MOBILE RADIO

MASTR® Personal Series

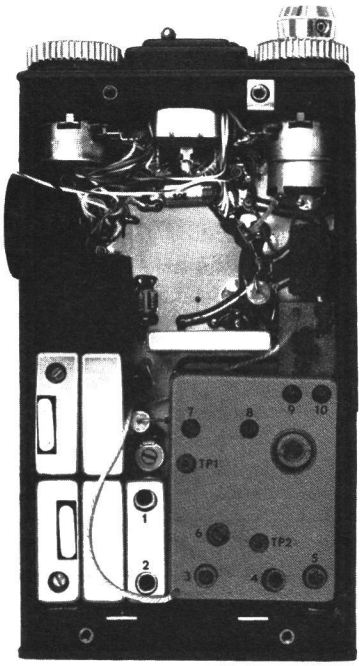
PROGRESS LINE

PE MODELS

SYSTEMS BOARD AND CASE ASSEMBLY 19D413548G2 & G7

Maintenance Manual LBI 4578 E
DATAFILE FOLDER - DF4110

SYSTEM BOARD AND CASE ASSEMBLY
19D413548G2 & G7



SPECIFICATIONS *

MODEL NUMBERS

19D413548G2	406-470 MHz
19D413548G7	470-512 MHz

CONTROLS

Volume ON-OFF Switch
Squelch Control
Two-Frequency Selector Switch
PTT Switch
Tone Option Switch
Collapsible Antenna
Accessory Jack

*These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

GENERAL ELECTRIC

ILLUSTRATIONS

WARNING

No one should be permitted to handle any portion of the equipment that is supplied with high voltage; or to connect any external apparatus to the units while the units are supplied with power. KEEP AWAY FROM LIVE CIRCUITS.

DESCRIPTION

System Board A702/A707 provides system interconnections for the transmitter, receiver, tone options and operating controls. In addition to the transmitter modules, the system board contains the system relay, and the audio and DC switching circuitry.

Jacks J702 and J703 are connected to the system board and provide contacts for an external antenna, speaker, and microphone. J702 provides contacts for the external antenna and speaker, and J703 provides contacts for an external microphone. Placing the radio into the vehicular charger automatically connects the jack contacts to the external circuitry. The radio is also connected to the external antenna when placed in the desk charger.

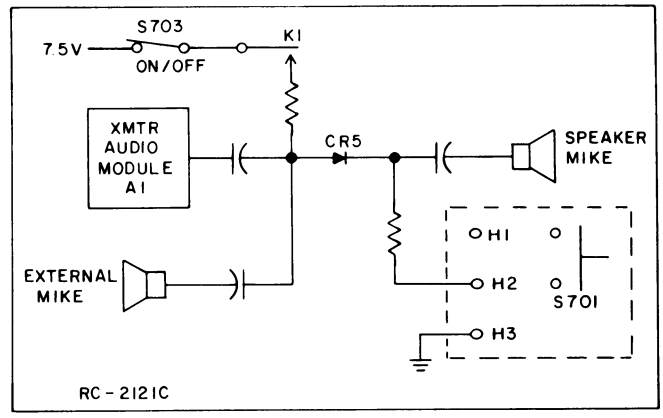


Figure 1 - Audio Switching Circuit

CIRCUIT ANALYSIS

AUDIO SWITCHING

Audio switching for the Speaker/Microphone LS1 is controlled by diode CR5 as shown in Figure 1.

Pressing PTT switch S701 forward biases diode CR5, permitting audio from LS1 to be applied to transmitter audio module A1.

Keying the external microphone permits audio to be applied directly to the transmitter audio module.

DC SWITCHING

Operation of system relay K1 is controlled by diode CR2 (see Figure 2).

Pressing S701 forward biases CR2, completing the relay path to ground. This energizes relay K1, and switches the battery voltage to the transmitter audio and regulator modules. Energizing K1 also connects the transmitter output to the antenna.

PTT SWITCH (A719)

Solid State PTT switch S701 forward biases diode CR2 to energize relay K1 and key the radio. When S701 is pressed, PNP transistor Q1 conducts. Transistor Q1 conducting applies a positive voltage to the base of NPN transistor Q2, causing Q2 to also conduct. Transistor Q2 conducting, provides a conduction path to ground for diode CR2. Relay K1 is energized and the radio is keyed.

