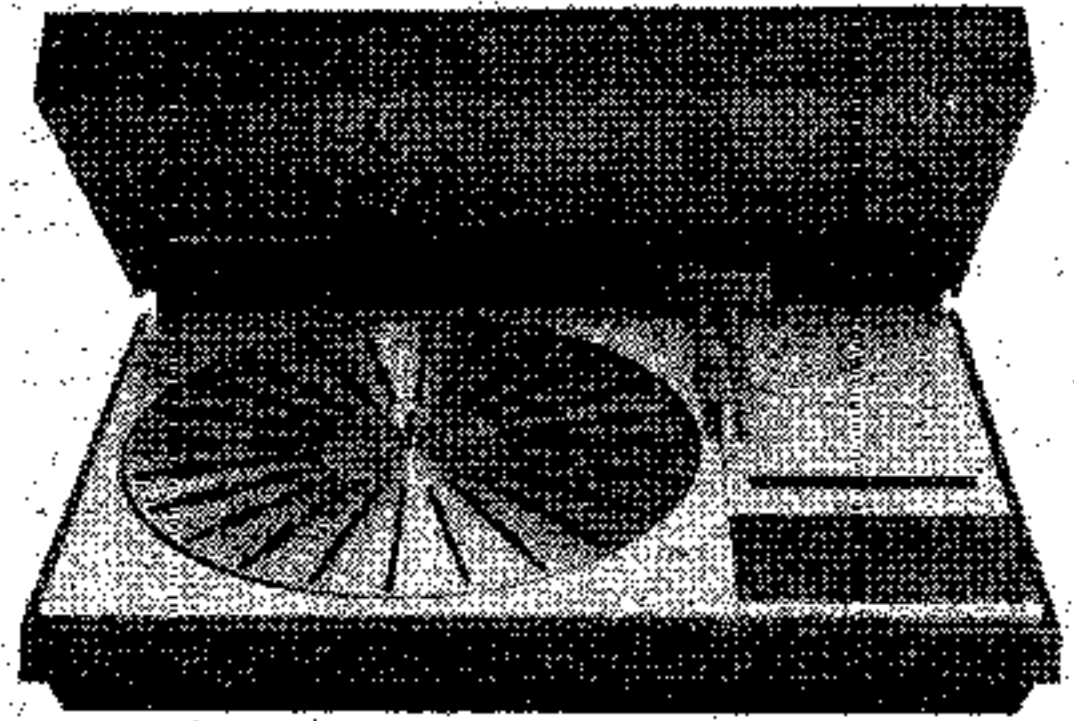


**Bang & Olufsen**



**BEOGRAM 4002-6000**

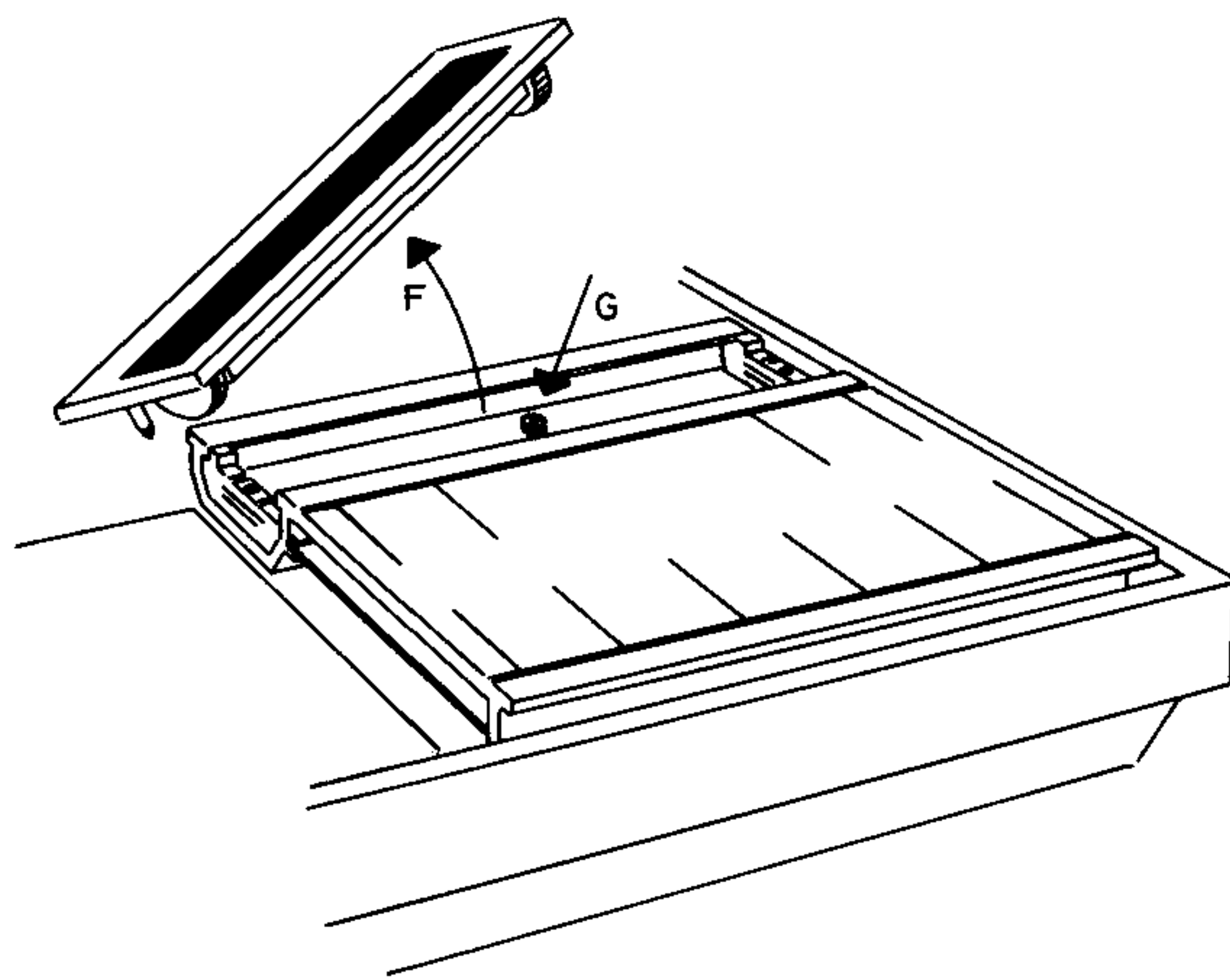
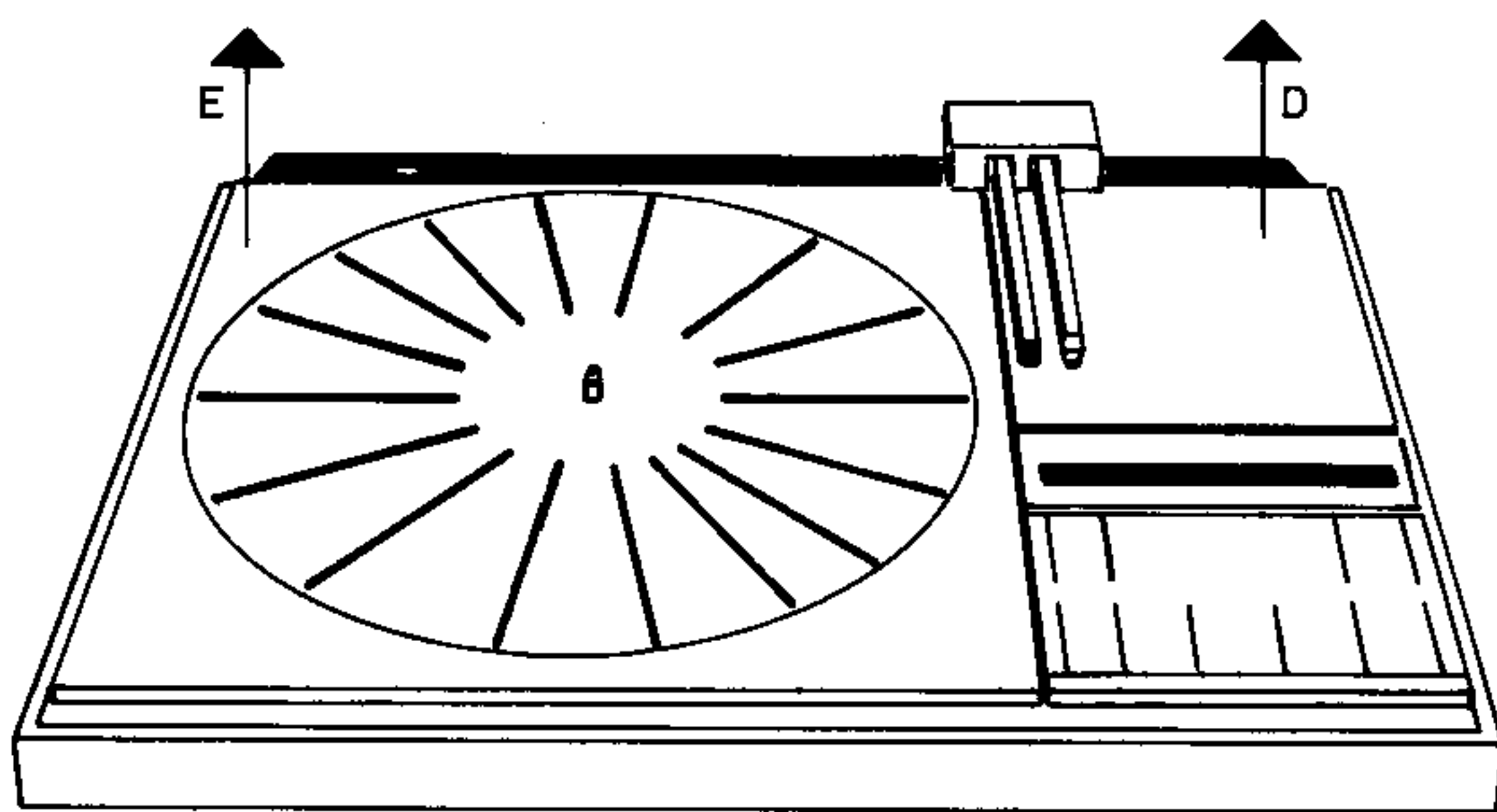
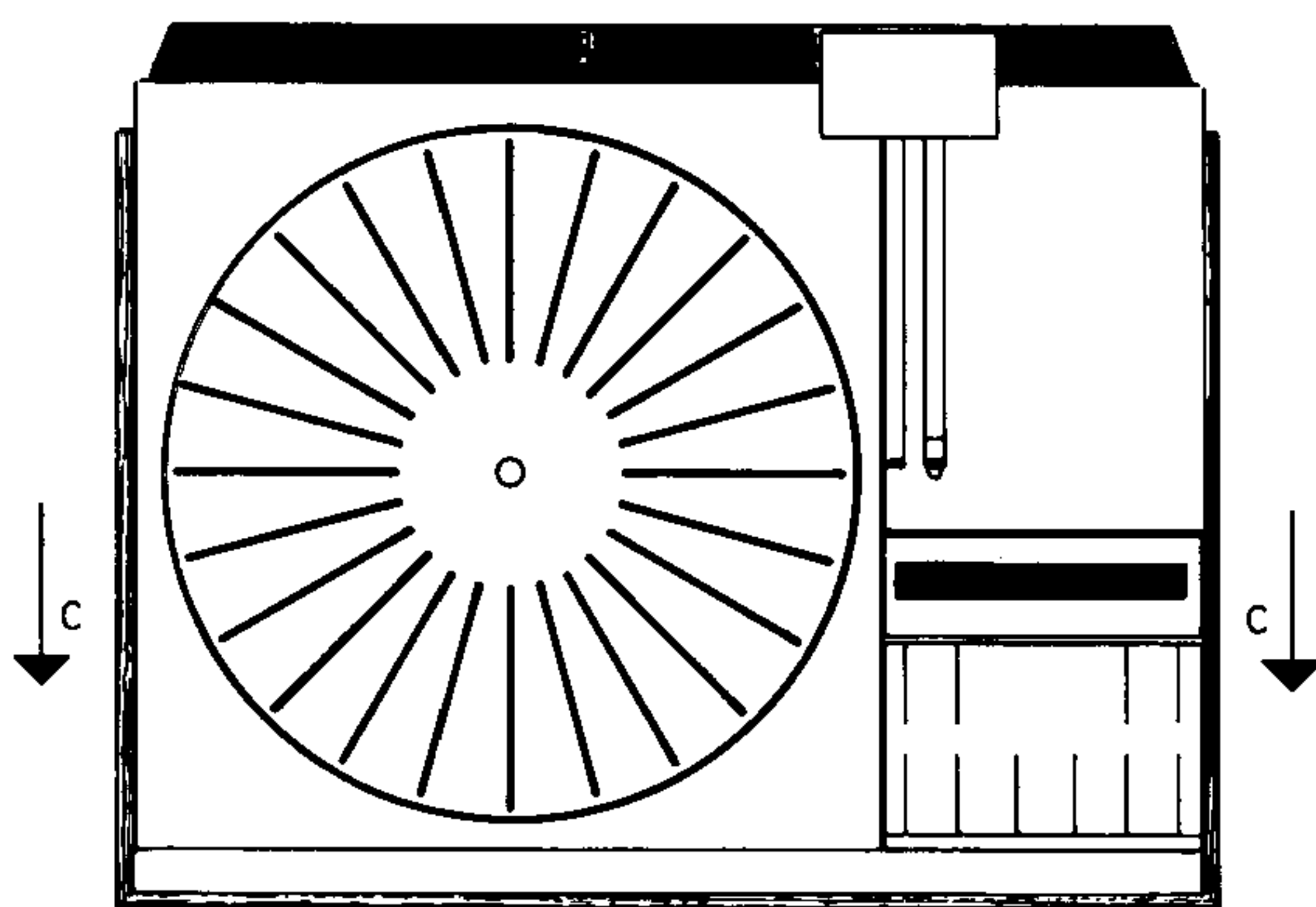
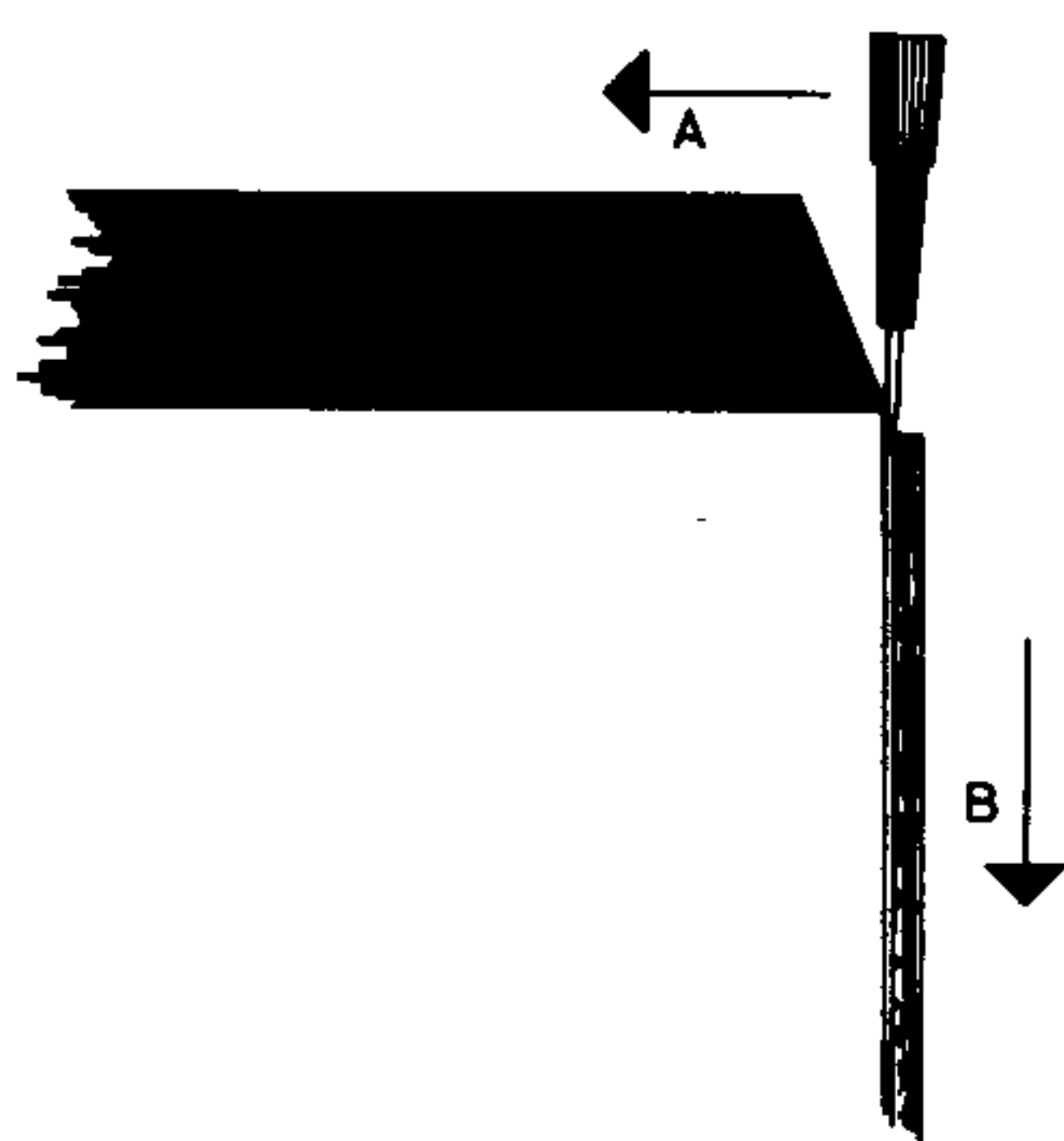
**TYPE 5501-5502**

