



GE Mobile Communications



S-600 SERIES CONTROL UNIT
SINGLE FREQUENCY CONTROL UNIT
19D900272G3
1-8 FREQUENCY CONTROL UNIT
19D900272G4

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WARNING

Although the highest DC voltage in the Control Unit is supplied by the vehicle battery, high currents may be drawn under short circuit conditions. These currents can possibly heat objects such as tools, rings, watchbands, etc., enough to cause burns. Be careful when working near energized circuits!

High-level RF energy in the Transmitter Power Amplifier assembly can cause RF burns upon contact. Keep away from these circuits when the transmitter is energized!

SPECIFICATIONS*

USED WITH CONTROLS

OFF-VOLUME
SQUELCH OR SQUELCH Monitor
FREQUENCY Selector (19D900272G4 only)
Option Switches

INDICATORS

Red Transmit Light
Green Call Light (Optional)
Yellow Channel Busy Light (Optional)
Frequency Indicator (19D900272G4 only)

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

COMBINATION NOMENCLATURE

DIGITS 1 & 2	DIGITS 3 & 4	DIGIT 5	DIGIT 6	DIGIT 7	DIGIT 8
Product Code	Number of Frequencies	Mounting	Frequency Capacity	Control Unit Application	Configuration
C4	01 1-Frequency	O Standard	A 1-Frequency	B Delta-S	O STANDARD
	08 8 Frequencies		K 1-8 Frequencies		

STRUCTURED OPTIONS

DIGIT B	DIGIT D	DIGIT E	DIGIT H	DIGIT M	DIGIT P	DIGIT R	DIGIT S	DIGIT T	DIGIT Y
Universal Tone Cable	Public Address	Carrier Activity Light	Hangup/ Hookswitch	Microphone	Squelch	Accessories	Speaker	Ignition Cable	Mode A/B
O None	O None	O None	O Hang-up Bracket	O Standard	O Fixed (Standard)	O Standard	O Delta Standard	O W/o Ign Standby	O None
A Univ. Dec Cable	F Public Address	A Carrier Activity Light	I Hookswitch	1 MASTR II	V Variable	1 3 mtr cable short ground	1 3 x 5 Window	1 With Ign Standby	1 A/B
B Univ. Enc. Cable			2 Handset Holder	2 Mastr II Noise Canc.		2 9 mtr cable short ground	2 Mastr II	2 No Cable	
			3 Handset Holder	3 Handset		3 6 mtr cable long ground	3 Mastr II Window		
			4 No Hksw or Brkt	4 None		4 3 mtr cable long ground	5 Ext. Spkr. 8 ohm		
			5 Hksw (Dec. Appl)			5 9 mtr cable long ground	6 No Speaker		
			6 Hndst Hksw (Dec. Appl)			N No Accessories	A Int/Ext Spkr & SW		
						C No Cables			

DESCRIPTION

The control units are attractively styled, highly functional units that are enclosed in a two-piece molded housing for durability and ease of disassembly. The control unit uses a printed wiring board to provide a minimum of wiring. The only internal wires used are jumpers for the various options. The control unit is mounted to the vehicle with a safety release mounting bracket assembly for passenger safety.

Cable plugs are secured to the back of the control unit by plastic locking clips. The plugs are equipped with indexing tabs to assure connection to the correct jack.

The microphone plug is secured to a jack at the back of the unit by means of a captive locking screw.

All indicator lights are light-emitting diodes (LEDs) for reliability, long life, and low power consumption. A small incandescent lamp is used as a power ON indicator, and to backlight the function labeling.

CIRCUIT ANALYSIS

The Control Units are equipped with an OFF-VOLUME control and a SQUELCH control. The multi-frequency control unit is also equipped with a frequency selector switch and a seven segment frequency indicator. (See Figure 1).

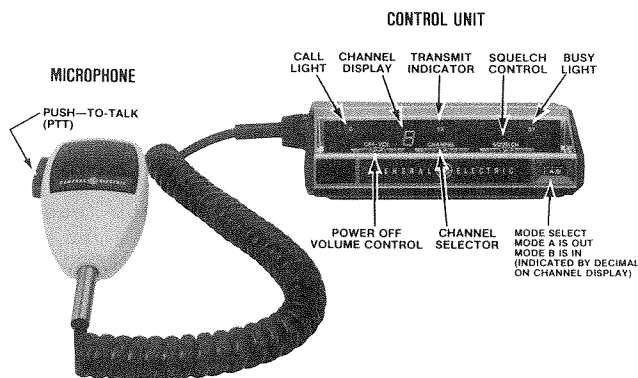


Figure 1 - Control Unit Layout

When switch S1 is turned OFF, power is removed from the radio except for the transmitter power amplifier (PA). The PA is connected to the vehicle battery at all times. Turning the switch ON applies power to the radio, provides power for the push-to-talk (PTT) circuit and lights the power-on indicator in the Frequency Indicator (if present), and controls audio volume level.

Releasing the PTT switch turns off the transmitter and transmit indicator, de-energizes the antenna switch and unmutes the receiver.

D1 and D2 are protective diodes. D1 will cause the fuse in the yellow lead to blow if the polarity is reversed. D2 prevents A+ from bypassing the ignition switch (even when it is turned off), and energizing other equipment in the vehicle.

MULTI-FREQUENCY SWITCH (S6)

Frequency selector switch S6 is an eight-position rotary switch with a binary output to control channel selection.

The frequency selector switch selects the desired channel for transmitting and receiving. Section 6A of the switch connects A- per binary code output to FB1,2,3 and 4 and thence to the EE PROM in the radio. The EE PROM and Microcomputer select the channel according to the binary code (see BCD output in Table 1).

Section 6B of the rotary switch controls the seven segment frequency display.

Table 1

POS	BCD OUTPUT				7 SEGMENT OUTPUT
	8'S	4'S	2'S	1'S	
F1	0	0	0	1	1
F2	0	0	1	0	2
F3	0	0	1	1	3
F4	0	1	0	0	4
F5	0	1	0	1	5
F6	0	1	1	0	6
F7	0	1	1	1	7
F8	1	0	0	0	8

1 = COMMON CONNECTED (CLOSED)
0 = OPEN TO COMMON

MODE A/ \bar{B} SELECT SWITCH (S2)

The Mode A/B option allows the S-600 Control Unit to expand from 8-frequency control to 16-frequency control. The pushbutton switch S2 is normally out for A Mode and Frequency Select switch S6 will select the first eight channel frequencies as programmed in the radio EEPROM. For \bar{B} Mode, S2 is pushed in.

This applies A+ to the channel display through R8 to illuminate the decimal (.) signifying B Mode. At the same time, A- (low) is applied through frequency bit 5 (FB5) output to port 26 of Microcomputer U705 in the DELTA-S radio. In this mode, a second set of eight channel frequencies may be selected as programmed in the radio second EEPROM.

NOTE

To utilize the A/B Mode, there must be two EEPROMS in the associated DELTA-S radio. The Mode A channels are controlled by EEPROM 1 and the Mode B channels are controlled by EEPROM 2.

SQUELCH

Squelch control may be used fixed (standard) or variable. Fixed squelch threshold is set in the radio. For variable squelch jumper W6 is cut and W7 is in (also see jumpers in radio). Variable resistor R5 sets variable squelch level. Set R5 fully clockwise and adjust noise level with Volume control R3. Turn R5 CCW until receiver is muted.

CHANNEL BUSY

The channel busy board mounts on J2, J3, J4 and J5 on the control unit board. When no on-frequency signal is being applied to the radio, the Carrier Activity Sensor (CAS) line is low (near ground potential). This forward biases diode D2 and keeps Q1 turned off. When an on-frequency signal is received, the CAS line goes high (near 9 volts). This reverse biases D2, allowing Q1 to turn on. When Q1 conducts, the yellow Channel Busy (BY) indicator H1 turns on and remains on until the channel is clear. Keying the transmitter (PPT low) also turns off Q1, turning off the Channel Busy indicator.

CALL LIGHT

A green Call (CL) is used in Type 99 or Type 90 tone options. This light turns on when a call has been received.

12 VOLT IGNITION SWITCH CONNECTIONS

In 12 Volt vehicle systems, the Control Unit may be connected for two different mode of operation, depending on the way the ignition switch cables are connected in the vehicle system. The black cable provides the system ground connection. The yellow fused lead provides the receiver hot connections and the transmitter Push-to-Talk hot connection. Two types of operation are:

1. Ignition Switch Control - For ignition switch control, the yellow fused lead connects to the ACCESSORY or ON terminal of the ignition switch. The transmitter and receiver will operate only when the ignition switch is in the ACCESSORY or ON position. Turning the ignition switch OFF removes all power to the Control Unit.
2. Ignition Switch Bypass - For ignition switch bypass, the yellow fused lead connects to the "hot" side of the ignition switch or the vehicle fuse block assembly. Both the transmitter and receiver operate independently of the ignition switch and are turned on and off only by the POWER-ON switch on the Control Unit.

MAINTENANCE

DISASSEMBLY

To gain access to the control unit printed wiring board, turn the control unit bottom side up and remove the four Phillips-head screws. Next, carefully lift off the bottom cover to expose the printed wiring board.

CAUTION

The control unit printed wiring board is mounted in the top section of the control unit, and is secured only by the bottom cover. Be careful not to drop the printed wiring board when disassembling the control unit.

INDICATOR REPLACEMENT

All indicators are mounted in sockets on the control unit printed wiring board. The LED indicators are easily unplugged and replaced. A hole in the back of the incandescent lamp socket can be used to push out the lamp.

RE-INSTALLATION

12-Volt Systems

The mobile combination can operate in ±12 Volt systems. If the radio is moved to a different vehicle, always check the battery polarity and voltage of the new system before using the radio.

If the radio is moved to a vehicle with different battery polarity, it will be necessary to change the ignition switch leads to the vehicle system plug. Use the extraction tool as shown in Figure 2, and change the leads as shown in Figures 3 or 4, as required.

