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SPECIFICATIONS\*

Speaker Impedance	8 ohms
Speaker Rating	500 milliwatts
Acoustical Output (EIA)	85 dB @ 1000 Hz
Microphone Output	-76 dB @ 1000 Hz (0.16 millivolts)
Hi/Lo Audio Switch Attenuation	15 dB
Temperature Range	-30°C to +60°C

DESCRIPTION

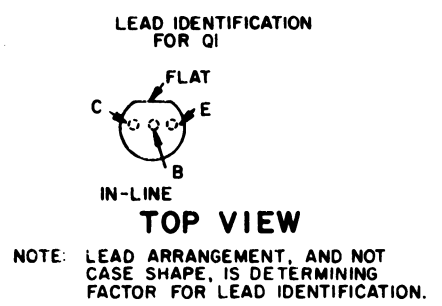
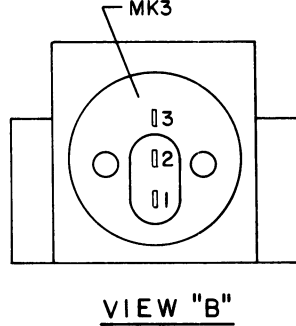
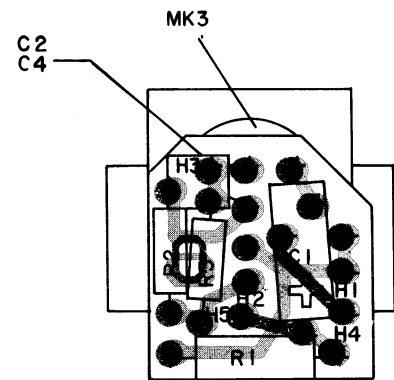
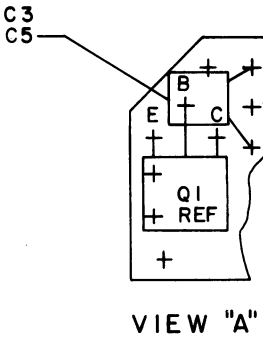
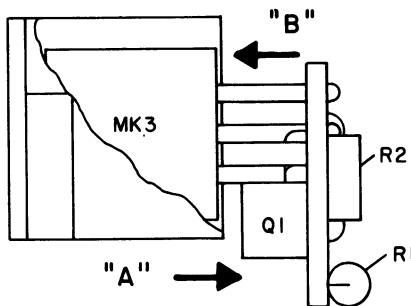
