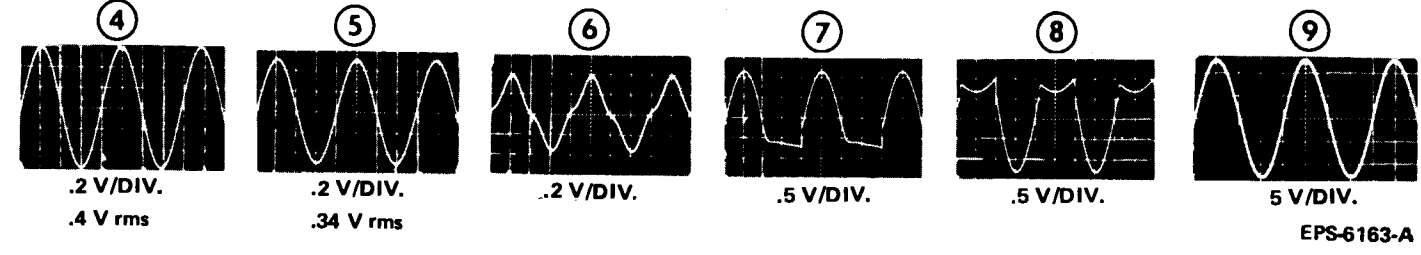


AUDIO CIRCUIT WAVEFORMS



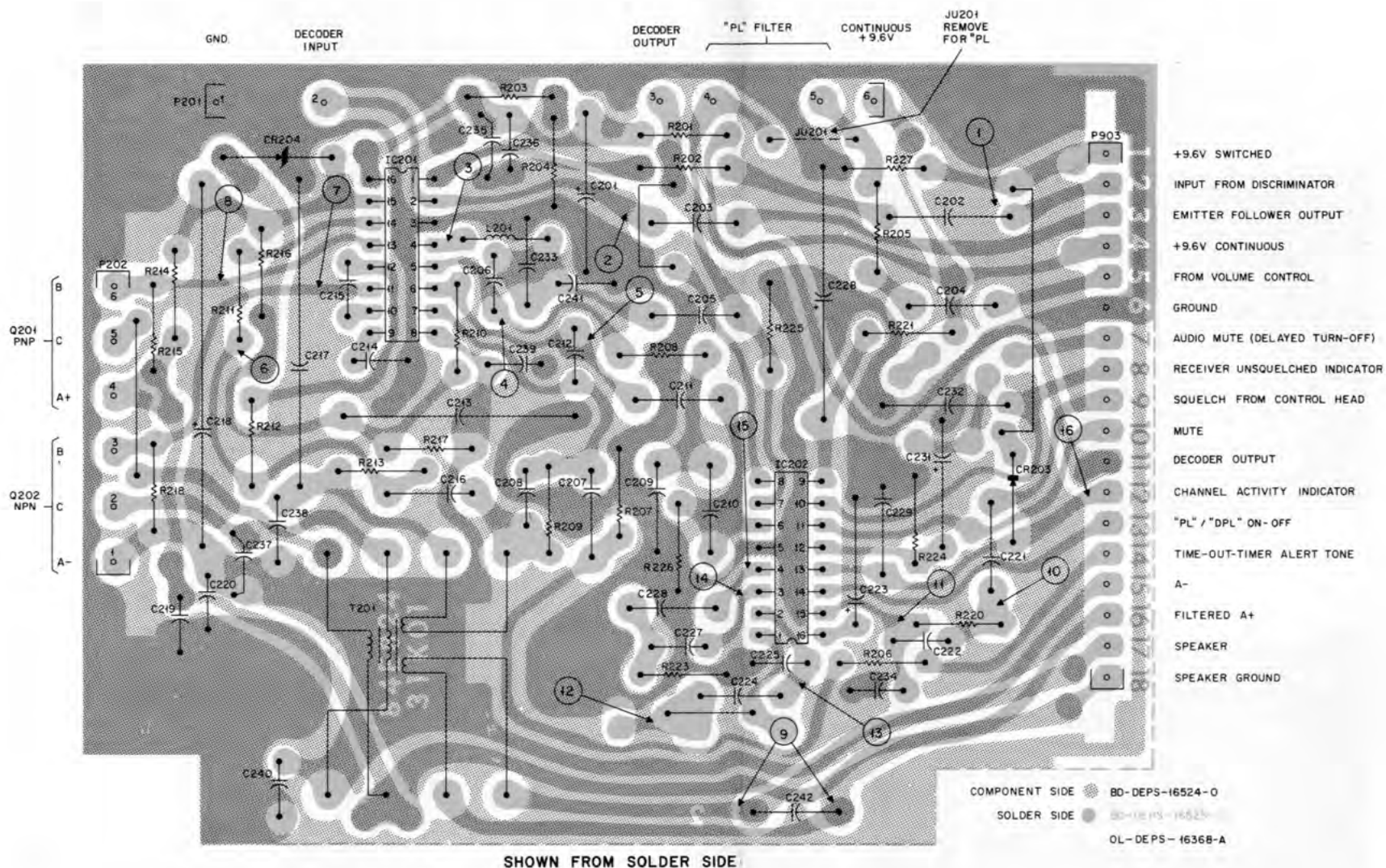
SQUELCH CIRCUIT WAVEFORMS



PARTS LIST SHOWN ON BACK OF THIS DIAGRAM

TLN4310B-1 Audio & Squelch Board
 Schematic Diagram & Circuit Board Detail
 Motorola No. PEPS-16369-A
 (Sheet 1 of 2)
 8/21/75-UP

AUDIO SQUELCH BOARD



RECEIVER AUDIO & SQUELCH BOARD

201. +5.6 VOLTS WHEN THRESHOLD SIGNAL JUST OPENS SQUELCH (I.E., APPROXIMATELY 6 dB QUIETING SIGNAL WITH SQUELCH CONTROL AT THRESHOLD).
202. WHERE MORE THAN ONE VOLTAGE READING APPEARS:
 USQ = RECEIVER UNSQUELCHED
 FSQ = RECEIVER FULLY SQUELCHED
203. VOLTAGE MEASURED WITH RESPECT TO A-.
204. VOLTAGE MEASURED WITH RESPECT TO A+.
205. VOLTAGES AT IC201-6 AND -7 MUST BE THE SAME VALUE.
206. UNLESS OTHERWISE STATED: CAPACITOR VALUES ARE IN PICOFARADS. RESISTOR VALUES ARE IN OHMS.
207. UNLESS OTHERWISE STATED, VOLTAGE MEASUREMENTS ARE FOR DC VOLTAGES $\pm 10\%$ MEASURED WITH AN 11 MEGOHM INPUT RESISTANCE VOLTMETER WITH RESPECT TO CHASSIS GROUND.

EPS-6229-C