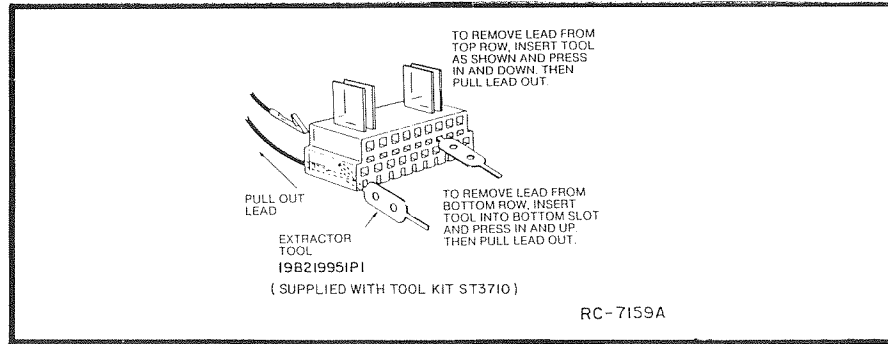


Figure 2 - Using Extraction Tool

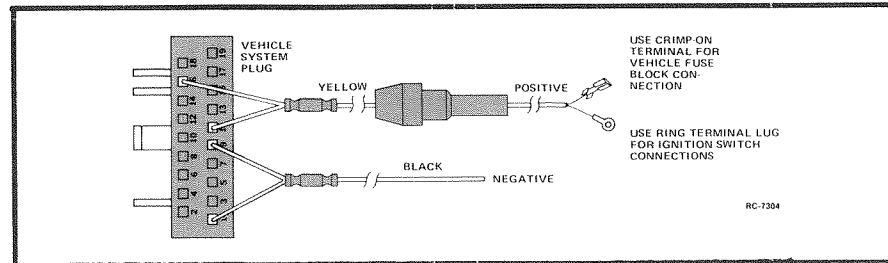


Figure 3 - 12 Volt, Negative Ground Connections

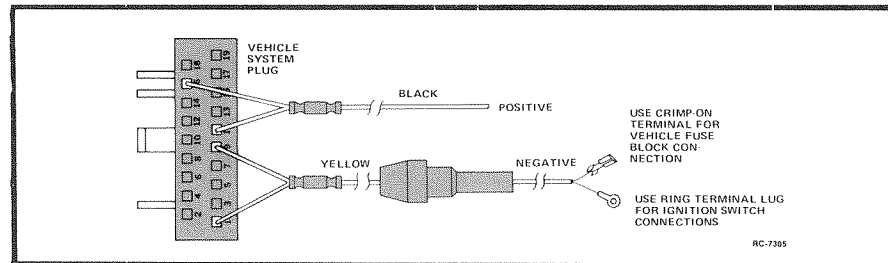


Figure 4 - 12 Volt, Positive Ground Connections

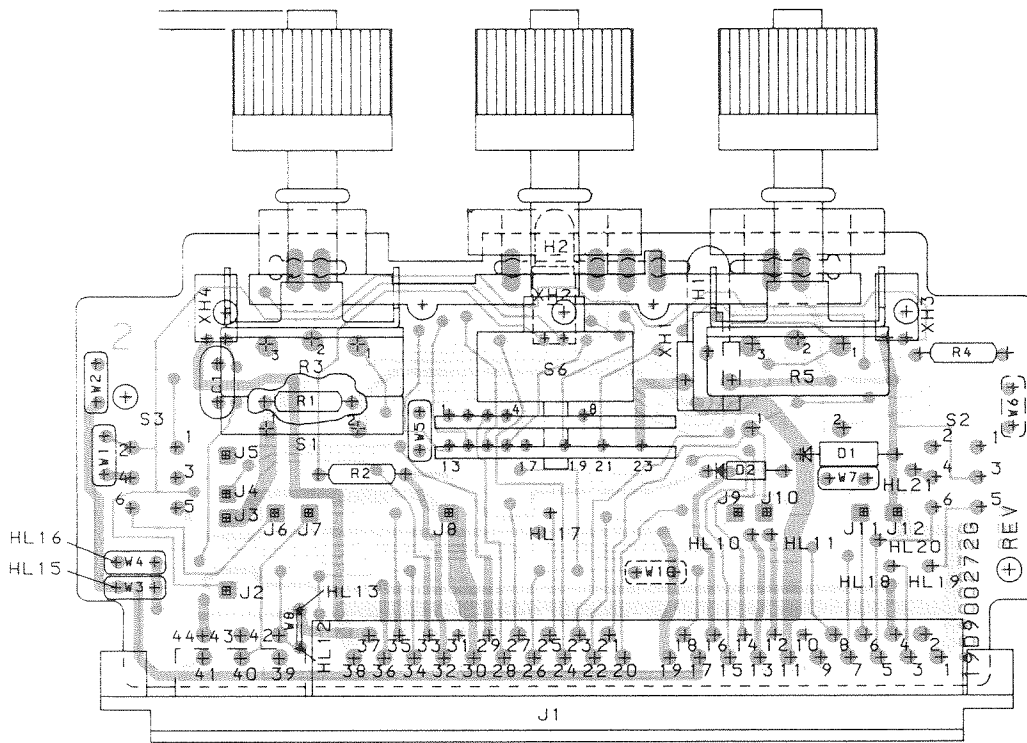


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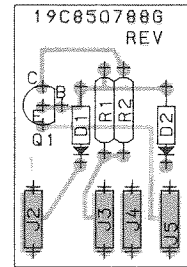
General Electric Company
Lynchburg, Virginia 24502

CONTROL UNIT

CHANNEL BUSY BOARD

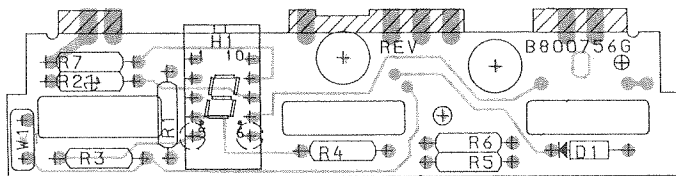


(19D900272, Sh. 2, Rev. 4)
(19A702880, Sh. 1, Rev. 2)
(19A702880, Sh. 2, Rev. 2)



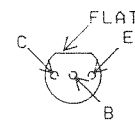
(19C850788, Sh. 1, Rev. 2)
(19A702038, Sh. 1, Rev. 1)
(19A702038, Sh. 2, Rev. 1)

DISPLAY BOARD



(19B800756, Sh. 1, Rev. 8)
(19A703539, Sh. 1, Rev. 0)
(19A703539, Sh. 2, Rev. 0)

LEAD IDENTIFICATION FOR Q1

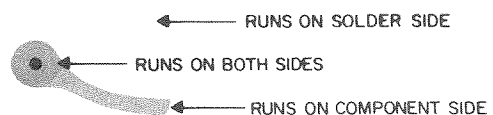


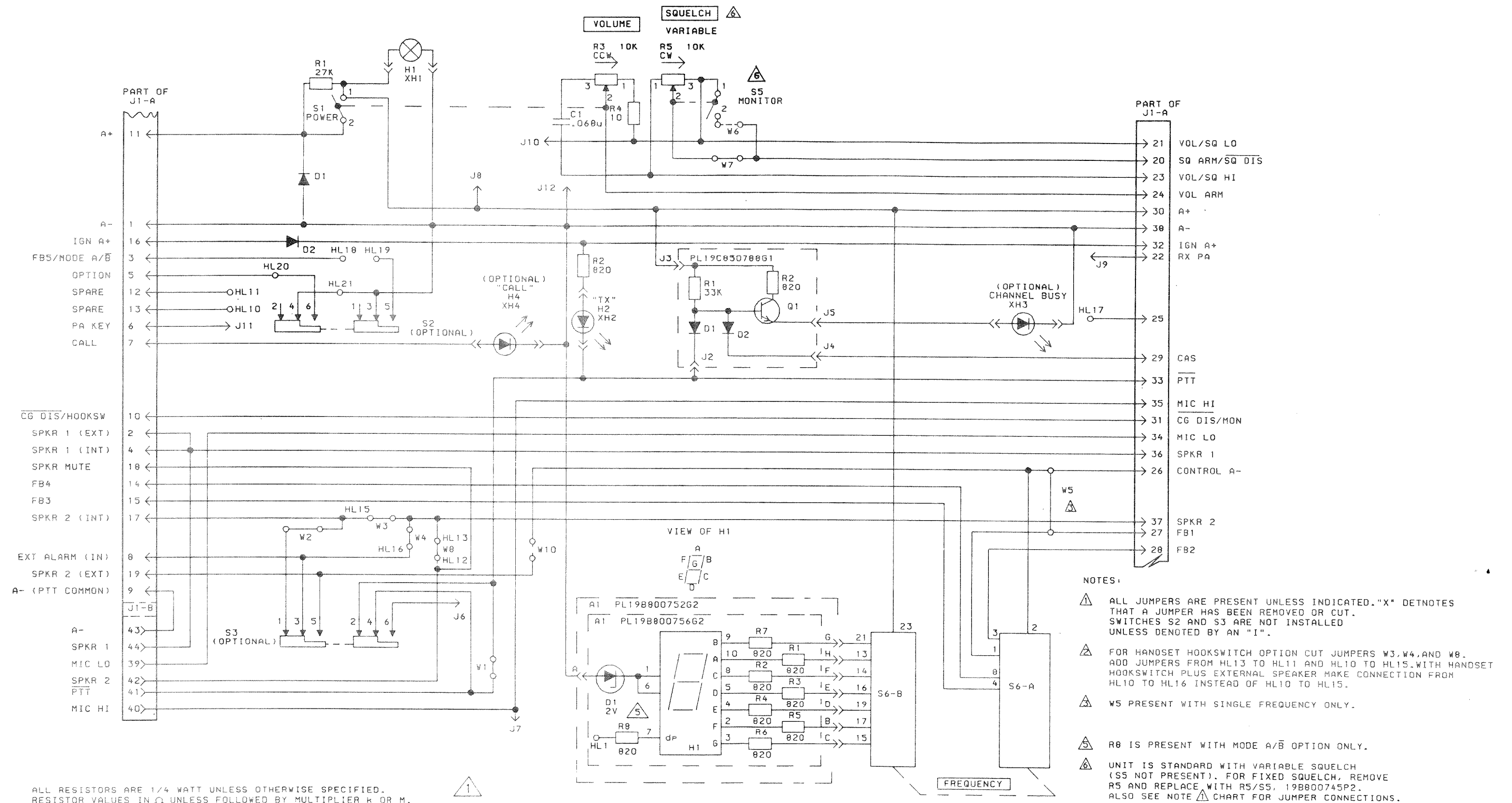
IN-LINE TOP VIEW

NOTE: CASE SHAPE IS DETERMINING FACTOR FOR LEAD IDENTIFICATION.

OUTLINE DIAGRAM


CONTROL UNIT





ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED.
RESISTOR VALUES IN Ω UNLESS FOLLOWED BY MULTIPLIER k OR M .
CAPACITOR VALUES IN F UNLESS FOLLOWED BY MULTIPLIER μ , n OR p .
INDUCTANCE VALUES IN H UNLESS FOLLOWED BY MULTIPLIER m OR μ .

