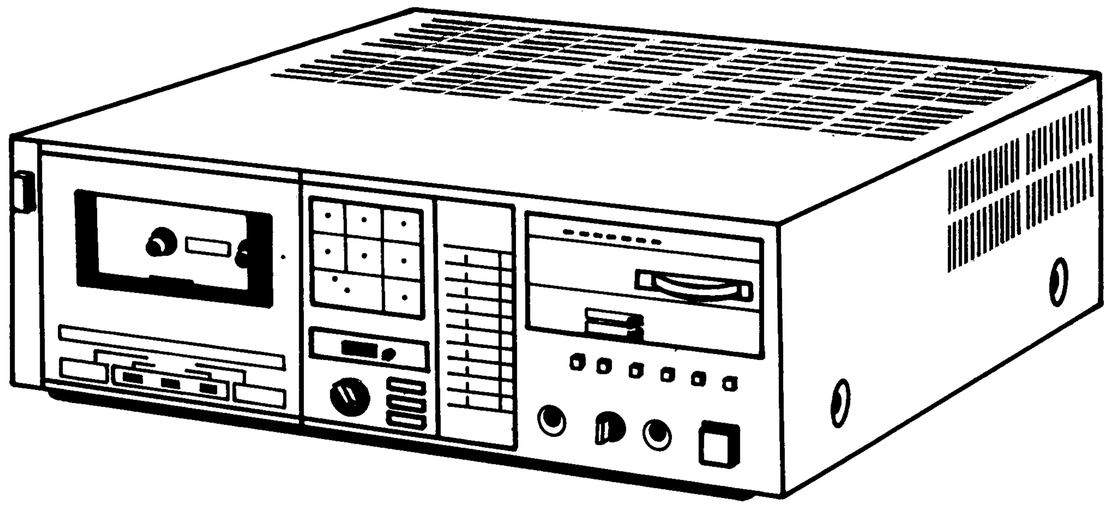
SIEMENS

HiFi-Casseiver RS 722



– Kundendienstschrift –

– Service Manual –

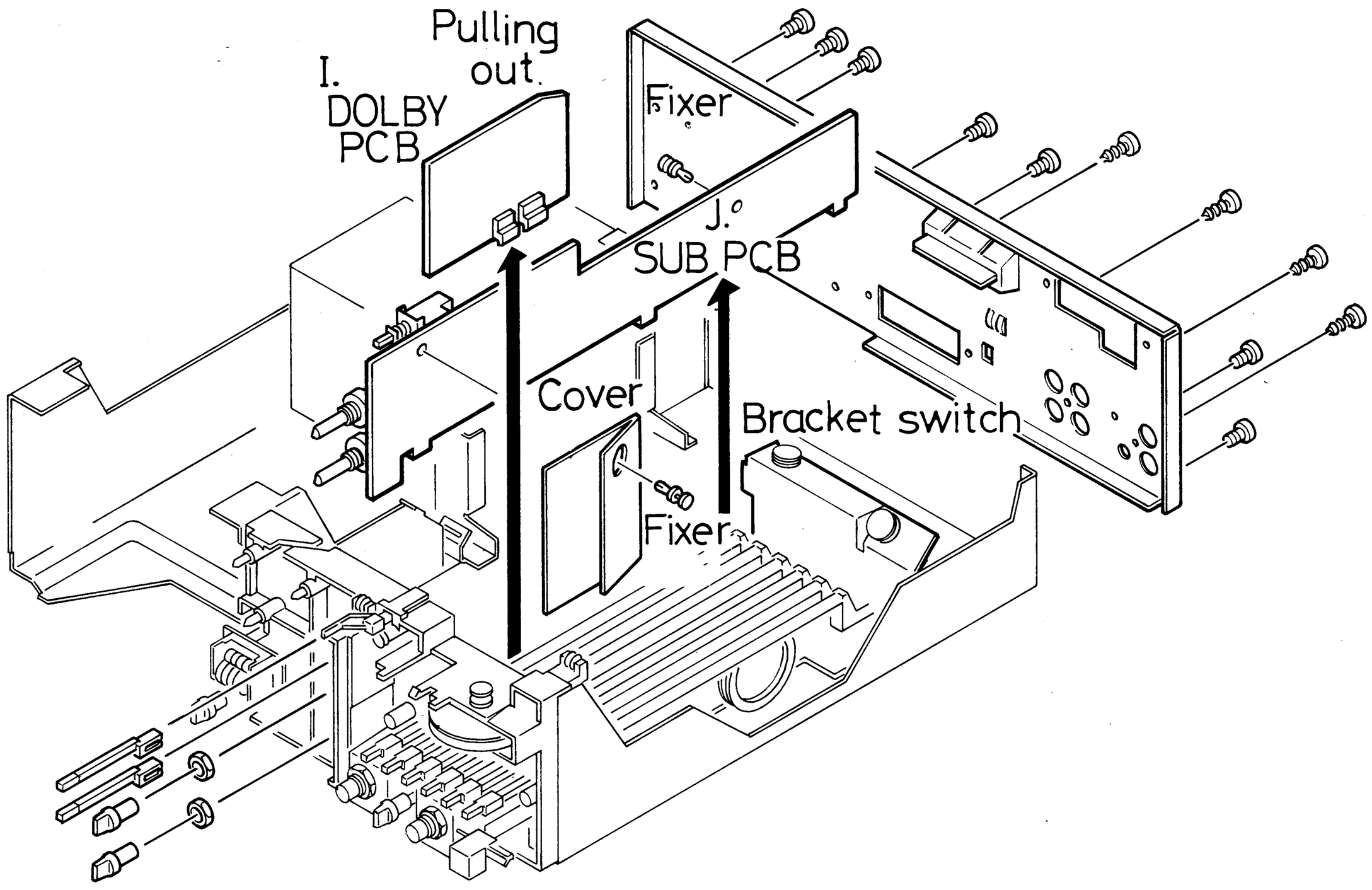
Inhaltsverzeichnis / Table of Contents Seite / Page

Einbau, Ausbau / Assembly, disassembly	1,2
Steckerplan / Connection diagram	3
Seilzugplan / Dial cord stringing	3
Abgleichtabelle für Radio / Alignment of radio	3
Tunerschaltplan / Tuner diagram	4
Abgleichplan für Radio und Recorder / Alignment diagram of radio and recorder	5
Abgleichtabelle für Recorder / Alignment table of recorder	5
Recorder- und Dolbyschaltplan / Recorder and dolby diagram	6
Recorderlogikschaltplan / Recorderlogic diagram	7
Klangregel- und LED-Meterschaltplan / Tone control and LED-meter diagram	8
Netzteil- und Verstärkerschaltplan / Power supply and power amplifier diagram	9
Netzteilplatine, Chinchbuchsenplatine, Antennenanschlußplatine, Tuner-Recorderplatine, Dolby-NR-Platine, Revers-Optk.-Platine, Kopfanschlußplatine / Power supply p.c.b., chinch socket p.c.b., antenna-socket p.c.b., main amp. p.c.b., dolby-NR-p.c.b., reverse sensor p.c.b., heads p.c.b.	10
Recorder-Logik-Platine, Schalterplatine, Magnetschieberanschlußplatine, Recorder-LED-Platine / Mechanism control p.c.b., switch p.c.b., mechanism relay p.c.b., mechanism-LED-p.c.b.	11
Klangregelplatine, LED-Meterplatine, Lautstärkepotiplatine / Sub amp. p.c.b., LED-meter p.c.b., volume control p.c.b.	12

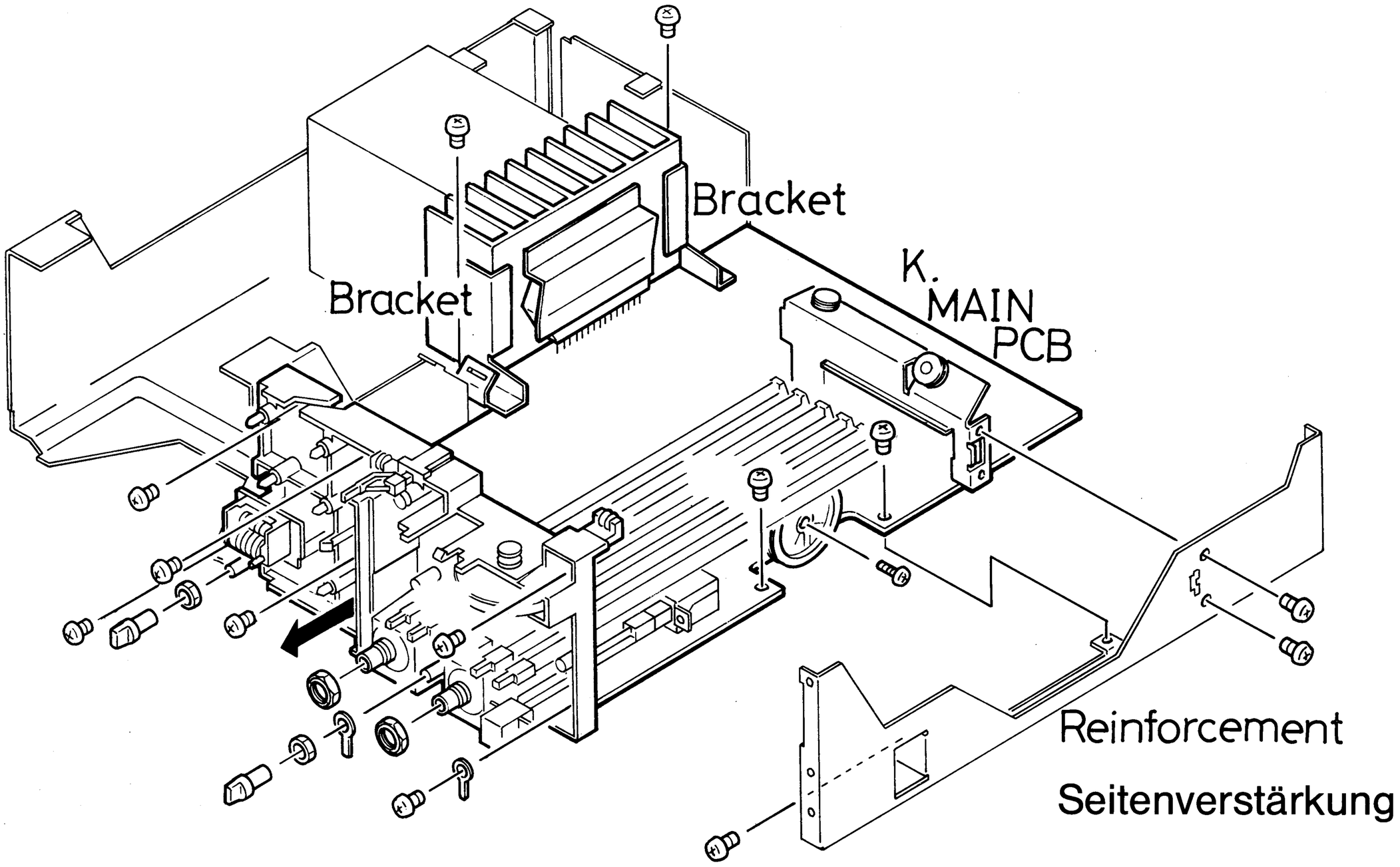
Ausgabe 332

Ident-Nr. 535079

Dolby-NR-Platine, Klangregelplatine, Rückwand /
Dolby-NR-p.c.b., sub amp. p.c.b., back panel