**SERVICE MANUAL**



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ADSKILLELSE /  
DISASSEMBLY / ZERLEGUNG



TECNICAL DATA	DIN 45 500 requirements	BEOGRAM 4002	BEOGRAM 6000
Type No.		5501	5502
Sound system		Stereo, matrix	CD-4, Stereo, matrix
Output		2 x 1 mV	4 x 200 mV/470 k ohms
Speeds		33 - 45 rpm	33 - 45 rpm
Tone arm		Tangential	Tangential
Pickup cartridge		MMC 4000	MMC 6000
Automatic record-size		Yes	Yes
Automatic pickup movement		Yes	Yes
Automatic speed selection		Yes	Yes
Wow and flutter DIN	< ± 0,2%	< ± 0,05%	< ± 0,05%
Wow and flutter WRMS		< ± 0.025%	< ± 0,025%
Rumble, DIN unweighted	> 35 dB	> 42 dB	> 45 dB
Rumble, DIN weighted	> 55 dB	> 65 dB	> 65 dB
Speed deviation	< + 1,5% - 1%	< 0,02%	< 0,02%
Speed control range		> 6%	> 6%
Dial for speed		2 pointers	2 pointers
Stylus pressure range		0 - 1,5 gram	0 - 1,5 gram
Tangential tracking		0,04°	0,04°
Lift system		Electronic	Electronic
Antiskating		Parallel tracking angle compensated	Parallel tracking angle compensated
Motor		Controlled synchronous	Controlled synchronous
Drive system		Belt	Belt
Turntable		30 cm 2,2 kg	30 cm 2,2 kg
Dust cover		Hinged and detachable	Hinged and detachable
Power supply		110 - 130 - 220 - 240 volts	110 - 130 - 220 - 240 volts
Frequency		50 - 60 Hz	50 - 60 Hz
Power consumption		40 watts	50 watts
Dimensions W x H x D		49 x 10 x 38 cm	49 x 10 x 38 cm
Weight		12 kg	12 kg

Pick-up		MMC 4000	MMC 6000
Stylus		Elliptical naked diamond	Pramanik diamond
Radius of curvature	Spherical 15 µm ± 5 µm	5 x 17 µm	(CD-4 quadro)
Frequency range	40 - 12.000 Hz ± 5 dB 63,5 - 8.000 Hz ± 2 dB	20 - 25.000 Hz ± 1,5 dB	20 - 15.000 Hz ± 1,5 dB 30 - 45.000 Hz A-Rating
Channel separation 1000 Hz	≥ 20 dB	> 25 dB	> 25 dB
400 - 10000 Hz	≥ 15 dB	> 20 dB	> 20 dB
Channel difference	≤ 2 dB	< 1,5 dB	< 1,5 dB
FIM distortion	< 1%	< 1%	< 1%
Recommende stylus pressure	< 5 gram	1 gram	1 gram
Compliance	> 4 x 10 <sup>-6</sup> cm/dyn	30 x 10 <sup>-6</sup> cm/dyn	30 x 10 <sup>-6</sup> cm/dyn
Effective tip mass		0,4 mg	0,22 mg
Output mV/cm/sec.		0,6 mV/47 k ohms	0,6 mV/100 k ohms

**Subject to change without notice**

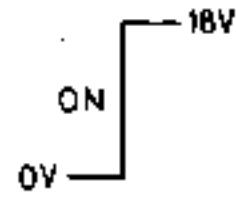
# Bang & Olufsen

Symboler  
Symbols  
Symbole

Som supplement til spændingsangivelserne benyttes symboler fra betjeningspanelet samt fra slædekontakterne til at angive, at en DC spænding i et kredsløb ændrer sig fra et niveau til et andet.

As a supplement to the measuring specification symbols from the operating panel and from the carrier switch are used to indicate that a DC voltage in a circuit changes from one level to another e.g.

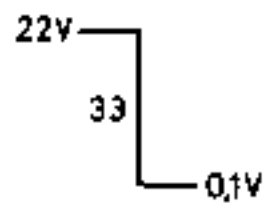
Als Ergänzung zu den Spannungsangaben werden die Symbole vom Bedienungspanel und von den Schlittenkontakten dazu benutzt, anzugeben, dass eine DC Spannung in einer Kreislauf sich von einem Niveau auf ein anderes ändert.



F.eks. betyder dette symbol, at spændingen springer fra 0 til 18 V, når panelkontakten ON aktiveres.

This symbol indicates that the voltage goes from 0 to 18 V when activating panel switch ON.

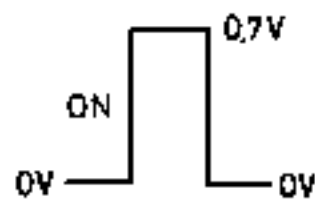
Z.B. bedeutet dieses Symbol, dass die Spannung von 0 auf 18 Volt springt, wenn den Kontakt ON aktiviert wird.



Dette symbol betyder, at spændingen springer fra 22 V til 0,1 V, når panelkontakten 33 aktiveres.

This symbol indicates that the voltage goes from 22 V to 0,1 when activating panel switch 33.

Dieses Symbol bedeutet, dass die Spannung von 22 Volt auf 0,1 Volt springt, wenn den Panelkontakt 33 aktiviert wird.

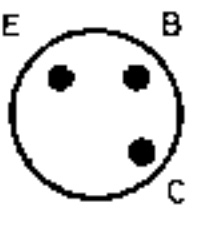
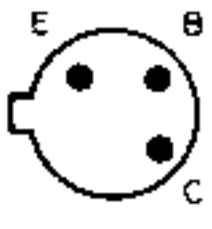

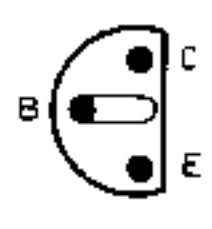
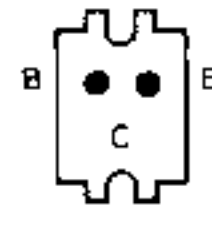
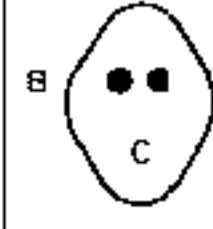
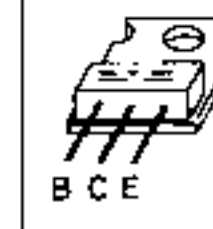


Dette symbol betyder, at spændingen springer fra 0 til 0,7 V, så længe ON kontakten aktiveres, hvorefter spændingen igen springer på 0 V.

This symbol indicates that the voltage goes from 0 to 0,7, as long as the ON switch is activated, whereafter the voltage goes to 0 again.

Dieses Symbol bedeutet, dass die Spannung von 0 auf 0,7 springt, solange den Kontakt ON aktiviert wird, worauf die Spannung wieder auf 0 Volt springt.

**DIAGRAM 1** Beogram 4002 Type 5501 until no. 257556  
Beogram 6000 Type 5502 until no. 260028

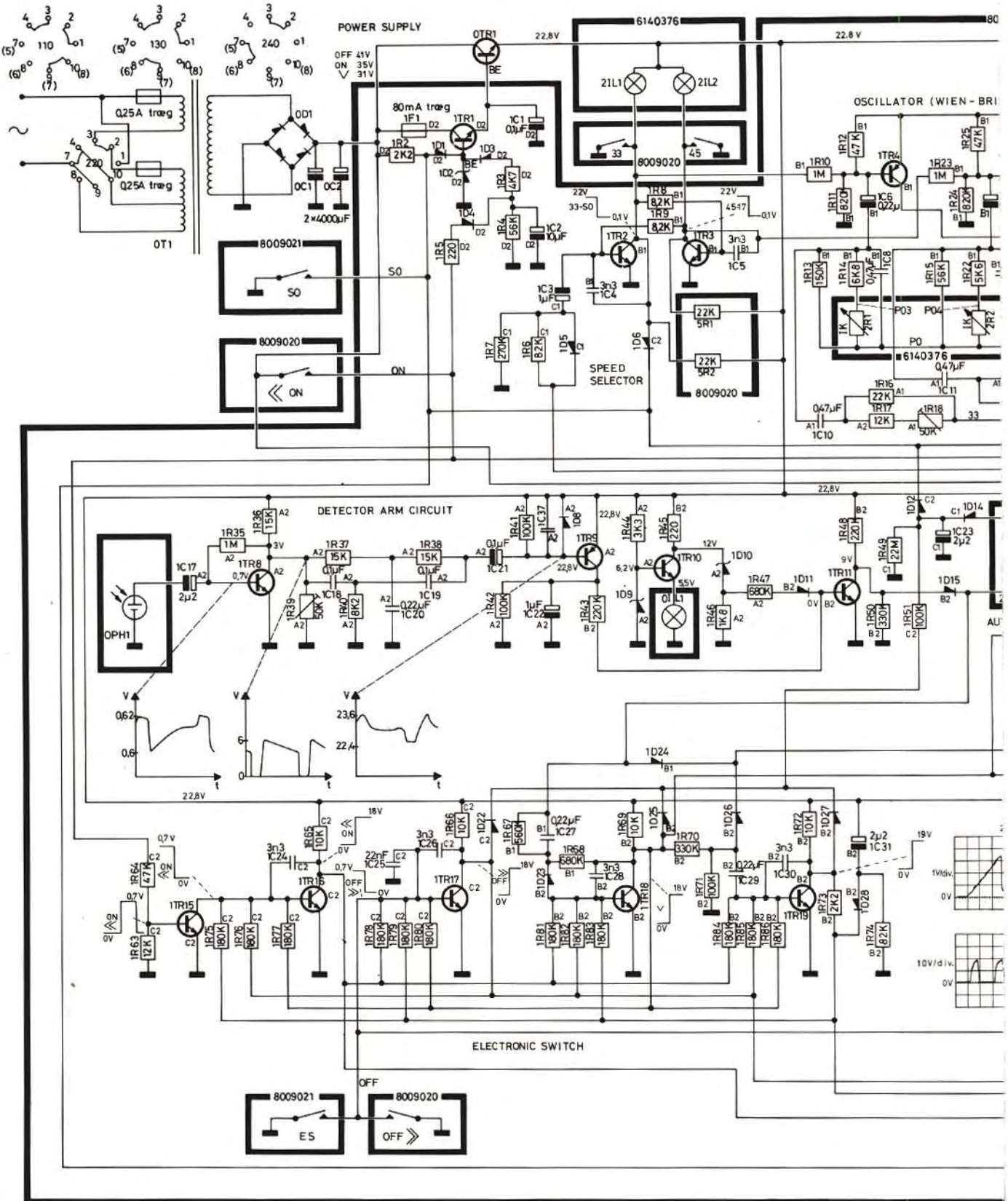
INDEX							
8320097	BC207B	BC107B	BC182BL	BC547B BC237B BC182B BC171B			
8320103					2N5034 2N5035		
8320135		MM3005/ MM4005 BC143/ BC144 BC143/ BC142					
8320161		BC261B	BC212BL	BC212B BC251B			
8320222						BD182 2N3055	
8320232		BC142 BC144					
8320265							TIP32
8320266							TIP31
8320295			BFR41	BC337			
8320312							TIP41A

0TR1	8320103	1TR7	8320232	1TR19	8320097
0TR1	8320222	1TR8	8320097	1TR20	8320097
0TR2	8320266	1TR9	8320161	1TR21	8320097
0TR3	8320265	1TR10	8320295	1TR22	8320097
0TR4	8320312	1TR11	8320097	1TR23	8320161
1TR1	8320232	1TR12	8320097	1TR24	8320135
1TR2	8320097	1TR13	8320097	1TR25	8320135
1TR3	8320097	1TR14	8320232	1TR26	8320135
1TR4	8320161	1TR15	8320097	1TR27	8320135
1TR5	8320161	1TR16	8320097	1TR28	8320097
1TR6	8320232	1TR17	8320097	1TR29	8320161
		1TR18	8320097		

0D1	8310020	B80C2200	
1D2	8300054	ZPD24V±5%	BZX79C24V0
1D9	8300201	ZPD6V2±5%	BZX79C6V2
1D10	8300053	ZPD15V±5%	BZX79C15V0
1D12	8300101	BAX16	BZY88C15
3D1	8300102	IN4004	EM504
Other diodes	8300058	IN4148	SFD184

DIAGRAM 1

Beogram 4002 Type 5501 until no. 257556/Beogram 6000 Type 5502 until no. 260028



Alle DC spændinger er positive i forhold til stel, og de er målt med roterende pladetallerken, med hævet pick-up arm og med detektorarmen inde over en plade.

