

Trader

SERVICE SHEET

3275

BSR

MP60

Record deck module

An MP60 module comprises the BSR McDonald MP60 single-play semi-automatic record deck with tonearm fitted with an ADC K8 magnetic cartridge, and is fully wired into a teak-finish plinth complete with tinted acrylic hinged dust cover.

Features of the three-speed MP60 deck include a low-mass square-section tubular tonearm, with slide-out cartridge carrier, which is supported on a ballrace mounting. An adjustable counterweight allows the arm to be used with cartridges with stylus pressures from 1 to 10 grams. There is an adjustable calibrated bias compensation control, a muting switch, and a viscous cueing lift device. The complete deck is fitted with a die-cast turntable.

The MP60 module is supplied with an audio output lead terminated either in twin phono plugs or in a single 5-pin DIN plug, according to requirements.



Brief Specification

Motor	4-pole synchronous induction		
Power supply	100/125V or 220/250V 50/60Hz a.c. mains		
Speeds	33 $\frac{1}{3}$, 45 and 78 rpm		
Turntable	11 inch precision machined diecasting		
Cartridge	ADC K8		
Output	5.5mV		
Tracking force	2 to 4g		
Frequency response	15Hz to 18kHz		
Stylus	Spherical, 0.0007 in radius		
Tonearm	Square section aluminium on ballrace mounting		
Controls	Slide levers for speed and record size selection. Slide stop/start switch with auto position. Preset calibrated control for bias compensation		
Deck mechanism			
Rumble	Better than —35dB		
Wow	Better than 0.2 per cent		
Flutter	Better than 0.06 per cent		
Dimensions (complete module with cover closed)	<i>Height</i>	<i>Width</i>	<i>Depth</i>
	6 $\frac{3}{4}$ in (172mm)	17 $\frac{3}{8}$ in (447mm)	15 $\frac{1}{2}$ in (387mm)
Manufacturer and Service	BSR Limited, Powke Lane, Cradley Heath, Warley, West Midlands B64 5QH Cradley Heath 69272		

Dismantling

1. Disconnect mains lead from supply, and unplug audio lead from amplifier. Fit stylus guard and lock tonearm to rest. Screw up locking transit screws (one lies below decorative plug in deck r.h. front cover above speed control legend) to lock deck to base board *unless* intending to remove deck from board, in which case leave deck "floating".
2. Remove single screw holding cable clamp cover at plinth underside rear, and free leads. Remove four wood-screws at plinth corners securing base to plinth. The plinth can then be lifted, complete with the hinged dust cover, clear of the deck and base.
3. To remove the deck from the base board, turn the spring clips below the board (accessible through large holes in base underside) to the vertical position. The deck can then be lifted out from the base.
4. Removal of individual components from the deck should be self-evident from the deck itself and from the exploded view shown overleaf.

Adjustments

(see diagrams opposite)

1. Tonearm balance

With module disconnected from mains, move starting lever to "START" (to release tonearm), and set stylus pressure dial until "0" aligns with marked line on tonearm. Adjust counterweight along rear end of tonearm by means of knurled knob until, with cue lever in "tonearm down" position, tonearm just balances, i.e. lies parallel with turntable in horizontal plane.

2. Stylus pressure

Rotate stylus pressure dial until figure corresponding with recommended stylus pressure (between 2 and 4g for ADC K8) aligns with mark on tonearm. (Then check with stylus pressure gauge if available.)