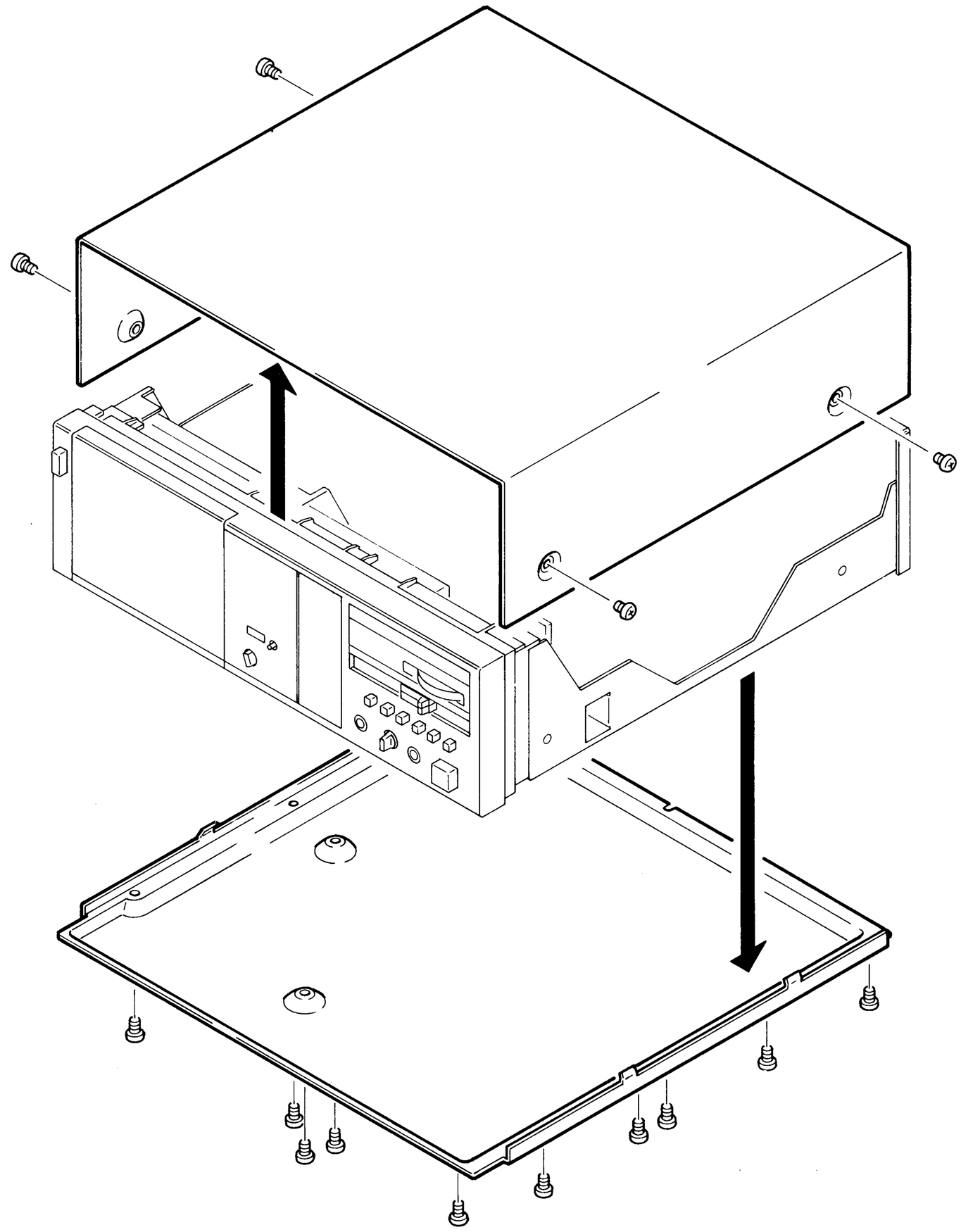


Tuner-Recorderplatine /
Main amp. p.c.b.

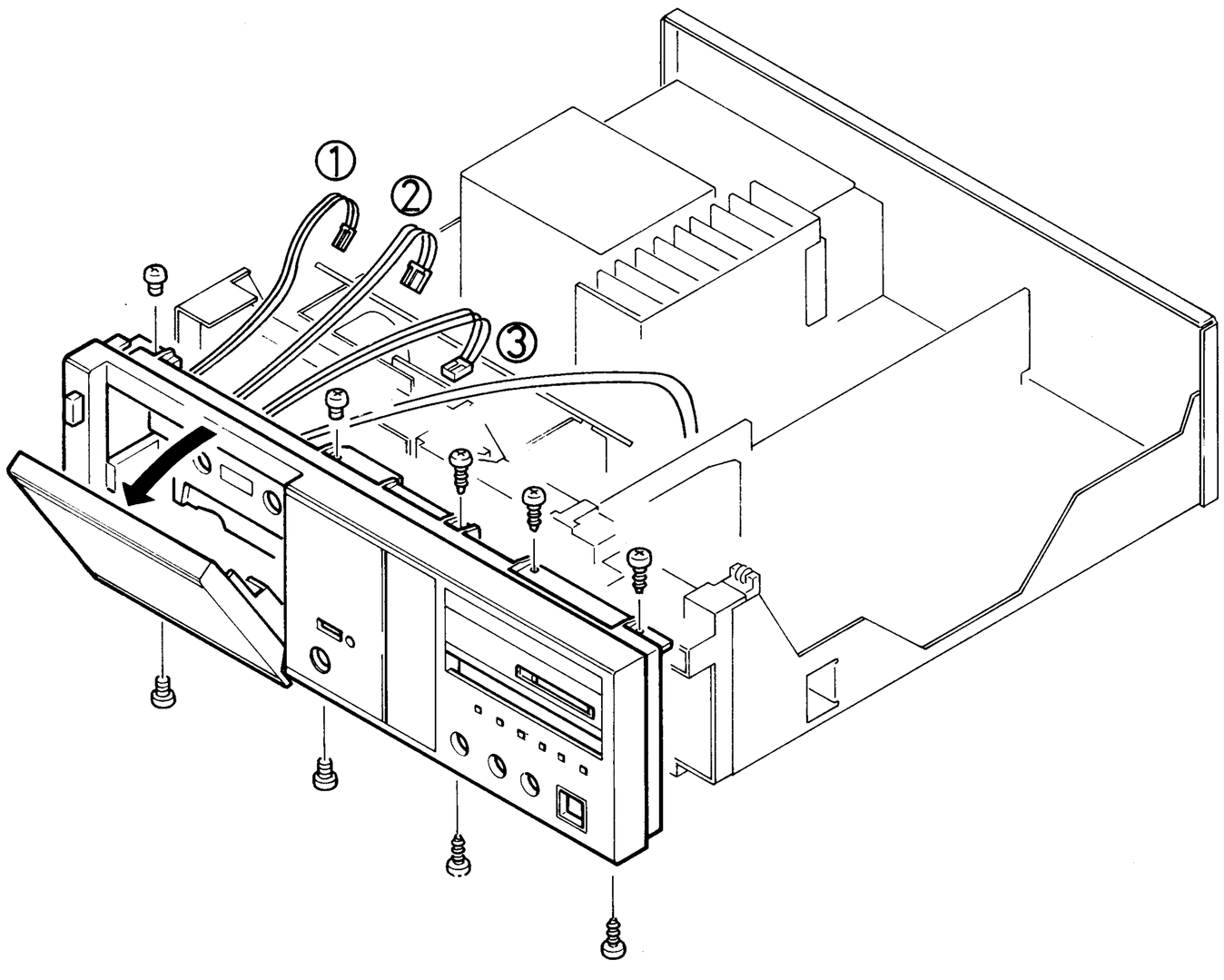


Einbau und Ausbau /
Assembly Disassembly

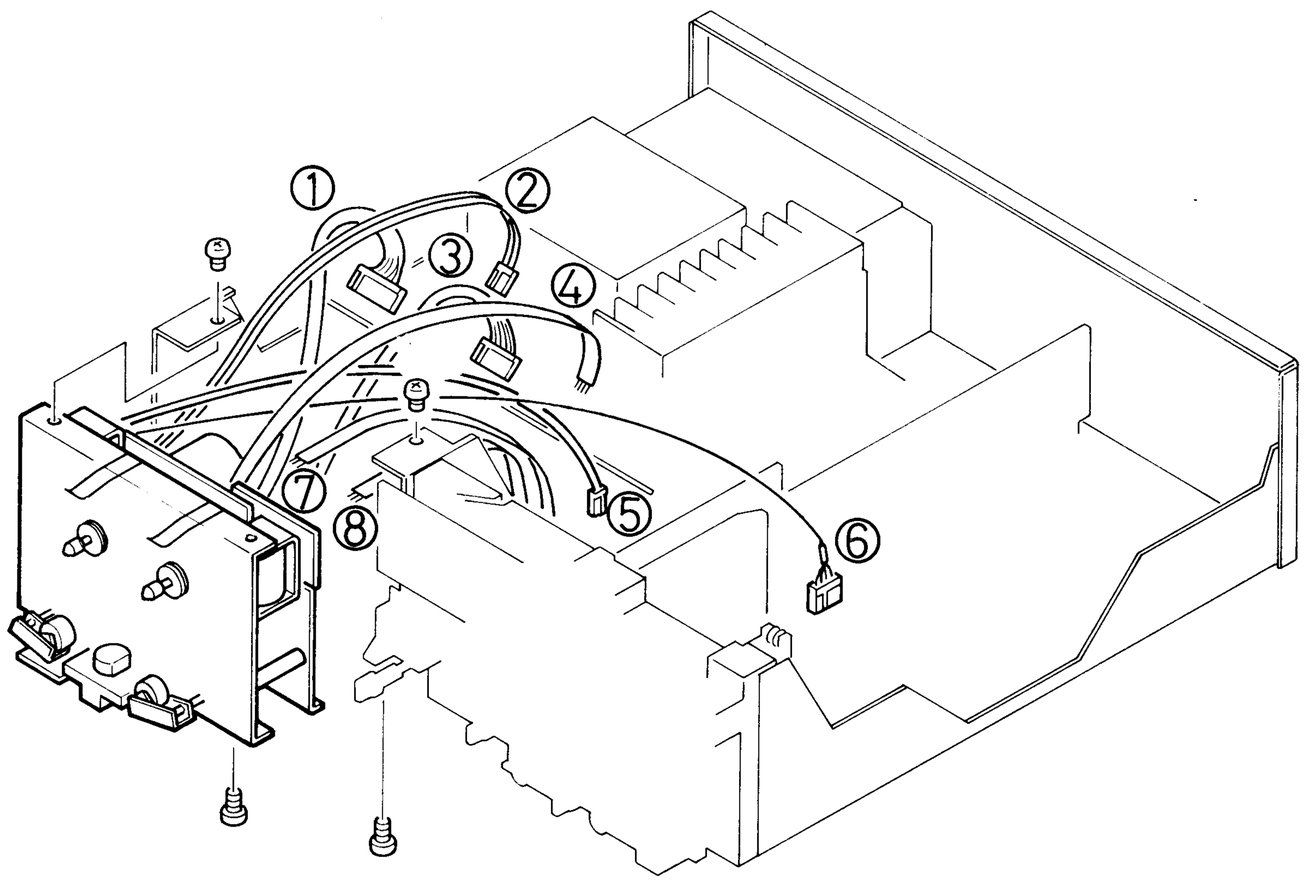
Gehäuseoberteil und Bodenblech /
Cabinet and bottom lid



