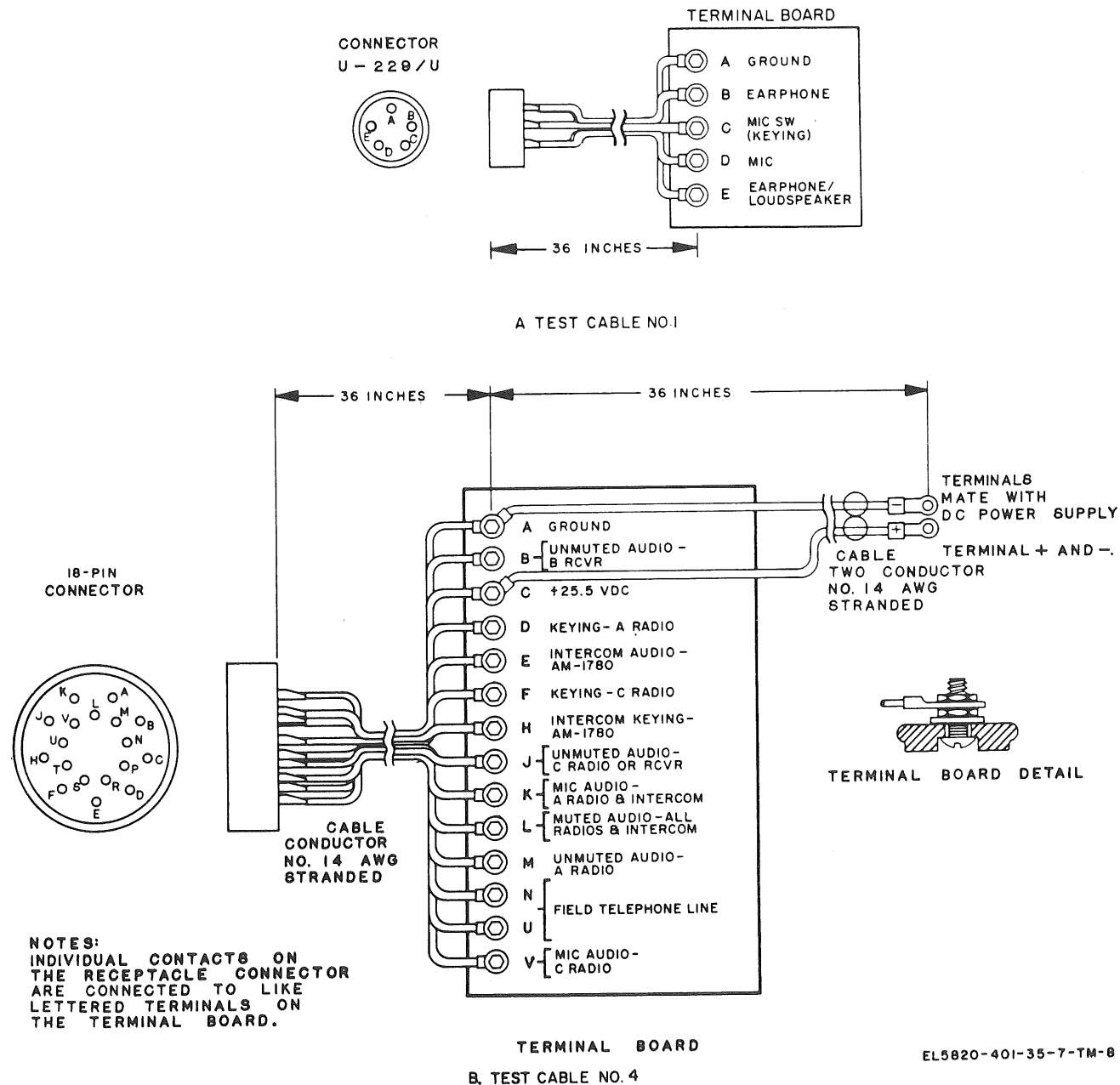


Figure 3-1. Fabrication details for test cables No. 1 and 4.

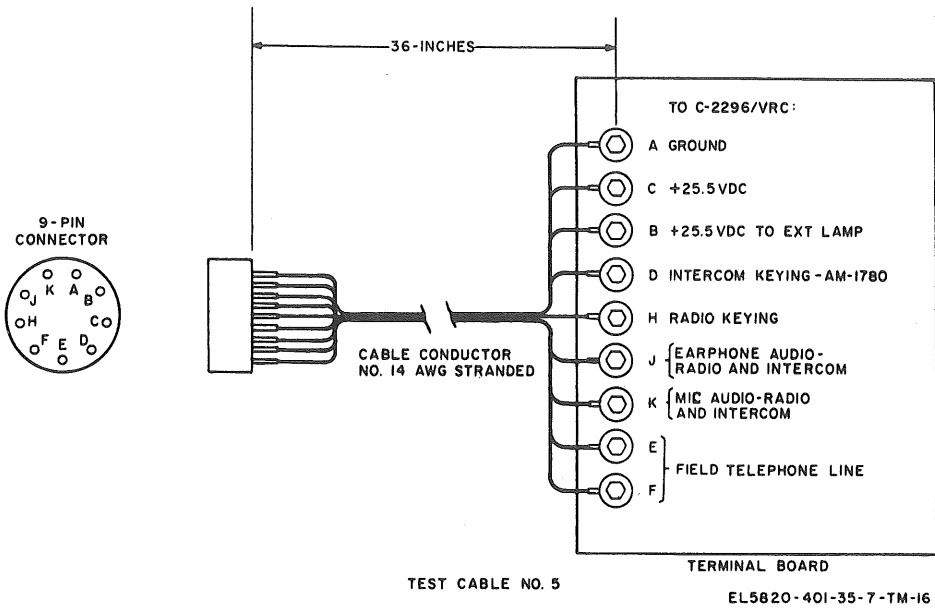


Figure 3-2. Fabrication details for test cable No. 5.

723(\*)/U represents all models of the analyzer.)  
 (4) Voltmeter, Electronic ME-30(\*)/U.  
 (ME-30 (\*)/U represents all models of the voltmeter.)

(5) Power Supply PP-1104/G.

*b. Test Facilities.*

- (1) Test cable No. 1 (2 each), fabricated in accordance with details in A, figure 3-1.
- (2) Test cable No. 4, fabricated in accordance with details in B, figure 3-1.
- (3) Test cable No. 5, fabricated in accordance with details in figure 3-2.
- (4) Resistor, 150 ohms, 2 watts (3 each).

**3-3. Performance Check and Troubleshooting C-2297/VRC**

Use the procedures in *b* below to check the performance of and troubleshoot the C-2297/VRC. Set up the equipment as explained in *a* below.

*a. Test Setup.* The required items are listed in paragraph 3-2.

- (1) Connect the test cables to the C-2297/VRC as shown in figure 3-3.
- (2) Connect a 150-ohm resistor to terminals K and A of test cable No. 4.
- (3) Turn off the PP-1104/G and connect

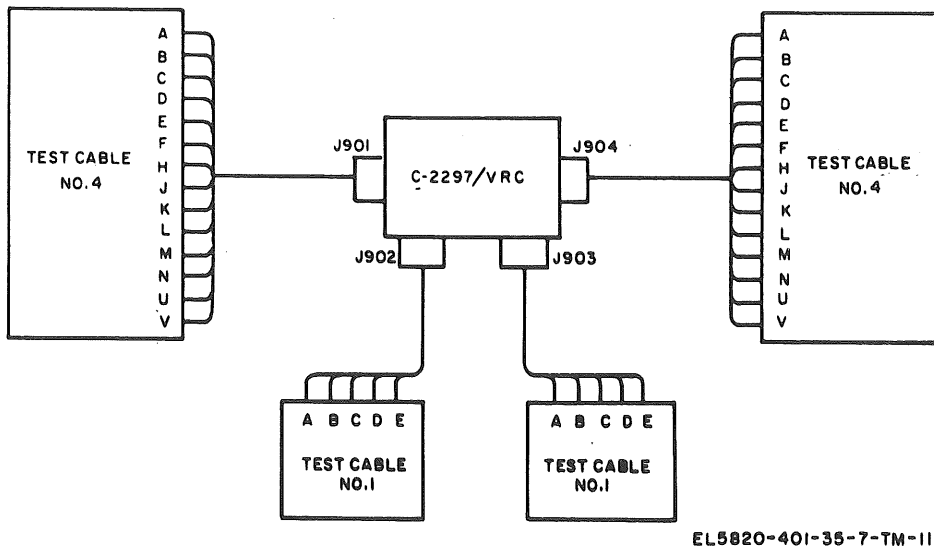


Figure 3-3. Connection of test cables to C-2297/VRC.

its output to terminals (C (+) and A (negative, ground) of test cable No. 4 (B, fig. 3-1).

