

Bang & Olufsen

0-1



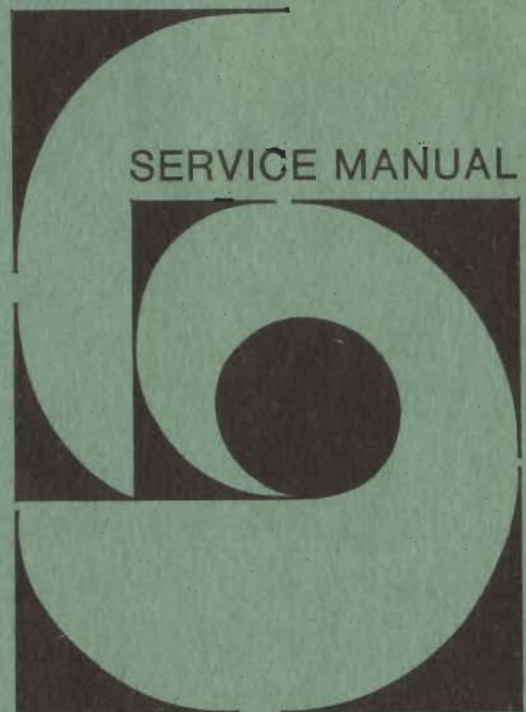
BEOCENTER 1800

TYPE 2610

BEOMASTER 1100

TYPE 2609

Bang & Olufsen
13 OLD BOND STREET, DANMARKS 4532
RADIO & TELEFON



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TECHNICAL DATA
AMPLIFIER

Power output 1000 Hz RMS	2 x 22 watts / 4 ohms
	2 x 19 watt / 8 ohms
Music power	2 x 40 watts / 4 ohms
	2 x 25 watts / 8 ohms
Speaker impedance	4 ohms
Harmonic distortion	
1000 Hz 50 mW DIN 45 500	< 0.1%
1000 Hz at stated output	< 0.5%
Intermodulation DIN 45 500	< 1%
Frequency range ± 1.5 dB DIN 45 500	20-30.000 Hz
Power bandwidth DIN 45 500	10-35.000 Hz
Damping factor 1000 Hz DIN 45 500	> 12
Input pick-up low impedance	2,5 mV / 47 kohms
2 channel high impedance	140 mV / 700 kohms
Signal-to-noise ratio DIN 45 500	
50 mW, pickup low impedance	> 50 dB
Channel separation 1000 Hz DIN 45 500	> 55 dB
Output tape recorder 1000 Hz DIN 45 500	100 mV / 100 kohms
Headphones	Max. 10 V / 200 ohms
Bass control at 40 Hz	± 17 dB
Treble control at 12.500 Hz	± 14 dB

FM TUNER

FM Range	87.5 - 104 MHz
Sensitivity 26 dB, ± 40 kHz	< 1.8 μ V / 75 ohms
Sensitivity IHF	< 2.5 μ V / 75 ohms
Limiting -3 dB ± 40 kHz	< 1.5 μ V / 75 ohms
Signal-to-noise ratio DIN 45 500	> 65 dB
Selectivity IHF	> 65 dB
Frequency range ± 1.5 dB DIN 45 500	20-15.000 Hz
Harmonic distortion DIN 45 500	< 0.5%
Stereo channel separation DIN 45 500	> 30 dB
Pilot suppression 19 kHz	> 35 dB
38 kHz	> 35 dB

RECORD PLAYER

Speeds	33 - 45 rpm
Automatic pickup movement	Yes
Automatic speed selection	Yes
Wow and flutter, DIN	< $\pm 0,12\%$
Wow and flutter, WRMS	< $\pm 0,06\%$
Rumble DIN unweighted	> 37 dB
Rumble DIN weighted	> 60 dB
Speed deviation	< 0.1%
Speed control range	> 3%
Dial for speed	Stroboscope 120 mm
Stylus pressure range	0-2.5 gram
Tangential tracking	0.126° / cm
Lift system	Mechanical
Antiskating	Inclined channelling, inside bearing
Motor	Asynchronous
Drive system	Idler wheel and belt
Turntable	30 cm 1 kg
Dust cover	Hinged and detachable
Frequency	50 Hz

PICK-UP MMC 3000

Stylus	Spherical diamond
Radius of curvature	15 μ m
Frequency range	16-25.000 Hz ± 3 dB
	20-16.000 Hz ± 2.5 dB
Channel separation 1000 Hz	> 20 dB
400-10.000 Hz	> 15 dB
Channel difference	< 2 dB
intermodulation	< 1%
Recommended stylus pressure	1.2 gram
Compliance	25 x 10 ⁻⁶ cm / dyne
Effective tipmass	0.5 mg

OTHER DATA

Power supply	110-130-220-240 volts
Power consumption	20-170 watts
Dimensions W x H x D	50 x 12 x 37 cm
Weight	13 kg

Subject to change without notice

MÅLEBETINGELSER FOR DIAGRAM

Alle DC spændinger er målt i forhold til stel med voltmeter (indre modstand 11 MOhm).

DC spændingerne er målt med modtageren i stilling FM og antennesignal på 500 µV (1 mV EMK) med pilottone, volume på 0.

FM følsomheder er målt ved Δ f 40 kHz, f mod. 1 kHz og 10W output.

LF følsomheder er målt ved 22W output. Balance, bas, diskant på 0, volume på max. Udgang belastet med 4 Ohm, input 1 kHz.

Mekaniske omskifttere er vist i neutral stilling.

FM FØLSOMHEDER

2TP1 60 µV (10,7 MHz) gennem 0,1 µF, RG 75 Ohm.
2TP2 170 µV (10,7 MHz) gennem 0,1 µF, RG 75 Ohm.
2TP3 600 µV (10,7 MHz) gennem 0,1 µF, RG 75 Ohm.

LF FØLSOMHEDER

4TP100 2,5 mV
4TP200 2,5 mV
2TP100 135 mV
2TP200 135 mV
2TP101 150 mV
2TP201 150 mV
5TP100 500 mV
5TP200 500 mV

TOMGANGSSTRØM

5TP101 10 mV
5TP201 10 mV eller:
25 mA i kollektoren af SIC101, SIC201.

CONDITIONS OF MEASUREMENT FOR DIAGRAM

All DC voltages are measured in proportion to chassis with voltmeter (inner resistance 11 MOhms).

DC voltages are measured with the receiver in position FM and an aerial signal of 500 µV (1 mV EMK) with pilot signal, volume on 0.

FM sensitivities are measured at Δ f 40 kHz, f mod. 1 kHz and 10W output.

AF sensitivities are measured at 22W output. Balance, bass, treble on 0, volume on max.

Output loaded with 4 Ohms, input 1 kHz.

Mechanical switches are shown in neutral position.

FM SENSITIVITIES

2TP1 60 µV (10.7 MHz) through 0.1 µF, RG 75 Ohms.
2TP2 170 µV (10.7 MHz) through 0.1 µF, RG 75 Ohms.
2TP3 600 µV (10.7 MHz) through 0.1 µF, RG 75 Ohms.

AF SENSITIVITIES

4TP100 2.5 mV
4TP200 2.5 mV
2TP100 135 mV
2TP200 135 mV
2TP101 150 mV
2TP201 150 mV
5TP100 500 mV
5TP200 500 mV

NO-SIGNAL CURRENT

5TP101 10 mV
5TP201 10 mV or:
25 mA in the collector of SIC101, SIC201.

MESSBEDINGUNGEN FÜR SCHALTBILD

Alle DC Spannungen sind in Verhältnis zu Chassis mit Voltmeter (innerer Widerstand 11 MOhm) gemessen.

DC Spannungen sind mit dem Empfänger in Stellung FM und dem Antennensignal von 500 µV (1 mV EMK) mit Pilotton gemessen, Volume auf 0.

UKW Empfindlichkeiten sind an Δ f 40 kHz, f mod. 1 kHz und 10W Ausgang gemessen.

NF Empfindlichkeiten sind an 22W Ausgang gemessen. Balance, Tiefton, Diskant auf 0, Volume auf max. Ausgang mit 4 Ohm, Eingang 1 kHz belastet.

Mechanische Umschalter sind in neutraler Stellung gezeigt.

UKW EMPFINDLICHKEITEN

2TP1 60 µV (10,7 MHz) durch 0,1 µF, RG 75 Ohm.
2TP2 170 µV (10,7 MHz) durch 0,1 µF, RG 75 Ohm.
2TP3 600 µV (10,7 MHz) durch 0,1 µF, RG 75 Ohm.

NF EMPFINDLICHKEITEN

4TP100 2,5 mV
4TP200 2,5 mV
2TP100 135 mV
2TP200 135 mV
2TP101 150 mV
2TP201 150 mV
5TP100 500 mV
5TP200 500 mV

LEERLAUFSTROM

5TP101 10 mV
5TP201 10 mV oder:
25 mA im Kollektor von SIC101, SIC201.

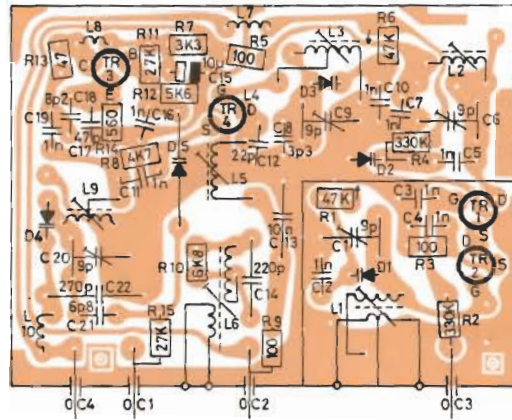
COLOUR OF WIRES

KABELFARBEN

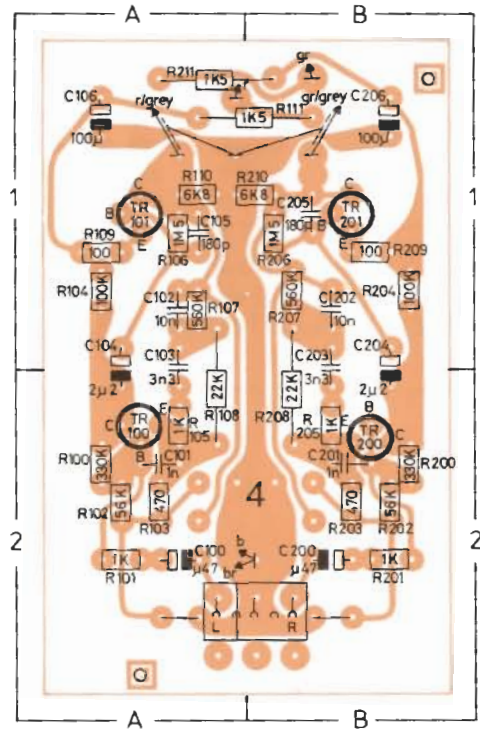
LEDNINGSFARVER

b	black	schwartz	sort
bl	blue	blau	blå
br	brown	braun	brun
gr	green	grün	grøn
grey	grey	grau	grå
or	orange	orange	orange
r	red	rot	rød
v	violet	violett	violet
wh	white	weiss	hvid
y	yellow	gelb	gul

