MOBILE RADIO

INSTRUCTIONS
FOR
PE/PY AUTOMATIC CHANNEL GUARD MONITOR 19B219507G2
(OPTION 4254)

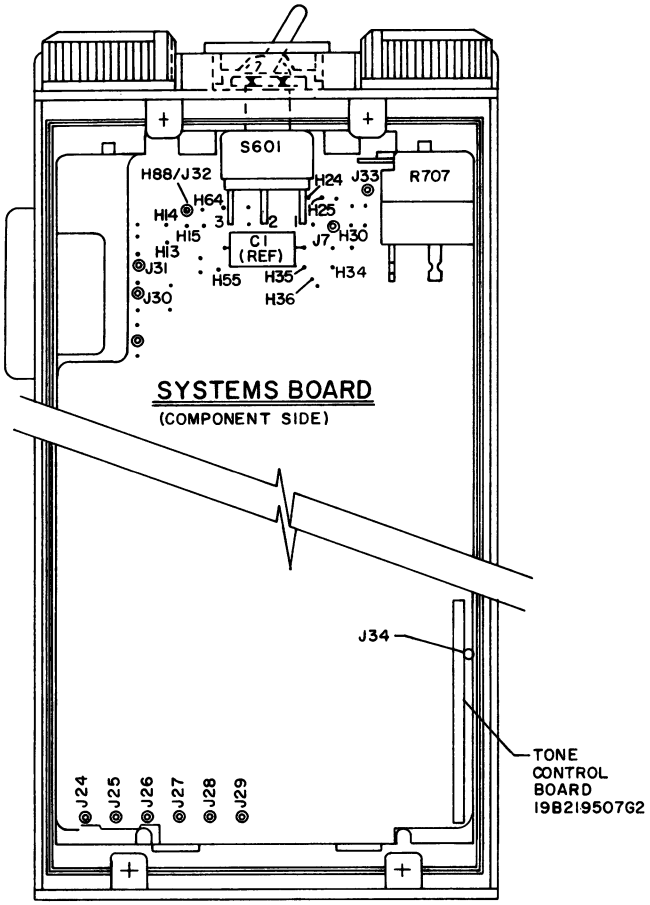
TABLE OF CONTENTS

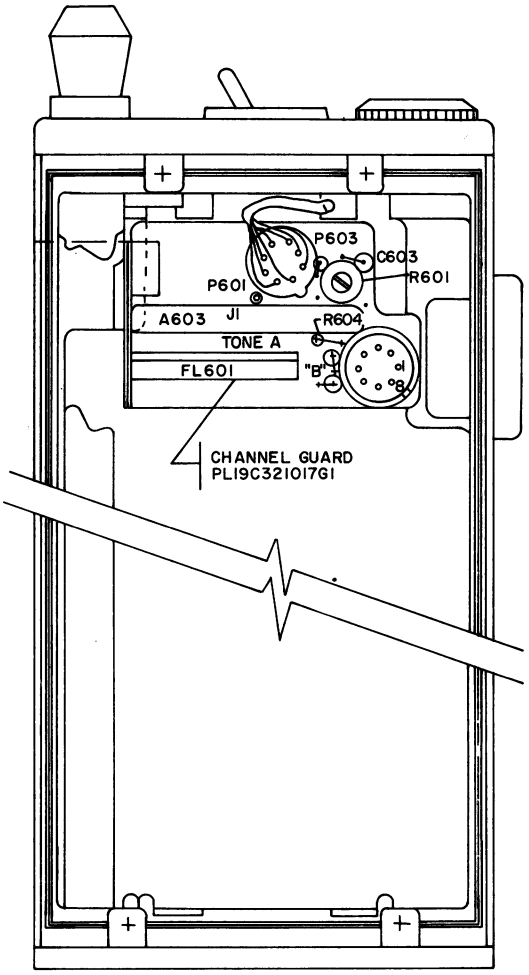
DESCRIPTION

Automatic Channel Guard Monitor 19B219507G2 automatically disables Channel Guard on RF channel(s) where Channel Guard operation is not desirable.

When the Channel Guard is disabled by selecting, with the multi-frequency switch, an RF channel where Channel Guard is not desired, the receiver will operate on noise squelch, only. Any RF signal on the selected receiver frequency will be monitored.

If the multi-frequency switch is in F1 position where Channel Guard operation is not desired, the yellow lead from the tone control board will be connected to J31 on the system board. If Channel Guard operation is desirable on F1, the yellow lead will simply not be connected. Otherwise, 5.4 volts forward biases diode CR1 and is applied through CR1 to the base of transistor Q1 and to P603-4 on the system board. The 5.4 volts applied to P603-4 is connected to FL601-3 on Channel Guard Circuit Board 19C321017 (refer to LBI4870). The 5.4 volts on FL601-3 disables the Channel Guard tone. The 5.4 volts applied to the base of Q1 causes Q1 to conduct. Q1 conducting causes Q2 to conduct. The output from the collector of Q2 is connected through J33 and P705-7 to the tone switch on the receiver board. The receiver tone switch is activated and the receiver operates on noise squelch. All calls on RF Channel, F1, will be monitored by the receiver.