(4) Connect a 150-ohm resistor to the output of the AN/URM-127 and use the ME-30(\*)/U, connected across the resistor, to measure the output signal level of each test frequency.

(5) Proceed to the tests (b) below).

*b. Microphone Amplifier A80 Tests.* Set up the equipment as explained in *a* above.

(1) Set C-2297/VRC MONITOR switch to ALL and SIG-EXT-OFF switch to OFF.

(2) Turn on and adjust the output of the PP-1104/G to 25.5 volts.

(3) Connect the AN/URM-127 to terminals D and A (ground) of test cable No. 1 connected to J902.

(4) Adjust the output of the AN/URM-127 to 1,000 Hz at 0.007 volt ac.

(5) Measure the A80 output across the 150-ohm resistor connected to K of J904 as follows:

(a) Connect TS-723(\*)/U AF INPUT terminals across the resistor. The signal distortion should be less than two percent.

(b) Connect TS-723(\*)/U METER terminals across the resistor. The signal voltage should be 0.22 volt  $\pm$  2 db.

(c) If either of the requirements in (a) or (b) above are not met, replace module A80 (para 3-4b).

(6) The same signal voltage indication ((5) (b) above) should be obtained after each of the following operations:

(a) Set the MONITOR switch to position C, and change the connection of the 150-ohm resistor from terminal K to terminal V of test cable No. 4.

(b) Connect the AN/URM-127 to terminals D and A of J903.

(7) Disconnect the AN/URM-127 and TS-723(\*)/U from the test cables.

(8) Turn off the PP-1104/G.

(9) Connect a 150-ohm resistor across terminals B and A of test cable No. 5.

(10) Turn on the PP-1104/G. The C-2297/VRC indicator lamp should light.

(11) Set C-2297/VRC SIG-EXT-OFF switch to EXT position. The indicator lamp should light.

(12) Connect the TS-352B/U, adjusted to measure 50 volts dc, to terminals C (+) and A (negative, ground) of test cable No. 5. The power supply voltage (25.5 volts) should be measured.

(13) Remove the 150-ohm resistors from the test cables.

(14) Turn off the PP-1104/G and remove the power connection of test cable No. 4 from the PP-1104/G (B, fig. 3-1).

(15) Perform the continuity and VOLUME control tests in *c* and *d* below.

*c. Continuity Tests.* Use the TS-352B/U, adjusted to measure resistance (RX1) to make the following circuit continuity measurements. Leave the test cables connected to the C-2297/VRC (fig. 3-3). Continuity (0 ohm) should be obtained for each terminal-to-terminal measure-

MONITOR switch	SIG-EXT-OFF switch	Receptacles terminals			
		J901	J902	J903	J904
			B and E	B	
			B	E	
			B	B and E	
ALL	EXT	K			K
ALL	EXT	J			L
ALL				B	L
A				B	M
INT ONLY				B	E
B				B	B
C				B	J
ALL			C		D
A			C		D
B			C		D
B	EXT	H			D
C			C		F
INT ONLY			C		H
				C	H
	EXT	D			H
	EXT	E			N
	EXT	F			U
	SIG	D and A			

ment. When no switch position is given, the switch may be positioned to any position. Before proceeding set C-2297/VRC VOLUME control fully clockwise. When the required continuity is not obtained, repair of the faulty circuit is performed by higher maintenance level.

d. *VOLUME Control Test.* When the requirements in (3) below are not obtained, higher maintenance level repair is required.

(1) Connect the TS-352B/U, adjusted to measure resistance, between terminal B of J902 and terminal L of J904.

(2) Set the MONITOR switch to ALL.

(3) Rotate the VOLUME control through its range. The resistance indication should be between 0 and 100K ( $\pm 10$  percent). There should also be no indication of erratic action by the control.

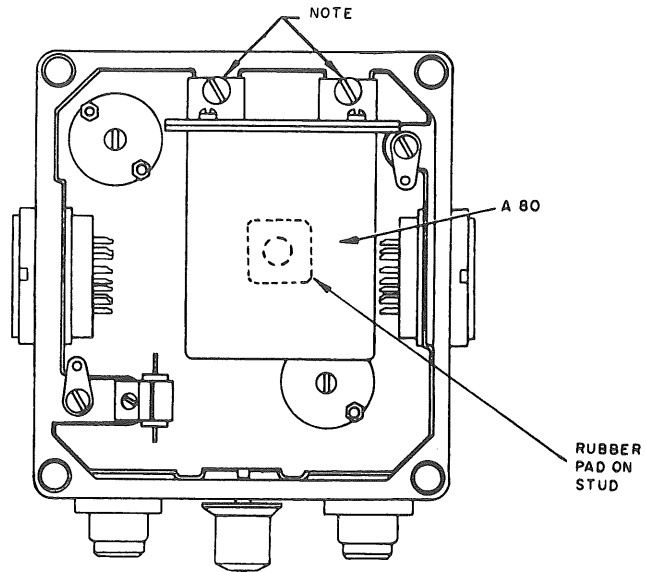
(4) Disconnect the test cables from the C-2297/VRC.

### 3-4. Repair

Repair parts for the C-2297/VRC are listed in appendix B.

a. Replace the front panel knobs as required. Check to see that the nuts holding the knobs and the locknuts holding the cable receptacles are secured tightly.

b. To replace microphone amplifier module A80 (fig. 3-4), remove the back cover from the box. Loosen the screws holding the module bracket and carefully remove the module. Check to see that the rubber pad is fastened to the stud under the module. A similar pad should be fastened to the cover. (The pads prevent the module from vibrating during motion of the vehicle.)



C-2297/VRC

NOTE:

SCREWS MUST BE LOOSENED OR REMOVED BEFORE A80 CAN BE REMOVED.

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Figure 3-4. Internal view of C-2297/VRC.

Carefully position the replacement module pins in line with the receptacle, press the module in place, and tighten the mounting bracket screws.

c. Inspect the parts inside the box for loose parts and damaged wiring; tighten all screws and nuts. Before replacing the back cover, apply a light coating of insulating silicon compound (FSN 6850-880-7616), or equal, to the performed packing in the back cover. Replace the back cover and tighten the captive screws.

## CHAPTER 4

### DEPOT MAINTENANCE

#### 4-1. General

Maintenance of the C-2297/VRC at depot level facilities includes complete repair of the unit and overhaul as required. It also includes checking the performance of the repaired equipment for conformance with the depot overhaul standards.

#### 4-2. Test Equipment and Facilities Required

The required items are listed in paragraph 3-2. In addition, Oscilloscope AN/USM-281A is required for testing module A80.

#### 4-3. Performance Check and Troubleshooting Microphone Amplifier Module A80

Refer to figure 2-2 for the schematic diagram, figure FO-1 for wiring diagram, and figures 4-1 and 4-2 for location of parts of module A80. The following procedures are performed on the C80 disconnected from the C-2297/VRC (para 3-4).

*a. Test Setup.* The following test setup will be used to check the performance of the A80 module (b below).

(1) Connect the positive terminal of PP-1104/G to terminal 3 and the negative terminal to terminal 1 (ground) of A80.

(2) Connect a 150-ohm resistor to the output of AN/URM-127. Connect the output of AN/URM-127 and the input of ME-30(\*)/U to terminals 2 and 1 of A80.