Spændingerne er målt med voltmeter med en indre modstand på mindst 2 Mohm.

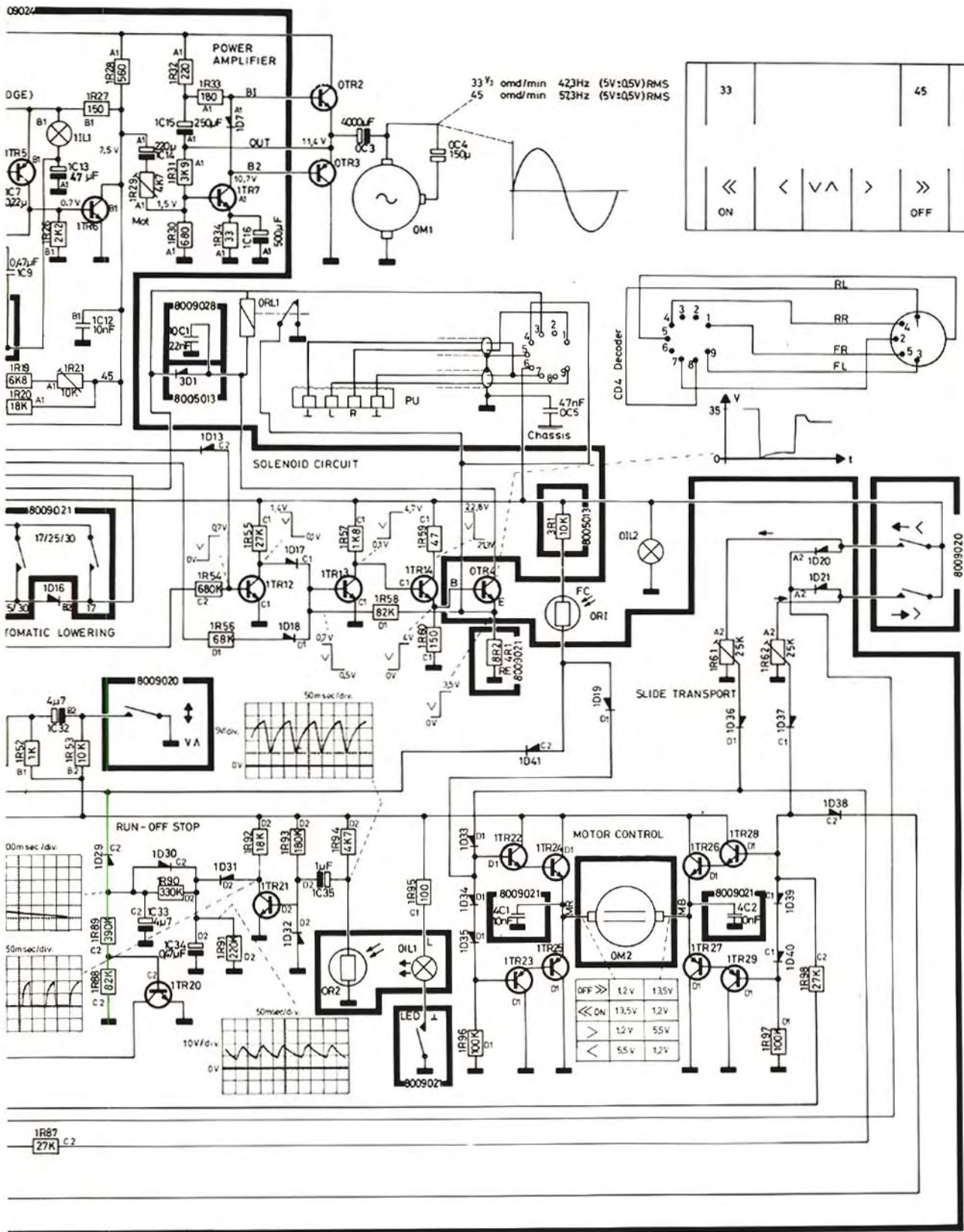
De angivne impulser i detektorarmskredsløbet er målt med roterende pladetallerken og med detektorarmen inde over ribberne uden plade på. Impulserne i udløbsstopet er målt med pick-up'en sænket i en udløbsrille med en stigning på ca. 3 mm/omdr. på 30 cm plade.

All DC voltages are positive in proportion to chassis table and raised pick-up arm and with the detector arm

The voltages are measured by voltmeter and an inner

The stated impulses of the detector arm circuit are measured with the detector arm over the ribs without any record on

The impulses of the outlet stop are measured with the pick-up arm lowered in a groove with a rise of approx. 3 mm/turns on 30 cm record.



and they are measured with rotating turn-  
rm over a record.

resistor of at least 2 M ohms.

asured with rotating turntable and with

e pick-up lowered into an outlet groove

Alle DC Spannungen sind positiv im Verhältnis zu Masse und sie sind mit rotierendem Plattenteller, mit gehobenem Tonarm und mit dem Detektorarm über einer Platte gemessen.

Die Spannungen sind mit Voltmeter gemessen (Innenwiderstand min. 2 M ohm).

Die angegebenen Impulse des Detektorarmkreislaufes sind mit rotierendem Plattenteller und mit Detektorarm über den Ribben ohne Platte gemessen.

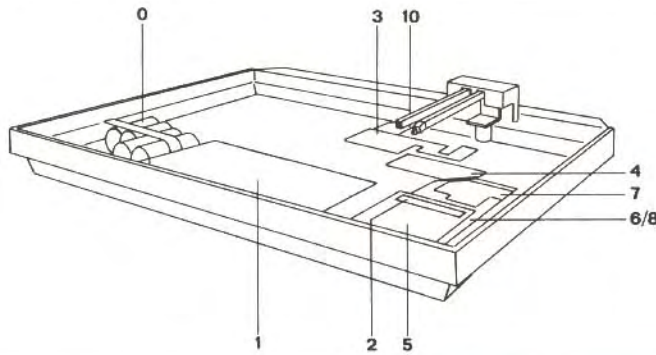
Die Impulse der Auslaufabschaltung sind mit dem Tonarm in einer Auslaufrille mit einer Steigung von etwa 3 mm/Umdrehungen auf 30 cm Platte gesenkt gemessen.



# Bang & Olufsen

## DIAGRAM 1

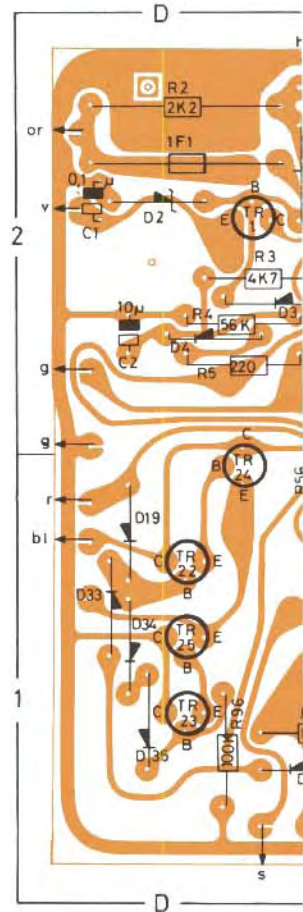
Beogram 4002 Type 5501 until no. 277556  
Beogram 6000 Type 5502 until no. 260028

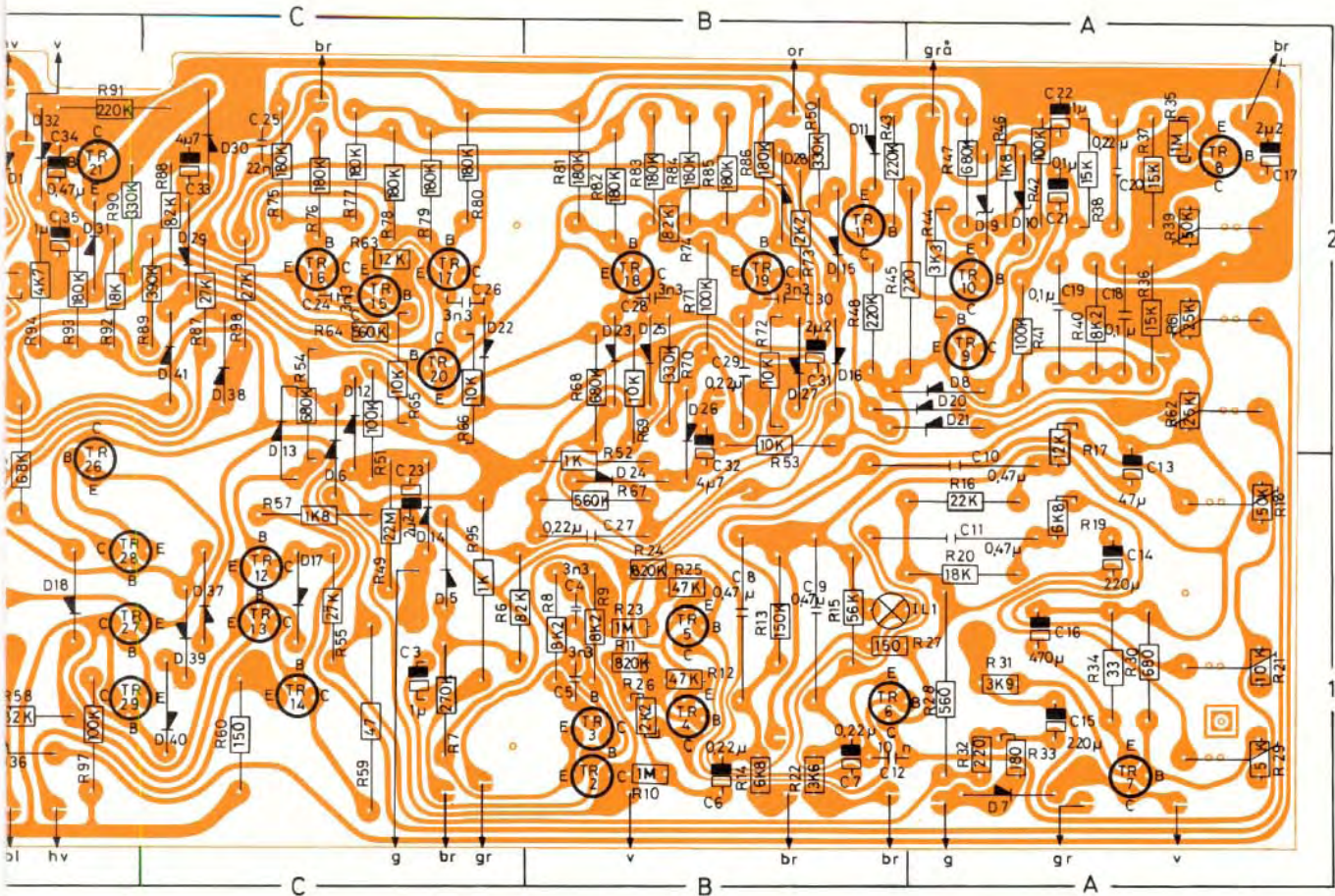


<b>0</b>			<b>M</b>		
<b>C</b>			<b>M1</b>	8400066	
<b>C1</b>	4200310	4000 µF 50 V	<b>M2</b>	8400062	
<b>C2</b>	4200310	4000 µF 50 V	<b>RL</b>		
<b>C3</b>	4200259	4000 µF 25 V	<b>RL1</b>	6810001	
<b>C4</b>	4200260	150 µF 10 V BIPOLAR	<b>PH</b>		
<b>C5</b>	4130087	47 nF 10% 250 V	<b>PH1</b>	8760002	<b>BP 100</b>
<b>IL</b>			<b>R</b>		
<b>IL1</b>	8230047	6 V 50 mA	<b>R1</b>	5210004	<b>ORP61</b>
<b>IL2</b>	8230044	24 V 25 mA			

