

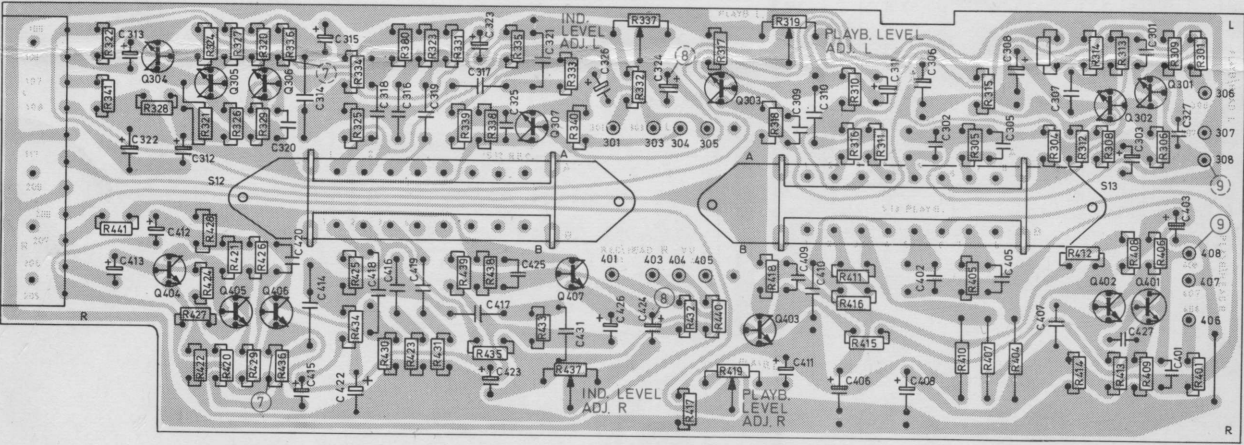
**991900** Mikrofonforsterkere, RIAA korreksjonsforsterkere, tonekontroller, utgangsboostere, linjeutgangsforsterkere, funksjonsvendere.  
 Microphone amplifiers, RIAA equalizing amplifiers, bass and treble circuits, output boosters, line output amplifiers, mode switches.

Alle plater er sett fra foliesiden.  
 70% av virkelig størrelse.

All boards are seen from the printed side.  
 70% of true size.

Ved bestilling av komplette plater, vennligst oppgi det seksifrede platennummeret.

When ordering complete boards, kindly specify the six-digit board No.

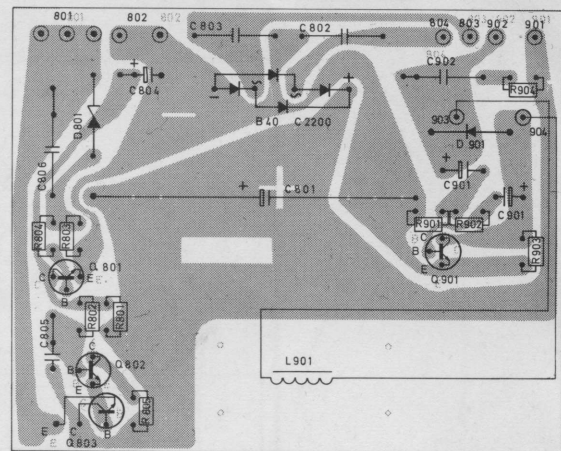
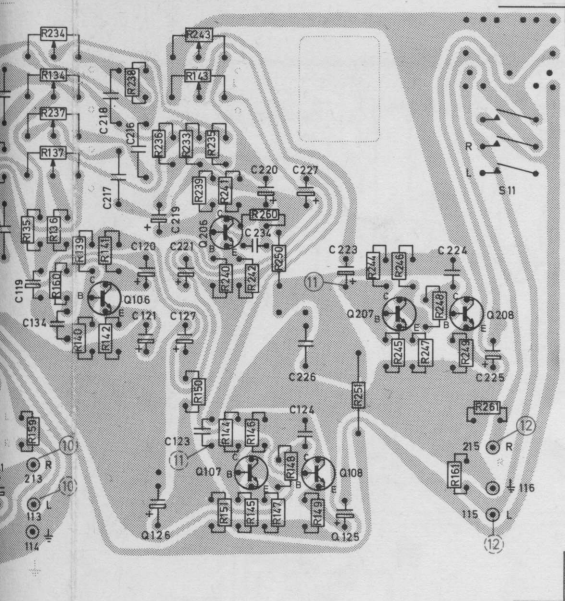


