

Dual

506

Edition December 1979

Service Manual



Technical data

Measured values

Current

Line Voltage

Drive

Power consumption

Starting Time

Power Consumption

Platter

Platter speeds

Pitch Control Variation

Speed control (monitoring)

Total Wow and Flutter

Rumble

(according to DIN 45 500)

Tonearm

Tonearm Bearing Friction

(related to stylus tip)

Stylus Pressure

Cartridges

Weight

typical values. Rumble and wow and flutter values obtained with test record.

AC 50 or 60 Hz, changeable by changing motor pulley

110 - 125 V or 220 - 240 V, changeable

Dual 8-pole synchronous motor: precision flat belt for flywheel drive
approx. 10 watts

(to each nominal speed) approx. 2 seconds at 33 1/3 rpm

at 220 V, 50 Hz: approx. 75 mA

at 117 V, 60 Hz: approx. 140 mA

Non-magnetic, detachable, 1.1 kg, 304 mm ϕ

33 1/3 and 45 rpm

at both platter speeds. Adjustment range at 33 1/3 rpm approx. 1 semitone (6%)

with stroboscope for platter speeds 33 1/3 and 45 rpm, adjustable to 50 or 60 Hz.

DIN $\pm 0.07\%$

WRMS $\pm 0.04\%$

Unweighted 48 dB

Weighted 70 dB

Torsion-resistant tubular aluminum tonearm in fourpoint gimbal bearing

vertical 0.07 mN (0.007 g)

horizontal 0.15 mN (0.015 g)

from 0 - 30 mN (0 - 3 g) infinitely variable with 1 mN (0 - 1.5 g)

operable from 5 mN (0.5 g) stylus pressure up

with 1/2 inch screw-type attachment. These can be fitted with the special accessories

no. 262 186 which can be obtained from trade dealers. Adjustable overhang 5 mm.

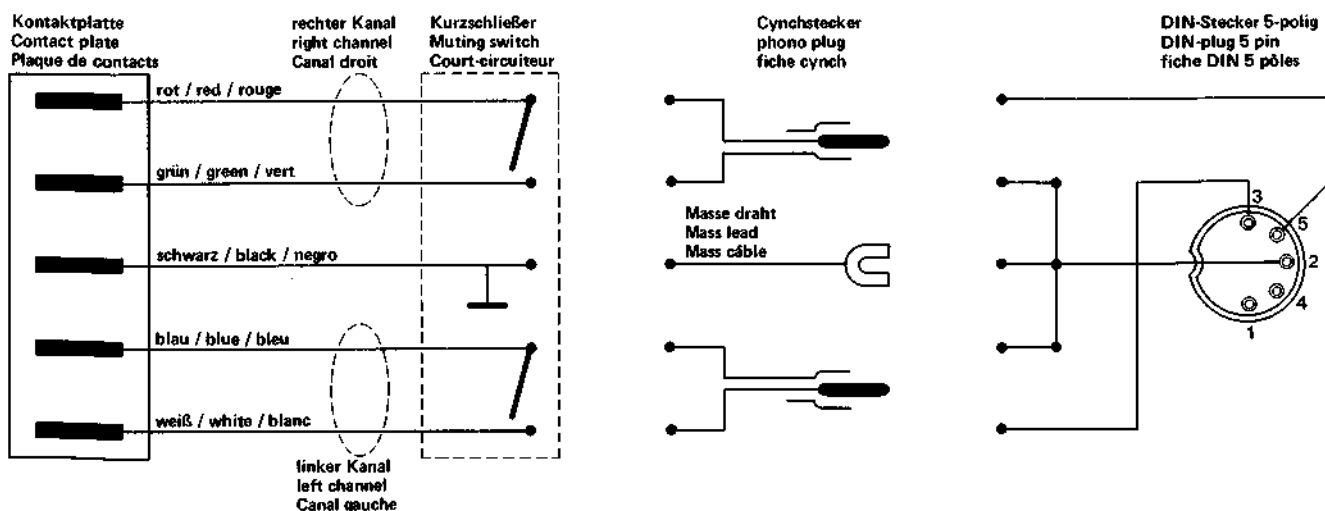
approx. 4.1 kg

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NOTE: The item numbers referred to in the text are identical with those in the illustrations, the exploded views, and in the parts lists.

Fig. 1 Pick-up connection diagram



Motor and Drive

Turntable and mechanism are driven by the motor **132** in (Fig. 16). The shaded-pole motor runs vibration-free in radially elastic mounts and has an extremely low magnetic leakage. The motor speed is independent of voltage, temperature, and load variations. It can only fluctuate with the mains frequency. Two motor pulleys adapt to the mains frequency of 50 Hz or 60 Hz (see pulley **116** in Fig. 2):

Part no. 234 453 pulley for 50 Hz
Part no. 234 454 pulley for 60 Hz.

The driving force is transmitted to the turntable by the belt **15**.

Speed Selection

To adjust the turntable speed to 33 1/3 or 45 rpm, the belt is adjusted to the one or the other step of the motor pulley **116** (see Fig. 3). This is done by operating the knob **16** that will shift the change-over lever into the desired speed position through the lever **101** and the spring lever. As long as the platter is turned off, the change-over lever is blocked by the bar **12** and the speed is only pre-selected. As soon as the record player is turned on and the turntable **7** starts running, the blocking bar **12** will release the change-over lever. The latter will then shift the belt **15** to the one step of the motor pulley **116** that corresponds to the desired speed.

Turntable

The turntable **7** is fixed to the turntable bearing tube by lock tab **134**. To remove the turntable, lift its top layer through one of the cutouts and rotate the turntable so that the recess is above the motor pulley. Pull the belt **15** from the pulley **116** and place it onto the turntable. Rotate the latter further until the cutout is above the lock tab **134**. Slacken the screw **133**. Press the holding bar **134** outwards and remove the turntable **7**.

Belt

To replace the belt, first remove the turntable as above described, then remove the belt **15**. Place the new belt on the pulley part of turntable **7**.