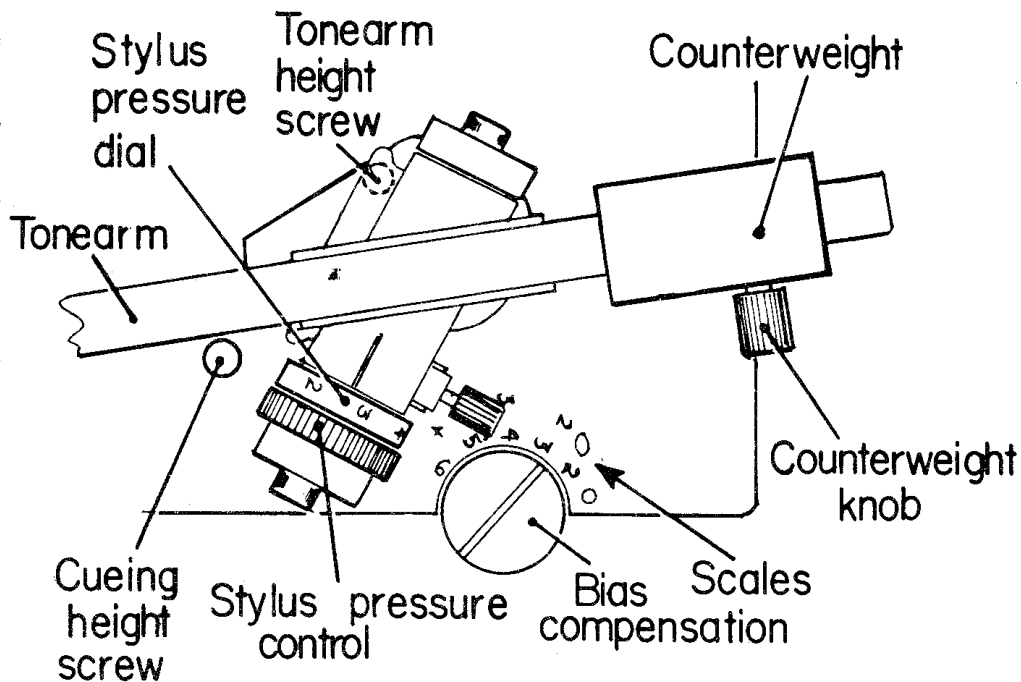
3. Bias compensation (anti-skate)

This adjustment is best performed using a test record with a grooveless track. The bias compensator knob should be turned until the figure uppermost corresponds with that of the stylus pressure. Fine adjustment, should the tonearm not stay in the grooveless track, can be carried out by *lowering* the setting figure if the tonearm tends to skate outwards, or *raising* it if it tends to skate inwards. Note that there are two scales — one for elliptical, one for spherical styli. The ADC K8 uses a spherical stylus.

4. Tonearm height

The underside of the tonearm tube should clear the top of the tonearm rest, when the arm is returning after playing a record, by $\frac{1}{16}$ in. Adjustment is as follows:

- (a) Place a 12in record on the turntable, select "12" on record size control.
- (b) With module disconnected from mains, set starting lever to "AUTO" and release control.
- (c) Rotate turntable clockwise manually until stylus sets down on record, lift tonearm and place stylus into run-out groove in record.
- (d) Continue turning turntable until tonearm returns to its rest; check clearance above rest.
- (e) If clearance is too great (tonearm high) then turn height adjusting screw *clockwise*, if no or too small a clearance, turn screw *anti-clockwise*.



5. Cueing height

Move starting lever to "START", and set cueing lever to tonearm raised position. The underside of the tonearm should clear the rest by $\frac{1}{16}$ in. Adjust by means of cueing height screw (clockwise to raise, anti-clockwise to lower tonearm).