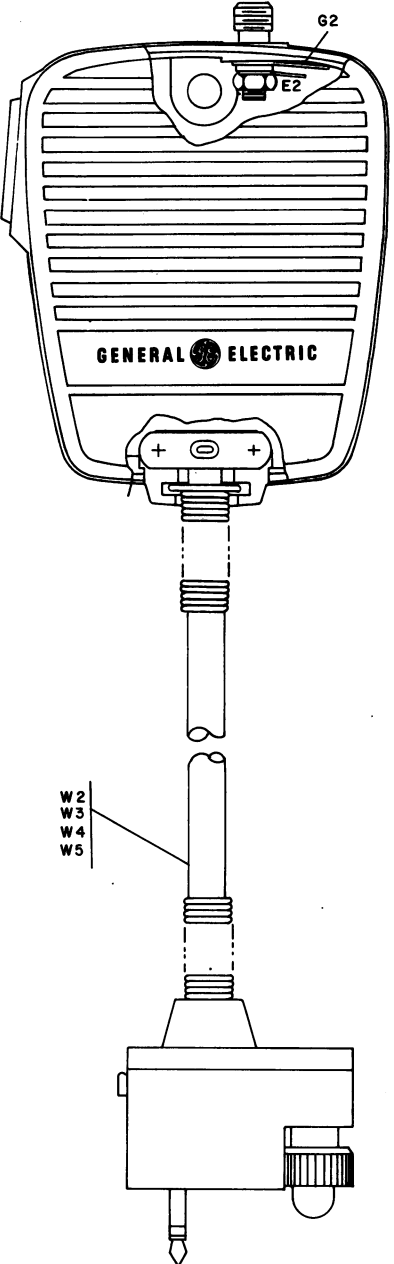
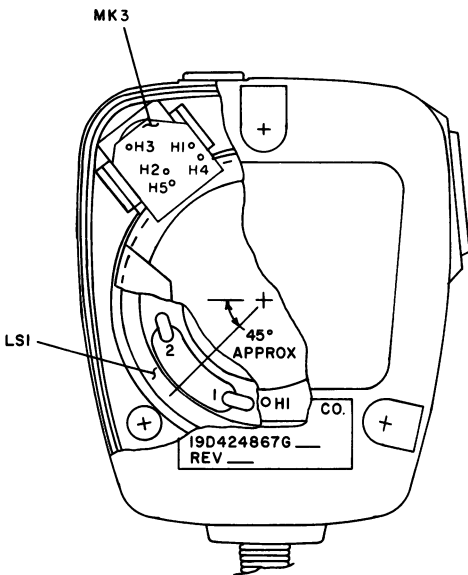
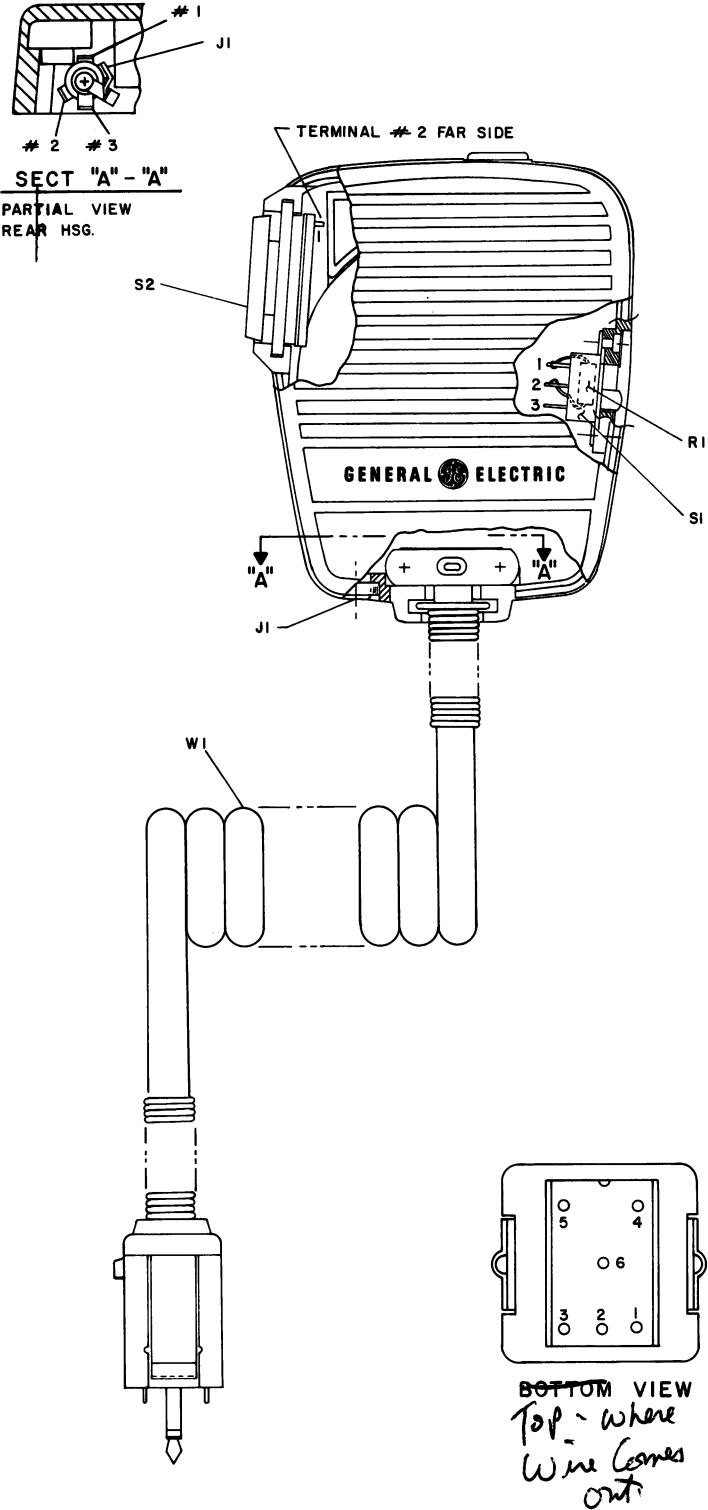
General Electric Speaker/Microphone 19D424867G46 through G60 consists of a molded plastic case comprised of a front and rear cover held together by three thread cutting screws. The front cover provides a grill opening for the speaker and microphone. The rear cover provides mounting for an antenna connector, 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.