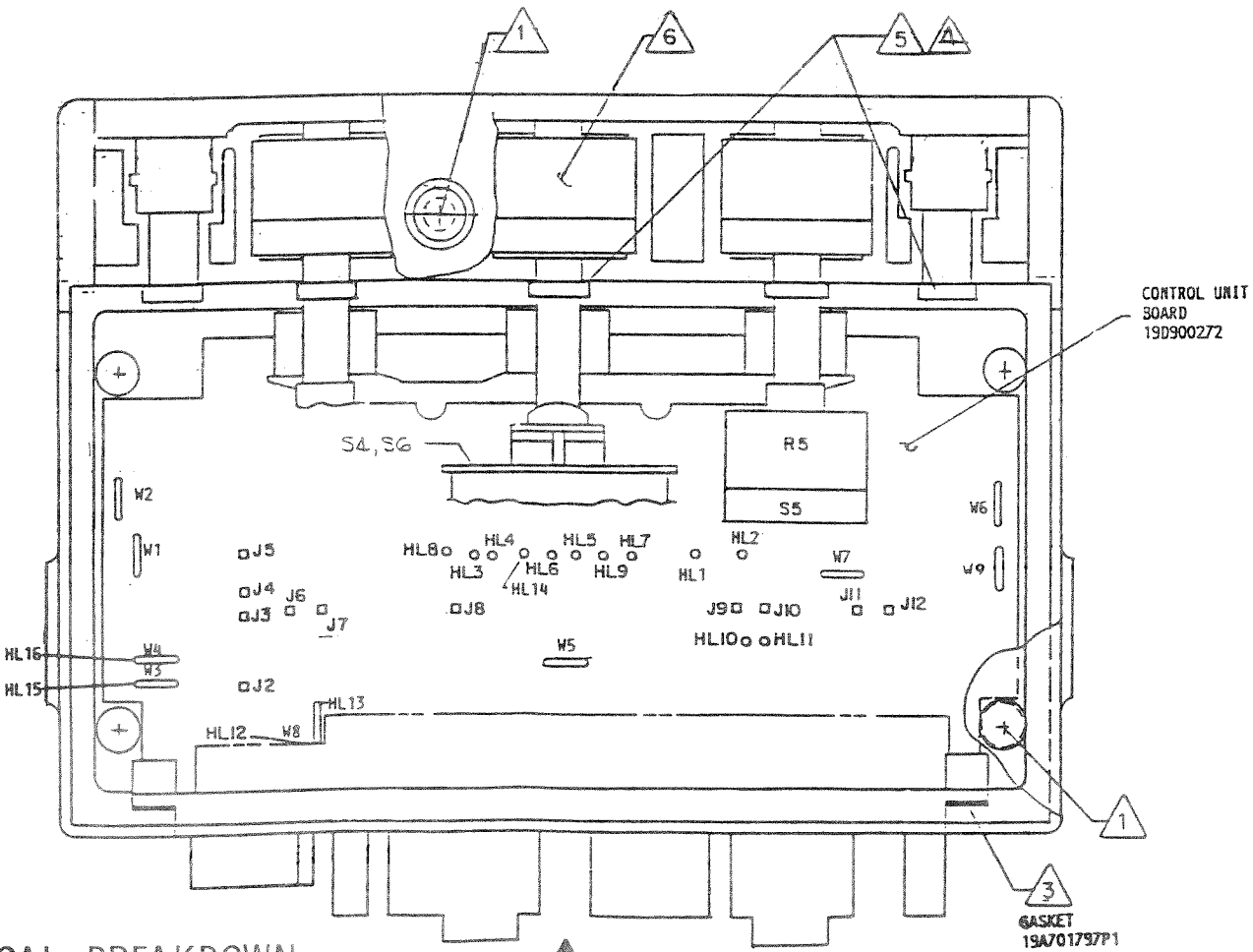
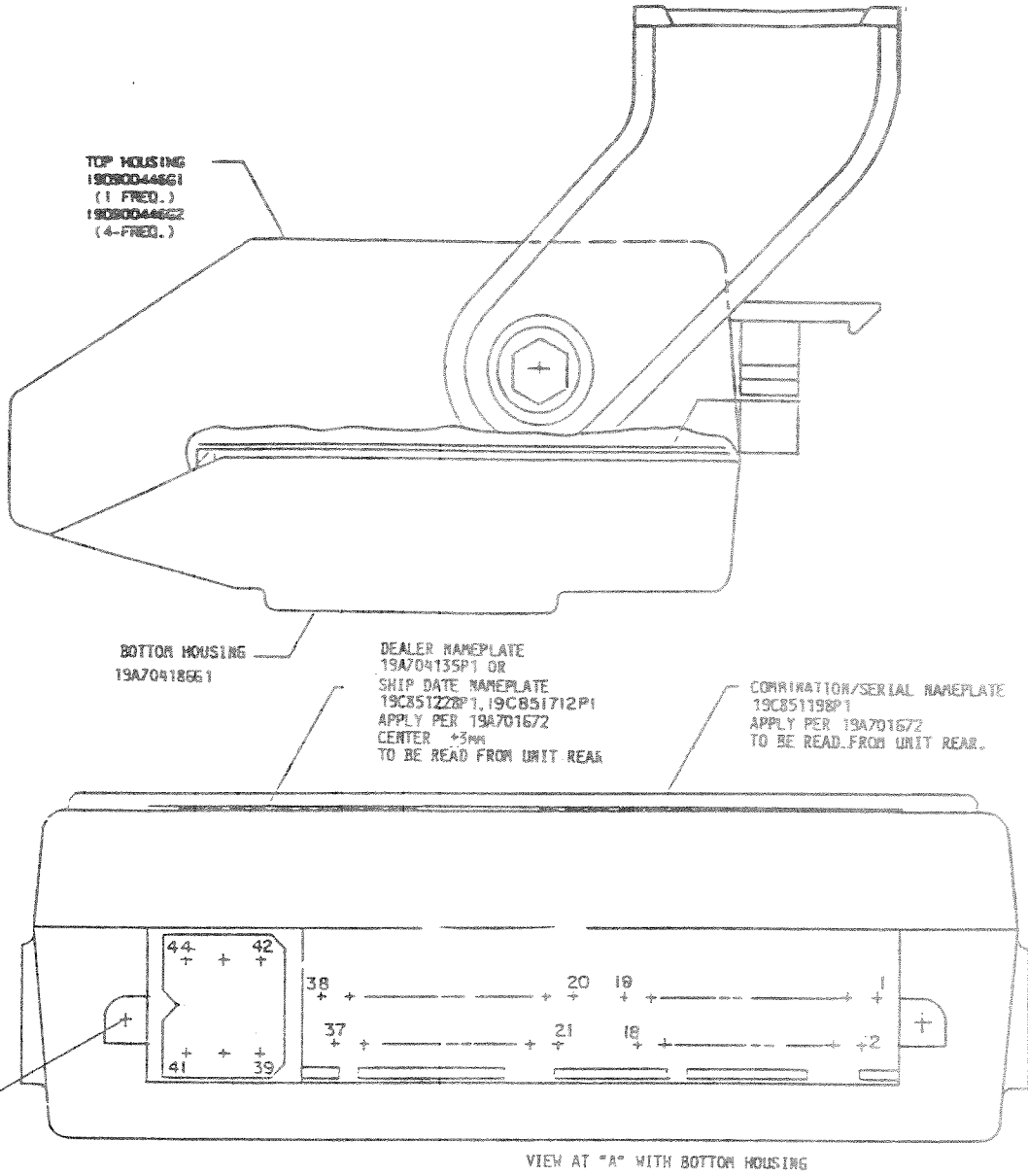
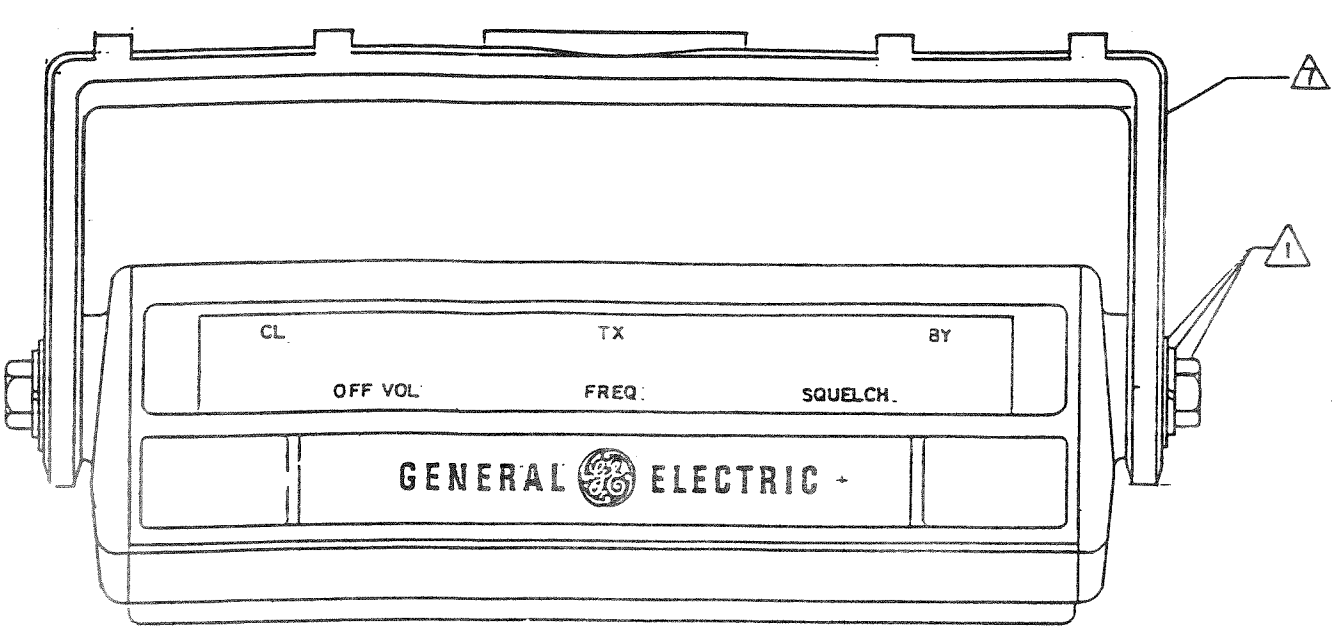
MODEL NO.	REV. LETTER
PL19B8000756G2	
PL19C850788G1	
PL19D900272G3	A
PL19D900272G4	A

OPTION	W1	W2	W3	W4	W6	W7	S
FIXED SQUELCH 						X	
VARIABLE SQUELCH (STANDARD)					X		
EXTERNAL SPEAKER			X				I
PUBLIC ADDRESS	X		X				I