NOTE: the ground (mat) side of the belt should face the pulley. Install the turntable. Place the belt onto the motor pulley **116**.

To Replace the Motor Pulley

1. Remove belt **15** from pulley **116** and remove the turntable. Remove the toothed belt **109**.
2. Disengage the tension spring **114** from the shield **122**.
3. Unscrew the hex. nut **110**. Remove the set cam **111**, belt pulley **112**, and counter bearing **113**.
4. Slacken the grub screws **117** and slide off the motor pulley **116**. Place the replacement pulley onto motor shaft. Remove the taper sleeve. Pay attention to the internal distance spring. Position the motor pulley at proper height above the mounting plane — see Fig. 3 — and uniformly tighten the grub screws **117**. Place the taper sleeve into the motor pulley **116**.
5. Mount the counter bearing **113**, the belt pulley **2 112**, and the setting cam **111**, tighten with hex. nut **110**. Replace tension spring **114** and toothed belt **109**. Mount the turntable **7**. Place belt **15** onto motor pulley **116**.
6. To adjust the rated speed: adjust the knob **16** to its mid position. Slacken or tighten the hex. Nut **110** to achieve the rated speed.

Tuning to the Pitch of Tone Level

This tuning feature is independent of the power and controls both turntable speeds. For 33 1/3, the control range is max. 6 % or about 1 semitone.

Fig. 2

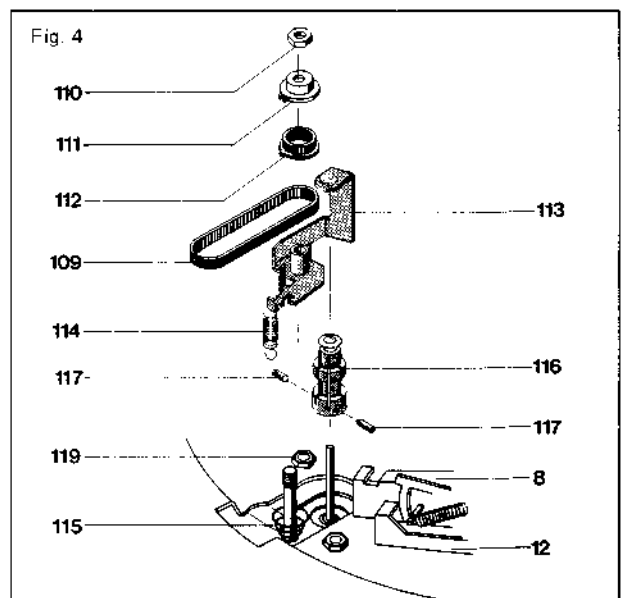
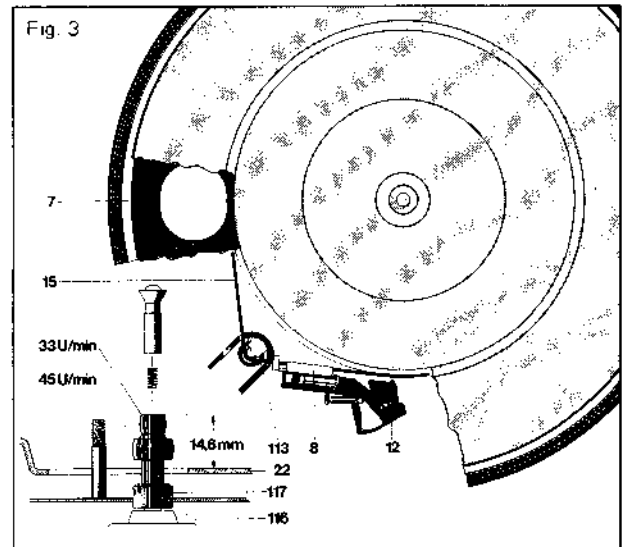
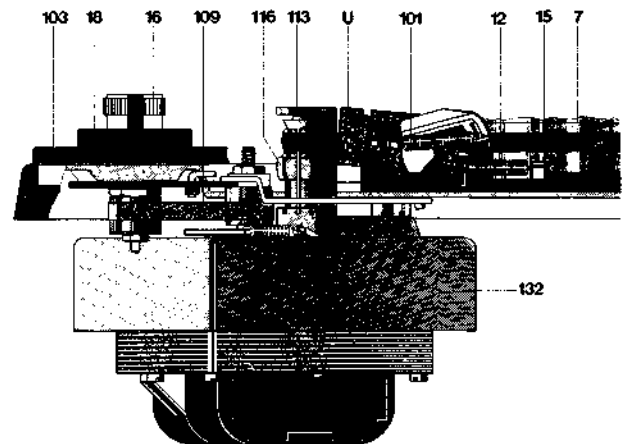
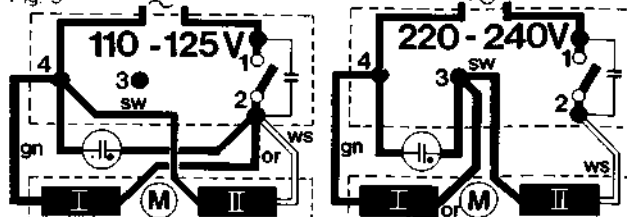