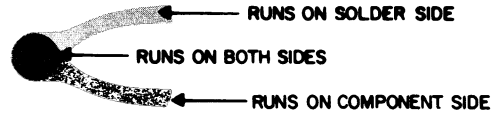
For a complete breakdown of Speaker/Microphone groups, refer to the Parts List listed in the Table of Contents.

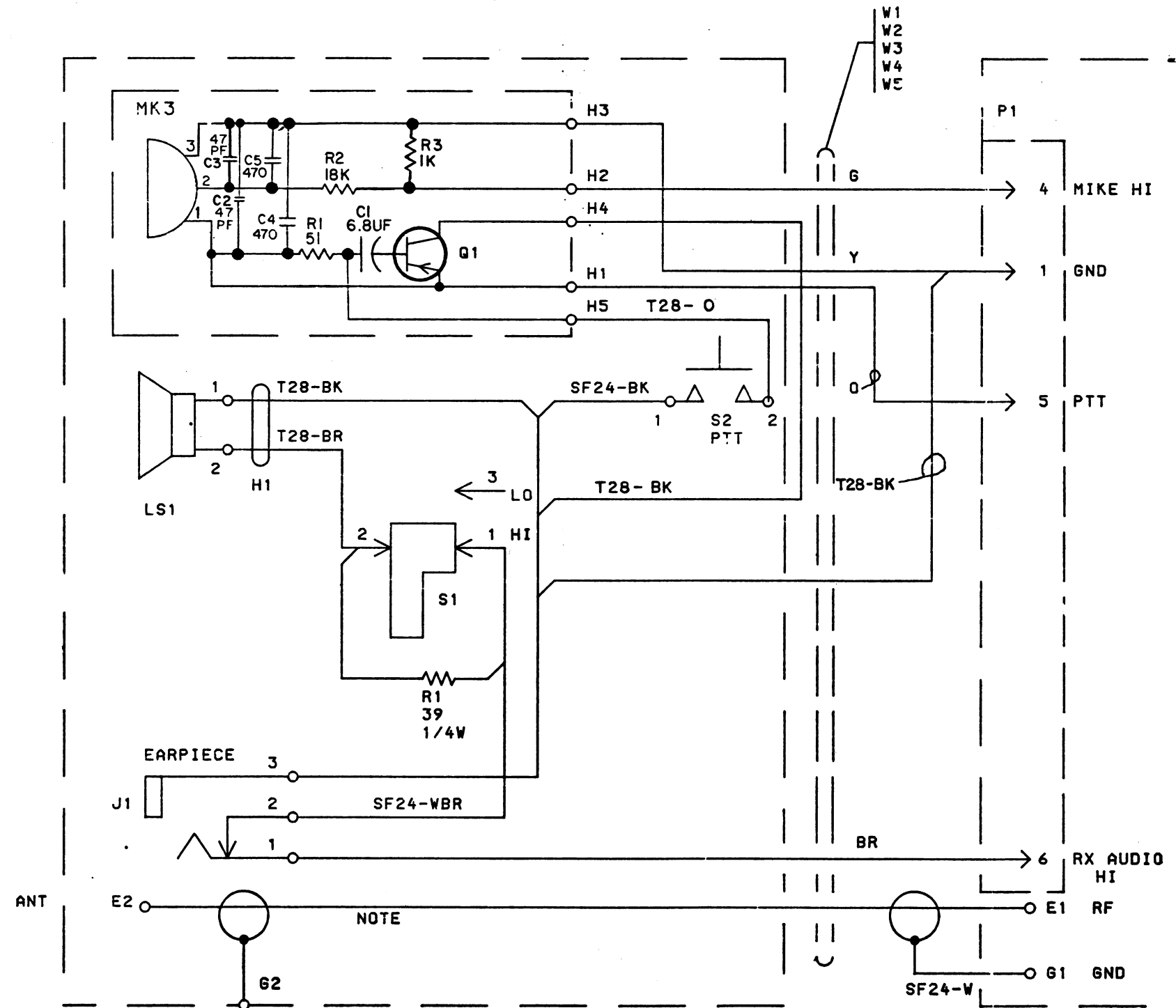
CIRCUIT ANALYSIS

The MIKE HI output from the microphone cartridge MK3 is on Pin 4 of plug P1. System ground is on Pin 1 of P1. The RX AUDIO input is on Pin 6 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 causing transistor Q1, to conduct. Grounding Pin 5 keys the transmitter. If the Speaker/Microphone is equipped with an antenna, RF is connected through a coax cable from terminal E1 and P1 to the terminal E2 on the rear cover.



(19C330785, Rev. 1)  
(19A138328, Sh. 1, Rev. 0)  
(19A138328, Sh. 2, Rev. 0)





NOTE:

COAX CABLE IN W2, W3,  
W4 AND W5 ONLY.

ALL RESISTORS ARE 1/8 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.

MODEL NO	REV LETTER
PL19D424867G46-60	B

## SCHEMATIC DIAGRAM

PE SPEAKER/MICROPHONE  
19D424867G46-60

(19C328972, Rev. 5)

PARTS LIST

SPEAKER MICROPHONE  
19D424867G46-G60  
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
		19D424867G46 COIL CORD - BUTTON 19D424867G47 COIL CORD - VELCRO 19D424867G48 COIL CORD - CLIP 19D424867G49 22 INCH STRAIGHT CABLE - BUTTON 19D424867G50 22 INCH STRAIGHT CABLE - VELCRO 19D424867G51 22 INCH STRAIGHT CABLE - CLIP 19D424867G52 18 INCH STRAIGHT CABLE - BUTTON 19D424867G53 18 INCH STRAIGHT CABLE - VELCRO 19D424867G54 18 INCH STRAIGHT CABLE - CLIP 19D424867G55 22 INCH ARMOR CORD - BUTTON 19D424867G56 22 INCH ARMOR CORD - VELCRO 19D424867G57 22 INCH ARMOR CORD - CLIP 19D424867G58 18 INCH ARMOR CORD - BUTTON 19D424867G59 18 INCH ARMOR CORD - VELCRO 19D424867G60 18 INCH ARMOR CORD - CLIP
