TECHNICAL MANUAL
OPERATOR'S AND ORGANIZATIONAL
MAINTENANCE MANUAL

CONTROL, RADIO CHANNEL
C-1 0931 (P)/FRC
(NSN 5820-01-114-1456)

HEADQUARTERS, DEPARTMENT OF THE ARMY
JULY 1982

WARNING

HIGH VOLTAGE
is used in the operation of this equipment

DEATH ON CONTACT
may result if personnel fail to observe safety precautions

Never work on electronic equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and who is competent in administering first aid. When the technician is aided by operators, he must warn them about dangerous areas.

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Take particular care to ground every capacitor likely to hold a dangerous potential. When working inside the equipment, after the power has been turned off, always ground every part before touching it.

Be careful not to contact high-voltage connections or 115 volt ac input connections when installing or operating this equipment.

Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

WARNING: Do not be misled by the term "low voltage". Potentials as low as 50 volts may cause death under adverse conditions

For Artificial Respiration, refer to FM 21-11.

TECHNICAL MANUAL

No. TM 11-5895-1141-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 1 July 1982

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
CONTROL, RADIO CHANNEL C-10931(P)/FRC
(NSN 5820-01-114-1456)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

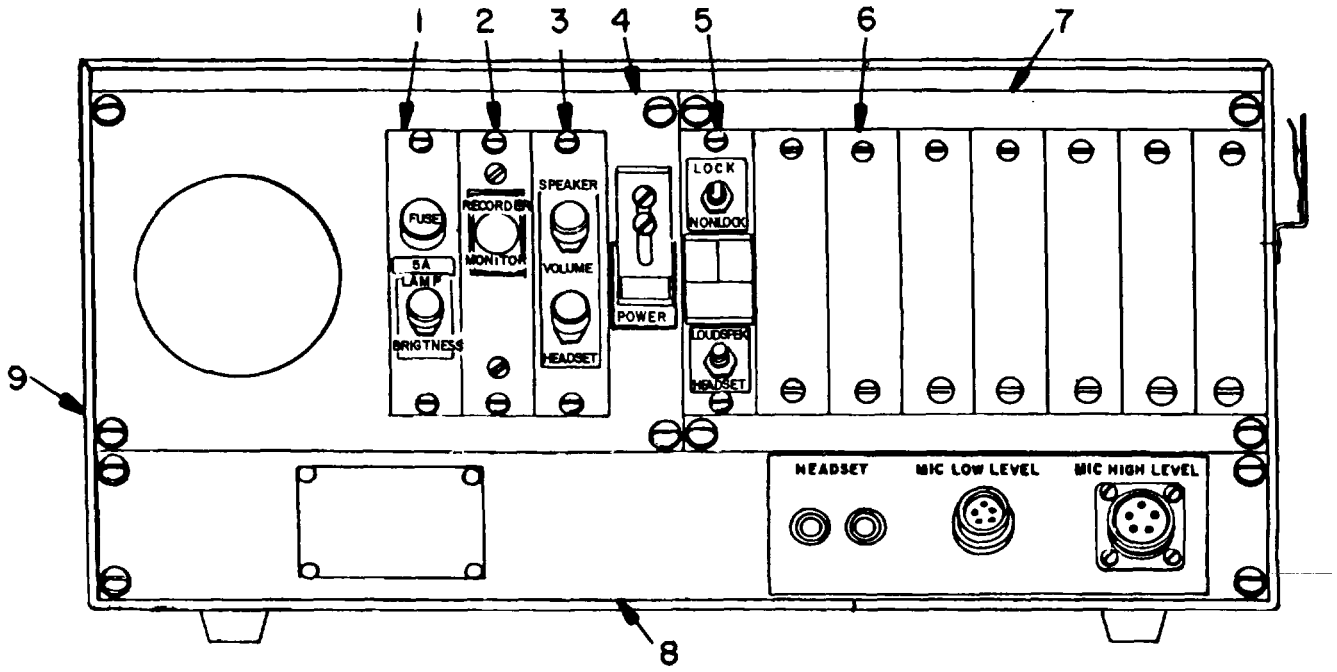
You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MQ Fort Monmouth, New Jersey 07703. A reply will be furnished to you.

HOW TO USE THIS MANUAL

This manual has been written to give you all the information necessary to operate the components of the C-10931(P)/FRC and to do all authorized maintenance. It has been designed with the following features to make it easy for beginning and experienced operators to use.

FRONT COVER INDEX - tells you at a glance on what pages you can find the procedures and information that you will use most often. These items are also enclosed in a box where they appear on the full table of contents.

IMPORTANT INFORMATION IN THE TEXT IS IN BOLD LETTERS. If you are an experienced operator thoroughly familiar with the detailed procedures, this will help you scan the text to find the information you need without reading the entire procedure.



1. Microphone Amplifier/Lamp Brightener Module Assembly
2. Recorder Monitor Module Assembly
3. Volume Control Module Assembly
4. Audio Unit Assembly
5. Radio Channel Selector Module SA-23281/FRC
6. Blank Panel Assembly
7. Selector Unit Assembly
8. Headset/Microphone Jack Panel Assembly
9. Table Top Console Assembly

CHAPTER 1

INTRODUCTION

Section I GENERAL INFORMATION

1-1. SCOPE

a. This manual describes Control, Radio Channel C-10931(P)/FRC. It gives detailed operating instructions and covers organizational maintenance.

b. The equipment covered by this manual is shown in the figure on page 1-0.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System (TAMMS).

