

MAINTENANCE MANUAL
FOR
MPR SPEAKER/MICROPHONE 19D424867G16-30
(OPTIONS 2356 THROUGH 2370)

LB130769
(DF8385)

CONTENTS	
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

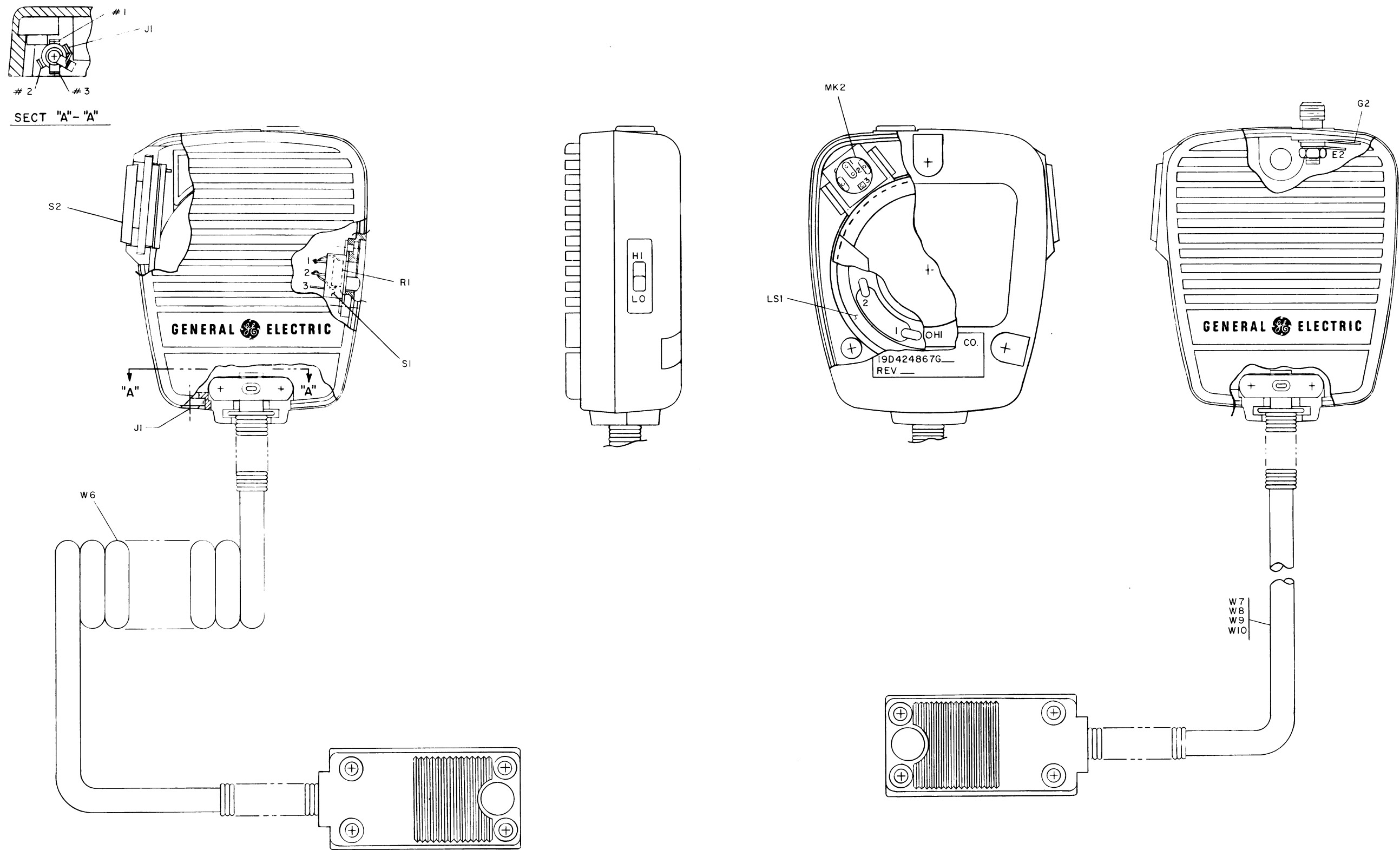
General Electric Speaker/Microphone 19D424867G16 through G30 consists of a molded plastic case comprised of a front and rear cover held together by three thread cutting screws. The front cover provides a grill opening for the speaker and microphone. The rear cover provides mounting for an antenna connector, 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.