		----- TERMINALS -----
E2	4033714P5	Terminal: sim to Zierick 541.
G2	4033714P10	Terminal: sim to Zierick 619.
		----- JACKS AND RECEPTACLES -----
J1	19A134491P1	Jack, telephone: miniature; sim to Switchcraft TR-2A.
		----- LOUDSPEAKERS -----
LS1	19A137235G1	Permanent magnet: 2 inch, 400-3000 Hz response, 8 ohms $\pm 10\%$ voice coil imp, 500 mw power rating; sim to PIONEER MODEL 50-52.
		----- RESISTORS -----
R1	19A700106P29	Composition: 39 ohms $\pm 5\%$ , 1/4 w.
		----- SWITCHES -----
S1	19A134798P1	Slide: 7.5 VDC or 0.25 amp at 125 VAC; sim to UID MA-012-4-3-S-2W.
S2	19B232265G1	Pushbutton: 200 milliohms res max; sim to Bowmar KB Series.
		----- CABLES -----
W1	19C327875G1	Cable, coiled cord: 6 conductor, approx 6 feet long. (Includes P1).
W2	19D424930G1	Cable assembly: 22 inch straight. (Includes E1, G1, P1 - replaceable as an assembly only).
W3	19D424934G1	Cable assembly: 22 inch armor. (Includes E1, G1, P1 - replaceable as an assembly only).
W4	19D424930G2	Cable assembly: 18 inch straight. (Includes E1, G1, P1 - replaceable as an assembly only).
W5	19D424934G2	Cable assembly: 18 inch armor. (Includes E1, G1, P1 - replaceable as an assembly only).
		MICROPHONE ASSEMBLY 19C328976G1
		----- CAPACITORS -----
C1	5491674P39	Tantalum: 6.8 $\mu$ f $\pm 20\%$ , 15 VDCW; sim to Sprague Type 162D.
C2* and C3*	19A700226P53	Ceramic: 47 pf $\pm 5\%$ , 100 VDCW; temp coef -750 PPM. Added by REV A.
C4* and C5*	19A116192P2	Ceramic: 470 pf $\pm 20\%$ , 50 VDCW; sim to Erie 8111-A050-W5R-471M. Added by REV B.