13. DESTRUCTION OF ARMY MATERIEL

Destruction of Army materiel to prevent enemy use is described in TM 750-244-2.

1-4. PREPARATION FOR STORAGE

If the equipment is to be placed in administrative storage, first perform the PMCS procedures in chapter 2 and then place the equipment in storage in accordance with TM 740-90-1.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your C-10931(P)/FRC needs improvement, let us know. Send us an EIR. You, the user, are the only ne who can tell us what you don’t like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703. We'll send you a reply.

SECTION II EQUIPMENT DESCRIPTION AND DATA

1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES

a. The C-10931(P)/FRC is used for remote operation of radio transmitters and receivers in air traffic control of one to eight radio channels in ground to aircraft communications.

b. The C-10931(P)/FRC contains three main assemblies, an audio unit assembly which contains the transmitting and receiving amplifiers and gain adjustments, a selector unit assembly which contains the channel selection and switching circuits, and a headset/microphone jack panel assembly having connectors through which the operator's headset, microphones, and transmitter keying switches are connected to the equipment.

1-7. EQUIPMENT DATA

a. Audio Unit and Selector Unit Assemblies

Input voltage	24 +2 vdc
Input current (8 channels simultaneously keyed)	5 amps
Maximum harmonic distortion (per channel, either direction)	8% 300-3000 Hz
Hum distortion	30 dB below normal signal
Channel crosstalk/isolation (maximum 8 channels selected)	-40 dBm except speaker 55 dB below a 2-watt speaker output level
Regulator attack time	10 milliseconds, maximum, for stabilization to within 1.5 dB of final value following increase of input level from –11 to +9 dBm.
Sidetone level	-25 dBm +2 dB
Channel load impedance (send)	600 +100 ohms
Output level (send)	Self-regulated to 0 dBm,nominal, for input levels from -11 to +9 dBm.

	Regulator release time	300 to 600 milliseconds for stabilization to within 3 dB of final value following decrease of input from +9 to -11 dBm.
	Channel input impedance (receive)	600 +100 ohms
	Channel transmitter keying contacts	Isolated, rated 24 v, 1 amp max., resistive load
	Mixer amplifier output to recorder	-10 dBm to 600 ohms
	Recorder-monitor input impedance	600 +100 ohms
	Recorder-monitor input level range	-30 to -10 dBm
b.	Headset/Microphone Jack Panel Assembly	
	Input impedance	50 +20 ohms
	Input level	-11 to +9 dBm
	Output impedance (headset)	600 +100 ohms

CHAPTER 2

OPERATING INSTRUCTIONS

Section I DESCRIPTION AND USE OF OPERATOR'S CONTROLS, INDICATORS, RECEPTACLES AND CONNECTORS

2-1. GENERAL

DO NOT OPERATE THIS EQUIPMENT UNTIL YOU KNOW:

HOW ALL OPERATOR'S CONTROLS WORK,

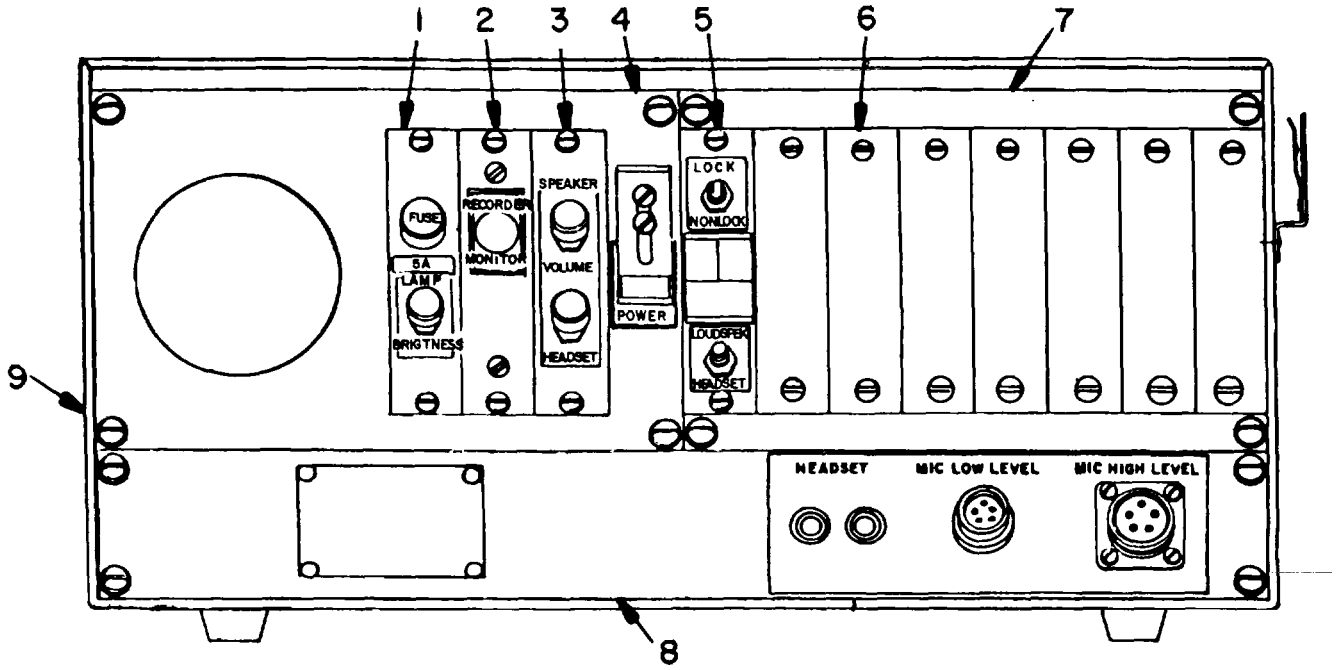
WHAT WILL HAPPEN WHEN YOU TURN A KNOB, MOVE A SWITCH OR PUT A PLUG INTO A RECEPTACLE.