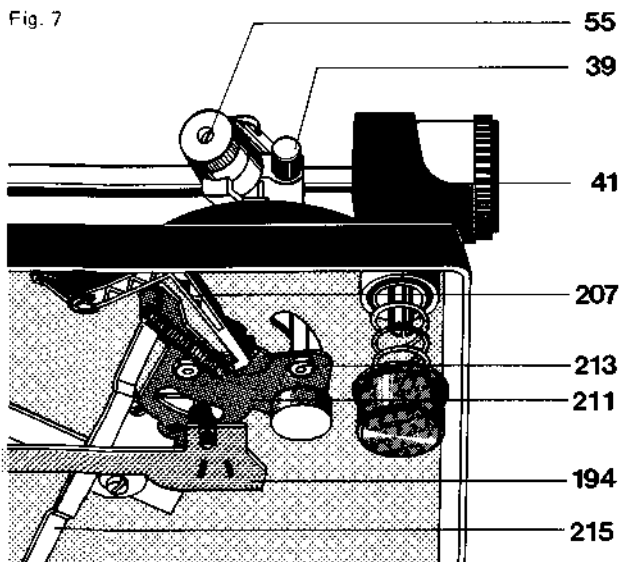
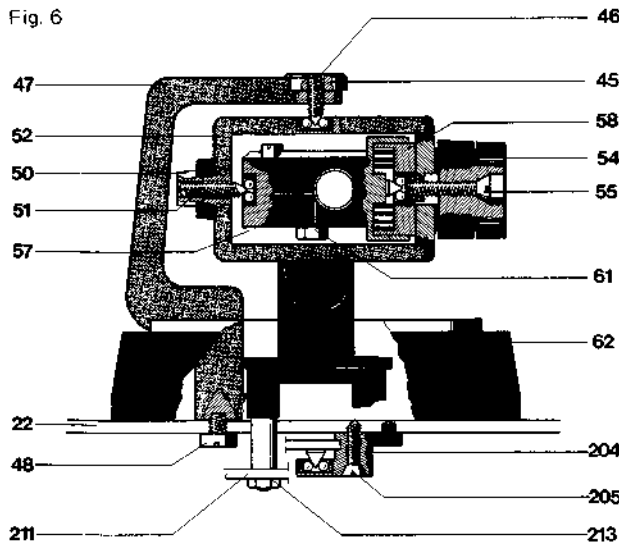
Fig. 5



Rotate the knob **16** to move the belt pulley **112**. This rotary motion is transmitted by the toothed belt **109** to the belt pulley **105**, see Fig. 2. As a result, the counter bearing **113** and the taper sleeve of the motor pulley **116** are shifted up or down. As an effect of the taper sleeve, the motor pulley diameter is reduced or increased, respectively, thus permitting to change the rated speed within the range of $\pm 3\%$.

Stroboscope

Accurate setting of the platter speeds 33 1/3 rpm and 45 rpm can be checked during play with the aid of the stroboscope device. On the platter **4** rotating at exactly the desired speed, the lines of the stroboscope appear to stand still. If the lines of the stroboscope move in the direction of the platter rotation, the platter speed is too high. If the lines move backwards the platter is rotating more slowly than nominal speed. The four rows of stroboscope marks on the edge of the platter, taken bottom to top, are for the following speeds: 33 1/3 rpm at 60 Hz, 33 1/3 rpm at 50 Hz, 45 rpm at 60 Hz, 45 rpm at 50 Hz. Adjustment of the platter speed is carried out using the regulating knob **16**.



Tone arm with Bearings

The light-weight torsion-resistant metal-tube tone arm has a universal gimbal bearing characterized by four hardened and lapped steel points located in high-precision ball bearings. The tone arm bearing friction is thus reduced to a minimum, namely less than 0.07 mN or 0.007 gr in vertical and less than 0.15 mN or 0.015 gr in horizontal direction referred to the stylus point.

This ensures particularly satisfactory tracking conditions. Before adjusting the tracking force in compliance with the pickup system used, the tone arm to its balanced position while the tracking-force scale is in the zero position. For coarse balancing, shift the weight **41**, for fine balancing, rotate the weight. The tracking force is produced by tensioning the helical spring located in the spring case **63**. The latter has a scale with marking points permitting exact adjustment of the tracking force within the range 0 – 30 mN (or 0 - 3 g).

To Remove the Tone arm Complete with Bearings

1. Mount the record player in the servicing fixture. Adjust the tracking-force scale **54** to zero. Lock the tone arm **40** in place. Remove the weight **41**.
2. Adjust record player in head position. Remove shield **158**. Unsolder the tone arm leads from terminal strip **156**.
3. Unhook the tension spring **226** from the bearing bracket **224**. Rotate bearing part **195** through 90° degrees and remove it. Detach the setting bar **194**.
4. Unhook the tension spring **214**. Remove lock washer **210** and skating lever **207**.
5. Remove lock washer **217** and disk **216**. Detach the shut-off bar **215** from the segment **211**.
6. Slacken the hex. nuts **213** and the screw **204**. Remove the bearing **205** and the segment **211**.
7. Grip the Frame **47** and the tonearm **40**. Loosen the machine screw **48** and take off the tonearm and frame.

To install the tone arm, proceed in reverse sequence; however, make sure the segment **211** is properly adjusted as described on page 6.

To Remove the tonearm or the spring housing

1. Secure the unit in a repair stand. Turn the rotary turn switch **54** to the zero position. Lock the tonearm **40**. Remove the counterweight **41**.
2. Turn the unit over. Remove the screening sheet **158** and solder off the tonearm connections at the connection plate **156**. Turn the unit the right way up.
3. Remove the fillister head screw **55**. Remove the rotary turn switch **54** and the washer **53**.
4. Loosen the nut **54** and the grub screw **46**. Draw the tonearm **40** complete with bearing **56** from the bearing race **49**. The spring housing **52** or the tonearm **40** may now be changed.

Reassembly involves the reverse procedure.

To Adjust the Tone arm Bearings

Exactly balance the tone arm. Both bearings should have a small, just perceptible backlash. Proper adjustment of the horizontal bearing is achieved if the tone arm can freely slide from the record inside to outside while the anti-skating adjustment is 0.5. Proper adjustment of the vertical bearing is achieved when the carefully kicked tone arm swings into balanced position. Adjust the backlash by grub screws **46**, **51** for the horizontal and vertical bearing, respectively.

Fitting a 1/2 inch cartridge

If a cartridge with 1/2 inch standard mount is to be fitted, the conversion kit 44 Number 262 186 is necessary. The proper method of fitting is shown in fig. 8.

Also the decorative cover should be removed from the counterweight 41 and should be fitted with the compensatory weight to be found in the conversion kit 44.