1 PC 8050054 FRONT END



4 PC 8002280 PHONO AMPLIFIER



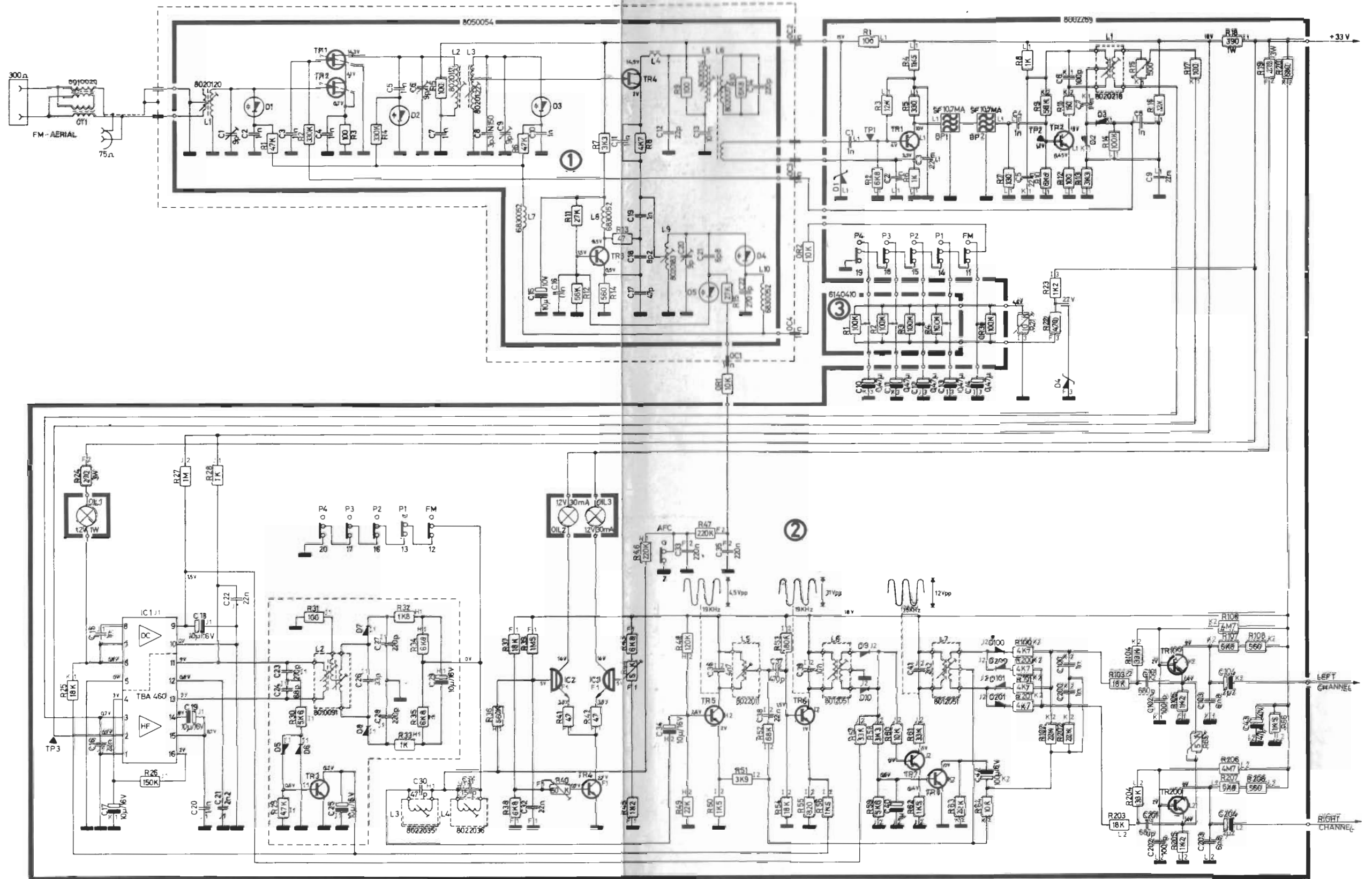


DIAGRAM 1

• 33V

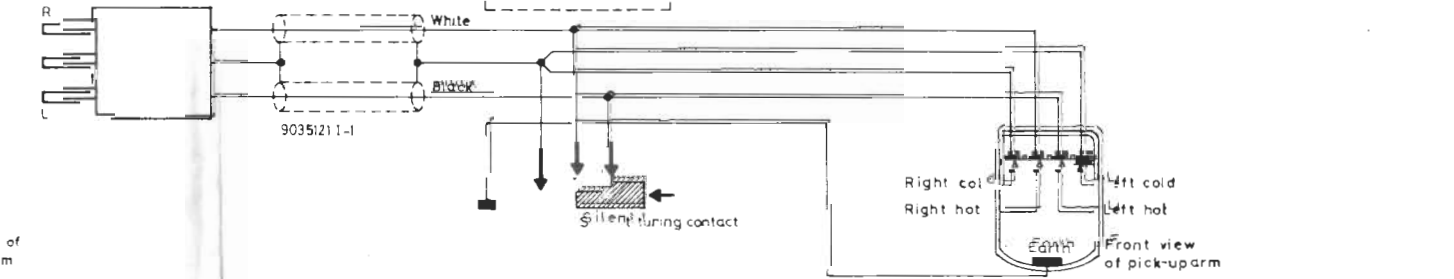
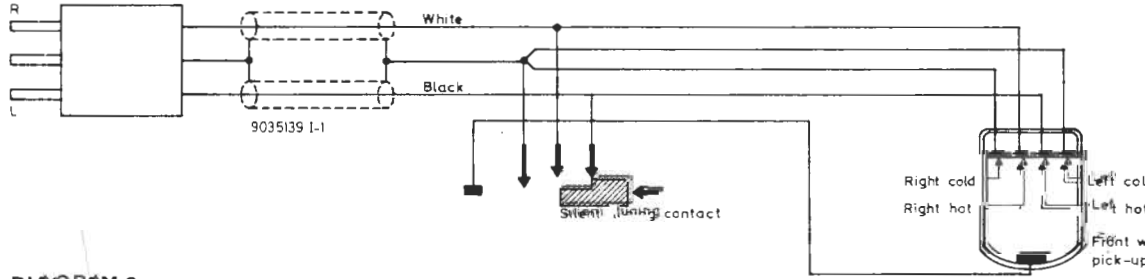
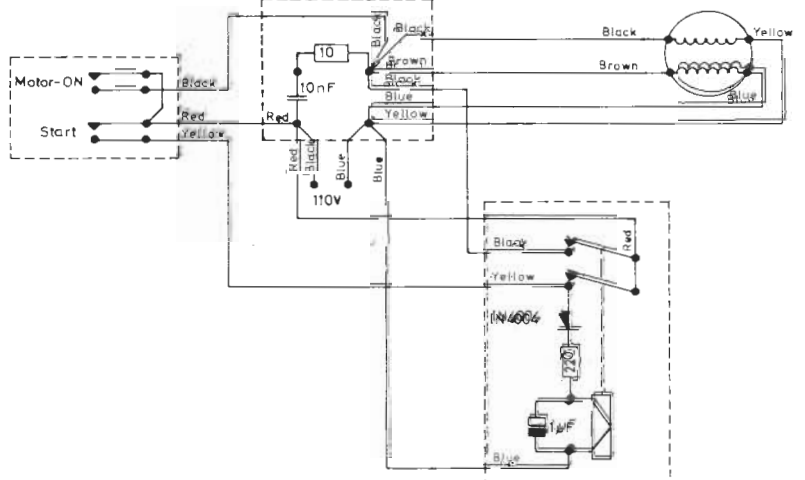
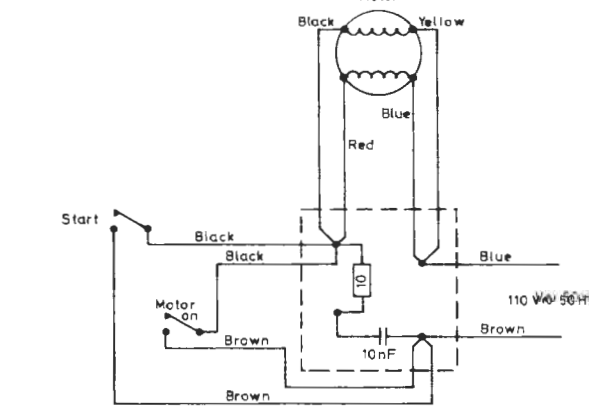
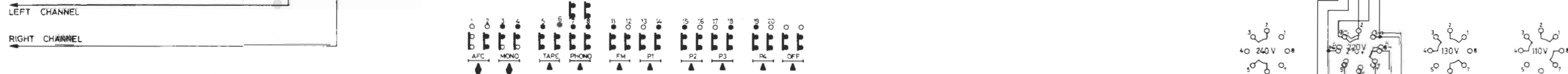
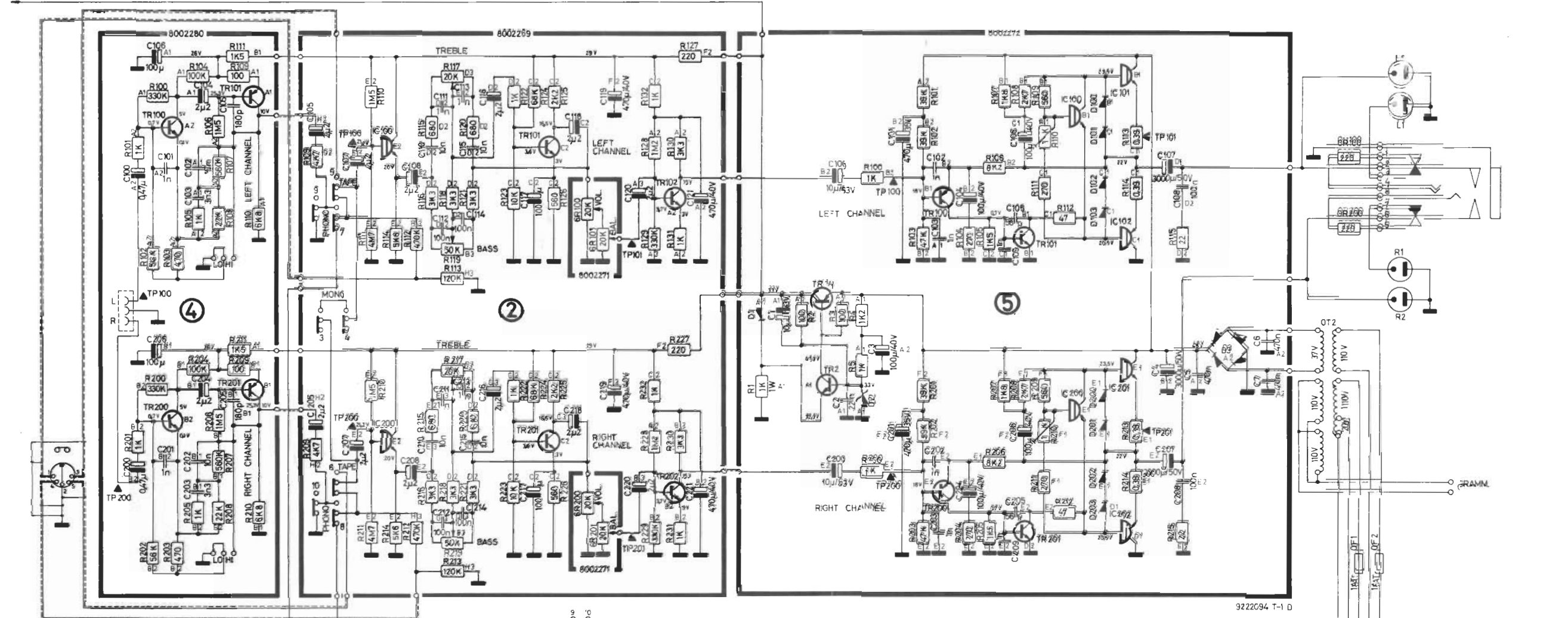
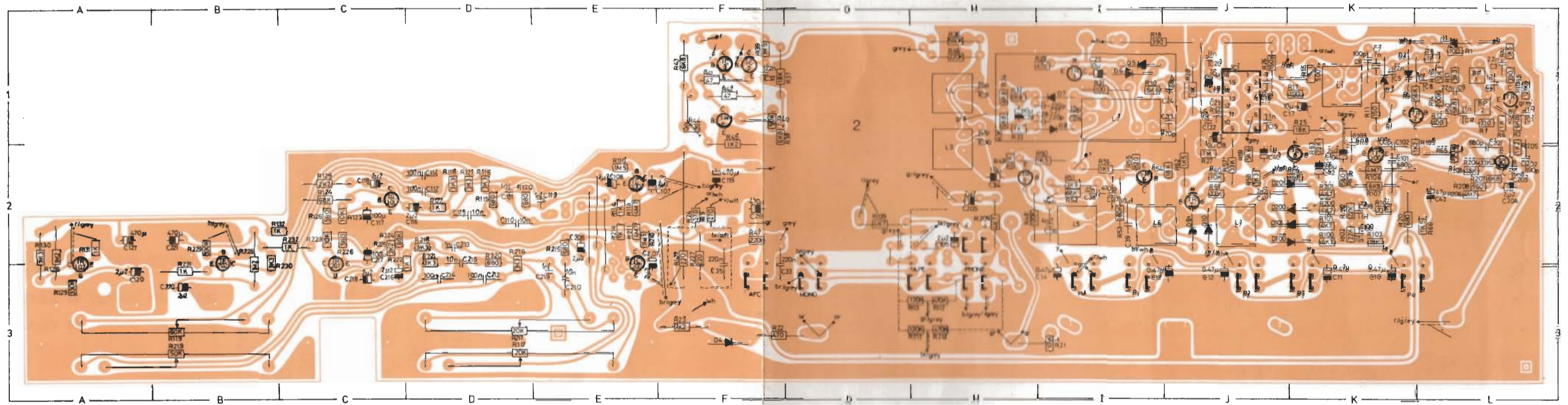
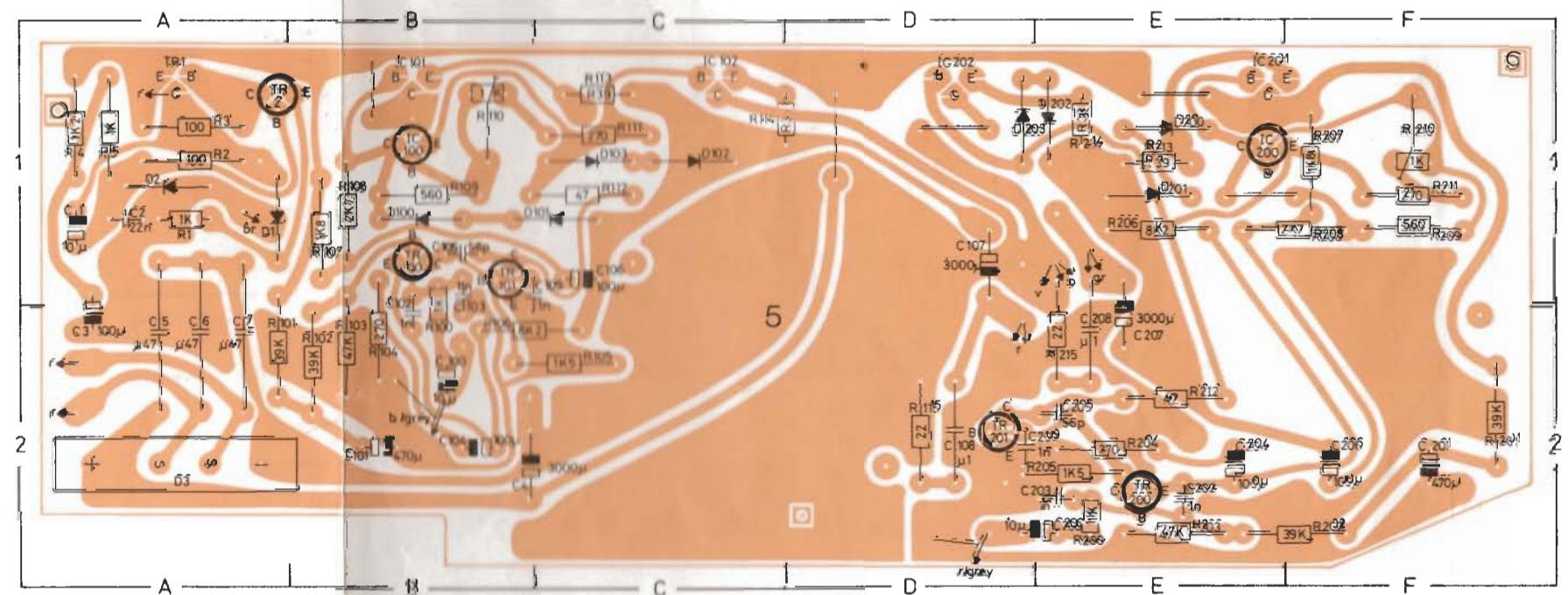