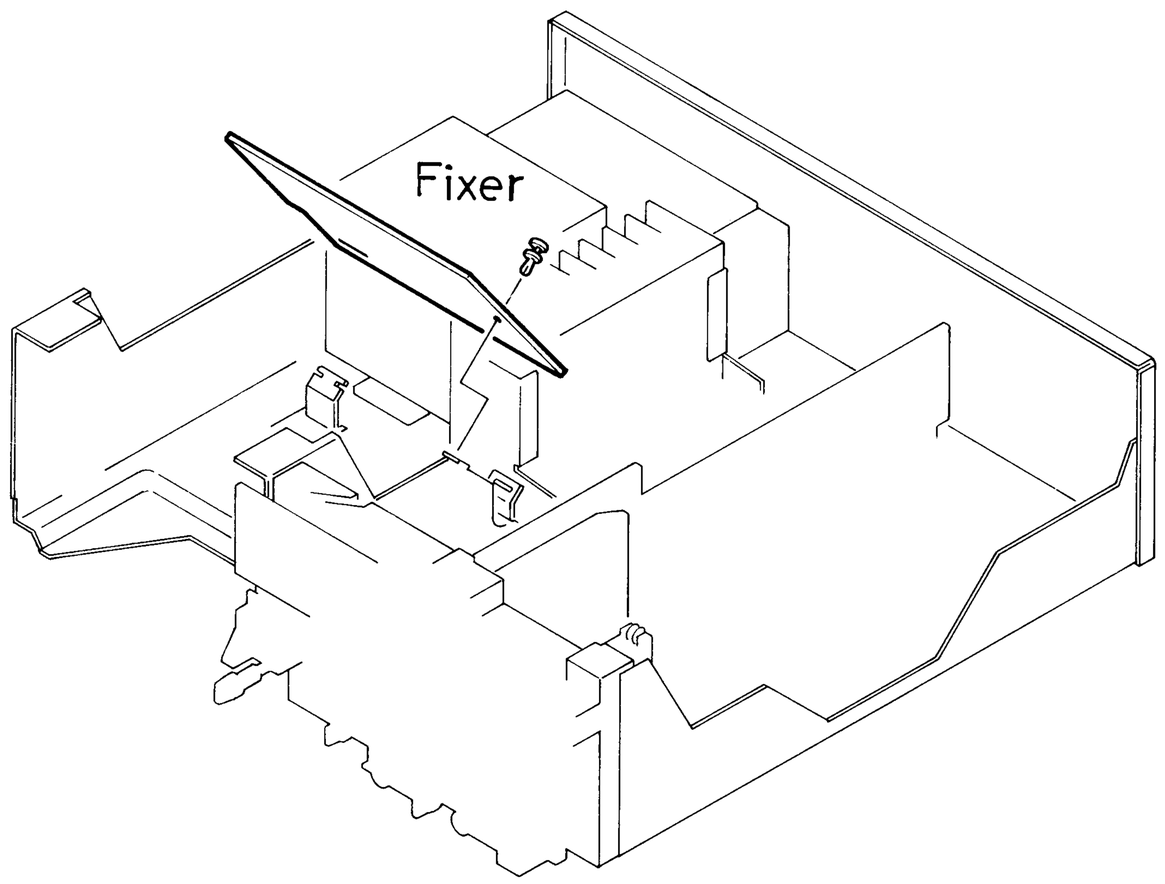
Frontplatte / Front panel



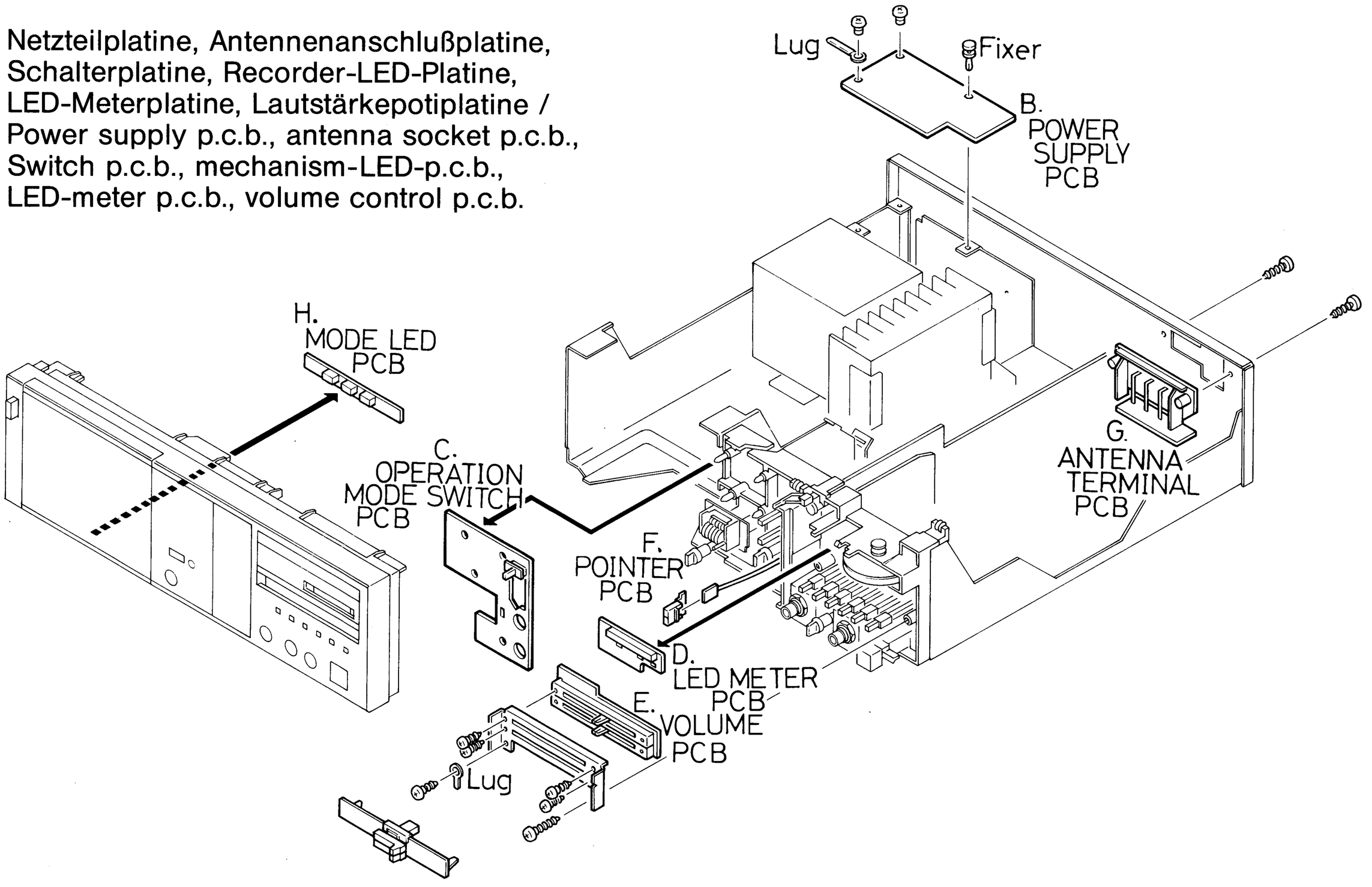
Recordermechanik / Recorder mechanism

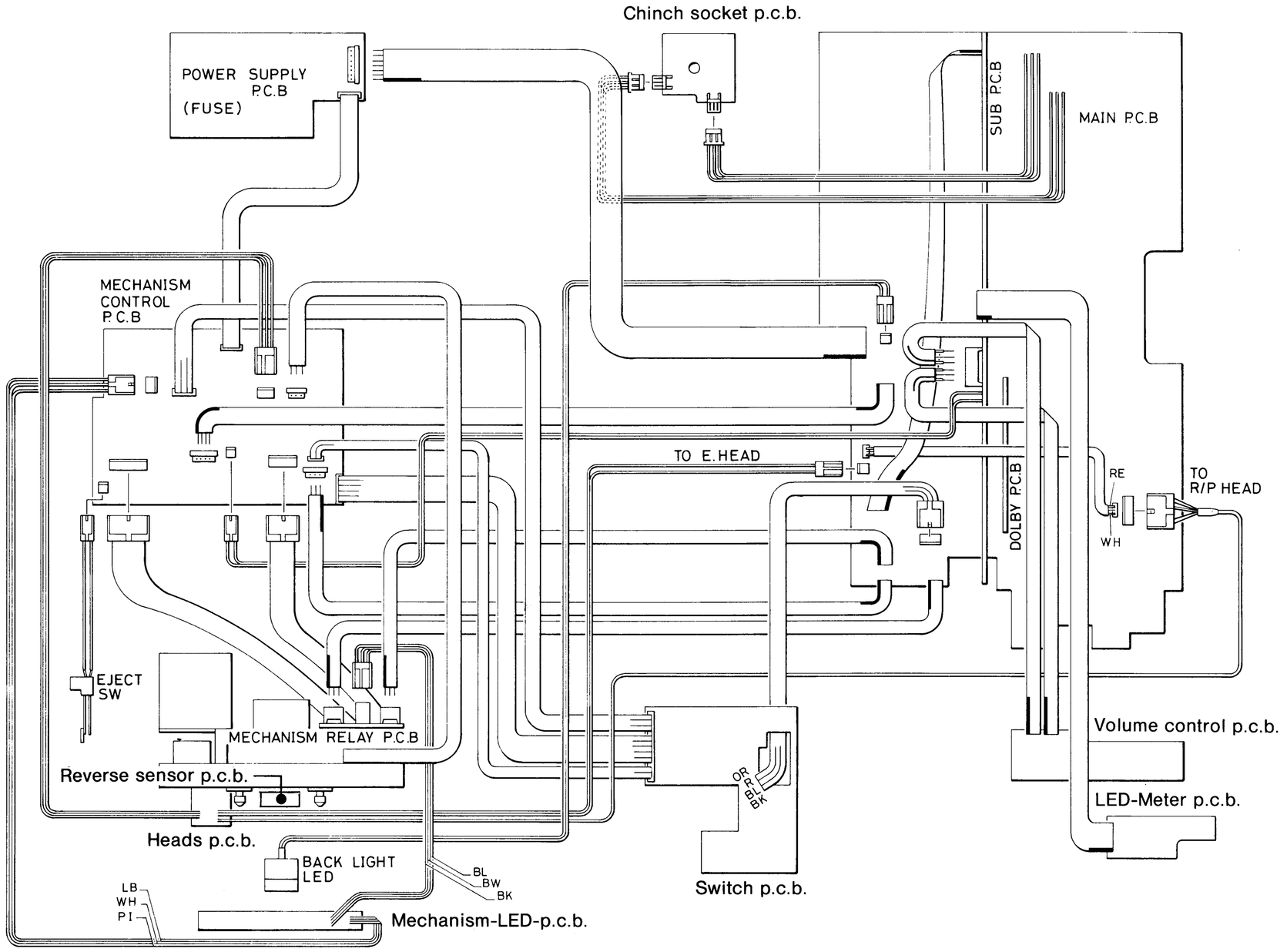


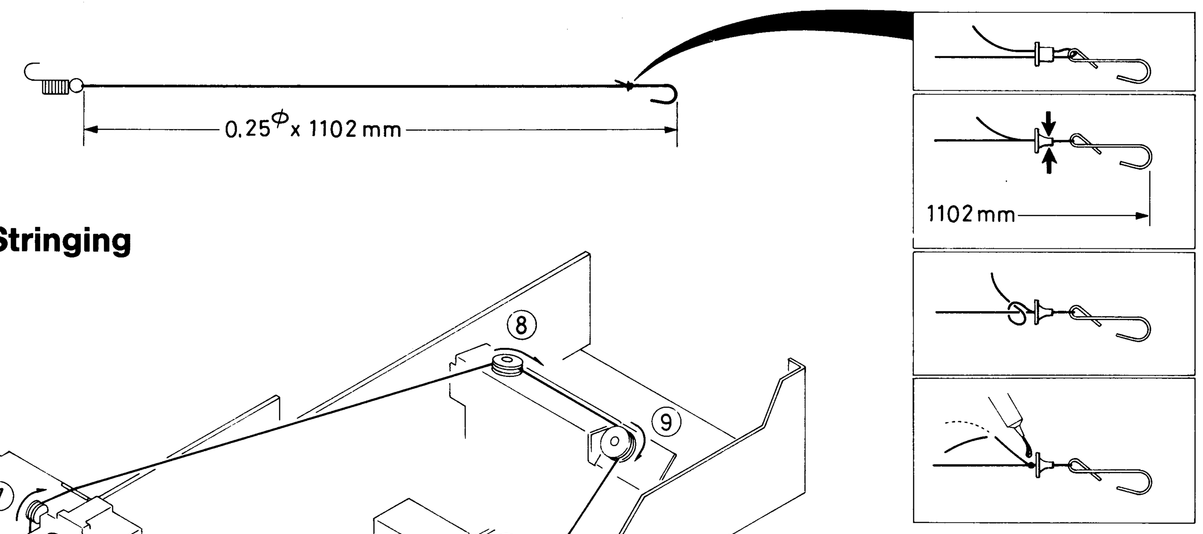
Recorderlogikplatine / Recorder-logic-p.c.b.