(3) Connect a 150-ohm resistor to output terminals 4 and 1 of A80. Connect the AN/USM-281A to the TS-723(\*)/U OSCILLOSCOPE terminals.

*b. Performance Check.* Connect the test equipment to A80 as explained in *a* above.

(1) Adjust the output of the PP-1104/G to 22 volts. Adjust the output of the AN/URM-127 to 500 Hz and then 3,000 Hz. Adjust the output of each frequency to 0.007 volt ac as measured on the ME-30(\*)/U. At each frequency, observe the output voltage by connecting the TS-723(\*)/U METER terminals across the 150-ohm output load resistor (*a*(3) above), and observe the out-

put distortion by connecting the TS-723(\*)/U AF INPUT terminals across the 150-ohm resistor. Also observe the sine wave indication of the signal on the AN/USM-281A.

(2) Repeat the operations in (1) above, except set the output of the PP-1104 G to 25.5 and 30.0 volts, in turn.

(3) The level of the output signal should be 0.22 volt ac  $\pm 2$  db and the signal distortion should be no more than 2 percent. The sine wave indication on the oscilloscope should be undistorted.

(4) If the required indications in (3) above are normal, the A80 is acceptable.

#### *c. Trouble Isolation.*

(1) Remove the cover from the A80. Figures 4-1 and 4-2 show parts location.

(2) Connect the PP-1104/G, AN/URM-127, ME-30(\*)/U, and load resistors as explained in *a* above.

(3) Adjust the output of the AN URM-127/ U to 1,000 Hz and the signal level at 0.007 as measured on the ME-30(\*)/U. Use the ME-30 (\*)/U to measure the ac signal voltages (*a* below). Dc voltage measurements are given in (*b*) below. The voltages given in the charts are typical; wide variations from these values indicate trouble.

(*a*) *Ac signal voltage chart for A80.* The typical ac voltage indications at indicated points of A80 are obtained with test setup given in (2) and (3) above. Use ME-30(\*)/U to make the voltage measurements.

<i>Point of measurement</i>	<i>Ac signal voltage</i>
Pin 2	0.007
Junction of L81 and C83	0.007
Q81 base	0.007
Q81 emitter	0.006
Q81 collector	0.019
Junction of C84 and R85	0.006
Q82 base	0.019
Q82 emitter	0.007
Q82 collector	2.28
Q83 base	2.28
Q83 emitter	2.26
Q83 collector	0
Junction of R90 and C86	0.82
Junction of C86 and R91	0.08

Point of measurement	Ac signal voltage
Junction of R89 and C87	0.001
Junction of R92 and C88	0.23
Pin 4	0.22

Point of measurement	+ dc voltage
Q83 emitter	7.7
Q83 collector	0
Q82 base	15.4
Q82 emitter	15.5
Q82 collector	7.4
Q81 base	17.2
Q81 emitter	17.4
A81 collector	15.4

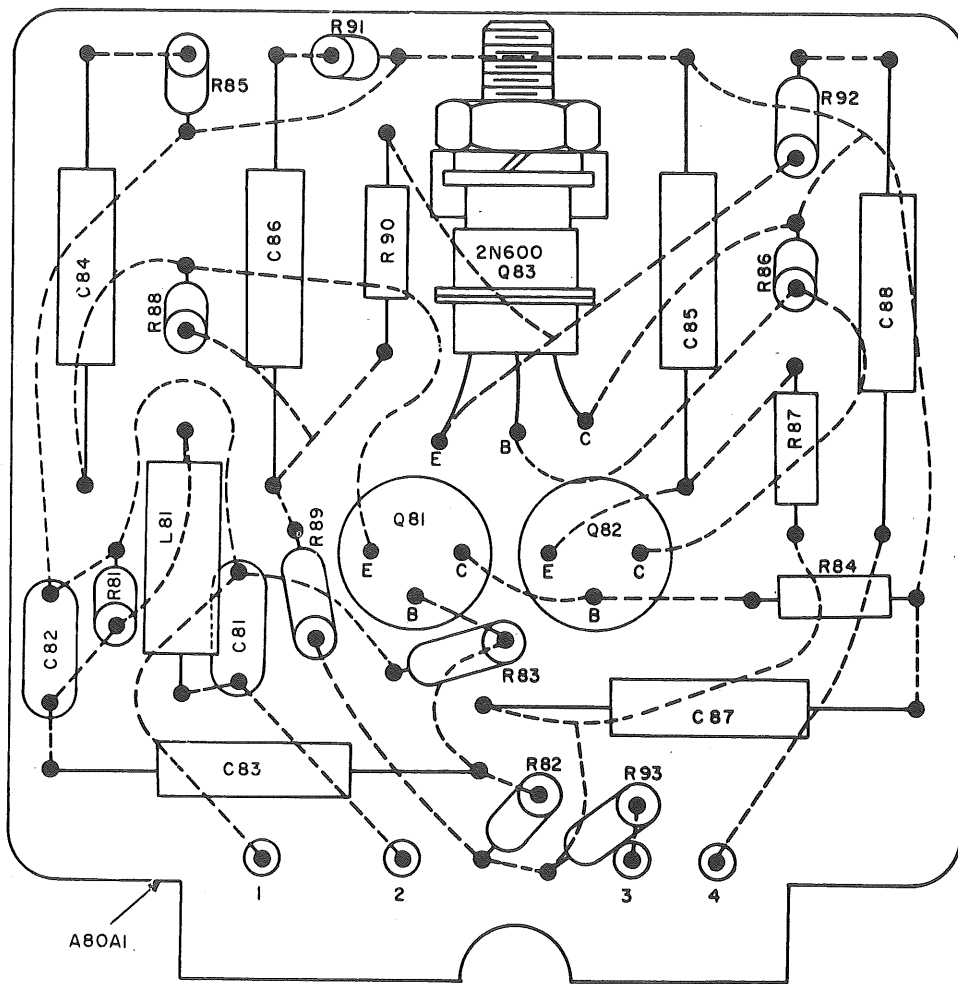
(b) Dc voltage chart for A80. The typical dc voltage indications are indicated points of A80 are obtained with PP-1104/G adjusted to 25.5 volts and connected to pins 3 (+) and 1 (negative ground). Use the TS-352B/U to make the dc voltage measurements.

Point of measurement	+ dc voltage
Pin 3	25.5
Junction of R93 and R89	24.5
Q83 base	7.4

#### 4-4. Troubleshooting and Repair

##### a. Troubleshooting.

(1) To test the C-2297/VRC before troubleshooting and after repair, use procedures given in paragraph 4-5.



#### NOTES:

1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
3. --- WIRING ON BACK OF BOARD.

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Figure 4-1. Microphone amplifier A80, printed circuit board, assembly A80A1; parts location; earlier version.

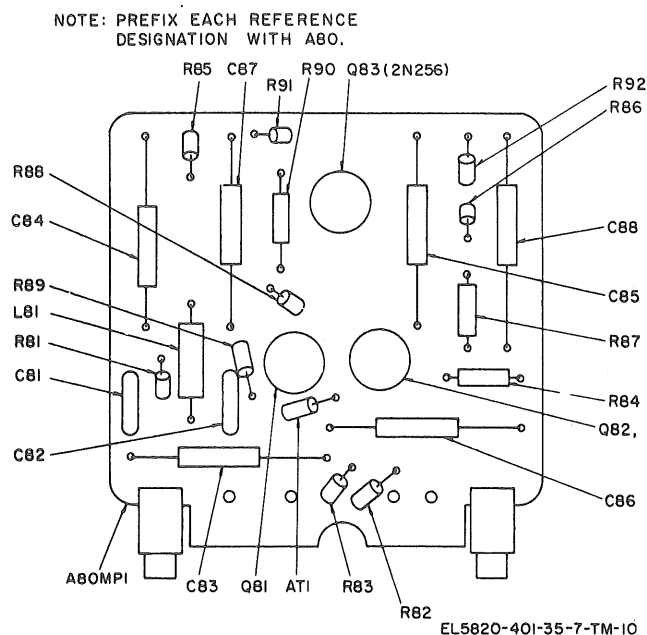


Figure 4-2. Microphone amplifier A80, printed circuit board, assembly A80A1; parts location; latest version.