HOW TO READ ALL THE INDICATOR DISPLAYS.

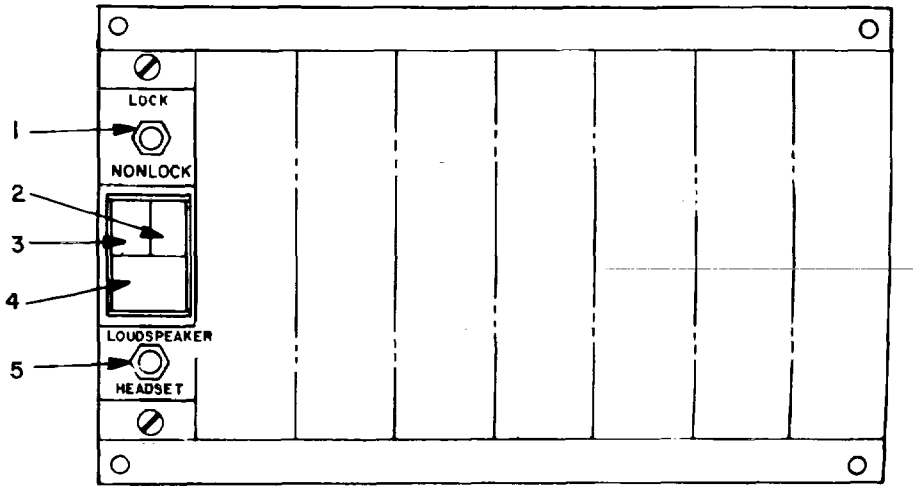
WHAT THE INDICATED DISPLAY MEANS

2-2. AUDIO UNIT ASSEMBLY

Key	Control or Indicator	Function
1	FUSE 5A	Carries operating power. Normally dark, lights up if fuse opens (burns out).
2	SPEAKER VOLUME control	Increase or decrease loud-speaker volume.
3	POWER switch	Pushbutton actuated switch turns 24 vdc power to all circuits on or off. A sliding guard adjacent to switch may be slid in front of switch to prevent accidental operation.
4	Power Indicator Lamp	Goes on when power switch is on and power is present.
5	HEADSET VOLUME Control	Increases or decreases headset volume.
6	LAMP BRIGHTNESS control	Increases or decreases brightness of status lamps and also sets maximum brightness of the syllabic indicator lamps.

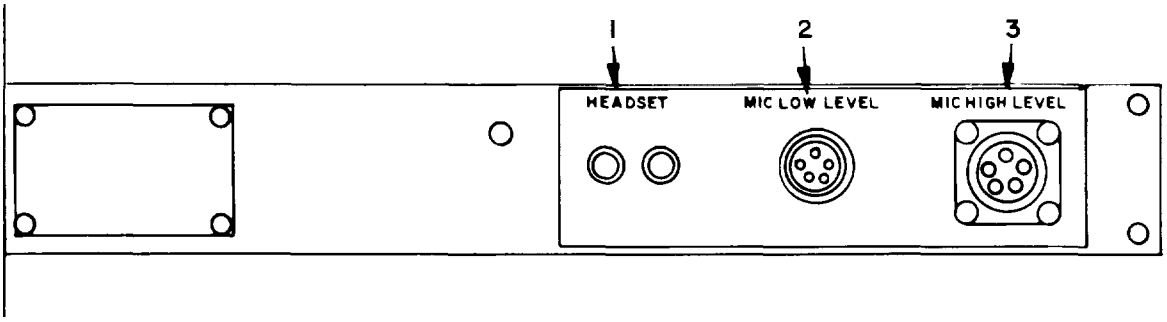


Key	Control or Indicator	Function
1	LOCK/NONLOCK channel Switch	Keys selected channel when push-to-talk switch is closed. A three position toggle switch with center-off position. Lock and nonlock have same function but switch remains locked in lock position, whereas it must be depressed to remain in nonlock position.
2	Channel status indicator	A red indicator lamp which lights when channel is keyed.
3	Switch status indicator	A green indicator lamp which lights when channel switch is either in lock or nonlock position.
4	Receiver syllabic indicator	An amber indicator lamp which flashes when audio signals are received from receiver.
5	LOUDSPEAKER/HEADSET select switch	A three-position toggle switch which routes received audio to either loudspeaker or headset. Center position blanks audio from either the loudspeaker or headset.



2-4. HEADSET/MICROPHONE JACK PANEL ASSEMBLY

Key	Control or Jack	Function
1	HEADSET jacks	Provide access for headset microphone input and push-to-talk (keying) switch.
2	MIC LOW LEVEL receptacle	Provides access for keying switch and low level microphone output.
3	MIC HIGH LEVEL receptacle	Provides access for keying switch and high level microphone output.