## 1 PC 8009024

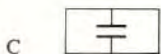
<b>R</b>			<b>R33</b>	5010362	180 Ohm 5% 1/8 W	<b>R65</b>	5010059	10 KOhm 5% 1/8 W
<b>R2</b>	5002028	2K2 Ohm 10% 1 W	<b>R34</b>	5010253	33 Ohm 5% 1/8 W	<b>R66</b>	5010059	10 KOhm 5% 1/8 W
<b>R3</b>	5010048	4K7 Ohm 5% 1/8 W	<b>R35</b>	5010054	1 MOhm 5% 1/8 W	<b>R67</b>	5010071	560 KOhm 5% 1/8 W
<b>R4</b>	5010061	56 KOhm 5% 1/8 W	<b>R36</b>	5010053	15 KOhm 5% 1/8 W	<b>R68</b>	5010074	680 KOhm 5% 1/8 W
<b>R5</b>	5010092	220 Ohm 5% 1/8 W	<b>R37</b>	5010053	15 KOhm 5% 1/8 W	<b>R69</b>	5010059	10 KOhm 5% 1/8 W
<b>R6</b>	5010091	82 KOhm 5% 1/8 W	<b>R38</b>	5010053	15 KOhm 5% 1/8 W	<b>R70</b>	5010117	330 KOhm 5% 1/8 W
<b>R7</b>	5010083	270 KOhm 5% 1/8 W	<b>R39</b>	5370061	50 KOhm 20% LIN	<b>R71</b>	5010049	100 KOhm 5% 1/8 W
<b>R8</b>	5010154	8K2 Ohm 5% 1/8 W	<b>R40</b>	5010154	8K2 Ohm 5% 1/8 W	<b>R72</b>	5010059	10 KOhm 5% 1/8 W
<b>R9</b>	5010154	8K2 Ohm 5% 1/8 W	<b>R41</b>	5010049	100 KOhm 5% 1/8 W	<b>R73</b>	5010064	2K2 Ohm 5% 1/8 W
<b>R10</b>	5010054	1 MOhm 5% 1/8 W	<b>R42</b>	5010049	100 KOhm 5% 1/8 W	<b>R74</b>	5010091	82 KOhm 5% 1/8 W
<b>R11</b>	5010505	820 KOhm 5% 1/8 W	<b>R43</b>	5010120	220 KOhm 5% 1/8 W	<b>R75</b>	5010072	180 KOhm 5% 1/8 W
<b>R12</b>	5010045	47 KOhm 5% 1/8 W	<b>R44</b>	5010076	3K3 Ohm 5% 1/8 W	<b>R76</b>	5010072	180 KOhm 5% 1/8 W
<b>R13</b>	5010063	150 KOhm 5% 1/8 W	<b>R45</b>	5002017	220 Ohm 10% 1 W	<b>R77</b>	5010072	180 KOhm 5% 1/8 W
<b>R14</b>	5010052	6K8 Ohm 5% 1/8 W	<b>R46</b>	5010066	1K8 Ohm 5% 1/8 W	<b>R78</b>	5010072	180 KOhm 5% 1/8 W
<b>R15</b>	5010061	56 KOhm 5% 1/8 W	<b>R47</b>	5010074	680 KOhm 5% 1/8 W	<b>R79</b>	5010072	180 KOhm 5% 1/8 W
<b>R16</b>	5010079	22 KOhm 5% 1/8 W	<b>R48</b>	5010120	220 KOhm 5% 1/8 W	<b>R80</b>	5010072	180 KOhm 5% 1/8 W
<b>R17</b>	5010042	12 KOhm 5% 1/8 W	<b>R49</b>	5001085	22 MOhm 10% 1/2 W	<b>R81</b>	5010072	180 KOhm 5% 1/8 W
<b>R18</b>	5370061	50 KOhm 20% LIN	<b>R50</b>	5010117	330 KOhm 5% 1/8 W	<b>R82</b>	5010072	180 KOhm 5% 1/8 W
<b>R19</b>	5010052	6K8 Ohm 5% 1/8 W	<b>R51</b>	5010049	100 KOhm 5% 1/8 W	<b>R83</b>	5010072	180 KOhm 5% 1/8 W
<b>R20</b>	5010135	18 KOhm 5% 1/8 W	<b>R52</b>	5010040	1 KOhm 5% 1/8 W	<b>R84</b>	5010072	180 KOhm 5% 1/8 W
<b>R21</b>	5370074	10 KOhm 20% LIN	<b>R53</b>	5010059	10 KOhm 5% 1/8 W	<b>R85</b>	5010072	180 KOhm 5% 1/8 W
<b>R22</b>	5010041	5K6 Ohm 5% 1/8 W	<b>R54</b>	5010074	680 KOhm 5% 1/8 W	<b>R86</b>	5010072	180 KOhm 5% 1/8 W
<b>R23</b>	5010054	1MOhm 5% 1/8 W	<b>R55</b>	5010141	27 KOhm 5% 1/8 W	<b>R87</b>	5010141	27 KOhm 5% 1/8 W
<b>R24</b>	5010505	820 KOhm 5% 1/8 W	<b>R56</b>	5010062	68 KOhm 5% 1/8 W	<b>R88</b>	5010091	82 KOhm 5% 1/8 W
<b>R25</b>	5010045	47 KOhm 5% 1/8 W	<b>R57</b>	5010066	1K8 Ohm 5% 1/8 W	<b>R89</b>	5010073	390 KOhm 5% 1/8 W
<b>R26</b>	5010064	2K2 Ohm 5% 1/8 W	<b>R58</b>	5010091	82 KOhm 5% 1/8 W	<b>R90</b>	5010117	330 KOhm 5% 1/8 W
<b>R27</b>	5010057	150 Ohm 5% 1/8 W	<b>R59</b>	5002008	470 Ohm 10% 1 W	<b>R91</b>	5010120	220 KOhm 5% 1/8 W
<b>R28</b>	5002022	560 Ohm 10% 1W	<b>R60</b>	5010057	150 Ohm 5% 1/8 W	<b>R92</b>	5010135	18 KOhm 5% 1/8 W
<b>R29</b>	5370058	5 KOhm 20% LIN	<b>R61</b>	5370068	25 KOhm 20% LIN	<b>R93</b>	5010072	180 KOhm 5% 1/8 W
<b>R30</b>	5010144	680 Ohm 5% 1/8 W	<b>R62</b>	5370068	25 KOhm 20% LIN	<b>R94</b>	5010048	4K7 Ohm 5% 1/8 W
<b>R31</b>	5010441	3K9 Ohm 5% 1/8 W	<b>R63</b>	5010042	12 KOhm 5% 1/8 W	<b>R95</b>	5002024	1 KOhm 10% 1W
<b>R32</b>	5010092	220 Ohm 5% 1/8 W	<b>R64</b>	5010071	560 KOhm 5% 1/8 W	<b>R96</b>	5010049	100 KOhm 5% 1/8 W





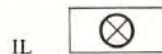
SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

R97 5010049 100 KOhm 5% 1/8 W  
 R98 5010141 27 KOhm 5% 1/8 W

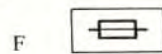


C  
 C1 4200169 0,1 μF 35 V  
 C2 4201065 10 μF 63 V  
 C3 4201057 1 μF 35 V  
 C4 4011025 3n3F 10% 100 V  
 C5 4011025 3n3F 10% 100 V  
 C6 4201072 0,22 uF 35 V  
 C7 4201072 0,22 uF 35 V  
 C8 4130029 470 nF 10% 250 V  
 C9 4130029 470 nF 10% 250 V  
 C10 4130029 470 nF 10% 250 V  
 C11 4130029 470 nF 10% 250 V  
 C12 4010041 10 nF - 20% + 100% 40 V  
 C13 4201074 47 μF 40 V  
 C14 4200183 220 μF 25 V  
 C15 4200183 220 μF 25 V  
 C16 4200109 470 μF 6 V  
 C17 4201069 2μ2F 35 V  
 C18 4130075 100 nF 20% 250 V  
 C19 4130075 100 nF 20% 250 V  
 C20 4130082 220 nF 20% 250 V  
 C21 4200169 0,1 μF 35 V  
 C22 4201057 1 μF 35 V  
 C23 4201069 2μ2F 35 V  
 C24 4011025 3n3F 10% 100 V  
 C25 4010060 22 nF - 20 + 100% 40 V  
 C26 4011025 3n3F 10% 100 V

C27 4130082 220 nF 20% 250 V  
 C28 4011025 3n3F 10% 100 V  
 C29 4130082 220 nF 20% 250 V  
 C30 4011025 3n3F 10% 100 V  
 C31 4201069 2μ2F 35 V  
 C32 4200108 4μ7F 25 V  
 C33 4200108 4μ7F 25 V  
 C34 4201058 0,47 μF 35 V  
 C35 4201057 1 μF 35 V



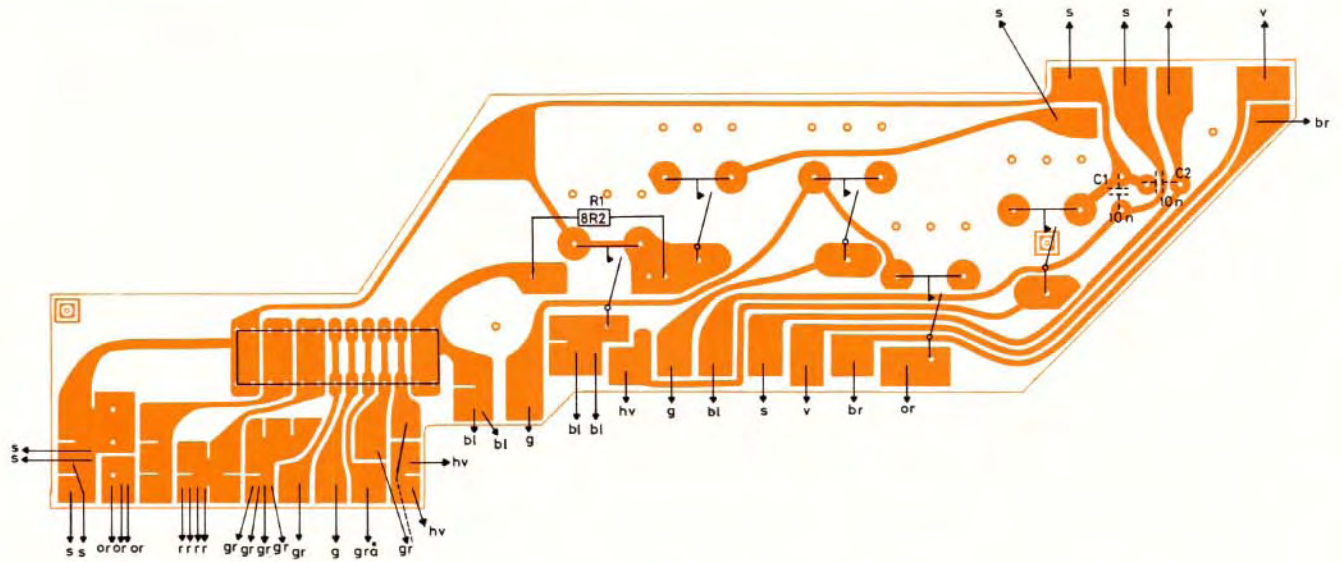
IL  
 IL1 8230041 6 V 30 mA



F  
 F1 6600023 80 mA - T/250 V

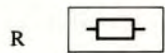
# 3-4

Beogram 4002 Type 5501 until no. 277556  
Beogram 6000 Type 5502 until no. 260028

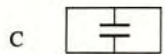


SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

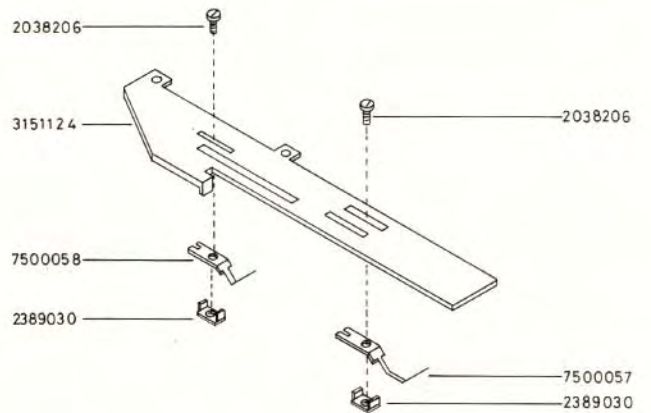
## 4 PC 8009021



R1 5110028 8R2 Ohm 10% 1W



C1 4010041 10 nF - 20 + 100% 40 V  
C2 4010041 10 nF - 20 + 100% 40 V



# Bang & Olufsen

Beogram 4002 Type 5501 from no. 257556

Beogram 6000 Type 5502 from no. 260028

DIAGRAM 1

INDEX							
8320097	BC207B	BC107B	BC182BL	BC547B			
				BC237B			
				BC182B			
				BC171B			
8320103					2N5034		
					2N5035		
8320135		MM3005 /					
		MM4005					
		BC143 /					
		BC144					
		BC143 /					
		BC142					
8320161		BC261B	BC212BL	BC212B			
				BC251B			
8320222						BD182	
						2N3055	
8320232		BC142					
		BC144					
8320265							TIP32
8320266							TIP31
8320295			BFR41	BC337			
8320312							TIP41A

OTR 1	8320103	1TR 7	8320232	1TR 19	8320097
OTR 1	8320222	1TR 8	8320232	1TR 20	8320097
OTR 2	8320266	1TR 9	8320097	1TR 21	8320097
OTR 3	8320265	1TR 10	8320161	1TR 22	8320097
OTR 4	8320312	1TR 11	8320295	1TR 23	8320097
		1TR 12	8320097	1TR 24	8320097
1TR 1	8320232	1TR 13	8320097	1TR 25	8320135
1TR 2	8320161	1TR 14	8320097	1TR 26	8320161
1TR 3	8320097	1TR 15	8320097	1TR 27	8320135
1TR 4	8320097	1TR 16	8320232	1TR 28	8320135
1TR 5	8320161	1TR 17	8320097	1TR 29	8320097
1TR 6	8320161	1TR 18	8320097	1TR 30	8320135
				1TR 31	8320161

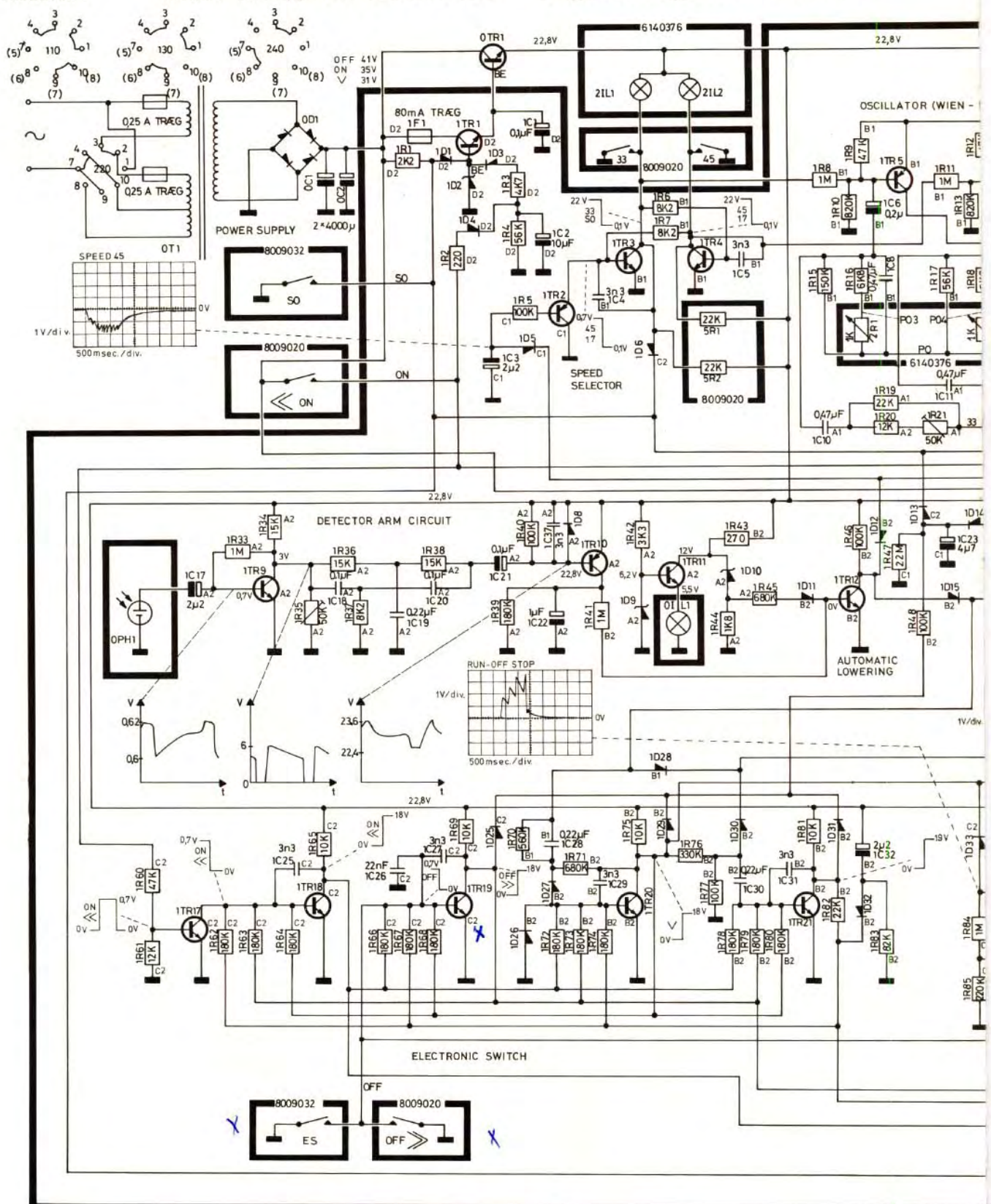
0D1	8310020	B80C2200		
1D2	8300054	ZPD24V±5%	BZX79C24V0	
1D9	8300201	ZPD6V2±5%	BZX79C6V2	
1D10	8300053	ZPD15V±5%	BZX79C15V0	BZY88C15
1D13	8300101	BAX16		
3D1	8300102	IN4004	EM504	
Other diodes	8300058	IN4148	SFD184	

# Bang & Olufsen

DIAGRAM 1

Beogram 4002 Type 5501 from no. 257556

Beogram 6000 Type 5502 from no. 260028



Alle DC spændinger er positive i forhold til stel, og de er målt med roterende pladetallerken, med hævet pick-up arm og med detektorarmen inde over en plade. Spændingerne er målt med voltmeter med en indre modstand på mindst 2 Mohm.