(2) Use TS-352B/U to make continuity and resistance measurements of the C-2297/VRC (figs. 2-1 and FO-1).

b. *Repair.* Repair parts for the C-2297/VRC and repair parts location illustrations are provided in appendix B. Replacement of microphone amplifier module A80 and other parts are explained in paragraph 3-3.

#### 4-5. Depot Overhaul Standards— Performance Tests

Tests on repaired equipment are designed to measure the performance capability of the equipment. Equipment that is returned to stock should meet the standards given in tests.

#### NOTE

The depot overhaul standards (c below) should not be used to test the performance of new equipment; that is equipment that has not been repaired or rebuilt. Such equipment should be tested for conformance with electrical and operational tests cited in MIL-C-55126-(EL) under which the equipment was manufactured including any waivers and/or changes to the specification which were imposed upon or granted to the particular manufacturer of the equipment. For such information, address correspondence to Commander, US

Army Electronics Command, ATTN:  
AMSEL-PE-EC, Fort Monmouth, N.J.  
07703.

#### a. Applicable References.

(1) *Repair standards.* Applicable procedures of the depots performing the test and general standards for repaired electronic equipment given in TB SIG 355-1, TB SIG 355-2, and TB SIG 355-3 form a part of the requirements for testing the C-2297/VRC.

(2) *Modification work orders.* Perform all modification work orders (MWO's) applicable to the C-2297/VRC before making the tests. DA Pam 310-7 list current MWO's.

b. *Test Equipment and Facilities Required.* The required items are listed in paragraph 3-2.

#### c. Depot Overhaul Standards.

(1) *Test setup.* Connect the equipment as shown in figure 3-3.

#### (2) Microphone amplifier A80 tests.

(a) Set C-2297/VRC MONITOR switch to ALL and SIG-EXT-OFF switch to OFF.

(b) Turn on and adjust the output of the PP-1104/G to 22 volts.

(c) Connect the AN/URM-127 to terminals D and A (ground) of test cable No. 1 connected to J902.

(d) Adjust the output of the AN/URM-127 to 500 Hz at 0.007 volt.

(e) Measure the A80 output across the 150-ohm resistor connected to K of J904 as follows:

1. Connect the TS-723(\*)/U METER terminals across the resistor. The signal voltage should be 0.22 volt  $\pm$  2 db.

2. Connect the TS-723(\*)/U AF INPUT terminals across the resistor. The signal distortion should be less than two percent.

(f) Change AN/URM-127 output frequency to 3,000 Hz at 0.007 volt, and repeat the measurements in (e) above.

(g) Change AN/URM-127 output frequency to 1,000 Hz at 0.007 volt, and repeat measurements in (e) above.

(h) Adjust the output of the PP-1104/G to 30.00 volts and repeat measurements in (e) above.

(i) Adjust the output of the PP-1104/G to 25.5 volts and repeat the measurements in (e) above.

(j) Connect the AN/URM-127 to terminals D and A of J903. Repeat the voltage measurement in (e)1 above.

(k) Change the MONITOR switch to

position A , INT ONLY, and B, in turn. At each position, repeat the voltage measurement in (e)1 above.

(l) Change the connection of the 150-ohm resistor from terminal K to terminal V of test cable No. 4.

(m) Set the MONITOR switch to position C, and repeat the voltage measurement in (e)1 above.

(n) Disconnect the AN/URM-127 and TS-723(\*)/U from the test cables.

(o) Turn off the PP-104/G.

(p) Connect a 150-ohm resistor across terminals B and A of test cable No. 5.

(q) Turn on the PP-1104/G. The C-2297/VRC indicator lamp should light.

(r) Set the C-2297/VRC SIG-EXT-OFF switch to EXT position. The indicator lamp should light.

(s) Connect the TS-352B/U, adjusted to measure 50 volts dc, to terminals C (+) and A (negative, ground) of test cable No. 5. The power supply voltage (25.5 volts dc) should be measured.

(t) Remove the 150-ohm resistors from the test cables.

(u) Turn off the PP-1104/G and remove the power connections of test cable No. 4 from the PP-1104/G (B, fig. 3-3).

(v) Perform the continuity and VOLUME control tests in (3) and (4) below.

(3) *Continuity tests.* Perform the continuity tests in accordance with the requirements in paragraph 3-3c.

(4) *VOLUME control test.* Perform the VOLUME control test in accordance with the requirements in paragraph 3-3d.



## APPENDIX A

## REFERENCES

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- |                    |  |
|--------------------|--|
| DA Pam 310-4       | Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.   |
| DA Pam 310-7       | U. S. Army Equipment Index of Modification Work Orders.  |
| SB 11-131          | Vehicular Radio Sets and Authorized Installations.   |
| TB SIG 355-1       | Depot Inspection Standard for Repaired Signal Equipment.   |
| TB SIG 355-2       | Depot Inspection Standard for Refinishing Repaired Signal Equipment.   |
| TB SIG 355-3       | Depot Inspection Standard for Moisture and Fungus Resistant Treatment.   |
| TM 11-5097         | Spectrum Analyzers TS-723A U, TS-723B U, TS-723C U, and TS-723D/U.   |
| TM 11-5820-401-12  | Operator and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists for Radio Sets AN VRC-12, AN VRC-43, AN VRC-44, AN/VRC-45, AN VRC-46, AN VRC-47, AN VRC-48, AN VRC-49, AN VRC-54, and AN VRC-55; Mounting MT-1029 VRC and Mounting MT-1898/VRC; Antenna AT-912 VRC; Control, Frequency Selector C-2742/VRC, and Control, Radio Set C-2299 VRC. |
| TM 11-5820-498-12  | Operator's and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists: Radio Sets AN VRC-53, AN VRC-64, AN GRC-125, and AN/GRC-160 and Amplifier-Power Supply Groups OA-3633/GRC and OA-3633A GRC.   |
| TM 11-5830-340-12  | Operator and Organizational Maintenance Manual: Intercommunication Set AN/VIC-1(V).  |
| TM 11-5965-255-15P | Operator, Organizational, Field and Depot Maintenance Repair Parts and Special Tool Lists: Loudspeaker, Permanent Magnet LS-454 U.   |
| TM 11-5965-260-15P | Operator's, Organizational, Field and Depot Maintenance Repair Parts and Special Tool Lists: Headset, Electrical H-140A U.   |
| TM 11-5965-262-13  | Organizational and DS Maintenance Manual Including Repair Parts and Special Tool Lists: Headset-Microphone H-161 U and H-161A/U.   |
| TM 11-5965-268-50  | Depot Maintenance Manual: Microphones T-30, T-45, T-50, M-29/U, and M-80(*)/GR.  |
| TM 11-5965-280-15  | Operator, Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tools List: Handset H-189 GR.  |
| TM 11-5965-282-15  | Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tool Lists: Headset-Microphone Kit MK-1039 G.  |
| TM 11-5985-262-15  | Operator, Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tool Lists: Antenna AS-1729/VRC.   |
| TM 11-6130-246-12  | Operator and Organizational Maintenance Manual: Power Supply PP-1104/G (With Instructions for Use as a Battery Charger).   |
| TM 11-6625-320-12  | Operator and Organizational Maintenance Manual: Voltmeter, Meter ME-30A/U and Voltmeters, Electronic ME-30B/U, ME-30C/U, and ME-30E/U.   |
| TM 11-6625-366-15  | Operator's, Organizational, DS, GS, and Depot Maintenance Manual: Multimeter TS-352B/U.  |
| TM 11-6625-446-15  | Operator's, Organizational, DS, GS, and Depot Maintenance Manual: Wattmeter AN/URM-120.  |
| TM 11-6625-683-15  | Operator, Organizational, Direct Support, General Support, and Depot Maintenance Manual: Signal Generator AN/URM-127.  |

TM 11-5820-401-35-7/NAVELEX 0967-432-3110

TM 11-6625-1703-15

Operator, Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tool Lists: Oscilloscope AN/USM-281A.

