

MODIFICATIONS INTRODUCED ON TANDBERG TAPE RECORDER MODEL 12

Above serial No. 2209550

The following changes have been introduced in the switching system of the tape recorder.

The equalizing amplifiers are working as described in the service manual for RECORD and PLAYBACK positions.

In AMPLIFIER mode the signal now passes directly from the output of the record pre-amplifier to the input of the power output amplifier omitting the equalizing amplifier. The signal passes the contacts F11c, E1b-c, the volume control R1 to the power output amplifier. The signal course described above are applied for channel 1 as the two channels are identical. The sensitivity of the power output amplifiers are increased 6 dB to compensate for the decrease in gain due to the omission of the equalizing amplifiers.

Note: All voltages marked on the schematic on channel 1, are referred to DC-levels without AC-signals applied to the tape recorder. The DC-levels will be identical for channel 2.

The AC-signals are given in a tabular form, ref. fig. 1.

The references to the measuring points are referred to channel 2 only, and will be identical for channel 1.

Tandberg
RADIO

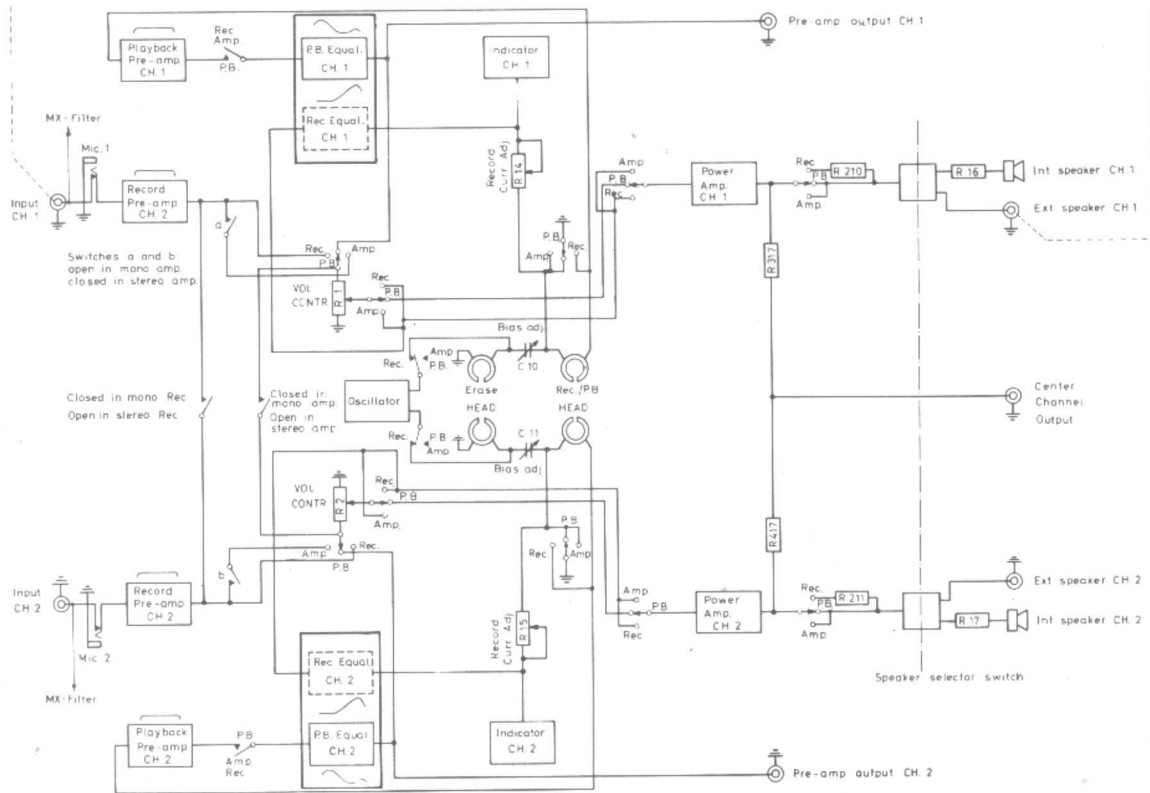
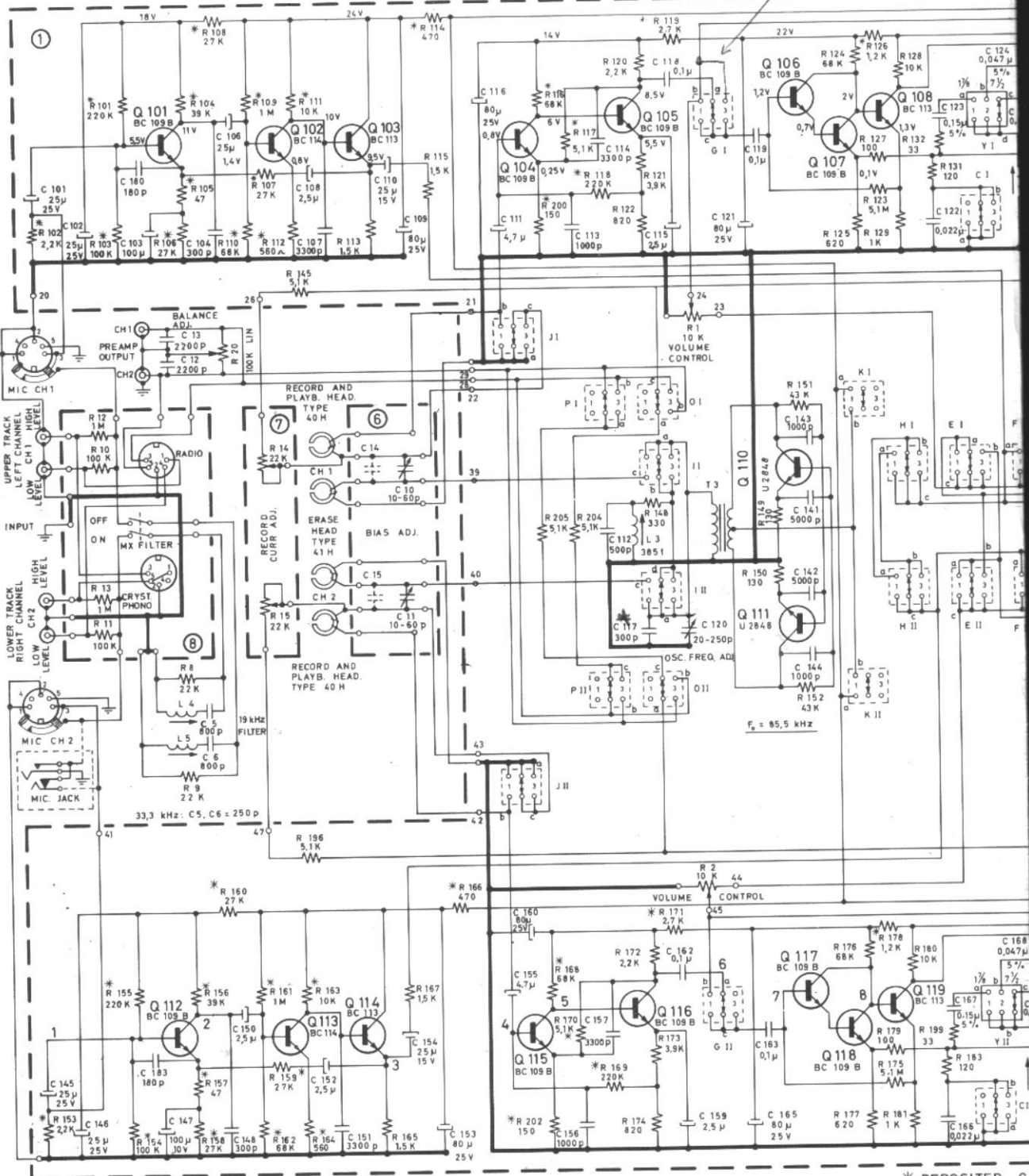


Fig. 2. Block diagram models 12-4 and 12-2.

The following components have been changed or removed from serial No. 2209550.