**991901** Korreksjonsforsterkere.  
 Equalizing amplifiers.

# TANDBERG

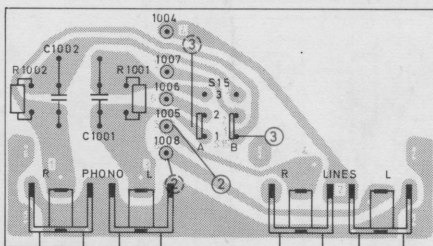
## tape recorder series 4000X.

European Model: From serial No. approx. 2271500.  
 U.S. Model: From serial No. approx. 2268000.

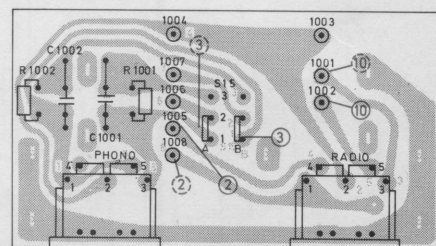


**991903** Spenningsstabilisator/start-stop kopleing.  
DC-voltage regulator/start-stop circuit.

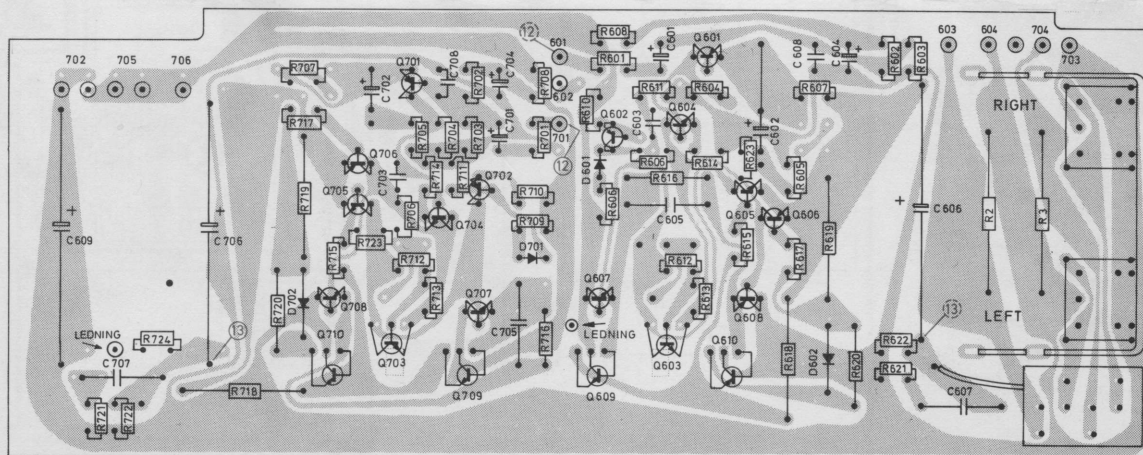
, funksjonsvendere.  
plifiers, mode switches.



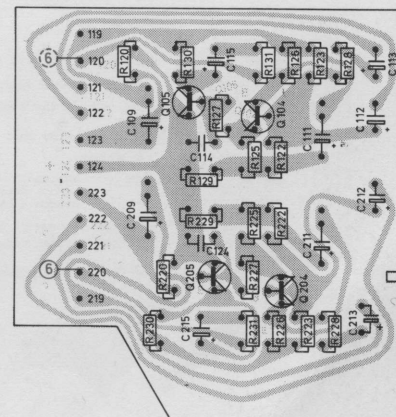
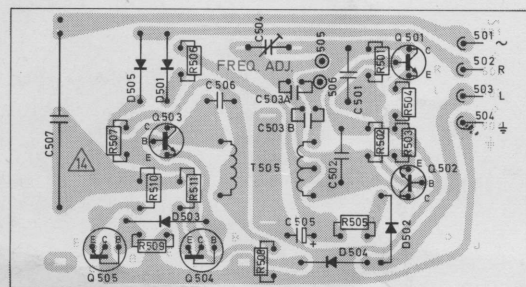
**991908** Inngangskopleing (U.S.-modellen).  
Input circuits (U.S.-model).