SYMBOL	GE PART NO.	DESCRIPTION
		----- MICROPHONES -----
MK3	19A134461P1	Cartridge, electret: 200-850 ohms imp at 1 KHz; sim to Primo EM-60PM12.
		----- TRANSISTORS -----
Q1	19A115852P1	Silicon, PNP; sim to Type 2N3906.
		----- RESISTORS -----
R1	19A700106P32	Composition: 51 ohms $\pm 5\%$ , 1/4 w.
R2	3R151P183J	Composition: 18K ohms $\pm 5\%$ , 1/8 w.
R3	3R151P102J	Composition: 1K ohms $\pm 5\%$ , 1/8 w.
		----- MISCELLANEOUS -----
	19B232142P2	Microphone boot.
		MECHANICAL PARTS (SEE RC3245)
1	19A129701P1	Bushing.
2	19A137100P1	Stud.
3	4033714P10	Solderless terminal. (G2).
4	4033714P5	Solderless terminal. (E2).
5	19A134481P1	Machine screw: No. 1.6-.35 x 4mm.
6	19A134480P1	Hex nut: No. 1.6-.35 mm.
7	19B216602P1	Plate.
8	19B232108P1	Plug button.
9	19D424953G1	Rear housing. (VELCRO-STRAIGHT CORD).
	19D424953G4	Rear housing. (VELCRO-COIL CORD).
10	19D424953G2	Rear housing. (CLIP-STRAIGHT CORD).
	19D424953G5	Rear housing. (CLIP-COIL CORD).
11	19D424953G3	Rear housing. (BUTTON-STRAIGHT CORD).
	19D424953G6	Rear housing. (BUTTON-COIL CORD).
12	NP280373	Nameplate.
13	19C327898G1	Cavity.
14	19B232161P1	(Not Used).
15	N136AP1310C6	Tap screw, phillips POZIDRIV: No. 6-20 x 5/8.
16	19A134472P1	Helical spring.
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	19C327838P1	Clip.
24	19A134483P3006	Machine screw: No. 3-0.5 x 6 mm.
25	19B232106P1	Strain relief.
26	19A129143P2	Fastener pad. (VELCRO).
27	19C327887G1	Front housing.
28		(Not Used).
29		(Not Used).

PRODUCTION CHANGES

Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter," which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

REV. A - To improve performance of speaker.  
Added C2 and C3.