POS	8	4	3	1	7 SEGMENT OUTPUT
F1				X	1
F2			X		2
F3			X	X	3
F4		X			4
F5		X	X	X	5
F6		X	X		6
F7		X	X	X	7
F8	X				8

X - CLOSURE TO COMMON (2)

SINGLE & 1-8 FREQUENCY CONTROL UNIT



① C600 CONTROL UNIT- FIXED SQUELCH

- NOTES:
- ① PART OF HARDWARE KIT 19A701796G1. DO NOT FULLY TIGHTEN SCREWS OF MOUNTING SUPPORT. SUPPORT MUST BE ABLE TO ROTATE.
 - ③ ASSEMBLE GASKET 19A701797P1 TO CONNECTOR 19C850601P1 (PART OF CONTROL UNIT BOARD) PRIOR TO ASSEMBLY OF CONTROL UNIT BOARD INTO TOP HOUSING.
 - ④ WHEN S4 IS CALLED FOR, MODIFY GASKET 19C850785P1 (PART OF BOTTOM HOUSING) BY REMOVING THE SOLID RING PORTION (4.8 DIA) WHICH NORMALLY FILLS THE S4 O-RING SLOT.
 - ⑤ APPLY LUBRICANT 19A115093P5 (SILICON GREASE) LIBERALLY TO ALL O-RING AND TO ALL SHAFT OPENINGS.
 - ⑥ INSURE THAT THE THREE ROTARY KNOBS OPERATE FREELY WITHOUT INTERFERENCE.
 - ⑦ ATTACH MOUNTING HARDWARE PACKAGE 19A129461G1 SECURELY TO MOUNTING SUPPORT.
 - ⑧ AFTER TURNING S4 TO FULL COUNTER-CLOCKWISE POSITION, ADJUST S4 ADJUSTABLE STOP TO PROPER POSITION AS SPECIFIED.
 - ⑨ CUT JUMPER W7 ON CONTROL UNIT PWB. CUT JUMPER W9 FOR MASTR II APPLICATIONS ONLY.

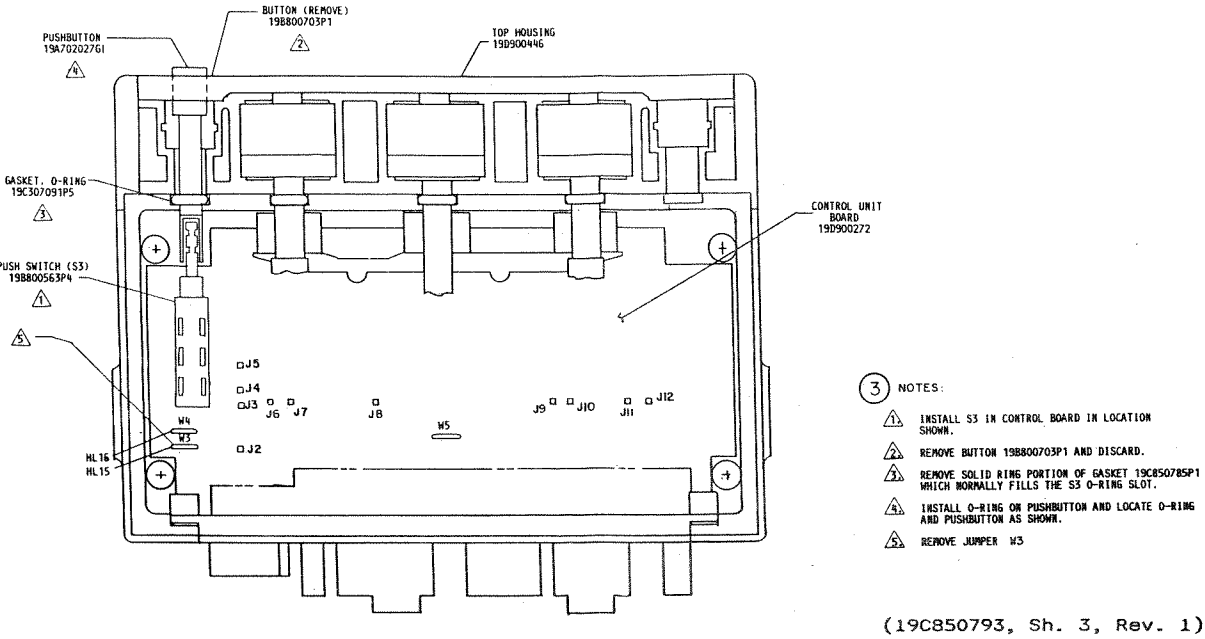
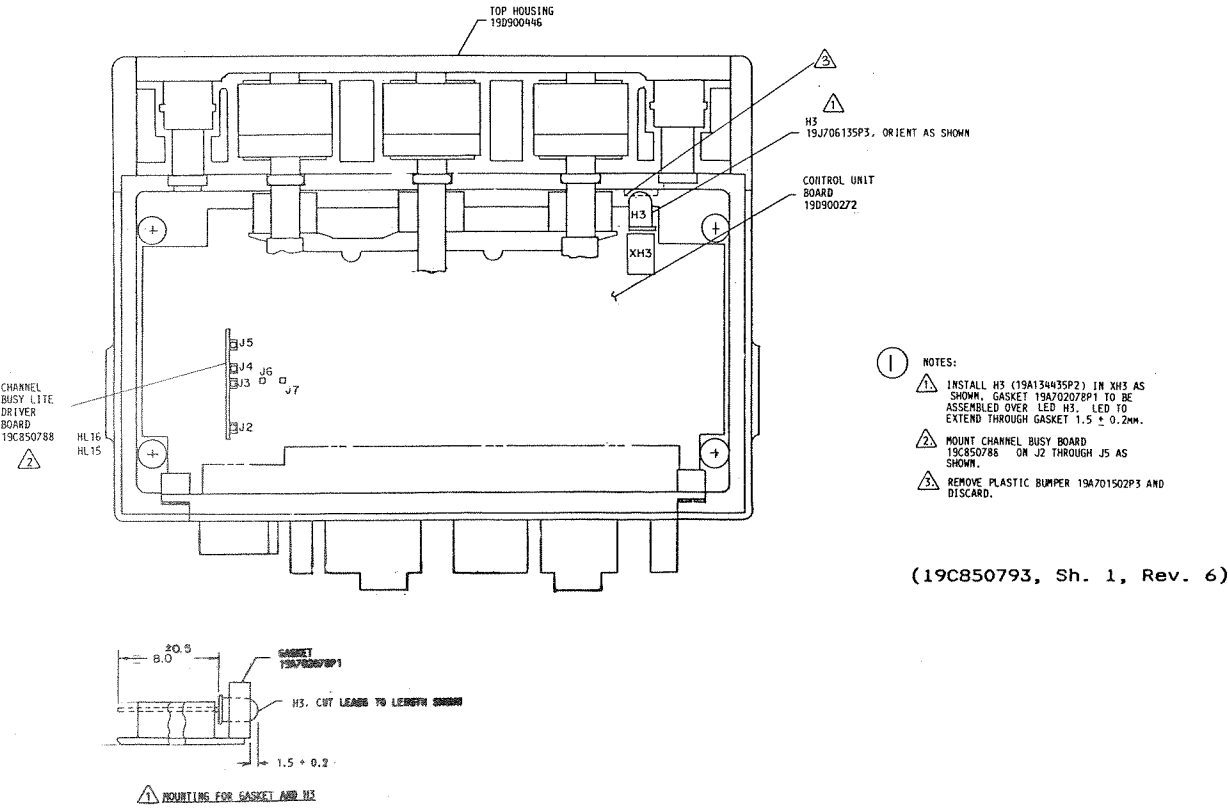
② C600 CONTROL UNIT- VARIABLE SQUELCH

SAME AS FIXED SQUELCH (PART 1) EXCEPT APPLY OUTWARD PULL TO SHAFT OF R5/S5 AND ROTATE IN CLOCKWISE DIRECTION TO OVERRIDE STOP, THEREBY CONVERTING FROM FIXED SQUELCH (ON-OFF) TO ADJUSTABLE SQUELCH. CUT JUMPER W6 ON CONTROL UNIT PWB INSTEAD OF W7. CUT JUMPER W9 FOR MASTR II APPLICATIONS ONLY.