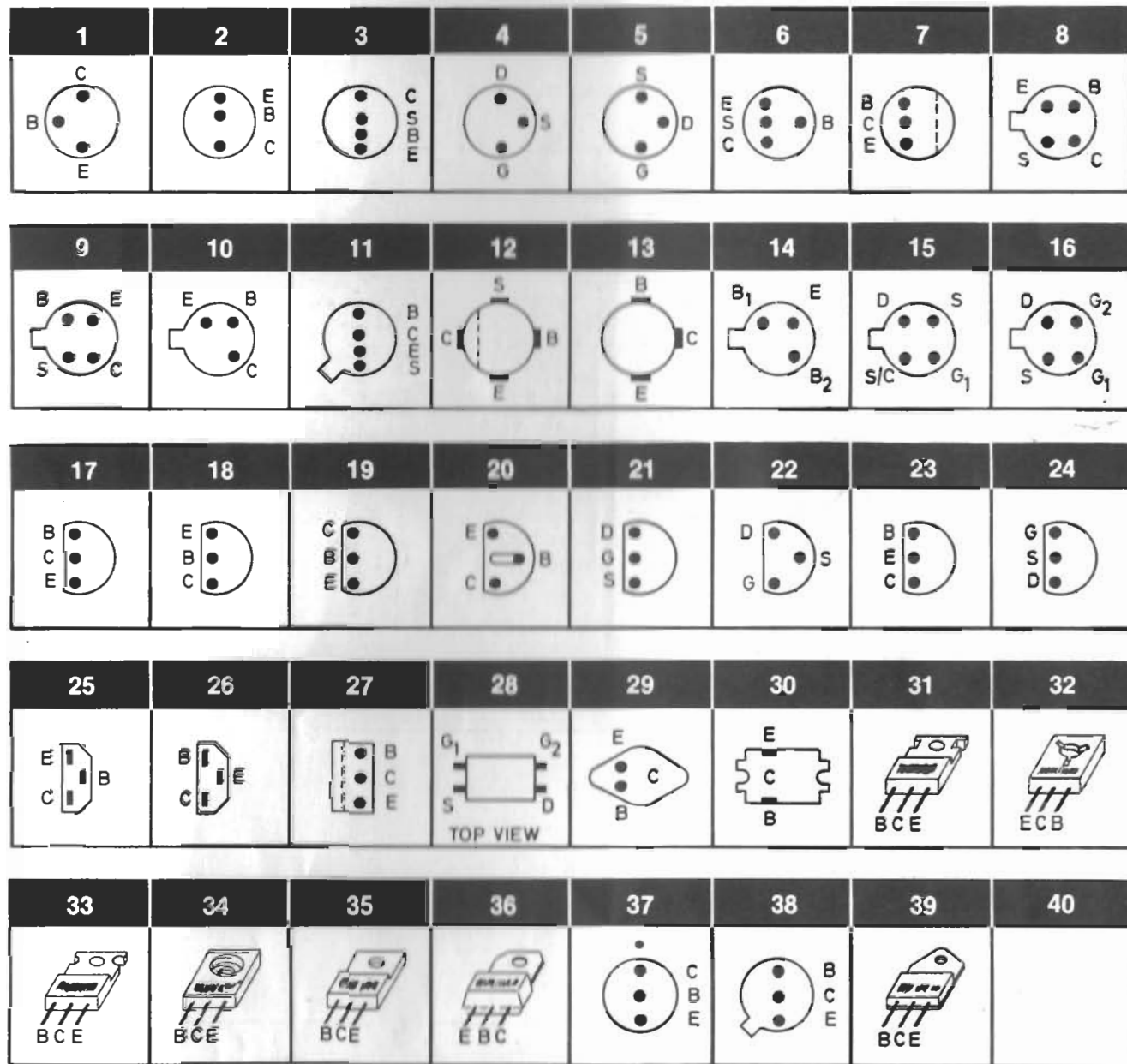
DIAGRAM 2

2 PC 8002269 IF SECTION, DECODER AND TONE AMPLIFIER



5 PC 8002272 OUTPUT AMPLIFIER





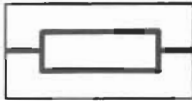
TRANSISTOR LIST

1TR1	8320119	4	U 1981 E	5TR1	8320269	32	BD 206 B
1TR2		21	2N 5245			32	BD 236 B
		21	TIS 88 A			32	BD 178
1TR3	8320112	26	BF 195	5TR2	8320295	20	BC 337 B
1TR4	8320136	4	U 1981 E			20	BC 337-25
		5	U 1937 E	5TR100/200	8320069	1	BC 154
		21	2N 5245			19	BC 322 B
		21	3 C 2			18	BC 309 B
		22	3 C 2 P			20	BC 214 B
		21	TIS 88 A			20	BC 549 B
2TR1	8320089	26	BF 194			18	BC 253 B
2TR2						17	BC 214 BL
						20	BC 214 BK
2TR3	8320097	20	BC 547 B	5TR101/201	8320097	20	BC 547 B
2TR4		18	BC 237 B			18	BC 237 B
		20	BC 171 B			20	BC 171 B
		19	BC 317 B			19	BC 317 B
		20	BC 182 B			20	BC 182 B
		17	BC 182 BL			17	BC 182 BL
		20	BC 182 BK			20	BC 182 BK
		20	BC 237 B			20	BC 237 B
		1	BC 207 B			1	BC 207 B
2TR5	8320095	20	BC 549 B	5IC100/200	8340028	19	MPS A13
		20	BC 239 B			19	SPS 5418
		20	BC 184 B	5IC101/201	8340027	34	BD 697
		17	BC 184 BL				
		20	BC 184 BK	5IC102/202	8340023	34	BD 698
2TR6	8320097	20	BC 547 B				
2TR7		18	BC 237 B				
2TR8		20	BC 171 B				
		19	BC 317 B				
		20	BC 182 B				
		17	BC 182 BL				
		20	BC 182 BK				
		20	BC 237 B				
		1	BC 207 B				
2TR100/200	8320138	20	BC 183 B				
		20	BC 183 BK				
		17	BC 183 BL				
2TR101/201	8320095	20	BC 549 B				
		20	BC 239 B				
		20	BC 184 B				
		17	BC 184 BL				
		20	BC 184 BK				
2TR102/202	8320097	20	BC 547 B				
		18	BC 237 B				
		20	BC 171 B				
		19	BC 317 B				
		20	BC 182 B				
		17	BC 182 BL				
		20	BC 182 BK				
		20	BC 237 B				
		1	BC 207 B				
2IC2	8340054	19	MPS A13				
2IC3							
2IC100/200	8340028	19	MPS A13				
		19	SPS 5418				
4TR100/200	8320095	20	BC 549 B				
		20	BC 239 B				
		20	BC 184 B				
		17	BC 184 BL				
		20	BC 184 BK				
4TR101/201	8320069	1	BC 154				
		19	BC 322 B				
		18	BC 309 B				
		20	BC 214 B				
		20	BC 549 B				
		18	BC 253 B				
		17	BC 214 BL				
		20	BC 214 BK				

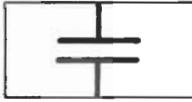
DIODE AND IC LIST

1D1	8300050	BB 103 blue	5D1	8300023	EM 502
1D2-1D3	8300041	BB 103 green			1N 4002
1D4	8300050	BB 103 blue	5D2	8300199	33V 1W
1D5	8300032	BA 138	5D3	8310020	B 80 C 3200/2200
2D1	8300053	ZPD 15W	5D100-5D203	8300131	1N 4148
		BZX 79 15V			
2D2-2D3	8300131	1N 4148	2IC1	8340014	TBA 460
2D4	8340081	25.7 - 28.3V			
2D5-2D10	8300024	AA 119			
2D100-2D201	8300131	1N 4148			

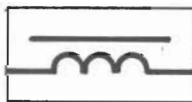
1 PC 8050054 FRONT END



R1	5001050	47 KOhm 10% 1/2W
R2	5001062	330 KOhm 10% 1/2W
R3	5001013	100 Ohm 10% 1/2W
R4	5001062	330 KOhm 10% 1/2W
R5	5001013	100 Ohm 10% 1/2W
R6	5001050	47 KOhm 10% 1/2W
R7	5010076	3,3 KOhm 5% 1/8W
R8	5001038	4,7 KOhm 10% 1/2W
R9	5001013	100 Ohm 10% 1/2W
R10	5001040	6,8 KOhm 10% 1/2W
R11	5010141	27 KOhm 5% 1/8W
R12	5010041	5,6 KOhm 5% 1/8W
R13	5010411	47 Ohm 5% 1/8W
R14	5010067	560 Ohm 5% 1/8W
R15	5001047	27 KOhm 10% 1/2W

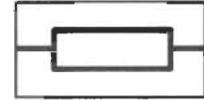


C1	4330001	1 - 9 pF Cer.
C2	4010008	1 nF -20 + % 400V
C3	4010008	1 nF -20 +50% 400V
C4	4010008	1 nF -20 +50% 400V
C5	4010008	1nF -20 +50% 400V
C6	4330001	1 - 9pF Cer.
C7	4010008	1 nF -20 +50% 400V
C8	4003012	3,3 pF 0,25 pF 400V
C9	4330001	1 - 9 pF Cer.
C10	4010008	1 nF -20 +50% 400V
C11	4010008	1 nF -20 +50% 400V
C12	4003059	22 pF 5% 250V
C13	4130081	10 nF 20% 250V
C14	4101007	220 pF 5% 63V
C15	4200107	10 uF 10V
C16	4010008	1 nF -20 +50% 400V
C17	4003130	47 pF 2% 63V
C18	4000015	8,2 pF 0,25 pF 63V
C19	4010008	1 nF -20 +50% 400V
C20	4330001	1 - 9 pF Cer.
C21	4005004	6,8 pF 0,5 pF 100V
C22	4101031	270 pF 5% 63V
0C1	4010018	1 nF 250V
0C2	4010018	1 nF 250V
0C3	4010018	1 nF 250V
0C4	4010018	1 nF 250V



L1	8020120	
L2	8020121	
L3	8020122	
L4	6710001	
L5	8020124	10,7 MHz
L6	8020137	10,7 MHz
L7	6830052	3,8 uH 5%
L8	6830052	3,8 uH 5%
L9	8020183	Osc.
L10	6830052	3,8 uH 5%
	6702008	Ferritcore red
	6702001	Ferritcore white
	6479001	Glassbushing
0T1	8010020	300/75 Ohm

5 PC 8002272 OUTPUT AMPLIFIER



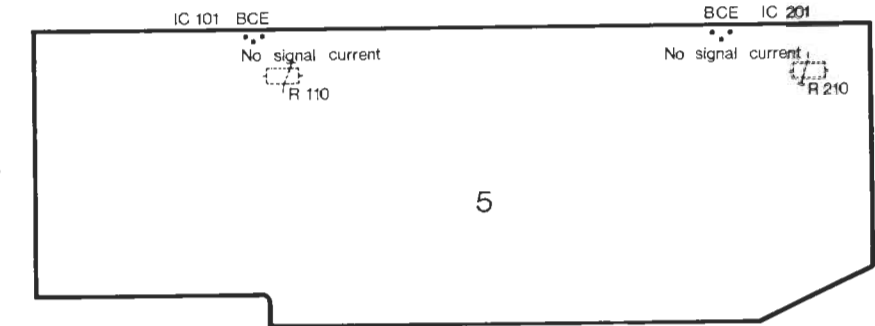
R1	5002024	1 KOhm 10% 1W
R2	5001013	100 Ohm 10% 1/2W
R3	5001013	100 Ohm 10% 1/2W
R4	5001030	1.2 KOhm 10% 1/2W
R5	5001029	1 KOhm 10% 1/2W
R100	5010040	1 KOhm 5% 1/8W
R101	5010060	39 KOhm 5% 1/8W
R102	5010060	39 KOhm 5% 1/8W
R103	5010045	47 KOhm 5% 1/8W
R104	5010000	270 Ohm 5% 1/8W
R105	5001032	1.5 KOhm 10% 1/2W
R106	5010154	8.2 KOhm 5% 1/8W
R107	5001033	1.8 KOhm 5% 1/2W
R108	5001035	2.7 KOhm 10% 1/2W
R109	5001025	560 Ohm 10% 1/2W
R110	5370050	1 KOhm 20% LIN.
R111	5001020	270 Ohm 10% 1/2W
R112	5001008	47 Ohm 10% 1/2W
R113	5110017	0.39 KOhm 10% 1.5W
R114	5102007	0.39 Ohm 10% 1W
R115	5001004	22 Ohm 10% 1/2W
R200	5010040	1 KOhm 5% 1/8W
R201	5010060	39 KOhm 5% 1/8W
R202	5010060	39 KOhm 5% 1/8W
R203	5010045	47 KOhm 5% 1/8W
R204	5010000	270 Ohm 5% 1/8W
R205	5001032	1.5 KOhm 10% 1/2W
R206	5010154	8.2 KOhm 5% 1/8W
R207	5001033	1.8 KOhm 5% 1/1W
R208	5001035	2.7 KOhm 10% 1/2W
R209	5001025	560 Ohm 10% 1/2W
R210	5370050	1 KOhm 20% LIN.
R211	5001020	270 Ohm 10% 1/2W
R212	5001008	47 Ohm 10% 1/2W
R213	5110017	0.39 KOhm 10% 1.5W
R214	5102007	0.39 Ohm 10% 1W
R215	5001004	22 Ohm 10% 1/2W

C1	4201065	10 uF 63V
C2	4010060	22 nF -20 +100% 40V
C3	4201060	100 uF 35V
C4	4200263	3000 uF 50V
C5	4130029	470 nF 10% 250V
C6	4130029	470 nF 10% 250V
C7	4130029	470 nF 10% 250V
C100	4201065	10 uF 63V
C101	4200275	470 uF 40V
C102	4010008	1 nF -20 +50% 400V
C103	4010008	1 nF -20 +50% 400V
C104	4201060	100 uF 35V
C105	4003124	56 pF 2% 63V
C106	4201060	100 uF 35V
C107	4200263	3000 uF 50V
C108	4130075	100 nF 20% 250V
C109	4010008	1 nF -20 +50% 400V
C200	4201065	10 uF 63V
C201	4200275	470 uF 40V
C202	4010008	1 nF -20 +50% 400V
C203	4010008	1 nF -20 +50% 400V
C204	4201060	100 uF 35V
C205	4003124	56 pF 2% 63V
C206	4201060	100 uF 35V
C207	4200263	3000 uF 50V
C208	4130075	100 nF 20% 250V
C209	4010008	1 nF -20 +50% 400V



ELECTRICAL ADJUSTMENTS
NO-SIGNAL CURRENT

No-signal current is adjusted with the receiver cold and the volume control turned down.
With 5R110 (5R210) adjust for a collector current of 25 mA in 5IC101 (5IC201) or for 10 mV across 5R113 (5R213). After the receiver has had power applied to it for 10 minutes with the volume control turned down, check the no-signal current and again adjust to 25 mA, or to 10 mV across the emitter resistor.

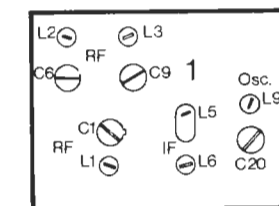


TUNING VOLTAGE

Depress FM button. Bring the FM tuning control all the way to the left, against the stop.
With 2R21 adjust for 4.6 V as measured at 0R1 on the tuner side relative to chassis.