TOP VIEW OF P603

THESE INSTRUCTIONS COVER THE INSTALLATION OF TONE CONTROL BOARD 19B219507G2 TO S.S. CG 19C321017G1 WHEN USED IN PERSONAL PE 5 & 8 FREQUENCY AND PERSONAL MVP 6 FREQUENCY.

CONNECTIONS CHART			
FROM	TO	WIRE COLOR	REMARK
TONE CONTROL BOARD	S601-2	R	
	J33	O	
	J31 (F1)	Y	
	J30 (F2)	G	WHEN CHANNEL GUARD IS REQUIRED DO NOT MAKE THESE CONNECTIONS. SEE NOTE 3
	J24 (F3)	BR	
	J25 (F4)	T28-GA	
	J26 (F5)	T28-W	
	J27 (F6)	T28-W-BK	
	J28 (F7)	T28-W-O	
	J29 (F8)		SEE NOTE 3 & 4
	P603-4	BL	SEE NOTE 5 & 6

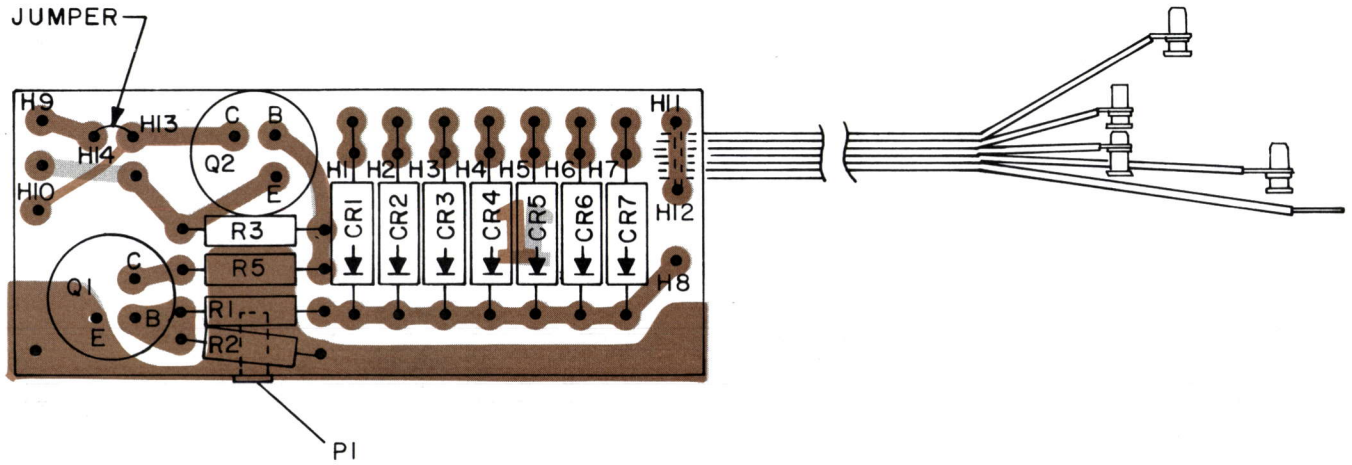
INSTRUCTIONS:

1. ASSEMBLE R604 ON CHANNEL GUARD BOARD AS SHOWN.
2. ASSEMBLE TONE CONTROL BOARD AS SHOWN.
3. TO DISABLE CHANNEL GUARD ON RF CHANNEL, CONNECT LEADS FROM TONE CONTROL TO J24-J31. IF CHANNEL GUARD IS REQUIRED DO NOT CONNECT LEAD AND SLEEVE PLUG ON LEAD WITH A7150727P9.
4. IF CHANNEL GUARD IS NOT REQUIRED ON RF CHANNEL NUMBER 8 THEN CONNECT THE CONTROL LEAD FROM ONE OF THE CHANNEL GUARD RF CHANNEL TO J29.
5. TIE BLUE LEAD FROM CONTROL BOARD TO CABLE GOING TO P603.
6. DO NOT CONNECT BL LEAD TO P603-4 IF CHANNEL GUARD ENCODE IS REQUIRED.