MECHANICAL BREAKDOWN

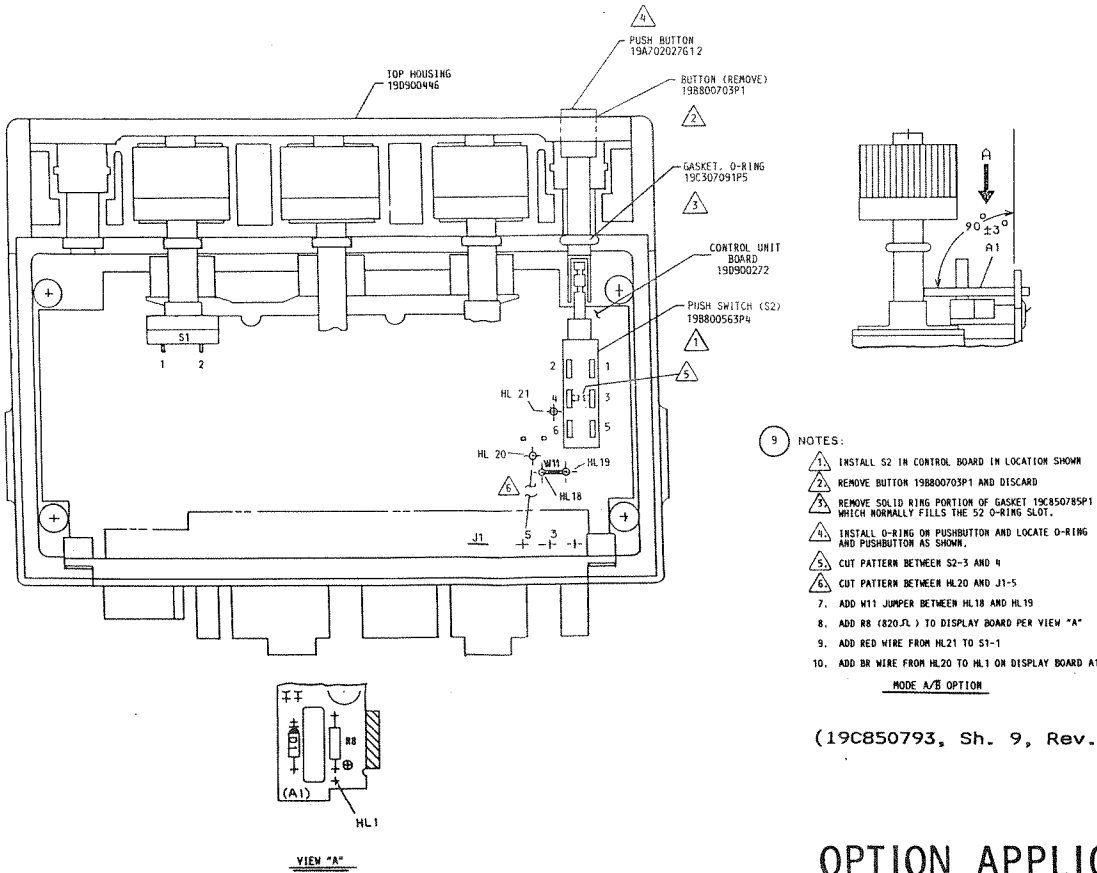
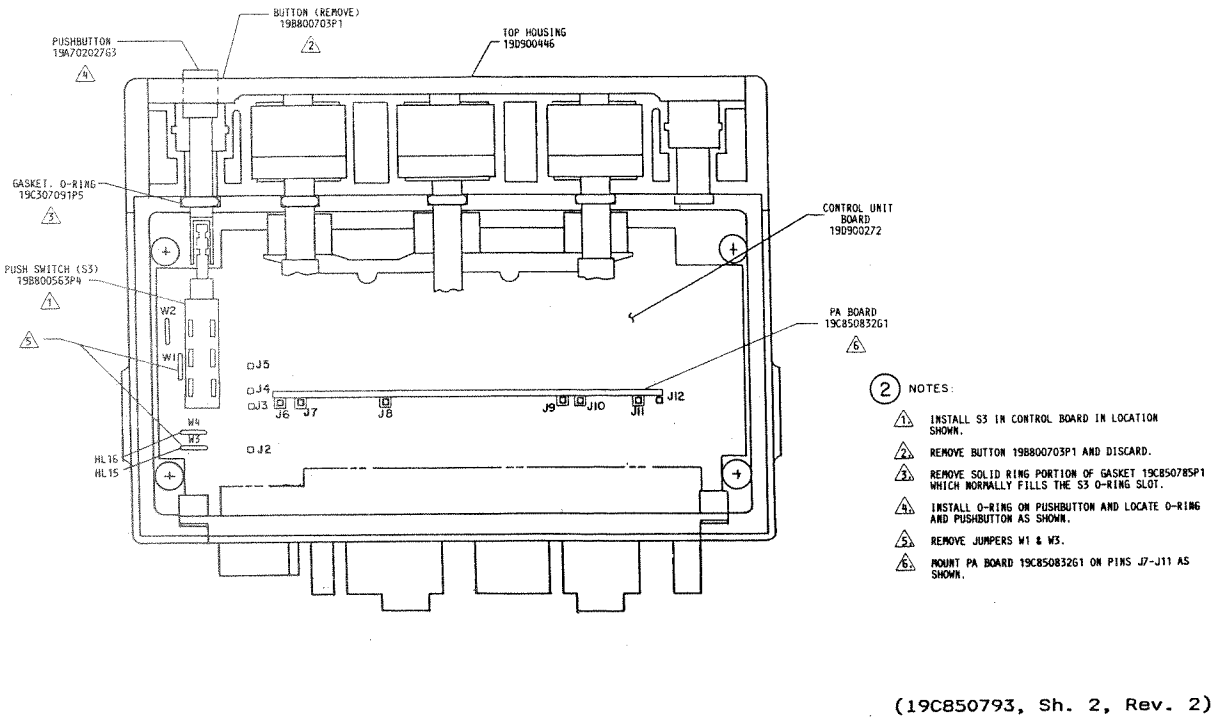
CHANNEL BUSY LIGHT

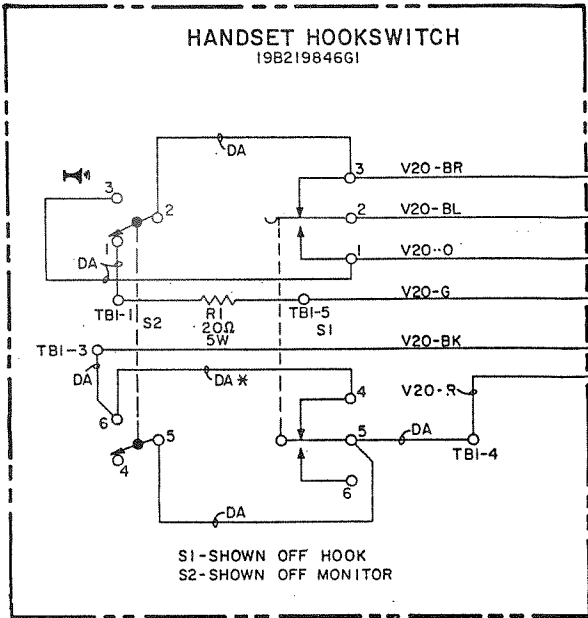
EXTERNAL SPEAKER



PUBLIC ADDRESS

MODE A/B

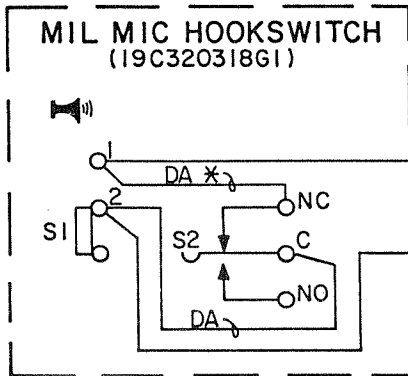




* REMOVE DA JUMPER TO DISABLE AUTOMATIC CHANNEL GUARD MONITOR

(19B219842, Rev. 11)

- NOTES:
1. ON ALL CONTROL UNITS EXCEPT S600, CUT PRINTED WIRE BOARD JUMPERS A & C.
 2. ON S600 CONTROL UNIT WITH NO EXTERNAL SPEAKER CUT JUMPERS W3 AND W4. ADD JUMPERS FROM HL13 TO HL11 AND HL10 TO HL15.
 3. ON S600 CONTROL UNIT WITH EXTERNAL SPEAKER, CUT JUMPERS W3 AND W4. ADD JUMPERS FROM HL13 TO HL11 AND HL10 TO HL16.



* REMOVE DA JUMPER TO DISABLE AUTOMATIC CHANNEL GUARD MONITOR

⚠ FOR S600 CONTROL UNIT APPLICATIONS ONLY.

S2 - SHOWN OFF HOOK
S1 - SHOWN OFF MONITOR

(19A129660, Rev. 8)

PARTS LIST

HANDSET HOOKSWITCH
19B219846G1
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
----- RESISTORS -----		
R1	5493035P55	Wirewound: 20 ohms + or -5%, 5 w; sim to Hamilton Hall Type HR.
----- SWITCHES -----		
S1	19A129585G1	Holder and switch: Thermoplastic case, contact rating 1 amp at 125 v; sim to Telephone Components Inc.
S2	19A700189P6	Toggle, DPDT, contacts rated 5 amps at 28 VDC or 115 VAC; sim to C&K Components 7201G.
----- TERMINAL BOARDS -----		
TB1	7775500P203	Phen: 5 terminals.
----- CABLES -----		
W1	19B219841G1	6 conductor, 5 feet long.
----- MISCELLANEOUS -----		
	N190P1312C	Tap screw, Phillips POZIDRIV: No. 6 x 3/4. (Secures housing to base plate).
	N101P1510P	Tap screw, Phillips: No. 8 x 5/8. (Used for mounting base plate).
	19B219852P1	Mounting plate.
	19A129586G1	Bumper.
MODIFICATION KIT 19A136767G1		
R1701	5493035P52	Resistor, wirewound: 8.2 ohms $\pm 10\%$, 5 w; sim to Hamilton Hall Type HR.
	19A136775P1	Label.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

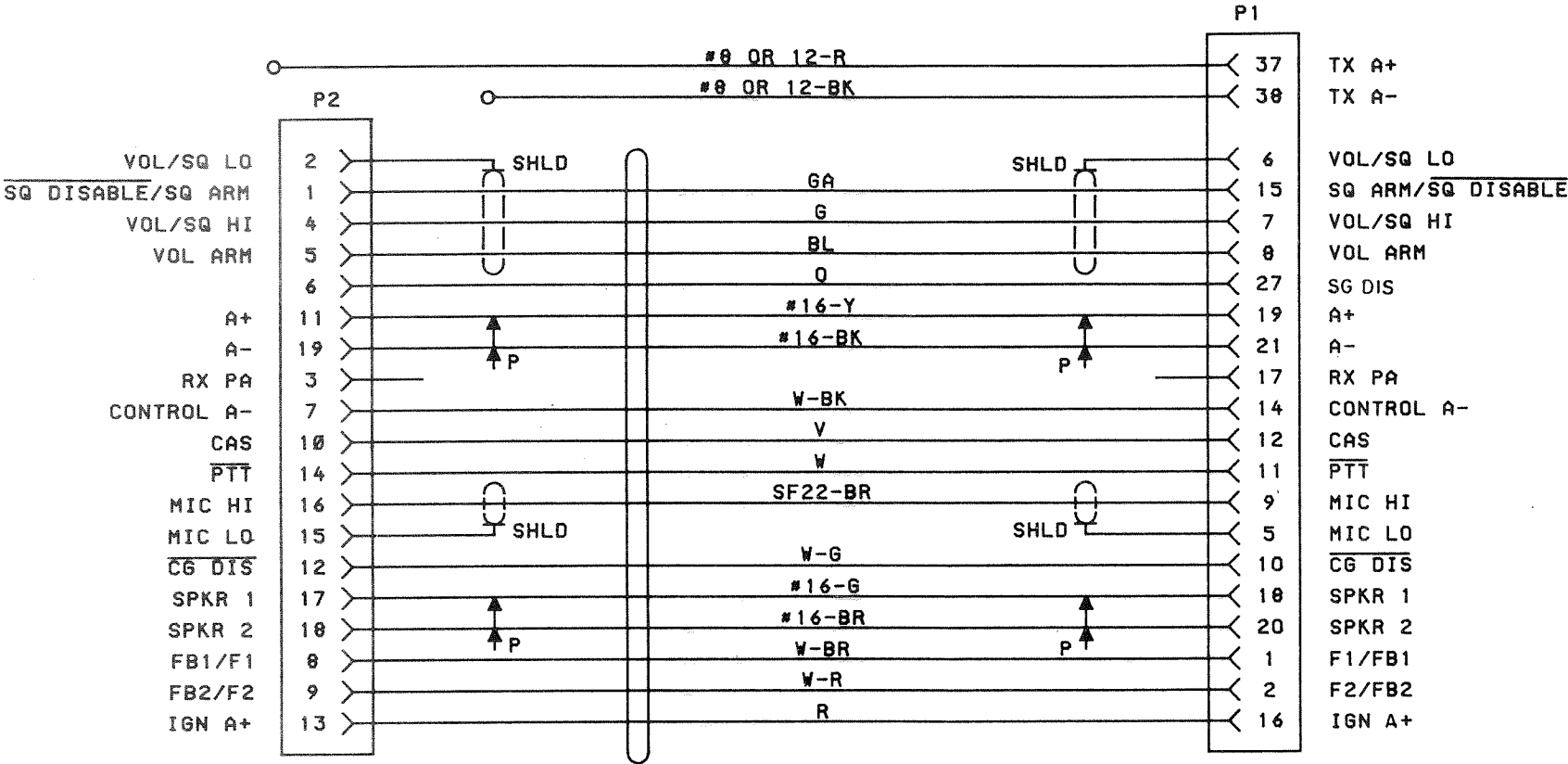
PARTS LIST

MIL MIC HOOKSWITCH
19C320318G1
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
----- SWITCHES -----		
S1		Part of housing.
S2	19A16676P1	Sensitive: SPDT, 5 amps at 24 VDC or 5 amps at 250 VRMS; sim to Microswitch 111SM1-T2.
----- CABLES -----		
W1	19A129414G1	2 conductor cable: approx 5 feet long, includes (2) 19A116781P5 contacts.
----- MISCELLANEOUS -----		
	19B219698G1	Housing.
	19B219694P1	Base plate.
	19A702464P2	Strain relief.
	N193P1410B6	Screw, thread forming: No. 8-18 x 5/8.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