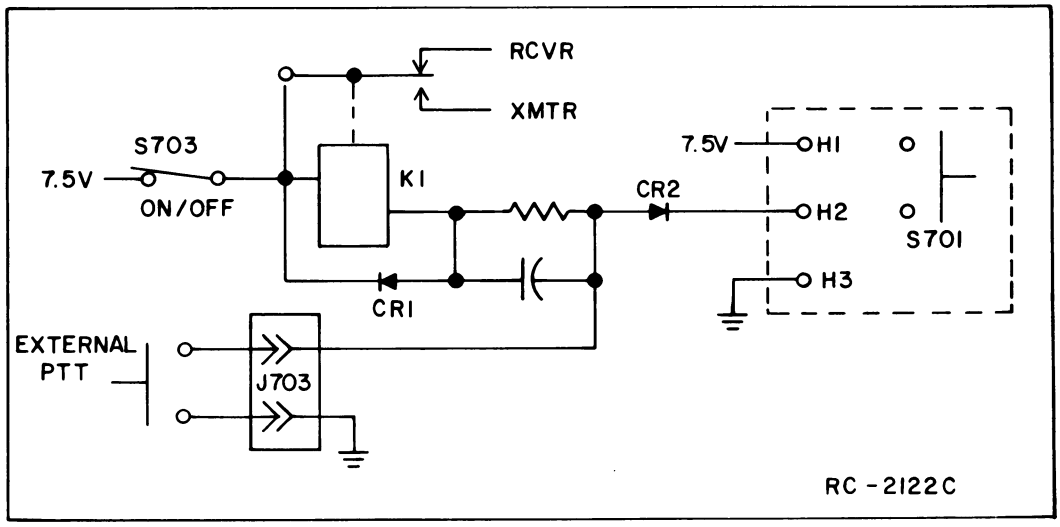
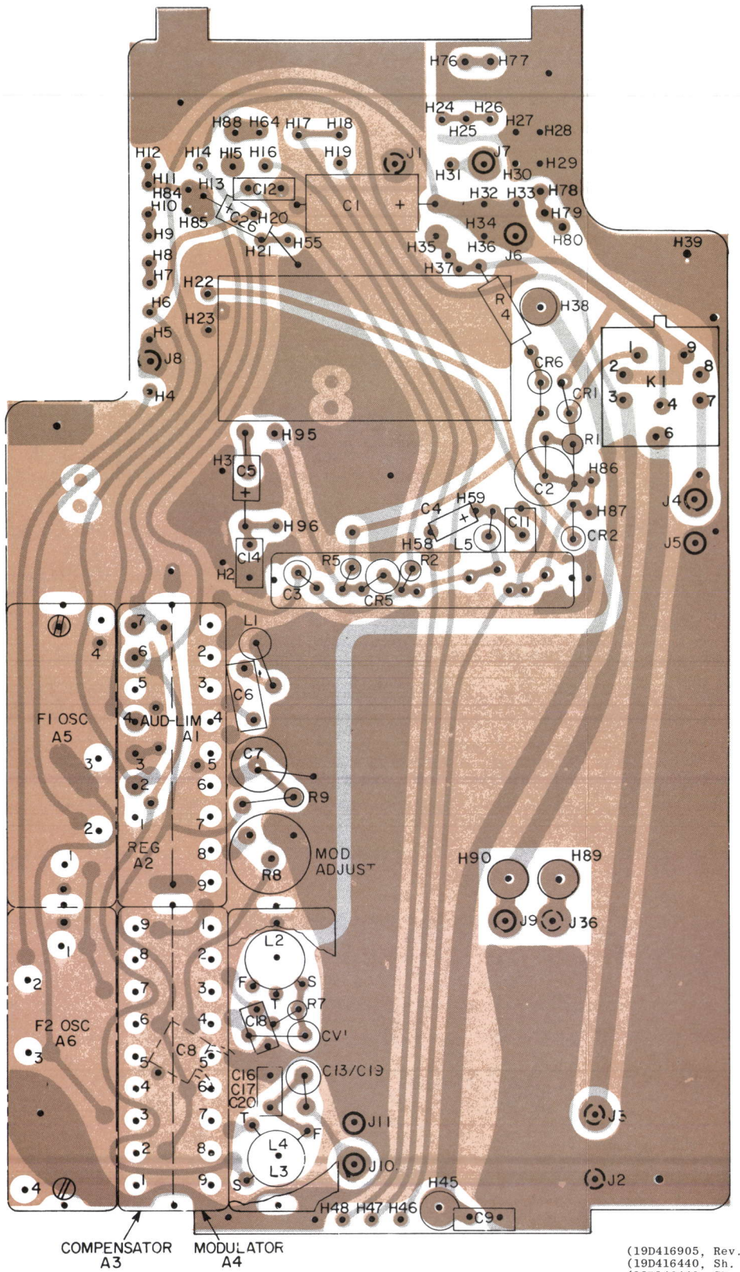