DC VOLTAGE TABLE FOR IC'S ON AUDIO & SQUELCH BOARD

IC201				IC202			
PIN	VOLTAGE	PIN	VOLTAGE	PIN	VOLTAGE	PIN	VOLTAGE
1	5.5 V	9	6.3 V NOTE 203	1	4.1 V	9	9.4 V
2	4.0 V	10	1.0 V NOTE 203	2	2.2 V	10	0 V USQ 6.0 - 9.0 V FSQ
3	0 V	11	0.6 V NOTE 203	3	4.0 V	11	---
4	2.2 V	12	6.9 V NOTE 203	4	0.94 V USQ 1.6 V FSQ	12	0 V USQ 0 V FSQ NOTE 201
5	4.3 V	13	0.6 V NOTE 204	5	0 V	13	6.3 V USQ 1.1 V FSQ
6	6.9 V	14	6.9 V	6	0 V	14	---
7	6.9 V NOTES 203 & 205	15	13.8 V NOTE 203	7	0 V	15	2.2 V
8	A-	16	9.6 V NOTE 203	8	0 V CARRIER SQ. 9.5 V "PL" USQ 0 V "PL" FSQ	16	6.4 V

EPS-16511-0

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
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ELECTRICAL PARTS LIST

IMPORTANT
USE ONLY THE FOLLOWING MOTOROLA
PART NUMBERS WHEN ORDERING
REPLACEMENT PARTS

TLN4310B Audio & Squelch Board

PL-3168-A

REVISIONS			
CHASSIS AND SUFFIX NO.	REF. SYMBOL	CHANGE	LOCATION
TLN4310B-1	C232	FROM 23D84762H14, 0.47 uF TO 23D84762H04, 2.2 uF	IC202 PIN 10
TLN4310B-2	C222	FROM 21K848159, 750 pF TO 21-84426B63, 1500 pF	IC202 PIN 5