PART	ORIGINAL PART	NEW PART	NOTES
R 18-12C		10 ohm 1/2 W 10 %	
R130-12C	4,7 Kohm 1/2 W 10 %		Removed
R141-12C	220 Kohm 1/2 W 10 %		Removed
R142-12C	10 Kohm 1/2 W 10 %		Removed
R146-12C	1,5 Kohm 1/2 W 10 %	4,7 Kohm 1/2 W 10 %	
R182-12C	4,7 Kohm 1/2 W 10 %		Removed
R192-12C	220 Kohm 1/2 W 10 %		Removed
R193-12C	10 Kohm 1/2 W 10 %		Removed
R197-12C	1,5 Kohm 1/2 W 10 %	4,7 Kohm 1/2 W 10 %	
R201-12C	68 Kohm 1/2 W 10 %		Removed
R203-12C	68 Kohm 1/2 W 10 %		Removed
R208-12C	100 Kohm 1/2 W 10 %	22 Kohm 1/2 W 10 %	
R207-12C	100 Kohm 1/2 W 10 %	22 Kohm 1/2 W 10 %	
R208-12C	10 Kohm 1/2 W 10 %		Removed
R209-12C	10 Kohm 1/2 W 10 %		Removed
R210-12C	82 ohm 1/2 W 10 %	390 ohm 1/2 W 10 %	
R211-12C	82 ohm 1/2 W 10 %	390 ohm 1/2 W 10 %	
R301-12C	10 Kohm 1/2 W 10 %	3,3 Kohm 1/2 W 10 %	
R302-12C	82 ohm 1/2 W 10 %	47 ohm 1/2 W 10 %	
R304-12C	10 Kohm 1/2 W 10 %	12 Kohm 1/2 W 10 %	
R320-12C	100 ohm 1/2 W 10 %	1 Kohm 1/2 W 10 %	
R401-12C	10 Kohm 1/2 W 10 %	3,3 Kohm 1/2 W 10 %	
R402-12C	82 ohm 1/2 W 10 %	47 ohm 1/2 W 10 %	
R404-12C	10 Kohm 1/2 W 10 %	12 Kohm 1/2 W 10 %	
R420-12C	100 ohm 1/2 W 10 %	1 Kohm 1/2 W 10 %	
C129-12C	2,5 μF, 64V-10/100 %, Electrolytic		Removed
C130-12C	2,5 μF, 64V-10/100 %, Electrolytic		Removed
C173-12C	2,5 μF, 64V-10/100 %, Electrolytic		Removed
C174-12C	2,5 μF, 64V-10/100 %, Electrolytic		Removed
C181-12C	40 μF, 2,5V, Electrolytic		Removed
C182-12C	25 μF, 15/18V, Electrolytic		Removed
C184-12C	40 μF, 2,5V, Electrolytic		Removed
C185-12C	25 μF, 15/18V, Electrolytic		Removed



* DEPOSITED CA

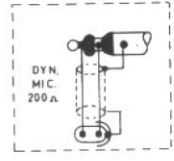
SENSITIVITY 400 Hz

	RECORD	PLAYBACK	AMPLIFIER
1	0,15 mV		0,15 mV
2	4 "		4 "
3	65 "		65 "
4		0,35 mV	
5		1,2 "	
6		1,2 "	
7	50 "	1,2 "	
8	270 "	60 "	
9	2,5 V	360 "	
10	2,5 "	360 "	
11	50 mV	50 "	50 "
12	47 "	47 "	47 "
13	6,3 V	6,3 V	6,3 V

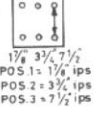
MODEL 12-2 (TWO TRACK)

SPECIFICATIONS AS MODEL 12-4 (FOURTRACKS) EXCEPT FOR THE FOLLOWING:
 R148, R149, R150 = 100 ohm
 C117 = 1000p
 C120 = 150-750p TRIMMER
 C14 = 12 p
 1EA. TWO-TRACK ERASE HEAD MODEL 43H
 1EA. TWO TRACK RECORD/PLAYBACK HEAD MODEL 39H
 OSCILLATOR TRANSFORMER T.1.