Anti-Skating Device

To adjust the anti-skating force, operate the pointer scale provided on the cover 62. Depending on this adjustment, the non-symmetric cam disk will guide the skating lever 207 out of the tone arm pivot point. The anti-skating force is transferred by the tension spring 214 to the segment 211 and, hence, to the tone arm 40.

The factory adjustment is optimal for any stylus having a spherical tip radius of 15 μm or an elliptical tip radius 5/6 by 18/22 μm . These factory-adjusted values may be varied only in an authorized Dual service workshop using a Dual Skate-0-Meter and a test record.

Tone Arm Lift

Move the lift control bar 219 to the front (∇) or LIFT position; this will rotate the lift cam 223 and operate the setting bar 194 and the lifting bolt that will lift the tone arm. In this way the tone arm can be lifted from or lowered on any point of the record except in the shut-off range.

Move the bar 219 to the rear (∇) or LOWER position; this will release the setting bar 176. The pressure spring 184 will return the lifting bolt 185 to its operating position and the tone arm 50 will be lowered softly, braked by the silicone oil in the lifter tube.

To Adjust the Lift Height

Slightly rotate the adjusting sleeve 181. The stylus should be lifted from the record by 5 to 7 mm.

To Replace the Lift Plate

1. Fasten the record player in the service jig and lock it in place.
2. Adjust record player to head position.
3. Detach the tension spring 226 from the bearing bracket, 224. Rotate bearing part 195 through 90° degrees and remove it. Remove the setting bar 194.
4. Detach the tension spring 214, slaken the lock washer 217 and remove the skating lever 207.
5. Remove lock washer 217 and disk 216. Detach shut-off bar 215 from segment 211.
6. Slacken hex. nuts 213 and screw 204. Remove counter bearing 205 and segment 211. Remove lock washer 188 and disc 187, disengage pawl 186.
7. Remove screw 183, and remove lift plate assy. 182.

To replace the lift plate 182, proceed in reversed sequence, but look for proper Adjustments (described below) when you fix the segment 211.

Starting and Shutting Off

Swinging-in of the tone arm 40 causes rotation of segment 211. As a result, pawl 164 and shift arm 172 will operate the power switch 143 causing the motor 123 and turntable 7 to rotate. After the record has been played, the dog M of the turntable (Fig. 11 b) will operate the shut-off lever 34. During play-back, the shut-off bar 215 is dragged in proportion to the motion of segment 211. For records 116 to 122 mm in diameter, the shut-off lever 34 is gradually pushed to dog M by the shut-off bar 215 in the shut-off range, see Fig. 10. When the dog M contacts the shut-off lever A, the carrier 37 will move the shift arm 172 to its zero position and the power switch will interrupt the supply.

At the same time the lift bar 218 coupled to the shift arm 172 will operate the tone arm lift and the tone arm 40 will be lifted.

Fig. 8

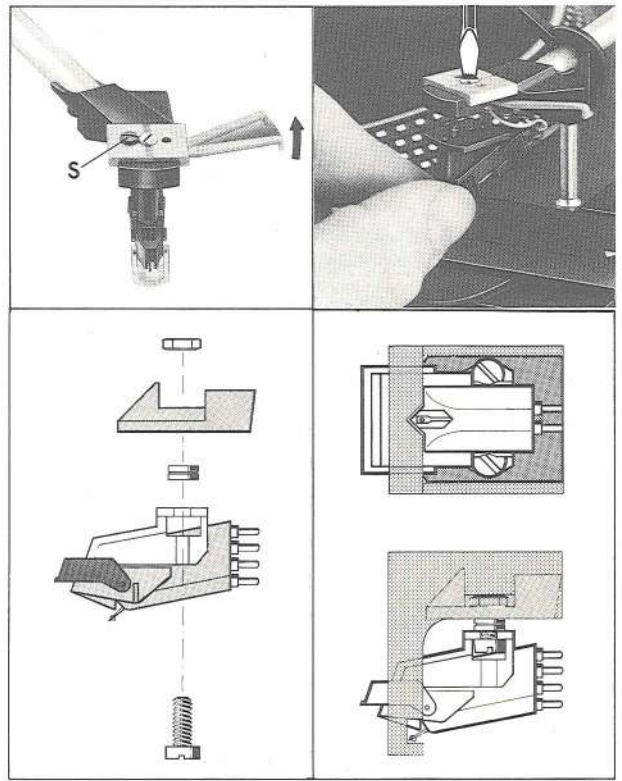


Fig. 9

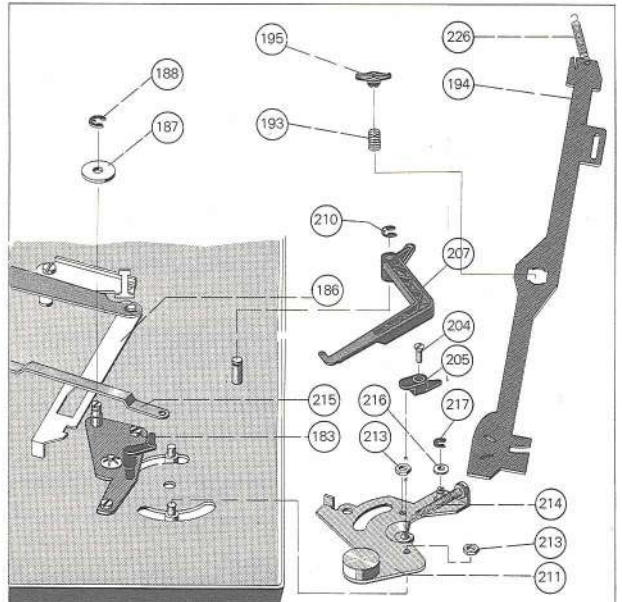
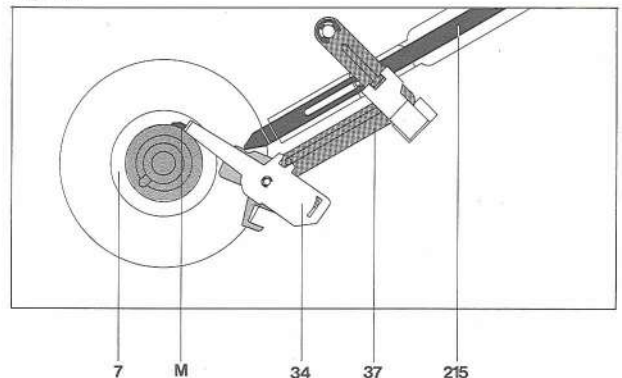


Fig. 10



Adjustments

1. Segment

- Lock the tone arm **50** in place. Record player in head position. Moreover, a play of 0.3 to 0.5 mm should be provided between the pawl **186** and the stop **A** of segment **211**, adjustable by slackening the hex. nuts **213** and shifting the segment **211**.
- The excenter **S** on segment **211** can be used to vary the shut-off point for records 116 to 122 mm in diameter.