PEPS-16369-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR, fixed: uF ±10%; 100 V; unl. stated
C201	23-84762H10	22 ±20%; 15 V
C202	23D82783B36	39 uF ±10%
C203	8D83813H11	0.22; 75 V
C204	8D83813H11	0.22; 75 V
C205	8D83813H29	0.33; 50 V
C206	21D82187B27	.002
C207	8D83813H11	0.22; 75 V
C208	21-82187B31	1500 pF
C209	8D83813H32	.015
C210	8D83813H09	0.33
C211	8D83813H06	0.1
C212	21D84426B06	100 pF ±5%; 500 V
C213	23D84081B03	75 +150-10%; 15 V; NPO
C214	21D82187B43	.0039
C215	21-83406D46	56 pF ±5%; N150
C216	8D83813H11	0.22; 75 V
C217	23D84081B01	50 +100-10%; 25 V; NP
C218	23D83210A08	100 ±20%; 25 V
C219	21C82372C04	.05 ±20%; 25 V
C220	21C82372C04	.05 ±20%; 25 V
C221	8D83813H07	0.15; 75 V
C222	21-84426B63	1500 pF ±5%
C223	23D84762H07	4.7 ±20%; 25 V
C224	21D84493B05	1000 pF; N2200
C225	21D84426B06	100 pF ±5%; 500 V
C226	23D83210A01	25 +150-10%; 25 V
C227	21D84426B11	470 pF ±5%; 500 V
C228	8D83813H32	.015; 50 V
C229	8D83813H11	0.22; 75 V
C231	23D84762H17	3.3 ±20%; 15 V
C232	23D84762H04	2.2 ±20%; 25 V
C233	8D83813H09	.033
C234	21D82610C58	100 pF; N750
C235	8D82905G30	0.1; 50 V
		SEMICONDUCTOR DEVICE, diode: (SEE NOTE)
CR203	48C83654H01	silicon
CR204	48D82256C38	silicon; Zener type; 9.1 V ±0.45 V
		INTEGRATED CIRCUIT: (SEE NOTE)
IC201	51R84267A08	type M6708
IC202	51R84267A09	type M6709
		RESISTOR, fixed: ±5%; 1/4 W; unl. stated
R201	6S129233	47 ±10%
R202	6S127802	1k ±10%
R203	6S124A95	82k
R204	6S131446	120k
R205	6S129668	10k
R206	6S127802	1k ±10%
R207	6S129819	3.9k
R208	6S129707	2.7k
R209	6S129226	100k ±10%
R210	6S131527	47k
R211	6S124A09	22
R212	6S124A09	22
R213	6S129755	10 ±10%
R214	6S129233	47 ±10%
R215	6S129981	3.3k
R216	6S129983	8.2k
R217	6S129983	8.2k
R218	6S129981	3.3k
R220	6S129667	22k

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
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R221	6S131377	15 ±10%
R223	6S129886	27k
R224	6S129229	180k ±10%
R225	6S128902	47k ±10%
R226	6S128987	120k ±10%
R227	6S129231	3.3k ±10%
T201	25D84083B02	TRANSFORMER, AF: audio output

NOTE:

Replacement diodes and integrated circuits must be ordered by Motorola part number only for optimum performance.

AUDIO & SQUELCH BOARD

TLN4310B Audio & Squelch Board

TLN4622B Audio & Squelch Board

PL-3167-O

CODE NO.	MOTOROLA PART NO.	DESCRIPTION
1	55B84300B02	HANDLE (short)
2	3S136905	LOCKSCREW, tapping: #4 x 5/16" (4 req'd)
3	42C84284B01	RETAINER, screw (4 req'd)
4	55B84300B01	HANDLE (long)
5	29C84028H02	PIN (short)
6	29C84028H01	PIN (long)

TLN4310B Audio & Squelch Board
Mechanical and Electrical Parts List
Motorola No. PEPS-16369-A
(Sheet 2 of 2)
8/21/75-UP