Section II OPERATION UNDER USUAL CONDITIONS

2-5. START-UP PROCEDURE

a. Turn 24 vdc power supply on at operator's position.

b. Slide switch guard (1) away from actuator button of POWER switch.

c. Set the channel selector switch LOCK/NONLOCK (2) to center-off position for channels on which there is no intent to transmit.

d. Set LOUDSPEAKER-HEADSET switch (3) to center-off position for channels on which there is no intent to listen.

e. Press POWER switch actuator button (4).

f. Check that POWER switch indicator lamp (5) is lit.

g. Slide switch guard (1) back to original position.

h. Observe that backlighting illumination is present on the display screens (6) of the selector module assembly.

NOTE

If backlighting illumination is not present, check to see if open-fuse indicator (7) lamp is on. If no power is present, maintenance personnel should be notified.

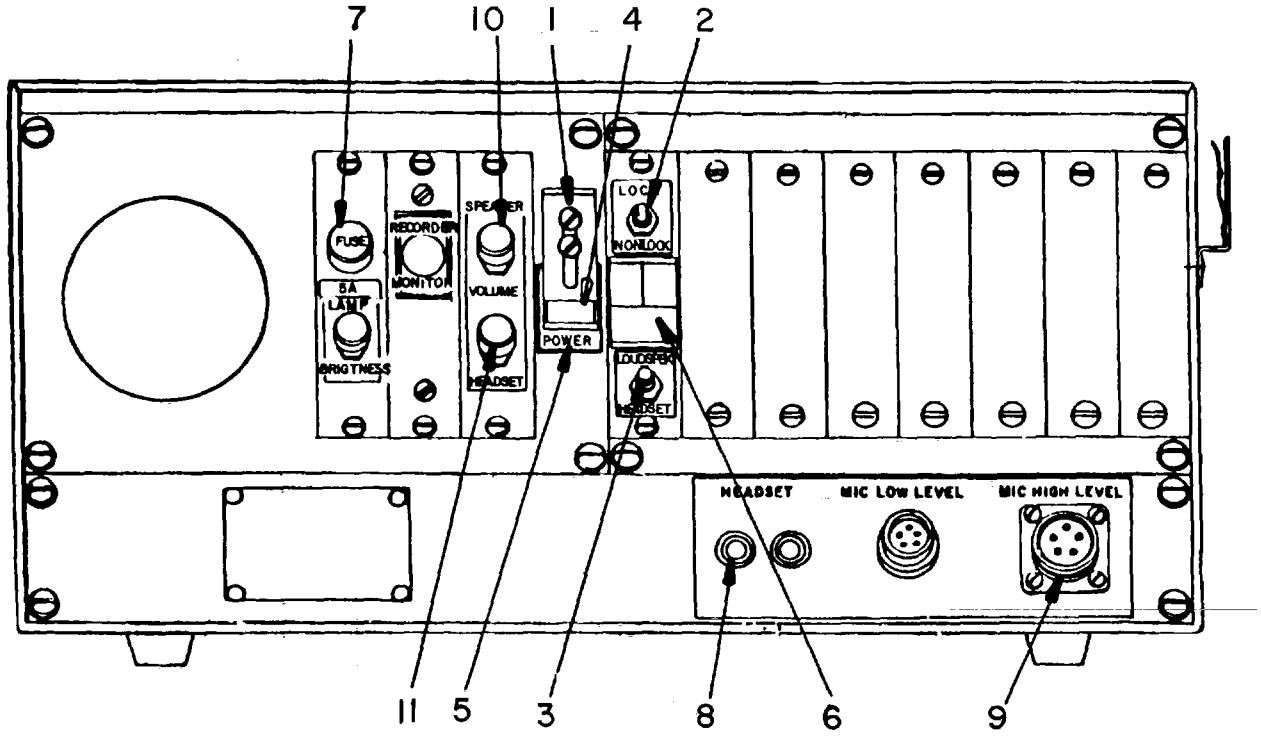
i. Insert the headset, headphone or microphone to be used into the proper HEADSET jack (8) or MIC HIGH LEVEL connector (9).

NOTE

Syllabic indicator light (6) of channels at which a received signal is present will flash regardless of the position of the switches.

j. Set LOUDSPEAKER/HEADSET switch (3) to LOUDSPEAKER for channels to be listened to through the loudspeaker. Any number of channels may be set with the SPEAKER volume (10) used.

k. Set LOUDSPEAKER/HEADSET switch (3) to HEADSET for channels to be listened to through the headset. Any number of channels maybe set with the HEADSET volume controls (11) used.



2-6 OPERATING PROCEDURE

a. Set channel selector switch (1) to LOCK.

NOTE

Green indicator light of the display screen (2) will glow as channel is engaged.

b. Press the push-to-talk switch on the microphone or headset.