De angivne impulser i detektorarmskredsløbet er målt med roterende pladetallerken og med detektorarmen inde over ribberne uden plade på.

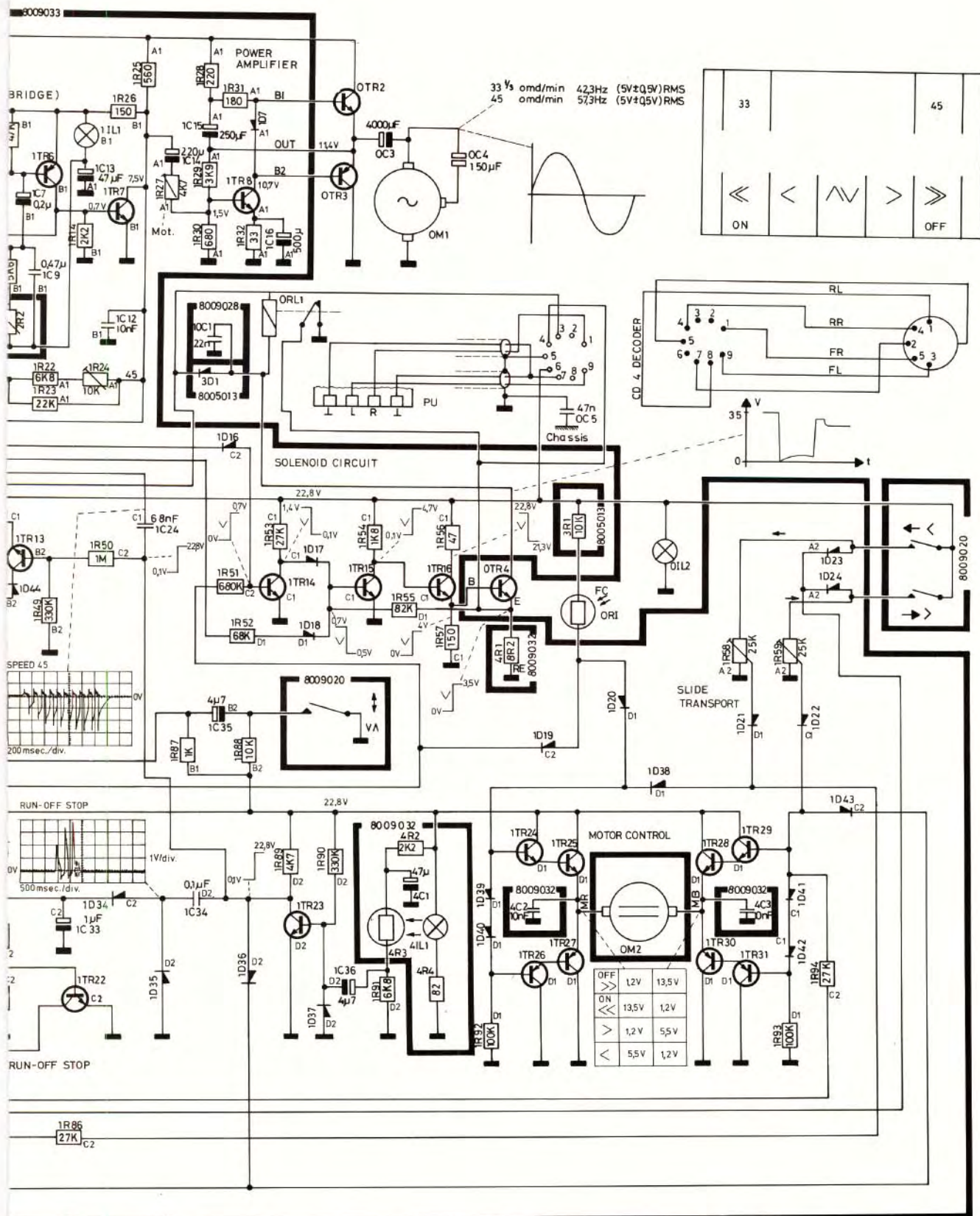
Oscillogrammer mærket SPEED 45 er målt med hævet pick-up arm under hurtig-ind transport, medens slædeskalaens speed 45 afsnit passerer fotomodstand og lampe.

Oscillogrammer mærket RUN-OFF STOP er målt med pick-up sænket i en udløbsrille, stigning ca. 3 mm/omdr., 30 cm plade.

All DC voltages are positive in proportion to the turntable and raised pick-up arm and with the detector arm measured by voltmeter and an inner resistor of

Oscillograms marked SPEED 45 are measured with transport while the speed 45 part of the carrier

Oscillograms marked RUN-OFF STOP are measured with pick-up lowered in a groove, rise approx. 3 mm/turns, 30 cm record



assis and they are measured with rotating letector arm over a record. The voltages are at least 2 M ohms.

with raised pick-up arm during fast inward dial passes photo-resistor and lamp. ured with pick-up arm lowered into an out-ord.

Alle DC Spannungen sind positiv im Verhältnis zu Masse und sie sind mit rotierendem Plattenteller, mit gehobenem Tonarm und mit dem Detektorarm über einer Platte gemessen. Die Spannungen sind mit Voltmeter gemessen (Innenwiderstand min. 2 M ohm).

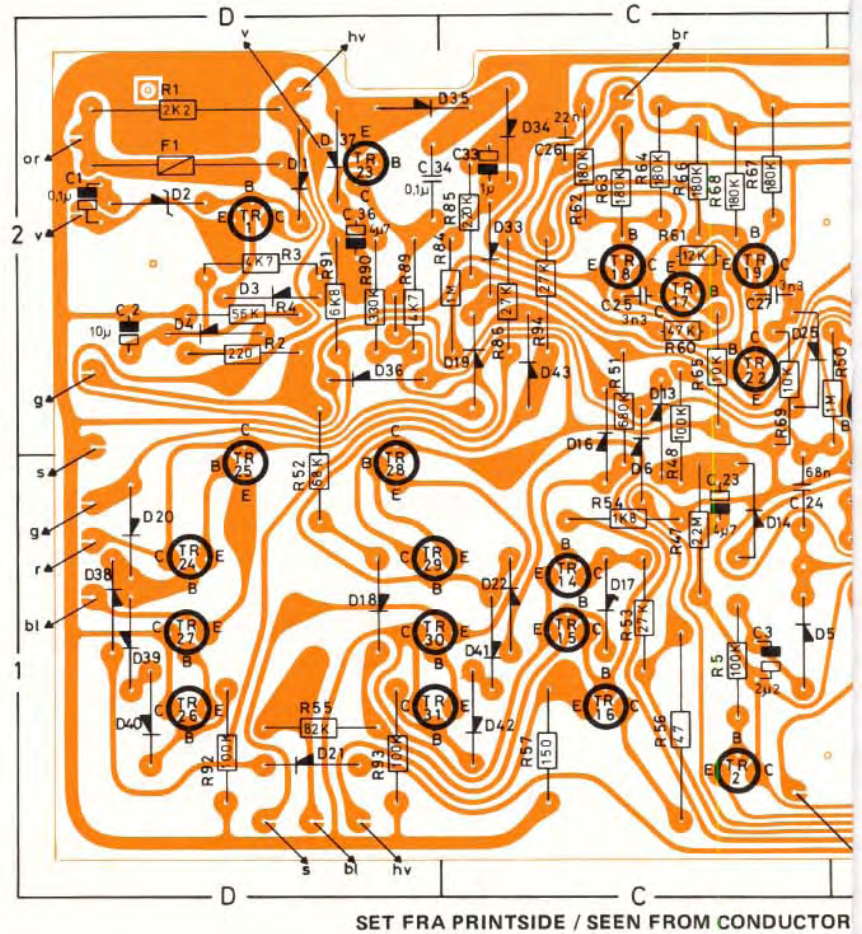
Oszillogramme gezeichnet SPEED 45 sind mit gehobenem Tonarm während schnellen Hineintransports gemessen, während Abschnitt speed 45 der Schlitzeskala Photowiderstand und Lampe passiert.

Oszillogramme gezeichnet RUN-OFF STOP sind mit dem Tonarm in einer Auslaufrille gesenkt, Steigung etwa 3 mm/Umdrehungen, 30 cm Platte, gemessen.

# 3-6

DIAGRAM 1

Beogram 4002 Type 5501 from no. 257556  
 Beogram 6000 Type 5502 from no. 260028



**1 PC 8009033**

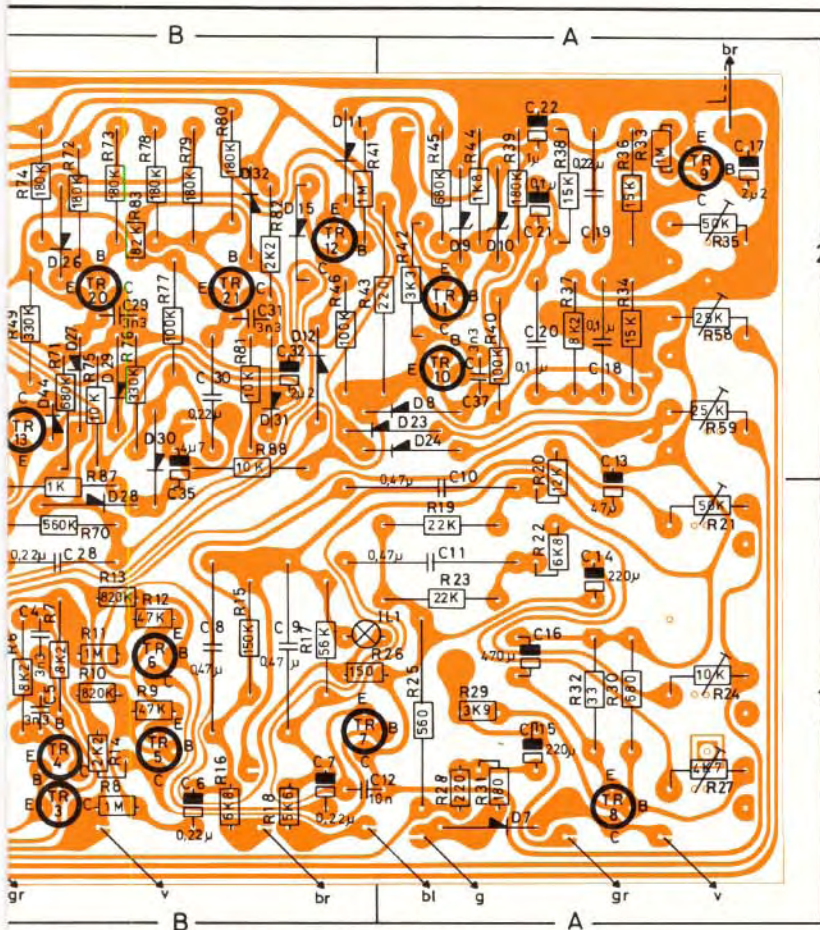
R



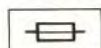
R1	5002028	2K2 Ohm 10% 1 W
R2	5010092	220 Ohm 5% 1/8 W
R3	5010048	4K7 Ohm 5% 1/8 W
R4	5010061	56 KOhm 5% 1/8 W
R5	5010049	100 KOhm 5% 1/8 W
R6	5010154	8K2 Ohm 5% 1/8 W
R7	5010154	8K2 Ohm 5% 1/8 W
R8	5010054	1 MOhm 5% 1/8 W
R9	5010640	47 KOhm 5% 1/8 W
R10	5010505	820 KOhm 5% 1/8 W
R11	5010054	1 MOhm 5% 1/8 W
R12	5010640	47 KOhm 5% 1/8 W
R13	5010505	820 KOhm 5% 1/8 W
R14	5010064	2K2 Ohm 5% 1/8 W
R15	5010063	150 KOhm 5% 1/8 W
R16	5010052	6K8 Ohm 5% 1/8 W
R17	5010061	56 KOhm 5% 1/8 W
R18	5010041	5K6 Ohm 5% 1/8 W
R19	5010079	22 KOhm 5% 1/8 W
R20	5010042	12 KOhm 5% 1/8 W
R21	5370061	50 KOhm 20% LIN
R22	5010052	6K8 Ohm 5% 1/8 W
R23	5010079	22 KOhm 5% 1/8 W
R24	5370074	10 KOhm 20% LIN
R25	5002022	560 Ohm 10% 1 W
R26	5010057	150 Ohm 5% 1/8 W
R27	5370058	4K7 Ohm 20% LIN
R28	5010092	220 Ohm 5% 1/8 W
R29	5010069	3K9 Ohm 5% 1/8 W

R30	5010144	680 Ohm 5% 1/8 W
R31	5010362	180 Ohm 5% 1/8 W
R32	5010253	33 Ohm 5% 1/8 W
R33	5010054	1 MOhm 5% 1/8 W
R34	5010053	15 KOhm 5% 1/8 W
R35	5370061	50 KOhm 20% LIN
R36	5010053	15 KOhm 5% 1/8 W
R37	5010154	8K2 Ohm 5% 1/8 W
R38	5010053	15 KOhm 5% 1/8 W
R39	5010072	180 KOhm 5% 1/8 W
R40	5010049	100 KOhm 5% 1/8 W
R41	5010054	1 MOhm 5% 1/8 W
R42	5010076	3K3 Ohm 5% 1/8 W
R43	5002018	270 Ohm 10% 1 W
R44	5010066	1K8 Ohm 5% 1/8 W
R45	5010074	680 KOhm 5% 1/8 W
R46	5010049	100 KOhm 5% 1/8 W
R47	5001085	22 MOhm 10% 1/2 W
R48	5010049	100 KOhm 5% 1/8 W
R49	5010117	330 KOhm 5% 1/8 W
R50	5010054	1 MOhm 5% 1/8 W
R51	5010074	680 KOhm 5% 1/8 W
R52	5010062	68 KOhm 5% 1/8 W
R53	5010141	27 KOhm 5% 1/8 W
R54	5010066	1K8 Ohm 5% 1/8 W
R55	5010091	82 KOhm 5% 1/8 W
R56	5002008	47 Ohm 10% 1 W
R57	5010057	150 Ohm 5% 1/8 W
R58	5370068	25 KOhm 20% LIN
R59	5370068	25 KOhm 20% LIN
R60	5010640	47 KOhm 5% 1/8 W
R61	5010042	12 KOhm 5% 1/8 W