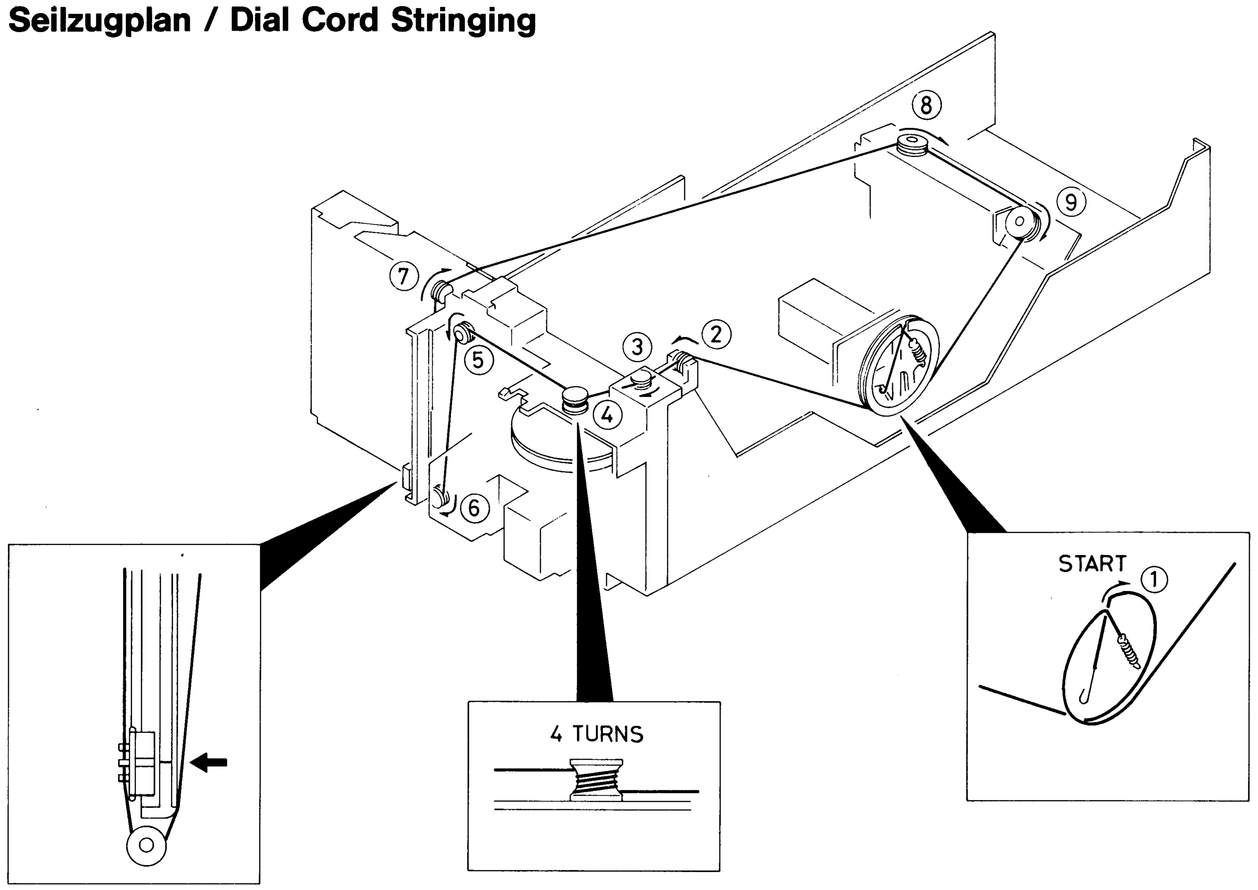
Netzteilplatine, Antennenanschlußplatine, Schalterplatine, Recorder-LED-Platine, LED-Meterplatine, Lautstärkepotiplatine / Power supply p.c.b., antenna socket p.c.b., Switch p.c.b., mechanism-LED-p.c.b., LED-meter p.c.b., volume control p.c.b.