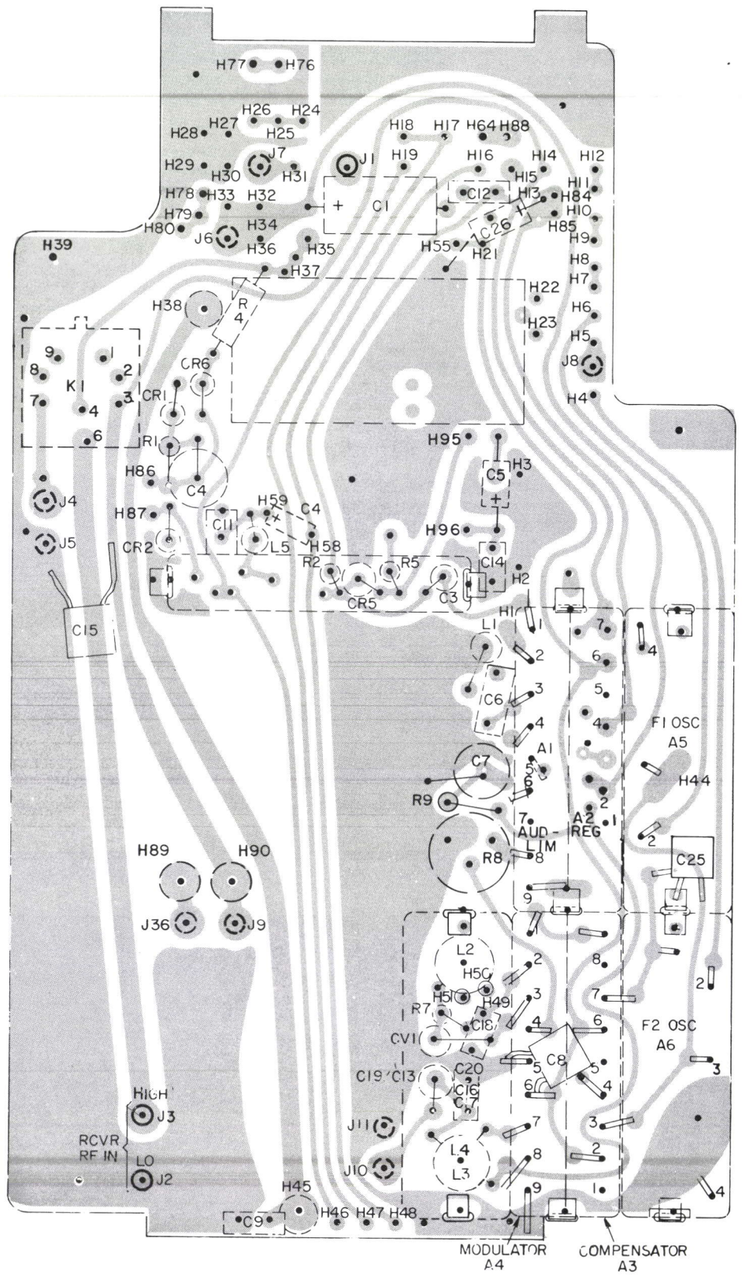
Figure 2 - DC Switching Circuit

COMPONENT SIDE



(19D416905, Rev. 15)
(19D416440, Sh. 1, Rev. 8)
(19D146440, Sh. 2, Rev. 8)

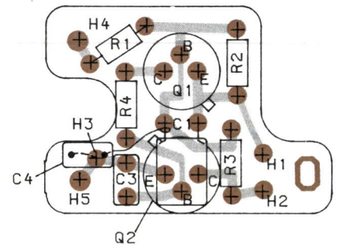
SOLDER SIDE



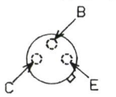
(19D416905, Rev. 15)
(19D416440, Sh. 2, Rev. 8)

RUNS ON SOLDER SIDE
RUNS ON BOTH SIDES
RUNS ON COMPONENT SIDE

A719



LEAD IDENTIFICATION FOR Q1 AND Q2



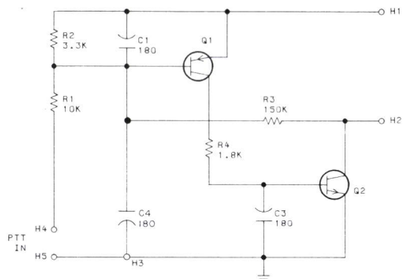
OR

IN-LINE TRIANGULAR

TOP VIEW

NOTE: LEAD ARRANGEMENT, AND NOT CASE SHAPE, IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

(19B233083, Rev. 2)
(19B232585, Sh. 1, Rev. 0)
(19B232585, Sh. 2, Rev. 0)



SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

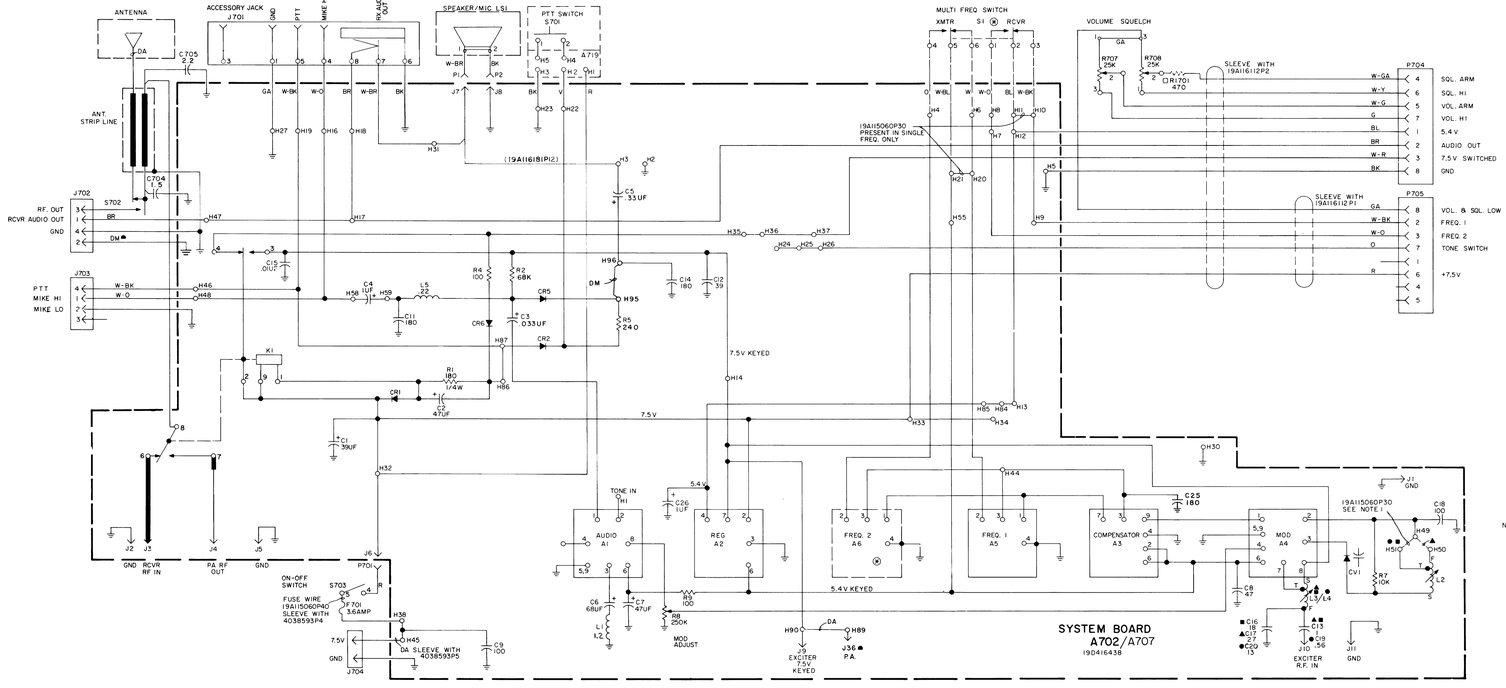
THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI9B232386G1	A

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 PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

(19B232770, Rev. 3)

OUTLINE DIAGRAM

406—470 MHz SYSTEM BOARD 19D413548G2
470—512 MHz SYSTEM BOARD 19D413548G7



SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI9D413548G2	J
PLI9D413548G7	M
PLI9D416438G	M
PLI9D416438G4	M

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 MICROFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF= MICROFARADS, INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH= MILLIHENRYS OR H=HENRYS.