TM 38-750

The Army Maintenance Management System (TAMMS).

## APPENDIX B

### DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

#### Section I. INTRODUCTION

##### B-1. Scope

This appendix lists repair parts and special tools required for performance of direct support, general support, and depot maintenance of the C-2297/VRC. This appendix is current as of 24 June 1976.

##### B-2. General

This Repair Parts and Special Tools List is divided into the following sections:

*a. Section II — Repair Parts List.* A list of repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending numerical sequence, with the parts in each group listed in figure and item number sequence.

*b. Section III — Special Tools List.* Not applicable.

*c. Section IV — National Stock Number and Part Number Index.* A list, in ascending National item identification number (NIIN, last 9 digits) sequence, of all National stock numbers appearing in the listings, followed by a list, in alphameric sequence, of all part numbers appearing in the listings. National stock number and part numbers are cross-referenced to each illustration figure and item number appearance.

##### B-3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings:

*a. Illustration.* This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number.* The number used to identify each item called out in the illustration.

*b. Source, Maintenance, and Recoverability Codes (SMR).*

(1) *Source code.* Source codes are assigned to support items to indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

<i>Code</i>	<i>Definition</i>
PA	Item procured and stocked for anticipated or known usage.
XA	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XD	A support item that is not stocked. When required, item will be procured through normal supply channels.

##### NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA, XD, and aircraft support items as restricted by AR 700-42.

(2) *Maintenance code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

<i>Code</i>	<i>Application/Explanation</i>
O	—Support item is removed, replaced, used at the organizational level.
F	—Support item is removed, replaced, used at the direct support level.
D	—Support items that are removed, replaced, used at depot, mobile depot, specialized repair activity only.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

<i>Code</i>	<i>Application/Explanation</i>
D	—The lowest maintenance level capable of complete repair of the support item is the depot level.
Z	—Nonreparable. No repair is authorized.

(3) *Recoverability code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

<i>Recoverability codes</i>	<i>Definition</i>
Z	—Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
L	—Reparable item. Repair, condemnation, and disposal not authorized below depot/specialized repair activity level.

*c. National Stock Number.* Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

*d. Part Number.* Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

**NOTE**

When a stock numbered item is requisitioned, the repair part received may have a different part number than the part being replaced.

*e. Federal Supply Code for Manufacturer (FSCM).* The FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

*f. Description.* Indicates the Federal item name and, if required, a minimum description to identify the item. Items that are included in kits and sets are listed below the name of the kit or set with the quantity of each item in the kit or set indicated in the quantity incorporated in unit column.

*g. Unit of Measure (U/M).* Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr, etc). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

*h. Quantity Incorporated in Unit.* Indicates the quantity of the item used in the breakout shown on the

illustration figure, which is prepared for a functional group, subfunctional group, or an assembly.

**B-4. Special Information**

Not applicable.

**B-5. How to Locate Repair Parts**

*a. When National stock number or part number is unknown.*

(1) *First.* Using the table of contents, determine the functional group within which the repair part belongs. This is necessary since illustrations are prepared for functional groups and listings are divided into the same groups.

(2) *Second.* Find the illustration covering the functional group to which the repair part belongs.

(3) *Third.* Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(4) *Fourth.* Using the Repair Parts Listing, find the figure and item number noted on the illustration.

*b. When National stock number or part number is known.*

(1) *First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in ascending NIIN sequence followed by a list of part numbers in ascending alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) *Second.* After finding the figure and item number, locate the figure and item number in the repair parts list.

**B-6. Abbreviations**

Not applicable.

(Next printed page is B-4)

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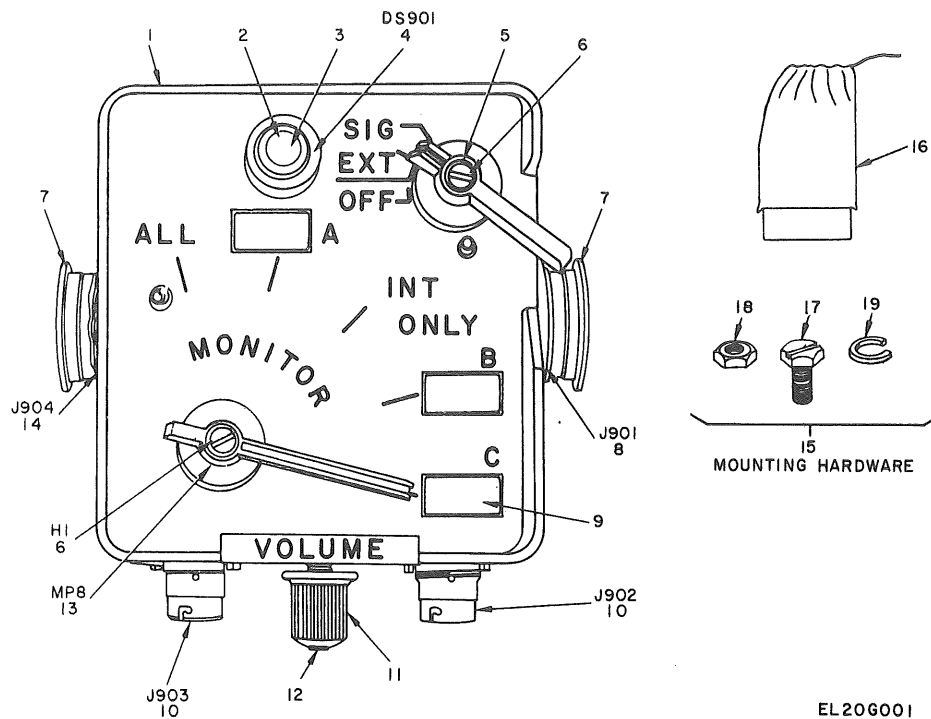
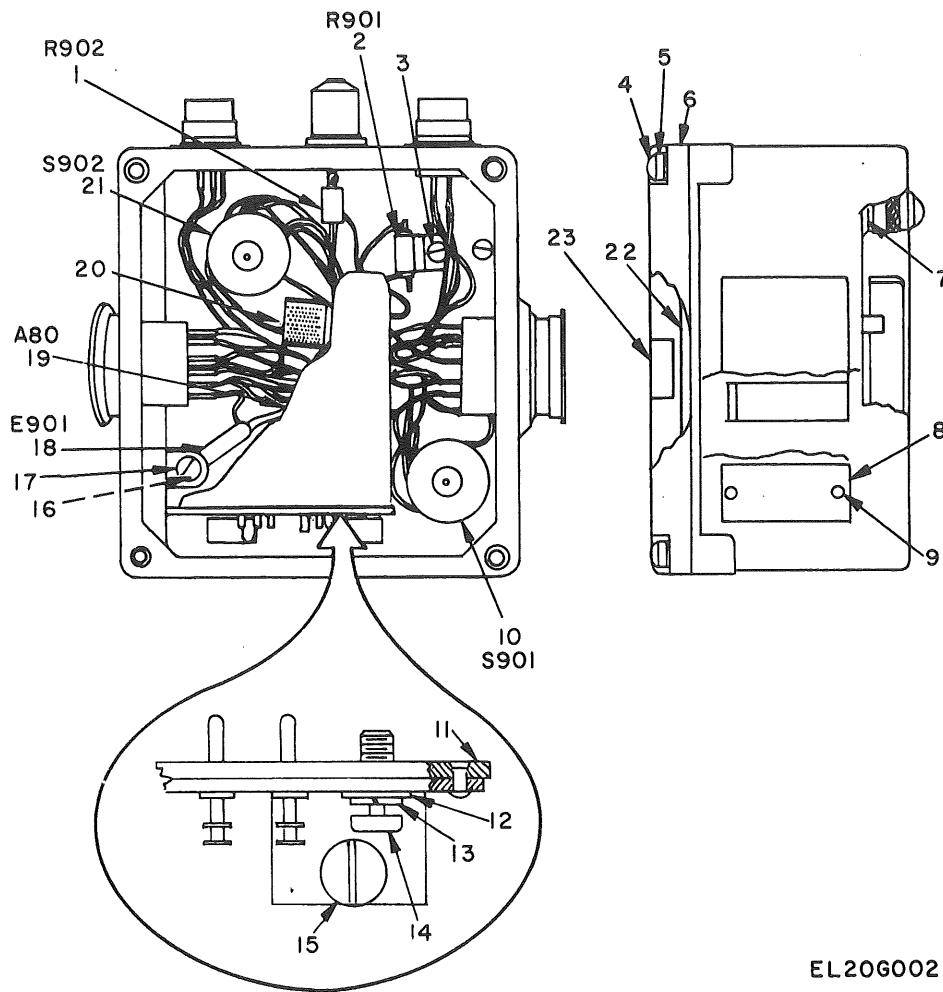


Figure D-1. Control, Intercommunication Set C-2297/VRC with mounting hardware.