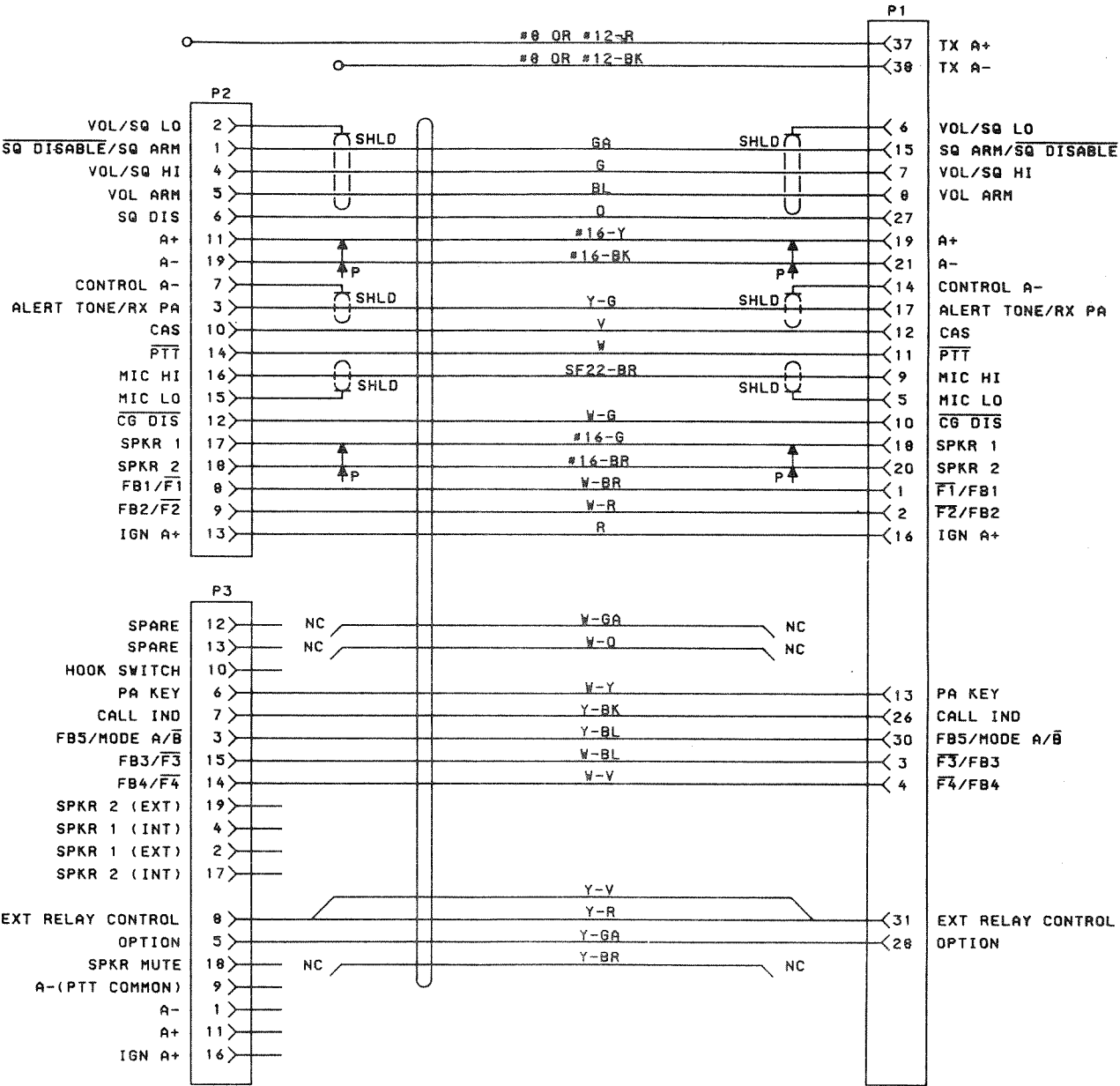
SINGLE FREQUENCY



ALL WIRES ARE #SF24 AWG UNLESS OTHERWISE SPECIFIED.

(19C331426, Sh. 1, Rev. 3)

1-8 FREQUENCY



ALL WIRES ARE #SF24 AWG UNLESS OTHERWISE SPECIFIED.

(19D433080, Sh. 1, Rev. 4)

INTERCONNECTION DIAGRAM
SINGLE FREQUENCY & 1-8 FREQUENCY
POWER/CONTROL CABLES 19D900436G1-G12

PARTS LIST

CONTROL UNIT BOARD
19D900272G3 SINGLE FREQUENCY
19D900272G4 1-8 FREQUENCIES
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
A1		DISPLAY BOARD 19B800752G2 19B800756G2
		----- DIODES -----
D1	19A700025P2	Silicon, zener: 400 mW max; sim to BZX55-C2V7.
		----- LEDS -----
H1	19A702063P2	Display, optoelectronic: sim to Hew. Packard 5082-7740.
		----- RESISTORS -----
R1 thru R7	H212CRP182C	Deposited carbon: 820 ohms + or -5%, 1/4 w.
		----- CAPACITORS -----
C1	T644ACP368K	Polyester: .068 uF + or -10%, 50 VDCW.
		----- DIODES -----
D1	T324ADP1041	Rectifier, silicon; general purpose.
D2	19A700028P1	Silicon, fast recovery: fwd current 75 mA, 75 PIV; sim to Type 1N4148.
		----- LEDS -----
H1	19C850743P1	Lamp, incandescent: 14.0 v; sim to GE Lamp Dept. No. 73.
H2	19A134354P1	Diode, optoelectronic: red; sim to Hew. Packard 5082-4655.
		----- JACKS -----
J1	19C850601P1	Connector.
J2 thru J12	19A701785P2	Contact, electrical; sim to Molex -08-50-0404.
		----- RESISTORS -----
R1	H212CRP327C	Deposited carbon: 27K ohms + or -5%, 1/4 w.
R2	H212CRP182C	Deposited carbon: 820 ohms + or -5%, 1/4 w.
R3	19B800745P1	Variable, carbon film: 10K ohms + or -20%, 1/4 w; sim to CTS FR8653.
R4	H212CRP010C	Deposited carbon: 10 ohms + or -5%, 1/4 w.
R5	19B800745P5	Variable, linear taper: 10K ohms + or -20%, 1/4 w; sim to CTS YPE 450.
		----- SWITCHES -----
S1		Part of R3.
S6	19B800921P1	Rotary: 2 sections; 2 poles, 8 positions, BCD output; sim to Oak Mfg. Co. 5-22131-413.
		----- CABLES -----
W1 thru W5	19B800890P1	Coil, RF: 9.5 nH + or -5%; sim to Paul Smith SK-896-1.
W7	19B800890P1	Coil, RF: 9.5 nH + or -5%; sim to Paul Smith SK-896-1.
W8	19A702028P1	Jumper.
		----- SOCKETS -----
XH1	19A701867P1	Holder, lamp; sim to Christiana Ind. CIC 6500.
XH2 thru XH4	19A701486P1	Connector, printed wiring: 3 pin; sim to Methode 1700-003-2103.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
		----- MISCELLANEOUS -----
	19B800690P1	Knob. (Used with S6).
	19B800715G2	Knob. (Used with R3 & R5).
	19C307091P5	*O" Ring, rubber; sim to National Seal 6227-5. (Used with R3, R5, & S6).
	19B800698G1	Light pipe.
	19A702078P1	Gasket. (Used with H2).
	19A702412P1	Pad. (Used with S4 & S5).

PARTS LIST

3 X 5 INCH SPEAKER
19C850550G1 DASH MOUNT (PEBBLE)
19C850550G2 WINDOW MOUNT (PEBBLE)
19C850550G8 DASH MOUNT (DARK GREY)
ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
		----- LOUDSPEAKERS -----
LS1	19A702080P3	Permanent magnet: 3 x 5 inch, 4 ohms + or -10% imp at 400 Hz, 18 w.
		----- CABLES -----
W1	19A129414G1	2 conductor cable: approx 5 feet long, includes (2) 19A116781P5 contacts. (Used with G1 & G8).
W2	19B226189G1	Window mount: approx. 17 inches retracted, 84 inches extended. (Includes 2 19A116781P5 contacts, used with G2).
		----- MISCELLANEOUS -----
	19B800534G1	Housing. (Used with G1).
	19B800534G2	Housing. (Used with G2).
	19C850549P1	Grille. (Used with G1).
	19C320016P1	Mounting bracket. (Secures speaker assembly to mounting surface, used with G1 & G2).
	19A116986P112	Screw, thread forming, assembled washer: Phillips POZIDRIV, HI-LO thread, No. 7-19 x 3/4. (Secures grill to housing).
	19A701631P516	Machine screw: M5-.8 x 16. (Secures speaker housing to mounting support).
	19A700033P10	Lockwasher, external tooth: No. 10. (Secures speaker housing to mounting support).
	19A701312P7	Lockwasher: No. 10. (Secures speaker housing to mounting support).
	19A701354P2	Nameplate. (GENERAL ELECTRIC).
	19A702464P3	Bushing, strain relief: sim to Heyco SR-5P-4. (Used in G1).
	19C850549P2	Grille. (Used in G8).
	19B800534G6	Housing. (Used in G8).
	19C320016P6	Mounting bracket. (Secures speaker assembly to mounting surface, used in G8).
		BREAKAWAY MOUNTING KIT 19A129461G1 (Used with G1)
	19C320022P1	Retaining bracket. (With locking jaws).
	19B219578G1	Safety Release Disc. (Mates with mounting surface).
	N187P16010B6	Screw, machine: #10 (.190) - 32 x 5/8. (Quantity 1 - Used with safety release disc with retaining bracket).
	N130P1624B6	Screw, thread forming: #10 x 1 1/2. (Quantity 3 - Used without safety release disc & retaining bracket - for extra thick carpet).
	N130P1612B6	Screw, thread forming: #10 (.190) x 3/4. (Quantity 3 - Used without safety release disc & retaining bracket).
	N402AP9B6	Flatwasher: No. 10. (Used with 10-16 thread forming screws).
		BREAKAWAY MOUNTING KIT 19A129461G7 (Used with G8)
	N130P1624B6	Screw, thread forming: #10 x 1 1/2.
	N402AP9B6	Flatwasher: No. 10.
	N130P1612B6	Screw, thread forming: #10 (.190) x 3/4.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
		DASH MOUNT KIT FOR WINDOW MOUNT SPEAKER OPTION 19A130023G2
	19B226185P1	Clip bracket.
	19B226190P1	Backing plate.
	N193P1408B6	Tap screw, phillips head: No. 8-18 x 1/2. (Secures backing plate to mounting surface).