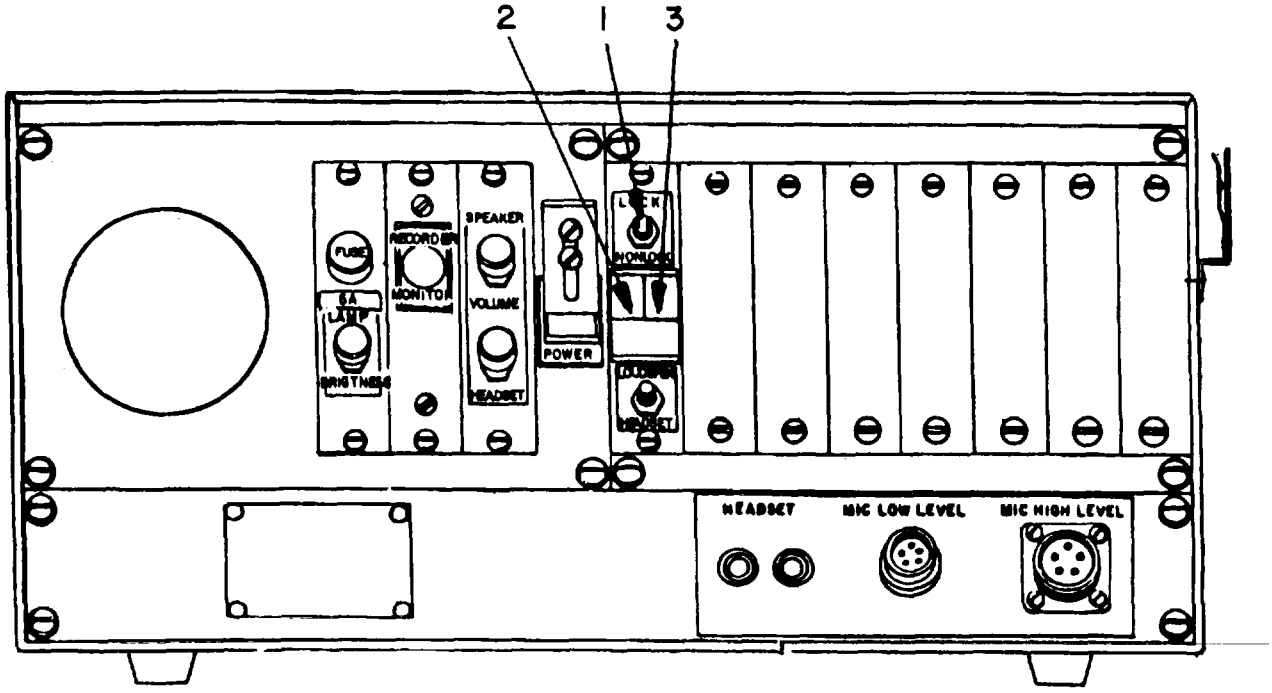
NOTE

Verify that the red indicator light portion of the display screen (3) glows as each selected channel is engaged.

c. During transmission, received signals on the selected channels are silenced.

d. Observe that operator's voice is heard in the headphones at a reduced level (side tone) when keying of one or more transmitters is taking place.

e. To temporarily select a channel not ordinarily used, hold channel selector switch (1) in NONLOCK position.



2-7. SHUT-DOWN PROCEDURE

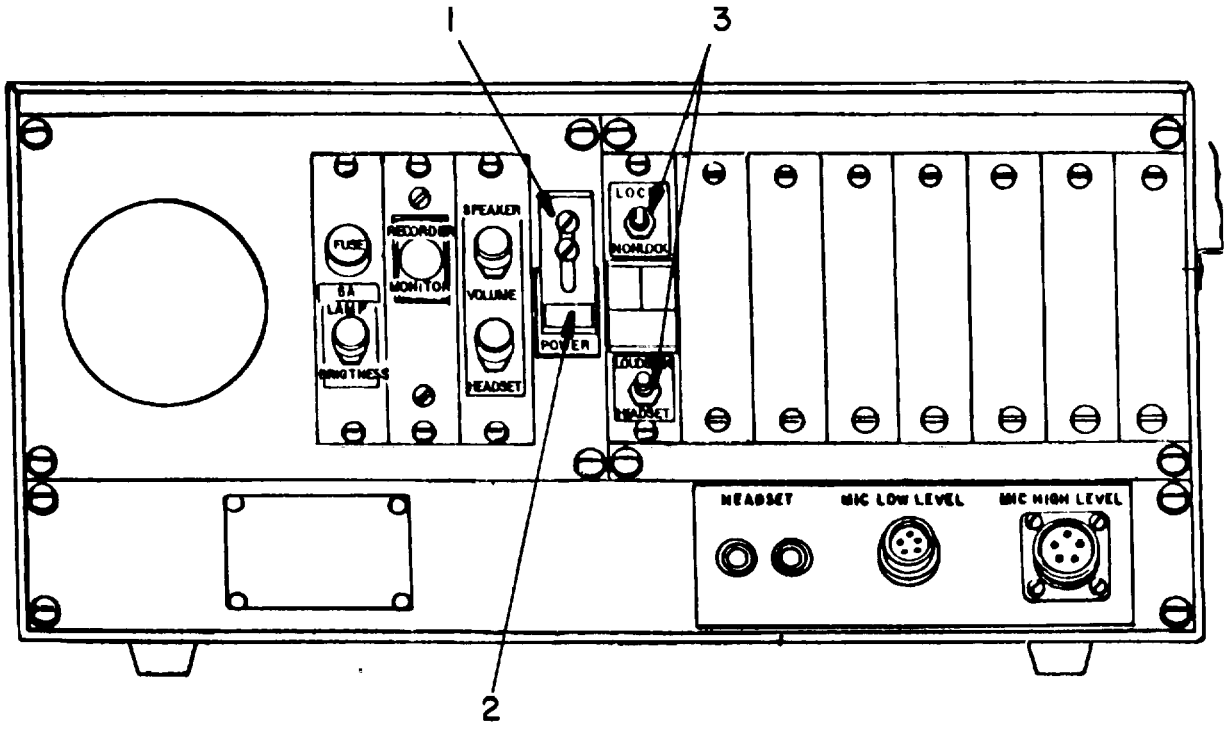
When through operating at the position, proceed with the following steps.

a. Slide the switch guard (1) away from the POWER switch.

b. Push POWER switch button (2) to turn unit off.

c. Slide the POWER switch guard (1) to original position.

d. Return all toggle switches (3) on selector unit assembly to center off position unless otherwise specified by operating procedure.