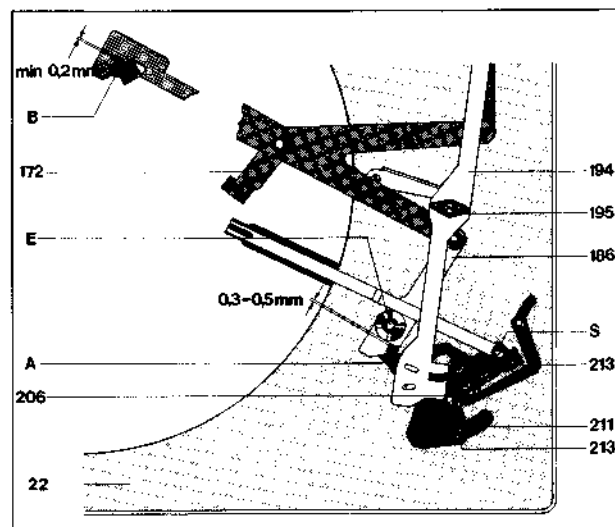
2. Pawl

Swing in the tone arm **40**. Make sure there is a play of 0.2 to 0.5 mm between stop pin **B** of the shift arm **172** and the deck plate **22**. If necessary, adjust by rotation of excenter **E**.

3. Power Switch

Disconnect mains plug. Swing the tone arm **40** back to its support. Power switch **143** must not turn off before the tone arm has reached a position about 3 mm in front of the support. If necessary, adjust by bending the shift arm **172**.

Fig. 11



Defekt

Turntable does not start

Cause

- Belt **15** is not in place: mount the belt.
- Motor **132** is not powered: check switch base **142** and mains plug.
- Motor pulley **116** has come loose: tighten it.

Repair

- Belt **15** is not in place: mount the belt.
- Motor **132** is not powered: check switch base **142** and mains plug.
- Motor pulley **116** has come loose: tighten it.

Turntable speed unsatisfactory

- Motor pulley **116** not in compliance with mains frequency: exchange.
- Belt **15** slipping on pulley **116** or turntable **7**: clean all surfaces in contact, if necessary replace belt **15**.
- Rated speed maladjusted: readjust.

- Motor pulley **116** not in compliance with mains frequency: exchange.
- Belt **15** slipping on pulley **116** or turntable **7**: clean all surfaces in contact, if necessary replace belt **15**.
- Rated speed maladjusted: readjust.

Stylus slides out of playing groove

Steel ball **166** of shut-off bar **166** missing

Renew steel ball

Tonearm does not set down on record or lowers too quickly when operating the cue control lever **190**

Excessive or insufficient damping as a result of contamination of the silicone oil in the lift tube

Referring to page remove cue control plate **182**. Remove adjustment bush sleeve **181**. Remove lift pin **185** and compression spring **184**. Clean lift tube and lift pin. Smear lift pin evenly with "Wacker Silicone Oil AK 500 000". Reassemble components.

Replacement parts

| Pos. | Part.-No. | Qty. | Description |
|------|-----------|------|--|
| 1 | 214 054 | 1 | Washer |
| 4 | 220 213 | 1 | Centering piece |
| 6 | 263 375 | 1 | Turntable lining |
| 7 | 263 377 | 1 | Turntable cpl. |
| 8 | 234 428 | 1 | Carrier cpl. |
| 9 | 210 472 | 1 | Fillister head screw M 3 x 4 |
| 10 | 210 586 | 1 | Washer 3.2 |
| 11 | 232 086 | 1 | Tension spring |
| 12 | 237 220 | 1 | Locking rail cpl. |
| 13 | 240 000 | 1 | Tension spring |
| 14 | 210 194 | 1 | Grip ring |
| 15 | 246 084 | 1 | Fiat belt |
| 16 | 260 461 | 1 | Control knob |
| 17 | 239 270 | 1 | Bearing bush |
| 18 | 260 297 | 1 | Speed lever |
| 19 | 263 378 | 1 | Speed cover |
| 20 | 213 260 | 3 | Grooved drive stud |
| 21 | 237 414 | 3 | Transport lock |
| 22 | 263 379 | 1 | Built-in plate cpl. |
| 23 | 237 226 | 1 | Spring suspension cpl. (motor side rear) |

| Pos. | Part.-No. | Qty. | Description |
|------|-----------|------|---|
| | 237 227 | 1 | Spring suspension cpl. (motor right front) |
| | 237 228 | 1 | Spring suspension cpl. (pick-up arm side rear) |
| | 237 229 | 1 | Spring suspension cpl. (pick-up arm side front) |
| 24 | 230 529 | 4 | Threaded coupling |
| 25 | 236 710 | 1 | Pressure spring (motor side rear) |
| | 236 711 | 1 | Pressure spring (motor side front) |
| | 236 712 | 1 | Pressure spring (pick-up arm side rear) |
| | 236 713 | 1 | Pressure spring (pick-up arm side front) |
| 26 | 200 725 | 4 | Rubber absorber |
| 27 | 200 722 | 4 | Pot |
| 33 | 210 142 | 1 | Locking washer 1.2 |
| 34 | 234 766 | 1 | Throw-off lever |
| 35 | 210 146 | 1 | Locking washer 3.2 |
| 36 | 234 764 | 1 | Friction plate |
| 37 | 234 762 | 1 | Carrier |
| 39 | 260 428 | 1 | Clamping screw |