PARTS LIST	
LBI31247 S600 ASSOCIATED ASSEMBLIES	
GE PART NO.	DESCRIPTION
	TOP HOUSING 19D900446G3 SINGLE FREQUENCY 19D900446G4 MULTI FREQUENCY
9A703183P1	Nameplate. (GENERAL ELECTRIC).
9B800767P2	Nameplate. (DISPLAY - MULTI FREQ).
9B800767P1	Nameplate. (DISPLAY - SINGLE FREQ).
9D900334P1	Insert. (Located over display nameplate).
9B800703P1	Button. (Located on each side of GENERAL ELECTRIC nameplate).
9A701502P3	Bumper, plastic. (Plugs CL & BY displays).
9B800704P1	Plug button. (Used in single frequency when S6 is not used).
9A701799P1	Plate. (Used in single frequency when S6 is not used).
9J706212P202	Screw, thd. forming: No. 4 x 6.35MM. (Secures 19A701799P1 plate).
	MOUNTING SUPPORT KIT 19A702065G1
9D900344P1	Control unit mounting support.
9A701631P516	Machine screw: No. 10-32 x 5/16. (Secures control unit to mounting support).
9A700033P10	Lockwasher, external tooth: No. 10. (Secures control unit to mounting support).
9A701312P7	Lockwasher: No. 10. (Secures control unit to mounting support).
	BREAKAWAY MOUNTING KIT 19A129461G1
9C320022P1	Retaining bracket. (With locking jaws).
9B219578G1	Safety Release Disc. (Mates with mounting surface).
187P16010C6	Machine screw: No. 10-32 x 5/8. (Quantity 1 - Used with safety release disc with retaining bracket).
130P16012C6	Tap screw, thd. forming: No. 10-16 x 3/4. (Quantity 3 - Used without safety release disc & retaining bracket).
130P16024C6	Tap screw, thd. forming: No. 10-16 x 1-1/2. (Quantity 3 - Used without safety release disc & retaining bracket - for extra thick carpet).
402AP9C6	Flatwasher: No. 10. (Used with 10-16 thread forming screws).
	HOUSING HARDWARE KIT 19A701796G1
9A701847P309	Screw, thd. forming: No. 6-3.2 x 25.40MM. (Secures top housing to bottom housing).
9A700031P410	Machine screw: No. M3-0.5 x 10. (Secures J1 to rear of housing).
	12 VOLT FUSE MOUNTING ASSEMBLY 19B216021G2 MEDIUM POWER 19B216021G3 HIGH POWER 19B216021G6 LOW POWER (Fuses must be ordered separately)
R11P7	Quick blowing: 30 amps, 250 v; sim to Bussmann NON30. (HIGH POWER).
R11P6	Quick blowing: 25 amps, 250 v; sim to Bussmann NON25. (MEDIUM POWER).

SYMBOL	GE PART NO.	DESCRIPTION
	1R11P5	Quick blowing: 20 amps, 250 v; sim to Bussmann NON20. (LOW POWER).
		- - - - - MISCELLANEOUS - - - - -
	19D900350P1	Bottom housing.
	19C850785P1	Lower housing gasket.
	19A701797P1	Gasket. (Located between J1 & housing).
	19B219826G1	Speaker cable: 2 conductor, approx. 20 ft.
	19B800563P4	Switch, push: DPDT, contacts rated 2 amps @ 16.6 VDC; sim to IEEE/SCHADOW F2VEE.
	19A702027G1	Pushbutton. (Used with S3).
	19C307091P5	"O" Ring, rubber; sim to National Seal 6227-5. (Used with S3).

PARTS LIST		
POWER/CONTROL CABLES 19D900436G1 - G12 ISSUE 3		
SYMBOL	GE PART NO.	DESCRIPTION
P1		G1 18 CONDUCTOR 3 METER SHORT GRD G2 18 CONDUCTOR 3 METER LONG GRD G3 18 CONDUCTOR 6 METER SHORT GRD G4 18 CONDUCTOR 6 METER LONG GRD G5 18 CONDUCTOR 9 METER SHORT GRD G6 18 CONDUCTOR 9 METER LONG GRD
	19D900037P1	Connector. Includes:
	19A701376P1	Shell.
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P1-1, 2, 5 thru 13, 15, 16, 27).
	19A701376P3	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P1-18 thru 21).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P1-37 & 38).
	19D900015P1	Housing.
	19C850508P1	Cover.
	19B800882P1	Thumbscrew: thd. size M4 x 0.7.
	19A701312P6	Flat washer: 1.7-1.85 ID (Located on thumbscrew).
	19A701488P4	Retaining ring. (Located on thumbscrew).
	19A701507P608	Screw, thd. forming: No. 3.5-1.27 x 12.7. (Secures shell to housing).
	19A701507P606	Screw, thread forming: No. 3.5-1.27 x 9.60. (Secures cover to housing).
P2	19B800513P1	Gasket.
	19B226516G5	Connector. Includes:
	19A116781P5	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P2-18 thru 21).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P2-1, 2, 5 thru 12, 14 thru 16, 27).
		G7 30 CONDUCTOR 3 METER SHORT GRD G8 30 CONDUCTOR 3 METER LONG GRD G9 30 CONDUCTOR 6 METER SHORT GRD G10 30 CONDUCTOR 6 METER LONG GRD G11 30 CONDUCTOR 9 METER SHORT GRD G12 30 CONDUCTOR 9 METER LONG GRD
P1		Connector. Includes:
	19D900037P1	Shell.
	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P1-1 thru 17, 26 thru 28, 30, 31).
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P1-18 thru 21).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P1-37 & 38).
	19D900015P1	Housing.
	19C850508P1	Cover.
	19B800882P1	Thumbscrew: thd. size M4 x 0.7.
	19A701312P6	Flat washer: 1.7-1.85. (Located on thumbscrew).
	19A701488P4	Retaining ring. (Located on thumbscrew).
	19A701507P608	Screw, thd. forming: No. 3.5-1.27 x 12.7. (Secures shell to housing).
	19A701507P606	Screw, thread forming: No. 3.5-1.27 x 9.60. (Secures cover to housing).
	19B800513P1	Gasket.

SYMBOL	GE PART NO.	DESCRIPTION
P2		Connector. Includes:
	19B226516G5	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P2-11, 17 thru 19).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P2-1 thru 10, P2-12 thru 16).
P3		Connector. Includes:
	19B226516G7	Shell.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P3-3, 5 thru 8, 14, 15).
		- - - - - MISCELLANEOUS - - - - -
	7139880P13	Cable: 18 conductor. (Specify length - Used in G1 - G6).
	7139880P14	Cable: 30 conductor. (Specify length - Used in G7 - G12).
	19A701460P2	Cable, battery red; sim to GE S1-57528. Used in G3 - G6, G9 - G12).
	19A701460P10	Cable, battery black. (Used in G3-G6, G9-G12).
	19A701503P2	Cable: battery, red; 3 Meter. (Used in G1, G2, G7, G8).
	19A701503P10	Cable: battery, black. (Used in G1, G2, G7, G8).
	19B800629P1	Solderless terminal. (Located on black battery cable in G3, G5, G6, G11).
	19B800629P2	Solderless terminal. (Located on black batteryr cable in G1 & G7).
	19B800629P3	Solderless terminal. (Located on battery cables in G1, G2, G7 & G8).
	19B800629P4	Solderless terminal. (Located on battery cables in G1, G2, G7, & G8).
	19A701077P1	Clip. (Secures cable to P1).
	19A700031P425	Machine screw: No. M3.5-x 25. (Secures clip to cable at P1).
	19A700034P4	Nut, hex: No. M3 x 0.5MM. (Secures clip to cable at P1).
	19A700032P5	Lockwasher, internal tooth: No. 3MM. (Secures clip to cable at P1).
	7142878G1	Clip loop. (Secures cable at P2).