SECTION II REPAIR PARTS LIST

(1) ILLUSTRATION		(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) UNIT OF MEAS	(8) QTY INC IN UNIT
(A) FIG NO.	(B) ITEM NO.							
						GROUP: 03 CONTROL, INTERCOMMUNICATION SET C-2297/VRC		
B-1	1	XAFZZ		SMD415231	80063	HOUSING ASSEMBLY	EA	1
B-1	2	PAOZZ	6210-00-892-4455	83XP3-113	72619	LENS, INDICATOR LIGHT	EA	1
B-1	3	PAOZZ	5930-00-186-0521	MS25237-327	96906	LAMP, INCANDESCENT	EA	1
B-1	4	PAFZZ	6240-00-155-7836	SMC415236	80063	LIGHT, INDICATOR	EA	1
B-1	5	PAOZZ	5355-00-781-0319	MS91525-3	96906	KNOB	EA	1
B-1	6	PAOZZ	5305-00-865-3895	MS21090-0621	96906	SCREW, SELF-LOCKING	EA	2
B-1	7	PAOZZ	5935-00-933-3752	SMB104328	80063	CAP, DUST	EA	2
B-1	8	PAFZZ	5935-00-853-5942	SMD415061	80063	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
B-1	9	XDFZZ		SMB415154-1	80063	PLATE, MARKING	EA	3
B-1	10	PAFZZ	5935-00-823-0667	U183U	80058	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	2
B-1	11	PAOZZ	5355-00-853-6384	SMC414399	80063	KNOB	EA	1
B-1	12	PAOZZ	5310-00-853-9676	SMB414395	80063	NUT, SLEEVE	EA	1
B-1	13	PAOZZ	5355-00-771-8114	SMD415223	80063	KNOB	EA	1
B-1	14	PAFZZ	5935-00-133-0394	SMD414991	80063	CONNECTOR, RECEPTACLE, ELECTRICAL	EA	1
B-1	15	XDDZZ		SMB415234	80063	MOUNTING HARDWARE	EA	1
B-1	16	XDDZZ		SMB415047	80063	BAG: PART OF KIT P/N SMC415234	EA	1
B-1	17	PAOZZ	5306-00-225-9089	MS90726-34	96906	SCREW, CAP HEXAGON HEAD, PART OF KIT SMB415234	EA	3
B-1	18	PAOZZ	5310-00-880-7746	MS51968-5	96906	NUT, PLAIN HEXAGON, PART OF KIT SMB415234	EA	3
B-1	19	PAOZZ	5310-00-889-2527	MS45904-72	96906	WASHER, LOCK: PART OF KIT P/N SMB415234	EA	6



EL20G002

Figure B-2. Control, Intercommunications Set C-2297 (inside view).



## SECTION II REPAIR PARTS LIST (CONTINUED)

(1) ILLUSTRATION		(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	USABLE ON CODE	(7) UNIT OF MEAS	(8) QTY INC IN UNIT
(A) FIG NO.	(B) ITEM NO.								
B-2	1	PAFZZ	5905-00-865-6301	SMD415189	80063	RESISTOR, VARIABLE		EA	1
B-2	2	PAFZZ	5905-00-865-5014	GML515	01121	RESISTOR, FIXED, COMPOSITION		EA	1
B-2	3	PAFZZ	5305-00-637-7079	MS35223-26	96906	SCREW, MACHINE		EA	1
B-2	4	PAOZZ	5305-00-823-5837	SMC413884-7	80063	SCREW, EXTERNALLY RELIEVED BODY		EA	4
B-2	5	PAOZZ	5310-00-045-3296	MS35338-43	96906	WASHER, LOCK-SPRING HELICAL		EA	4
B-2	6	XDOZZ		SMD415228	80063	COVER ASSEMBLY		EA	1
B-2	7	XDFZZ		203-0410-01-922	72619	LAMPHOLDER		EA	1
B-2	8	XDFZZ		SMC415226	80063	PLATE, IDENTIFICATION		EA	1
B-2	9	PAFZZ	5305-00-253-5609	MS21318-13	96906	SCREW, DRIVE		EA	2
B-2	10	PAFZZ	5930-00-886-9563	SMD415225	80063	SWITCH, ROTARY		EA	1
B-2	11	PAFZZ	5940-00-082-4622	SMC415193	80063	BRACKET ASSEMBLY		EA	1
B-2	12	PAFZZ	5310-00-167-0815	AN960-4	88044	WASHER, FLAT		EA	2
B-2	13	PAFZZ	5310-00-543-2410	MS35338-40	96906	WASHER, LOCK-SPRING HELICAL		EA	2
B-2	14	PAFZZ	5305-00-152-0544	BMC413531-14	80063	SCREW, MACHINE		EA	2
B-2	15	PAFZZ	5305-00-451-6179	SMC413884-11	80063	SCREW, MACHINE		EA	2
B-2	16	PAFZZ	5310-00-209-0788	MS35335-30	96906	WASHER, LOCK, FLAT, EXTERNAL TOOTH		EA	2
B-2	17	PAFZZ	5305-00-638-3435	MS35223-25	96906	SCREW, MACHINE		EA	2
B-2	18	PAFZZ	5940-00-050-2308	MS35431-3	96906	LUG, TERMINAL		EA	2
B-2	19	PAPDL	5820-00-886-3152	SMC415198	80063	AMPLIFIER ASSEMBLY, MICROPHONE		EA	1
B-2	20	XDFZZ		SMC415192-1	80063	PAD, CUSHIONING		EA	1
B-2	21	PAFZZ	5930-00-887-5968	SMD415224	80063	SWITCH, ROTARY		EA	1
B-2	22	PAFZZ	5330-00-899-3323	SMC414114-3	80063	PACKING PREFORMED		EA	1
B-2	23	XDDZZ		SMC415192-2	80063	PAD, CUSHIONING		EA	1