R62	5010072	180 KOhm 5% 1/8 W
R63	5010072	180 KOhm 5% 1/8 W
R64	5010072	180 KOhm 5% 1/8 W
R65	5010059	10 KOhm 5% 1/8 W
R66	5010072	180 KOhm 5% 1/8 W
R67	5010072	180 KOhm 5% 1/8 W
R68	5010072	180 KOhm 5% 1/8 W
R69	5010059	10 KOhm 5% 1/8 W
R70	5010071	560 KOhm 5% 1/8 W
R71	5010074	680 KOhm 5% 1/8 W
R72	5010072	180 KOhm 5% 1/8 W
R73	5010072	180 KOhm 5% 1/8 W
R74	5010072	180 KOhm 5% 1/8 W
R75	5010059	10 KOhm 5% 1/8 W
R76	5010117	330 KOhm 5% 1/8 W
R77	5010049	100 KOhm 5% 1/8 W
R78	5010072	180 KOhm 5% 1/8 W
R79	5010072	180 KOhm 5% 1/8 W
R80	5010072	180 KOhm 5% 1/8 W
R81	5010059	10 KOhm 5% 1/8 W
R82	5010079	22 KOhm 5% 1/8 W
R83	5010091	82 KOhm 5% 1/8 W
R84	5010054	1 MOhm 5% 1/8 W
R85	5010120	220 KOhm 5% 1/8 W
R86	5010141	27 KOhm 5% 1/8 W
R87	5010040	1 KOhm 5% 1/8 W
R88	5010059	10 KOhm 5% 1/8 W
R89	5010048	4K7 Ohm 5% 1/8 W
R90	5010117	330 KOhm 5% 1/8 W
R91	5010052	6K8 Ohm 5% 1/8 W
R92	5010049	100 KOhm 5% 1/8 W



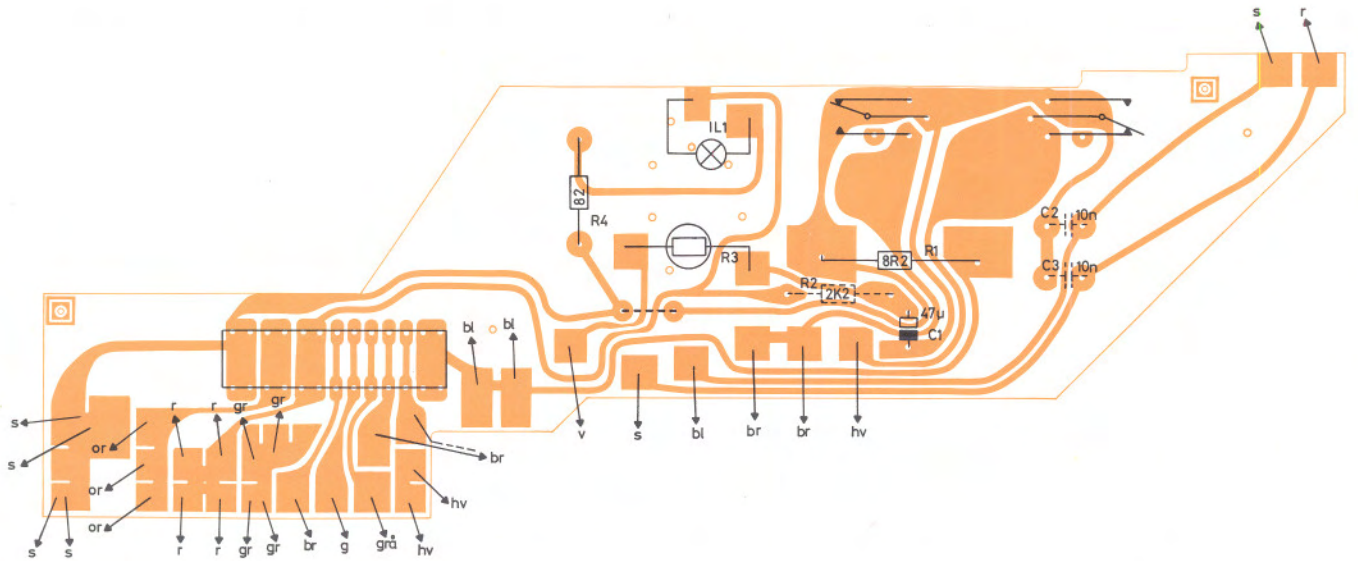
SIDE / VON DER LEITERSEITE AUSGESEHEN

R93	5010049	100 KOhm 5% 1/8 W	C27	4011025	3n3F 10% 100 V
R94	5010141	27 KOhm 5% 1/8 W	C28	4130082	220 nF 20% 250 V
			C29	4011025	3n3F 10% 100 V
			C30	4130082	220 nF 20% 250 V
			C31	4011025	3n3F 10% 100 V
			C32	4201069	2μ2 F 35 V
			C33	4201057	1 μF 35 V
			C34	4130075	100 nF 20% 250 V
			C35	4200108	4μ7F 25 V
			C36	4200108	4μ7F 25 V
			C37	4011025	3n3F 10% 100 V
C			IL		
C1	4200169	0,1 μF 35 V	IL1	8230041	6 V 30 mA
C2	4201065	10 μF 63 V	F		
C3	4201069	2μ2 F 35 V	F1	6600023	80 mA-T/250 V
C4	4011025	3n3 F 10% 100 V			
C5	4011025	3n3 F 10% 100 V			
C6	4201072	0,22 μF 35 V			
C7	4201072	0,22 μF 35 V			
C8	4130029	470 nF 10% 250 V			
C9	4130029	470 nF 10% 250 V			
C10	4130029	470 nF 10% 250 V			
C11	4130029	470 nF 10% 250 V			
C12	4010041	10 nF - 20% + 100% 40 V			
C13	4201074	47 μF 40 V			
C14	4200183	220 μF 25 V			
C15	4200183	220 μF 25 V			
C16	4200109	470 μF 6 V			
C17	4201069	2μ2F 35 V			
C18	4130075	100 nF 20% 250 V			
C19	4130082	220 nF 20% 250 V			
C20	4130075	100 nF 20% 250 V			
C21	4200169	0,1 μF 35 V			
C22	4201057	1 μF 35 V			
C23	4200108	4μ7 F 25 V			
C24	4130100	68 nF 10% 250 V			
C25	4011025	3n3 F 10% 100 V			
C26	4010060	22 nF - 20% + 100% 40 V			



~~Beogram 4002 Type 5501 from no. 257556~~  
~~Beogram 6000 Type 5502 from no. 260028~~

Beogram 4002 Type 5501 from no. 257556  
 Beogram 6000 Type 5502 from no. 260028



SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

#### 4 PC 8009032



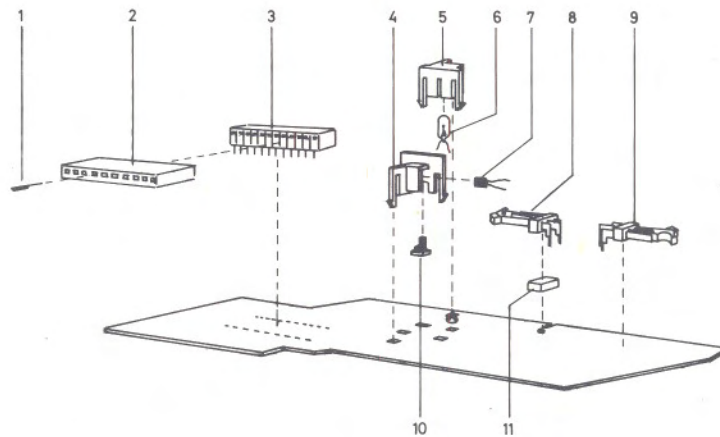
R1	5110028	8R2 Ohm 10% 1 W
R2	5010064	2K2 Ohm 5% 1/8 W
R3	5210005	RPY 58
R4	5010056	82 Ohm 5% 1/8 W



C1	4201074	47 uF 40 V
C2	4010041	10 nF - 20% + 100% 40 V



IL1	8230044	24 V 25 mA
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#### MEKANISK STYKLISTE FOR PC 8009032

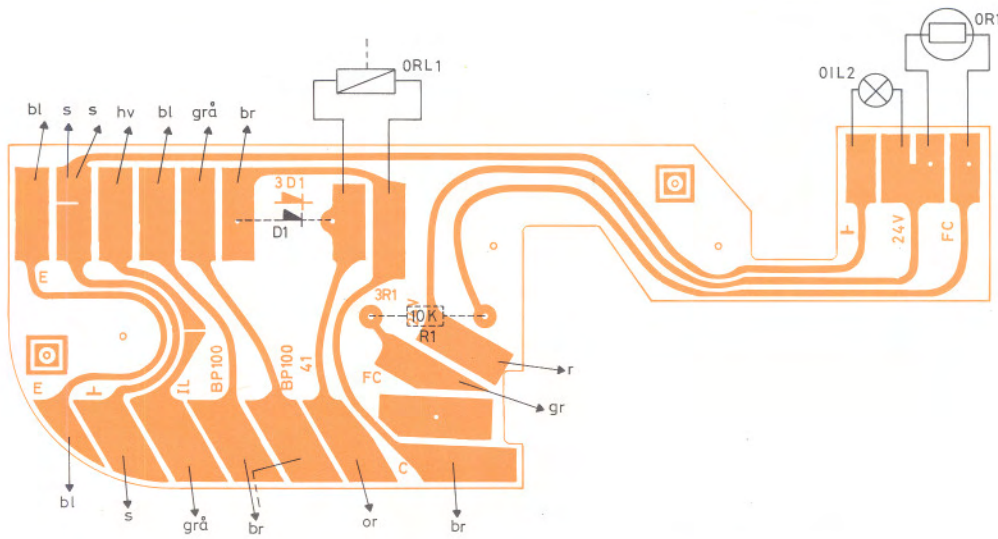
1	7500105	Stikben
2	7220060	Hus for stikben
3	7210072	Fatning
4	3131099	Hus
5	3131098	Hus
6	8230044	Lampe 24V - 25 mA
7	5210005	Fotomodstand RPY 58
8	7400115	Mikroomskifter
9	7400115	Mikroomskifter
10	3454170	Bundstykke
11	3103077	Fod

#### MECHANICAL PARTS LIST FOR PC 8009032

Pin
Housing for pin
Socket
Housing
Housing
Lamp 24 V - 25 mA
Photoresistor RPY 58
Switch
Switch
Bottom
Insert

#### MECHANISCHE STÜCKLISTE FÜR PC 8009032

Stift
Gehäuse für Stift
Fassung
Gehäuse
Gehäuse
Lampe 24 V - 25 mA
Fotowiderstand RPY 58
Umschalter
Umschalter
Bodenstück
Zwischeneinlegstück

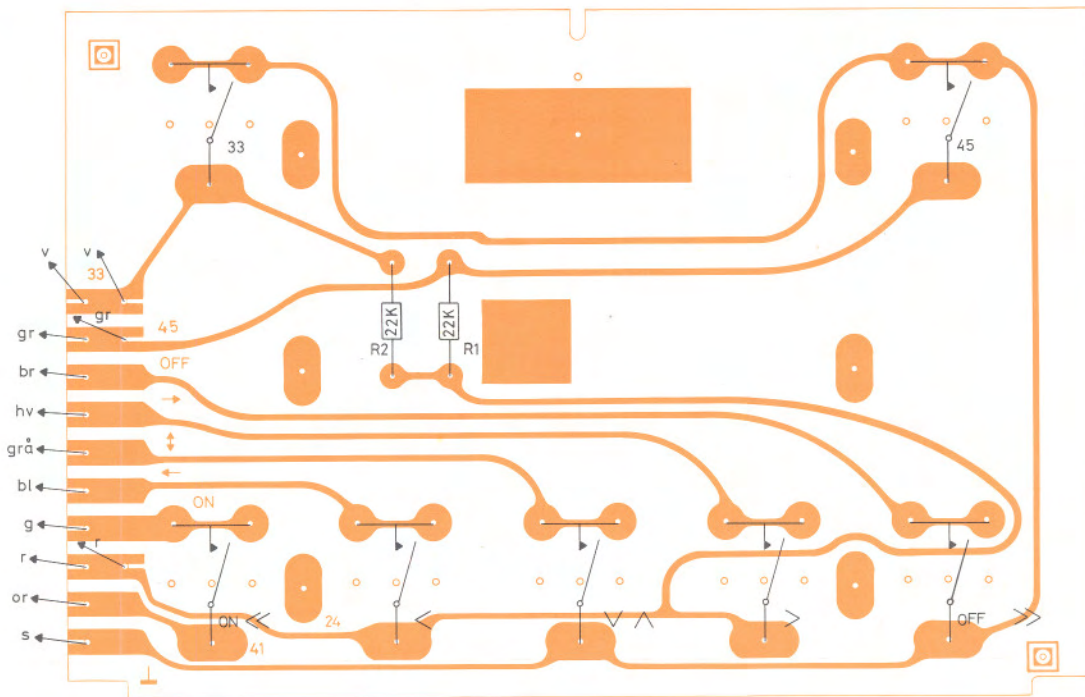


SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

3 PC 8005013



R1 5010059 10 KOhm 5% 1/8 W



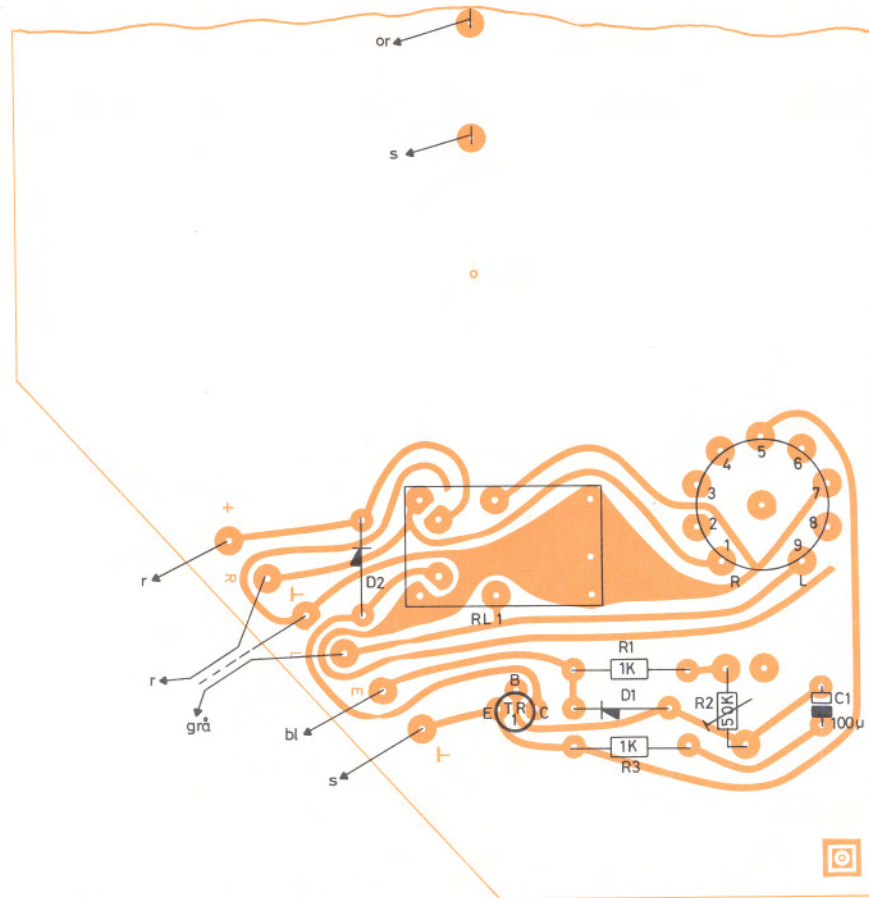
SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