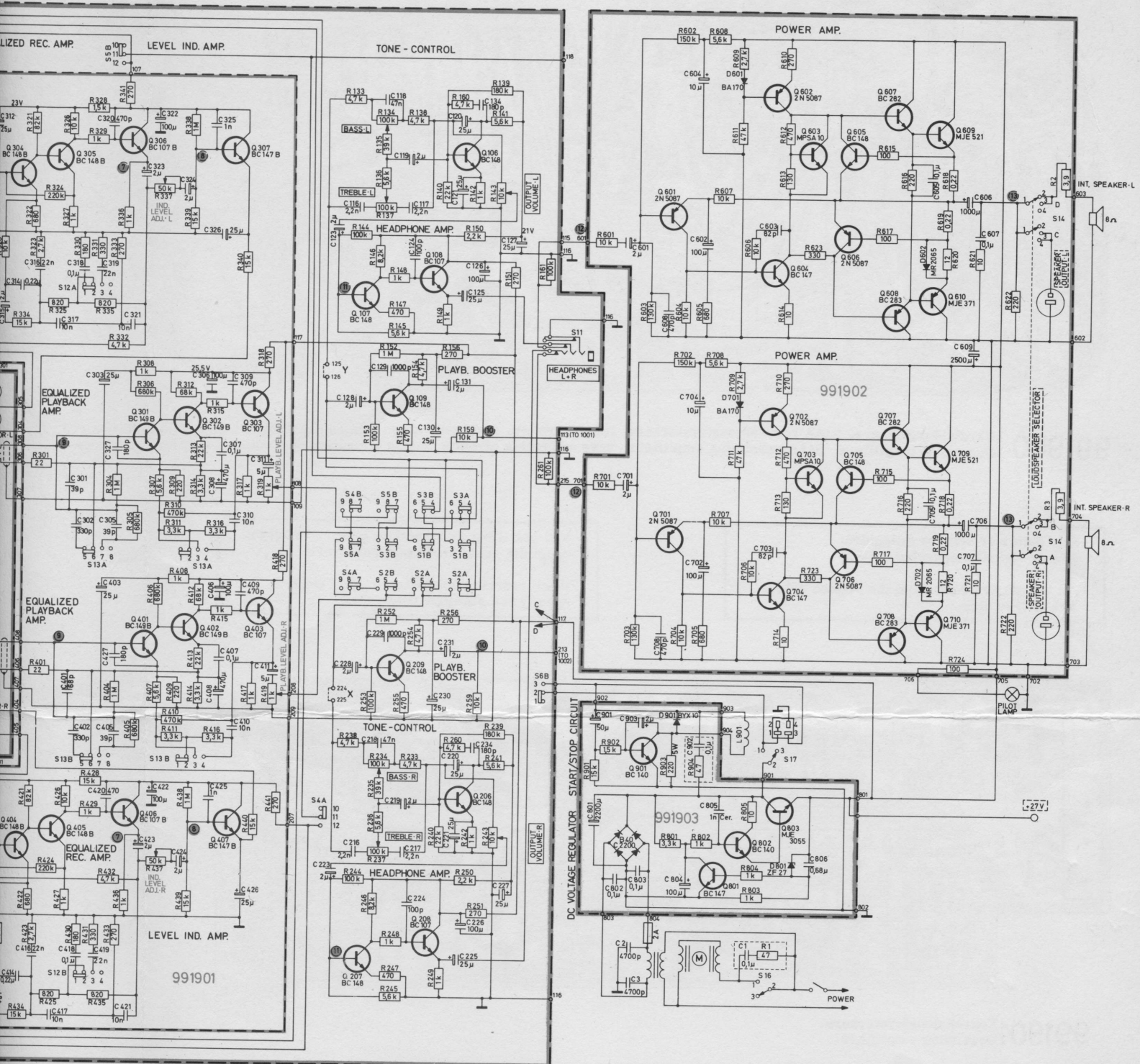


**991907** Inngangskopleing (Europa).  
Input circuits (Europe).



**991902** Utgangsfosterkere og høytalervendere.  
Power output amplifiers and loudspeaker selectors.



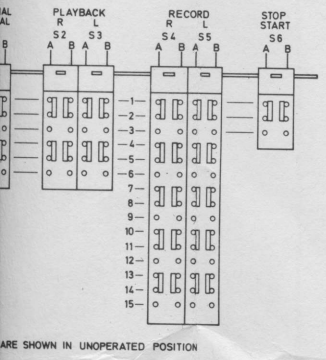


Målt direkte på transistorene med rørvoltmeter ( $R_i = 60M\Omega$ ), uten signal tilført forsterkerne. På grunn av komponent-toleranser, må mindre avvik fra de oppgitte verdier ventes.