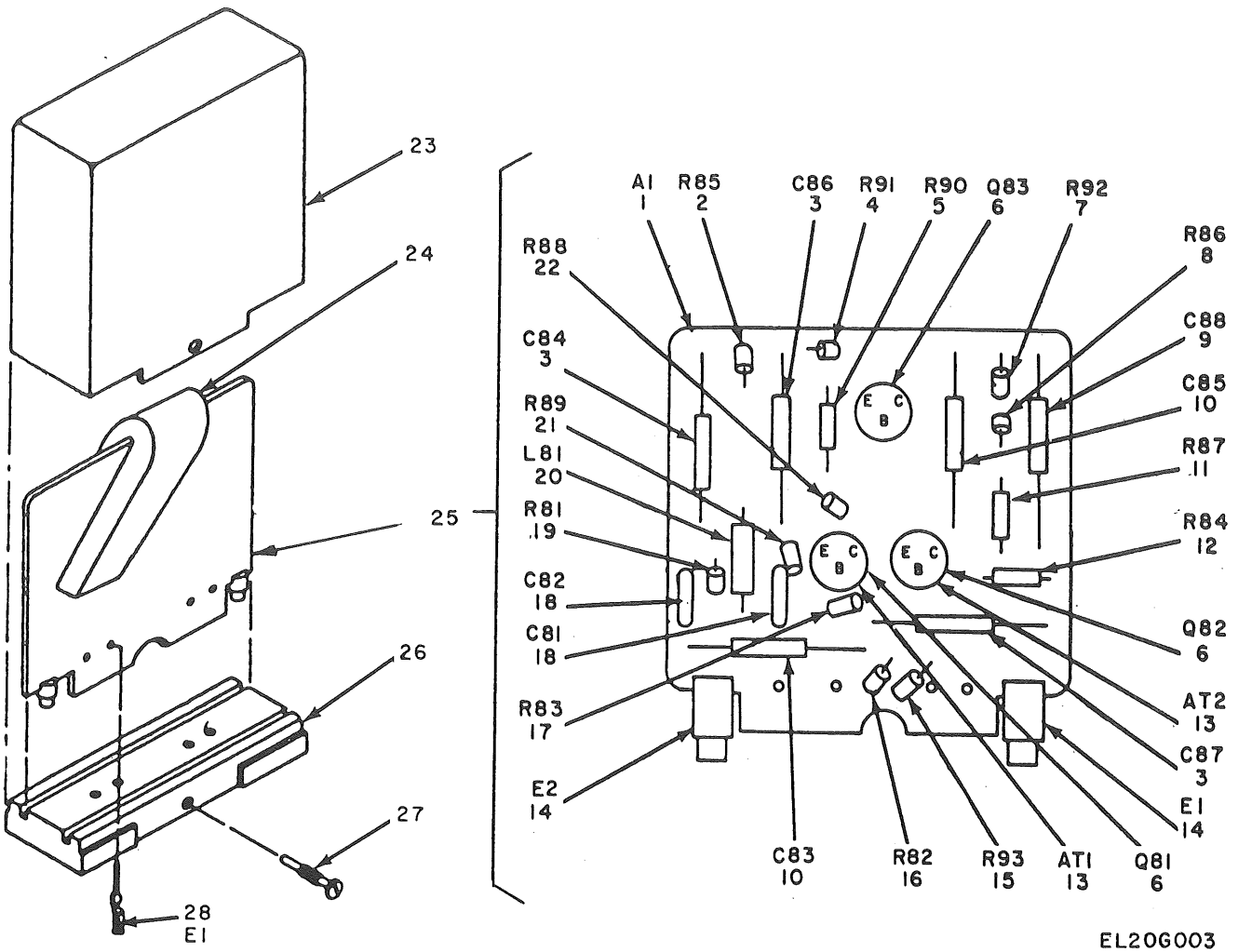


Figure B-3. Amplifier Assembly, Microphone A80.

## SECTION II REPAIR PARTS LIST (CONTINUED)

(1) ILLUSTRATION		(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) UNIT OF MEAS	(8) QTY INC IN UNIT
(A) FIG NO.	(B) ITEM NO.							
GROUP: 0301 MODULE A80								
B-3	1	XDDZZ		SMC415205	80063	PRINTED CIRCUIT BOARD	EA	1
B-3	2	PADZZ	5905-00-835-1633	RC07GF360J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	3	PADZZ	5910-00-164-2972	M39003-01-3029	81349	CAPACITOR, FIXED, ELECTROLYTIC	EA	3
B-3	4	PADZZ	5905-00-820-9124	RC07GF390J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	5	PADZZ	5905-00-681-6462	RC07GF102J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	6	PADZZ	5961-00-892-3473	JAN2N526	80131	TRANSISTOR	EA	3
B-3	7	PADZZ	5905-00-683-7723	RC07GF152J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	8	PADZZ	5905-00-686-3798	RC07GF272J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	9	PADZZ	5910-00-044-6140	CSR13E336KL	81349	CAPACITOR, FIXED, ELECTROLYTIC	EA	1
B-3	10	PADZZ	5910-00-113-5475	M39003-01-3006	81349	CAPACITOR, FIXED, ELECTROLYTIC	EA	2
B-3	11	PADZZ	5905-00-681-9969	RC07GF332J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	12	PADZZ	5905-00-686-9998	RC07GF472J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	13	PADZZ	5970-00-752-5321	A10012	07047	PAD, TRANSISTOR	EA	2
B-3	14	PADZZ	5940-00-050-2308	MS35431-3	96906	TERMINAL, LUG	EA	2
B-3	15	PADZZ	5905-00-802-6730	RC07GF470J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	16	PADZZ	5905-00-723-5251	RC07GF222J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	17	PADZZ	5905-00-691-0195	RC07GF562J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	18	PADZZ	5910-00-838-9421	CK60AW102M	81349	CAPACITOR, FIXED, MICA DIELECTRIC	EA	2
B-3	19	PADZZ	5905-00-119-8811	RC07GF151J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	20	PADZZ	5950-00-059-3904	MS75008-32	96906	COIL, RADIO FREQUENCY	EA	1
B-3	21	PADZZ	5905-00-683-2236	RC07GF391J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	22	PADZZ	5905-00-683-2242	RC07GF471J	81349	RESISTOR, FIXED, COMPOSITION	EA	1
B-3	23	XDDZZ		SMC415201	80063	COVER, AMPLIFIER	EA	1
B-3	24	XDDZZ		SMB415989	80063	STRIP, RUBBER	EA	1
B-3	25	XDDDL		SMD415203	80063	AMPLIFIER, SUBASSEMBLY	EA	1
B-3	26	XDDZZ		SMD415200	80063	BASE, AMPLIFIER	EA	1
B-3	27	PADZZ	5305-00-152-0546	SMB413837	80063	SCREW, MACHINE	EA	1
B-3	28	XDDZZ		SMC413574	80063	CONTACT, ELECTRICAL	EA	4

SECTION IV NATIONAL STOCK NUMBER AND PART NUMBER INDEX

NOTE: LATEST NATIONAL STOCK NUMBER AND PART NUMBER ASSIGNMENTS ARE INCLUDED AT END OF INDEX

STOCK NUMBER	FIG. NO.	ITEM NO.	STOCK NUMBER	FIG. NO.	ITEM NO.
5910-00-044-6140	B-3	9	5930-00-886-9563	B-2	10
5310-00-045-3296	B-2	5	5930-00-887-5968	B-2	21
5940-00-050-2308	B-2	18	5310-00-889-2527	B-1	19
5940-00-050-2308	B-3	14	5961-00-892-3473	B-3	6
5950-00-059-3904	B-3	20	6210-00-892-4455	B-1	2
5950-00-082-4622	B-2	11	5935-00-933-3752	B-1	7
5910-00-113-5475	B-3	10			
5905-00-119-8811	B-3	19			
5935-00-133-0394	B-1	14			
5305-00-152-0544	B-2	14			
5305-00-152-0546	B-3	27			
6240-00-155-7836	B-1	4			
5910-00-164-2972	B-3	3			
5310-00-167-0815	B-2	12			
5930-00-186-0521	B-1	3			
5310-00-209-0788	B-2	16			
5306-00-225-9089	B-1	17			
5305-00-253-5609	B-2	9			
5305-00-451-6179	B-2	15			
5310-00-543-2410	B-2	13			
5305-00-637-7079	B-2	3			
5305-00-638-3435	B-2	17			
5905-00-681-6462	B-3	5			
5905-00-681-9969	B-3	11			
5905-00-683-2236	B-3	21			
5905-00-683-2242	B-3	22			
5905-00-683-7723	B-3	7			
5905-00-686-3798	B-3	8			
5905-00-686-9998	B-3	12			
5905-00-691-0195	B-3	17			
5905-00-723-5251	B-3	16			
5970-00-752-5321	B-3	13			
5355-00-771-8114	B-1	13			
5355-00-781-0319	B-1	5			
5905-00-802-6730	B-3	15			
5905-00-820-9124	B-3	4			
5935-00-823-0667	B-1	10			
5305-00-823-5837	B-2	4			
5905-00-835-1633	B-3	2			
5910-00-838-9421	B-3	18			
5935-00-853-5942	B-1	8			
5355-00-853-6384	B-1	11			
5310-00-853-9676	B-1	12			
5305-00-865-3895	B-1	6			
5905-00-865-5014	B-2	2			
5905-00-865-6301	B-2	1			
5820-00-886-3152	B-2	19			