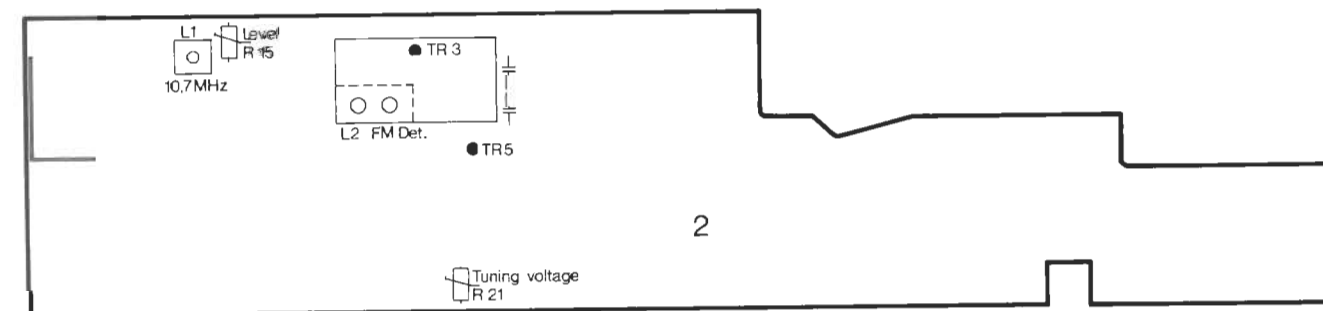
FM TUNER AND IF AMPLIFIER

Alignment is performed with 2R15 set at 1/4 of mechanical maximum, clockwise. Connect sweep generator to aerial input and set it to 89 MHz, $\Delta f = 0.5$ MHz, approx. 50 μ V.
Connect oscilloscope to base of 2TR3.
Set tuning control to 89 MHz and disable the AFC circuit.
With 1L9, L1, L2, L3, L5, L6 and 2L1, 2L2 adjust for max. symmetrical curve on oscilloscope.
Set sweep generator to 102 MHz.
Set tuning control to 102 MHz.
With 1C20, C1, C6 and C9 adjust for max. symmetrical curve.
Check dial alignment at 89 MHz and repeat adjustment if necessary.



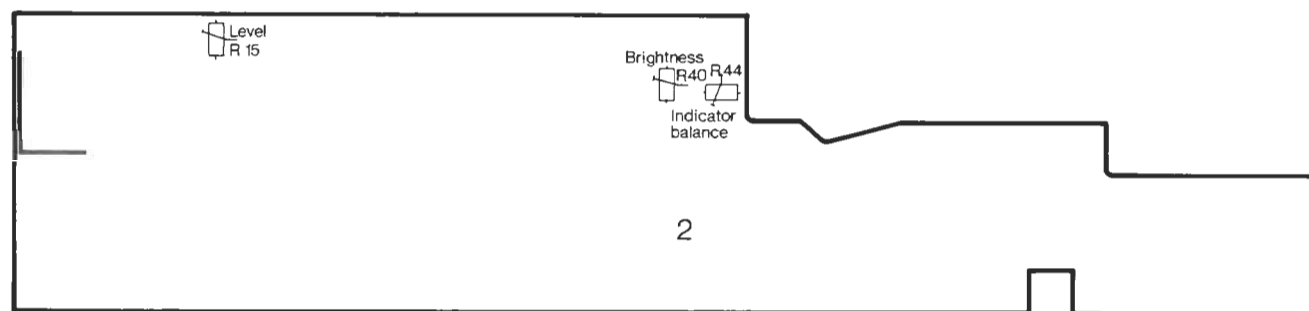
DETECTOR

Set 2R15 to mechanical maximum, clockwise.
Connect DC voltmeter to junction of 2C30 and C31.
Depress FM button.
Set tuning control so that no signal is being received.
Tune detector secondary for 0-V reading on DC voltmeter (± 50 mV).



INDIKATOR LIGHT

Depress FM button.
Set tuning control so that no signal is being received.
Adjust 2R44 so that balance lights have equal brilliance.
Adjust 2R40 so that the two lamps glow weakly.



SENSITIVITY

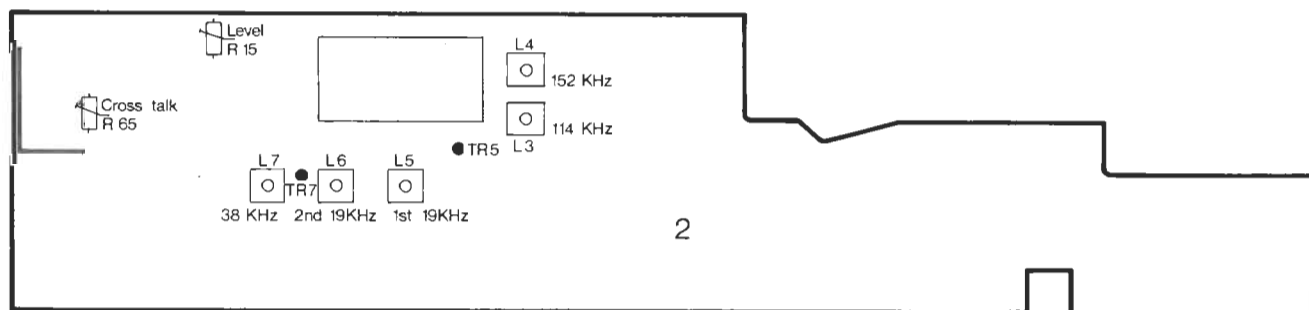
Depress FM button. Disable AFC.
Connect signal generator to aerial input and set it to 94 MHz, 1 mV, f.mod. = 1 kHz, $\Delta f = 40$ kHz.
Connect vacuum-tube voltmeter to tape-recorder output.
Set receiver to signal-generator frequency.
Read output voltage on AC voltmeter.
Reduce signal-generator output level to 5 μ V EMF and adjust 2R15 so that output voltage is down 3 dB relative to first reading.

STEREO DECODER, 19 AND 38 KHZ CIRCUITS

Depress FM button.
Connect stereo decoder to aerial input, f.mod. = 1 kHz, $\Delta f = 40$ kHz, pilot 8 - 10%.
Connect oscilloscope to 2R62 (collector of 2TR7, via 100-kohm resistor).
Set 2R65 to max. resistance value.
Set tuning control to stereo-decoder aerial frequency.
With coils 2L5, L6 and L7 adjust for max. 38 kHz on oscilloscope.

CHANNEL SEPARATION

Set stereo decoder to modulate in left channel.
Connect AC vacuum-tube voltmeter to right tape-recorder output.
With 2L6 and 2R65 adjust for min. output voltage in right channel.
Connect stereo decoder to aerial input.



ALTERNATIVE ADJUSTMENT OF STEREO DECODER

Connect oscilloscope X-input to 10 kHz at collector of 2TR5.
Connect Y-input to 38 kHz at 2R61 (collector of 2TR7).
Adjust 2L5 for max. X-gain.
Adjust 2L6 for max. Y-gain.
Adjust 2L7 for symmetrical Lissajous figure.

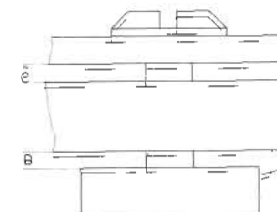
CHANNEL SEPARATION

With modulation in left channel adjust 2R65 for min. output voltage at right tape-recorder output.

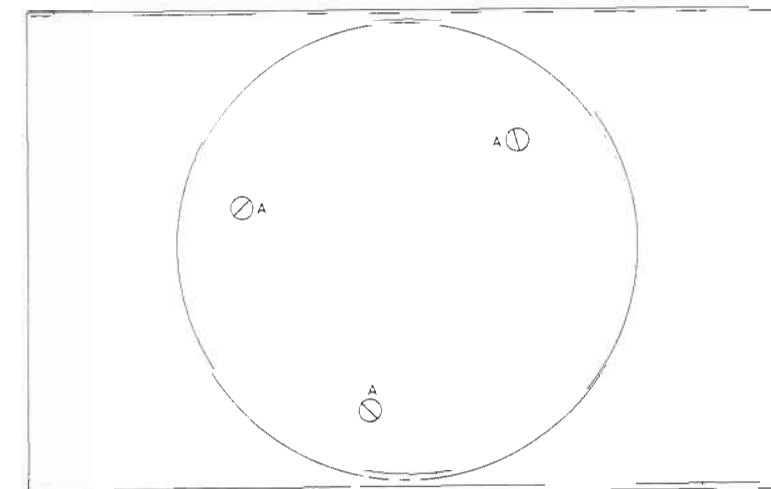
MECHANICAL ADJUSTMENTS

CHASSIS, HEIGHT

Put the turntable and two LP records (approx. 900 gr) on the turntable. The chassis should then come loose from all three transit bushings (B). The turntable should likewise be parallel with the chassis deck. After removal of the two LP records from the turntable, distances C and D should be identical.

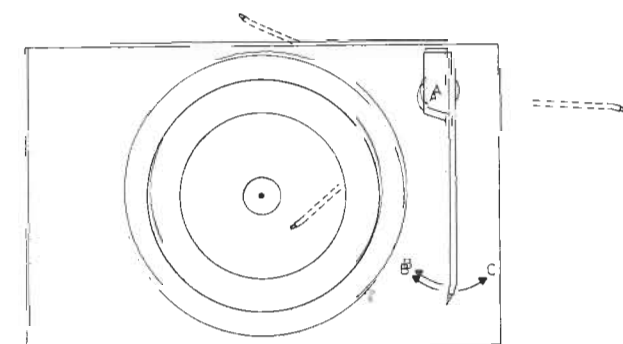


Adjustment may be made with screws A.



PICK-UP ARM, HEIGHT

Put a record on the turntable. First turn the pickup arm in the direction of the arrow B until it reaches its end position. Then turn the pickup arm in the direction of the arrow C until the end position is reached. Thereafter position the pickup arm above the first groove of the record.

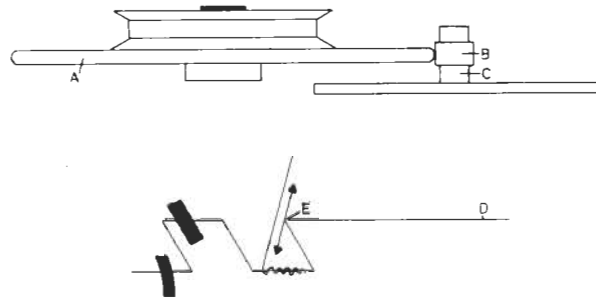


Adjust screw A until the separation between the stylus and the record is 2 mm. See sketch.



SPEED SELECTOR

At the speed selector, idler wheel A should shift on the stepped pulley from the point B at 45 rpm, to the point B at 33 rpm. Adjustment may be made by bending arm D at point E in the direction of the arrow.



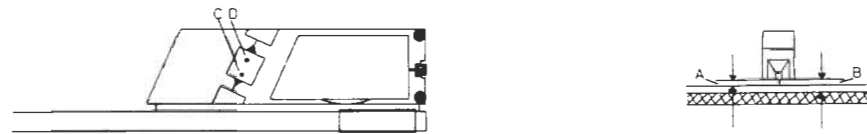
PICK-UP ARM, BALANCE

Set the slide controlling the stylus force adjustment to 0. Adjust screw A until the pickup arm is exactly in balance. Thereafter adjust the stylus force to 1.2 gr.

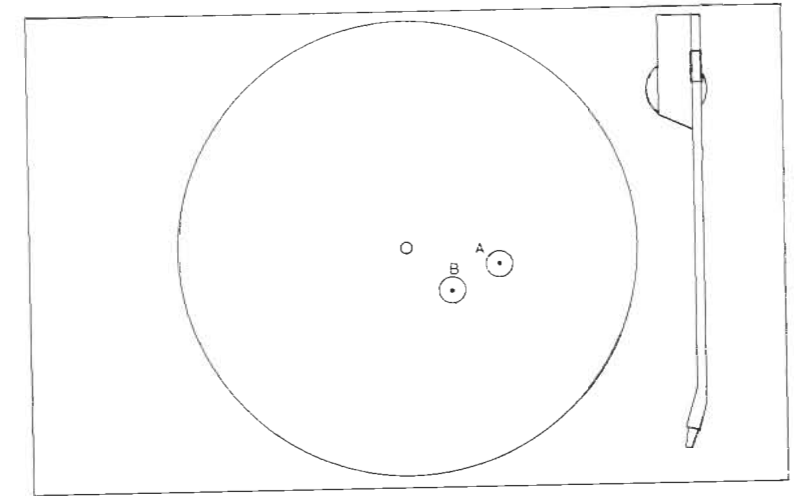


PICK-UP ARM, PARALLELISM

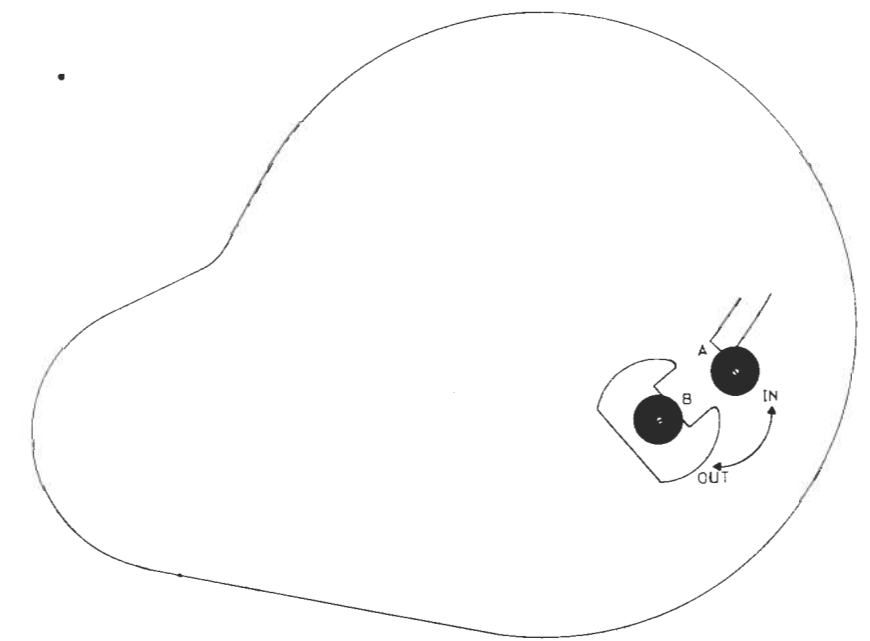
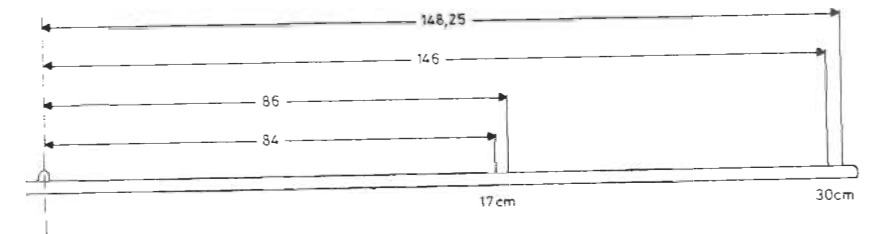
With Unbrako (hex wrench) screws C and D adjust until spacings A and B are identical and the plane part of the pickup is parallel with the top side of the deck. Unbrako key 0.88 mm M 08.