| Pos. | Part-No. | Qty. | Description | Pos. | Part-No. | Qty. | Description |
|------|----------|------|--|---------|----------|--------------------------------|-------------------------------|
| 40 | 264 020 | 1 | Tonearm cpl. | 145 | 230 148 | 1 | Switch angle |
| 41 | 263 263 | 1 | Weight cpl. | 146 | 219 200 | 1 | Catch spring |
| 42 | 263 258 | 1 | Tonearm head cpl. | 147 | 242 095 | 1 | Cover |
| 43 | 261 929 | 1 | Tonearm head cpl. | 148 | 210 498 | 1 | Fillister head screw M 3 x 28 |
| 44 | 262 186 | 1 | 1/2 inch conversion kit | 149 | 231 079 | 1 | Cable clamps cpl. |
| 45 | 249 383 | 1 | Counter nut | 150 | 214 602 | 1 | Socket AMP |
| 46 | 234 651 | 1 | Grub screw | 151 | 232 996 | 1 | Mains lead Europe |
| 47 | 263 081 | 1 | Frame cpl. | 152 | 232 995 | 1 | Mains lead USA |
| 48 | 242 677 | 1 | Fillister head screw M 4 x 8 | 153 | 207 301 | 1 | Phono pick-up cable Cynch |
| 50 | 246 884 | 1 | Counter nut | 154 | 209 426 | 1 | Cynch plug black |
| 51 | 234 634 | 1 | Grub screw | 155 | 209 425 | 1 | Cynch plug white |
| 52 | 263 329 | 1 | Bearing frame | 156 | 237 238 | 1 | Pick-up connection plate |
| 53 | 261 798 | 1 | Washer | 157 | 210 480 | 2 | Fillister head screw M 3 x 5 |
| 54 | 248 989 | 1 | Rotary knob | 158 | 236 080 | 1 | Screen plate |
| 55 | 249 097 | 1 | Raised countersunk head screw M 2.5 x 12 | 159 | 210 480 | 2 | Fillister head screw M 3 x 5 |
| 56 | 263 340 | 1 | Bearing cpl. | 165 | 236 950 | 1 | Stop bush |
| 57 | 263 331 | 1 | Spring housing | 166 | 209 357 | 1 | Ball 3.2 |
| 58 | 236 069 | 1 | Fillister head screw | 167 | 232 104 | 1 | Ball bed |
| 59 | 260 135 | 1 | Lifting plate | 168 | 210 469 | 2 | Fillister head screw AM 3 x 3 |
| 60 | 210 597 | 1 | Washer 3.2/8/0.5 | 170 | 210 626 | 1 | Washer 4.2/7/0.5 |
| 61 | 262 294 | 1 | Screw B 2.9 x 6.5 | 172 | 234 756 | 1 | Switch arm |
| 62 | 263 380 | 1 | Rear cover | 173 | 210 146 | 3 | Locking washer 3.2 |
| 63 | 200 444 | 7 | Spring washer | 174 | 210 196 | 1 | Grip ring |
| 64 | 260 320 | 1 | Cam disc | 175 | 234 760 | 1 | Engaging lever |
| 65 | 242 298 | 1 | Washer | 176 | 234 799 | 1 | Tension spring |
| 66 | 228 113 | 1 | Washer 4.2/8/1 | 177 | 237 785 | 1 | Wire spring |
| 67 | 210 146 | 1 | Locking washer | 178 | 210 586 | 1 | Washer |
| 68 | 260 328 | 1 | Stroboscoppisma | 179 | 234 759 | 1 | Screw bolt |
| 69 | 263 381 | 1 | Front cover | 181 | 234 800 | 1 | Adjustable adaptor |
| 70 | 263 334 | 1 | Tonearm rest cpl. | 182 | 263 383 | 1 | Lift plate cpl. |
| 100 | 210 145 | 4 | Locking screw 2.3 | 183 | 210 472 | 1 | Fillister head screw AM 3 x 4 |
| 101 | 234 824 | 1 | Switch lever | 184 | 234 798 | 1 | Pressure spring |
| 102 | 236 374 | 1 | Clip spring | 185 | 234 795 | 1 | Lift bolt |
| 103 | 232 094 | 1 | Connection part | 186 | 234 786 | 1 | Catch |
| 104 | 232 079 | 1 | Shouldered nut | 187 | 210 643 | 1 | Washer 4.2/12/1 |
| 105 | 232 097 | 1 | Belt wheel II | 188 | 210 145 | 4 | Locking washer 2.3 |
| 106 | 240 035 | 1 | Washer | 189 | 234 789 | 1 | Leg spring |