CHAPTER 3

MAINTENANCE INSTRUCTIONS

3-1. ORGANIZATIONAL MAINTENANCE

Organizational maintenance consists of an operational check (para 2-5) to determine if any of the assemblies are defective. If they are found to be defective or inoperative refer the trouble to a higher level of maintenance.

3-2. PLACEMENT OF KNOBS, FUSES, AND LAMPS

a. Indication Lamps. All indication lamps are 28 V, 0.04 A, T-1 ¾ bulb, with an aircraft style base. The three indicator lamps located on the front panel of the selector unit assembly may be accessed for replacement by removing the lens covering the lampholder unit. Refer to the figure on page 2-3. There is a single lamp on the recorder-monitor module located in the audio unit assembly. Refer to the figure on page 2-2. This lamp is accessed by removing the lens covering the lampholder unit. The power indicator lamp located on the audio unit assembly is accessed for replacement by removing the lens covering the lampholder assembly.

b. Knobs. There are three knobs located on the front panel of the audio unit assembly. Refer to the figure on page 2-2. These knobs may be tightened or replaced by loosening the two Allen-type set screws on each knob which hold the knob to the central shaft.

c. Fuse. There is a single five ampere fuse located on the front panel of the audio unit assembly. Removing the fuse cap on the fuseholder accesses the fuse for removal.

APPENDIX A

REFERENCES

A-1. SCOPE

The pertinent reference publications mentioned below are relevant to material covered in this technical manual. The indexes referred to should be consulted frequently for the latest changes or revisions of references given in this appendix.

A-2. INDEXES AND FORMS

Index of Technical Publications ..... DA Pam 310-4
Recommended Changes to DA Publications ..... DA Form 2028-2

A-3. PUBLICATIONS

Painting and Preservation of Supplies Available
for Field Use for Electronics Command Equipment ..... SB 11-573
Preservation, Packaging, Packing and Marking Materials,
Supplies, and Equipment used by the Army ..... SB 38-100
The Army Maintenance Management System (TAMMS) ..... TM 38-750
Administrative Storage of Equipment ..... TM 740-90-1
Procedures for Destruction of Electronics Materiel to
Prevent Enemy Use (Electronics Command) ..... TM 750-244-2

APPENDIX B

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations for the C-10931(P)/FRC. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

B-2. Maintenance Function

Maintenance functions will be limited to and defined as follows:

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

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

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

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

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

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

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

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

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, sub-assembly, module (component or assembly), end item, or system.

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

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

B-3. Column Entries

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

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

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

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

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

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

f. Column 6, Remarks. Column 6 contains an alphabetic code which leads to the remark in section IV, Remarks, which is pertinent to the item opposite the particular code.

B-4. Tool and Test Equipment Requirements (Sect.)II

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

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

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

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

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

B-5. Remarks (Sect. IV)

a. Reference Code. This code refers to the appropriate item in section II, column 6.

b. Remarks. This column provides the required explanatory information necessary to clarify items appearing in section II.

APPENDIX B

SECTION II. MAINTENANCE ALLOCATION CHART FOR

CONTROL, RADIO CHANNEL C-1093 (P)/FRC

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL C	O	F	H	D	(5) TOOLS AND EQPT	REMARKS
			ON		SITE	OFF	SITE		
00	CONTROL RADIO CHANNEL C-10931 (P)/ FRC D16020-1	INSPECT		0.2					
		TEST				0.3			
		SERVICE		0.2					
		REPLACE			0.2				
		REPAIR			0.2				A
		REPAIR					0.2(L)	1,2,3,4,7	
01	MICROPHONE AMP/ LAMP BRIGHTENER MODULE ASSEMBLY D30106-2	INSPECT		0.2					
		TEST				0.2		5	
		REPLACE			0.3				
		REPAIR			0.5				B
		REPAIR				0.5(L)		5	
0101	PRINTED CIRCUIT BOARD ASSEMBLY C30107-2	INSPECT		0.2					
		TEST				0.2		5	
		REPLACE			0.5				
		REPAIR				0.5(L)		5	
02	VOLUME CONTROL MODULE ASSEMBLY D30115-1	INSPECT		0.2					
		TEST				0.2		5	
		ADJUST				0.2			
		REPLACE			0.5				
		REPAIR			0.5				B
		REPAIR				0.5(L)		5	
0201	PRINTED CIRCUIT BOARD ASSEMBLY C30116-1	INSPECT		0.2					
		TEST			0.2			5	
		REPLACE		0.5					
		REPAIR				0.5L)		5	
03	AUDIO UNIT ASSEMBLY D30001-1	INSPECT		0.2					
		TEST				0.5			
		SERVICE				0.1			
		REPLACE			0.3				
		REPAIR			0.5				A
		REPAIR				0.5(L)		6	

SECTION II. MAINTENANCE ALLOCATION CHART FOR

CONTROL, RADIO CHANNEL C-1093 (P)/FRC (CONT.)