PICK-UP ARM, LANDING

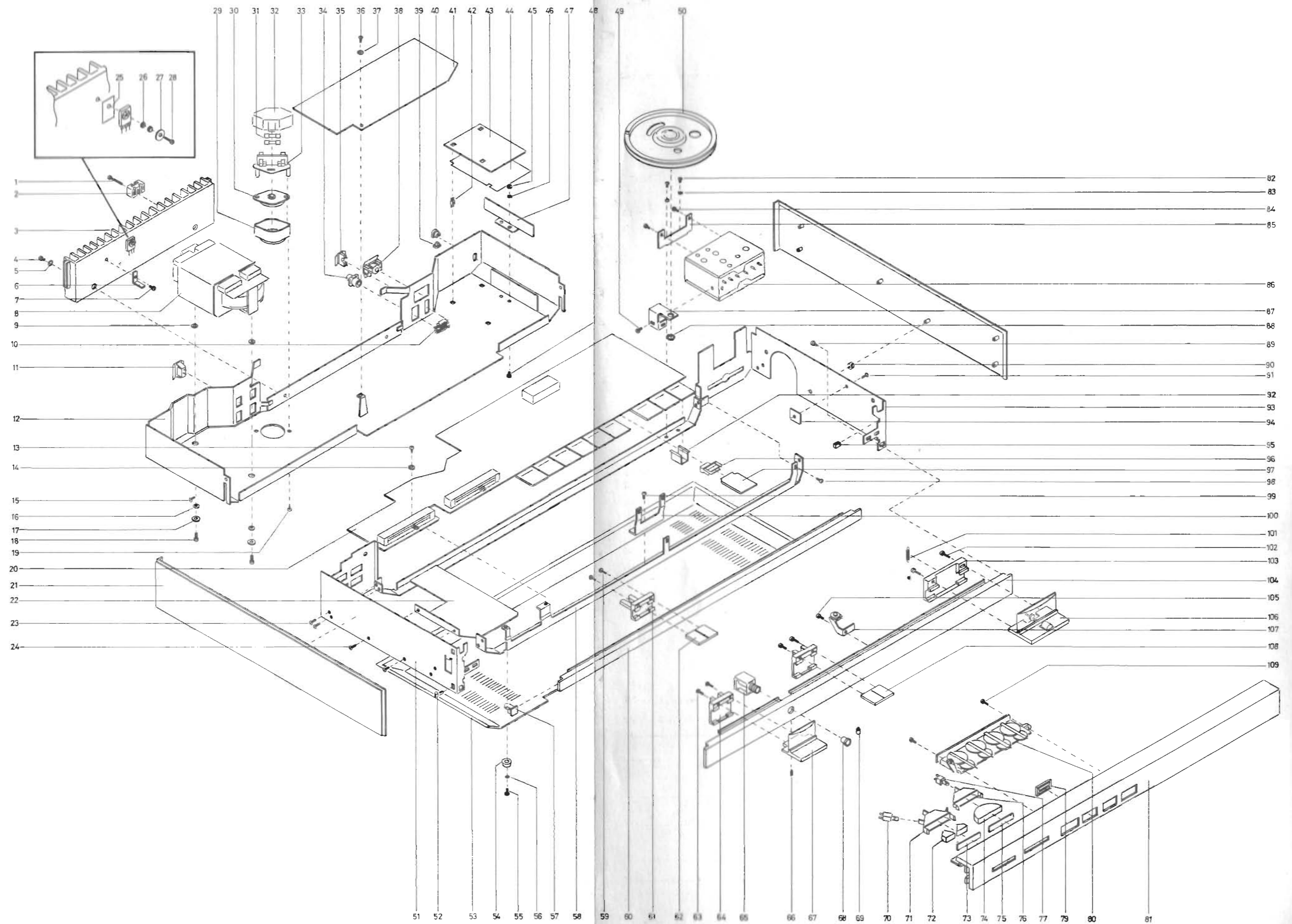


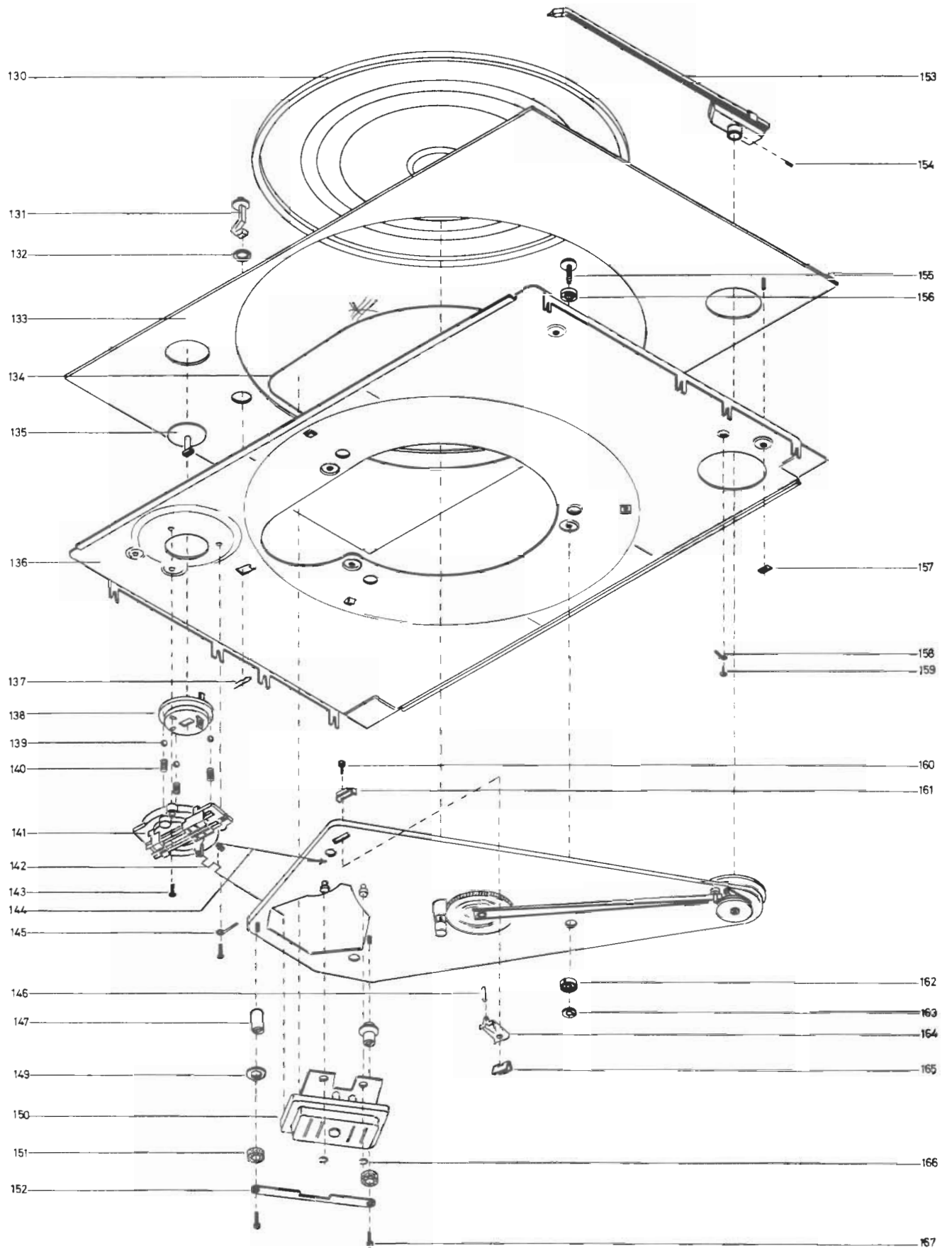
With the record selector in the 17 position, adjust eccentric A so that the pickup when under automatic control is lowered inside the field marked "17 cm" in the sketch. Adjust eccentric B so that the pickup lowers into the field marked "30 cm" with the record selector at 30.