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

NOTES:
1. ● USED IN HI POWER UNITS ONLY
   ● USED IN 450 EXT. 470-512 MHz
   ▲ USED IN LO SPLIT 406-420 MHz
   ■ USED IN HI SPLIT 450-470 MHz
2. DA = #22 AWG
3. Ⓢ THESE ITEMS ARE PART OF SWITCH KIT 19A127828G1
   □ R1701 IS PART OF KIT PL19A130602G1
4. GND MAY BE MADE THROUGH CAN ONLY ON S1 OMS

SCHEMATIC DIAGRAM

406—470 MHz SYSTEM BOARD 19D413548G2
470—512 MHz SYSTEM BOARD 19D413548G7

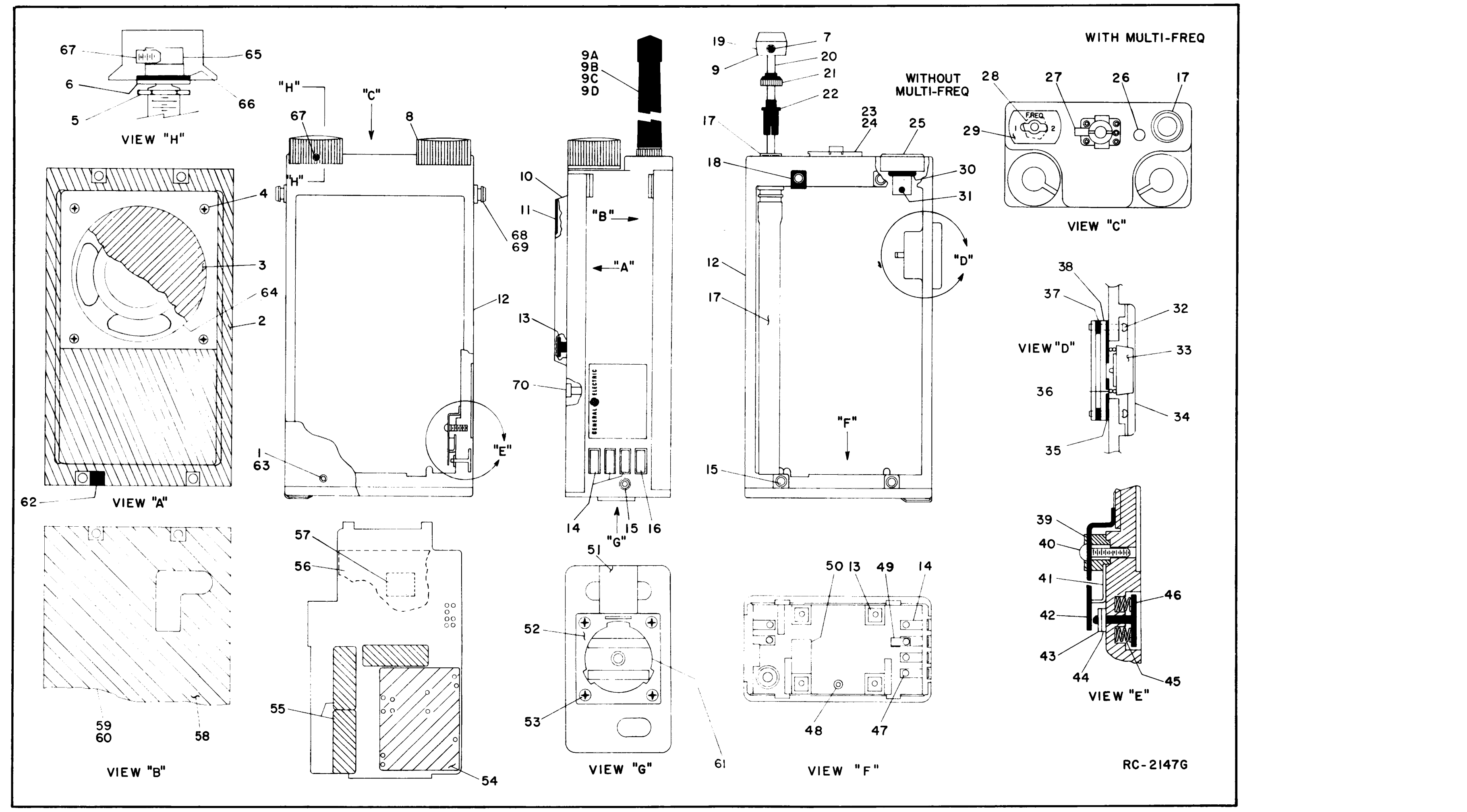
(19B621768, Rev. 21)