5 PC 8009020




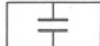

R1 5010079 22 KOhm 5% 1/8 W  
 R2 5010079 22 KOhm 5% 1/8 W

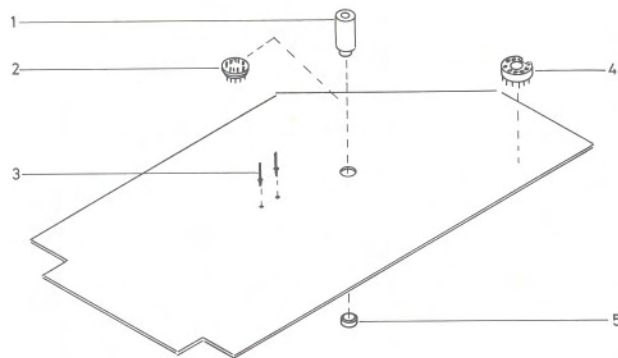
DIAGRAM 2



SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

8 PC 8009029

R		C		RL	
R1	5370169 50 KOhm 20% LIN.	C1	4200098 100 µF 6 V 3	RL1	7600007
R2	5010040 1 KOhm 5% 1/8 W				
R3	5010040 1 KOhm 5% 1/8 W				



MEKANISK STYKLISTE FOR  
PC 8009029

MECHANICAL PARTS LIST FOR  
PC 8009029

MECHANISCHE STÜCKLISTE FÜR  
PC 8009029

1	2938092	Bøsning for dekoder
2	7220066	Noval stik
3	7500013	Kontaktspyd
4	7203003	Noval fatning
5	2938093	Bøsning, støtterør

Bushing for decoder
Noval plug
Contact spear
Noval socket
Bushing, brace piping

Buchse für Dekoder
Novalstecker
Kontaktstift
Novalfassung
Buchse, Rohranker

DIAGRAM 2

INDEX									
8320136	U1981E	3C2P	2N5245 3C2 TIS88A						
8320137				BC182B					
8320258						TIP31A	2N4922	2N5296	
8340028					MPSA13 SPS5418				

6TR1 (201)	8320137	6TR10	8320137	6TR18	8320258
6TR3 (203)	8320137	6TR11	8320137		
6TR4 (204)	8320137	6TR12	8320137	7TR1 (201)	8320137
6TR5 (205)	8320136	6TR13	8320137	7TR2 (202)	8320354
6TR6 (206)	8320137	6TR14	8320137		
6TR7 (207)	8320137	6TR15	8320137	8TR1	8340028
6TR8 (208)	8320136	6TR16	8320137		
6TR9	8320137	6TR17	8320137		

INDEX			
8340038	LM381		
8340039		LM307	
8340040	LM565		

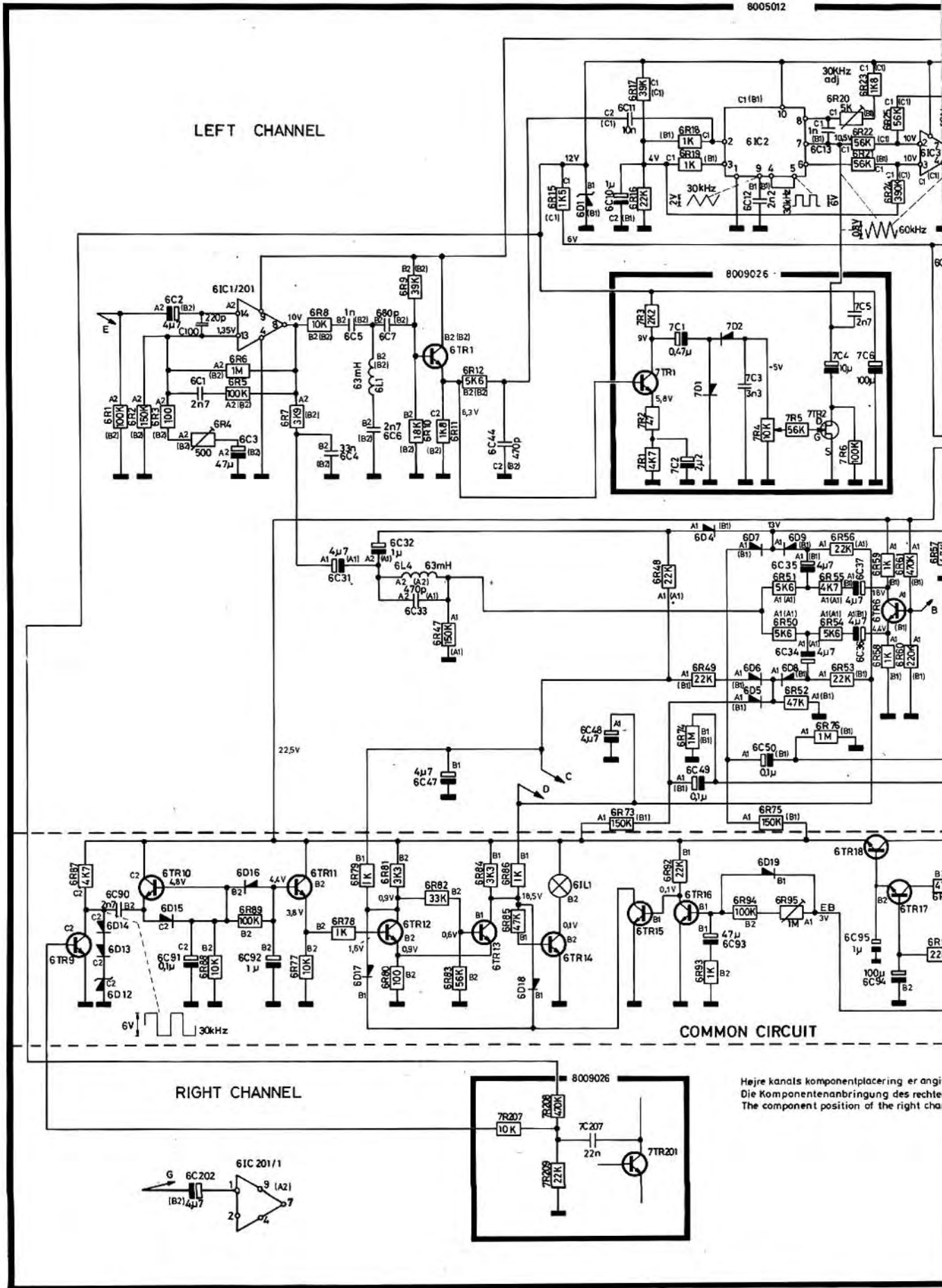
6IC1/201	8340038
6IC2 (202)	8340040
6IC3 (203)	8340039

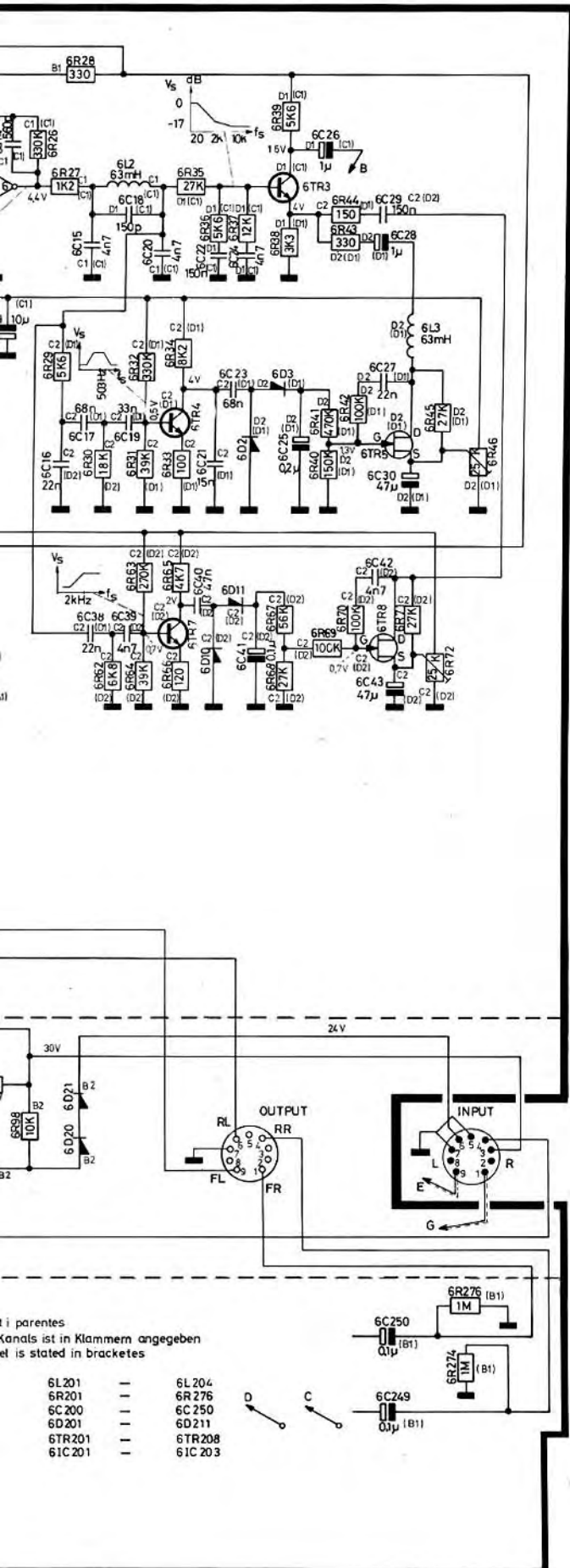
6D1	8300029	ZF 12V±5%	BZX79 C12V0
6D2 (202)	8300009	OA90	
6D3 (203)	8300009	OA 90	
6D10 (210)	8300009	OA 90	
6D11 (211)	8300009	OA 90	
6D12	8300036	ZF 4;7V±5%	BZX79 C4V7
6D19	8300009	OA 90	
7D1 (201)	8300042	OA 91	
7D2 (202)	8300042	OA 91	
8D1	8300042	OA 91	
Other diodes	8300131	IN4148	

# Bang & Olufsen

DIAGRAM 2

8005012

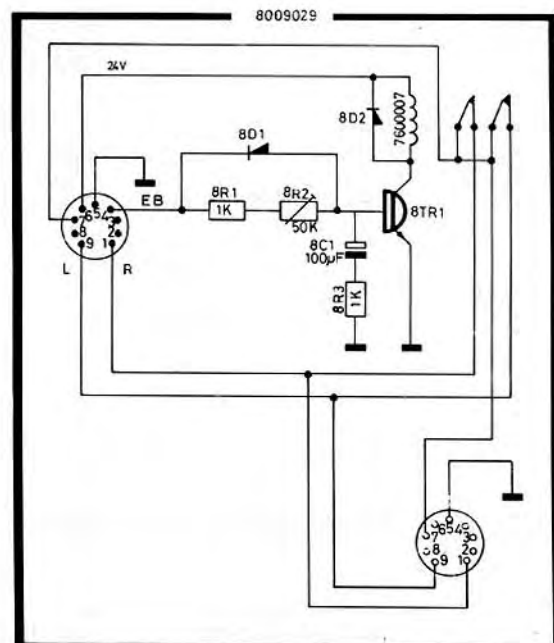


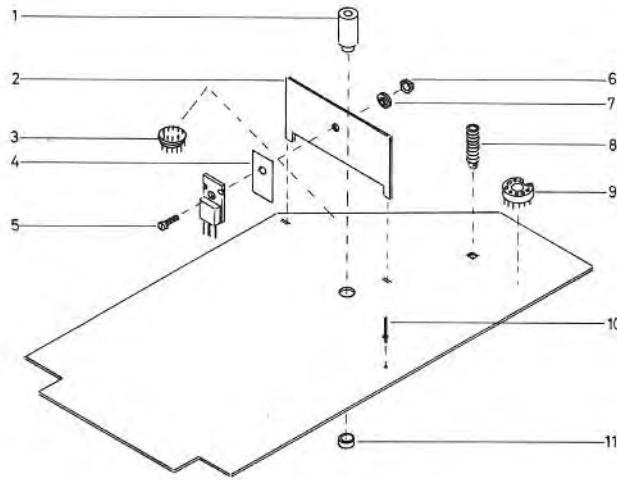


De angivne spændinger er positive i forhold til stel, og er målt med CD-4 signal på indgangen.  
 Input – 60 dBm (775 μV rms).  
 f mod. = 1 kHz; Δf = 1,3 kHz.

The stated voltages are positive in proportion to the chassis, and measured with CD-4 signal at the inputs.  
 Input – 60 dBm (775 μV rms).  
 f mod. = 1 kHz; Δf = 1,3 kHz.

Die angegebenen Spannungen sind positiv im Verhältnis zu dem Chassis und sind mit CD-4 Signal auf dem Eingang gemessen.  
 Input – 60 dBm (775 μV rms).  
 f mod. = 1 kHz; Δf = 1,3 kHz.