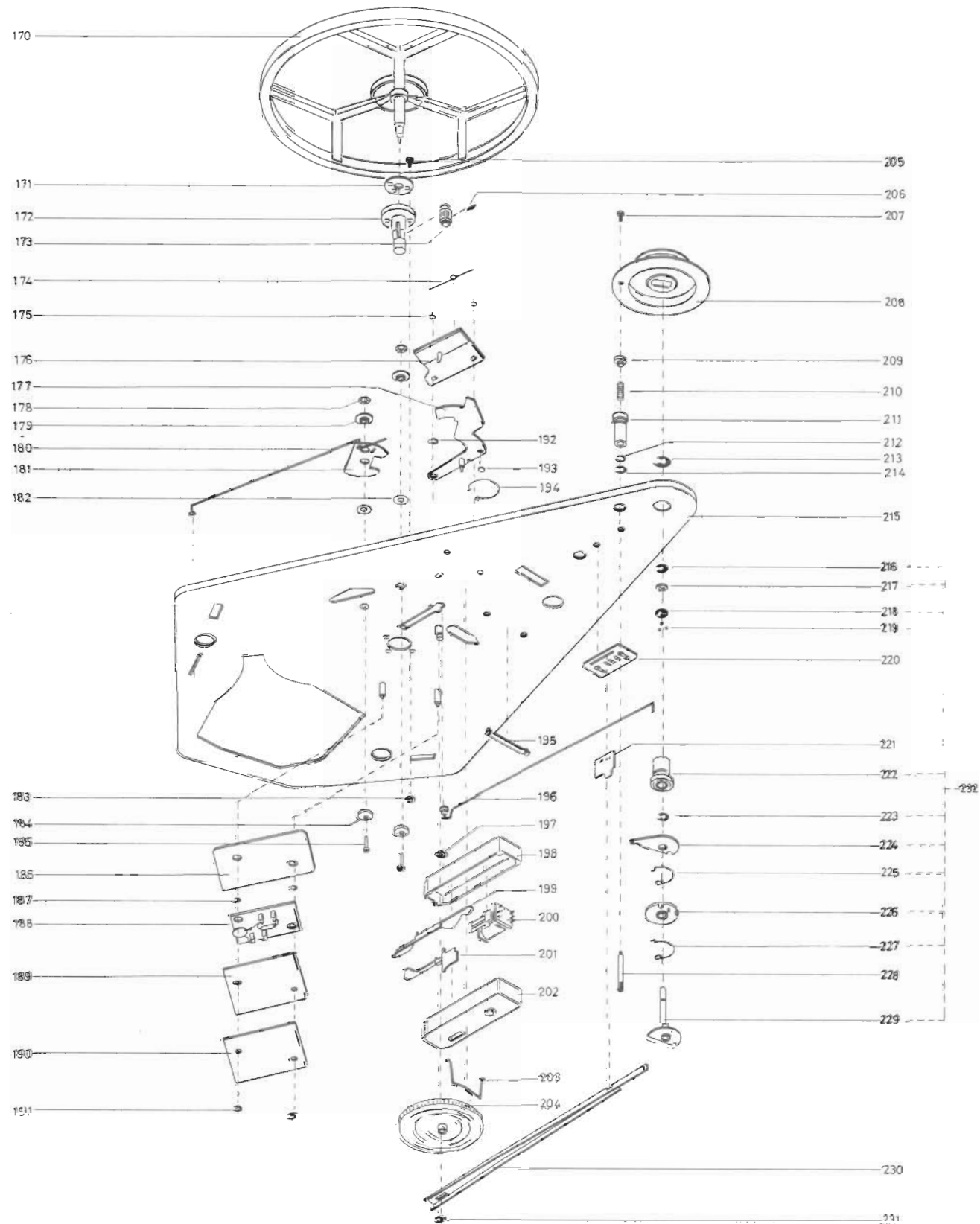


PARTS LIST BEOCENTER 1800,
TYPE 2610

1	2038235	Screw AM 3 x 25 DIN 84	51	3112145	Chassis bracket
2	3152100	Aerial holder	52	2500005	Wedge
3	3358098	Heat sink	53	3454134	Bottom plate
4	2038259	Screw AM 3 x 8 DIN 84	54	0585027	Rubber foot
5	2622024	Washer	55	2038061	Screw AM 3 x 10 DIN 84
6	2548111	Bracket	56	2622013	Washer 3,2
7	2039903	Screw AM 3 x 5 DIN 84	57	2640023	Bushing
8	8013114	Transformer	58	3112106	Chassis bracket
9	2938081	Rubber bushing	59	2034211	Screw AM 2 x 6 DIN 84
10	8010020	Aerial transformer	60	2568241	Front moulding, lower
11	7211047	Speaker socket	61	3015029	Slide for knob
12	3454190	Chassis	62	2775239	Knob
13	2013212	Screw 2,84 x 6,35 ART 4261	63	2034211	Screw AM 2 x 6 DIN 84
14	2622052	Washer, fibre	64	3015053	Slide for knob
15	2038951	Screw AM 3 x 6 DIN 963	65	7210023	JACK-socket
16	2938081	Rubber bushing	66	2072703	Threaded pin
17	2622024	Washer 4,2	67	2775402	Knob, VOLUME
18	2042240	Screw AM 4 x 10 DIN 84	68	2938102	Bushing
19	2013203	Screw 2,84 x 12,7 ART 4261	69	2992054	Stop
20	8002269	PC board	70	8230050	Lamp 12V 30 mA
	7400108	Pushbutton switch 2 sec.	71	3152073	Holder
	7400109	Pushbutton switch 7 sec.	72	3370056	Lamp housing
	7450019	Mains switch MEC	73	3370050	Window, red
	2819095	Spring for pushbutton switch	74	3370049	Lamp housing
21	3412033	Cabinet plate right/left rosewood	75	3370058	Window, green
	3412035	Cabinet plate right/left white	76	3352073	Holder
22	3112157	Chassis bracket	77	8230050	Lamp 12V/30 mA
23	2038951	Screw AM 3 x 6 DIN 963	79	3320038	Frame
24	2038951	Screw AM 3 x 6 DIN 963	80	8002286	Tuning unit complete
25	3170121	Mica sheet		5320017	Potentiometer
26	2938104	Insulating bushing	81	2568183	Front moulding, upper
27	2622024	Washer	82	2039903	Screw AM 3 x 5 DIN 7986
28	2039901	Screw AM 3 x 8 DIN 84	83	2625002	Tooth-lock washer 3,2
29	0534104	Housing for mains-voltage switch	84	2038208	Screw AM 3 x 5 DIN 84
30	7401001	Mains-voltage switch	85	2548103	Bracket
31	6600006	Fuse 1A-T 250V	86	8050054	Front-end unit
32	3164066	Cover	87	2548117	Bracket
33	3120194	Plate for fuseholder	88	2380047	Nut
	7500033	Contact spring for fuse	89	2038206	Screw AM 3 x 4 DIN 84
34	7211050	Aerial socket COAX	90	2395032	Spire
35	7211042	Aerial socket	91	2038951	Screw AM 3 x 6 DIN 963
36	2015200	Screw 3,5 x 6,35 ART 4261	92	3300039	Screen
37	2622052	Washer, fibre	93	3112133	Chassis bracket
38	7211049	DIN socket 5 pol.	94	2642021	Clamp
39	2641062	Locking plate	95	2992042	Stop
40	2641061	Bushing	96	3152082	Holder for knob
41	8002272	PC-board	97	2568122	Pushbutton
42	3152063	Holder	98	2039903	Screw AM 3 x 5 DIN 7986
43	8002280	PC-board	99	2039903	Screw AM 3 x 5 DIN 7986
44	3170138	Insulating piece	100	2548102	Bracket
45	2380011	Nut M3	101	2810008	Spring
46	2625002	Tooth-lock washer	102	2034211	Screw AM 2 x 6 DIN 84
47	2548112	Bracket	103	3015027	Slide
48	2038208	Screw AM 3 x 5 DIN 84	104	2568242	Front moulding, middle
49	2038208	Screw AM 3 x 5 DIN 84		3950280	Rubber moulding
50	5320016	Potentiometer	105	2038206	Screw AM 3 x 4 DIN 84
	2812044	Spring for dial drive	106	2775400	Dial knob complete
	3955001	Dial cord	107	2542414	Bracket with cord-pulley
			108	2775239	Knob
			109	2038208	Screw AM 3 x 5 DIN 84

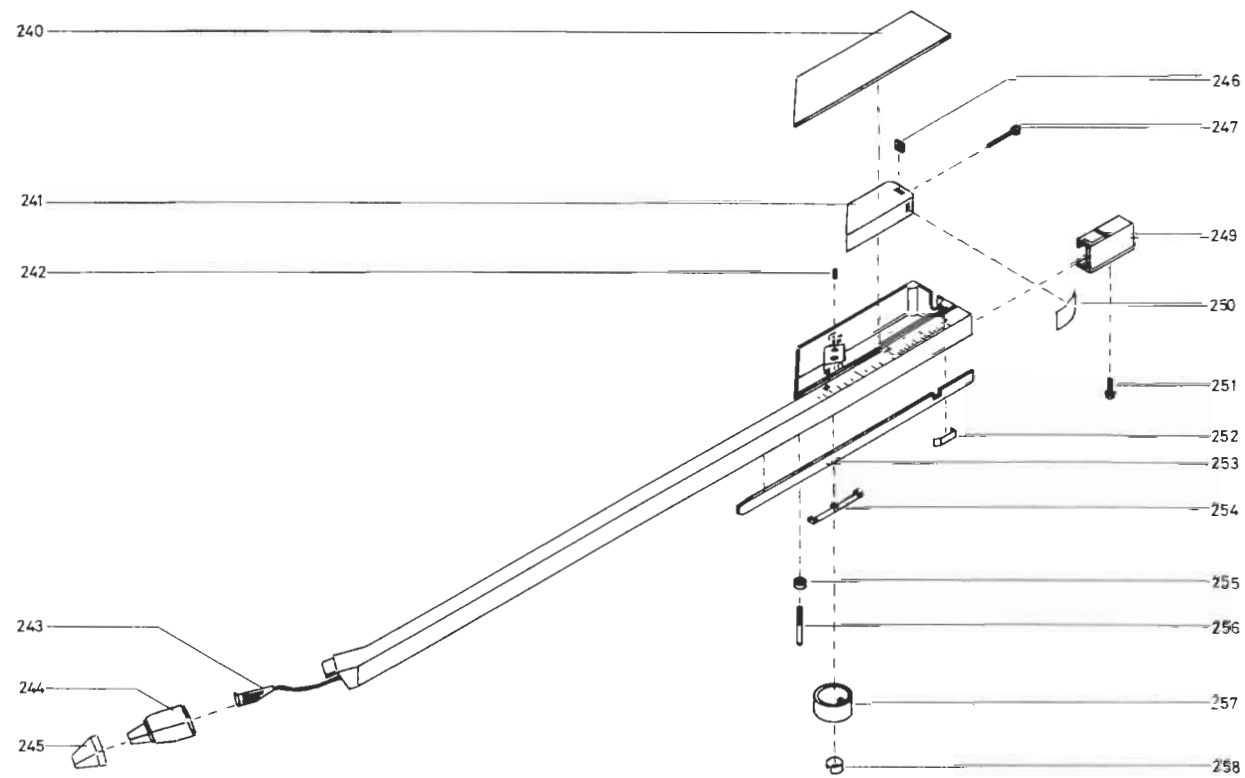






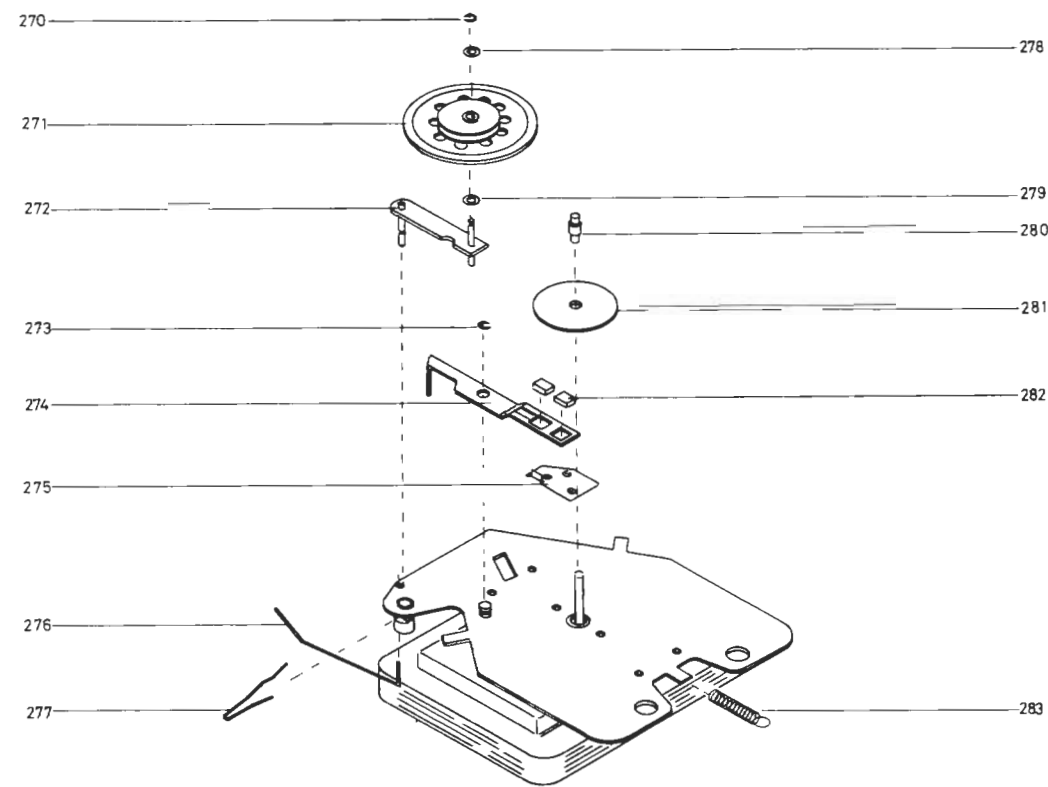
- 170 2794064 Flywheel
- 2622230 Rubber disc
- 171 2905060 Bearing ring
- 172 3150037 Bearing bushing
- 173 2700014 Gear wheel
- 174 2819114 Friction spring
- 175 2390002 Locking ring
- 176 3014025 Friction plate
- 177 3014031 Arm positioning guide
- 178 2395030 Lock disc
- 179 2938088 Washer
- 180 2570055 Arm
- 181 3014032 Arm positioning guide
- 182 2622198 Washer
- 183 2380013 Nut M3
- 184 2803005 Eccentric
- 185 2992048 Pin
- 186 3170141 Insulating piece
- 187 2390002 Locking ring
- 188 7536029 Tagstrip
- 5001001 Resistor 10 Ohms 10%
1/2W
- 4016050 Capacitor 10 uF 265 V
- 189 3170142 Insulating piece
- 190 3162091 Cover
- 191 2390001 Locking ring
- 192 2622136 Washer
- 193 3035020 Plastic foot
- 194 2819075 Spring
- 195 3152101 Lead holder
- 196 2850057 Arm
- 197 2905052 Adjustment collar
- 198 3131068 Housing
- 199 2854032 Arm
- * 200 7600018 Relay
- 4200279 El. capacitor 1 uF 250 V
- 8300176 Diode
- 5011017 Resistor 220 ohm 5%
1/2W
- 7600027 Relay complete
- 3947469 High-voltage insulating
tape
- 201 2854031 Arm
- 202 3131067 Housing
- 203 2819076 Holder
- 204 3017010 Cam-lifting wheel
- 205 2038220 Screw AM 3 x 12 DIN 84
- 206 2361019 Locking pin
- 207 2038208 Screw AM 3 x 5 DIN 84
- 208 2623030 Lifting ring
- 209 2389041 Nut
- 210 2812063 Spring
- 211 3130054 Lifting device
- 212 2938103 Ring
- 213 2390069 Locking ring
- 214 2390065 Locking ring
- 215 3010006 Chassis
- 216 2390033 Locking ring
- 217 3152186 Ball holder
- 218 2938114 Bushing
- 219 2917017 Ball
- 220 7459014 Contact (silent)
- 7530072 Solder tag
- 221 7459015 Contact (slide valve)
- 222 2938115 Pin bearing
- 223 2390033 Locking ring
- 224 2851088 Arm
- 225 2819106 Spring
- 226 2750018 Cluth disc
- 227 2819107 Spring
- * 228 2855076 Lifting bar
- 229 2938116 Pin
- * 230 2852025 Arm
- 231 2390046 Locking ring
- 232 2938111 Pickup-bearing complete

*See section 7, MODIFICATIONS:



- * 240 Cover
- * 241 Counterweight
- 242 2070400 Threaded pin M 2 x 3
- 243 6300063 PC-boards with leads
- 244 8954390 Pickup unit MMC 3000
- 245 3302230 Cap for pickup
- 246 2380068 Nut M2
- 247 2034924 Screw
- 249 3190049 Pointer
- 250 2815008 Spring
- 251 2034205 Screw AM 2 x 6 DIN 84
- 252 2815009 Spring
- 253 3342024 Counterweight
- 254 2568276 Guide rail for counterweight
- 255 2938096 Bushing
- 256 2072924 Adjustment screw
- 257 2938101 Bushing
- 258 2815010 Spring

*See section 7, MODIFICATIONS, mechanical relay.



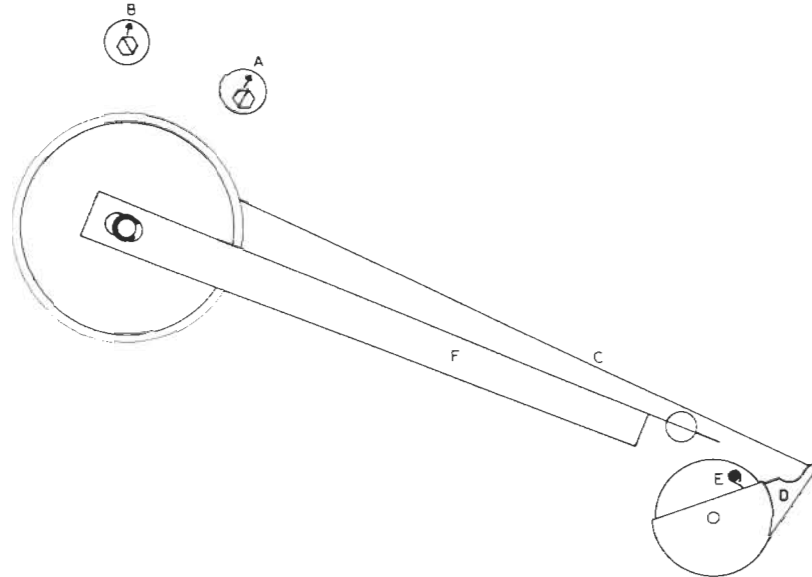
- 270 2390002 Locking ring
- 271 2804034 Idler wheel
- 272 2851089 Arm
- 273 2390002 Locking ring
- 274 2854043 Arm
- 275 3015068 Shim
- 276 2570024 Arm
- 277 2819115 Spring
- 278 2620060 Washer
- 279 2620060 Washer
- 280 2804035 Stepped pulley
- 281 2622241 Washer
- 282 3356031 Magnet
- 283 2810079 Spring

PARTS NOT SHOWN

- 3532105 Instruction diagram
- 6271047 Mains lead
- 6250976 Pickup lead mounted
- 7220042 Contact housing
- 7500076 Contact plug
- 3152171 Transit protection device for pickup-arm
- 3391444 Packing, outer carton
- 3387212 Packing, top
- 3297213 Packing, bottom
- 3464211 Lid complete

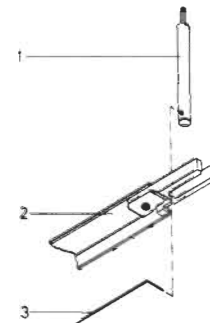
SERVICE TIPS AND MODIFICATIONS
MOUNTING THE PICK-UP ARM

Set eccentric screws A and B so that they are at right angles to the arm F, as shown in the sketch. Set the record selector to the 17 position. Rotate the turntable until the bar D stops its travel. Hold the arm C in this position. Bring the pickup arm into position for landing at "17 cm" and fasten the pickup arm. Coarse adjustment of pickup landing can be made by turning the eccentric stud E with a pair of flat-nose pliers. Fine adjustment, as previously described, is done with eccentric screws A and B. Earlier units only have provision for fine adjustment with eccentric screws A and B. In these units the pickup arm should therefore be positioned with special accuracy while it is being fastened.