PARTS LIST

LBI4531D

SYSTEM BOARD/CASE ASSEMBLY
19D413548G2, G7
AND
ASSOCIATED ASSEMBLIES

SYMBOL	GE PART NO.	DESCRIPTION
A702 and A707		SYSTEM BOARD A702 19D416438G1 450 MHz A707 19D416438G4 450 MHz EXT.
A1	19C320062G1	Transmitter Audio Module.
A2*	19C328070G1	Regulator Module.
		In REV K & earlier:
	19C311905G2	Regulator Module.
A3	19C320060G1	Oscillator Compensator Module.
A4	19C320084G1	Modulator Module.
		NOTE: When reordering A5, A6 give GE Part Number and exact crystal frequency. Crystal Freq = Operating Freq / 24
A5 and A6	4EG27A11	Transmitter Oscillator.
		- - - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	5491674P30	Tantalum: 39 µf ±20%, 10 VDCW; sim to Sprague Type 162D.
C2	5491674P42	Tantalum: 47 µf ±20%, 6 VDCW; sim to Sprague Type 162D.
C3*	5491674P51	Tantalum: 0.033 µf ±10%, 35 VDCW; sim to Kemet T376B333K035AS.
		In REV G & H:
	5491674P49	Tantalum: 0.068 µf ±10%, 20 VDCW; sim to Sprague Type 162D.
		In REV F & earlier:
	5491674P1	Tantalum: 1.0 µf +40-20%, 10 VDCW; sim to Sprague Type 162D.
C4	5491674P1	Tantalum: 1.0 µf +40-20%, 10 VDCW; sim to Sprague Type 162D.
C5*	5491674P52	Tantalum: 0.33 µf ±10%, 20 VDCW; sim to Kemet T376B334K020AS.
		In REV G & H:
	5491674P48	Tantalum: 0.68 µf ±10%, 10 VDCW; sim to Sprague Type 162D.
		In REV F & earlier:
	19A116244P2	Ceramic: 0.022 µf ±20%, 50 VDCW.
C6	19C307102P19	Tantalum: 68 ±20%, 4 VDCW.
C7	5491674P42	Tantalum: 47 µf ±20%, 6 VDCW; sim to Sprague Type 162D.
C8	19A116114P7053	Ceramic: 47 pf ±5%, 100 VDCW; temp coef -750 PPM.
C9	19A116114P7065	Ceramic: 100 pf ±5%, 100 VDCW temp coef -750 PPM.
C11	19A116114P10073	Ceramic: 180 pf ±10%, 100 VDCW; temp coef -3300 PPM.
C12	19A116114P2049	Ceramic: 39 pf ±10%, 100 VDCW; temp coef -80 PPM.
C13	5491601P120	Phenolic: 1.0 pf ±5%, 500 VDCW.
C14	19A116114P10073	Ceramic: 180 pf ±5%, 100 VDCW; temp coef -3300 PPM.
C15	19A116192P1	Ceramic: 0.01 µf ±20%, 50 VDCW; sim to Erie 8121 SPECIAL.
C18	19A116114P8065	Ceramic: 100 pf ±5%, 100 VDCW; temp coef -1500 PPM.
C19	5491601P115	Phenolic: 0.56 pf ±5%, 500 VDCW.
C20	19A116114P2035	Ceramic: 13 pf ±5%, 100 VDCW; temp coef -80 PPM.
C22* thru C24*	19A116114P10073	Ceramic: 180 pf ±5%, 100 VDCW; temp coef -3300 PPM. Added by REV J. Deleted by REV L.
C25*	19A116114P10073	Ceramic: 180 pf ±5%, 100 VDCW; temp coef -3300 PPM. Added by REV J.
C26*	5491674P1	Tantalum: 1.0 µf +40-20%, 10 VDCW; sim to Sprague Type 162D. Added by REV L.
		- - - - - - - - - DIODES AND RECTIFIERS - - - - -
CR1 and CR2	19A115100P1	Silicon; sim to Type 1N458A.
CR5	19A115100P1	Silicon; sim to Type 1N458A.
CR6	19A115250P1	Silicon, fast recovery, 225 mA, 50 PIV.
CV1	5495769P9	Diode, silicon.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - -
J1* thru J5*	19A116366P4	Contact, electrical: sim to Concord 10-891-1.
		In REV C & earlier:
	19A116366P1	Contact, electrical: sim to Cambion 3232-1.
J6 thru J8	19A116366P2	Contact, electrical: sim to Cambion 3233-1.
J9* thru J11*	19A116366P4	Contact, electrical: sim to Concord 10-891-1.
		In REV C & earlier:
	19A116366P1	Contact, electrical: sim to Cambion 3232-1.
J36*	19A116366P4	Contact, electrical: sim to Concord 10-891-1. Added by REV D.
		- - - - - - - - - - - RELAYS - - - - - - - - - -
K1*	19B209562P2	Relay, hermetic sealed: between 70-110 ohms ±10%, 2 form C contacts, 5.0 VDC nominal, 1.0 w max operating; sim to Teledyne 732-2A4.
		In REV F-L:
	19B209562P3	Relay, hermetic sealed: between 70-110 ohms ±10%, 2 form C contacts, 5.0 VDC nominal, 1.0 w max operating; sim to GE 3SCS1002A2.
		In REV E:
	19B209562P2	Relay, hermetic sealed: between 45 and 100 ohms, 2 form C contacts, 5.0 VDC nominal, 1.0 w max operating; sim to Teledyne 732-2A4.
		In REV D:
	19B209562P1	Relay, hermetic sealed: 98 ohms ±10%, 2 form C contacts, 6.0 VDC nominal, 1.0 w max operating; sim to GE 3SCS1001A2. Added by REV D.
		- - - - - - - - - - INDUCTORS - - - - - - - -
L1	19B209420P114	Coil, RF: 1.20 µh ±10%, 0.18 ohms DC res max; sim to Jeffers 4436-1K.
L2	19A127798G2	Coil. Includes:
	19B209436P1	Tuning slug.
L3	19B219527G1	Coil.
L4	19B219527G3	Coil.
L5*	19B209420P105	Coil, RF: 0.22 µh ±10%, 0.14 ohms DC res max; sim to Jeffers 4416-5K. Added by REV H.
		- - - - - - - - - - RESISTORS - - - - - - - - -
R1*	3R152P181J	Composition: 180 ohms ±5%, 1/4 w.