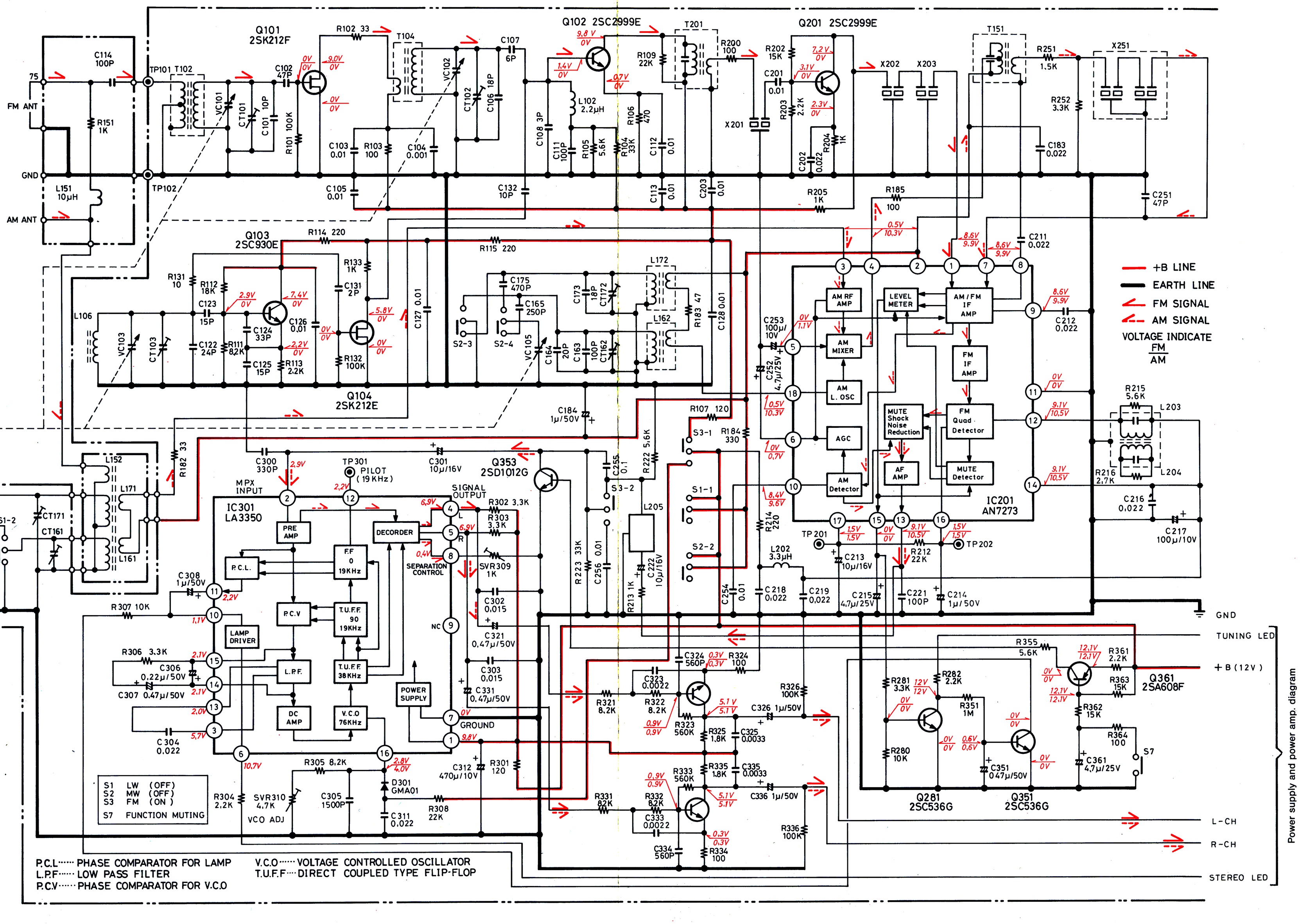


Seilzugplan / Dial Cord Stringing

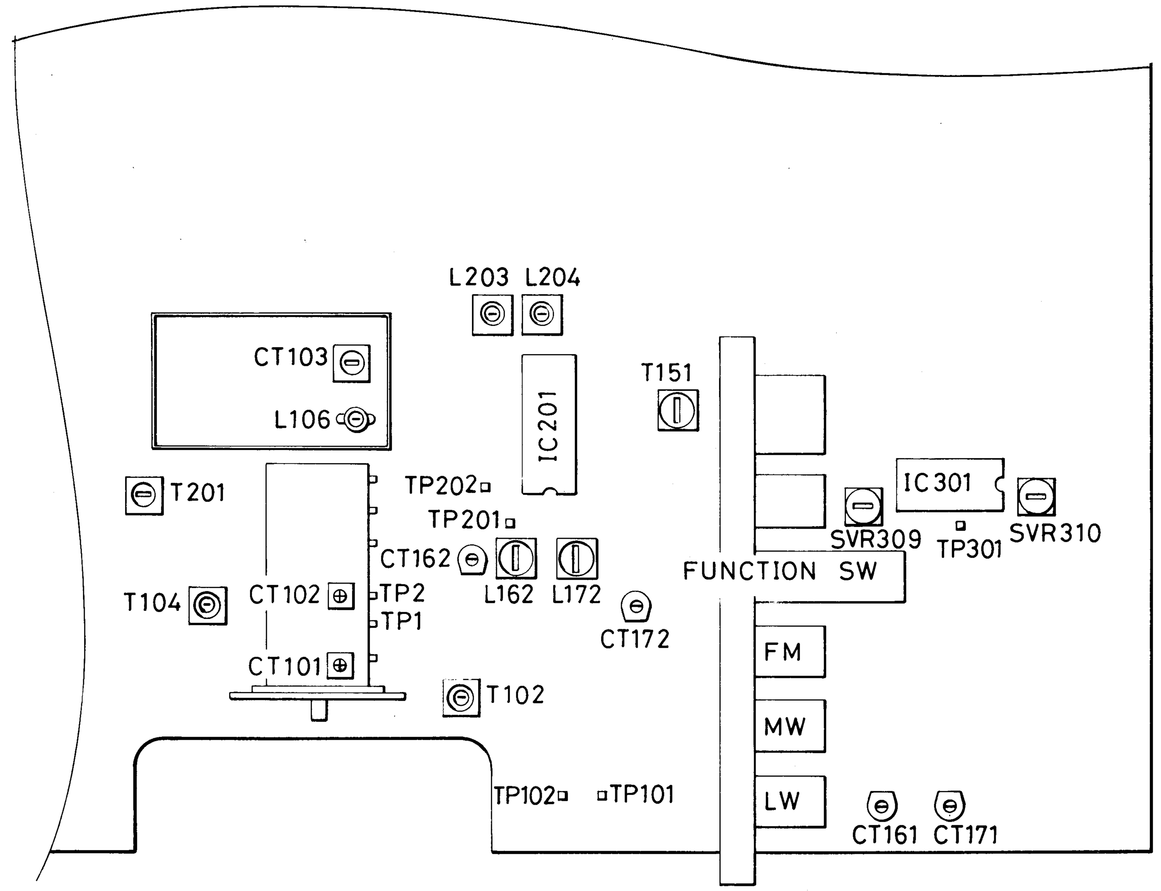


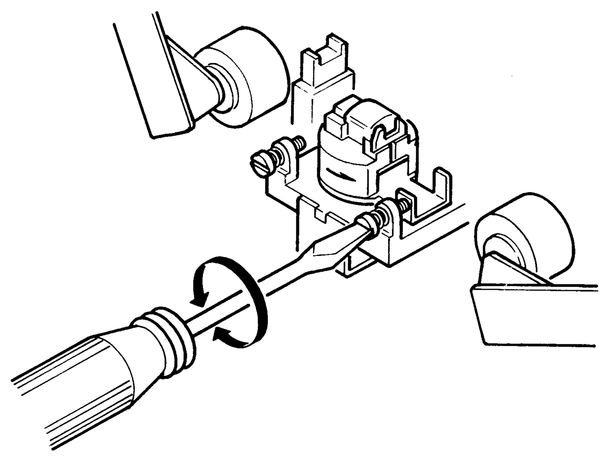
Alignment Radio

Step	Function	Preparation	Signal Input	Adjusting Element	Indicated Value
1.	FM-Intermediate frequency	Connect sweep generator to TP101 and TP102. Connect oscilloscope to C222, L205 and ground. Turn out core of L203. Set pointer to right stop.	Sweep width: ex. 9.6 ...12.4MHz	T201	Maximum; symetrical curve; 10.7 ± 0,2MHz
2.	Discriminator			L203;L204	Symmetrical S-curve with zeroaxis at maximum ZF-gain.
3.	FM-Cornerfrequencies. Repeat adjustment several times.	Connect RF-generator to TP101 and TP102. Connect voltmeter to speaker socket.			
		Set pointer to left stop the lowest frequency.	87,5MHz;40kHz;400Hz	L106	Maximum
		Set pointer to right stop the highest frequency.	108MHz;40kHz;400Hz	CT 103	Maximum
4.	FM-Tracking. Repeat adjustment several times.	Set pointer to 90MHz	90MHz;40kHz;400Hz	T102;T104	Maximum
		Set pointer to 106MHz.	106MHz;40kHz;400Hz	CT101;CT102	Maximum
5.	Pilotton	Connect coder to TP101 and TP102. Connect frequency counter to TP301 and ground. Switch to stereo. Set pointer to 100MHz.	100MHz;L+R-mod.	SVR310	19kHz ± 50Hz
6.	Channel separation.		100MHz; R-mod.	SVR309	L-Minimum
			100MHz;L-mod.	SVR309	R-Minimum
			100MHz;L+R-mod.	SVR309	averaging
7.	AM-Intermediate frequency (MW)	Couple RF-generator to bar antenna (20t). Connect voltmeter to speaker socket. Set pointer to left stop.	460kHz;400Hz;30%	T 151	Maximum
8.	MW-Cornerfrequencies. Repeat adjustment several times.	Couple RF-generator to bar antenna (20t). Connect voltmeter to speaker socket. Set pointer to left stop the lowest frequency.			
		Set pointer to right stop the highest frequency.	525kHz;400Hz;30%	L172	Maximum
			1620kHz;400Hz;30%	CT172	Maximum
9.	MW-Tracking Repeat adjustment several times.	Set pointer to 600kHz.	600kHz; 400Hz;30%	L 171	Maximum
		Set pointer to 1400kHz.	1400kHz:400Hz;30%	CT171	Maximum
10	LW-Cornerfrequencies. Repeat adjustment several times.	Set pointer to left stop the lowest frequency.	150kHz;400Hz;30%	L 162	Maximum
		Set pointer to right stop the highest frequency.	360kHz;400Hz;30%	CT 162	Maximum
11.	LW-Tracking. Repeat adjustment several times.	Set pointer to 160kHz.	160kHz;400Hz;30%	L161	Maximum
		Set pointer to 340kHz.	340kHz;400Hz;30%	CT161	Maximum


Q101 2SK212F
Q102 2SC2999E
Q201 2SC2999E
Q103 2SC930E
Q104 2SK212E
Q353 2SD1012G
IC301 LA3350
IC201 AN7273
Q361 2SA608F
Q281 2SC536G
Q351 2SC536G
FM ANT
AM ANT
GND
TP101 T102
TP102
TP301 PILOT (19KHz)
TP201
TP202
X201
X202 X203
X251
L151 10µH
L152
L161
L171
L172
L202 3.3µH
L203
L204
L205
L106
L162
VC101
VC102
VC103
VC104
VC105
CT101
CT102
CT103
CT161
CT171
CT162
S1-1
S1-2
S2-1
S2-2
S2-3
S2-4
S3-1
S3-2
S7
MPX INPUT
SIGNAL OUTPUT
SEPARATION CONTROL
PRE AMP
P.C.L.
P.C.V
L.P.F.
DC AMP
LAMP DRIVER
F.F 0 19KHz
T.U.F.F 90 19KHz
T.U.F.F 38KHz
V.C.O 76KHz
DECORDER
POWER SUPPLY
AM RF AMP
AM MIXER
AM L. OSC
AGC
AM Detector
LEVEL METER
AM / FM IF AMP
FM IF AMP
FM Quad Detector
MUTE Detector
MUTE Shock Noise Reduction
AF AMP
GND
TUNING LED
+B (12V)
L-CH
R-CH
STEREO LED
+B LINE
EARTH LINE
FM SIGNAL
AM SIGNAL
VOLTAGE INDICATE FM / AM
S1 LW (OFF)
S2 MW (OFF)
S3 FM (ON)
S7 FUNCTION MUTING
P.C.L..... PHASE COMPARATOR FOR LAMP
L.P.F..... LOW PASS FILTER
P.C.V..... PHASE COMPARATOR FOR V.C.O
V.C.O..... VOLTAGE CONTROLLED OSCILLATOR
T.U.F.F..... DIRECT COUPLED TYPE FLIP-FLOP
Power supply and power amp. diagram