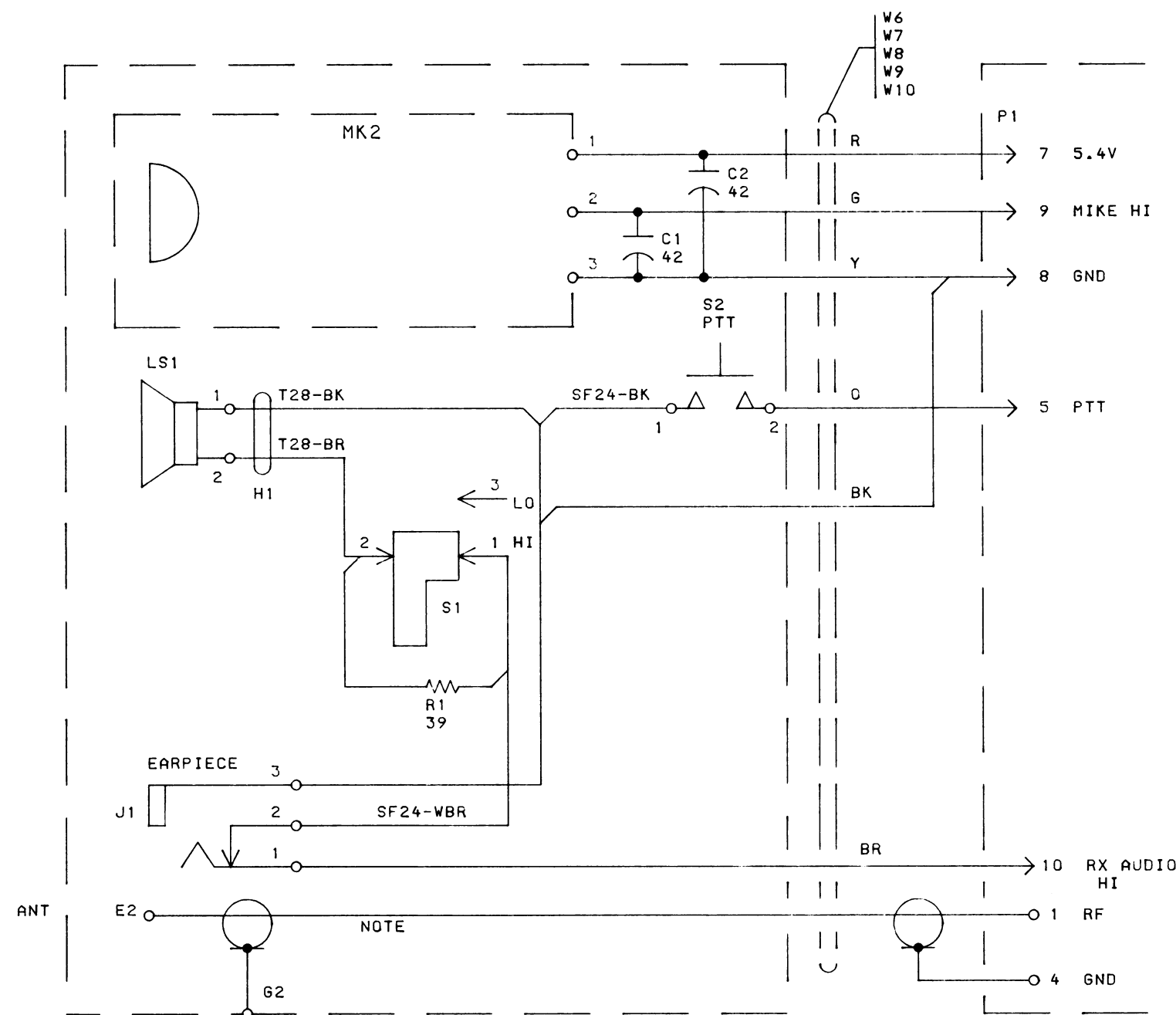
CIRCUIT ANALYSIS

The MIKE HI output from the microphone cartridge MK2 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. 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 of P1 to terminal E2 on the rear cover.