ALTERNATIVE MIC. PLUG



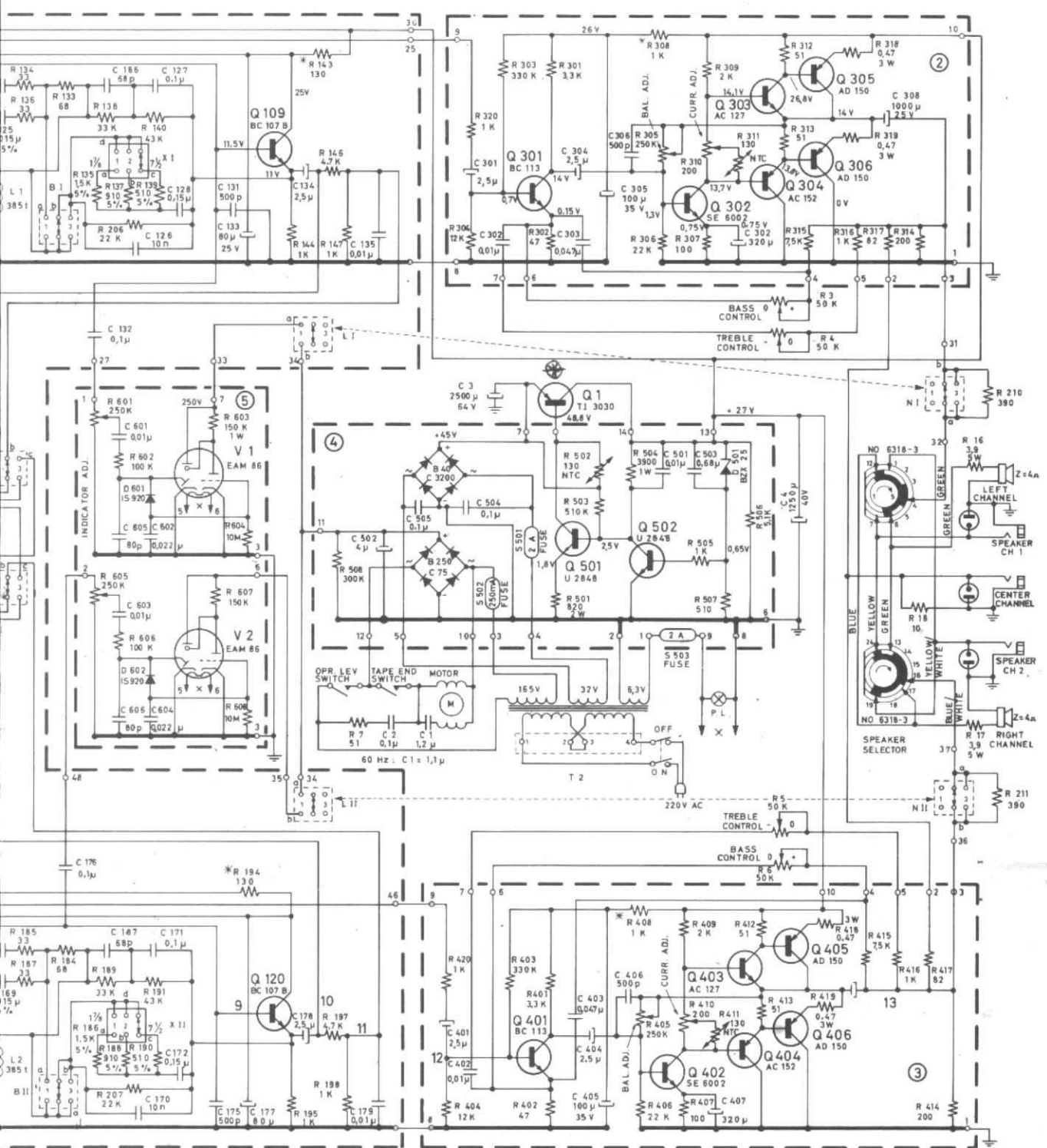
EQUAL SWITCH



MODE SWITCH



POS 1 = RECORD
 " 2 = PLAYBACK
 " 3 = AMPLIFIER

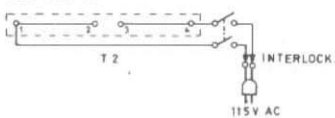


RBON RESISTORS

CIRCUIT BOARDS

- ① AMPLIFIER BOARD NO. 11061
- ② POWER OUTPUT AMPLIFIER BOARD CH 1 NO. 11036
- ③ POWER OUTPUT AMPLIFIER BOARD CH 2 NO. 11036
- ④ RECTIFIER BOARD NO. 11119 B
- ⑤ INDICATOR BOARD NO. 11119 A
- ⑥ ERASE HEAD BOARD NO. 11043 A
- ⑦ INPUT BOARD NO. 11043 B
- ⑧ RECORD/PLAYBACK BOARD NO. 11043 C

TRANSFORMER CONNECTIONS
FOR 115 V AC



CHASS. GND

Tandbergs Radiotabrik A/S
TAPE RECORDER MODEL 12
DRAWING NO. 11181
JULY 1967
ABOVE SER. NO. 2209550

Fig. 1.

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