Abgleichplan Radio – Recorder / Alignmentdiagram Radio – Recorder

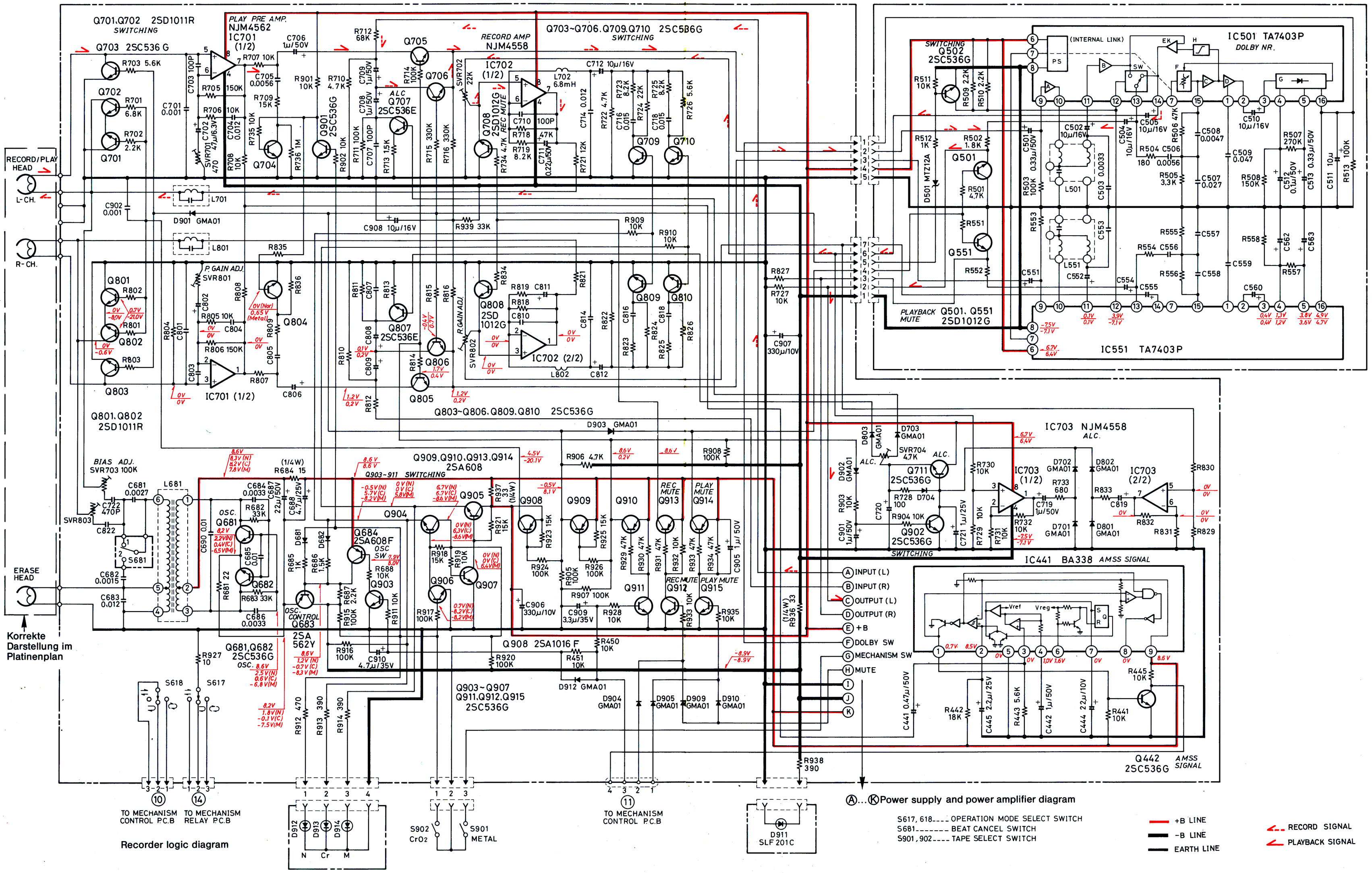




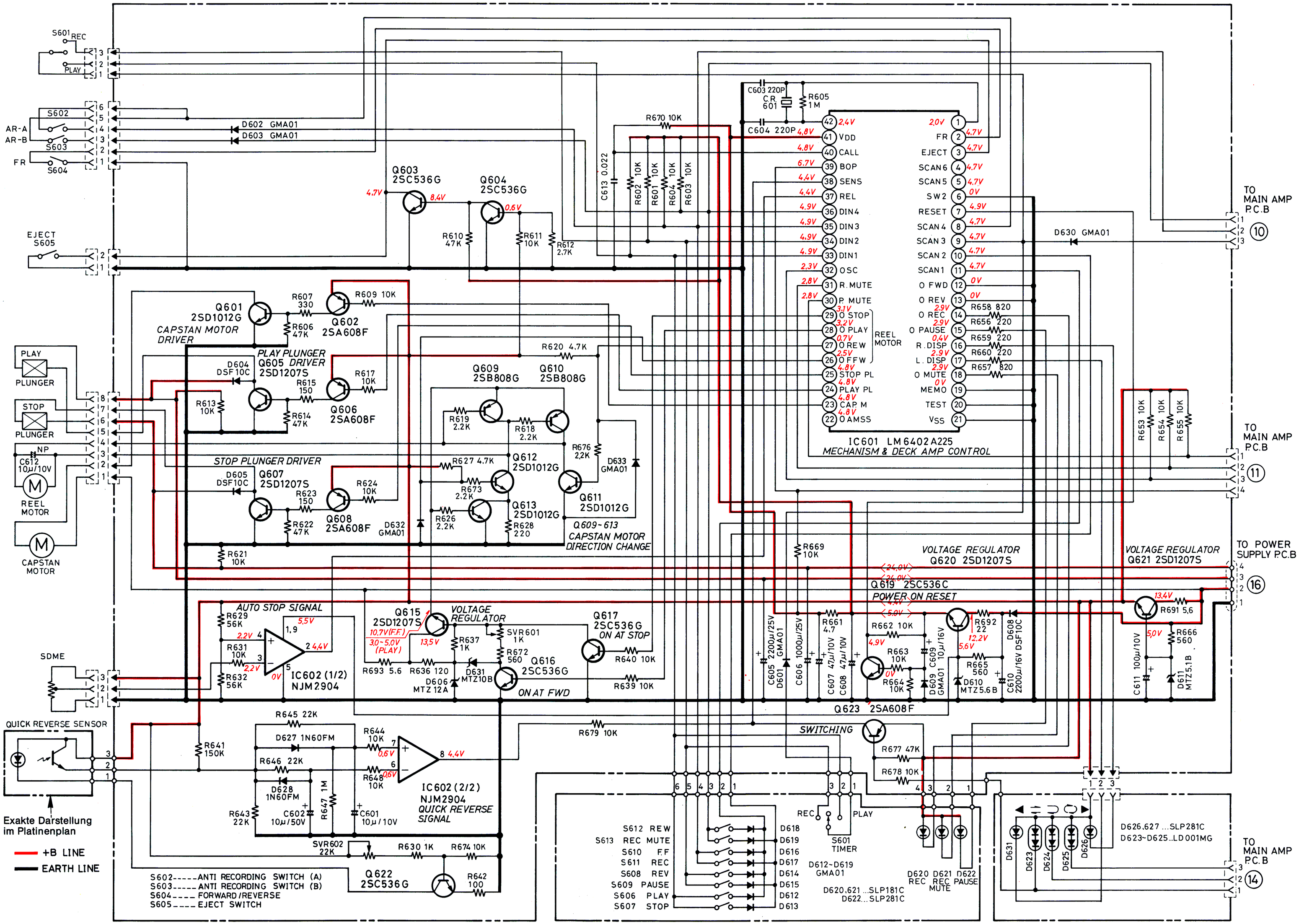
Alignment Recorder RS722

Step	Function	Preparation	Signal Input	Adjusting Element	Indicated Value
1.	Azimuth	Play back 8kHz-testtape (Ident-Nr. 75 1181). Connect voltmeter to speaker socket	-	Azimuth screw (R/P-head)	Maximum
2.	Pinchroller against capstan		-		2.45-2.94N cm (250-300gcm)
3.	Spindle torque	Insert spindle torque testcassette. (ex. Ident-Nr. 75 1177)	-		
3.1	Play back mode				0.29-0.59 N cm (30-60 g cm)
3.2	Reserve mode				0.29-0.59 N cm
3.3	Fast forward mode				1.47-1.96 N cm
3.4	Fast rewind mode				1.47-1.96 N cm
4.	Back spindle torque		-		
4.1	Play back mode				29-49 mN cm
4.2	Reserve mode				34-59 mN cm
5.	Tape speed	Play back 3kHz-testtape (ex. Ident-Nr. 75 1181). Connect frequency counter to speaker socket.	-	Pot in the motor	
5.1	Play back mode	Measured with half tape spool			3kHz $\pm$ 5Hz
5.2	Reserve mode	Measured with half tape spool			3kHz $\pm$ 20Hz
6.	Play back gain	Play back test tape MTT 150 TEAC. Connect voltmeter to LINE-Output	–	SVR 701; SVR 801	540 mV
7.	Bias; frequency response.	Insert blank tape T308S, BASF. Switch tape select to Normal. Connect AF-generator to AUX-sockets. Dolby-Nr. on.			
7.1		Record mode; alternate 1kHz and 10kHz.	1kHz/10kHz;28mV	-	-
7.2		Play back mode	-	SVR 703 SVR 803	Same 1kHz- and 10kHz levels at right and left channel; if not adjust SVR 703/ SVR 803 and repeat 7.1 and 7.2
8.	Record gain	Insert blank tape AC 512,TDK. Dolby-Nr. on. Connect AF-generator to AUX-sockets; Connect voltmeters to LINE-OUT-sockets.			
8.1		Record mode	1kHz; 28mV (AF-generator)		
8.2		Play back mode	-	SVR 702 SVR 802	52 mV