		In REV D:
	3R152P221J	Composition: 220 ohms ±5%, 1/4 w.
		In REV C & earlier:
	3R151P391J	Composition: 390 ohms ±5%, 1/8 w.
R2*	3R151P683J	Composition: 68K ohms ±5%, 1/8 w.
		In REV F & earlier:
	3R151P913J	Composition: 91K ohms ±5%, 1/8 w.
R4	3R151P101K	Composition: 100 ohms ±10%, 1/8 w.
R5*	3R151P241J	Composition: 240 ohms ±5%, 1/8 w.
		In REV F & earlier:
	3R151P103J	Composition: 10K ohms ±5%, 1/8 w.
R6*	3R151P222J	Composition: 2.2K ohms ±5%, 1/8 w. Deleted by REV G.
R7	3R151P103J	Composition: 10K ohms ±5%, 1/8 w.
R8	19A116412P4	Variable, cermet: 250K ohms ±10%, 1/2 w; sim to Helipot Model 62 PF.
R9	3R151P101K	Composition: 100 ohms ±10%, 1/8 w.
		- - - - - - - - - - - SOCKETS - - - - - - - - - -
XK1*	19A115834P5	Contact, electrical: sim to AMP 4-331272-3. (Quantity 7). Deleted by REV D.
A719*		PUSH TO TALK SWITCH BOARD 19B232586G2 (Added to G2 by REV J, G7 by REV H)
		- - - - - - - - - - CAPACITORS - - - - - - - -
C3	19A116114P10073	Ceramic: 180 pf ±10%, 100 VDCW; temp coef -3300 PPM.
C5	19A116114P2044	Ceramic: 27 pf ±5%, 100 VDCW; temp coef -80 PPM.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A129187P1	Silicon, PNP.
Q2	19A116201P3	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - -
R5	3R151P682J	Composition: 6.8K ohms ±5%, 1/8 w.
R6	3R151P182J	Composition: 1.8K ohms ±5%, 1/8 w.
R7	3R151P751J	Composition: 750 ohms ±5%, 1/8 w.
R8	3R151P154J	Composition: 150K ohms ±5%, 1/8 w.
R9	3R151P122J	Composition: 1.2K ohms ±5%, 1/8 w.
A719*		PUSH TO TALK SWITCH BOARD 19B232586G1 (Added to G2 by REV H, G7 by REV G) (Deleted in G2 by REV J, G7 by REV H)
		- - - - - - - - - - CAPACITORS - - - - - - - -
C1	19A116114P10073	Ceramic: 180 pf ±10%, 100 VDCW; temp coef -3300 PPM.
C3	19A116114P10073	Ceramic: 180 pf ±10%, 100 VDCW; temp coef -3300 PPM.
C4*	19A116114P10073	Ceramic: 180 pf ±10%, 100 VDCW; temp coef -3300 PPM. Added by REV A.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A129187P1	Silicon, PNP.
Q2	19A116201P3	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - -
R1	3R151P103J	Composition: 10K ohms ±5%, 1/8 w.
R2	3R151P332J	Composition: 3.3K ohms ±5%, 1/8 w.
R3	3R151P154J	Composition: 150K ohms ±5%, 1/8 w.
R4	3R151P182J	Composition: 1.8K ohms ±5%, 1/8 w.
		- - - - - - - - - - - FUSES - - - - - - - - - -
F701	19A127884G1	Fuse Kit.
		- - - - - - - - - - - CAPACITORS - - - - - - - - -
C701*	19A116114P2007	Ceramic: 2.2 pf ±10%, 100 VDCW; temp coef -80 PPM. Added to G2 by REV D, G7 by REV C. Deleted in G2 by REV G. Deleted in G7 by REV F.
C702*	19A116114P4	Ceramic: 1.5 pf ±5%, 100 VDCW; temp coef 0 PPM. Added to G2 by REV D, G7 by REV C. Deleted in G2 by REV G. Deleted in G7 by REV F.
C704*	19A116114P2004	Ceramic: 1.5 pf ±5%, 100 VDCW; temp coef -80 PPM. Added to G2 by REV G. Added to G7 by REV F.
C705*	19A116114P2008	Ceramic: 2.2 pf ±5%, 100 VDCW; temp coef -80 PPM. Added to G2 by REV G. Added to G7 by REV F.
		- - - - - - - JACKS AND RECEPTACLES - - - - - -
J701	19B216594G2	Connector, female: 6 contacts.
J702		See Mechanical Parts RC2147 items 14, 16.
J703		See Mechanical Parts RC2147 items 14, 49.
J704		See Mechanical Parts RC2147 items 51-53.
		- - - - - - - - - - - - RELAYS - - - - - - - - - -
K1*	19A127836G1	Relay, sensitive: 95 ohms ±10%, 2 form C contacts, 5.5 to 9.0 VDC (over the temp range indicated); sim to C.P. Clare MF1401G01. Deleted in G2 by REV D, G7 by REV C.
		- - - - - - - - - - - PLUGS - - - - - - - - - -
P701	19A115834P4	Contact, electrical: sim to AMP 2-332070-9.
P704 and P705	19A127569G1	Plug: 8 contacts.
		- - - - - - - - - - - RESISTORS - - - - - - - - -
R707	19A116227P1	Resistor/Switch: variable, carbon film, 25,000 ohms ±20%, 1/8 w, (Includes S703), SPST, 3 amps at 125 VAC.
R708	19A116227P2	Variable, carbon film: 25,000 ohms ±20%, 1/8 w.
		- - - - - - - - - - - SWITCHES - - - - - - - - -
S701		See Mechanical Parts RC2147, items 32-38.
S702		See Mechanical Parts RC2147, items 38-46.
S703		(Part of R707).
		ASSOCIATED ASSEMBLIES
		FRONT COVER ASSEMBLY 19C317416G1 (STD) 19C317416G3 (HI POWER)
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - -
LS1	19A116090P1	Permanent magnet: 2.00 inch, 8 ohms ±10% voice coil imp, 450 Hz ±112 Hz resonant; freq range 400 to 3000 Hz.
		- - - - - - - - - - - PLUGS - - - - - - - - - -