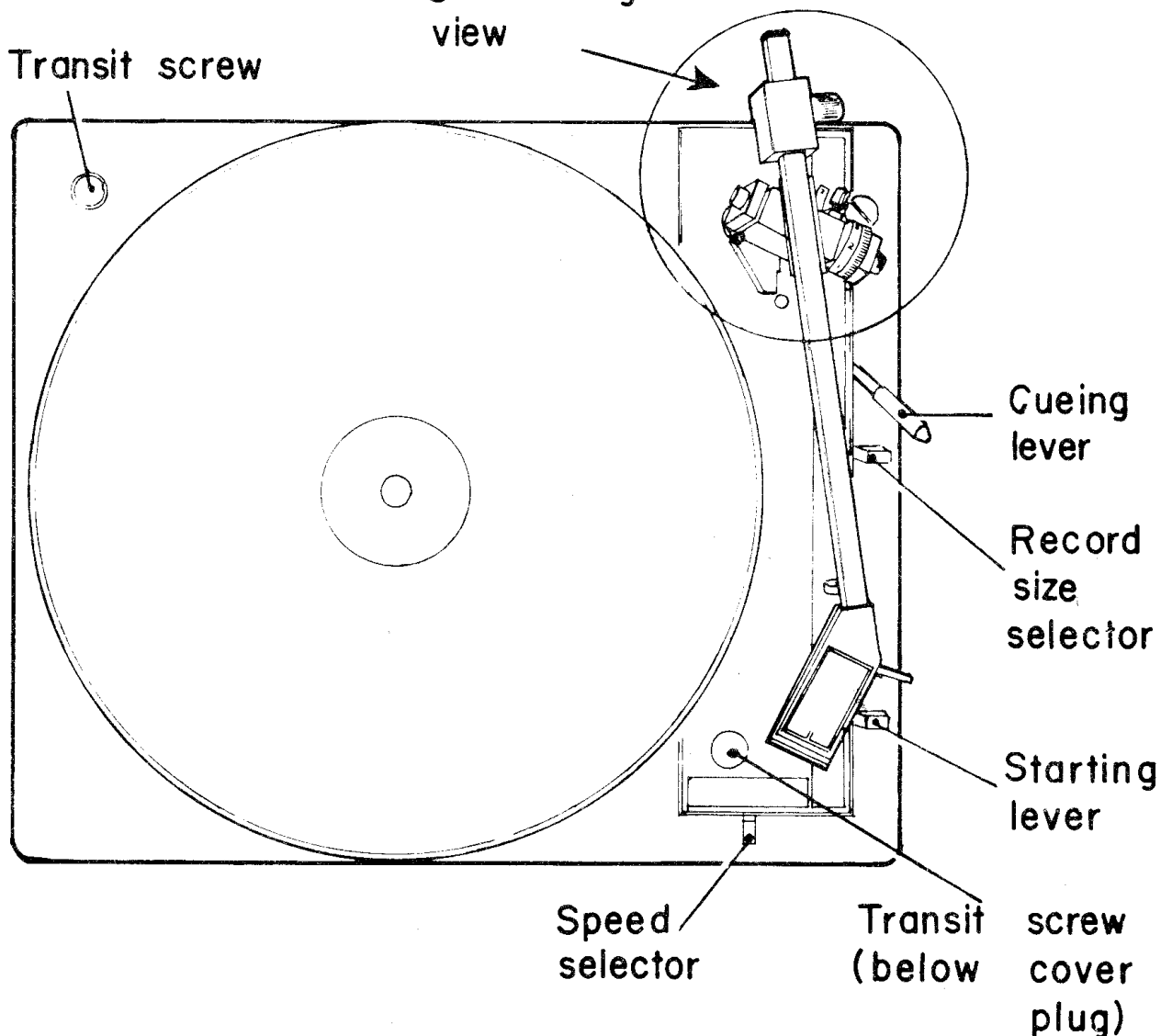
6. Stylus set-down

The stylus should set down when on "AUTO" $\frac{1}{8}$ in from the record periphery. If set correctly for a 12in record, the settings for 10 and 7in records should also be correct. Proceed as follows:

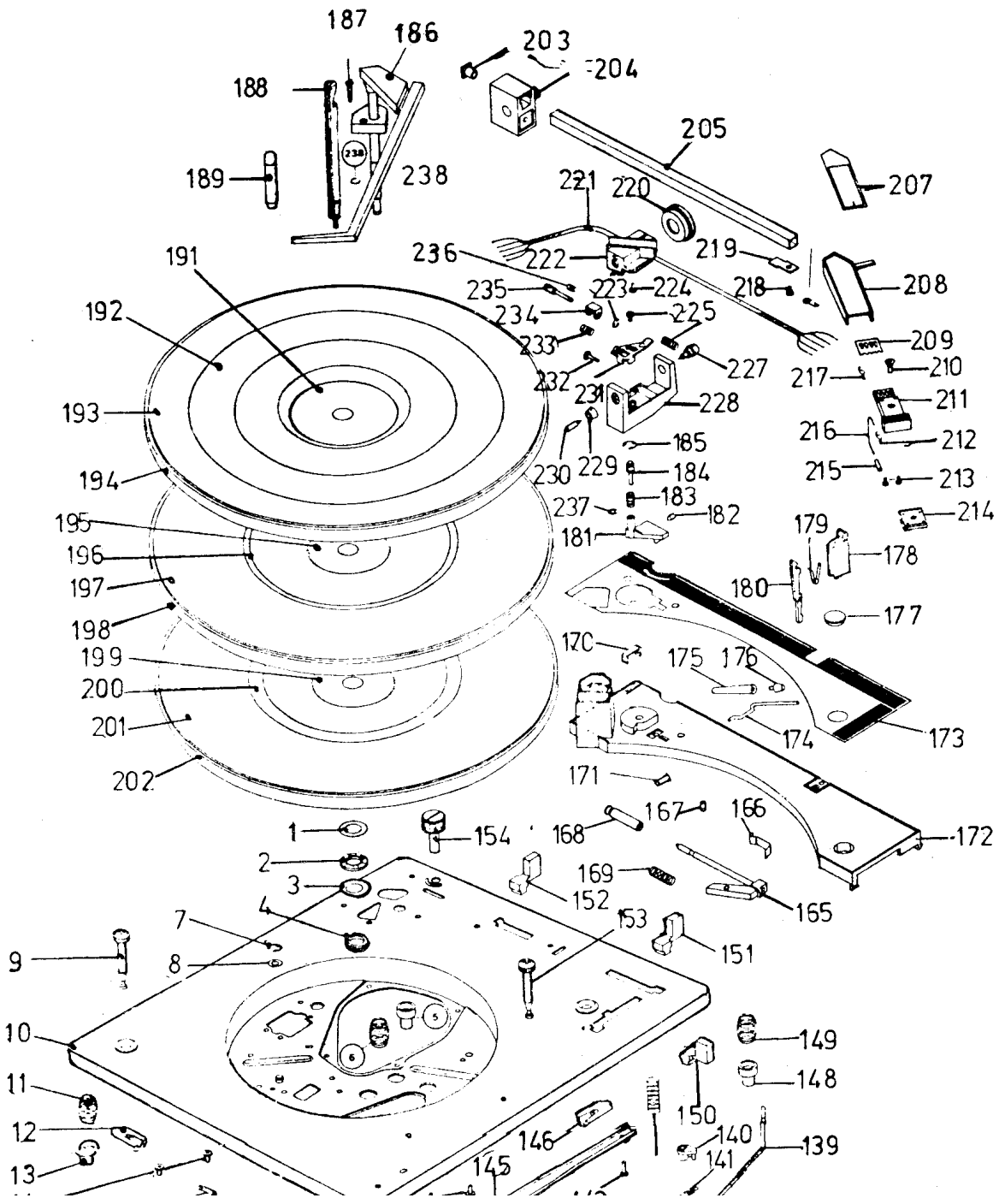
- (a) Place 12in record on turntable, select "12" on record size control.

- (b) Move starting lever to "AUTO" and release, with mains supply disconnected.
- (c) Rotate turntable by hand until stylus sets down on record.
- (d) Turn stylus set-down adjusting screw clockwise to move set-down point outwards, anti-clockwise to move it inwards.

