

MAINTENANCE MANUAL
FOR
MPR/MPX SPEAKER/MICROPHONE 19D424867G67-69

TABLE OF CONTENTS

	Page
SPECIFICATIONS	1
DESCRIPTION	1
CIRCUIT ANALYSIS	1
OUTLINE DIAGRAM	2
SCHEMATIC DIAGRAM	3
PARTS LIST	4

SPECIFICATIONS*

Speaker Impedance	8 ohms
Speaker Rating	500 milliwatts
Acoustical Output (EIA)	85 dB @ 1000 Hz
Hi/Lo Audio Switch Attenuation	15 dB
Temperature Range	-30°C to +60°C

DESCRIPTION

General Electric Speaker/Microphone 19D424867G67 through G69 consists of a molded plastic case comprised of a front and rear cover held together by three thread cutting screws. The front cover provides a grill opening for the speaker and microphone. The rear cover provides mounting for an accessory jack, HI-LO switch, cable clamps and cable bend relief. Also, the recess on the rear cover provides a place to cement a Velcro® patch or rivet mounting plates for a hang up button or belt clip. The belt clip can be swiveled 360° in 30° increments.

The case has a two chamber cavity especially designed for high acoustical performance, for mounting the speaker.

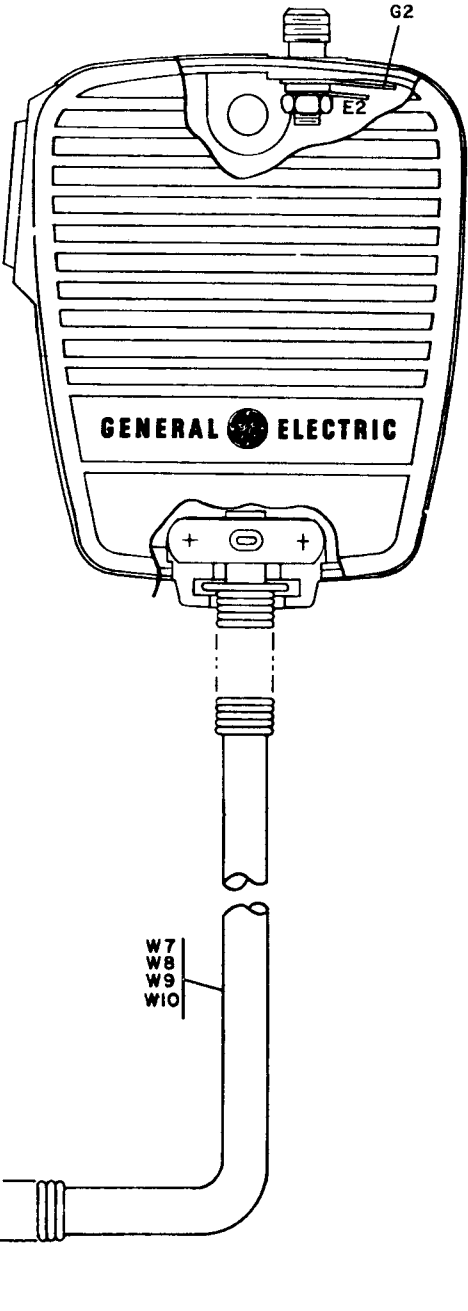
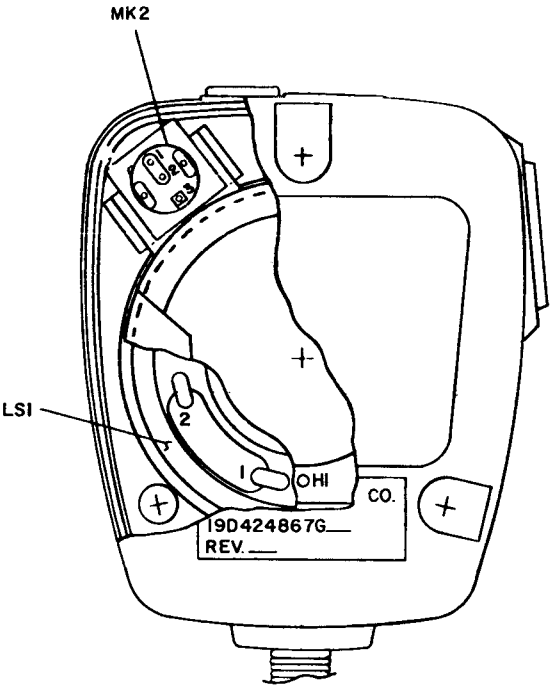
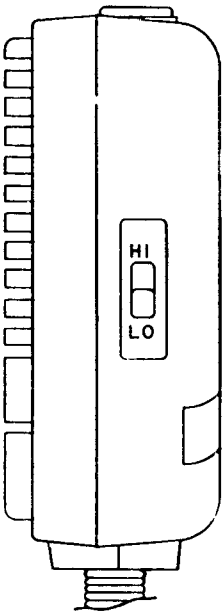
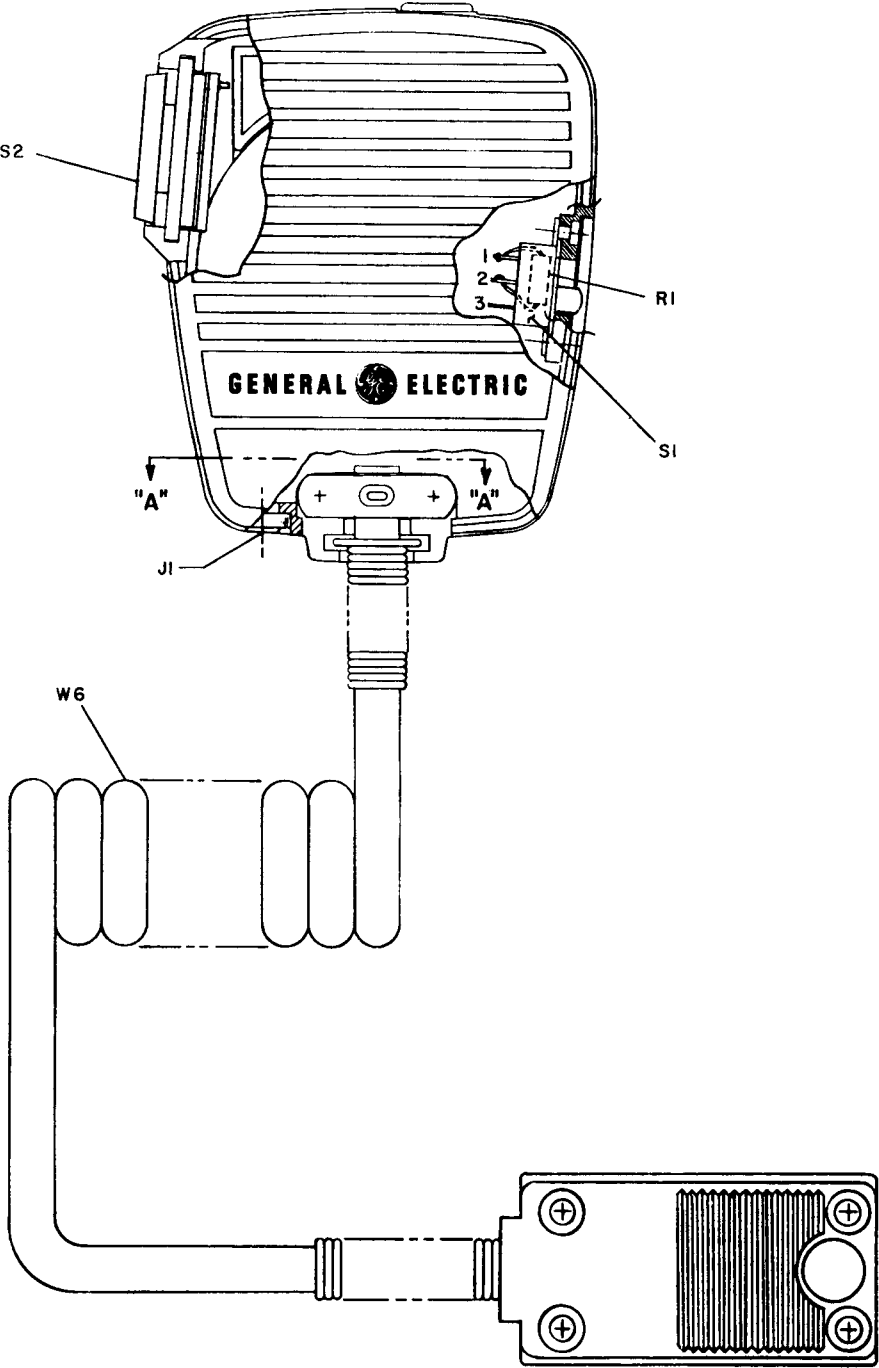
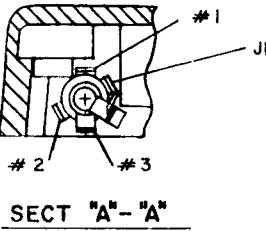
For a complete breakdown of Speaker/Microphone groups, refer to the Parts List listed in the Table of Contents.