| 107 | 210 607 | 1 | Washer 3.2/10/0.5 | 190 | 210 146 | 3 | Locking washer 3.2 |
| 108 | 210 362 | 1 | Hex nut M 3 | 191 | 210 469 | 2 | Fillister head screw M 3 x 3 |
| 109 | 232 076 | 1 | Toothed belt | 192 | 237 969 | 1 | Bearing angle |
| 110 | 244 104 | 1 | Hex nut M 3.5 | 193 | 237 974 | 1 | Pressure spring |
| 111 | 241 641 | 1 | Control curve | 199 | 209 436 | 4 | Flat plug |
| 112 | 241 642 | 1 | Belt wheel I | 200 | 263 336 | 1 | Stroboscope cpl. |
| 113 | 241 644 | 1 | Abutment | 201 | 249 092 | 1 | Glow plate |
| 114 | 233 777 | 1 | Tension spring | 202 | 260 421 | 1 | Glow lamp |
| 115 | 232 615 | 1 | Pressure spring | 203 | 210 469 | 2 | Fillister head screw M 3 x 3 |
| 116 | 234 453 | 1 | Drive roller cpl. 50 Hz | 204 | 203 475 | 1 | Countersunk screw M 3 x 8 |
| 117 | 234 454 | 1 | Drive roller cpl. 60 Hz | 205 | 242 615 | 1 | Counter bearing cpl. |
| 118 | 233 137 | 1 | Grub screw M 2.5 x 3 | 207 | 244 331 | 1 | Skating lever |
| 119 | 210 366 | 3 | Hex nut | 210 | 210 146 | 3 | Locking washer |
| 120 | 210 480 | 1 | Fillister head screw M 3 x 6 | 211 | 263 384 | 1 | Segment |
| 121 | 210 609 | 1 | Washer 3.2/10/1 | 212 | 201 184 | 1 | Adjusting washer |
| 122 | 241 328 | 1 | Screen plate | 213 | 210 362 | 2 | Hex nut M 3 |
| 123 | 232 841 | 3 | Buffer | 214 | 218 591 | 1 | Tension spring |
| 124 | 232 840 | 1 | Insert plate | 215 | 234 807 | 1 | Switch-off rail |
| 125 | 241 570 | 1 | Upper bearing stay | 216 | 201 187 | 1 | Sliding washer |
| 126 | 209 939 | 1 | Sleeve | 217 | 210 145 | 1 | Locking washer |
| 127 | 242 587 | 1 | Stator 110/220 V cpl. | 218 | 234 780 | 1 | Lifting rail |
| 128 | 233 815 | 1 | Fillister head screw M 2.5 x 18 | 219 | 240 893 | 1 | Grip hub cpl. |
| 129 | 241 571 | 1 | Anchor cpl. | 220 | 237 543 | 1 | Rubber bush |
| 130 | 241 572 | 1 | Lower bearing stay | 221 | 234 778 | 1 | Torsion spring |
| 131 | 210 525 | 2 | Fillister head screw M 4 x 25 | 223 | 234 777 | 1 | Stroke curve |
| 132 | 263 382 | 1 | Motor SM 860/5 110/220 V cpl. | 224 | 237 972 | 1 | Bearing stay |
| 133 | 210 472 | 1 | Fillister head screw M 4 x 6 | 226 | 233 710 | 1 | Tension spring |
| 134 | 237 970 | 1 | Holding rail | 227 | 210 469 | 2 | Fillister head screw M 3 x 3 |
| 136 | 241 885 | 1 | Capacitor 10 nF/250 V | 232 | 209 424 | 1 | 5-pole plug DIN |
| 137 | 242 822 | 1 | HF-coche 47 µH | 233 | 207 303 | 1 | Phono pick-up cable cpl. |
| 138 | 237 236 | 1 | Bearing casing cpl. | 261 952 | 1 | CK 28 walnut console cpl. | |
| 139 | 236 759 | 1 | Earthing spring | 261 953 | 1 | CK 28 agate black console cpl. | |
| 140 | 210 515 | 3 | Fillister head screw M 4 x 6 | 261 954 | 1 | CK 28 agate brown console cpl. | |
| 141 | 236 335 | 1 | Slide | 227 986 | 1 | CH 6 Cover | |
| 142 | 200 444 | 1 | Spring washer | 260 480 | 1 | Operating instructions | |
| 143 | 233 012 | 1 | Switch panel cpl. | 261 833 | 1 | Operating instructions UAP | |
| 144 | 242 581 | 1 | Mains switch cpl. | 260 491 | 1 | Shipping carton CS | |
| 144 | 239 732 | 1 | Tension spring | | | | |