See enlarged view

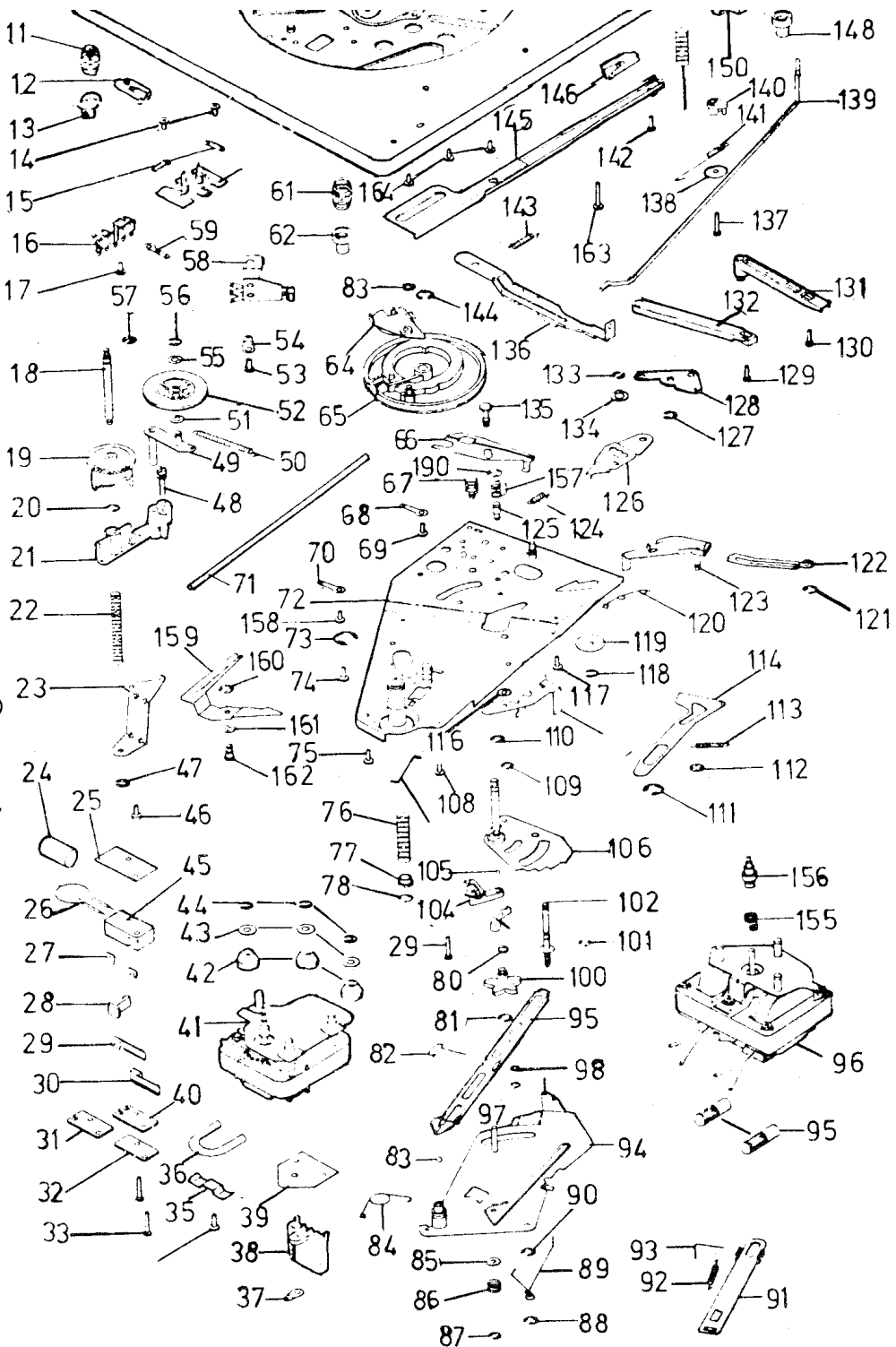


- | Item | Description |
|------|-------------------------------|
| 1 | Thrust Washer |
| 2 | Ballrace |
| 3 | Thrust Washer |
| 4 | Damping Rubber |
| 5 | Spring Cup |
| 6 | Unit Mounting Spring |
| 7 | Circlip |
| 8 | Washer |
| 9 | Transit Screw |
| 10 | Mainplate Sub-Assembly |
| 11 | Unit Mounting Spring |
| 12 | Retaining Clip |
| 13 | Spring Cup |
| 14 | Screw |
| 15 | Solder Tag |
| 16 | Tag Mounting Strip |
| 17 | Screw |
| 18 | Raising Spindle |
| 19 | Raising Cam |
| 20 | Circlip |
| 21 | Speed Change Arm |
| 22 | Raising Spindle Spring |
| 23 | Speed Change Bracket |
| 24 | Insulating Sleeve |
| 25 | Retaining Strip |
| 26 | Capacitor |
| 27 | Solder Tag |
| 28 | Switch Dolly |
| 29 | Flat Contact |
| 30 | Domed Contact |
| 31 | Switch Cover |
| 32 | Switch Cover |
| 33 | Screw |
| 34 | Screw |
| 35 | Cable Clamp |
| 36 | 3in - 5mm PVC Sleeving |
| 37 | 4BA Tag Lockwasher |
| 38 | Amp Plug Housing |
| 39 | Insulating Strip |
| 40 | Switch Cover |
| 41 | Two Pole Motor Assembly (TP8) |
| 42 | Rubber Mounting |
| 43 | Motor Mounting Washer |
| 44 | Circlip |
| 45 | Switch Body |
| 46 | Screw |
| 47 | Circlip |
| 48 | Adjusting Screw |
| 49 | Jockey Arm Riveting Assembly |
| 50 | Jockey Pulley Spring |
| 51 | Jockey Pulley Spindle Washer |
| 52 | Jockey Pulley Assembly |
| 53 | Screw |
| 54 | 4BA Tag Lockwasher |
| 55 | Jockey Pulley Spindle Washer |
| 56 | Circlip |
| 57 | Circlip |
| 58 | Muting Switch Assembly |
| 59 | Solder Tag |
| 60 | Phono Socket |
| 61 | Unit Mounting Spring |