CIRCUIT ANALYSIS

The MIKE HI output from the microphone cartridge MK2 is on Pin 9 of plug P1. System ground is on Pin 8 of P1. The Rx AUDIO input is on Pin 10 of P1 and is connected directly to an earpiece through J1 or to speaker LS1 through HI-LO switch S1. S1 in the LO position places resistor R1 in series with the speaker attenuating the audio level by 15 dB. Pin 5 of P1 is grounded by depressing PTT switch S2. Grounding Pin 5 keys the transmitter.

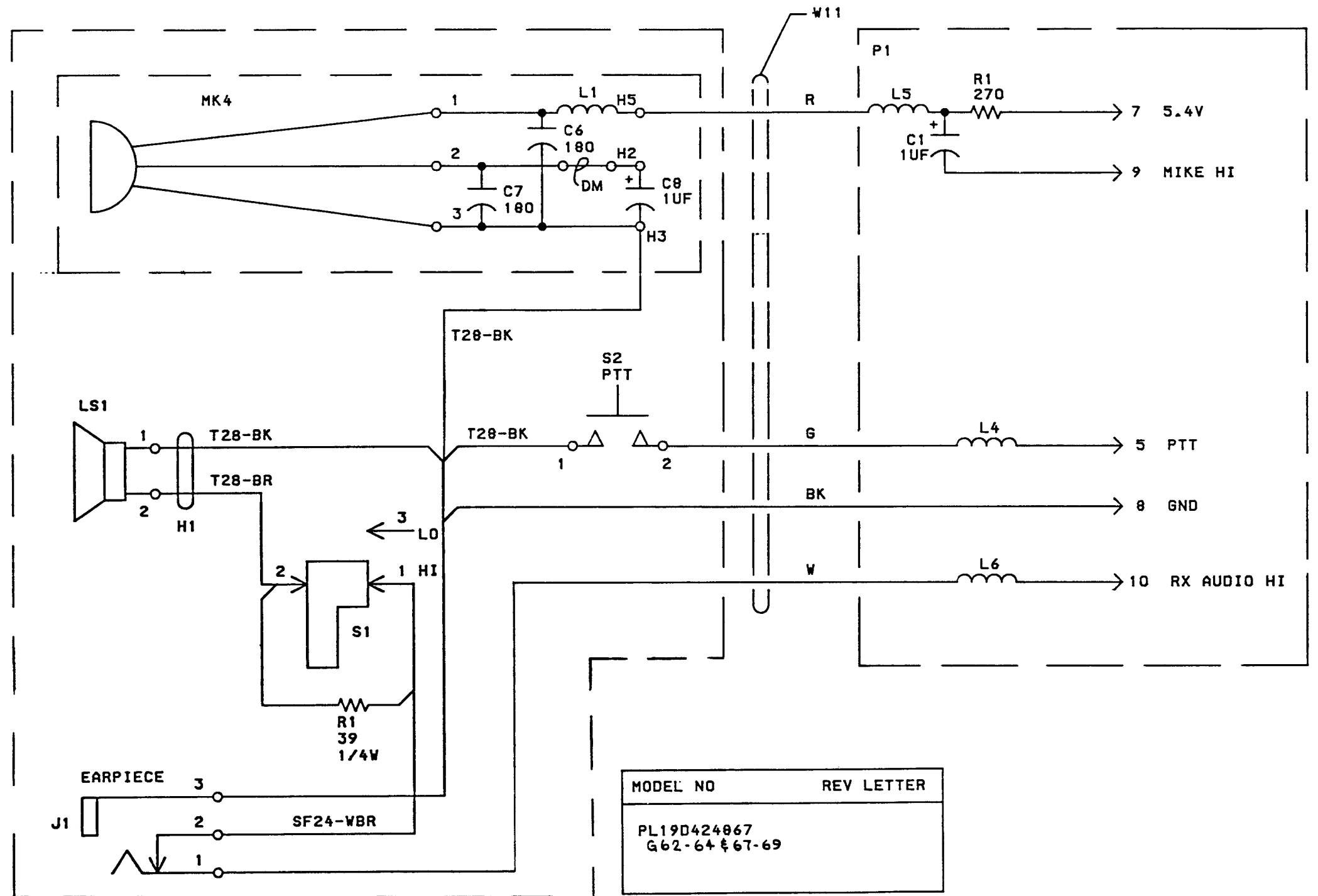
GENERAL ELECTRIC COMPANY • MOBILE COMMUNICATIONS DIVISION
WORLD HEADQUARTERS • LYNCHBURG, VIRGINIA 24502 U.S.A.