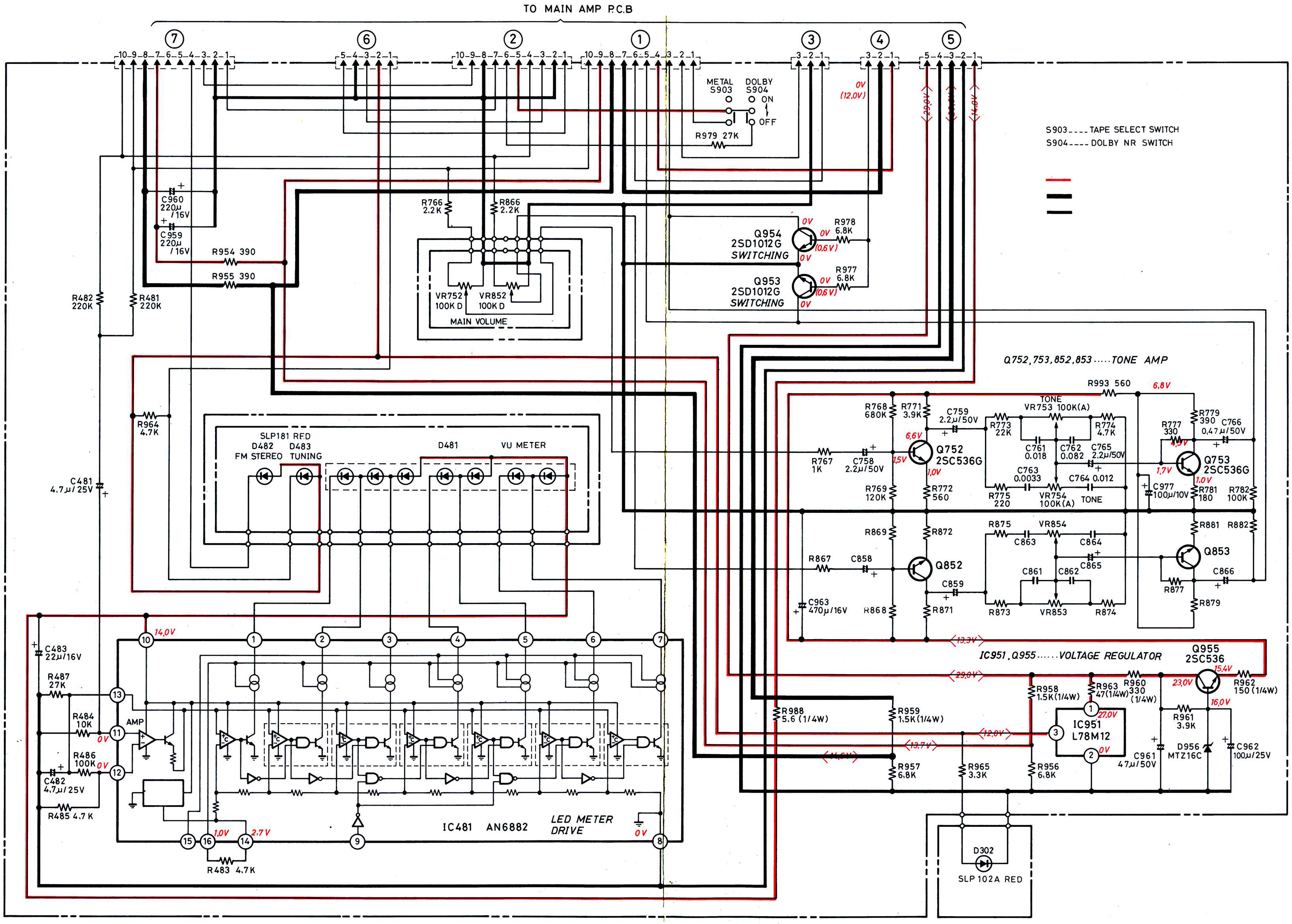
Recorder- und Dolbyschaltplan / Recorder and Dolbydiagram



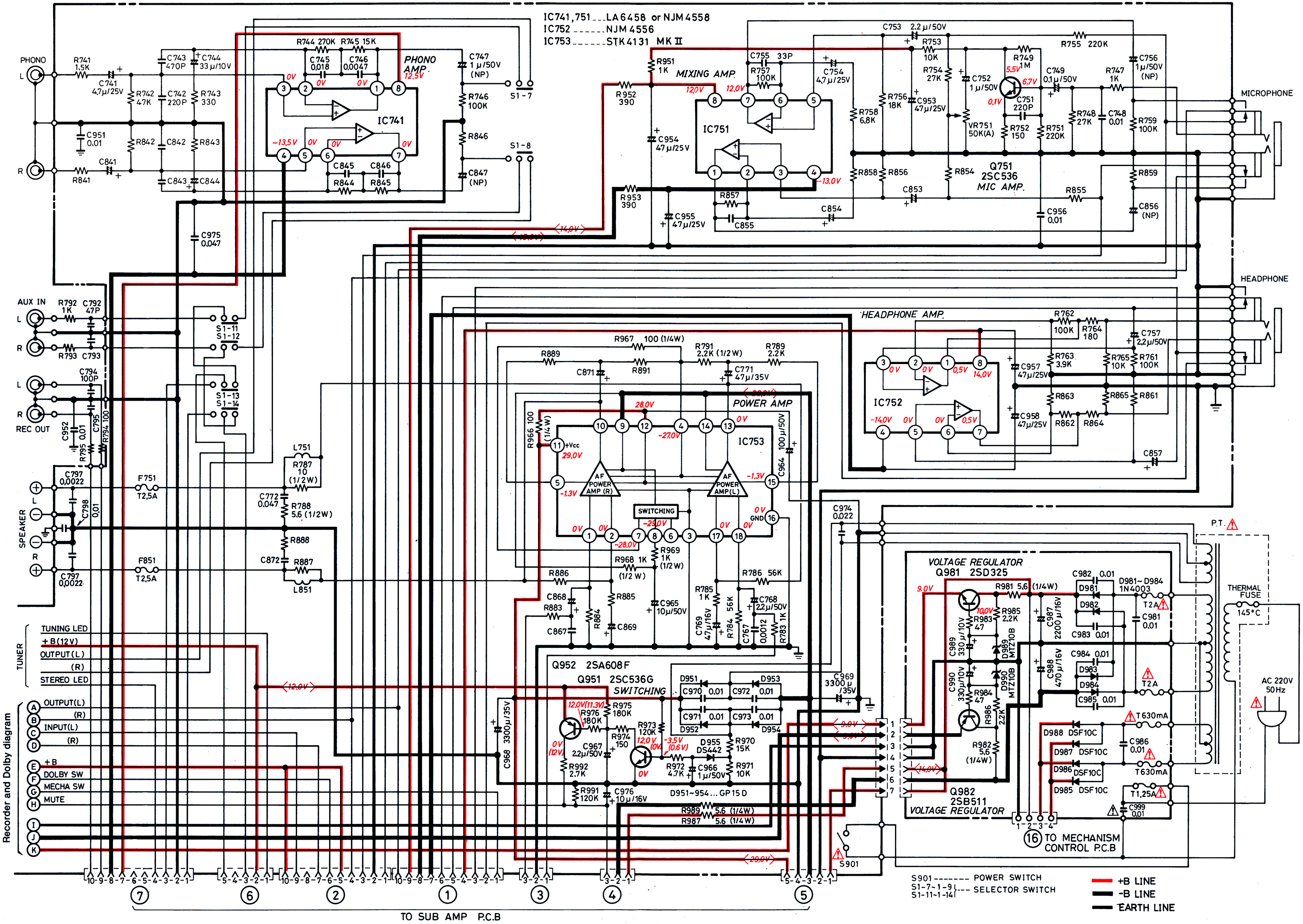
Recorderlogikschaltplan / Recorder logic diagram