P1 and P2	19A115834P4	Contact, electrical: sim to AMP 2-332070-9.
		HI/LOW SPLIT MODIFICATION KIT 19A127838G3 450-470 MHz 19A127838G4 406-420 MHz
		- - - - - - - - - - - CAPACITORS - - - - - - - - -
C16	19A116114P2038	Ceramic: 18 pf ±5%, 100 VDCW; temp coef -80 PPM.
C17	19A116114P2044	Ceramic: 27 pf ±5%, 100 VDCW; temp coef -80 PPM.
		MULTI-FREQUENCY MODIFICATION KIT 19A127828G1
		- - - - - - - - - - - SWITCHES - - - - - - - - -
S1	19A127824G1	Toggle: DPDT, 100 µa at 5 VDC, mounting hardware; sim to Arrow-Hart and Hegeman TS-6.
		- - - - - - - - - - - MISCELLANEOUS - - - - - - -
	19B216897G1	Rear Cover Assembly. (See RC2147, items 58, 59).
	19B216897G2	Rear Cover Assembly. Clip type. (See RC2147, items 58, 60).
	19B219953G4	Antenna, telescoping. (See RC2147, items 7, 19-22).
	19D413522G4	Battery, rechargeable. Nickel Cadmium.
	19A127884G1	Fuse Kit.
	4038381P4	Alignment tool. Fork tip.
	19B219079G1	Alignment tool. Allen tip.
	19B219442P1	Antenna strip line.
		MECHANICAL PARTS (SEE RC2147)
1	19A116543P1	Cap screw, socket head: No. 2-56 x 1/4.
2	19C317394P3	Gasket.
3	19B204527P2	Diaphragm: No. 2 inches dia.
4	N681P5002C6	Screw, phillips head: No. 2-56 x 1/8.
5	19A127319P1	Nut: No. 1/4-32.
6	4037064P18	Washer, non-metallic.
7	N70P703C6	Set screw: No. 3-48 x 3/16.
8	19B232784G1	Knob assembly.
9	19B219953G4	Antenna, telescoping. (Includes items 7, 19-22).
9A	19B209548P1	Antenna, spring whip; sim to Antenna Specialists, Inc. No. P S21 GE.
9B	19B219887P1	Antenna, spring whip; sim to Antenna Specialists, Inc. No. PR22GE.
9C	19B219955G1	Antenna, flex wire.
9D	19B219954G2	Antenna, solid whip.
10	19D413531P2	Grille, (STD).
	19B226502P1	Grille, (HI POWER).
11	NP270290P2	Nameplate. (STD GE monogram).
	NP270290P3	Nameplate. (HI POWER GE monogram).
12	19D413542G7	Case assembly. (Includes items 14, 15, 18, 26, 32-38, 47, 48).
13	19B216858P1	Insert.
14	19A127753P1	Contact (Part of J702 & J703).
15	19A116719P1	Insert, screw thread: 2-56; sim to Tridair Ind. SP0256BRS-SX.
16	19B216862P2	Contact. (Part of J702).
17	19A127779G6	Antenna & insert.
18	19B216875P1	Support.
19	19A129649P1	Antenna Cap. (Part of item 9).
20	19B219650P1	Antenna rod. (Part of item 9).
21	19A129652P1	Nut, knurled: thd size No. 7/16 x 40. (Part of item 9).
22	19C320352P1	Bushing. (Part of item 9).
23	19C317050P1	Protective Cover.
24	19A129390P1	Disc. (Located inside item 23).
25	19C317383P1	Dummy plug.
26	19A129723P1	Rivet.
27	19B219540P1	Support.
28	19C320721P1	Boot, moisture seal.
29	19B216926G5	Decorative cap.
30	19A115983P3	Seal, "O" ring: sim to Parker Seal 2-10.
31	N509P606C	Dowel pin: 1/16 x 3/8.
32	N41P1006	Screw, slotted, steel: No. 0-80 x 3/8. (Part of S701).
33	19C328416G1	Button Assembly. (Part of S701).
34	19C328407P1	Collar. (Part of S701).
35	19A137621P1	Plate. (Part of S701).
36	19A137620P1	Spring. (Part of S701).
37	N55P1006	Machine screw: 0 x 80 x 3/8. (Part of S701).
38	19B209643P2	Switch, push: 200 milliohms res max; sim to Bowmar KB3256-1D. (Part of S701).
39	19B216865P1	Insulator. (Part of S702).
40	N647P5004C	Cap screw: 2-56 x 1/4. (Part of S702).
41	19B216864P1	Contact. (Part of S702).
42	19B216863P1	Spring contact. (Part of S702).
43	N910P6C6	Retaining ring. (Part of S702).
44	19A127754P1	Gasket. (Part of S702).
45	19A127755P1	Spring. (Part of S702).
46	19B216862P1	Contact. (Part of S702).
47	N330P605F22	Eyelet, brass: 1/16 x 5/32.
48	N330P602F22	Eyelet, brass: 1/16 x 1/16.
49	19A127760P1	Contact. (Part of J703).
50	19A127762P1	Strap.
51	19B216891G1	Spring assembly. (Part of J704).
52	19D413467P1	Fastener. (Part of J704).
53	19A115794P3	Flat head screw: steel, 2-56 x 5/16. (Part of J704).
54		(Not Used).
55	19C311491P3	Can. (Used with Regulator, Oscillator Compensator, & Compressor Circuits).
56		(Not Used).
57	19A116270P1	Tape, pressure sensitive.
58	19C317394P5	Gasket.
59	19B216897G1	Rear Cover Assembly. (without clip).
60	19B216897G2	Rear Cover Assembly. (with clip).
61	19A130586P1	Insulator.
62	19A130397P1	Strap.
63	N404P8P	Lockwasher, internal tooth: No. 2.
64	19A130993P1	Gasket.
65	19A137254P1	Insert, tapped.
66	4035630P1	Washer: teflon.
67	N70BP703C6	Set screw: No. 3-48 x 3/16.
68	19A116773P805	Tap screw, Phillips POZIDRIV®: No. 4-24 x 5/16.
69	19A127802P1	Rivet, shield.
70	N170P9004C17	Cap screw: No. 4-40 x 1/4.