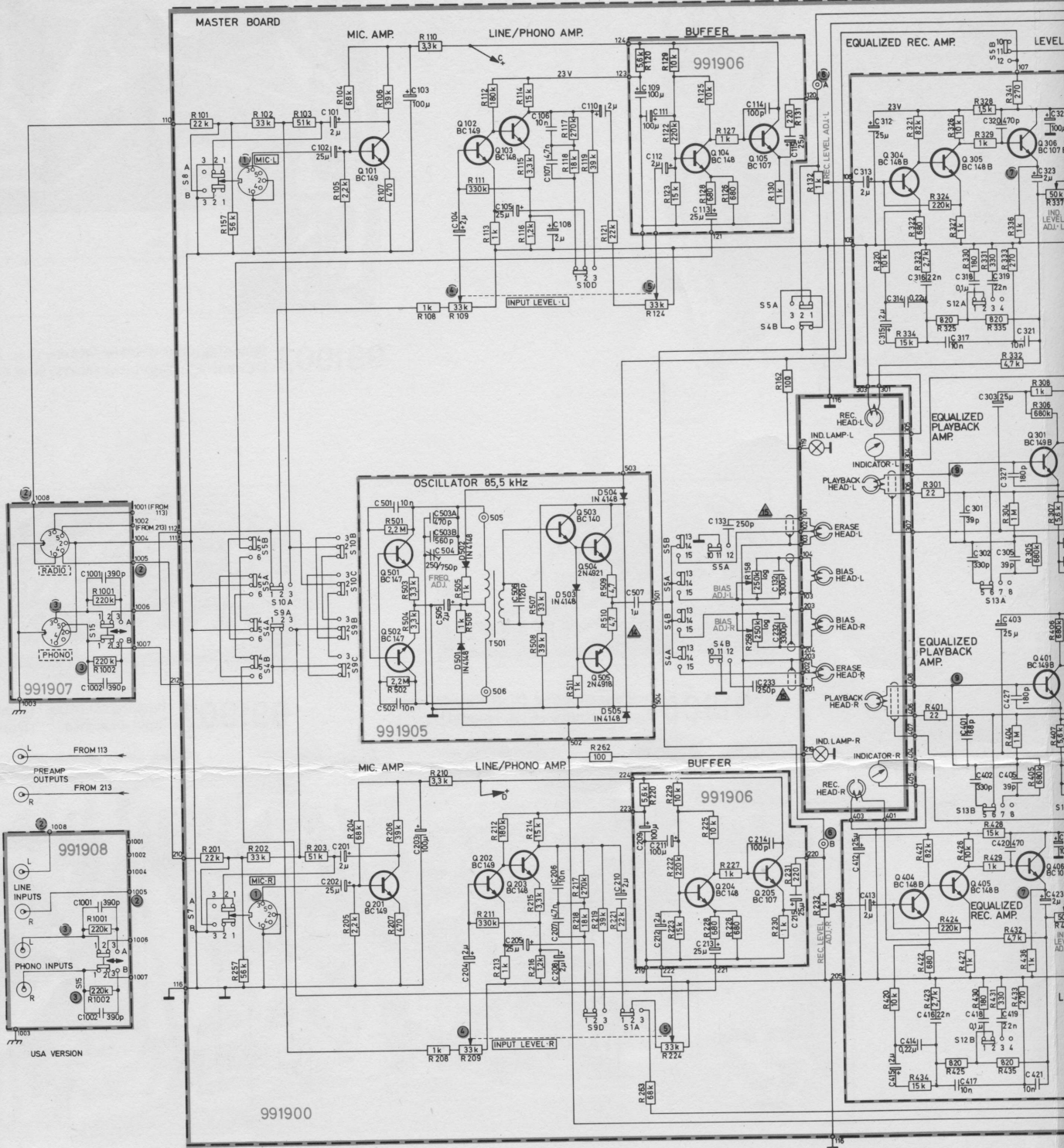
**LIKESPENNINGER, TYPISKE VERDIER.**  
**DC VOLTAGES, TYPICAL VALUES.**

Measured at transistor terminals with VTVM ( $R_i = 60M\Omega$ ), and without signal applied to the amplifiers. Owing to component tolerances, small deviations from listed values should be expected.

Ref. No.	C(V)	B(V)	E(V)	Ref. No.	C(V)	B(V)	E(V)	Ref. No.	C(V)	B(V)	E(V)
Q 101	9,5	0,75	0,15	Q 303	24,5	11,5	11	Q 602	15,0	25,0	25,5
Q 102	3,6	0,65	0,10	Q 304	1,6	0,75	0,15	Q 603	15,0	13,0	12,2
Q 103	12,5	3,6	3,0	Q 305	12,0	1,6	1,0	Q 604	12,0	0,67	0,05
Q 104	7,6	1,3	0,65	Q 306	24,0	12,0	11,5	Q 605	15,0	14,0	14,0
Q 105	27,5	7,6	7,0	Q 307	24,0	0,40	0,0	Q 606	12,0	14,0	14,0
Q 106	11,5	2,15	1,5	Q 501	24,5	6,5	6,2	Q 801	29,0	0,55	0
Q 107	12,5	1,20	0,55	Q 502	24,5	6,5	6,2	Q 802	44,0	28,6	28
Q 108	23,0	12,5	12,0	Q 503	26,5	12,2	11,6	Q 803	44,0	28,0	27,5
Q 109	14,5	1,8	1,2	Q 504	26,5	11,6	11,5	Q 901	32,0	0,15	0
Q 301	5,0	0,56	0,0	Q 505	0	11,2	11,1				
Q 302	11,5	5,0	4,4	Q 601	0,67	12,0	12,7				



ARE SHOWN IN UNOPERATED POSITION



MAX. VOLUME	MAX. INPUT LEVEL
1	SENSITIVITY AT 400 Hz
2	(3) 1000 Hz
3	100 μV
4	5 mV
5	M: 15 mV C: 10 mV
6	1 mV
7	10 mV
8	110 mV
9	1.5 V