LBI31231

PARTS LIST

LB131247

S600 ASSOCIATED ASSEMBLIES

SYMBOL	GE PART NO.	DESCRIPTION
		TOP HOUSING 19D900446G3 SINGLE FREQUENCY 19D900446G4 MULTI FREQUENCY
	19A703183P1	Nameplate. (GENERAL ELECTRIC).
	19B800767P2	Nameplate. (DISPLAY - MULTI FREQ).
	19B800767P1	Nameplate. (DISPLAY - SINGLE FREQ).
	19D900334P1	Insert. (Located over display nameplate).
	19B800703P1	Button. (Located on each side of GENERAL ELECTRIC nameplate).
	19A701502P3	Bumper, plastic. (Plugs CL & BY displays).
	19B800704P1	Plug button. (Used in single frequency when S6 is not used).
	19A701799P1	Plate. (Used in single frequency when S6 is not used).
	19J706212P202	Screw, thd. forming: No. 4 x 6.35MM. (Secures 19A701799P1 plate).
		MOUNTING SUPPORT KIT 19A702065G1
	19D900344P1	Control unit mounting support.
	19A701631P516	Machine screw: No. 10-32 x 5/16. (Secures control unit to mounting support).
	19A700033P10	Lockwasher, external tooth: No. 10. (Secures control unit to mounting support).
	19A701312P7	Lockwasher: No. 10. (Secures control unit to mounting support).
		BREAKAWAY MOUNTING KIT 19A129461G1
	19C320022P1	Retaining bracket. (With locking jaws).
	19B219578G1	Safety Release Disc. (Mates with mounting surface).
	N187P16010C6	Machine screw: No. 10-32 x 5/8. (Quantity 1 - Used with safety release disc with retaining bracket).
	N130P16012C6	Tap screw, thd. forming: No. 10-16 x 3/4. (Quantity 3 - Used without safety release disc & retaining bracket).
	N130P16024C6	Tap screw, thd. forming: No. 10-16 x 1-1/2. (Quantity 3 - Used without safety release disc & retaining bracket - for extra thick carpet).
	N402AP9C6	Flatwasher: No. 10. (Used with 10-16 thread forming screws).
		HOUSING HARDWARE KIT 19A701796G1
	19A701847P309	Screw, thd. forming: No. 6-3.2 x 25.40MM. (Secures top housing to bottom housing).
	19A700031P410	Machine screw: No. M3-0.5 x 10. (Secures J1 to rear of housing).
		12 VOLT FUSE MOUNTING ASSEMBLY 19B216021G2 MEDIUM POWER 19B216021G3 HIGH POWER 19B216021G6 LOW POWER (Fuses must be ordered separately)
	1R11P7	Quick blowing: 30 amps, 250 v; sim to Bussmann NON30. (HIGH POWER).
	1R11P6	Quick blowing: 25 amps, 250 v; sim to Bussmann NON25. (MEDIUM POWER).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

SYMBOL	GE PART NO.	DESCRIPTION
	1R11P5	Quick blowing: 20 amps, 250 v; sim to Bussmann NON20. (LOW POWER).
		- - - - - MISCELLANEOUS - - - - -
	19D900350P1	Bottom housing.
	19C850785P1	Lower housing gasket.
	19A701797P1	Gasket. (Located between J1 & housing).
	19B219826G1	Speaker cable: 2 conductor, approx. 20 ft.
	19B800563P4	Switch, push: DPDT, contacts rated 2 amps @ 16.6 VDC; sim to IEEE/SCHADOW F2VEE.
	19A702027G1	Pushbutton. (Used with S3).
	19C307091P5	"O" Ring, rubber; sim to National Seal 6227-5. (Used with S3).

PARTS LIST

POWER/CONTROL CABLES
19D900436G1 - G12
ISSUE 3

SYMBOL	GE PART NO.	DESCRIPTION
		G1 18 CONDUCTOR 3 METER SHORT GRD G2 18 CONDUCTOR 3 METER LONG GRD G3 18 CONDUCTOR 6 METER SHORT GRD G4 18 CONDUCTOR 6 METER LONG GRD G5 18 CONDUCTOR 9 METER SHORT GRD G6 18 CONDUCTOR 9 METER LONG GRD
P1		Connector. Includes:
	19D900037P1	Shell.
	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P1-1, 2, 5 thru 13, 15, 16, 27).
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P1-18 thru 21).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P1-37 & 38).
	19D900015P1	Housing.
	19C850508P1	Cover.
	19B800882P1	Thumbscrew: thd. size M4 x 0.7.
	19A701312P6	Flat washer: 1.7-1.85 ID (Located on thumbscrew).
	19A701488P4	Retaining ring. (Located on thumbscrew).
	19A701507P608	Screw, thd. forming: No. 3.5-1.27 x 12.7. (Secures shell to housing).
	19A701507P606	Screw, thread forming: No. 3.5-1.27 x 9.60. (Secures cover to housing).
	19B800513P1	Gasket.
P2		Connector. Includes:
	19B226516G5	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P2-18 thru 21).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P2-1, 2, 5 thru 12, 14 thru 16, 27).
		G7 30 CONDUCTOR 3 METER SHORT GRD G8 30 CONDUCTOR 3 METER LONG GRD G9 30 CONDUCTOR 6 METER SHORT GRD G10 30 CONDUCTOR 6 METER LONG GRD G11 30 CONDUCTOR 9 METER SHORT GRD G12 30 CONDUCTOR 9 METER LONG GRD
P1		Connector. Includes:
	19D900037P1	Shell.
	19A701376P1	Contact, electrical rated @ 4 amps; sim to AMP 350657-1. (P1-1 thru 17, 26 thru 28, 30, 31).
	19A701376P2	Contact, electrical rated @ 4 amps; sim to AMP 350656-1. (P1-18 thru 21).
	19A701376P3	Contact, electrical rated @ 35 amps; sim to AMP 350655-1. (P1-37 & 38).
	19D900015P1	Housing.
	19C850508P1	Cover.
	19B800882P1	Thumbscrew: thd. size M4 x 0.7.
	19A701312P6	Flat washer: 1.7-1.85. (Located on thumbscrew).
	19A701488P4	Retaining ring. (Located on thumbscrew).
	19A701507P608	Screw, thd. forming: No. 3.5-1.27 x 12.7. (Secures shell to housing).
	19A701507P606	Screw, thread forming: No. 3.5-1.27 x 9.60. (Secures cover to housing).
	19B800513P1	Gasket.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.

PARTS LIST

IGNITION SWITCH CABLE
19A702041G1 STANDARD
19A702041G2 IGNITION SWITCH STANDBY
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
		Y CABLE 19A129504G1
19A116849P1		Splice.
19A116781P5		Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (Quantity 2).
7491823P7		Solderless terminal: wire size No. 16-14 AWG. (OPTION).
7491823P8		Solderless terminal: wire size No. 16-14 AWG. (OPTION).
4029484P2		Contact, electrical: sim to AMP 41729 (LP). (OPTION).
		FUSED LEAD 19A129480G1 1 AMP 19A129480G2 5 AMP 19A129480G3 5 AMP WYE CONNECTION
19A115776P6		Fuseholder: sim to Bussmann 9835.
19A115776P5		Knob assembly; sim to Bussmann 9953 1/2. (Mates with fuseholder).
19A115776P7		Spring: sim to Bussmann 1A1853. (Located inside fuseholder).
19A115776P3		Contact, electrical: sim to Littelfuse 904-88. (Crimped on wires inside fuseholder).
1R16P3		Fuse, quick blowing: 1 amp at 250 v; sim to Littelfuse 312001 or Bussmann AGC-1.
1R16P8		Fuse, quick blowing: 5 amp at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
19A116781P5		Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

132-512 MHz ANTENNA
19B209568P1

ISSUE 2

SYMBOL	GE PART NO.	DESCRIPTION
		Whip assembly. Decibel Products 068110-001. Whip nut assembly. Decibel Products 068047-001. Base nut assembly. Decibel Products 068048-001. "O" Ring (LARGE). Decibel Products 007059-122. Stud assembly. Decibel Products 068046-001. RG58/U Cable, 15 feet. Decibel Products 068115-001.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

LB131197
29.7 - 50 MHz ANTENNA
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
	7491074P1	Antenna: includes stainless steel rod approx 96-1/2 inches long; ball tip; lockwasher; No. 10-32 hex socket set screw; sim to Antenna Specialists ASP-121.
	19C307172P1	Antenna Package: Includes base & ball assembly, adapter spring assembly, cable assembly, horseshoe plate, and rubber gasket.
	7134724P1	Antenna hook.
	N135P130C13	Tap screw, slot head, No. 6-18 x 3/8.
	N401P7C6	Flatwasher: No. 6.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

PARTS LIST

MICROPHONE
19D900141G3
ISSUE 4

SYMBOL	GE PART NO.	DESCRIPTION
	19B800741P1	Microphone, transistorized, electret: 5% max distortion at 300-3000 Hz. Includes Kits MP104-MP106.
	19D416767P1	Connector Cover.
	19D416766P1	Connector base.
	19A129435G1	Pin contact. (Quantity 4).
	19B219723G1	Thumb screw: lexan.
	19B219749P1	Flex relief.
	N136AP905Y6	Tap screw: No. 4-24 x 5/16.
	19A701289P1	Retaining ring: 3/16 inches; sim to National Lockwasher WA 510.
	19A116937P1	Cable clamp: sim to Malco 21012-3.
	MP104	Case Kit: housing, grille and hardware.
	MP105	Circuit Board Kit.
		----- MODULE -----
B1	19J706041P1	Microphone cartridge: 200-850 ohms output imp., 1.5 to 10 VDC; sim to Primo EM-60.
		----- CAPACITORS -----
C1	T644ACP347K	Polyester: .047 uF + or -10%, 50 VDCW.
C2	19A700235P17	Ceramic: 22 pF + or -5%, 50 VDCW.
C3	19A701534P3	Tantalum: 0.47 uF + or - 20%, 35 VDCW.
C4	19A700235P25	Ceramic: 100 pF + or -5%, 50 VDCW.
C5	19A701534P9	Tantalum: 47 uF + or -20%, 6.3 VDCW.
C6 and C7	19A700235P21	Ceramic: 47 pF + or -5%, 50 VDCW.
C8	T644ACP347K	Polyester: .047 uF + or -10%, 50 VDCW.
		----- JACKS -----
J1	19A700072P31	Printed wire: 5 contacts rated at 2.5 amps; sim to Molex 22-27-2051.
		----- TRANSISTORS -----
Q1	19A700023P1	Silicon, NPN; sim to Type 2N3904.
		----- RESISTORS -----
R1	H212CRP418C	Deposited carbon: 0.18M ohms + or -5%, 1/4 w.
R2	19A700106P111	Composition: 100K ohms + or - 5%, 1/4 w.
R3	19A700106P63	Composition: 1K ohms + or - 5%, 1/4 w.
R4	19A700106P87	Composition: 10K ohms + or - 5%, 1/4 w.
R5	19A700106P63	Composition: 1K ohms + or - 5%, 1/4 w.
	MP106	Switch Kit.

*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 the descriptions of parts affected by these revisions.

REV. A - MICROPHONE 19D900141G3
Reworked microphones to improve performance.

REV. B - MICROPHONE 19D900141G3
To update Mic Parts List to indicate unused groups and to indicate Mic's modified per new tooling.

REV. C - MICROPHONE 19D900141G3
To improve microphone RFI performance at UHF.
Added C9 and C10.

PARTS LIST

MODE A/B SWITCH KIT
19A703546G1
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
		----- RESISTORS -----
R8	19A700019P36	Deposited carbon: 820 ohms \pm 5%, 1/4 w.
		----- SWITCHES -----
S2	19B800563P4	Switch, push: DPDT, contacts rated 2 amps @ 16.6 VDC; sim to IEEE/SCHADOW F2VEE.
		----- CABLES -----
W11	19B800890P1	Jumper.
		----- MISCELLANEOUS -----
	19A702027G12	Pushbutton. (Used with S2).
	19C307091P5	"O" Ring, rubber; sim to National Seal 6227-5. (Used with S2).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES