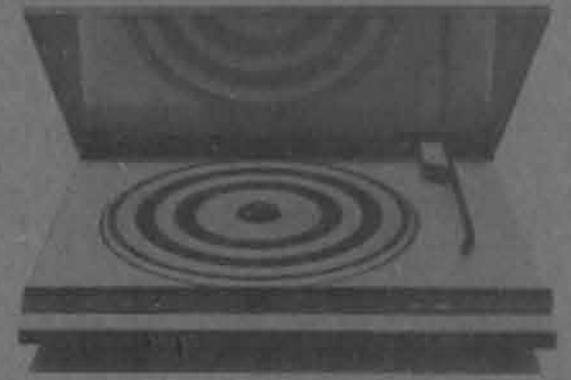


Bang & Olufsen

BEGRAM 1700 TYPE 5731  
5733

BEGRAM 2202 TYPE 5741

BEGRAM 2402 TYPE 5742



**Beogram 2200**

Type 5721, 5723

**Beogram 2400**

Type 5722

**Beogram 3400**

Type 5726

**Beogram 3404**

Type 5727, 5747

BANG & OLUFSEN A/S  
DK - 7800 STRUER  
DENMARK  
TELEPHONE 07 - 86 11 22\* TELEX 66529  
CABLE ADDRESS BANGOLUF

3538426

PRINTED IN DENMARK 10 - 78



## INTRODUCTION

Beogram models 2200, 2400, 3400 and 3404 are developments of previous record players with radial tone arm, Beogram models 1102, 1902 and 2400. Automatic speed switching and automatic pickup arm cueing have been introduced.

In addition, Beogram models 2400 and 3404 have provision for remote control of certain functions via a Beomaster 2400.

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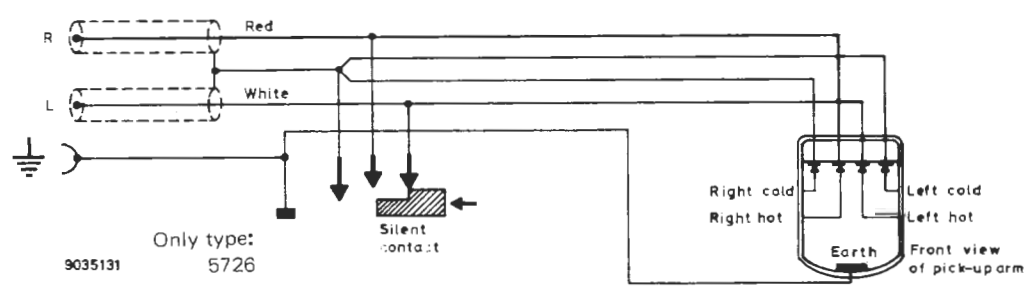
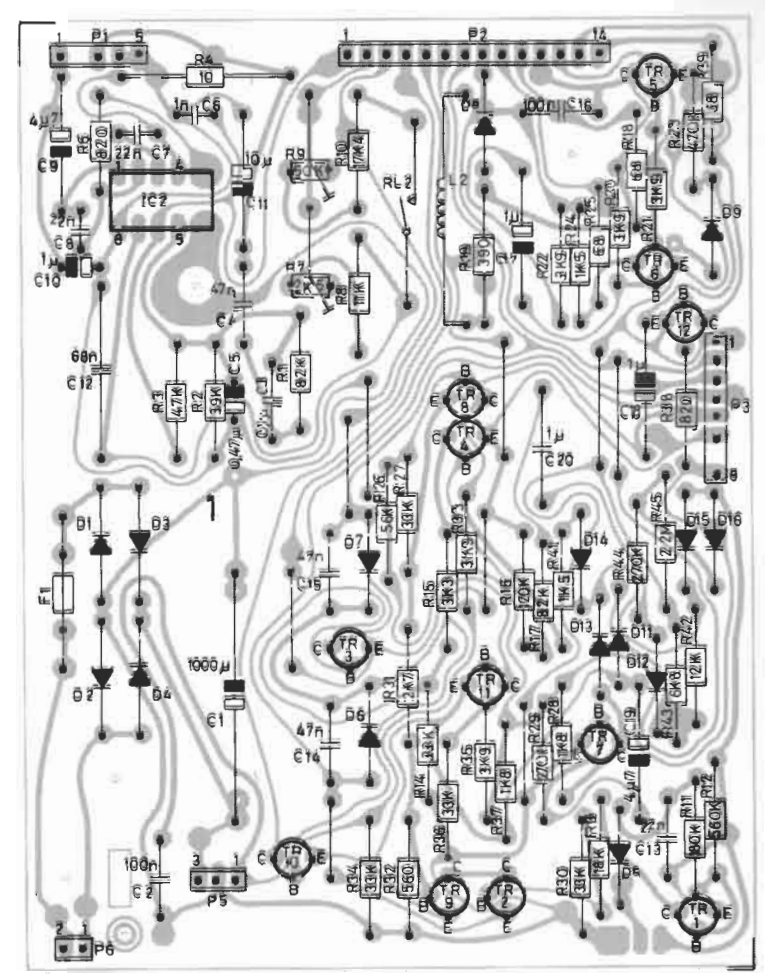
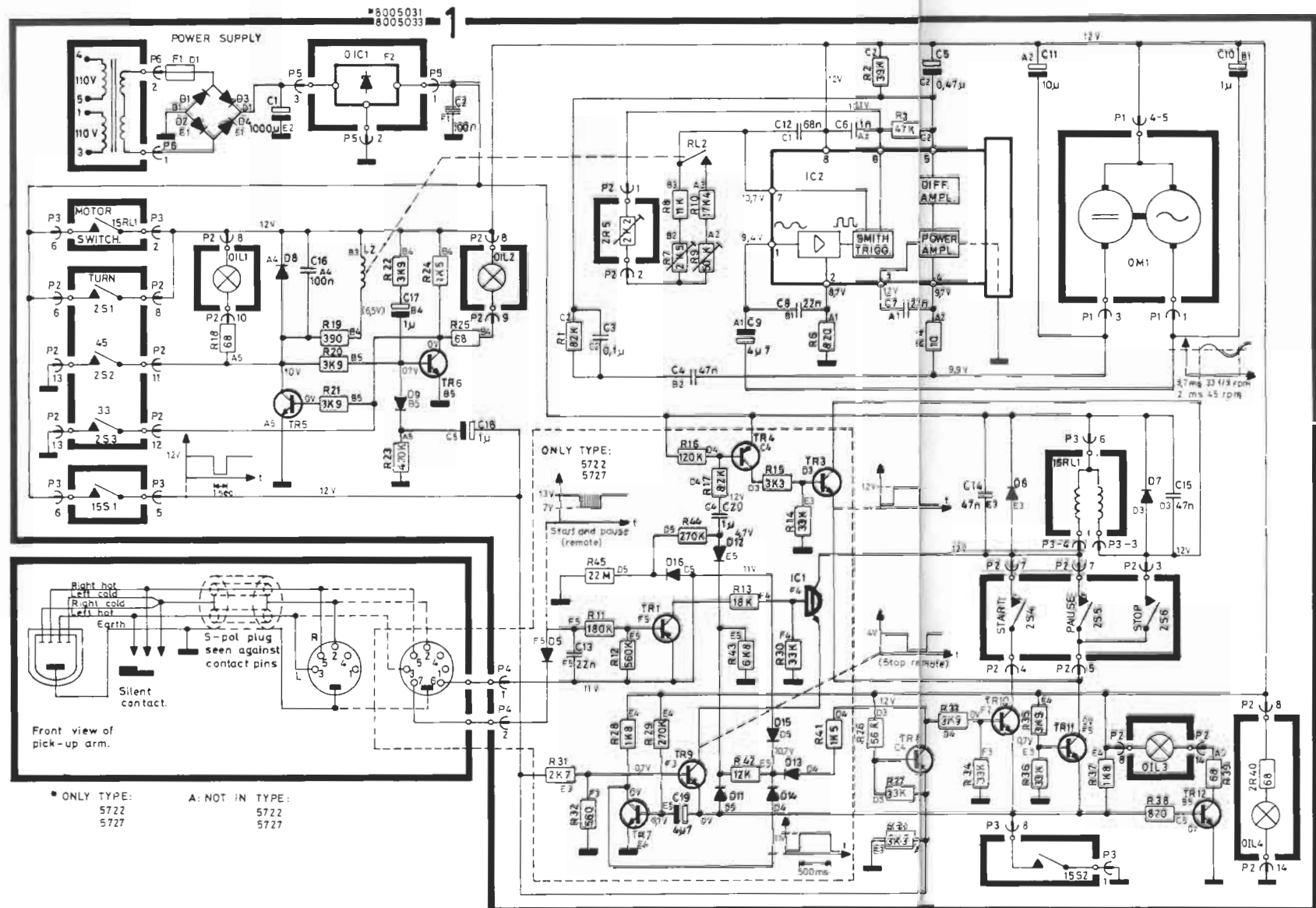
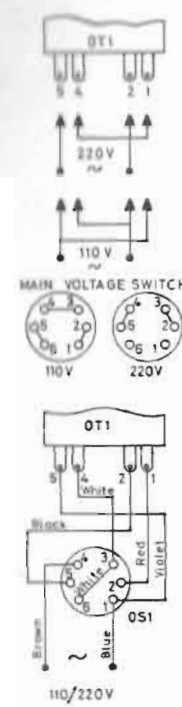
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## Transistor and IC List

|       | 17      | 18                     | 19                         | 20 | 105 | 106 | 109 |
|-------|---------|------------------------|----------------------------|----|-----|-----|-----|
|       |         |                        |                            |    |     |     |     |
| 0IC1  | 8340049 |                        | <b>105</b> LM 340T-12      |    |     |     |     |
|       |         |                        | <b>105</b> $\mu$ A 7812CU  |    |     |     |     |
|       |         |                        | <b>105</b> $\mu$ A 7812ZCU |    |     |     |     |
|       |         |                        | <b>106</b> MC 7812         |    |     |     |     |
| 1TR1  | 8320152 | <b>20</b> BC 557B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 212B/BK   |                            |    |     |     |     |
|       |         | <b>17</b> BC 212BL     |                            |    |     |     |     |
|       |         | <b>18</b> BC 307B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 251B      |                            |    |     |     |     |
| 1TR3  | 8320295 | <b>20</b> BC 337-25/18 |                            |    |     |     |     |
| 1TR4  | 8320152 | <b>20</b> BC 557B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 212B/BK   |                            |    |     |     |     |
|       |         | <b>17</b> BC 212BL     |                            |    |     |     |     |
|       |         | <b>18</b> BC 307B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 251B      |                            |    |     |     |     |
| 1TR5  | 8320097 | <b>20</b> BC 547B      |                            |    |     |     |     |
| 1TR6  |         | <b>20</b> BC 182B/BK   |                            |    |     |     |     |
| 1TR7  |         | <b>17</b> BC 182BL     |                            |    |     |     |     |
|       |         | <b>20</b> BC 171       |                            |    |     |     |     |
|       |         | <b>20</b> BC 237B      |                            |    |     |     |     |
| 1TR8  | 8320152 | <b>20</b> BC 557B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 212B/BK   |                            |    |     |     |     |
|       |         | <b>17</b> BC 212BL     |                            |    |     |     |     |
|       |         | <b>18</b> BC 307B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 251B      |                            |    |     |     |     |
| 1TR9  | 8320295 | <b>20</b> BC 337-25/18 |                            |    |     |     |     |
| 1TR10 |         |                        |                            |    |     |     |     |
| 1TR11 |         |                        |                            |    |     |     |     |
| 1TR12 | 8320097 | <b>20</b> BC 547B      |                            |    |     |     |     |
|       |         | <b>20</b> BC 182B/BK   |                            |    |     |     |     |
|       |         | <b>17</b> BC 182BL     |                            |    |     |     |     |
|       |         | <b>20</b> BC 171       |                            |    |     |     |     |
|       |         | <b>20</b> BC 237B      |                            |    |     |     |     |
| 1IC1  | 8340028 | <b>19</b> MPS A13      |                            |    |     |     |     |
|       |         | <b>19</b> SPS 5418     |                            |    |     |     |     |
|       |         | <b>19</b> TPS A13      |                            |    |     |     |     |
| 1IC2  | 8340108 | <b>109</b> MHN-3P2-RDS |                            |    |     |     |     |

## Diode list

|        | 209     | 215                   | 217 |  |  |  |  |
|--------|---------|-----------------------|-----|--|--|--|--|
|        |         |                       |     |  |  |  |  |
| 1D1-4  | 8300023 | <b>209</b> 1N 4002/RL |     |  |  |  |  |
|        |         | <b>209</b> 1N 4003    |     |  |  |  |  |
| 1D6-16 | 8300058 | <b>217</b> SFD 184    |     |  |  |  |  |
|        |         | <b>215</b> 1N 4148    |     |  |  |  |  |
|        |         | <b>209</b> 1N 4148    |     |  |  |  |  |



## ELECTRICAL PARTS LIST

Beogram 2200 and 3400, type  
5721, 5723 and 5726PC1, Power supply and control  
unit, 8005033

|      |         |                           |      |         |                          |
|------|---------|---------------------------|------|---------|--------------------------|
| OIL1 | 8230056 | 12 V - 30 mA              | OIL3 | 8230056 | 12 V - 30 mA             |
| OIL2 | 8230056 | 12 V - 30 mA              | OIL4 | 8230056 | 12 V - 30 mA             |
| R1   | 5010091 | 82 kohms $\pm$ 5% 1/8 W   | R22  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W |
| R2   | 5010060 | 39 kohms $\pm$ 5% 1/8 W   | R23  | 5010077 | 470 kohms $\pm$ 5% 1/8 W |
| R3   | 5010045 | 47 kohms $\pm$ 5% 1/8 W   | R24  | 5010247 | 1.5 kohms $\pm$ 5% 1/8 W |
| R4   | 5100023 | 10 ohms $\pm$ 10% 1 W     | R25  | 5010039 | 68 ohms $\pm$ 5% 1/8 W   |
| R6   | 5010068 | 820 ohms $\pm$ 5% 1/8 W   | R26  | 5010061 | 56 kohms $\pm$ 1/8 W     |
| R7   | 5370173 | 2.7 ohms $\pm$ 20% 0.1 W  | R27  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R8   | 5020114 | 11 kohms $\pm$ 1% 1/8 W   | R31  | 5010076 | 3.3 kohms $\pm$ 5% 1/8 W |
| R9   | 5370061 | 50 kohms $\pm$ 20% 0.1 W  | R33  | 5010069 | 3.9 kohms $\pm$ 1/8 W    |
| R10  | 5020059 | 17.4 kohms $\pm$ 1% 1/8 W | R34  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R18  | 5010039 | 68 ohms $\pm$ 5% 1/8 W    | R35  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W |
| R19  | 5011021 | 390 ohms $\pm$ 5% 1/4 W   | R36  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R20  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W  | R37  | 5010066 | 1.8 kohms $\pm$ 5% 1/8 W |
| R21  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W  | R38  | 5010068 | 820 ohms $\pm$ 5% 1/8 W  |
|      |         |                           | R39  | 5010039 | 68 ohms $\pm$ 5% 1/8 W   |

|    |         |                        |     |         |                             |
|----|---------|------------------------|-----|---------|-----------------------------|
| C1 | 4200388 | 1000 $\mu$ F 35 V      | C10 | 4201057 | 1 $\mu$ F 35 V              |
| C2 | 4130150 | 100 nF $\pm$ 20% 100 V | C11 | 4200342 | 10 $\mu$ F 63 V             |
| C3 | 4130150 | 100 nF $\pm$ 20% 100 V | C12 | 4130098 | 68 nF $\pm$ 2.5% 63 V       |
| C4 | 4130087 | 47 nF $\pm$ 10% 250 V  | C14 | 4230087 | 47 nF $\pm$ 10% 250 V       |
| C5 | 4201058 | 0.47 $\mu$ F 35 V      | C15 | 4130087 | 47 nF $\pm$ 10% 250 V       |
| C6 | 4010027 | 1 nF $\pm$ 10% 100 V   | C16 | 4130150 | 100 $\mu$ F $\pm$ 20% 100 V |
| C7 | 4010060 | 22 nF -20 +100% 40 V   | C17 | 4200380 | 1 $\mu$ F 63 V              |
| C8 | 4010060 | 22 nF -20 +100% 40 V   | C18 | 4200380 | 1 $\mu$ F 63 V              |
| C9 | 4200322 | 4.7 $\mu$ F 63 V       |     |         |                             |

|    |         |                      |     |         |             |
|----|---------|----------------------|-----|---------|-------------|
| L2 | 6810007 | Coil for Reed-switch | RL2 | 7600040 | Reed-switch |
|    |         |                      |     | 7500013 | Contact pin |

|    |         |               |    |         |               |
|----|---------|---------------|----|---------|---------------|
| P1 | 7220160 | Plug 5/4 pol. | P5 | 7210187 | Socket 3 pol. |
| P2 | 7220100 | Plug 14 pol.  | P6 | 7220134 | Plug 2 pol.   |
| P3 | 7220130 | Plug 8/7 pol. |    |         |               |

|    |         |                                |         |             |
|----|---------|--------------------------------|---------|-------------|
| F1 | 6600024 | Fuse 500 mA-S/250 V<br>IEC 127 | 7200038 | Fuse holder |
|----|---------|--------------------------------|---------|-------------|

|    |         |                           |     |         |                        |
|----|---------|---------------------------|-----|---------|------------------------|
| R5 | 5370213 | 2.0 kohms $\pm$ 20% 0.1 W | R40 | 5010039 | 68 ohms $\pm$ 5% 1/8 W |
|----|---------|---------------------------|-----|---------|------------------------|

|    |         |                                    |
|----|---------|------------------------------------|
| P2 | 6273832 | Wire bundle and Socket,<br>14 pol. |
|----|---------|------------------------------------|

PC2, Control panel, 8005034

Beogram 2400 and 3404, type  
5722 and 5727PC1, Power supply and control  
unit, 8005031

|      |         |                           |      |         |                          |
|------|---------|---------------------------|------|---------|--------------------------|
| OIL1 | 8230056 | 12 V - 30 mA              | OIL3 | 8230056 | 12 V - 30 mA             |
| OIL2 | 8230056 | 12 V - 30 mA              | OIL4 | 8230056 | 12 V - 30 mA             |
| R1   | 5010091 | 82 kohms $\pm$ 5% 1/8 W   | R24  | 5010247 | 1.5 kohms $\pm$ 5% 1/8 W |
| R2   | 5010060 | 39 kohms $\pm$ 5% 1/8 W   | R25  | 5010039 | 68 ohms $\pm$ 5% 1/8 W   |
| R3   | 5010045 | 47 kohms $\pm$ 5% 1/8 W   | R26  | 5010061 | 56 kohms $\pm$ 1/8 W     |
| R4   | 5100023 | 10 ohms $\pm$ 10% 1 W     | R27  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R6   | 5010068 | 820 ohms $\pm$ 5% 1/8 W   | R28  | 5010066 | 1.8 kohms 5% 1/8 W       |
| R7   | 5370173 | 2.7 ohms $\pm$ 20% 0.1 W  | R29  | 5010083 | 270 kohms 5% 1/8 W       |
| R8   | 5020114 | 11 kohms $\pm$ 1% 1/8 W   | R30  | 5010075 | 33 kohms 5% 1/8 W        |
| R9   | 5370061 | 50 kohms $\pm$ 20% 0.1 W  | R31  | 5010298 | 2.7 kohms 5% 1/8 W       |
| R10  | 5020059 | 17.4 kohms $\pm$ 1% 1/8 W | R32  | 5010067 | 560 ohms 5% 1/8 W        |
| R11  | 5010072 | 180 kohms 5% 1/8 W        | R33  | 5010069 | 3.9 kohms $\pm$ 1/8 W    |
| R12  | 5010071 | 560 kohms 5% 1/8 W        | R34  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R13  | 5010135 | 18 kohms 5% 1/8 W         | R35  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W |
| R14  | 5010075 | 33 kohms 5% 1/8 W         | R36  | 5010075 | 33 kohms $\pm$ 5% 1/8 W  |
| R15  | 5010076 | 3.3 kohms 5% 1/8 W        | R37  | 5010066 | 1.8 kohms $\pm$ 5% 1/8 W |
| R16  | 5010047 | 120 kohms 5% 1/8 W        | R38  | 5010068 | 820 ohms $\pm$ 5% 1/8 W  |
| R17  | 5010091 | 82 kohms 5% 1/8 W         | R39  | 5010039 | 68 ohms $\pm$ 5% 1/8 W   |
| R18  | 5010039 | 68 ohms $\pm$ 5% 1/8 W    | R41  | 5010247 | 1.5 kohms 5% 1/8 W       |
| R19  | 5011021 | 390 ohms $\pm$ 5% 1/4 W   | R42  | 5010046 | 12 kohms 5% 1/8 W        |
| R20  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W  | R43  | 5010052 | 6.8 kohms 5% 1/8 W       |
| R21  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W  | R44  | 5010083 | 270 kohms 5% 1/8 W       |
| R22  | 5010069 | 3.9 kohms $\pm$ 5% 1/8 W  | R45  | 5001085 | 22 MOhms 10% 1/2 W       |
| R23  | 5010077 | 470 kohms $\pm$ 5% 1/8 W  |      |         |                          |

|     |         |                        |     |         |                             |
|-----|---------|------------------------|-----|---------|-----------------------------|
| C1  | 4200388 | 1000 $\mu$ F 35 V      | C12 | 4130098 | 68 nF $\pm$ 2.5% 63 V       |
| C2  | 4130150 | 100 nF $\pm$ 20% 100 V | C13 | 4130089 | 22 nF 10% 250 V             |
| C3  | 4130150 | 100 nF $\pm$ 20% 100 V | C14 | 4230087 | 47 nF $\pm$ 10% 250 V       |
| C4  | 4130087 | 47 nF $\pm$ 10% 250 V  | C15 | 4130087 | 47 nF $\pm$ 10% 250 V       |
| C5  | 4201058 | 0.47 $\mu$ F 35 V      | C16 | 4130150 | 100 $\mu$ F $\pm$ 20% 100 V |
| C6  | 4010027 | 1 nF $\pm$ 10% 100 V   | C17 | 4200380 | 1 $\mu$ F 63 V              |
| C7  | 4010060 | 22 nF -20 +100% 40 V   | C18 | 4200380 | 1 $\mu$ F 63 V              |
| C8  | 4010060 | 22 nF -20 +100% 40 V   | C19 | 4200322 | 4.7 $\mu$ F 63 V            |
| C9  | 4200322 | 4.7 $\mu$ F 63 V       | C20 | 4130155 | 1 $\mu$ F 10% 100 V         |
| C10 | 4201057 | 1 $\mu$ F 35 V         |     |         |                             |
| C11 | 4200342 | 10 $\mu$ F 63 V        |     |         |                             |

|    |         |                      |     |         |             |
|----|---------|----------------------|-----|---------|-------------|
| L2 | 6810007 | Coil for Reed-switch | RL2 | 7600040 | Reed-switch |
|    |         |                      |     | 7500013 | Contact pin |

|    |         |               |    |         |               |
|----|---------|---------------|----|---------|---------------|
| P1 | 7220160 | Plug 5/4 pol. | P5 | 7210187 | Socket 3 pol. |
| P2 | 7220100 | Plug 14 pol.  | P6 | 7220134 | Plug 2 pol.   |
| P3 | 7220130 | Plug 8/7 pol. |    |         |               |

|    |         |                                |         |             |
|----|---------|--------------------------------|---------|-------------|
| F1 | 6600024 | Fuse 500 mA-S/250 V<br>IEC 127 | 7200038 | Fuse holder |
|----|---------|--------------------------------|---------|-------------|

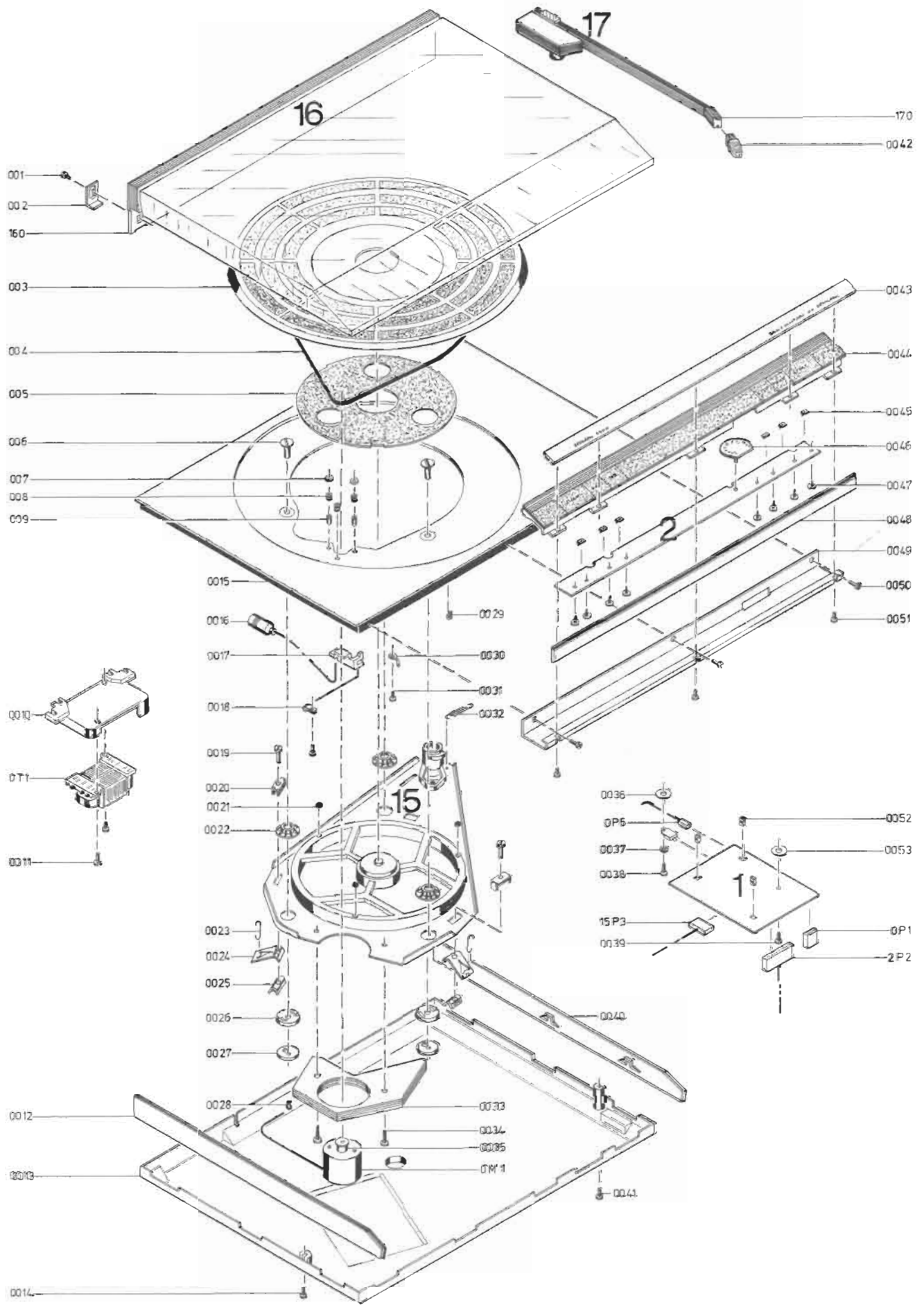
|    |         |                           |     |         |                        |
|----|---------|---------------------------|-----|---------|------------------------|
| R5 | 5370213 | 2.0 kohms $\pm$ 20% 0.1 W | R40 | 5010039 | 68 ohms $\pm$ 5% 1/8 W |
|----|---------|---------------------------|-----|---------|------------------------|

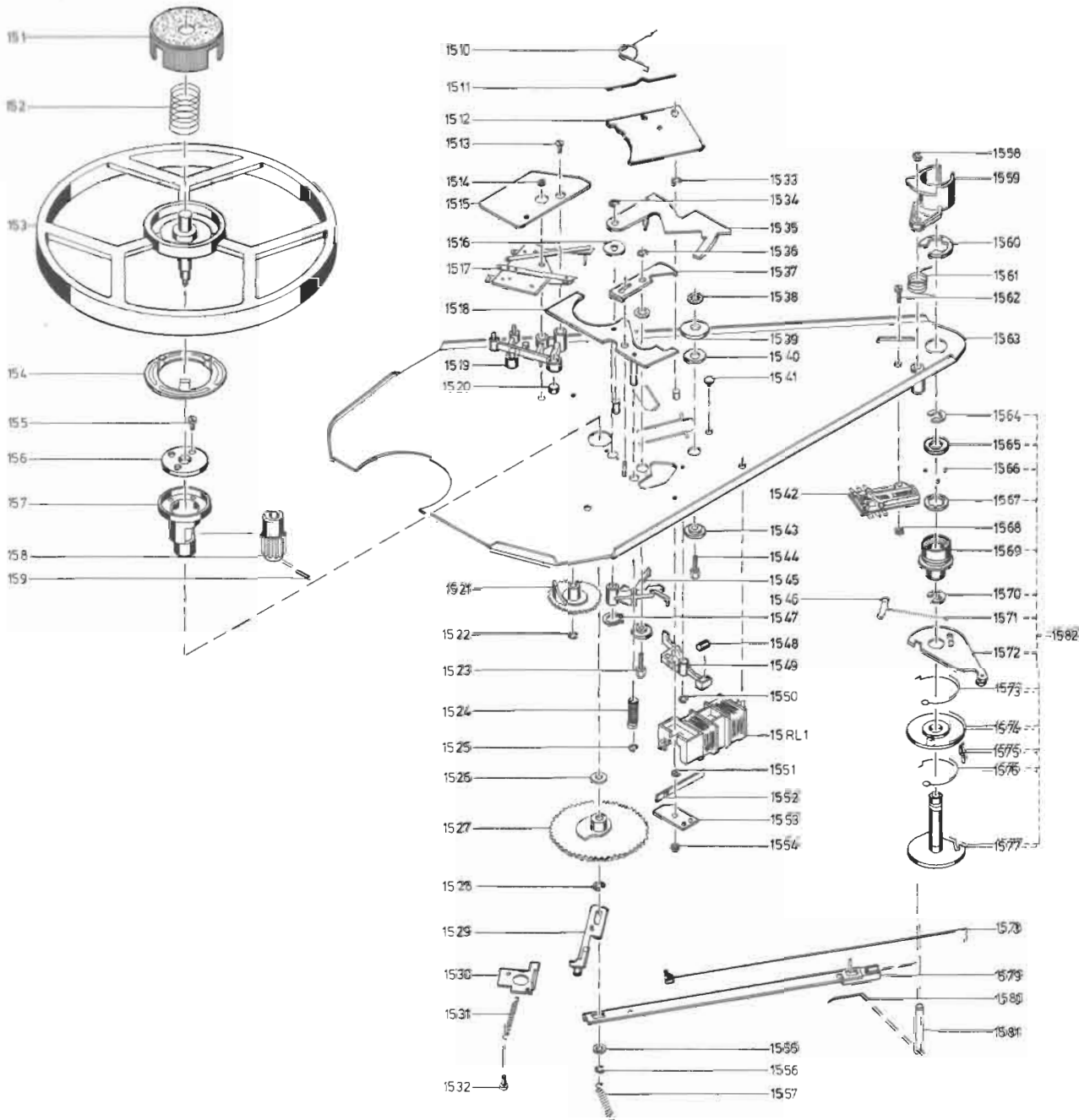
|    |         |                                    |
|----|---------|------------------------------------|
| P2 | 6273832 | Wire bundle and Socket,<br>14 pol. |
|----|---------|------------------------------------|

PC2, Control panel, 8005034

**MECHANICAL PARTS LIST**  
**Beogram 2200, type 5721**

|      |         |                                      |      |         |  |
|------|---------|--------------------------------------|------|---------|--|
| 001  | 2039010 | Screw AM 3 × 6,<br>DIN7985, black    | 0031 | 2039903 | Screw AM 3 × 5, DIN7985                    |
| 002  | 2530312 | Clamp                                | 0032 | 2810090 | Spring                                     |
| 003  | 2726111 | Turntable                            | 0033 | 3342038 | Counterweight                              |
| 004  | 2732037 | Drive belt                           | 0034 | 2015010 | Screw 3,5 × 16, DIN7981                    |
| 005  | 2622264 | Cover washer                         | 0035 | 2722026 | Pulley                                     |
| 006  | 2046910 | Screw                                |      | 2070400 | Threaded pin M2 × 3,<br>DIN 553            |
| 007  | 2622271 | Washer                               | 0036 | 2622231 | Mica sheet TO-126                          |
| 008  | 2938137 | Rubber bushing                       | 0037 | 2938127 | Insulating bushing TO-220                  |
| 009  | 2930074 | Brass tube                           | 0038 | 2039903 | Screw AM 3 × 5, DIN7985                    |
| 0010 | 3172075 | Insulating piece                     | 0039 | 2013201 | Screw 2.9 × 6.5, DIN7981                   |
| 0011 | 2043005 | Screw AM 4 × 6, DIN7985              | 0040 | 3412961 | Cabinet, 3 parts, teak                     |
|      |         | black                                |      | 3412963 | Cabinet, 3 parts,<br>rosewood              |
| 0012 | 3412961 | Cabinet, 3 parts, teak               |      | 3412964 | Cabinet, 3 parts, oak                      |
|      | 3412963 | Cabinet, 3 parts,<br>rosewood        | 0041 | 2043005 | Screw AM 4 × 6,<br>DIN7985, black          |
|      | 3412964 | Cabinet, 3 parts, oak                | 0042 | 8954650 | Pick-up MMC 20 E<br>(replacement)          |
| 0013 | 3454172 | Bottom                               | 0043 | 2568505 | Moulding                                   |
| 0014 | 2043005 | Screw AM 4 × 6,<br>DIN7985, black    | 0044 | 2775623 | Operating panel                            |
| 0015 | 3458199 | Top plate                            | 0045 | 7500131 | Contact spring                             |
| 0016 | 6270182 | Wire with plug                       | 0046 | 2770187 | Knob                                       |
| 0017 | 2515024 | Lead holder                          | 0047 | 2015909 | Screw 3.5 × 6.5                            |
| 0018 | 2510067 | Lead holder                          | 0048 | 3412961 | Cabinet, 3 parts, teak                     |
| 0019 | 2042209 | Screw AM 4 × 10, DIN84               |      | 3412963 | Cabinet, 3 parts,<br>rosewood              |
| 0020 | 2640031 | Clamp                                |      | 3412964 | Cabinet, 3 parts, oak                      |
| 0021 | 2620071 | Felt washer                          | 0049 | 2548152 | Bracket                                    |
| 0022 | 2938129 | Bushing                              | 0050 | 2039010 | Screw AM3 × 6, DIN7985,<br>black           |
| 0023 | 2514028 | Hook                                 | 0051 | 2039901 | Screw AM3 × 8, DIN7985,<br>black           |
| 0024 | 2815007 | Leaf spring                          | 0052 | 3152063 | Holder                                     |
| 0025 | 2640032 | Clamp                                | 0053 | 2622231 | Mica sheet TO-126                          |
| 0026 | 2938100 | Bushing                              |      |         |  |
| 0027 | 2622228 | Washer                               |      |         |  |
| 0028 | 3152118 | Lead holder                          |      |         |  |
| 0029 | 3152118 | Lead holder                          |      |         |  |
| 0030 | 7530005 | Solder tag                           |      |         |  |
| 160  | 3164318 | Dust cover                           | 2P2  | 6273832 | Set of wires with socket,<br>14-contacts,  |
| 170  | 2850084 | Pickup arm                           | 15P3 | 6273819 | Set of wires with socket,<br>8/7-contacts, |
| 0M1  | 8400098 | Motor with pulley and<br>wire/socket | 0P6  | 6273816 | Set of wires with socket,<br>2 contacts,   |
| 0P1  | 7210115 | Socket/housing 5/4<br>contacts,      | 0T1  | 8013197 | Mains transformer                          |
|      | 7500114 | Contactpin                           |      |         |  |



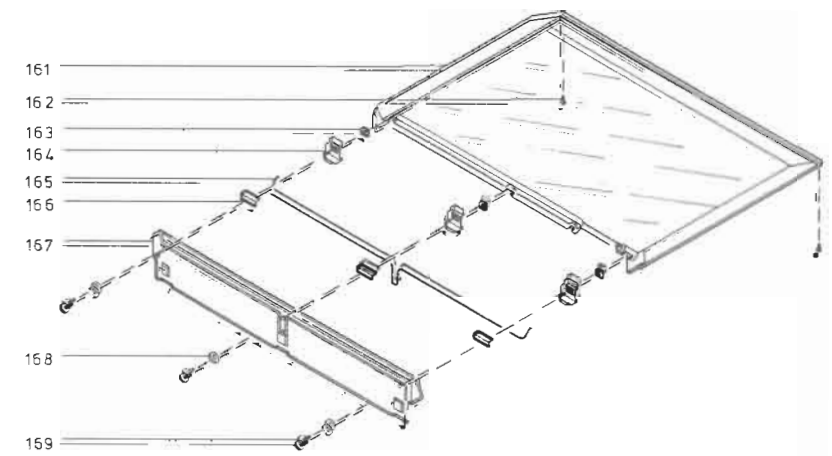


Parts list for Chassis 15

|      |         |                           |      |         |                          |
|------|---------|---------------------------|------|---------|--------------------------|
| 151  | 3014039 | Adaptor                   | 1549 | 7459018 | Contact (silent)         |
| 152  | 2818089 | Spring                    | 1543 | 2803005 | Washer                   |
| 153  | 2794075 | Flywheel                  | 1544 | 2992048 | Pin                      |
| 154  | 3014040 | Adaptor ring              | 1545 | 2853058 | Arm                      |
| 155  | 2038220 | Screw AM3 x 12, DIN84     | 1546 | 2816162 | Slide                    |
| 156  | 2908078 | Bearing ring              | 1547 | 2390015 | Circlip 5.5              |
| 157  | 3150037 | Bearing bushing, complete | 1548 | 3356035 | Magnet                   |
| 158  | 2700024 | Gear-wheel                | 1549 | 2853059 | Arm                      |
| 159  | 2361048 | Locking pin               | 1550 | 2390002 | Locking ring 3.2         |
| 1510 | 2819146 | Spring                    | 1551 | 2390002 | Locking ring 3.2         |
| 1511 | 2819141 | Spring                    | 1552 | 7530084 | Contact                  |
| 1512 | 3014041 | Friction plate            | 1553 | 3162127 | Cover                    |
| 1513 | 2038005 | Screw AM3 x 5, DIN963     | 1554 | 2380011 | Nut M3                   |
| 1514 | 2380011 | Nut M3                    | 1556 | 2390002 | Locking ring 3.2         |
| 1515 | 3162126 | Cover                     | 1557 | 2810082 | Spring                   |
| 1516 | 2622285 | Washer                    | 1558 | 2390002 | Locking ring 3.2         |
| 1517 | 7459017 | Switch 15S1-2             | 1559 | 2623033 | Housing                  |
| 1518 | 3014042 | Adaptor plate             | 1560 | 2938141 | Locking ring             |
| 1519 | 3152270 | Holder                    | 1561 | 2812082 | Spring                   |
| 1520 | 2356034 | Magnet                    | 1562 | 2038018 | Screw AM3 x 12, DIN84    |
| 1521 | 2700025 | Gear-wheel                | 1563 | 3110023 | Chassis                  |
| 1522 | 2390002 | Locking ring 3.2          | 1564 | 2390033 | Locking ring 5           |
| 1523 | 2992076 | Pin                       | 1565 | 3152224 | Washer                   |
| 1524 | 2818060 | Spring                    | 1566 | 2917017 | Ball 2, 5                |
| 1525 | 2390002 | Locking ring 3.2          | 1567 | 2938152 | Ring                     |
| 1527 | 3017012 | Cam-riding wheel          | 1568 | 2380011 | Nut M3                   |
| 1528 | 2390002 | Locking ring 3.2          | 1569 | 2938147 | Bushing                  |
| 1529 | 2542511 | Bracket                   | 1570 | 2390033 | Locking ring 5           |
| 1530 | 2542512 | Bracket                   | 1571 | 2810095 | Spring                   |
| 1531 | 2818061 | Bracket                   | 1572 | 2851102 | Arm                      |
| 1532 | 2038078 | Screw                     | 1573 | 2810106 | Spring                   |
| 1533 | 2390002 | Locking ring 3.2          | 1574 | 2750018 | Washer                   |
| 1534 | 2390002 | Locking ring 3.2          | 1575 | 2994021 | Pin                      |
| 1535 | 3014031 | Arm                       | 1576 | 2819107 | Spring                   |
| 1536 | 2390001 | Locking ring 2.3          | 1577 | 2938142 | Pin                      |
| 1537 | 3014043 | Stop                      | 1578 | 2850037 | Arm                      |
| 1538 | 2390030 | Lock disc                 | 1579 | 2852040 | Arm                      |
| 1539 | 2928024 | Washer                    | 1580 | 2530326 | Arm                      |
| 1540 | 2622198 | Washer                    | 1581 | 2850033 | Bar                      |
| 1541 | 3035020 | Plastic foot              | 1582 | 2938153 | Pickup bearing, complete |

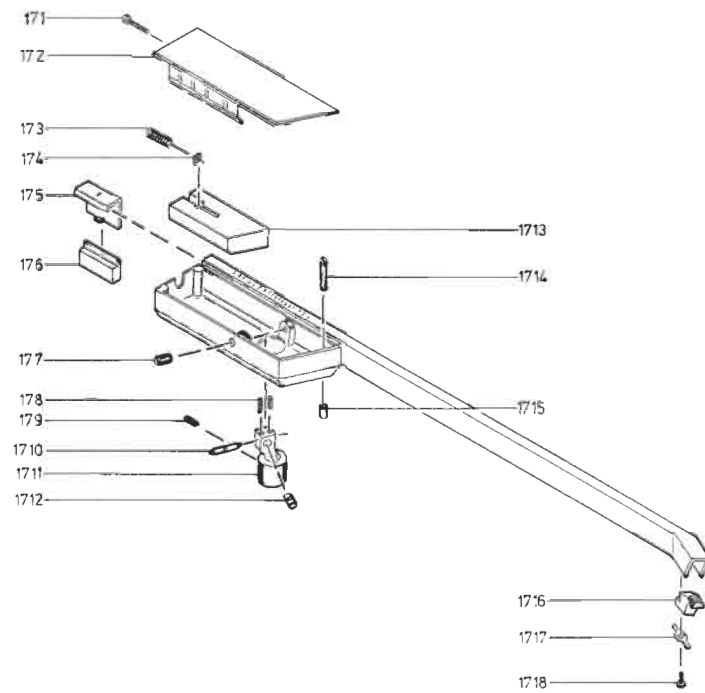
|       |         |         |
|-------|---------|---------|
| 15RL1 | 8024042 | Coil    |
|       | 7500135 | Contact |

Parts list for dust cover 3164318, pos. 160



|     |         |                      |     |         |                               |
|-----|---------|----------------------|-----|---------|-------------------------------|
| 161 | 3164305 | Cover                | 166 | 2530328 | Bracket                       |
| 162 | 3014007 | Stop                 | 167 | 3452527 | Back part                     |
| 163 | 2380013 | Square nut M4, black | 168 | 2624034 | Spring-washer                 |
| 164 | 2572026 | Holder               | 169 | 2042008 | Screw AM4 x 10, DIN965, black |
| 165 | 2819128 | Spring               |     |         |                               |



Parts list for pickup arm  
2550084, pos. 170

|     |         |                                |      |         |                                    |
|-----|---------|--------------------------------|------|---------|------------------------------------|
| 171 | 2034913 | Screw AM2 × 16,<br>DIN84       | 1710 | 2834060 | Shaft                              |
| 172 | 3162093 | Cover                          | 1711 | 3152207 | Holder                             |
| 173 | 2812072 | Spring                         | 1712 | 3151137 | Bushing                            |
| 174 | 2380068 | Square nut M2                  | 1713 | 3342034 | Counter weight                     |
| 175 | 3180064 | Slide pointer                  | 1714 | 2072098 | Screw                              |
| 176 | 3342033 | Counter weight                 | 1715 | 2938096 | Bushing                            |
| 177 | 2905071 | Pointed bearing                | 1716 | 7200037 | Socket with wire                   |
| 178 | 2070400 | Threaded pin M2 × 3            | 1717 | 2033007 | Chassis AM1.6 × 6,<br>DIN84, black |
| 179 | 2070036 | Threaded pin M3 × 4,<br>DIN914 |      |         |                                    |

## Parts not shown

|         |  |
|---------|--|
| 6271101 | Mains lead with euro-plug                      |
| 3535064 | Diagramme                                      |
| 3391525 | Outer carton                                   |
| 3391526 | Insert   |
| 3397320 | Foam packing right                             |
| 3397321 | Foam packing left                              |
| 3917035 | Foam for arm<br>200 × 45 × 10 mm               |
| 3627006 | Cleaning brush for pickup                      |
| 3624024 | Adjustment weights, 20<br>and 60 grams         |
| 2938100 | Disc for adjustment<br>screws, turntable hight |

## Beogram 2200, type 5723

|         |                                     |
|---------|-------------------------------------|
| 2576106 | Spacer for mains-<br>voltage switch |
| 7400022 | Mains-voltage switch                |
| 2038260 | Screw AM 3 × 12,<br>DIN84, black    |
| 2038071 | Nylonscrew AM3 × 12                 |

## Beogram 2400, type 5722

|      |         |                |
|------|---------|----------------|
| 0016 | 6271118 | Wire with plug |
| 0043 | 2568506 | Profile        |

## Beogram 3400, type 5726

|      |         |                                    |
|------|---------|------------------------------------|
| 0016 | 6270166 | Wire with plug                     |
| 0042 | 8954660 | Pick-up MMC 20 EN<br>(replacement) |
| 0043 | 2568510 | Profile                            |
|      | 3131131 | Screen for<br>mains transformer    |
|      | 6100012 | Mains lead 2.5 m                   |

## Beogram 3404, type 5727

|      |         |                                    |
|------|---------|------------------------------------|
| 0016 | 6271118 | Wire with plug                     |
| 0042 | 8954660 | Pick-up MMC 20 EN<br>(replacement) |
| 0043 | 2568508 | Profile                            |
|      | 3131131 | Screen for<br>mains transformer    |
|      | 6100012 | Mains lead 2.5 m                   |

Other parts as Beogram 2200,  
type 5721.

## ADJUSTMENTS

## Speed



Adjust speed dial to 0.

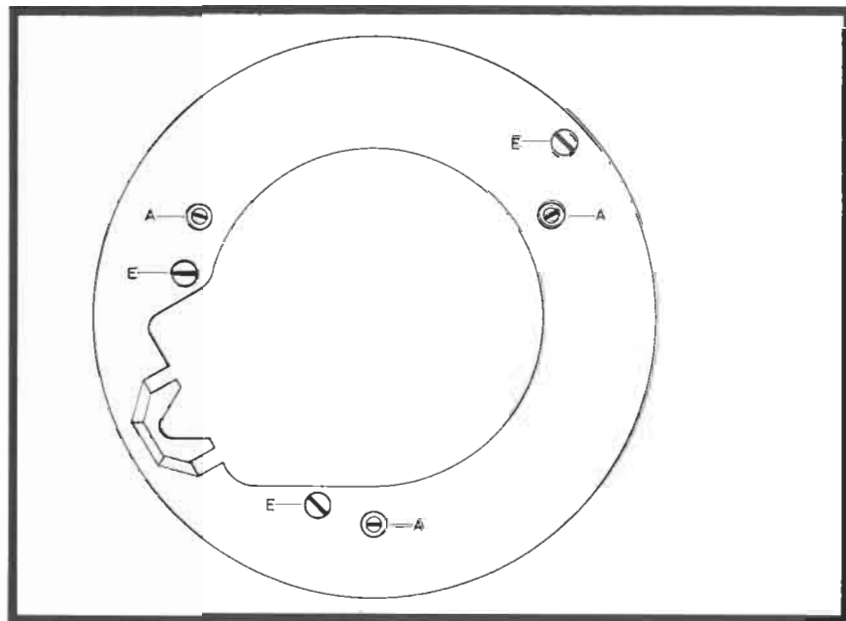
33 r.p.m./min. should be adjusted first. Adjust with 1R7.

45 r.p.m./min. is adjusted with 1R9.

Speed may be checked in two ways:

1. Stroboscope disc and lamp connected to the mains. This check gives an inaccuracy of approx. 2% because the 50 Hz mains frequency deviates approx.  $\pm 1$  Hz.
2. Stroboscope disc and stroboscope lamp. This check gives an accuracy corresponding to the stroboscope lamp's tolerance which normally is superior to that of the mains frequency.

## Turntable height

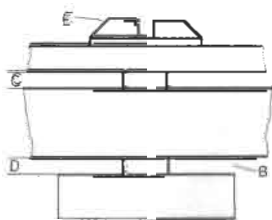


Remove covers from screws A.

Place turntable and two LP records of normal weight on the motor. The motor should then clear all three transit bushings E (see points B).

The turntable should likewise be parallel with the chassis deck, and when the two LP records are removed from the turntable, distances C and 0 should be approximately identical.

Adjustments are made with screws A.



## Pickup height



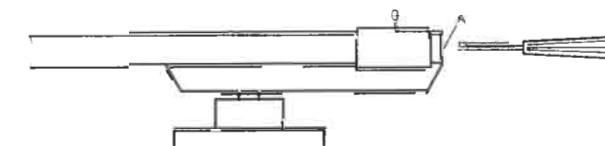
Put a record on the turntable.

Place the pickup arm above a run-off groove.

Adjust screw A until the distance from the stylus to the record is 5 mm.

Adjustment should be made with a counterbalance weight inserted.

## Pickup arm balance

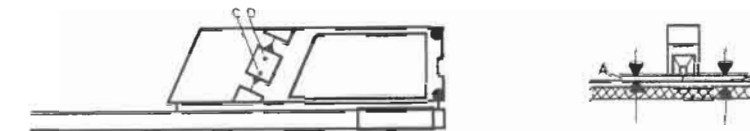


Set stylus pressure adjustment slider to 0 position.

Adjust screw A until the pickup arm is in exact balance.

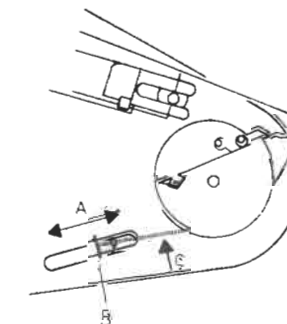
Thereafter adjust stylus pressure to recommended value.

## Pickup arm parallelism



With screws A and D adjust until distances A and B are identical and the plane portion of the pickup is parallel with the top side of the record. Adjustment should be made with a counterbalance weight inserted.

## Anti-skating



Put test record 3631045 on turntable.

Set stylus pressure to 1.5 grams with MMC 20 E and 1.2 grams with MMC 20 EN.

Play cut 1.

Connect oscilloscope to right and left channels.

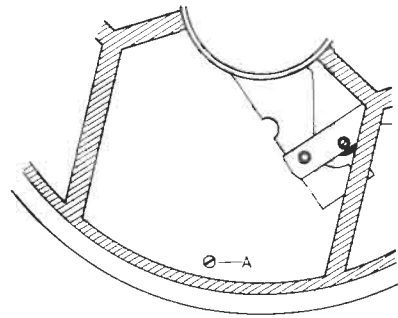
Push stud B in direction of arrow A until the same distortion is present in both channels (when distortion is present in left channel slacken spring C, for right channel tighten the spring).

Check:

Adjust stylus pressure to 1.7 grams with MMC 20 E and 1.4 grams with MMC 20 EN.

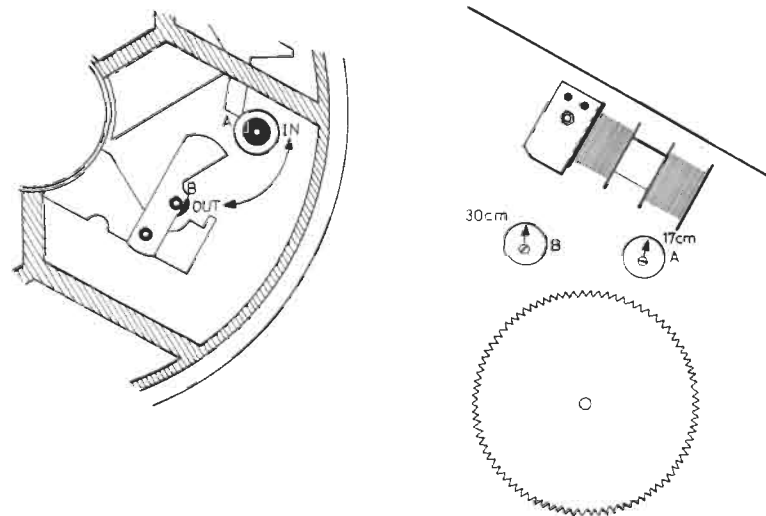
Again play cut 1 with oscilloscope connected to right and left channels; no distortion must occur.

Automatic record-size mechanism

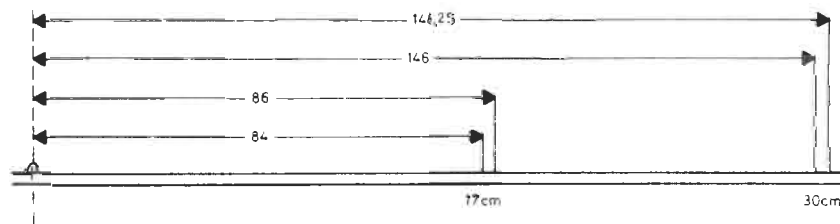


Take off turntable.  
 Place 60-gram weight on centre adaptor (60-gram and 20-gram weight kit 3624024).  
 Start turntable.  
 The centre adaptor should then be capable of lifting the weight, and the pickup arm should travel in to 17-cm lowering.  
 Adjustment can be made with screw A. Turn screw A anticlockwise for greater lifting power and clockwise for less lifting power.  
 Place weights of 60 and 20 grams on the centre adaptor.  
 Start turntable.  
 The centre adaptor should then be incapable of lifting the weights, and the pick up arm should travel in to 30-cm lowering.  
 Adjustment should likewise be made with screw A.

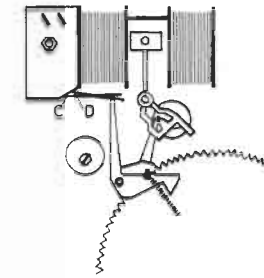
Pickup arm lowering



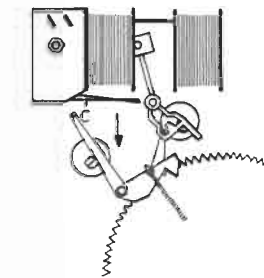
Pickup arm lowering can be adjusted both from above and from below. The adjustment described here is made from above.  
 Take off turntable.  
 Place 60-gram weight on centre adaptor.  
 Start turntable.  
 With eccentric A adjust until the pickup arm lowers inside the field marked 17 cm in the accompanying drawing.  
 Place 60- and 20-gram weights on the centre adaptor.  
 Start turntable.  
 With eccentric B adjust until the pickup arm lowers inside the field marked 30 cm in the accompanying drawing.  
 When making the adjustment from below, a single record (17 cm) and an LP record (30 cm) may be used instead of weights.



Motor switch (15RL1)



When the Motor switch is open (the armature of the mechanical relay in its mid-position) the clearance between the C and D sections of the switch should be 0.5 - 1 mm. This is adjusted by bending the D-section of the switch.



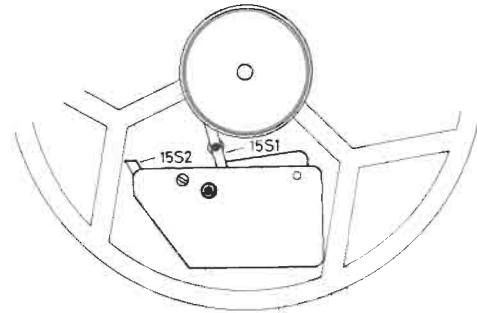
When the Motor switch is closed, the C-section of the switch should press at approx. 15 p in the direction of the arrow. This is adjusted by bending the C-section of the switch.

DESCRIPTION

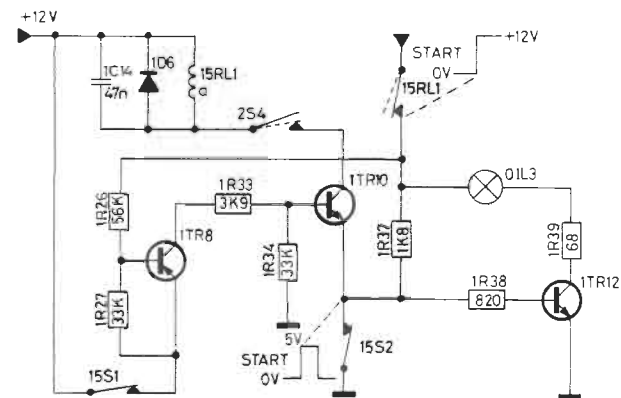
In the Beogram 2200 and Beogram 3400, speed selection and pickup-arm cueing are controlled automatically by means of a sensor which feels the weight of the record. If the record weighs over 80 grams, the pickup arm is brought in to 30 cm and the turntable rotates at 33 r.p.m. If the record weighs less than 60 grams, the pickup arm is brought in to 17 cm and the turntable rotates at 45 r.p.m.

Start with 30-cm record

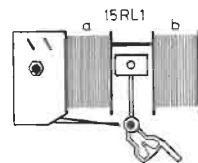
The player can be started only with a record on the turntable. If the player is in the STOP mode, 15S2 is operated. If a 30-cm record is placed on the turntable, the centre adaptor is pushed home, operating 15S1.



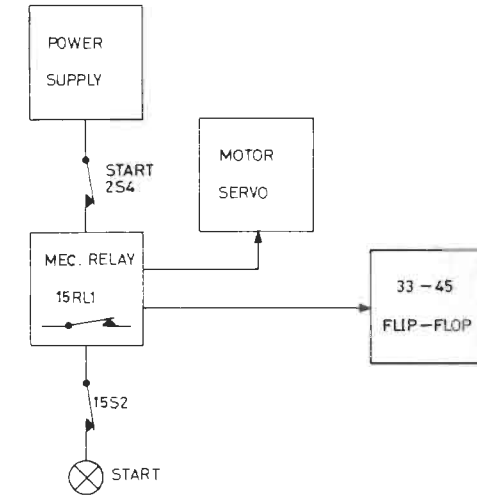
The emitter of 1TR8 receives +12 V through 15S1, and 1TR8 is forward biased. The base of 1TR10 receives positive voltage, and 1TR10 is forward-biased. When the START button (2S4) is pushed, section a of the mechanical relay 15RL1 is operated from +12 V through 2S4, 1TR10 and



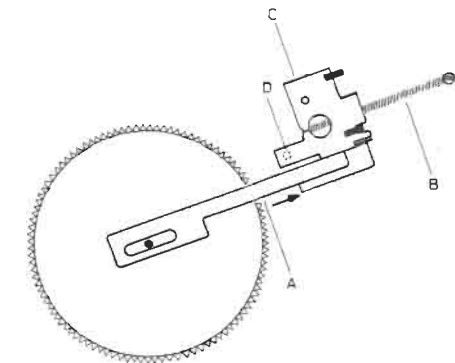
15S2 to chassis potential. Switch 15RL1 is operated, and voltage is applied to the motor servo circuit and to the speed-selection flip-flop circuit, switching it to the 33-r.p.m. mode.



Simultaneously therewith, the cam-lifting wheel goes into mesh, and cueing starts. 15S2 opens, and the base of 1TR12 receives voltage through 15RL1, 1R37 and 1R38. 1TR12 is forward-biased, and lamp OIL3 lights.

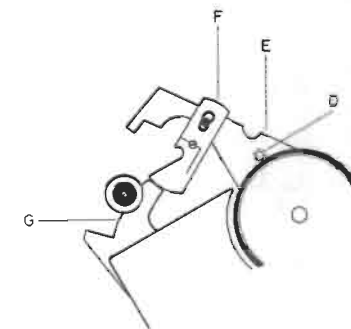


During the cueing operation, the arm A is moved in the direction of the arrow (Sketch 1). The angle C is released from the arm A, and the spring B pulls the angle C, which presses the shaft D.



Sketch 1

With a record on the turntable the centre adaptor rests on the arm E (Sketch 2). The shaft D is secured to the arm E, and the pressure from the angle C will attempt to lift the arm E and hence the centre adaptor and angle F, but since the turntable carries a 30-cm record (> 80 grams), the weight is too large, and arm E will not be lifted. The angle F is not lifted either and accordingly provides a stop to the cueing guide G, so that the pickup arm is lowered at 30 cm. When the pickup arm has been lowered, 15S2 is operated, the base bias for 1TR12 is shorted to chassis potential, 1TR12 goes OFF, and OIL3 turns off. When the record has finished, the cam-lifting wheel again goes into mesh. 15S2 opens, 1TR12 is forward-biased, and OIL3 lights; also, the pickup arm rises and travels to its stop position.

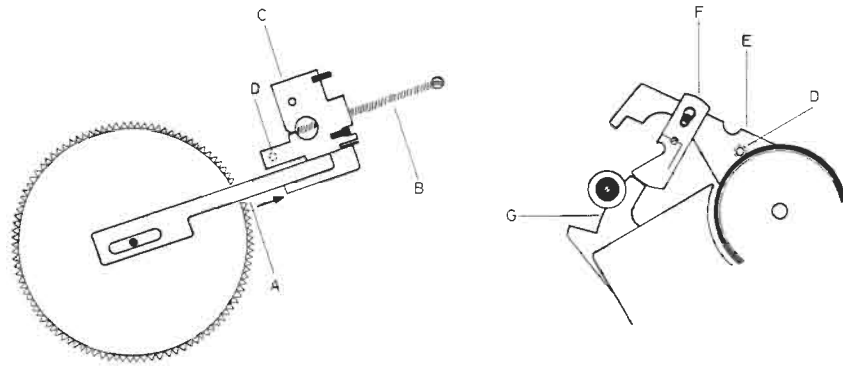


Sketch 2

When the pickup arm is in its stop position, the contacts of the mechanical relay open, thereby removing voltage from the motor-servo circuit, speed-selector circuit and control circuit.

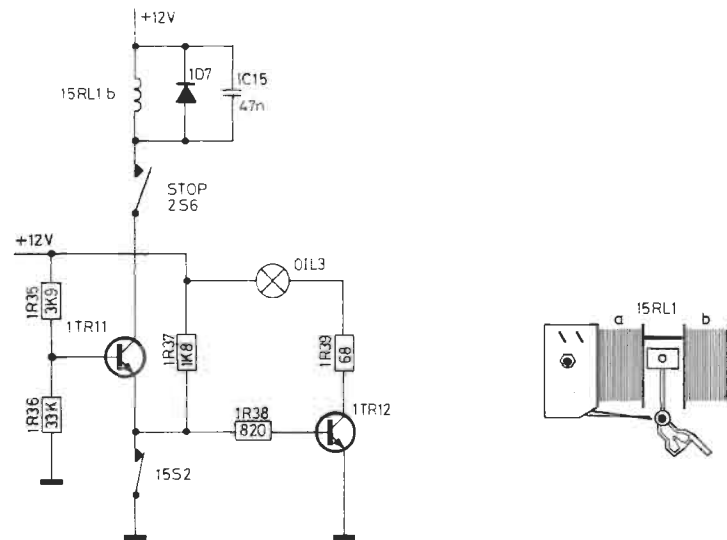
Start with 17-cm record

To actuate the cam-lifting wheel with 17-cm records, the same functions occur as with 30-cm records.



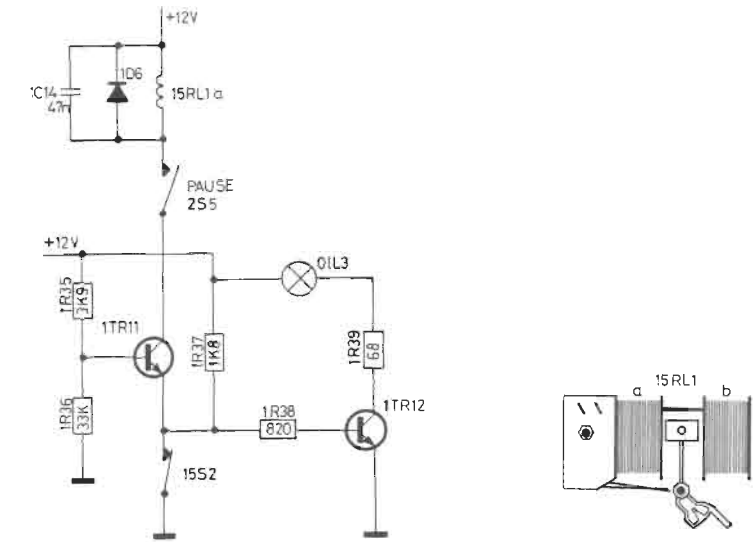
The spring pull at the angle C can now lift the arm E and hence also the centre adaptor and record (< 60 grams). When the center adaptor is lifted, 15S1 opens, and the speed-selector circuit switches to 45 r.p.m. While arm E is being lifted, the angle F too is lifted and the cueing control guide G is brought into position for lowering at 17 cm. The cam-lifting wheel now pulls the arm A opposite to the direction of the arrow, and the record is again lowered on to the turntable.

Stop



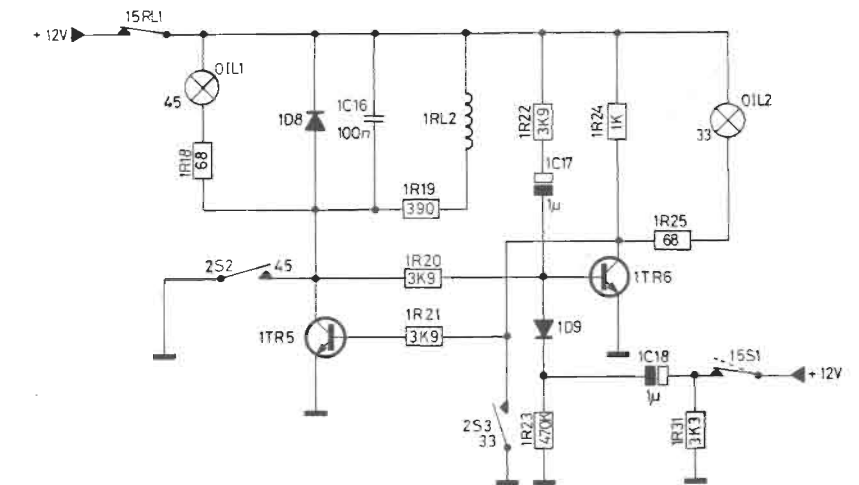
During play, 15S2 is operated and 1TR11 is forward biased. When STOP (2S6) is operated, the b-section of 15RL1 is operated. The cam-lifting wheel goes into mesh as in the case of end-of-record stop; the pickup arm rises and travels out to the stop position.

Pause



With PAUSE (2S5) depressed, the a-section of 15RL1 is operated. The cam-lifting wheel goes into mesh such that the pickup arm rises but does not travel out. The cam-lifting wheel goes into the stop position, and voltage is removed from the motor servo circuit, speed-change selector circuit and control circuit (15RL1). When START is depressed, voltage is applied to the circuits just referred to; the turntable rotates; and the pickup arm is lowered.

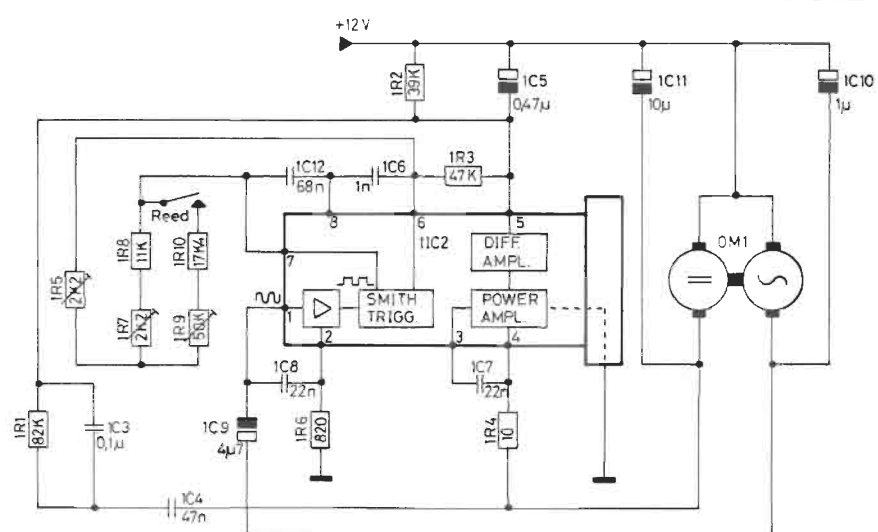
Speed Changing



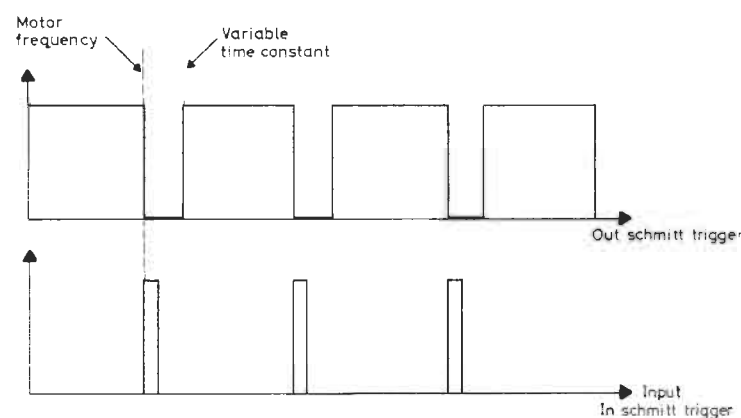
Speed changing is carried out by means of a flip-flop. When the mechanical relay (15RL1) is operated, voltage is applied to the circuit. 1C17 will charge through 1R22. The charging current in 1C17 will forward-bias 1TR6. The collector of 1TR6 goes low and OIL2 lights; also, the base of 1TR5 is connected to chassis potential through 1R21 and 1TR6. The collector of 1TR5 goes high and keeps 1TR6 forward biased through 1R20. Since 1TR5 does not draw collector current, the reed relay 1RL2 is not operated, and the turntable rotates at 33 r.p.m.

At 33 r.p.m. 15S1 is operated and 1C18 carries a full charge. When the speed changes automatically to 45 r.p.m. 15S1 opens momentarily. When 15S1 opens, 1C18 discharges through 1R31. The cathode of 1D9 becomes negative, and 1TR6 is reverse biased through 1D9. The collector of 1TR6 goes high; this high level is transmitted via 1R21 to the base of 1TR5 as forward bias. The collector of 1TR5 goes low; OIL1 lights; reed relay 1RL2 is operated; and the speed changes to 45 r.p.m. Manual speed changing is carried out by means of 2S2 and 2S3. 1C16 and 1D8 protect the electronics against induction peaks from the reed relay.

## Motor Servo Circuit



The record player's turntable is driven by a tacho-controlled DC motor. A generator in the motor delivers an AC voltage whose frequency is dependent on the motor speed. This AC voltage is fed via 1C9 to pin 1 of 1C2. The AC voltage is converted into a square-wave, which is fed on to a Schmitt trigger. The square-wave frequency, being dependent on the motor speed, controls one output level of the Schmitt trigger; the other output level is controlled from a variable time constant consisting of 1C12, 1R7, 1R8, 2R5 for 33 r.p.m. and 1C12, 1R7, 1R8, 1R9, 1R10, 2R5 for 45 r.p.m.



The Schmitt trigger output signal (pin 6) is integrated via 1R3 - 1C5 and fed to pin 5, which is a differential amplifier. The integrated signal at pin 5 will be a DC voltage which varies in proportion to the motor speed. This DC voltage is fed via the differential amplifier to a power amplifier. The power amplifier is placed like a variable resistor whose other end connects to chassis potential. 1R4 limits the motor current and hence the motor speed, thereby preventing the circuit from »taking hold« at a harmonic frequency from the motor's tacho generator.

## Remote Control

First time PHONO is pressed

Second time PHONO is pressed

Third time PHONO is pressed

Change to another program or to stand by while record is playing

Change to another program during pause (pickup arm raised)

Manual operation of the Beogram 2400, type 5722 (Beogram 3404, type 5727), is carried out as described in the foregoing relating to the Beogram 2200, types 5727 and 5723 (Beogram 3400, type 5726). Over and beyond this, some of the functions of the Beogram 2400 (Beogram 3404) can be activated from the remote control unit which is supplied with the Beomaster 2400. The chart below shows which functions are activated when controls are operated.

Player starts, pickup arm travels in and lowers if there is a record on the turntable.

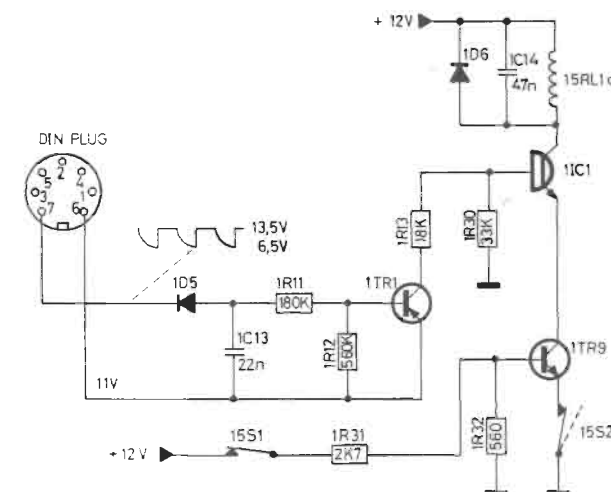
Pickup arm rises (pause begins).

Pickup arm lowers (pause ends).

Pickup arm rises and returns.

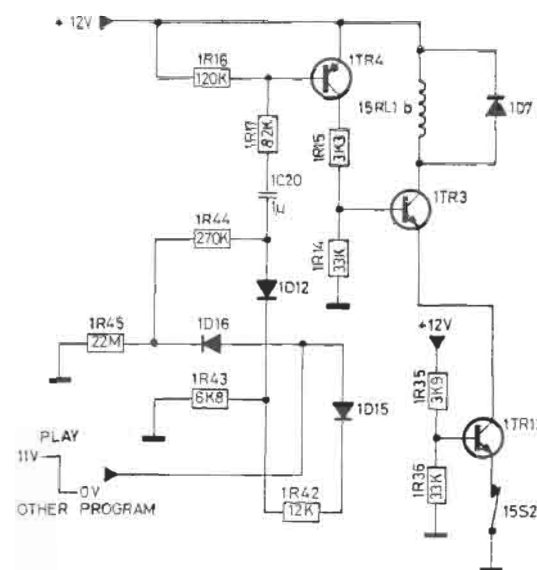
Pickup arm does not return, and lowers if PHONO is operated again.

The electrical circuits which handle the remote-control information in the Beogram 2400 (Beogram 3404) in principle consists of three blocks: A start function, a rise/lower function, and a stop function. The circuits receive, through two additional pins in the DIN plug, two bits of information from the Beomaster 2400.

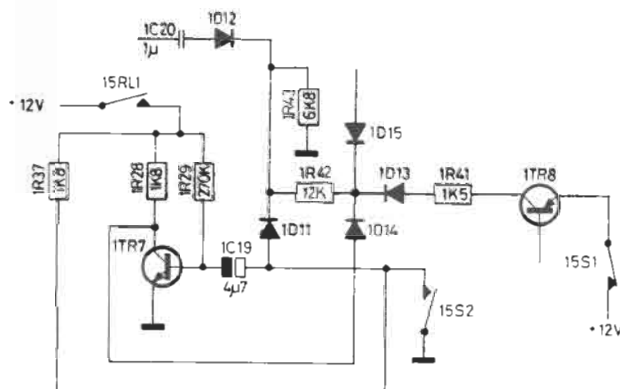


With the player at stop and a record on the turntable, both 15S1 and 15S2 are closed. 1TR9 is forward biased from 12 V through 1R31. When PHONO is operated, 11 V is applied to the emitter of 1TR1 and approx. 6.5 V to the cathode of 1D5. 1TR1 is forward biased, and the base of 1C1 receives positive bias through 1TR1 and 1R13. 1C1 is forward biased, the a-section of 15RL1 is activated, and the player starts. When the PHONO button is released, the voltage at the cathode of 1D5 jumps back to 13.5 V whereas the 11 V potential at the emitter of 1TR1 is retained.

During play, 15S2 is closed. If PHONO is again operated, the sequence of functions is as described above except that the cam-lifting wheel engages for pause function, and the pickup arm rises.



During play, the anodes of 1D15 and 1D16 receive 11 V. The 13 V potential is routed through 1D15 and divided across 1R42 and 1R43 such that the cathode of 1D12 is at approx. 4 V. The 13 V potential is likewise routed through 1D16 and 1R44 to the anode of 1D12 and clamped by 1D12 to the 4 V potential at its cathode, and IC20 charges to approx. 7.5 V. When another program – or stand by – is selected, the 11 V potential at the anode of 1D16 disappears, and IC20 discharges through 1D12 and 1R43. This discharge current provides forward bias for 1TR4. The collector of 1TR4 goes positive. This positive voltage is applied to the base of 1TR3 as forward bias; the b-section of 15RL1 is activated; and the cam-lifting wheel engages for stop.



To avoid incorrect functioning such as may be caused by mechanical tolerances it is ensured that 1C20 is always charged (cathode of 1D12 at approx. 4 V) when the player is to go into stop.

With a record on the turntable and the player at stop, the cathode of 1D12 receives voltage through 15S1, 1TR8, 1R41 and 1D13. When PHONO is operated, the pickup arm begins to travel in; 1TR8 cuts off; and the cathode of 1D12 receives voltage through 1D15.

Simultaneously therewith 15S2 opens, and since 1TR7 is forward biased through 1R29, 1C19 will charge through 1R27. If another program is selected while the pickup arm is travelling in, the voltage at 1D15 disappears, and the cathode of 1D12 receives voltage through 1D11. When the pickup arm has travelled all the way in, 15S2 closes, and 1C19 discharges to bias 1TR7 in the reverse direction. The collector of 1TR7 goes high. This high level is applied to the cathode of 1D12 through 1D14 until 1C19 has discharged, whereupon the cathode of 1D12 goes low and 1C20 discharges. The time it takes for 1C19 to discharge secures that the mechanical relay will have time to be placed in a position that enables activation of the relay's stop section before 1C20 discharges.

### TECHNICAL DATA

#### Record player

|                      |                     |
|----------------------|---------------------|
| Speeds               | 33 – 45 rpm         |
| Speeds control range | > ± 3 %             |
| Wow and flutter      | < ± 0.06 %          |
| Rumble, weighted     | > 65 dB             |
| Rumble, unweighted   | > 45 dB             |
| Drive system         | Flat belt           |
| Motor                | Servo controlled DC |
| Power supply         | 220 (110) V         |
| Power consumption    | 8 W                 |
| Dimensions W X H X D | 44 X 8.5 X 37 cm    |
| Weight               | 6.5 kg              |

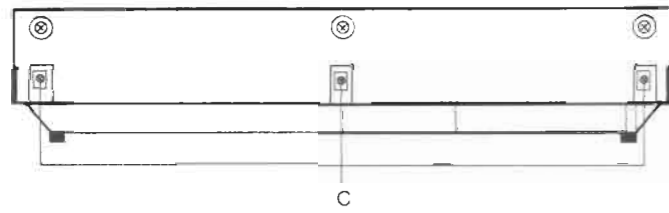
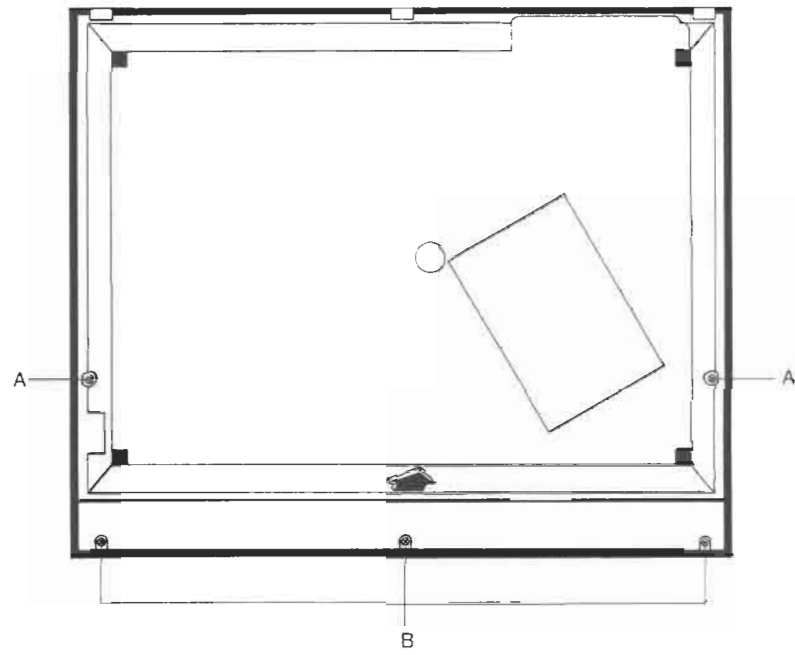
#### Pick-up MMC 20 E

|                            |                       |
|----------------------------|-----------------------|
| Recommended tracking force | 15 mN/1.5 g           |
| Frequency range            | 20–20,000 Hz ± 2.5 dB |
| Channel separation 1000 Hz | > 20 dB               |
| Channel difference         | < 2 dB                |
| Stylus                     | Elliptical diamond    |
| ETM                        | 0.5 mg                |
| Radius of curvature        | 5 X 17 μm             |
| Compliance                 | 20 μm/mN              |
| Sensitivity                | > 0.6 mV/47 kohms     |
| Output 5 cm lateral RMS    | > 2.12 mV/47 kohms    |

#### Pick-up MMC 20 EN

|                            |                          |
|----------------------------|--------------------------|
| Recommended tracking force | 12 mN/1.2 g              |
| Frequency range            | 20–20,000 Hz ± 2 dB      |
| Channel separation 1000 Hz | > 25 dB                  |
| Channel difference         | < 1.5 dB                 |
| Stylus                     | Elliptical naked diamond |
| ETM                        | 0.4 mg                   |
| Radius of curvature        | 5 X 17 μm                |
| Compliance                 | 25 μm/mN                 |
| Sensitivity                | > 0.6 mV/47 kohms        |
| Output 5 cm lateral RMS    | > 2.12 mV/47 kohms       |

ADSKILLELSE  
DISASSEMBLY  
ZERLEGUNG



25 APR 1980

**Beogram 1700**  
Type 5731 og 5733

**Beogram 2202**  
Type 5741

**Beogram 2402**  
Type 5742

**Beogram 3404**  
Type 5747

TO PASTE IN SERVICE MANUAL FOR BEOGRAM 2200, TYPE 5741 ETC.










## LIST OF ELECTRICAL PARTS

Beogram 1700,  
Type 5731 and 5733

### Transistor and IC's

| 20  | 24  | 105   | 106   | 109   |  |  |  |
|---|---|---|---|---|--|--|--|
|  |  |  |  |  |  |  |  |

|      |         |     |            |      |         |     |          |
|------|---------|-----|------------|------|---------|-----|----------|
| 01C1 | 8340049 | 105 | LM 340T-12 | 1TR4 | 8320295 | 20  | BC 337   |
|      |         | 105 | µA 7812CU  | 1TR5 |         |     | -25/18   |
|      |         | 105 | µA 7812CU  |      |         |     |          |
|      |         | 106 | MC 7812    | 1TR6 | 8320097 | 20  | BC 547B  |
| 1TR1 | 832097  | 20  | BC 557B    | 11C2 | 8340108 | 109 | MHN-3P2- |
| 1TR2 |         |     |            |      |         |     | RDS      |
| 1TR3 | 8320396 | 24  | 2N5639     |      |         |     |          |
|      |         | 24  | MPF 4392   |      |         |     |          |

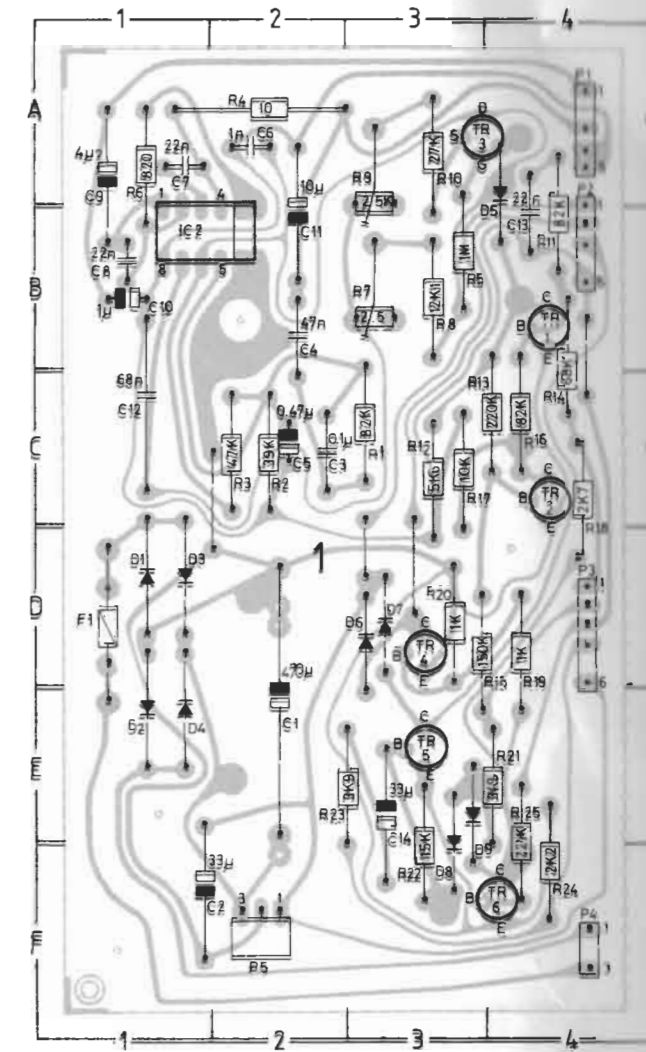
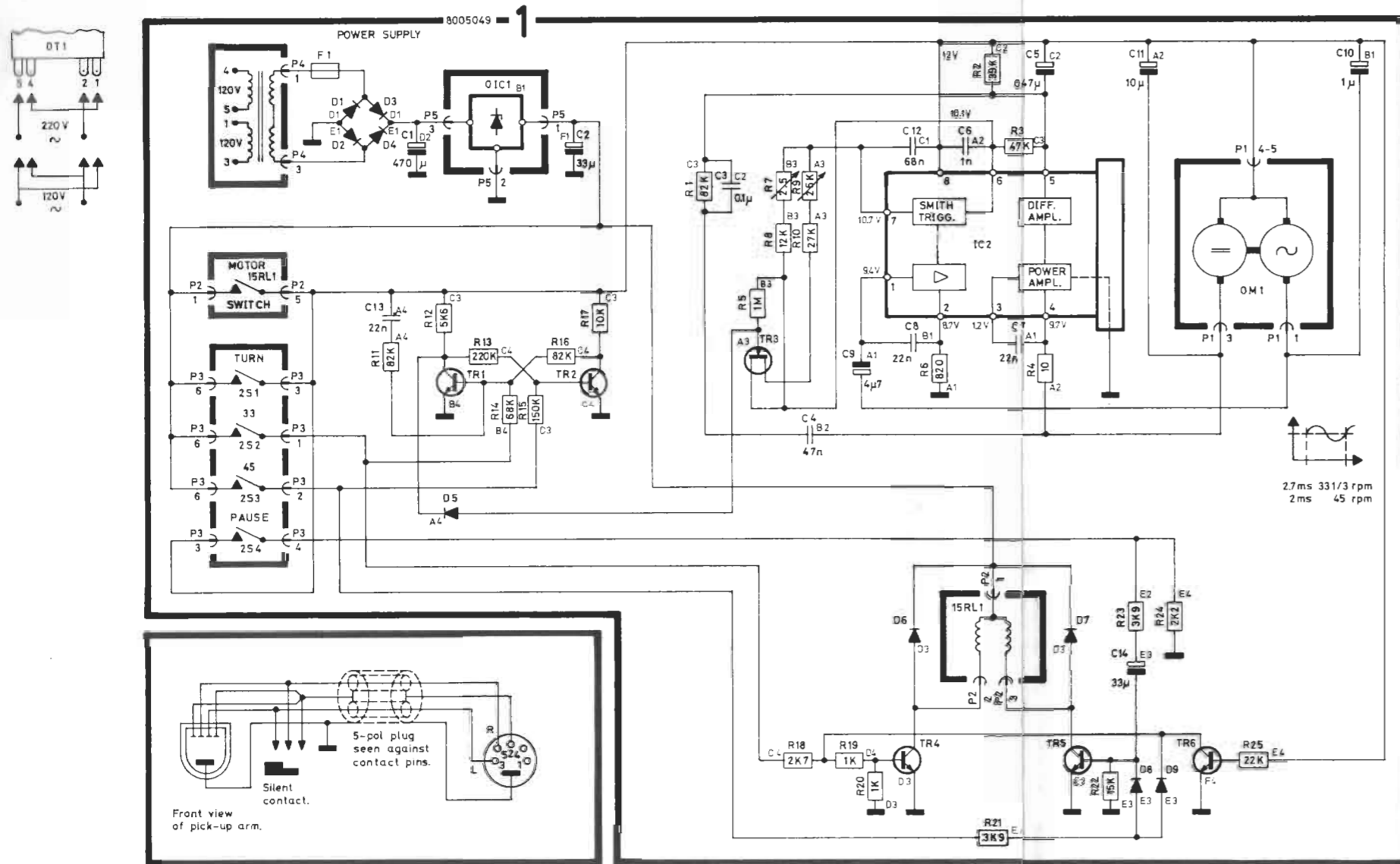
| 209   | 215   | 217   |  |  |  |  |  |
|---|---|---|--|--|--|--|--|
|  |  |  |  |  |  |  |  |

### Diodes

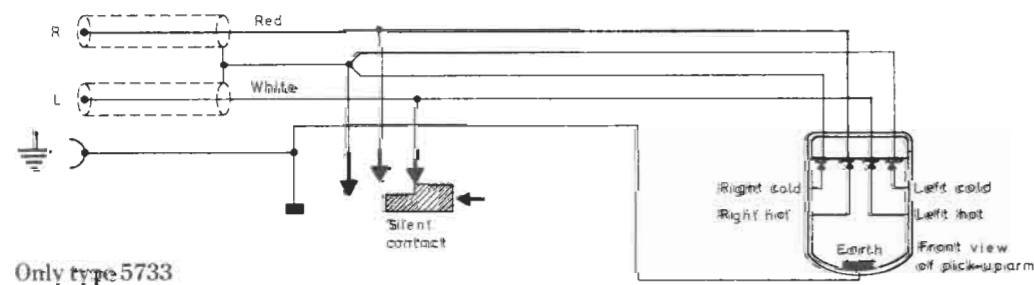
|       |         |     |            |       |         |     |         |
|-------|---------|-----|------------|-------|---------|-----|---------|
| 1D1-4 | 8300023 | 209 | 1N 4002/RL | 1D5-9 | 8300058 | 217 | SFD 184 |
|       |         | 209 | 1N 4003    |       |         | 215 | 1N 4148 |
|       |         |     |            |       |         | 209 | 1N 4148 |

### PC1, Power Supply and Control Unit, 8005049

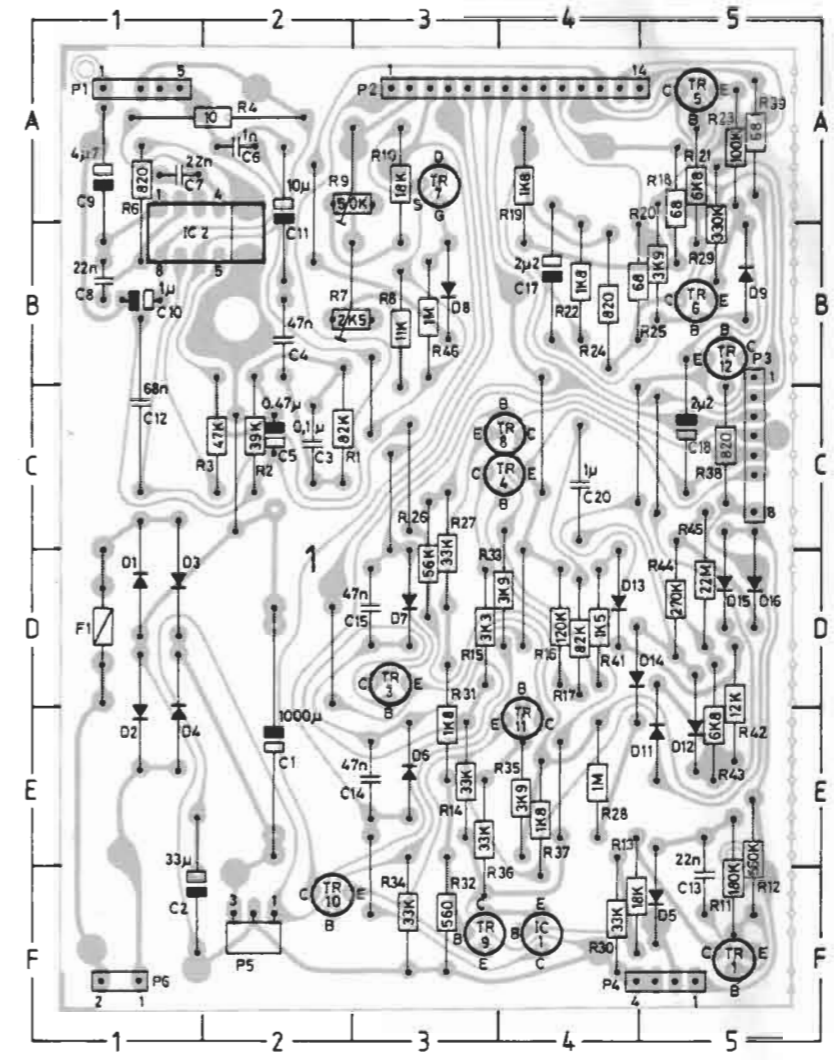
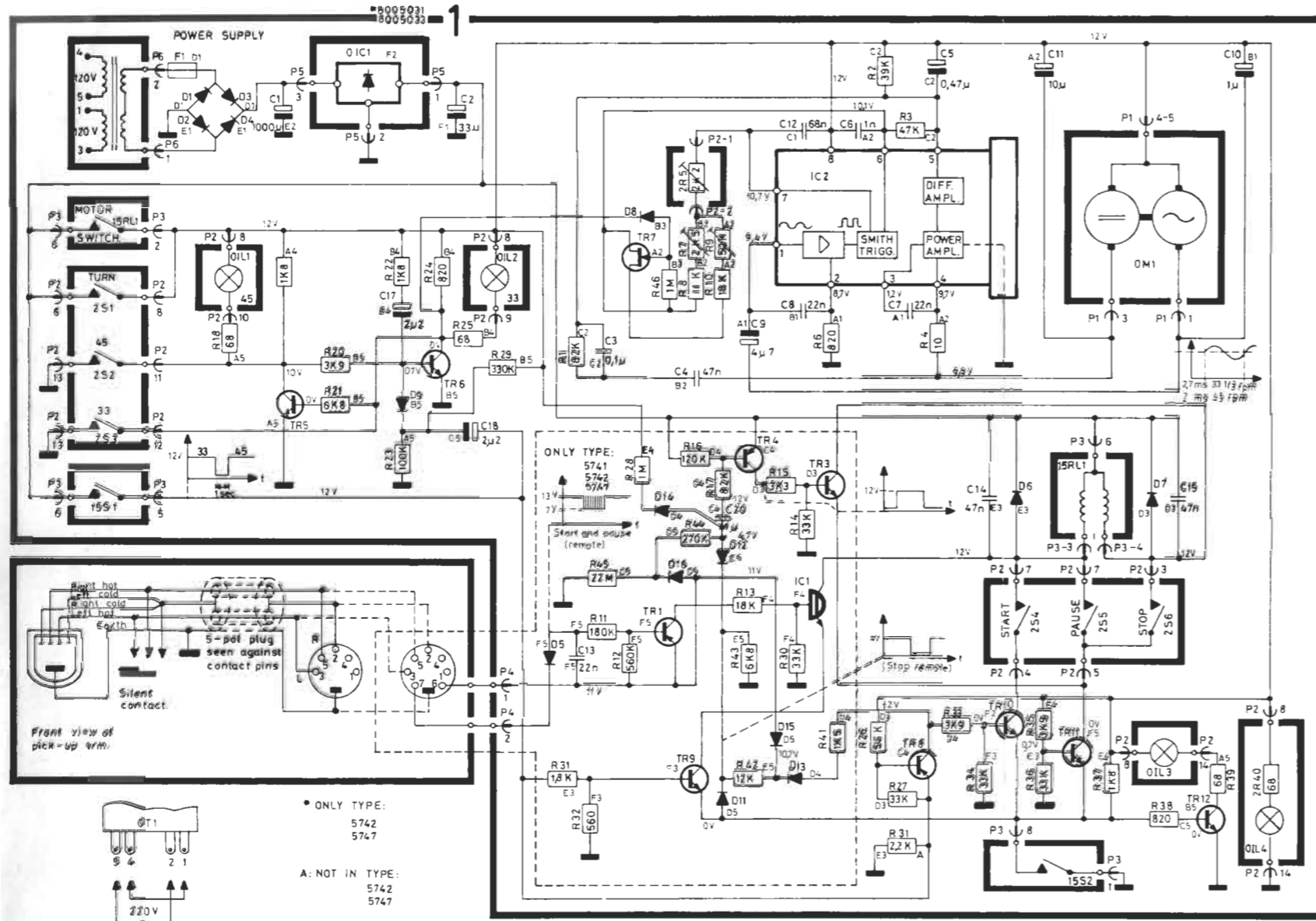
|     |         |             |             |     |         |           |                 |
|-----|---------|-------------|-------------|-----|---------|-----------|-----------------|
| R1  | 5010091 | 82 kohms    | 5% 1/8W     | R14 | 5010062 | 68 kohms  | 5% 1/8W         |
| R2  | 5010060 | 39 kohms    | 5% 1/8W     | R15 | 5010063 | 150 kohms | 5% 1/8W         |
| R3  | 5010045 | 47 kohms    | 5% 1/8W     | R16 | 5010091 | 82 kohms  | 5% 1/8W         |
| R4  | 5100023 | 10 ohms     | 10% 1W      | R17 | 5010059 | 10 kohms  | 5% 1/8W         |
| R5  | 5010054 | 1 Mohms     | 5% 1/8W     | R18 | 5010298 | 2.7 kohms | 5% 1/8W         |
| R6  | 5011026 | 820 ohms    | 5% 1/4W     | R19 | 5010040 | 1 kohms   | 5% 1/8W         |
| R7  | 5370173 | 2.5 ohms    | 20%         | R20 | 5100400 | 1 kohms   | 5% 1/8W         |
| R8  | 5020139 | 12.1 kohms  | 1% 1/8W     | R21 | 5010069 | 3.9 kohms | 5% 1/8W         |
| R9  | 5370068 | 25 kohms    | 20%         | R22 | 5010053 | 15 kohms  | 5% 1/8W         |
| R10 | 5010141 | 27 kohms    | 5% 1/8W     | R23 | 5010069 | 3.9 kohms | 5% 1/8W         |
| R11 | 5010091 | 82 kohms    | 5% 1/8W     | R24 | 5010064 | 2.2 kohms | 5% 1/8W         |
| R12 | 5010041 | 5.6 kohms   | 5% 1/8W     | R25 | 5010079 | 22 kohms  | 5% 1/8W         |
| R13 | 5010120 | 220 kohms   | 5% 1/8W     |     |         |           |                 |
| C1  | 4201029 | 470 µF      | 40V         | C8  | 4010060 | 22 nF     | -20+80% 40V     |
| C2  | 4200414 | 33 µF       | 16V         | C9  | 4200322 | 4.7 µF    | 63V             |
| C3  | 4130150 | 100 nF      | 20% 100V    | C10 | 4201057 | 1 µF      | 35V             |
| C4  | 4130087 | 47 nF       | 10% 250V    | C11 | 4200342 | 10 µF     | 63V             |
| C5  | 4201058 | 0.47 µF     | 35V         | C12 | 4100098 | 68 nF     | 2.5% 63V        |
| C6  | 4010027 | 1 nF        | 10% 100V    | C13 | 4130079 | 22 nF     | 20% 250V        |
| C7  | 4010060 | 22 nF       | -20+80% 40V | C14 | 4200414 | 33 µF     | 16V             |
| P1  | 7220132 | Plug 5/4    | pol.        | F1  | 6600015 | 400mA     | -250V slow      |
| P2  | 7220114 | Plug 5/4    | pol.        |     | 7200038 |           | Holder for fuse |
| P3  | 7220145 | Plug 6/5    | pol.        |     |         |           |                 |
| P4  | 7220208 | Plug 3/2    | pol.        |     |         |           |                 |
|     | 7210187 | Socket 01C1 |             |     |         |           |                 |



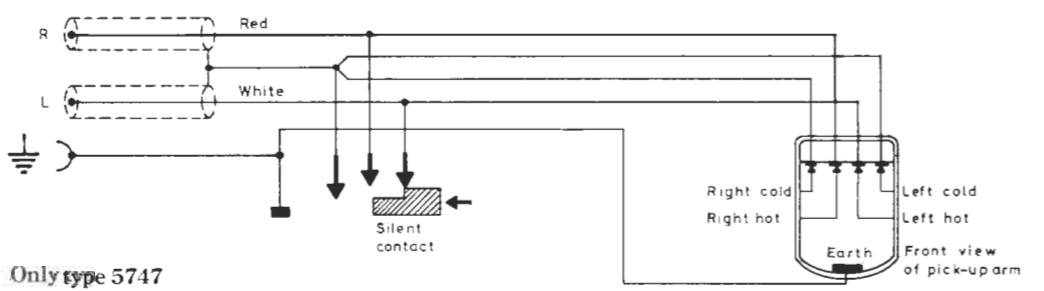
Seen from Copperfoil-side



Only type 5733



Seen from Copperfoil-side



## Transistors and IC's

| 17   | 18      | 19                        | 20 | 24    | 105                                | 106 | 109 |
|------|---------|---------------------------|----|-------|------------------------------------|-----|-----|
|      |         |                           |    |       |                                    |     |     |
| 01C1 | 8340049 | <b>105</b> LM 340T-12     |    | 1TR7  | <b>8320396</b> <b>24</b> 2N 5639   |     |     |
|      |         | <b>105</b> $\mu$ A 7812CU |    |       | <b>24</b> MPF 4392                 |     |     |
|      |         | <b>105</b> $\mu$ A 7812CU |    | 1TR8  | <b>8320152</b> <b>20</b> BC 557B   |     |     |
|      |         | <b>108</b> MC 7812        |    | 1TR9  | <b>8320295</b> <b>20</b> BC 337-   |     |     |
| 1TR1 | 8320152 | <b>20</b> BC 557B         |    | 1TR10 | <b>25/18</b>                       |     |     |
| 1TR3 | 8320295 | <b>20</b> BC 337-         |    | 1TR11 |                                    |     |     |
|      |         | <b>25/18</b>              |    | 1TR12 | <b>8320097</b> <b>20</b> BC 547B   |     |     |
| 1TR4 | 8320152 | <b>20</b> BC 557B         |    | 1IC1  | <b>8340028</b> <b>19</b> MPS A13   |     |     |
| 1TR5 | 8320377 | <b>20</b> BC 547C         |    |       | <b>19</b> SPS 5418                 |     |     |
| 1TR6 |         | <b>20</b> BC 182C/CK      |    |       | <b>19</b> TPS A13                  |     |     |
|      |         | <b>17</b> BC 182CL        |    | 1IC2  | <b>8340108</b> <b>109</b> MHN-3P2- |     |     |
|      |         |                           |    |       | <b>RDS</b>                         |     |     |

## Diodes

| 209   | 215     | 217                   |  |        |         |                    |
|-------|---------|-----------------------|--|--------|---------|--------------------|
|       |         |                       |  |        |         |                    |
| 1D1-4 | 8300023 | <b>209</b> 1N 4002/RL |  | 1D6-16 | 8300058 | <b>217</b> SFD 184 |
|       |         | <b>209</b> 1N 4003    |  |        |         | <b>215</b> 1N 4148 |
|       |         |                       |  |        |         | <b>209</b> 1N 4148 |

## PC1, Power Supply and Control Unit, 8005033

### Beogram 2202, Type 5741

|     |         |                    |     |         |                   |
|-----|---------|--------------------|-----|---------|-------------------|
| R1  | 5010091 | 82 kohms 5% 1/8W   | R24 | 5010068 | 820 ohms 5% 1/8W  |
| R2  | 5010060 | 39 kohms 5% 1/8W   | R25 | 5010039 | 68 ohms 5% 1/8W   |
| R3  | 5010045 | 47 kohms 5% 1/8W   | R26 | 5010061 | 56 kohms 5% 1/8W  |
| R4  | 5100023 | 10 ohms 5% 1W      | R27 | 5010075 | 33 kohms 5% 1/8W  |
| R6  | 5010068 | 820 ohms 5% 1/8W   | R29 | 5010117 | 330 kohms 5% 1/8W |
| R7  | 5370173 | 2.5 kohms 20% lin. | R31 | 5010064 | 2.2 kohms 5% 1/8W |
| R8  | 5020114 | 11 kohms 1% 1/8W   | R33 | 5010069 | 3.9 kohms 5% 1/8W |
| R9  | 5370061 | 50 kohms 20% lin.  | R34 | 5010075 | 33 kohms 5% 1/8W  |
| R10 | 5010135 | 18 kohms 5% 1/8W   | R35 | 5010066 | 3.9 kohms 5% 1/8W |
| R18 | 5010039 | 68 ohms 5% 1/8W    | R36 | 5010075 | 33 kohms 5% 1/8W  |
| R19 | 5010066 | 1.8 kohms 5% 1/8W  | R37 | 5010066 | 1.8 kohms 5% 1/8W |
| R20 | 5010069 | 3.9 kohms 5% 1/8W  | R38 | 5011026 | 820 kohms 5% 1/4W |
| R21 | 5010052 | 6.8 kohms 5% 1/8W  | R39 | 5010039 | 68 ohms 5% 1/8W   |
| R22 | 5010066 | 1.8 kohms 5% 1/8W  | R46 | 5010054 | 1 Mohms 5% 1/8W   |
| R23 | 5010049 | 100 kohms 5% 1/8W  |     |         |                   |
| C1  | 4200388 | 1000 $\mu$ F 35V   | C9  | 4200322 | 4.7 $\mu$ F 63V   |
| C2  | 4200414 | 33 $\mu$ F 16V     | C10 | 4201057 | 1 $\mu$ F 35V     |
| C3  | 4130150 | 100 nF 20% 100V    | C11 | 4200342 | 10 $\mu$ F 63V    |
| C4  | 4130087 | 47 nF 10% 250V     | C12 | 4100098 | 68 nF 2.5% 63V    |
| C5  | 4201058 | 0.47 $\mu$ F 35V   | C14 | 4130087 | 47 nF 10% 250V    |
| C6  | 4010027 | 1 nF 10% 100V      | C15 | 4130087 | 47 nF 10% 250V    |
| C7  | 4010060 | 22 nF -0+80% 40V   | C17 | 4201035 | 2.2 $\mu$ F 63V   |
| C8  | 4010060 | 22 nF -20+80% 40V  | C18 | 4201035 | 2.2 $\mu$ F 63V   |
| P1  | 7220160 | Plug 5/4 pol.      | F1  | 6600024 | 500mA -250V slow  |
| P2  | 7220100 | Plug 1/4 pol.      |     | 7200038 | Holder for fuse   |
| P3  | 7220130 | Plug 8/7 pol.      |     |         |                   |
| P5  | 7210187 | Socket 3 pol.      |     |         |                   |
| P6  | 7220134 | Plug 2 pol.        |     |         |                   |

## PC1, Power Supply and Control Unit, 8005031

## Beogram 2402 and 3404, Type 5742 and 5747

|     |         |                    |     |         |                   |
|-----|---------|--------------------|-----|---------|-------------------|
| R1  | 5010091 | 83 kohms 5% 1/8W   | R24 | 5011026 | 820 ohms 5% 1/4W  |
| R2  | 5010060 | 39 kohms 5% 1/8W   | R25 | 5010039 | 68 ohms 5% 1/8W   |
| R3  | 5010045 | 47 kohms 5% 1/8W   | R26 | 5010061 | 56 kohms 5% 1/8W  |
| R4  | 5100023 | 10 ohms 10% 1W     | R27 | 5010075 | 33 kohms 5% 1/8W  |
| R6  | 5010068 | 820 ohms 5% 1/8W   | R28 | 5010054 | 1 Mohms 5% 1/8W   |
| R7  | 5370173 | 2.5 kohms 20% lin. | R29 | 5010617 | 330 kohms 5% 1/8W |
| R8  | 5020114 | 11 kohms 1% 1/8W   | R30 | 5010075 | 33 kohms 5% 1/8W  |
| R9  | 5370061 | 50 kohms 20% lin.  | R31 | 5010066 | 1.8 kohms 5% 1/8W |
| R10 | 5010135 | 18 kohms 5% 1/8W   | R32 | 5010067 | 560 ohms 5% 1/8W  |
| R11 | 5010072 | 180 kohms 5% 1/8W  | R33 | 5010069 | 3.9 kohms 5% 1/8W |
| R12 | 5010071 | 560 kohms 5% 1/8W  | R34 | 5010075 | 33 kohms 5% 1/8W  |
| R13 | 5010135 | 18 kohms 5% 1/8W   | R35 | 5010069 | 3.9 kohms 5% 1/8W |
| R14 | 5010075 | 33 kohms 5% 1/8W   | R36 | 5010075 | 33 kohms 5% 1/8W  |
| R15 | 5010076 | 3.3 kohms 5% 1/8W  | R37 | 5010066 | 1.8 kohms 5% 1/8W |
| R16 | 5010047 | 120 kohms 5% 1/8W  | R38 | 5010068 | 820 ohms 5% 1/8W  |
| R17 | 5010091 | 82 kohms 5% 1/8W   | R39 | 5010039 | 68 ohms 5% 1/8W   |
| R18 | 5010039 | 68 ohms 5% 1/8W    | R41 | 5010247 | 1.5 kohms 5% 1/8W |
| R19 | 5010066 | 1.8 kohms 5% 1/8W  | R42 | 5010046 | 12 kohms 5% 1/8W  |
| R20 | 5010069 | 3.9 kohms 5% 1/8W  | R43 | 5010052 | 6.8 kohms 5% 1/8W |
| R21 | 5010052 | 6.8 kohms 5% 1/8W  | R44 | 5010083 | 270 kohms 5% 1/8W |
| R22 | 5010066 | 1.8 kohms 5% 1/8W  | R45 | 5001085 | 22 Mohms 10% 1/2W |
| R23 | 5010049 | 100 kohms 5% 1/8W  | R46 | 5010054 | 1 Mohms 5% 1/8W   |

|    |         |                   |     |         |                |
|----|---------|-------------------|-----|---------|----------------|
| C1 | 4200388 | 1000 µF 35V       | C10 | 4201057 | 1 µF 35        |
| C2 | 4200414 | 33 µF 16V         | C11 | 4200342 | 10 µF 63V      |
| C3 | 4130150 | 100 nF 20% 100V   | C12 | 4100098 | 68 nF 2.5% 63V |
| C4 | 4130087 | 47 nF 10% 250V    | C13 | 4130089 | 22 nF 10% 250V |
| C5 | 4201058 | 0.47 µF 35V       | C14 | 4130087 | 47 nF 10% 250V |
| C6 | 4010027 | 1 nF 10% 100V     | C15 | 4130087 | 47 nF 10% 250V |
| C7 | 4010060 | 22 nF -20+80% 40V | C17 | 4201035 | 2.2 µF 63V     |
| C8 | 4010060 | 22 nF -20+80% 40V | C18 | 4201035 | 2.2 µF 63V     |
| C9 | 4200322 | 4.7 nF 63V        | C20 | 4130155 | 1 µF 10% 100V  |

|    |         |               |    |         |                    |
|----|---------|---------------|----|---------|--------------------|
| P1 | 7220160 | Plug 5/4 pol. | F1 | 6600024 | 500 ma - 250V slow |
| P2 | 7220100 | Plug 14 pol.  |    | 7200038 | Holder for fuse    |
| P3 | 7220130 | Plug 8/7 pol. |    |         |                    |
| P4 | 7220133 | Plug 4 pol.   |    |         |                    |
| P5 | 7210187 | Socket 3 pol. |    |         |                    |
| P6 | 7220134 | Plug 2 pol.   |    |         |                    |

Other parts as for Beogram 2200, type 5721 etc.

LIST OF MECHANICAL PARTS  
Beogram 2202, Type 5741

|      |         |               |      |         |               |
|------|---------|---------------|------|---------|---------------|
| 003  | 2726127 | Turntable     | 0043 | 2568582 | Profile       |
| 0023 | 2514028 | Hook          | 0054 | 2072101 | Lifting screw |
| 0024 | 2815007 | Leaf spring   | 0055 | 2854076 | Lifting arm   |
| 0033 | 3342040 | Counterweight | 0056 | 2622190 | Washer        |

01Modul 8005033 PC, control 17Modul 2850101 Pickup arm

## Beogram 2402, Type 5742

|      |         |                        |      |         |                               |
|------|---------|------------------------|------|---------|-------------------------------|
| 003  | 2726127 | Turntable              | 0042 | 8954660 | Pickup MMC 20EN (replacement) |
| 0016 | 6270211 | Lead w/plug and socket | 0043 | 2568583 | Profile                       |
| 0018 | 2515003 | Nylon clamp            | 0054 | 2072101 | Lifting screw                 |
| 0023 | 2514028 | Hook                   | 0055 | 2854076 | Lifting arm                   |
| 0024 | 2815007 | Leaf spring            | 0056 | 2622190 | Washer                        |
| 0033 | 3342040 | Counterweight          |      |         |                               |

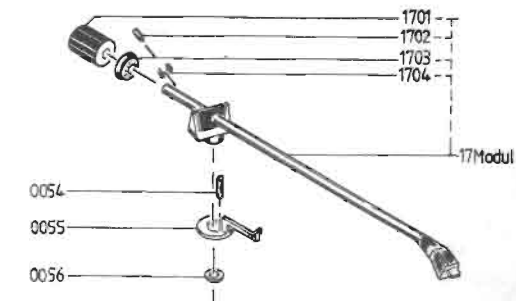
01Modul 8005031 PC, control 17Modul 2850101 Pick-up arm

## Beogram 3404, Type 5747

|      |         |               |      |         |                               |
|------|---------|---------------|------|---------|-------------------------------|
| 003  | 2726127 | Turntable     | 0042 | 8954660 | Pickup MMC 20EN (replacement) |
| 0016 | 6270211 | Lead complete | 0043 | 2568508 | Profile                       |
| 0018 | 2515003 | Nylon clamp   | 0054 | 2072101 | Lifting screw                 |
| 0023 | 2514028 | Hook          | 0055 | 2854076 | Lifting arm                   |
| 0024 | 2815007 | Leaf spring   | 0056 | 2622190 | Washer                        |
| 0033 | 3342040 | Counterweight |      |         |                               |

0T1 8013209 Mains transformer 3131131 Screen for mains transformer  
6100012 Mains lead 2.5 m01Modul 8005031 PC, control 17Modul 2850101 Pickup arm  
6273838 Connector

## Pickup Arm 17, 2850101



|      |         |                   |      |         |                         |
|------|---------|-------------------|------|---------|-------------------------|
| 1701 | 3342076 | Counterweight     | 1703 | 3342044 | Dial for tracking force |
| 1702 | 2070034 | Threaded pin M3x5 | 1704 | 2576114 | Adjustment bushing      |