OUTLINE DIAGRAM

PE SPEAKER/MICROPHONE
19D424867G16-30



(19C328379, Rev. 0)

SCHEMATIC DIAGRAM

PE SPEAKER/MICROPHONE
19D424867G16-30

PARTS LIST

SPEAKER MICROPHONE
19D424867G16-G30

SYMBOL	GE PART NO.	DESCRIPTION
		19D424867G16 COIL CORD - BUTTON 19D424867G17 COIL CORD - VELCRO 19D424867G18 COIL CORD - CLIP 19D424867G19 22 INCH STRAIGHT CABLE - BUTTON 19D424867G20 22 INCH STRAIGHT CABLE - VELCRO 19D424867G21 22 INCH STRAIGHT CABLE - CLIP 19D424867G22 18 INCH STRAIGHT CABLE - BUTTON 19D424867G23 18 INCH STRAIGHT CABLE - VELCRO 19D424867G24 18 INCH STRAIGHT CABLE - CLIP 19D424867G25 22 INCH ARMOR CORD - BUTTON 19D424867G26 22 INCH ARMOR CORD - VELCRO 19D424867G27 22 INCH ARMOR CORD - CLIP 19D424867G28 18 INCH ARMOR CORD - BUTTON 19D424867G29 18 INCH ARMOR CORD - VELCRO 19D424867G30 18 INCH ARMOR CORD - CLIP
		----- CAPACITORS -----
C1 and C2	19A116114P7053	Ceramic: 47 pf $\pm 5\%$, 100 VDCW; temp coef -750 PPM.
		----- 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 10J1029.
		----- LOUDSPEAKERS -----
LS1	19A137235G1	Permanent magnet: 2 inch diameter, 400-3000 Hz response, 8 ohms $\pm 10\%$ voice coil imp, 500 mW power rating; sim to PIONEER MODEL 50-52.
		----- MICROPHONES -----
MK2	19A134461P1	Cartridge, electret: 200-1000 ohms imp. at 1 KHz, 1.5 to 10 VDCW; sim to Primo Model No. EM-60.
		----- RESISTORS -----
R1	3R152P390J	Composition: 39 ohms $\pm 5\%$, 1/4 w.
		----- SWITCHES -----
S1	19A116107P1	Slide: 0.5 amp at 100 VAC; sim to Sanset SS-12.
S2	19B232265G1	Pushbutton: 200 milliohms res max; sim to Bowmar KB3256-1C.
		----- CABLES -----
W6	19C328378G1	Cable, coiled cord: 6 conductor, approx 6 feet long. (Includes P1).
W7	19C328409G1	Cable assembly: 22 inch straight. (Includes P1).
W8	19C328387G1	Cable assembly: 22 inch armor. (Includes P1).
W9	19C328409G2	Cable assembly: 18 inch straight. (Includes P1).
W10	19C328387G2	Cable assembly: 18 inch armor. (Includes P1).
		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.

SYMBOL	GE PART NO.	DESCRIPTION
6	19A134480P1	Hex nut: No. 1.6-.35 mm.
7	19B216602P1	Plate.
8	19B232108P1	Plug button.
9	19D424953G1	Rear housing. (VELCRO - STRAIGHT & ARMOR CABLE).
	19D424953G4	Rear housing. (VELCRO - COIL CABLE).
10	19D424953G2	Rear housing. (CLIP - STRAIGHT & ARMOR CABLE).
	19D424953G5	Rear housing. (CLIP - COIL CABLE).
11	19D424953G3	Rear housing. (BUTTON - STRAIGHT & ARMOR CABLE).
	19D424953G6	Rear housing. (BUTTON - COIL CABLE).
12	NP280373	Nameplate.
13	19C327898G1	Cavity.
14	19B232161P1	Gasket.
15	19A134482P3516	Tap screw: size No. 3.5-1.27 x 16 mm.
16	19A134472P1	Helical spring.
17	19A137098G1	Stud plate. (BUTTON).
18	N327P9012E	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.