## MEKANISK STYKLISTE FOR PC 8005012

1	2938093	Bøsning, støtterør
2	3358096	Køleplade
3	7220056	Noval stik
4	3170121	Glimmerskive
5	2038954	Skrue AM 3 x 6 DIN 963
6	2380011	Møtrik M 3
7	2938097	Isolationsbøsning
8	0514075	Spoleform
9	7203003	Noval fatning
10	7500013	Stikben
11	2938092	Bøsning for decoder

## MECHANICAL PARTLIST FOR PC 8005012

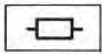
Bushing, brace piping
Heat sink
Noval plug
Mica sheet
Screw, AM 3 x 6 DIN 963
Nut M 3
Insulating bushing
Coil form
Noval socket
Contact plug
Bushing for decoder

## MECHANISCHE STÜCKLISTE FÜR PC 8005012

Buchse, Rohranker
Kühlblech
Novalstecker
Glimmerscheibe
Schraube, AM 3 x 6 DIN 963
Mutter M 3
Isolierbuchse
Spuleform
Novalfassung
Stiftstecker
Buchse für Dekoder

## 6 PC 8005012

### DECODER

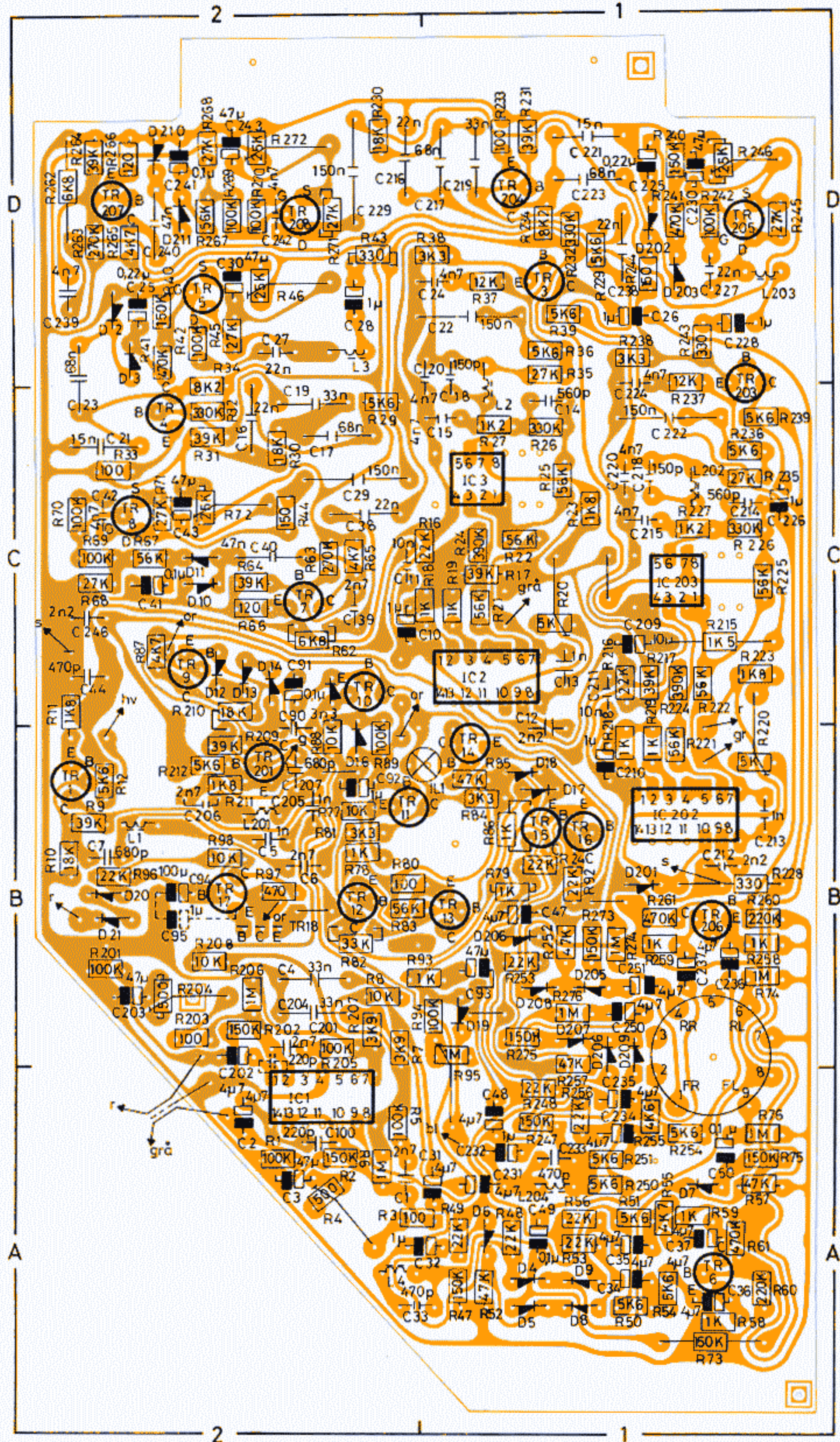


R

R1 (R201)	5010049	100 KOhm 5% 1/8 W
R2 (R202)	5010063	150 KOhm 5% 1/8 W
R3 (R203)	5010065	100 Ohm 5% 1/8 W
R4 (R204)	5370186	500 Ohm 20% LIN.
R5 (R205)	5010049	100 KOhm 5% 1/8 W
R6 (R206)	5010054	1 MOhm 5% 1/8 W
R7 (R207)	5010069	3K9 Ohm 5% 1/8 W
R8 (R208)	5010059	10 KOhm 5% 1/8 W
R9 (R209)	5010060	39 KOhm 5% 1/8 W
R10 (R210)	5010135	18 KOhm 5% 1/8 W
R11 (R211)	5010066	1K8 Ohm 5% 1/8 W
R12 (R212)	5010041	5K6 Ohm 5% 1/8 W
(R215)	5010247	1K5 Ohm 5% 1/8 W
R16 (R216)	5010079	22 KOhm 5% 1/8 W
R17 (R217)	5010060	39 KOhm 5% 1/8 W
R18 (R218)	5010040	1 KOhm 5% 1/8 W
R19 (R219)	5010040	1 KOhm 5% 1/8 W
R20 (R220)	5370058	5 KOhm 20% LIN.
R21 (R221)	5010061	56 KOhm 5% 1/8 W
R22 (R222)	5010061	56 KOhm 5% 1/8 W
R23 (R223)	5010066	1K8 Ohm 5% 1/8 W
R24 (R224)	5010073	390 KOhm 5% 1/8 W
R25 (R225)	5010061	56 KOhm 5% 1/8 W
R26 (R226)	5010117	330 KOhm 5% 1/8 W
R27 (R227)	5010153	1K2 Ohm 5% 1/8 W
(R228)	5001028	330 Ohm 10% 1/2 W
R29 (R229)	5010041	5K6 Ohm 5% 1/8 W
R30 (R230)	5010135	18 KOhm 5% 1/8 W
R31 (R231)	5010060	39 KOhm 5% 1/8 W
R32 (R232)	5010117	330 KOhm 5% 1/8 W
R33 (R233)	5010065	100 Ohm 5% 1/8 W
R34 (R234)	5010154	8K2 Ohm 5% 1/8 W
R35 (R235)	5010141	27 KOhm 5% 1/8 W
R36 (R236)	5010041	5K6 Ohm 5% 1/8 W
R37 (R237)	5010042	12 KOhm 5% 1/8 W

R38 (R238)	5010076	3K3 Ohm 5% 1/8 W
R39 (R239)	5010041	5K6 Ohm 5% 1/8 W
R40 (R240)	5010063	150 KOhm 5% 1/8 W
R41 (R241)	5010077	470 KOhm 5% 1/8 W
R42 (R242)	5010049	100 KOhm 5% 1/8 W
R43 (R243)	5010044	330 Ohm 5% 1/8 W
R44 (R244)	5010452	150 Ohm 5% 1/8 W
R45 (R245)	5010141	27 KOhm 5% 1/8 W
R46 (R246)	5370068	25 KOhm 20% LIN.
R47 (R247)	5010063	150 KOhm 5% 1/8 W
R48 (R248)	5010079	22 KOhm 5% 1/8 W
R49 (R249)	5010079	22 KOhm 5% 1/8 W
R50 (R250)	5010041	5K6 Ohm 5% 1/8 W
R51 (R251)	5001041	5K6 Ohm 5% 1/8 W
R52 (R252)	5010045	47 KOhm 5% 1/8 W
R53 (R253)	5010079	22 KOhm 5% 1/8 W
R54 (R254)	5010041	5K6 Ohm 5% 1/8 W
R55 (R255)	5010048	4K7 Ohm 5% 1/8 W
R56 (R256)	5010079	22 KOhm 5% 1/8 W
R57 (R257)	5010045	47 KOhm 5% 1/8 W
R58 (R258)	5010040	1 KOhm 5% 1/8 W
R59 (R259)	5010040	1 KOhm 5% 1/8 W
R60 (R260)	5010120	220 KOhm 5% 1/8 W
R61 (R261)	5010077	470 KOhm 5% 1/8 W
R62 (R262)	5010052	6K8 Ohm 5% 1/8 W
R63 (R263)	5010083	270 KOhm 5% 1/8 W
R64 (R264)	5010060	39 KOhm 5% 1/8 W
R65 (R265)	5010048	4K7 Ohm 5% 1/8 W
R66 (R266)	5010128	120 Ohm 5% 1/8 W
R67 (R267)	5010061	56 KOhm 5% 1/8 W
R68 (R268)	5010141	27 KOhm 5% 1/8 W
R69 (R269)	5010049	100 KOhm 5% 1/8 W
R70 (R270)	5010049	100 KOhm 5% 1/8 W
R71 (R271)	5010141	27 KOhm 5% 1/8 W
R72 (R272)	5370068	25 KOhm 20% LIN.
R73 (R273)	5010063	150 KOhm 5% 1/8 W
R74 (R274)	5010054	1 MOhm 5% 1/8 W
R75 (R275)	5010063	150 KOhm 5% 1/8 W
R76 (R276)	5010054	1 MOhm 5% 1/8 W
R77	5010059	10 KOhm 5% 1/8 W
R78	5010040	1 KOhm 5% 1/8 W
R79	5010040	1 KOhm 5% 1/8 W

DIAGRAM 2



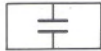
SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN



R80	5010065	100 Ohm 5% 1/8 W
R81	5010076	3K3 KOhm 5% 1/8 W
R82	5010075	33 KOhm 5% 1/8 W
R83	5010061	56 KOhm 5% 1/8 W
R84	5010076	3K3 Ohm 5% 1/8 W
R85	5010045	47 KOhm 5% 1/8 W
R86	5010040	1 KOhm 5% 1/8 W
R87	5010048	4K7 Ohm 5% 1/8 W
R88	5010059	10 KOhm 5% 1/8 W
R89	5010049	100 KOhm 5% 1/8 W
R92	5010079	22 KOhm 5% 1/8 W
R93	5010040	1 KOhm 5% 1/8 W
R94	5010049	100 KOhm 5% 1/8 W
R95	5010054	1 MOhm 5% 1/8 W
R96	5010079	22 KOhm 5% 1/8 W
R97	5010058	470 KOhm 5% 1/8 W
R98	5010059	10 KOhm 5% 1/8 W

C24 (C224)	4010063	4n7F 10% 63 V
C25 (C225)	4201072	0,22 µF 35 V
C26 (C226)	4201057	1 µF 35 V
C27 (C227)	4010060	22 nF - 20 + 100% 40 V
C28 (C228)	4201057	1 µF 35 V
C29 (C229)	4130097	15 nF 10% 250 V
C30 (C230)	4200317	47 µF 6 V 3
C31 (C231)	4200108	4 µF 25 V
C32 (C232)	4201057	1 µF 35 V
C33 (C233)	4010024	470 pF 10% 100 V
C34 (C234)	4200108	4 µF 25 V
C35 (C235)	4200108	4µ7F 25 V
C36 (C236)	4200108	4µ7F 25 V
C37 (C237)	4200108	4µ7F 25 V
C38 (C238)	4130089	22 nF 10% 250 V
C39 (C239)	4010063	4n7F 10% 63 V
C40 (C240)	4130087	47 nF 10% 270 V
C41 (C241)	4200169	0,4 µF 35 V
C42 (C242)	4010063	4n7F 10% 63 V
C43 (C243)	4200317	47 µF 6 V 3
C44 (C244)	4010024	470 pF 10% 100 V
C47	4200108	4µ7F 25 V
C48	4200108	4µ7F 25 V
C49	4200169	0,1 µF 35 V
C50	4200169	0,1 µF 35 V
C90	4010065	2n7 10% 63 V
C91	4200169	0,1 µF 35 V
C92	4201057	1 µF 35 V
C93	4200317	47 µF 6 V 3
C94	4201060	100 µF 35 V
C95	4201057	1 µF 35 V
C100	4010021	220 pF 10% 100 V

C



C1 (C201)	4010065	2n7F 10% 63 V
C2 (C202)	4200108	4µF 25 V
C3 (C203)	4200327	47 µF 6 V 3
C4 (C204)	4130088	33 nF 10% 250 V
C5 (C205)	4010027	1nF 10% 100 V
C6 (C206)	4010065	2n7 F 10% 63 V
C7 (C207)	4010031	680 pF 10% 100 V
C10 (C210)	4201057	1µF 35 V
C11 (C211)	4010041	10 nF - 20 + 100% 40 V
C12 (C212)	4010061	2n2 10% 63 V
C13 (C213)	4010027	1 nF 10% 100 V
C14 (C214)	4010064	560 pF 100% 63 V
C15 (C215)	4010063	4n7F 10% 63 V
C16 (C216)	4030089	22 nF 10% 250 V
C17 (C217)	4130100	68 nF 10% 250 V
C18 (C218)	4000023	150 pF 5% 63 V
C19 (C219)	4130088	33 nF 10% 250 V
C20 (C220)	4010063	4n7F 10% 63 V
C21 (C221)	4130097	15 nF 10% 250 V
C22 (C222)	4130111	150 nF 20% 250 V
C23 (C223)	4130100	68 nF 10% 250 V

L

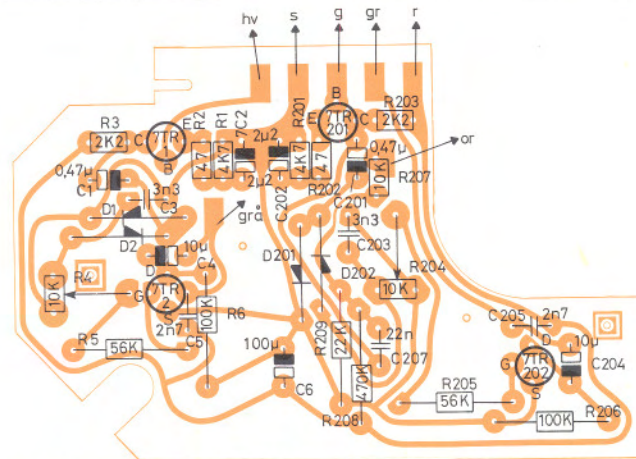


L1	8022054	100 mH 10%
L2	8022054	100 mH 10%
L3	8022054	100 mH 10%
L4	8022054	100 mH 10%

IL



IL1	8230044	24 V 25 mA
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SET FRA PRINTSIDE / SEEN FROM CONDUCTOR SIDE / VON DER LEITERSEITE AUSGESEHEN

7 PC 8009026

R



R1 (R201)	5010613	4K7 Ohm 5% 1/8 W
R2 (R202)	5010411	47 Ohm 5% 1/8 W
R3 (R203)	5010064	2K2 Ohm 5% 1/8 W
R4 (R204)	5370074	10 KOhm 20% LIN.
R5 (R205)	5010061	56 KOhm 5% 1/8 W
R6 (R206)	5010049	100 KOhm 5% 1/8 W
(R207)	5010059	10 KOhm 5% 1/8 W
(R208)	5010077	470 KOhm 5% 1/8 W
(R209)	5010079	22 KOhm 5% 1/8 W

C



C1 (C201)	4201058	0,47 µF 35 V
C2 (C202)	4201069	2 µZF 35 V
C3 (C203)	4011025	2n3F 10% 100 V
C4 (C204)	4200101	10 µF 16 V
C5 (C205)	4010065	2n7F 10% 63 V
C6	4200099	100 µF 16 V
(C207)	4010060	22 nF - 20% + 100% 40 V