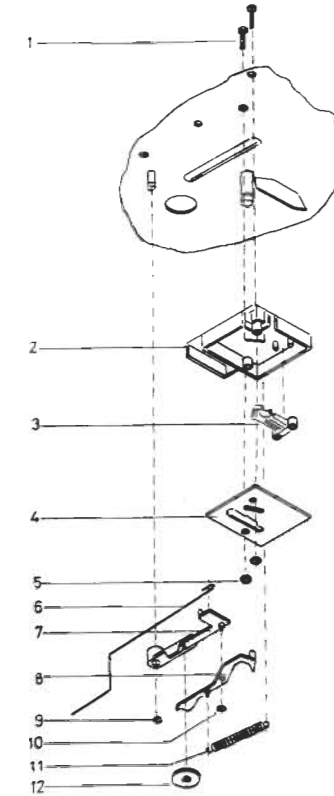
LIFT SYSTEM

As from No. 055001, the following modification to the lift system has been introduced.



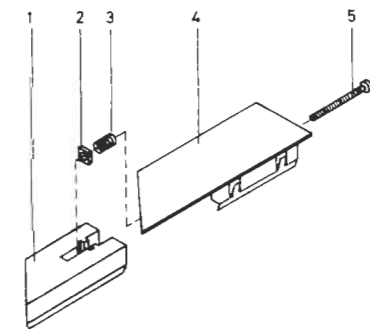
- 1 2850083 Lifting device
- 2 2852032 Lifting arm
- 3 2530326 Bracket

MECHANICAL RELAY



- | | | | | | |
|---|---------|---------------------------|-----|---------|----------------------------|
| 1 | 2038222 | Screw AM 3 x 14
DIN 84 | 8 | 2853043 | Switch arm |
| 2 | 3131121 | Switch housing | 9 | 2390002 | Locking disc 3,2 |
| 3 | 7402081 | Micro switch | 10 | 2390001 | Locking disc 2,3 |
| 4 | 3162095 | Cover | 11 | 2819122 | Spring |
| 5 | 2380011 | Nut M3 | 12 | 2622246 | Washer |
| 6 | 2570056 | Arm | 141 | 3131124 | Housing for
LIFT-button |
| 7 | 2853042 | Arm | | | |

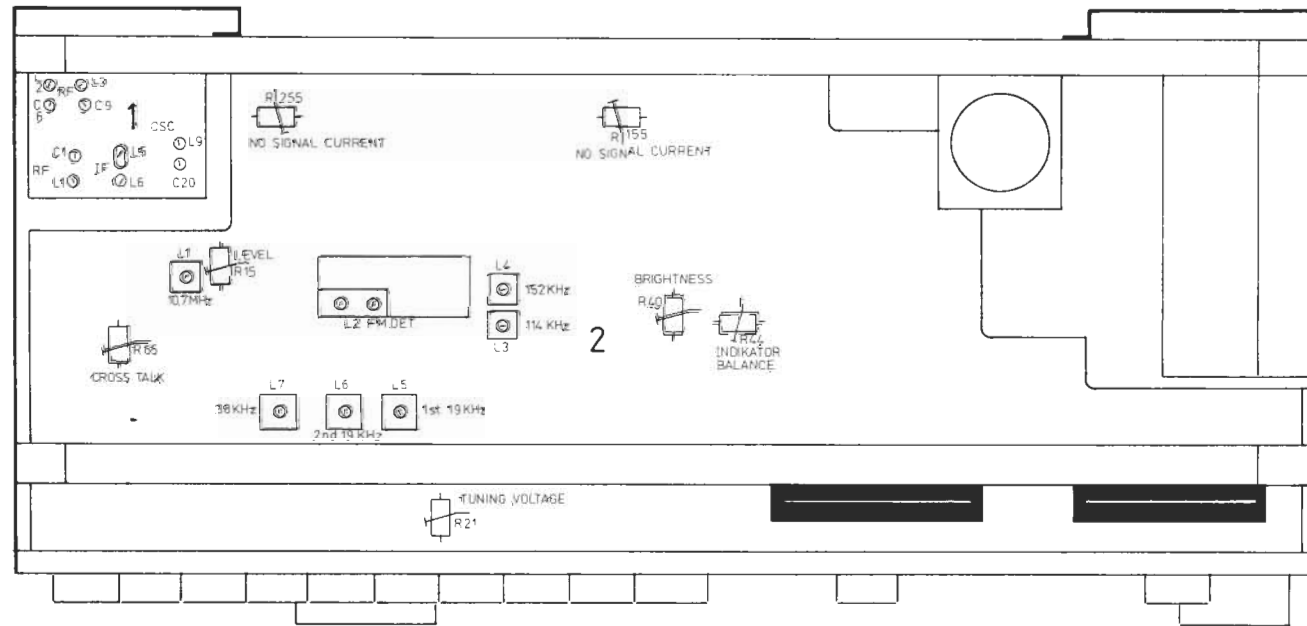
COUNTERWEIGHT



- 1 3342032 Counterweight
- 2 2380068 Square nut
- 3 2812072 Spring
- 4 3162093 Cover
- 5 2034913 Screw AM 2 x 16
DIN 84

Above-mentioned parts are delivered by number: 3342036.

In case of later servicing around the counter weight system spare parts can be ordered separately under the above-mentioned code numbers.



CONDITIONS OF MEASUREMENT FOR DIAGRAM

All DC voltages are measured in proportion to chassis with voltmeter (inner resistance 11 MOhms).
 DC voltages are measured with the receiver in position FM and an aerial signal of 500 μ V (1 mV EMK) with pilot signal, volume on 0.
 FM sensitivities are measured at Δf 40 kHz, f mod. 1 kHz and 10 W output.
 AF sensitivities are measured at 22 W output. Balance, bass, treble on 0, volume on max.
 Output loaded with 4 ohms, input 1 kHz.
 Mechanical switches are shown in neutral position.

FM SENSITIVITIES

2TP1	60 μ V (10.7 MHz) through 0.1 μ F, RG 75 Ohms.
2TP2	170 μ V (10.7 MHz) through 0.1 μ F, RG 75 Ohms
2TP3	600 μ V (10.7 MHz) through 0.1 μ F, RG 75 Ohms

AF SENSITIVITIES

2TP100	2.5 mV
2TP200	2.5 mV
2TP101	135 mV
2TP201	135 mV
2TP102	150 mV
2TP202	150 mV
2TP103	500 mV
2TP203	500 mV

NO-SIGNAL CURRENT

2TP104 10 mV
 2TP204 10 mV δ r:
 25 mA in the collector of 2IC102, 2IC202.

MESSBEDINGUNGEN FÜR SCHALTBILD

Alle DC Spannungen sind in Verhältnis zu Chassis mit Voltmeter (innerer Widerstand 11 MOhm) gemessen.
 DC Spannungen sind mit dem Empfänger in Stellung FM und dem Antennensignal von 500 μ F (1 mV EMK) mit Pilotton gemessen, Volume auf 0.
 UKW Empfindlichkeiten sind an Δf 40 kHz, f mod. 1 kHz und 10 W Ausgang gemessen.
 NF Empfindlichkeiten sind an 22 W Ausgang gemessen. Balance, Tiefton, Diskant auf 0, Volume auf max. Ausgang mit 4 Ohm, Eingang 1 kHz belastet.
 Mechanische Umschalter sind in neutraler Stellung gezeigt.

UKW EMPFINDLICHKEITEN

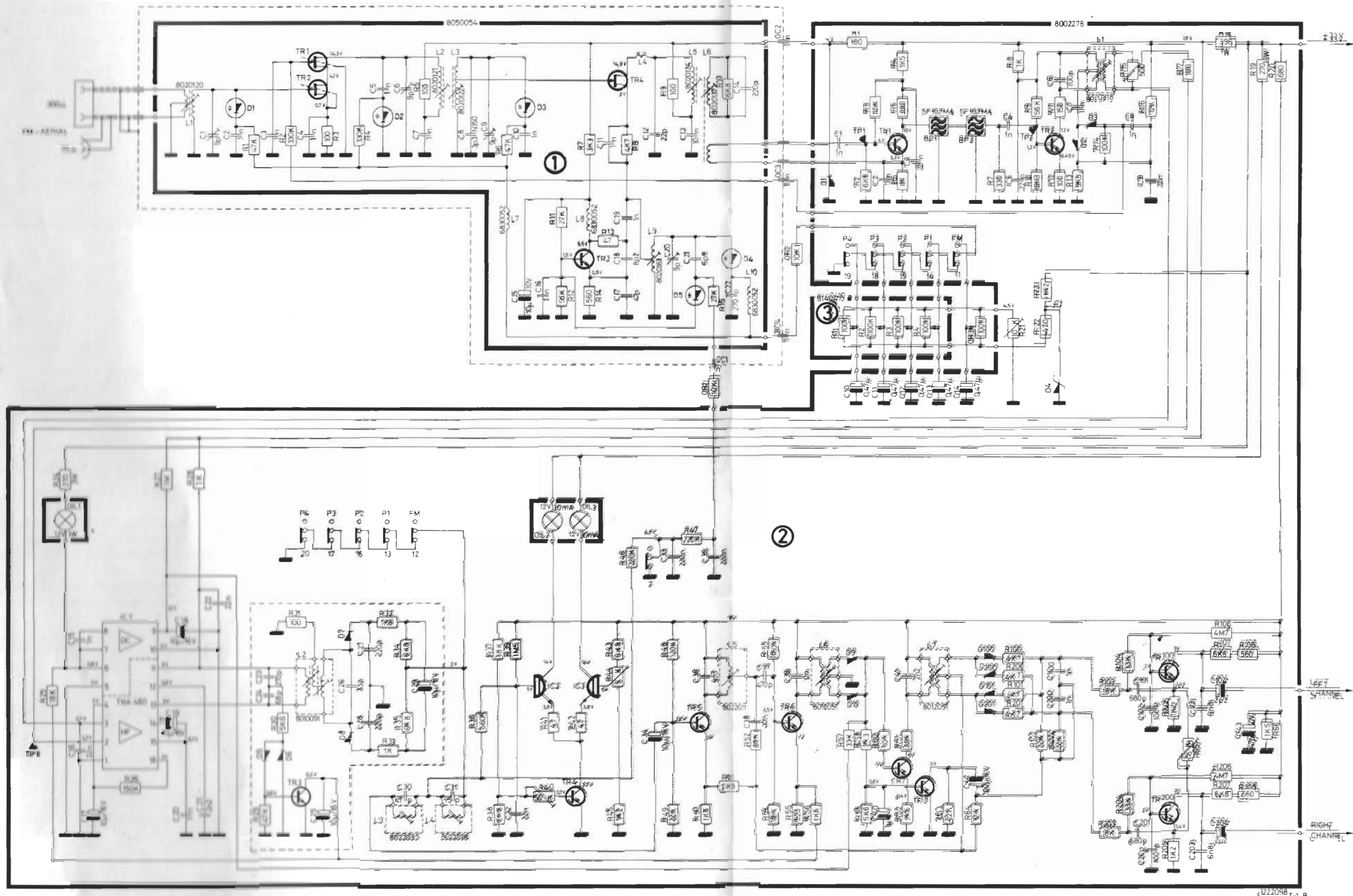
2TP1	60 μ V (10,7 MHz) durch 0,1 μ F, RG 75 Ohm.
2TP2	170 μ V (10,7 MHz) durch 0,1 μ F, RG 75 Ohm.
2TP3	600 μ V (10,7 MHz) durch 0,1 μ F, RG 75 Ohm.

NF EMPFINDLICHKEITEN

2TP100	2,5 mV
2TP200	2,5 mV
2TP101	135 mV
2TP201	135 mV
2TP102	150 mV
2TP202	150 mV
2TP103	500 mV
2TP203	500 mV

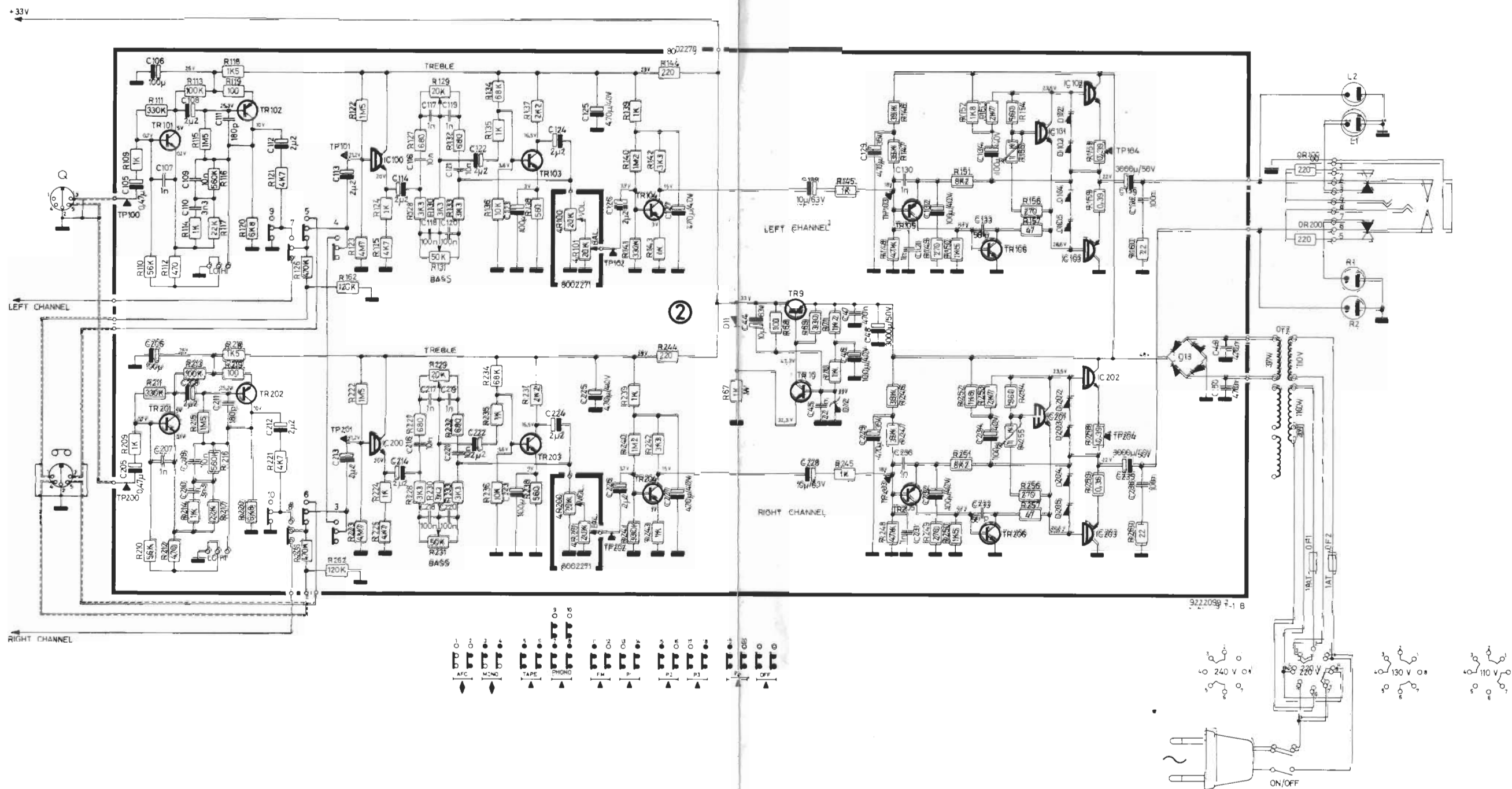
LEERLAUFSTROM

2TP104 10 mV
 2TP204 10 mV oder:
 25 mA im Kollektor von 2IC102, 2IC202.