OUTLINE DIAGRAM

SPEAKER/MICROPHONE
19D424867G16-30



ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K-1000 OHMS OR MEG-1,000,000 OHMS. CAPACITOR VALUES IN PICO FARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF-MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH-MILLIHENRYS OR H-HENRYS.

(19C336273, Rev. 0)

SCHEMATIC DIAGRAM

SPEAKER/MICROPHONE
19D424867G67-69

PARTS LIST

SPEAKER MICROPHONE
19D424867G67 BUTTON
19D424867G68 VELCRO
19D424867G69 CLIP
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
J1	19A134491P1	----- JACKS -----
		Jack, telephone: miniature; sim to Switchcraft 10J1029.
LS1	19A137235G1	----- SPEAKERS -----
		Permanent magnet: 2 inches, 8 ohms $\pm 10\%$, imp 500 mW, 450 ± 100 Hz resonant freq; sim to Pioneer 850AP1301F.
MK4		SPEAKER MICROPHONE 19C328976G3
C6 and C7	19A700229P74	----- CAPACITORS -----
		Ceramic: 180 pF $\pm 5\%$, 100 VDCW, temp coef -3300 PPM.
C8	19B800650P13	Tantalum: 1 uF -20+40%, 10 VDCW.
L1	19A700024P13	----- COILS -----
		Coil, RF: 1.0 uH $\pm 10\%$.
	19A134461P1	----- MISCELLANEOUS -----
		Cartridge: 200-850 ohms imp, 1.5-10 VDC; sim to PRIMO EM-60-PM12.
	19B232142P2	Boot, mike.
R1	19A700106P29	----- RESISTORS -----
		Composition: 39 ohms $\pm 5\%$, 1/4 w.
S1	19A134798P1	----- SWITCHES -----
		Slide; contacts rated 1/4 amp @ 125 VAC; sim to VID/MA-012-4-3-F-2W.
S2	19B232265G1	Pushbutton: 200 milliohms res max; sim to Bowmar KB3256-1C.
W11		----- CABLES -----
		CABLE ASSEMBLY 19C331660G1
C1	19B800650P13	----- CAPACITORS -----
		Tantalum: 1 uF -20+40%, 10 VDCW.
L4 thru L6	19A700024P13	----- COILS -----
		Coil, RF: 1.0 uH $\pm 10\%$.
P1	19C328398G3	----- PLUGS -----
		Connector: 12 contacts.
R1	3R151P271J	----- RESISTORS -----
		Composition: 270 ohms $\pm 5\%$, 1/8 w.
		MECHANICAL PARTS (SEE RC 3245)
1		Not Used.
2		Not Used.
3		Not Used.
4		Not Used.

SYMBOL	GE PART NO.	DESCRIPTION
5	19A134481P1	Machine screw: No. 1.6-.35 x 4mm.
6	19A134480P1	Hex nut: No. 1.6-.35mm.
7	19B216602P1	Plate.
8	19B232108P1	Plug button.
9	19D424953G4	Rear housing. (VELCRO).
10	19D424953G5	Rear housing. (CLIP).
11	19D424953G6	Rear housing. (BUTTON).
12	NP280373	Nameplate.
13	19C327898G1	Cavity.
14		Not Used.
15	N136AP1310C13	Tap screw: No. 3.5-1.27 x 16mm.
16		Not Used.
17	19A137098G1	Stud plate. (BUTTON).
18	N327P9012Y6	Tubular rivet.
19	N402P4C6	Flatwasher, steel: No. 3.
20	N509P614C6	Pin.
21	19B227411P2	Bumper.
22	19B232182G1	Plate. (CLIP).
23	19C327831P1	Clip.
24	19A700031P406	Machine screw, metric: 3-0.5 x 6MM.
25	19B232106P1	Strain relief.
26	19A129143P2	Fastener pad. (VELCRO).
27	19C327887G1	Front housing.
28		Not Used.
29		Not Used.