SECTION IV NATIONAL STOCK NUMBER AND PART NUMBER INDEX (CONTINUED)

PART NUMBER	FSCM	FIG. NO.	ITEM NO.
AN960-4	88044	B-2	12
A10012	07047	B-3	13
CK60AW102M	81349	B-3	18
CSR13E336KL	81349	B-3	9
GM1515	01121	B-2	2
JAN2N526	80131	B-3	6
MS21090-0621	96906	B-1	6
MS21318-13	96906	B-2	9
MS25237-327	96906	B-1	3
MS35223-25	96906	B-2	17
MS35223-26	96906	B-2	3
MS35335-30	96906	B-2	16
MS35338-40	96906	B-2	13
MS35338-43	96906	B-2	5
MS35431-3	96906	B-2	18
MS35431-3	96906	B-3	14
MS45904-72	96906	B-1	19
MS75008-32	96906	B-3	20
MS90726-34	96906	B-1	17
MS91525-3	96906	B-1	5
M39003-01-3006	81349	B-3	10
M39003-01-3029	81349	B-3	3
RC07GF102J	81349	B-3	5
RC07GF151J	81349	B-3	19
RC07GF152J	81349	B-3	7
RC07GF222J	81349	B-3	16
RC07GF272J	81349	B-3	8
RC07GF332J	81349	B-3	11
RC07GF360J	81349	B-3	2
RC07GF390J	81349	B-3	4
RC07GF391J	81349	B-3	21
RC07GF470J	81349	B-3	15
RC07GF471J	81349	B-3	22
RC07GF472J	81349	B-3	12
RC07GF562J	81349	B-3	17
SMB104328	80063	B-1	7
SMB413837	80063	B-3	27
SMB414395	80063	B-1	12
SMB415047	80063	B-1	16
SMB415154-1	80063	B-1	9
SMB415234	80063	B-1	15
SMB415989	80063	B-3	24
SMC413531-14	80063	B-2	14
SMC413574	80063	B-3	28
SMC413884-11	80063	B-2	15
SMC413884-7	80063	B-2	4
SMC414399	80063	B-1	11
SMC415192-1	80063	B-2	20
SMC415193	80063	B-2	11
SMC415198	80063	B-2	19
SMC415201	80063	B-3	23
SMC415205	80063	B-3	1

PART NUMBER	FSCM	FIG. NO.	ITEM NO.
SMC415226	80063	B-2	8
SMC415236	80063	B-	
SMD414991	80063	B-1	14
SMD415061	80063	B-1	8
SMD415189	80063	B-2	1
SMD415200	80063	B-3	26
SMD415203	80063	B-3	25
SMD415223	80063	B-1	13
SMD415224	80063	B-2	21
SMD415225	80063	B-2	10
SMD415228	80063	B-2	6
SMD415231	80063	B-1	1
U183U	80058	B-1	10
203-0410-01-922	72619	B-2	7
83XP3-113	72619	B-1	2

LATEST NATIONAL STOCK NUMBER ASSIGNMENT

STOCK NUMBER	FIG. NO.	ITEM NO.
5310-00-880-7746	B-1	18
5330-00-899-3323	B-2	22

LATEST PART NUMBER ASSIGNMENTS

PART NUMBER	FSCM	FIG. NO.	ITEM NO.
MS51968-5	96906	B-1	18
SMC414114-3	80063	B-2	22
SMC415192-2	80063	B-2	23



By Order of the Secretaries of the Army and the Navy.

**Official:**

**VERNE L. BOWERS**  
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*The Adjutant General*

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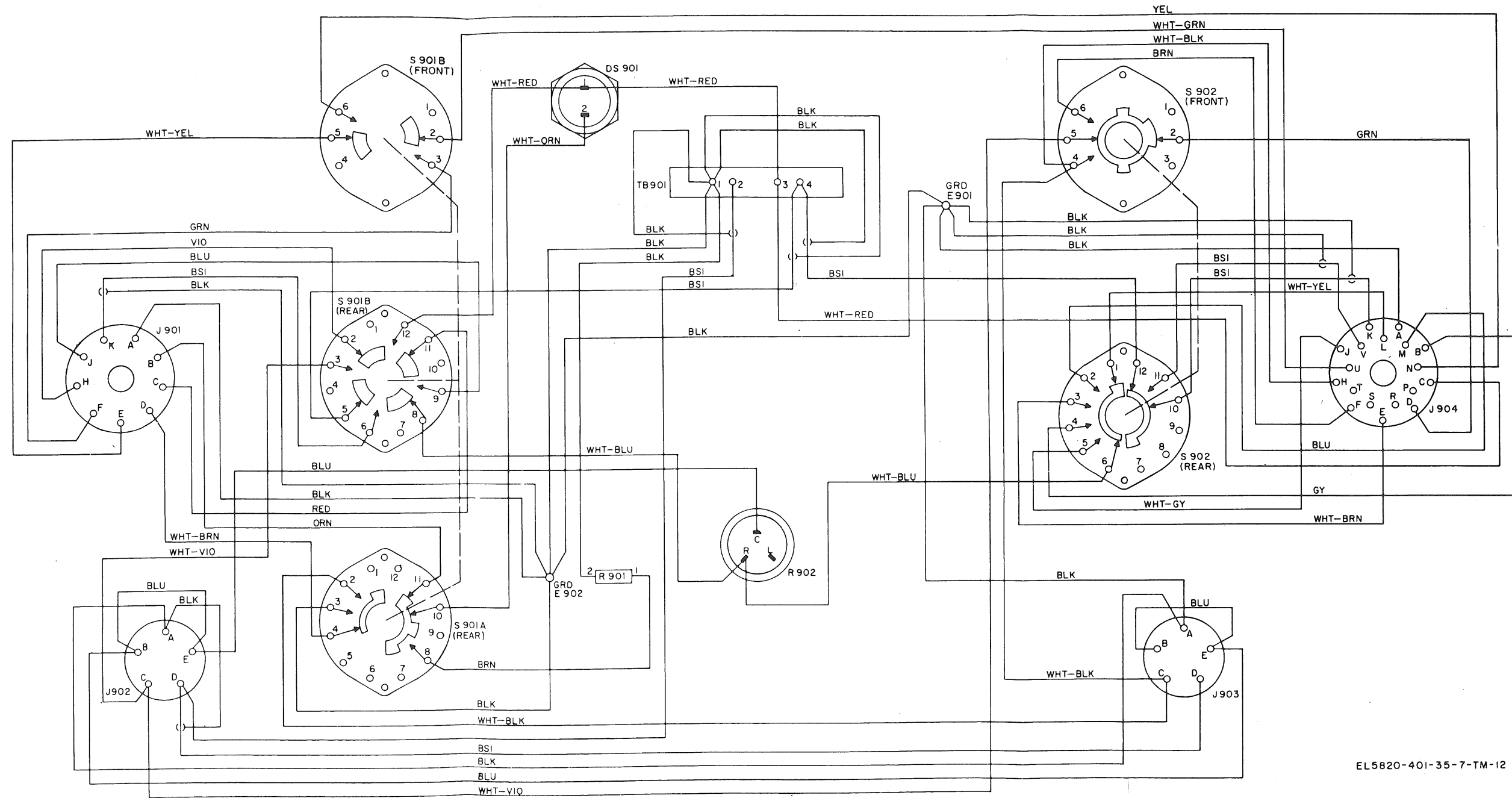
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*Rear Admiral, United States Navy*  
*Commander, Naval Electronic*  
*Systems command*

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EL5820-401-35-7-TM-12

Figure FO-1. C-2297/VRC, wiring diagram.