10	13 V
11	1.7 mV
12	750 mV
13	35 mV
14	30 mV
15	450 mV
	6.3 V (UNLOADED)

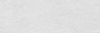
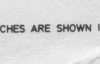
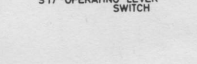
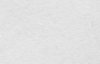
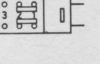
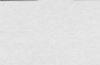
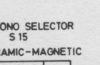
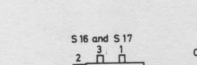
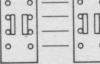
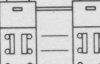
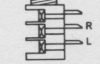
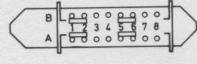
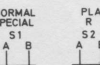
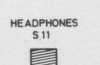
RECORD	85.5 kHz
14	5.5 V
15	9.0 V

NOTES:

- MIC-L = TOP PLATE MARKING
- PHONO = REAR PANEL MARKING
- FREQ. ADJ. = PRESET CONTROL
- L = TEST POINT
- REC. ONLY
- o 20 = CONNECTION TERMINAL
- L = UPPER TRACK, LEFT CHANNEL
- R = LOWER TRACK, RIGHT CHANNEL

RESISTORS 1/3 W, UNLESS OTHERWISE SPECIFIED.  
 RESISTORS INDICATED IN OHMS, UNLESS OTHERWISE SPECIFIED  
 k = 1000 OHM, M = 1000000 OHM  
 ALL DC VOLTAGES MEASURED WITHOUT SIGNAL.

SPEED SELECTOR  
 1 1/2 - 3 1/2 - 7 1/2  
 S12 and S13



SWITCHES ARE SHOWN IN UNOPERATED POSITION