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C ON	O	F SITE	H OFF	D SITE	(5) TOOLS AND EQPT.	(6) REMARKS
0301	SPEAKER AMPLIFIER ASSEMBLY D30157-1	INSPECT		0.2					
		TEST				0.3		5	
		SERVICE	0.2						
		REPLACE			0.2				
		REPAIR				0.2(L)		5	
04	RADIO CHANNEL SELECTOR MODULE SA-2328/FRC D 14868-1	INSPECT		0.2					
		TEST			0.2			5	
		REPLACE			0.2				
		REPAIR				0.5 (L)	5		
0401	PRINTED CIRCUIT BOARD ASSEMBLY C14869-1	INSPECT		0.2					
		TEST				0.2		5	
		REPLACE			0.5				
		REPAIR				0.5(L)		5	
05	SELECTOR UNIT ASSEMBLY D30180-1	INSPECT		0.2					
		TEST				0.5		6	
		SERVICE				1.0			
		REPLACE			0.2				
		REPAIR				0.5(L)		6	
0501 D30169-21	CABLE ASSEMBLY	TEST			0.2				
		REPAIR				0.5			
06	TABLE TOP CONSOLE ASSEMBLY D14638-2	INSPECT		0.2					
		TEST				0.2		6	
		REPAIR			0.2				A
		REPAIR				0.2(L)			
0601	HEADSET/MICROPHONE JACK PANEL ASSEMBLY D15945-1	INSPECT		0.2					
		TEST				0.2		3	
		REPALCE			0.2				
		REPAIR				0.2(L)		3	

APPENDIX B

Section II. MAINTENANCE ALLOCATION CHART FOR

CONTROL, RADIO CHANNEL C- 10931 (P)/FRC (CONT.)

(1) GROUP NUMBER	(2) COMPONENTS/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C ON	O	F SITE	H OFF	D SITE	(5) TOOLS AND EQPT.	(6) REMARKS
060101	TERMINAL BOARD ASSEMBLY B14765-1	INSPECT		0.2					
		TEST				0.2		6	
		REPLACE			0.2				
		REPAIR				0.2		6	
060102	CABLE ASSEMBLY C14767-2	TEST			0.2				
		REPAIR			0.5				
07	RECORDER-MONITOR MODULE D30010-1	INSPECT		0.2					C
		TEST				0.2		5	
		REPLACE			0.2				
		REPAIR			0.3				B
		REPAIR				0.5(L)			
0701	PRINTED CIRCUIT BOARD ASSEMBLY D30011-1	INSPECT		0.2					
		TEST				0.2		5	C
		REPLACE			0.5				
		REPAIR				0.5(L)		5	
99	BULK MATERIALS								

APPENDIX B

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

FOR CONTROL, RADIO CHANNEL C- 10931 (P)/FRC

EQUIPMENT STOCK NUMBER REF. CODE		TOOL OR TEST CATEGORY	MAINTENANCE NATIONAL/NATO NOMENCLATURE
2	H	Attention CN- 1 000/C	6625-00-215-4931
3	H	Signal Generator AN/USM-181B	6625-00-086-4271
4	H	Distortion Analyzer AN/URM-184A	6625-00-802-8718
5	H	*Module Test Set Model MTS-2400 GRM Corporation	
6	0, H	Multimeter ME-518/U	6625-01-031-0708
7	H	Multi-Mode Storage Oscilloscope OS-262(P)/U	6625-01-007-9416
8	H	Plug-In AM-6880/U	6625-00-185-7817
9	0	Test Kit, Electronic Equipment TK-101/G	5180-00-064-5178
		*This STE is in place at each SRA and is to be supported thru contractor for life of equipment. No further purchase of this item anticipated.	

APPENDIX B

Section IV. REMARKS

REFERENCE CODE	REMARKS
A	On site repair limited to module replacement per breakdown allocations. Also knobs, lamps and fuses.
B	Repair by PCB substitution.
C	Recorder Module, Item 07 is not part of C- 10931 (P)/FRC, but may be used with.
	AUTHORIZED SPECIAL REPAIR ACTIVITIES (SRA) 1. Area Maintenance and Supply Facility, EUROPE, Mannheim, Germany. 2. Area Maintenance and Supply Facility, Okinawa, Zukeran, Japan. 3. The Air Traffic Control Area Maintenance Activity, Fort Rucker, Alabama. NOTE: If the SRA in your geographical area does not have the capability for the "L" maintenance functions listed in this MAC, or if there is no SRA in your geographical area, utilize existing procedures for obtaining depot accomplishment of the "L" maintenance functions.

APPENDIX C

COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

C-1. Scope

This appendix lists components of end item and basic issue items for the C-10931(P)/FRC to help you inventory items required for safe and efficient operation.

C-2. General

The Components of End Item and Basic Issue Items Lists are divided into the following sections:

a. Section II--Components of End Item. This listing is for informational purposes only, and is not authority to requisition replacements. These items are part of the end item, but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

b. Section Ill--Basic Issue Items. These are the minimum essential items required to place the C-10931 (P)/FRC in operation, to operate it, and to perform emergency repairs. Although shipped separately packaged, BII must be with the C-10931(P)/FRC during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition replacement BII, based on TOE/MTOE authorization of the end item.