C1222054B T-1 B

DIAGRAM 1



MÅLEBETINGELSER FOR DIAGRAM

Alle DC spændinger er målt i forhold til stel med voltmeter (indre modstand 11 MOhm).
 DC spændingerne er målt med modtageren i stilling FM og Antennesignal på 500 μ V (1 mV EMK) med pilottone, volume på 0.
 FM følsomheder er målt ved Δf 40 kHz, f. mod. 1 kHz og 10 W output.
 LF følsomheder er målt ved 22 W output. Balance, bas, diskant på 0, volume på max.
 Udgang belastet med 4 Ohm, input 1 kHz.
 Mekaniske omskifttere er vist i neutral stilling.

FM FØLSOMHEDER

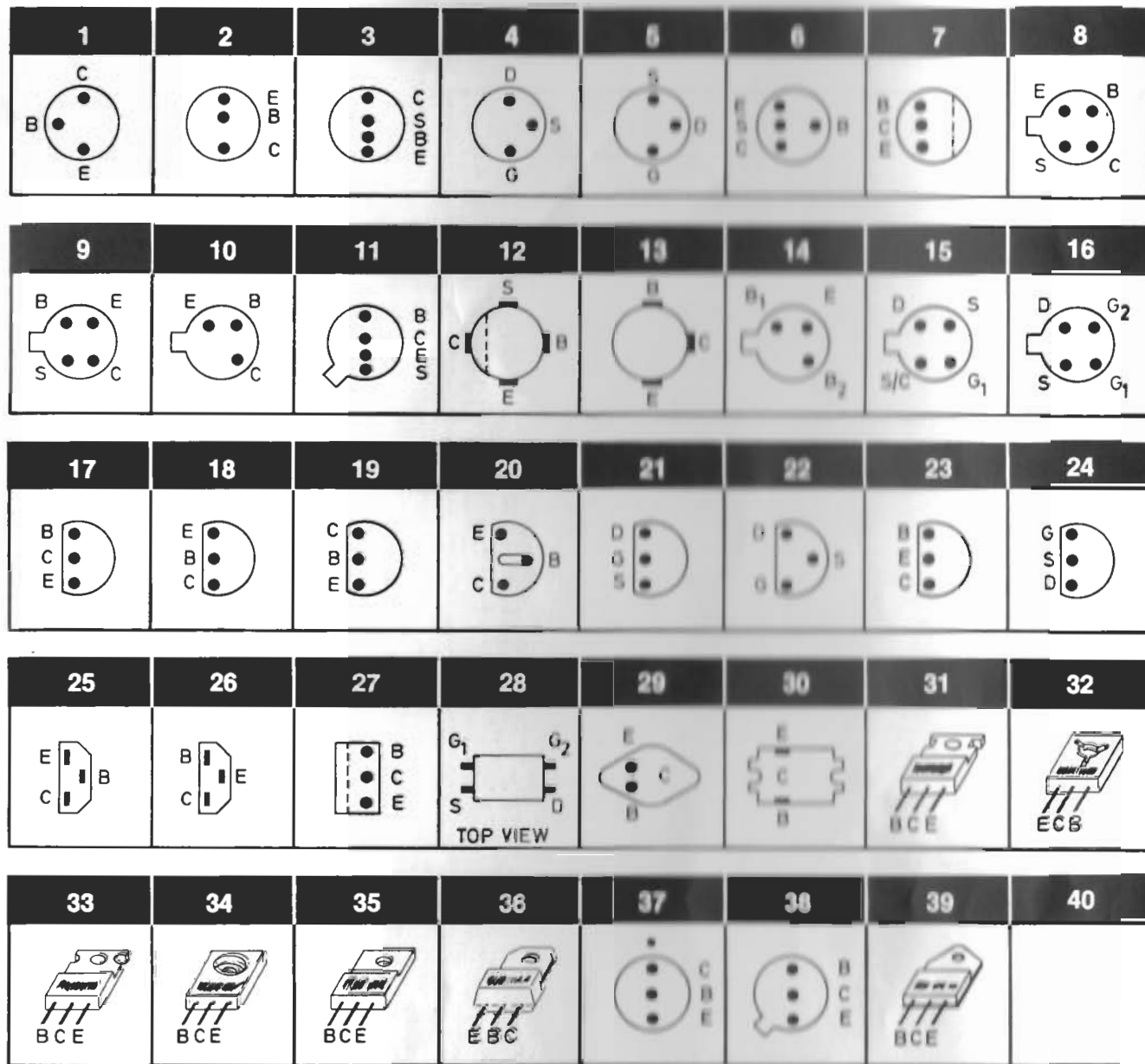
2TP1 60 μ V (10,7 MHz) gennem 0,1 μ F, RG 75 Ohm.
 2TP2 170 μ V (10,7 MHz) gennem 0,1 μ F, RG 75 Ohm.
 2TP3 600 μ V (10,7 MHz) gennem 0,1 μ F, RG 75 Ohm.

LF FØLSOMHEDER

2TP100 2,5 mV
 2TP200 2,5 mV
 2TP101 135 mV
 2TP201 135 mV
 2TP102 150 mV
 2TP202 150 mV
 2TP103 500 mV
 2TP203 500 mV

TOMGANGSSTRØM

2TP104 10 mV
 2TP204 10 mV eller:
 25 mA i kollektoren af 2IC102, 2IC202.



TRANSISTOR LIST

1TR1	8320119	4	U 1981 E	2TR106/206	8320097	20	BC 547 B
1TR2		21	2N 5245			18	BC 237 B
		21	TIS 88 A			20	BC 171 B
						19	BC 317 B
1TR3	8320112	26	BF 195			20	BC 182 B
1TR4	8320136	4	U 1981 E			17	BC 182 BL
		5	U 1837 E			20	BC 182 BK
		21	2N 5245			1	BC 207 B
		21	3 C 2	2IC2	8340054	19	MPS A13
		22	3 C 2 P	2IC3			
		21	TIS 88 A	2IC100/200	8340028	19	MPS A13
2TR1	8320089	26	BF 194	2IC101/202		19	SPS 5418
2TR2				2IC102/202	8340027	34	BD 697
2TR3	8320097	20	BC 547 B	2IC103/203	8340023	34	BD 698
2TR4		18	BC 237 B				
		20	BC 171 B				
		19	BC 317 B				
		20	BC 182 B				
		17	BC 182 BL				
		20	BC 182 BK				
		1	BC 207 B				
2TR5	8320095	20	BC 549 B				
		20	BC 184 B				
		17	BC 184 BL				
		20	BC 184 BK				
2TR6	8320097	20	BC 547 B				
2TR7		18	BC 237 B				
2TR8		20	BC 171 B				
		19	BC 317 B				
		20	BC 182 B				
		17	BC 182 BL				
		20	BC 182 BK				
		1	BC 207 B				
2TR9	8320269	32	BD 236 B				
		32	BD 236 W				
		32	BD 178				
2TR10	8320295	20	BC 337				
		20	BC 337-25				
2TR100/200	8320138	20	BC 183 B				
		17	BC 183 BL				
		20	BC 183 BK				
2TR101/201	8320095	20	BC 549 B				
		20	BC 184 B				
		17	BC 184 BL				
		20	BC 184 BK				
2TR102/202	8320069	1	BC 154				
		19	BC 322 B				
		18	BC 309 B				
		20	BC 214 B				
		17	BC 214 BL				
		20	BC 214 BK				
		20	BC 559 B				
		18	BC 253 B				
2TR103/203	8320095	20	BC 549 B				
		20	BC 184 B				
		17	BC 184 BL				
		20	BC 184 BK				
2TR104/204	8320097	20	BC 547 B				
		18	BC 237 B				
		20	BC 171 B				
		19	BC 317 B				
		20	BC 182 B				
		17	BC 182 BL				
		20	BC 182 BK				
		1	BC 207 B				
2TR105/205	8320069	1	BC 154				
		19	BC 322 B				
		18	BC 309 B				
		20	BC 214 B				
		17	BC 214 BL				
		20	BC 214 BK				
		20	BC 559 B				
		18	BC 253 B				

DIODE AND IC LIST

1D1	8300050	BB 103 blue	2D100-2D363	8300131	1N 4148
1D2-1D3	8300041	BB 103 green	5D1-5D2	8300058	SFD 184 1N 4148
1D4	8300050	BB 103 blue	5D3	8300023	EM 502 1N 4002 1N 4003
1D5	8300032	BA 138	7D1-7D2	8300131	1N 4148
2D1	8300053	ZDP 15 V BZX 79 15 V	7D3	8300137	ZY 13 1,1W
2D2-2D3	8300131	1N 4148	2IC1	8340014	TBA 460
2D4	8340081	27 V reg.			
2D5-2D10	8300024	AA 119			
2D11	8300023	EM 502 1N 4002 1N 4003			
2D12	8300199	33 V 1W 5% ZPY 33 BZX 61 C 33			
2D13	8310020	B 80 C 3200/2200			

BEOMASTER 1100, TYPE 2609

20	8002278	PC-plade	PC-board
21	3411931	Kabinetside, venstre, teak	Cabinet side, left, teak
	3411933	Kabinetside, venstre, Palisander	Cabinet side, left, rosewood
	3411934	Kabinetside, venstre, eg	Cabinet side, left, oak
	3411936	Kabinetside, venstre, sort	Cabinet side, left, black
	3412061	Kabinetside, højre, teak	Cabinet side, right, teak
	3412063	Kabinetside, højre, palisander	Cabinet side, right, rosewood
	3412064	Kabinetside, højre, eg	Cabinet side, right, oak
	3412066	Kabinetside, højre, sort	Cabinet side, right, black
22	3112114	Vinkel	Bracket
53	3454116	Bund	Bottom plate
60	2568271	Frontprofil, nederste	Moulding, bottom front
81	2568239	Frontprofil, øverste	Moulding, upper front

IKKE VISTE DELE

NOT SHOWN PARTS

7210099	Stikpanel 75/300 Ohm	Socket panel 75/300 Ohms
3532114	Instruktionsdiagram	Instruction diagram
3411551	Kabinettopplade, teak	Cabinet top, teak
3411553	Kabinettopplade, palisander	Cabinet top, rosewood
3411554	Kabinettopplade, eg	Cabinet top, oak
3411556	Kabinettopplade, sort	Cabinet top, black
3452221	Bagplade, højre	Back plate, right
3452223	Bagplade, venstre	Back plate, left
2568227	Profil til toplade	Moulding for cabinet top
3391410	Top/bund indlæg	Top/bottom insert
3391411	Yderæske	Outer carton
3397176	Skumemballage	Foam packing

Øvrige dele som BEOCENTER 1800, type 2610

Other parts as BEOCENTER 1800, type 2610

BEOMASTER 1100, TYP 2609

20	8002278	Printplatte	CIRCUIT IMPRIME
21	3411931	Gehäuse, links, Teakholz	EBENISTERIE, GAUCHE, TECK
	3411933	Gehäuse, links, Palisander	EBENISTERIE, GAUCHE, PALISSANDRE
	3411934	Gehäuse, links, Eiche	EBENISTERIE, GAUCHE, CHENE
	3411936	Gehäuse, links, Schwarz	EBENISTERIE, GAUCHE; NOIR
	3412061	Gehäuse, recht, Teakholz	EBENISTERIE, DROIT, TECK
	3412063	Gehäuse, recht, Palisander	EBENISTERIE, DROIT, PALISSANDRE
	3412064	Gehäuse, recht, Eiche	EBENISTERIE, DROIT, CHENE
	3412066	Gehäuse, recht, Schwarz	EBENISTERIE, DROIT, NOIR
22	3112114	Winkel	EQUERRE
53	3454116	Boden	FOND
60	2568271	Frontprofil, unterste	PROFILLE DE FACE, BAS
81	2568239	Frontprofil, oberste	PROFILLE DE FACE, HAUT

NICHT GEZEIGTE TEILE

DIVERS (NON INDIQUE)

7210099	Steckpanel 75/300 Ohm	PRISE FEMELLE 75/300 OHM
3532114	Schalbild	SCHEMA
3411551	Gehäuse, Teakholz	EBENISTERIE, TECK
3411553	Gehäuse, palisander	EBENISTERIE, PALISSANDRE
3411554	Gehäuse, Eiche	EBENISTERIE, CHENE
3411556	Gehäuse, Schwarz	EBENISTERIE, NOIR
3452221	Rückwärtige abdeckung, recht	PLAQUE ARRIERE, DROIT
3452223	Rückwärtige abdeckung, links	PLAQUE ARRIERE, GAUCHE
2368227	Profil für Gehäuse	PROFILLE POUR EBENISTERIE
3391410	Obere/untere Einlage	PLAQUES INTERIEURES HAUT/BAS
3391411	Aussenkarton	BOITE EXTERIEURE
3397176	Schaumstoffverpackung	EMBALLAGE POLYSTYRENE

Øvrige dele som BEOCENTER 1800, type 2610.

LES AUTRES PIECES SONT IDENTIQUE A CELLES DU BEOCENTER 1800, TYPE 2610