Alterations reserved!

Fig. 13 Exploded view 2

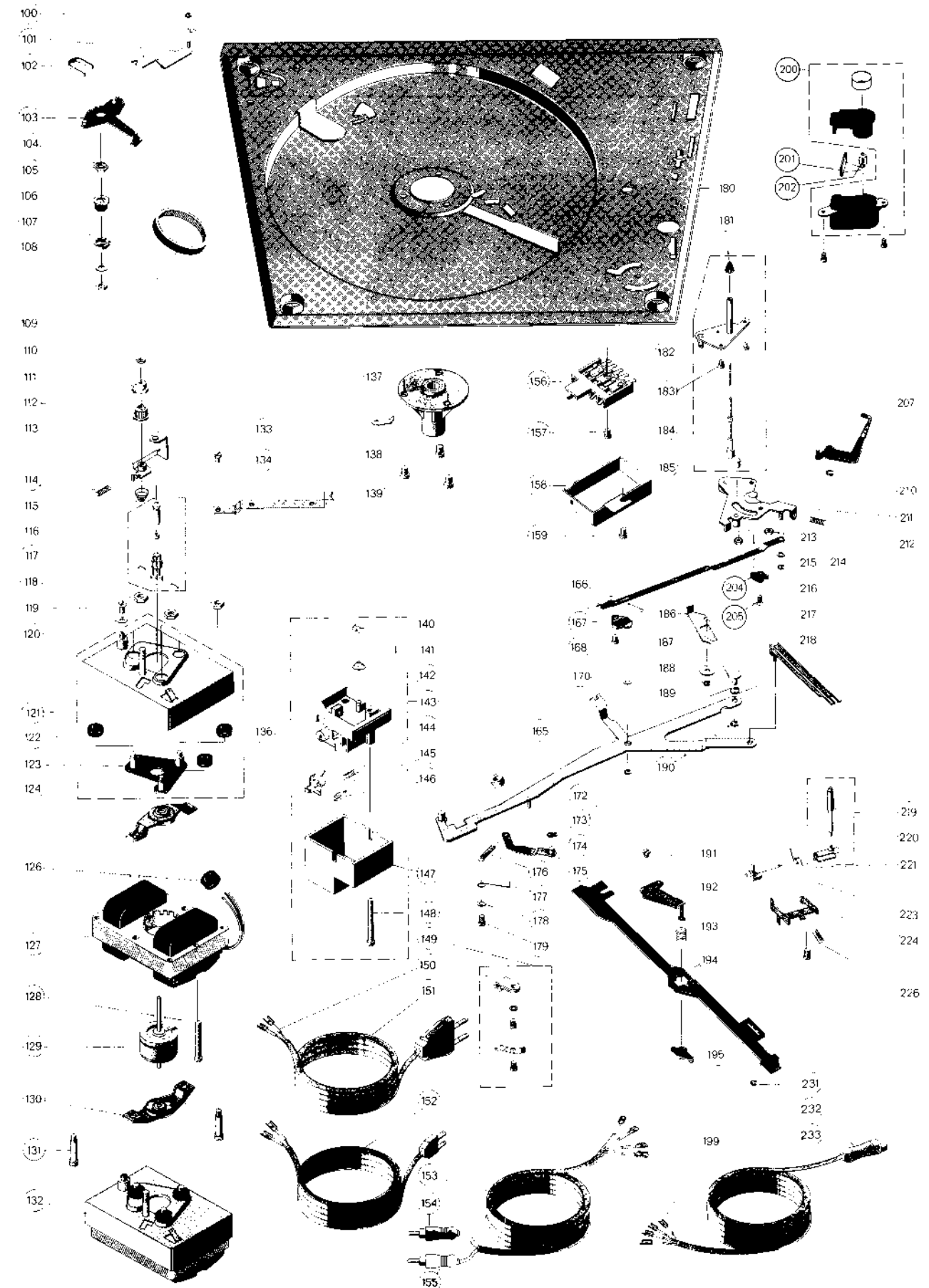
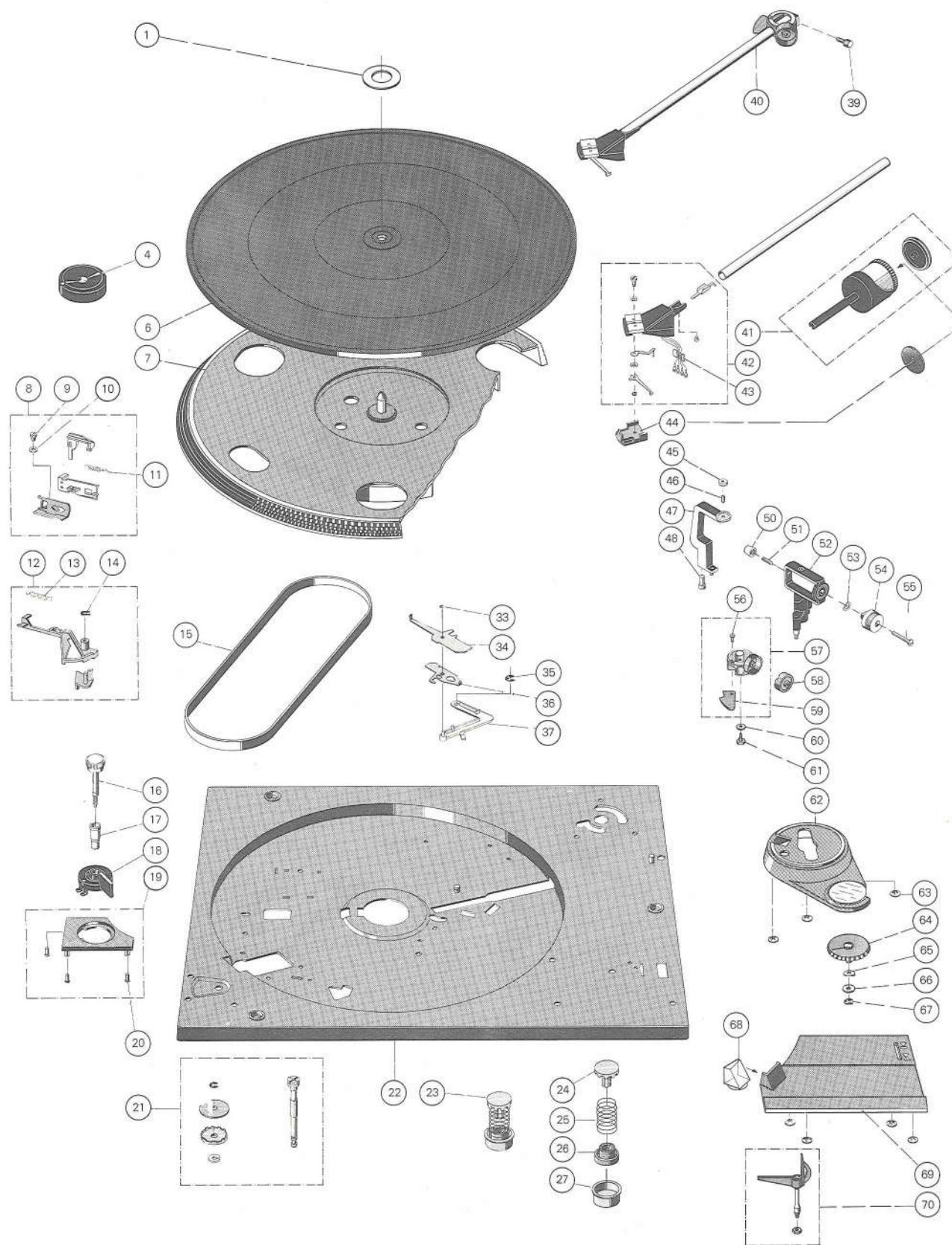


Fig. 12 Exploded view 1



Lubrication

All bearing and friction points of the unit are adequately lubricated at the works. Replenishment of oil and grease is only necessary after approximately 2 years of normal use of the record player as the most important bearing points (motor bearings) have sintered metal bushes.

Bearing points and friction faces should be lubricated sparingly rather than generously.

It is important that no oil grease should come in contact with the friction faces of the flat belt, drive pulley and flywheel rotor, otherwise slip will occur.

When using different lubricants, chemical decomposition can often take place. To prevent lubrication failure we recommend using the original lubricants stated below.

-  Renotac No. 342 adhesive oil
-  BP Super Viscostatic 10 W/30
-  Shell Alvania No. 2
-  Isoflex PDP 40
-  Silicone oil AK 500 000



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Fig. 14