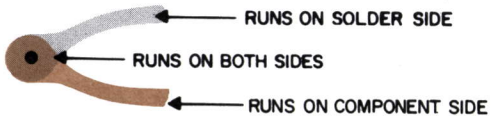
(19D424244, Rev. 1)

INSTALLATION INSTRUCTIONS

AUTOMATIC CHANNEL GUARD MONITOR 19B219507G2

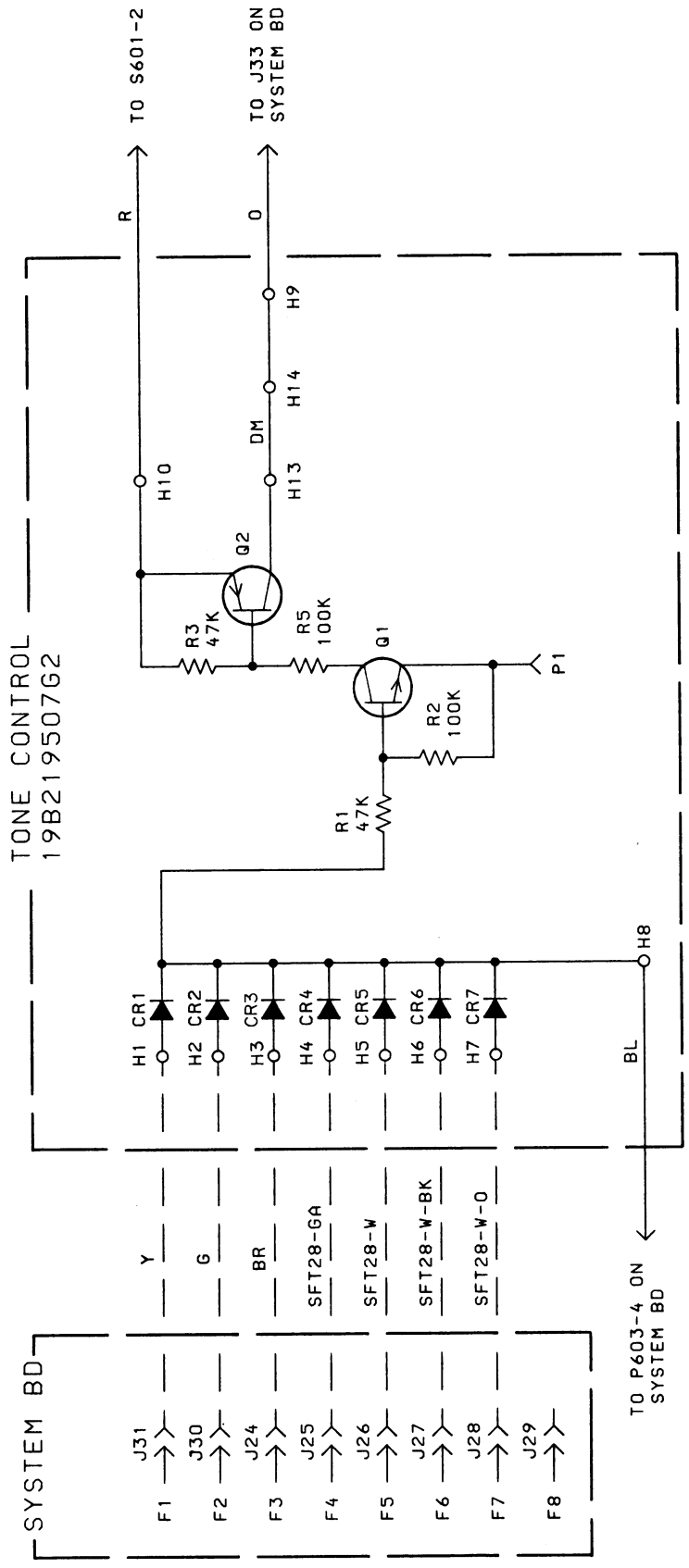


(19B232588, Rev. 0)
(19B219490, Sh. 1, Rev. 1)
(19B219490, Sh. 2, Rev. 1)



OUTLINE DIAGRAM

AUTOMATIC CHANNEL GUARD
MONITOR 19B219507G2



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.

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.

(19C327425, Rev. 2)

SCHEMATIC DIAGRAM

AUTOMATIC CHANNEL GUARD MONITOR 19B219507G2

PARTS LIST

LBI30662

AUTOMATIC MONITOR
19B219507G2

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - DIODES AND RECTIFIERS - - - - - -
CR1 thru CR7	5494922P1	Silicon; sim to Type 1N456.
		- - - - - - - - - - - - PLUGS - - - - - - - - - - - -
P1	19A115834P4	Contact, electrical: sim to AMP 2-332070-9.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A129184P1	Silicon, NPN.
Q2	19A129187P1	Silicon, PNP.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	3R151P473K	Composition: 47K ohms ±10%, 1/8 w.
R2	3R151P104K	Composition: 100K ohms ±10%, 1/8 w.
R3	3R151P473K	Composition: 47K ohms ±10%, 1/8 w.
R5	3R151P104K	Composition: 100K ohms ±10%, 1/8 w.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - -
	4035306P11	Fiber washer. (Used with Q1 and Q2).
	19B219531G2	Cable assembly. In includes (4) electrical contacts- 19A115834P4.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.