RC-2147G

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

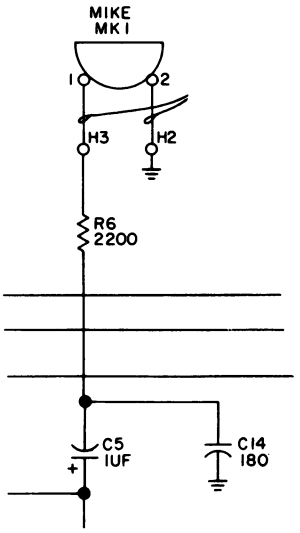
PRODUCTION CHANGES

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 - System Board A702/A707 (19D416438G1, G4)

To increase mike sensitivity. Deleted MK1. Changed C5.

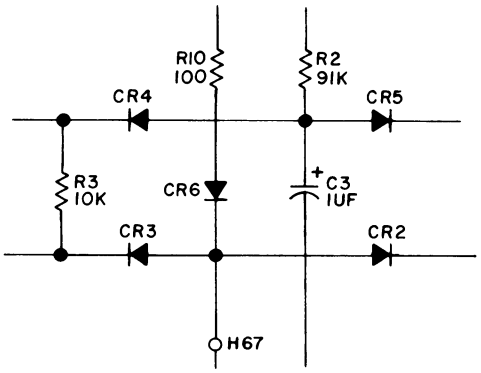
Schematic Was:



REV. B - To add call outs for holes. Added H76 through H80.

REV. C - To improve transmitter FM hum & noise. Deleted CR3, CR4 and R3

Schematic was:



REV. D - To make compatible with more Options. Deleted XK1. Added K1 and changed R1.

REV. A & B - Case Assembly 19D413548G2

REV. A - Case Assembly 19D417548G7

Incorporated in initial shipment.

REV. C - Case Assembly 19D413548G2

REV. B - Case Assembly 19D413548G7

To incorporate a Vendor changes of accessory jack. Changed J701 on Outline Drawing.

REV. D - Case Assembly 19D413548G2

REV. C - Case Assembly 19D413548G7

To make compatible with more options. Changed K1, increased size of runs on printed wire board and changed mounting pins.

REV. E - Case Assembly 19D413548G2

REV. D - Case Assembly 19D413548G7

To prevent accidental shorts of battery pack to ground. Added insulator to battery connector J704.

REV. F - Case Assembly 19D413548G2

REV. E - Case Assembly 19D413548G7

To incorporate metal nuts for PTT switch mounting screws. Added nuts.

REV. G - Case Assembly 19D413548G2

REV. F - Case Assembly 19D413548G7

To improve performance. Deleted C701 and C702. Added C704 and C705.

REV. E - System Board 19D416438G1, G4

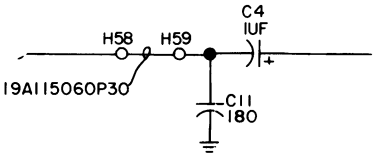
To improve relay pick-up performance. Changed K1 and R1.

REV. F - To reduce RF losses. Changed K1.

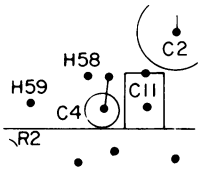
REV. G - To improve frequency response. Deleted R6. Changed C3, C5, R2 and R5.

REV. H - To reduce susceptability to internal RFI. Added L5.

Schematic Was:



Outline Was:



REV. J - To reduce susceptability to internal RFI. Added C22-C25.

REV. K - To improve speech clarity by optimizing frequency response. Changed C3 and C5.

REV. L - To incorporate a new 5.4 V regulator module. Changed A2 and added C26.

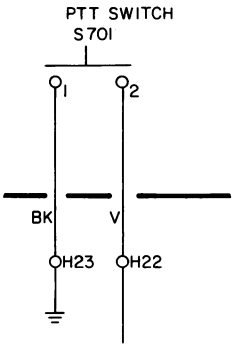
REV. M - To incorporate a more reliable relay. Changed K1.

REV. H - Case Assembly 19D413548G2.

REV. G - Case Assembly 19D413548G7

To improve reliability of push-to-talk switch. Changed S701 and added A719. Also changed knobs.

Schematic Diagram was:



REV. J - Case Assembly 19D413548G2

REV. H - Case Assembly 19D413548G7

To re-design board to accept GE-STAR Option. Added C33.

REV. A - PTT Switch 19B232386G1

To prevent RFI. Added C4.