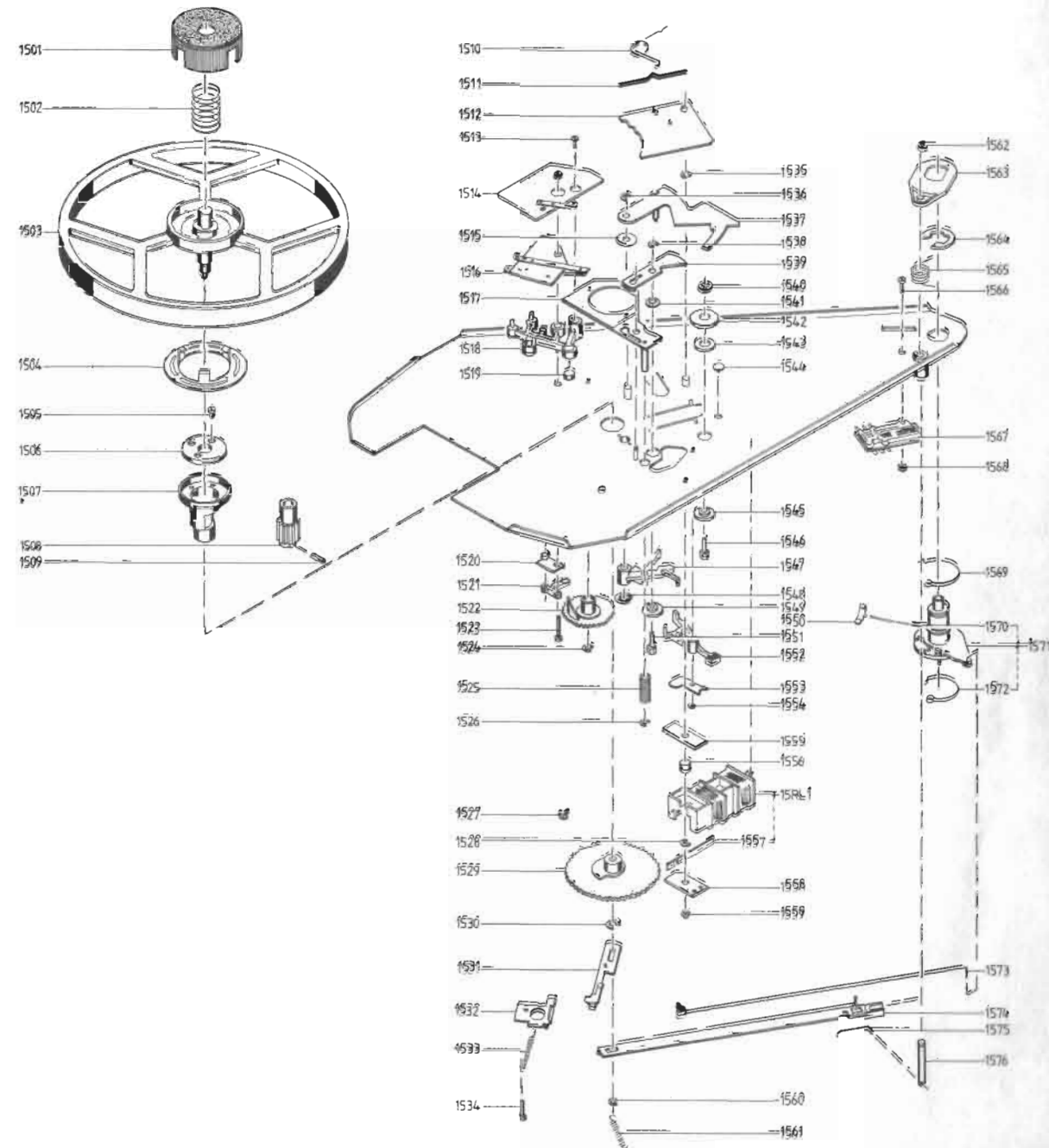
See also drawing page 3-2 and 9-3

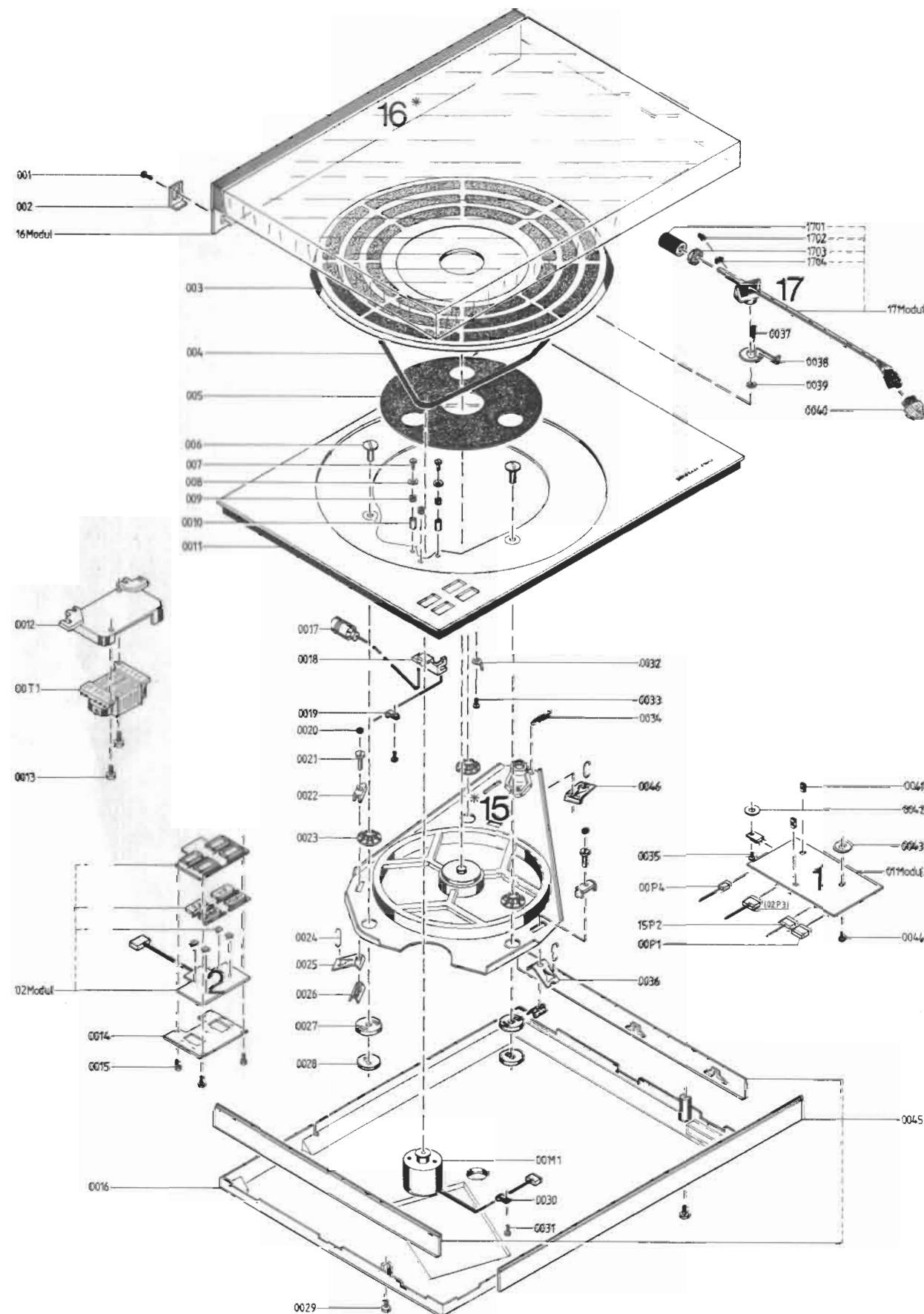
Other parts as for Beogram 2200, Type 5721

Deck 15 for Beogram  
2202, 2402 and 3404  
Type 5741, 5742 and 5747

|      |         |                          |      |         |                  |
|------|---------|--------------------------|------|---------|------------------|
| 1501 | 3014039 | Adaptor                  | 1539 | 3014043 | Stop             |
| 1502 | 2818059 | Spring                   | 1540 | 2395030 | Lock disc        |
| 1503 | 2794075 | Flywheel                 | 1541 | 2395030 | Lock disc        |
| 1504 | 3014040 | Adaptor ring             | 1542 | 2938084 | Washer           |
| 1505 | 2038220 | Screw AM3x12             | 1543 | 2622198 | Washer           |
| 1506 | 2905075 | Bearing ring             | 1544 | 3035020 | Plastic foot     |
| 1507 | 3150037 | Bearing housing complete | 1545 | 2803005 | Washer           |
| 1508 | 2700024 | Gear wheel               | 1546 | 2992048 | Tap              |
| 1509 | 2361048 | Locking pin              | 1547 | 2853058 | Arm              |
| 1510 | 2819145 | Spring                   | 1548 | 2390015 | E-ring 5.5       |
| 1511 | 2819155 | Spring                   | 1549 | 2803005 | Washer           |
| 1512 | 3014041 | Friction plate           | 1550 | 2816162 | Slider           |
| 1513 | 2038005 | Screw AM3x5              | 1551 | 2992076 | Tap              |
| 1514 | 3162126 | Cover                    | 1552 | 2853059 | Arm              |
| 1515 | 2622285 | Washer                   | 1553 | 3164387 | Cover            |
| 1516 | 7459017 | Switch                   | 1554 | 2380011 | Nut M3           |
| 1517 | 3014042 | Adaptor plate            | 1555 | 3170185 | Insulation       |
| 1518 | 3152270 | Holder                   | 1557 | 7530084 | Contact          |
| 1519 | 3356034 | Magnet                   | 1558 | 3162127 | Cover            |
| 1520 | 2576118 | Spacer                   | 1559 | 2380011 | Nut M3           |
| 1521 | 7402081 | Micro-switch             | 1560 | 2390002 | E-ring 3.2       |
| 1522 | 2700026 | Gear wheel               | 1561 | 2810082 | Spring           |
| 1523 | 2038229 | Screw M3x18              | 1562 | 2390002 | E-ring 3.2       |
| 1524 | 2390002 | E-ring 3.2               | 1563 | 2623034 | Lifting plate    |
| 1525 | 2818060 | Spring                   | 1564 | 2938141 | Lock             |
| 1526 | 2390002 | E-ring 3.2               | 1565 | 2812082 | Spring           |
| 1527 | 3152118 | Lead holder              | 1566 | 2038218 | Screw M3x12      |
| 1528 | 2390002 | E-ring 3.2               | 1567 | 7459018 | Silent contact   |
| 1529 | 3017013 | Camwheel                 | 1568 | 2380011 | Nut M3           |
| 1530 | 2390002 | E-ring 3.2               | 1569 | 2819106 | Spring           |
| 1531 | 2542511 | Bracket                  | 1570 | 2810095 | Spring           |
| 1532 | 2542512 | Bracket                  | 1571 | 2938153 | Bearing complete |
| 1533 | 2818061 | Spring                   | 1572 | 2819107 | Spring           |
| 1534 | 2038078 | Screw                    | 1573 | 2850097 | Arm              |
| 1535 | 2390002 | E-ring 3.2               | 1574 | 2852040 | Arm              |
| 1536 | 2390002 | E-ring 3.2               | 1575 | 2530326 | Arm              |
| 1537 | 3014031 | Arm                      | 1576 | 2850093 | Bar              |
| 1538 | 2390001 | E-ring 2.3               |      |         |                  |

|       |         |               |
|-------|---------|---------------|
| 15RL1 | 8024062 | Coil complete |
|       | 7500135 | Contact       |





Beogram 1700, Type 5731

|      |         |                   |      |         |                              |
|------|---------|-------------------|------|---------|------------------------------|
| 001  | 2039010 | Screw AM3x6 black | 0026 | 2640032 | Clamp                        |
| 002  | 2530312 | Clamp             | 0027 | 2938100 | Bushing                      |
| 003  | 2726126 | Turntable         | 0028 | 2622228 | Washer                       |
| 004  | 2732037 | Drive belt        | 0029 | 2043065 | Screw AM4x6 black            |
| 006  | 2046910 | Screw             | 0030 | 2510067 | Lead holder                  |
| 007  | 2036213 | Screw AM2.6x8     | 0031 | 2039903 | Screw AM3x5                  |
| 008  | 2622271 | Washer            | 0032 | 7530005 | Solder tag                   |
| 009  | 2938137 | Rubber bushing    | 0033 | 2039903 | Screw AM3x5                  |
| 0010 | 2930074 | Brass bushing     | 0034 | 2810090 | Spring                       |
| 0011 | 3458224 | Top plate         | 0035 | 2039903 | Screw AM3x5                  |
| 0012 | 3172075 | Insulation        | 0036 | 2815012 | Leaf spring                  |
| 0013 | 2043065 | Screw AM4x6 black | 0037 | 2072101 | Lifting screw                |
| 0014 | 3152272 | Holder            | 0038 | 2854076 | Lifting arm                  |
| 0015 | 2039027 | Screw AM3x6 black | 0039 | 2622190 | Washer                       |
| 0016 | 3454172 | Bottom            | 0040 | 8954640 | Pickup MMC 20S (replacement) |
| 0017 | 6270182 | Lead w/plug       | 0041 | 3152063 | Holder                       |
| 0018 | 2515024 | Lead holder       | 0042 | 2622231 | Mica sheet                   |
| 0019 | 2510067 | Lead holder       | 0043 | 2622231 | Mica sheet                   |
| 0020 | 3180767 | Washer            | 0044 | 2013201 | Screw 2.9x6.5                |
| 0021 | 2042209 | Screw AM4x10      | 0045 | 3412261 | Cabinet, teak                |
| 0022 | 2640031 | Clamp             |      | 3412263 | Cabinet, rosewood            |
| 0023 | 2938129 | Bushing           |      | 3412264 | Cabinet, oak                 |
| 0024 | 2514028 | Hook              |      | 3412265 | Cabinet, white               |
| 0025 | 2815012 | Leaf spring       |      |         |                              |

00M1 8400098 Motor w/pulley and socket 00T1 8013197 Mains transformer

00P1 7210115 Socket/housing 5/4 contact 00P4 6273816 Leads w/socket  
7500114 Contact pin 15P2 6273872 Leads w/socket

01Modul 8005049 FC control 10Modul 3164241 Dust cover, complete  
02Modul 2775749 Set of buttons, complete

17Modul 2850101 Pickup arm 1703 3342044 Dial for tracking force  
1701 3342076 Counterweight 1704 2576114 Adjustment bushing  
1702 2070034 Threaded pin M3x5

Beogram 1700, Type 5733

|      |         |                              |      |         |                           |
|------|---------|------------------------------|------|---------|---------------------------|
| 005  | 2622264 | Washer                       | 00T1 | 8013209 | Mains transformer         |
| 0017 | 6270166 | Lead w/plug                  |      | 3131131 | Cap for mains transformer |
|      | 6270194 | Chassis connection           |      | 6100012 | Mains lead 2.5 m          |
| 0040 | 8954650 | Pickup MMC 20E (replacement) |      |         |                           |

Other parts as for Beogram 1700, Type 5731

Deck 15 for Beogram 1700,  
Type 5731 and 5733

|      |         |                          |      |         |                  |
|------|---------|--------------------------|------|---------|------------------|
| 1501 | 3014036 | Adaptor                  | 1531 | 2622198 | Washer           |
| 1502 | 2818059 | Spring                   | 1532 | 3035020 | Plastic foot     |
| 1503 | 2794072 | Flywheel                 | 1533 | 2803005 | Washer           |
| 1504 | 2038220 | Screw AM3x12             | 1534 | 2992048 | Tap              |
| 1505 | 2905075 | Bearing ring             | 1535 | 2853058 | Arm              |
| 1506 | 3150037 | Bearing housing complete | 1536 | 2816162 | Slider           |
| 1507 | 2700024 | Gear wheel               | 1537 | 2853059 | Arm              |
| 1508 | 2361048 | Locking pin              | 1538 | 3164387 | Cover            |
| 1509 | 2819145 | Spring                   | 1539 | 2380011 | Nut M3           |
| 1510 | 2819155 | Spring                   | 1540 | 3170185 | Insulation       |
| 1511 | 3014041 | Friction plate           | 1541 | 7530084 | Contact          |
| 1512 | 2390002 | E-ring 3.2               | 1542 | 3162127 | Cover            |
| 1513 | 2390002 | E-ring 3.2               | 1543 | 2380011 | Nut M3           |
| 1514 | 3014031 | Arm                      | 1544 | 2390002 | E-ring 3.2       |
| 1515 | 2622285 | Washer                   | 1545 | 2623034 | Lifting plate    |
| 1516 | 2395030 | Lock disc                | 1546 | 2938141 | Lock             |
| 1517 | 2938084 | Washer                   | 1547 | 2812082 | Spring           |
| 1518 | 3014033 | Stop                     | 1548 | 2038218 | Screw M3x12      |
| 1519 | 2622198 | Washer                   | 1549 | 7459018 | Silent contact   |
| 1520 | 2390015 | Locking ring 5.5         | 1550 | 2380011 | Nut M3           |
| 1521 | 2803005 | Washer                   | 1551 | 2819106 | Spring           |
| 1522 | 2992048 | Tap                      | 1552 | 2810095 | Spring           |
| 1524 | 2390002 | E-ring 3.2               | 1553 | 2810107 | Spring           |
| 1525 | 3017013 | Camwheel                 | 1554 | 2938153 | Bearing complete |
| 1526 | 2390002 | E-ring 3.2               | 1555 | 2850097 | Arm              |
| 1527 | 2390002 | E-ring 3.2               | 1556 | 2852040 | Arm              |
| 1528 | 2810082 | Spring                   | 1557 | 2530326 | Arm              |
| 1529 | 2395030 | Lock disc                | 1558 | 2850093 | Bar              |
| 1530 | 2938084 | Washer                   |      |         |                  |

|       |         |               |
|-------|---------|---------------|
| 15RL1 | 8024061 | Coil complete |
|       | 7500135 | Contact       |