C-3. Explanation of Columns

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

a. Column (I)--Illustration number (Illus. Number). This column indicates the number of the illustration in which the item is shown.

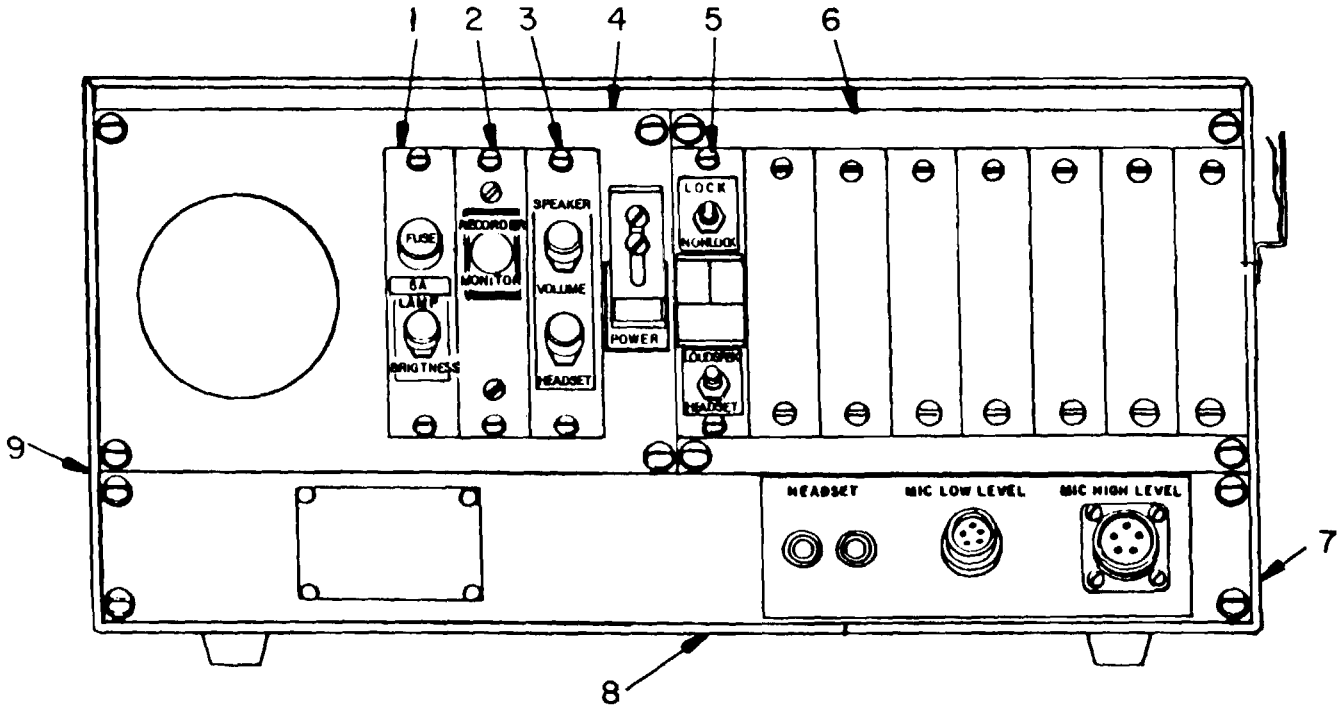
b. Column (2)--National Stock Number. Indicates the National stock number assigned to the item and will be used for requisitioning purposes.

c. Column (3)--Description. Indicates the National item name and, if required, a minimum description to identify and locate the item. The last line for each item indicated the FSCM (in parentheses) followed by the part number.

d. Column (4)--Unit of. Measure (U/M). Indicates the measure used in performing the actual operational/ maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr).

e. Column (5)--Quantity required (Qty Reqd). Indicates the quantity of the item authorized to be used with/on the equipment.

(Next printed page is C-2)



Integral Components of End Item

SECTION II. INTEGRAL COMPONENTS OF END ITEM

(1) ILLUS NO.	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION (FSCM) AND PART NUMBER USABLE ON CODE	(4) U/M	(5) QTY REQD
C-1-1		MICROPHONE AMPL/LAMP BRIGHTENER MODULE ASSY (21870) D30106-2		1
C-1-2		RECORDER-MONITOR MODULE ASSY (21870) D30010-1		1
C-1-3		VOLUME CONTROL MODULE ASSY (21870) D30115-1		1
C-1-4		AUDIO UNIT ASSY (21870) D30001-1		1
C-1-5		RADIO CHANNEL SELECTOR MODULE SA-21328/FRC (21870) D14868-1		1
C-1-6		BLANK PANEL ASSY (21870) D30180-1		8
C-1-7		SELECTOR UNIT ASSY (21870) D30180-1		1
C-1-8		HEADSET/MICROPHONE JACK PANEL ASSY (21870) D15945-1		1
C-1-9		TABLE TOP CONSOLE ASSY (21870) D14638-2		1

SECTION III. BASIC ISSUE ITEMS

(1) ILLUS NO.	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION (FSCM) AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY REQD
		RADIO CHANNEL CONTROL C-10931 (P)/FRC (this item is nonexpendable)			1
		TM 11-5895-1141-12			1
		TM 11-5898-1141-34			1

By Order of the Secretary of the Army

E. C. MEYER
General, Untied States Army
Chief of Staff

Official:
ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

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