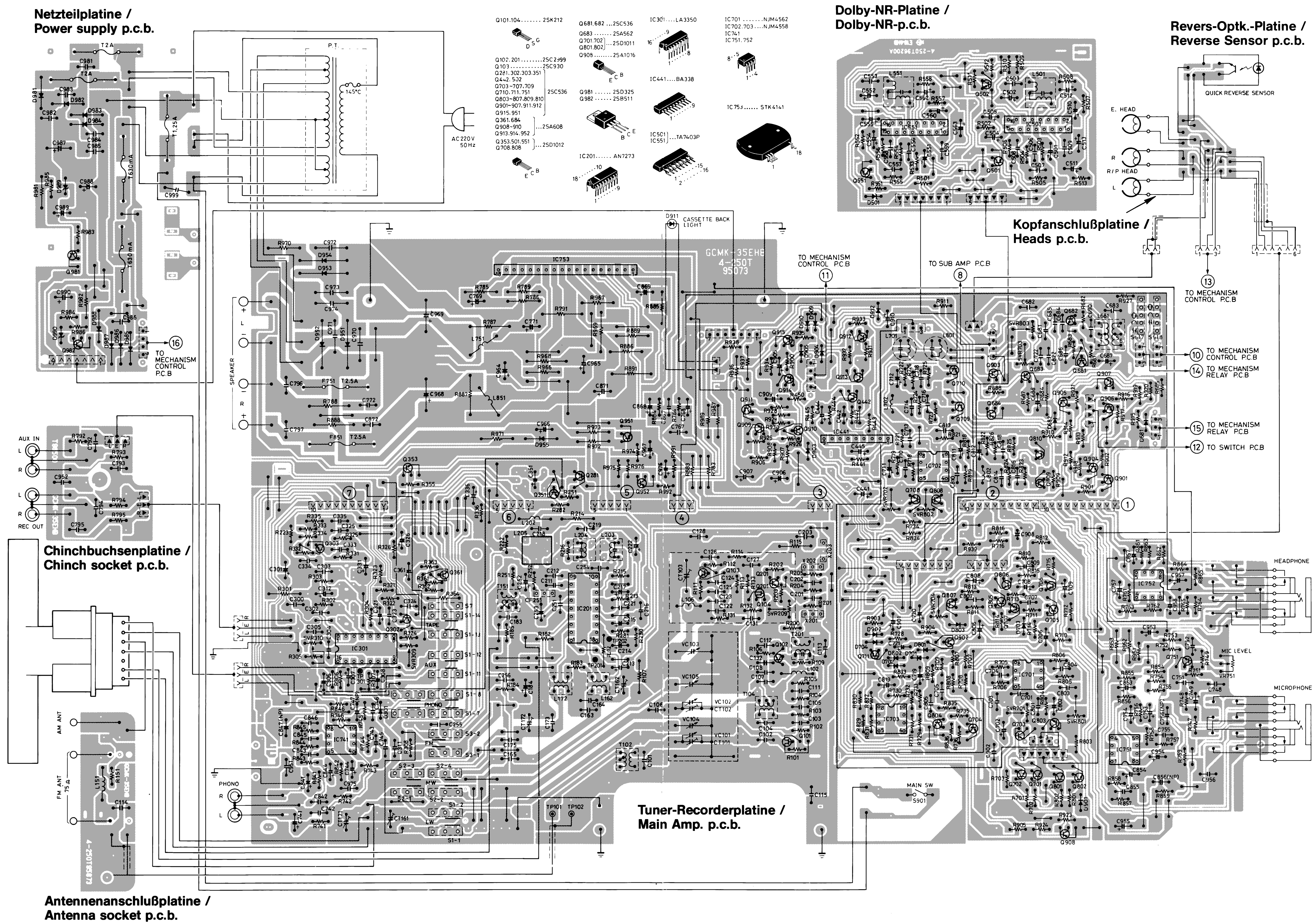


Klangregel- und LED-Meterschaltplan /
Tone control- and LED-Meterdiagram



Netzteil- und Verstärkerschaltplan /
Power supply and Power amplifier diagram




Netzteilplatine /
Power supply p.c.b.
Dolby-NR-Platine /
Dolby-NR-p.c.b.
Revers-Optk.-Platine /
Reverse Sensor p.c.b.
QUICK REVERSE SENSOR
Kopfanschlußplatine /
Heads p.c.b.
E. HEAD
R/P HEAD
Chinchbuchsenplatine /
Chinch socket p.c.b.
AUX IN
REC OUT
Antennenanschlußplatine /
Antenna socket p.c.b.
AM ANT
FM ANT 75 Ω
Tuner-Recorderplatine /
Main Amp. p.c.b.
GCMK-35EHB 4-250T 95073
AC 220 V 50 Hz
SPEAKER
PHONO
HEADPHONE
MICROPHONE
MIC LEVEL
MAIN SW
CASSETTE BACK LIGHT
TO MECHANISM CONTROL P.C.B
TO MECHANISM RELAY P.C.B
TO SUB AMP P.C.B
TO SWITCH P.C.B
Q101.104 .... 2SK212
Q681.682 ... 2SC536
Q683 .... 2SA562
Q701.702, Q801.802 ... 2SD1011
Q908 .... 2SA1016
Q102.201 .... 2SC2999
Q103 .... 2SC930
Q221.302.303.351, Q442.502, Q703~707.709, Q710.711.751, Q803~807.809.810, Q901~907.911.912, Q915.951 ... 2SC536
Q361.684, Q908~910, Q913.914.952 ... 2SA608
Q353.501.551, Q708.808 ... 2SD1012
Q981 .... 2SD325
Q982 .... 2SB511
IC301 .... LA3350
IC441 .... BA338
IC501, IC551 ... TA7403P
IC201 ...... AN7273
IC701 .... NJM4562
IC702.703 .... NJM4558
IC741
IC751.752
IC753 ...... STK4141

Recorder-Logik-Platine /
Mechanism control p.c.b.

Schalterplatine /
Switch p.c.b.

Recorder-LED-Platine /
Mechanism-LED-p.c.b.

Magnetschieberanschlußplatine /
Mechanism relay p.c.b.

TO POWER SUPPLY P.C.B (16)

To heads p.c.b. (13)

SDME

(11) TO MAIN AMP P.C.B

(9) TO SUB AMP P.C.B

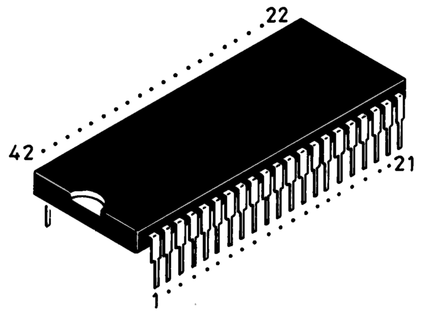
(10) TO MAIN AMP P.C.B

TO MAIN AMP P.C.B (12)

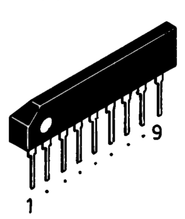
TO MAIN AMP P.C.B (15)

TO MAIN AMP P.C.B (14)

IC601 ····· LM6402A

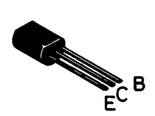


IC602 ····· NJM2904



Q605, 607, 615, 620, 621 ··· 2SD1207

Q602, 606, 608, 623 ····· 2SA608
Q609, 610 ····· 2SB808
Q601, 611, 612, 613 ····· 2SD1012
Q603, 604, 616, 617, 619, 622 ····· 2SC536

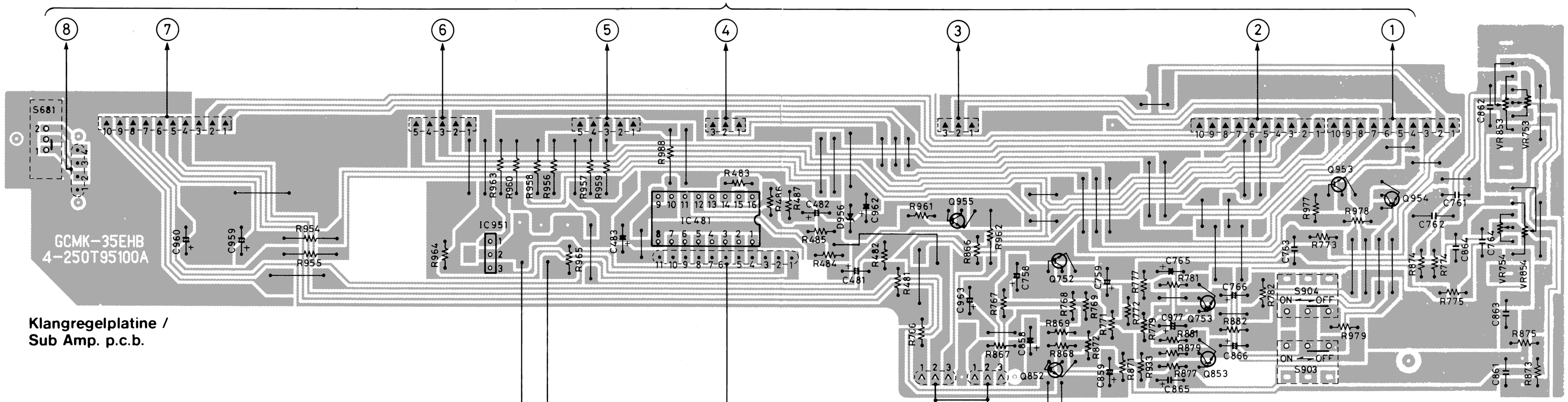




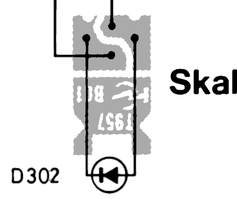
CAP. MOTOR

REEL MOTOR

TO MAIN AMP PCB

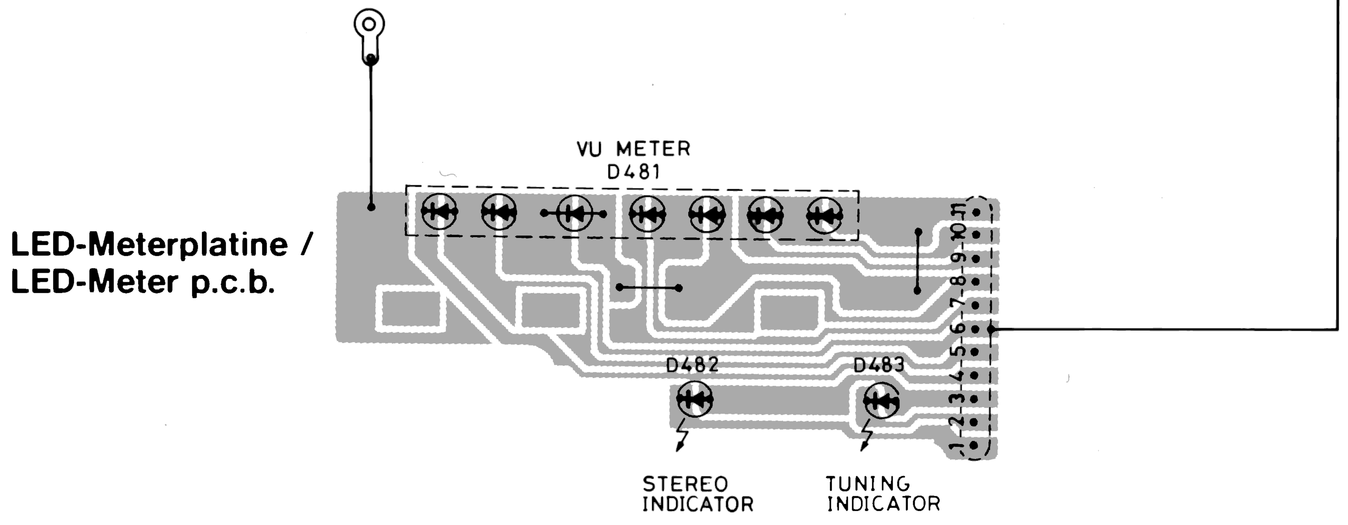


Klangregelplatine /
Sub Amp. p.c.b.

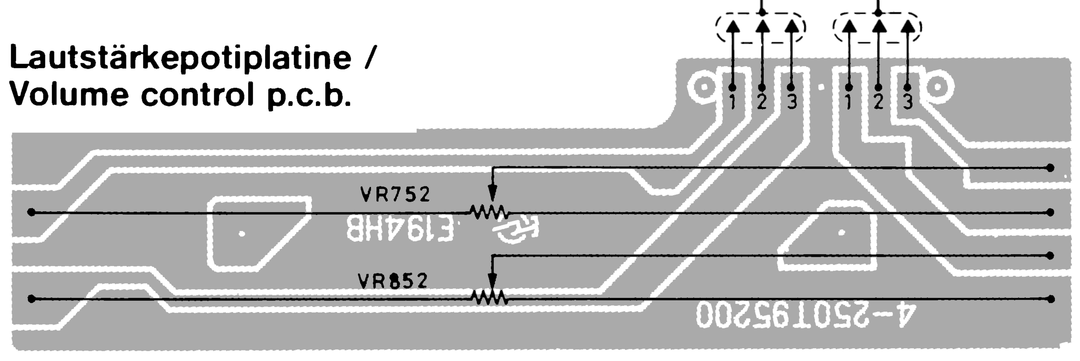


Skalenzeiger

9 TO MECHANISM CONTROL PCB.

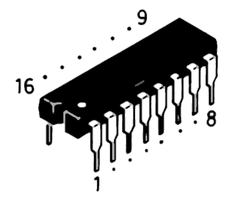


LED-Meterplatine /
LED-Meter p.c.b.

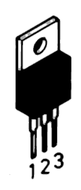


Lautstärkepotiplatine /
Volume control p.c.b.

IC481..... AN6882



IC951.....L78M12



Q752, 753
Q852, 853 .....2SC536
Q955
Q953, 954..... 2SD1012