- | Item | Description |
|------|-----------------------------|
| 116 | Washer |
| 117 | Screw |
| 118 | Circlip |
| 119 | Control Washer |
| 120 | Detent Spring |
| 121 | Circlip |
| 122 | Reject Link |
| 123 | Reject Lever Assembly |
| 124 | Detent Plate Spring |
| 125 | Selector Pivot |
| 126 | Detent Plate |
| 127 | Circlip |
| 128 | Reject Plate Assembly |
| 129 | Screw |
| 130 | Screw |
| 131 | Selector Slide |
| 132 | Reject Slide |
| 133 | Circlip |
| 134 | Roller |
| 135 | Slide Pin |
| 136 | Switch Lever |
| 137 | Screw |
| 138 | Washer |
| 139 | Switch Link |
| 140 | Spring Anchor |
| 141 | Anti-Skate Spring |
| 142 | Screw |
| 143 | Switch Lever Spring |
| 144 | Circlip |
| 145 | Speed Change Slide Assembly |
| 146 | Retaining Clip |
| 147 | Anti-Skate Control Spring |
| 148 | Spring Cup |
| 149 | Unit Mounting Spring |
| 150 | Knob |
| 151 | Knob |
| 152 | Knob |
| 153 | Transit Screw |
| 154 | Anti-Skate Control |
| 155 | Drive Spring |
| 156 | 50Hz Motor Pulley |
| 156 | 60Hz Motor Pulley |
| 157 | Selector Pivot Spring |
| 158 | Screw |
| 159 | Reset Lever |
| 160 | Circlip |
| 161 | Washer |
| 162 | Selector Pivot |
| 163 | Screw |
| 164 | Screw |
| 165 | Raising Slide Assembly |
| 166 | Spring |
| 167 | Adjusting Screw Assembly |
| 168 | Cylinder |
| 169 | Spring |
| 170 | Bracket |
| 171 | Grub Screw 6BA x 1/4 in |
| 172 | Escutcheon |
| 173 | Escutcheon Trim |
| 174 | Raising Arm |
| 175 | Knob |
| 176 | Can |

- 54 4BA Tag Lockwasher
- 55 Jockey Pulley Spindle Washer
- 56 Circlip
- 57 Circlip
- 58 Muting Switch Assembly
- 59 Solder Tag
- 60 Phono Socket
- 61 Unit Mounting Spring
- 62 Spring Cup
- 63 Circlip
- 64 Actuating Pawl Assembly
- 65 Cam Gear Riveting Assembly
- 66 Cut-Off Slide
- 67 Cut-Off Slide Spring
- 68 Solder Tag
- 69 Screw
- 70 Solder Tag
- 71 7in - 3mm PVC Sleeving
- 72 Main Sub Plate Riveting Assembly
- 73 Circlip
- 74 Screw
- 75 Screw
- 79 Screw
- 80 Spring Clip
- 81 Circlip
- 82 Actuating Slide Spring
- 83 9/64in Dia. Ball Bearing
- 84 Operating Plate Spring
- 85 Washer
- 86 Spring
- 87 Circlip
- 88 Circlip
- 89 Selector Drive Spring
- 90 Circlip
- 91 Feed Lever Link
- 92 Link Return Spring
- 93 Feed Lever Link Spring
- 94 Operating Plate Assembly
- 96 Four Pole Motor Assembly (FP 20)
- 97 Circlip
- 98 Washer
- 99 Actuating Slide
- 100 Toggle Wheel
- 101 Circlip
- 102 Pick-Up Raising Spindle Assembly
- 103 Support Spring
- 104 Support Bracket
- 105 3/32in Dia. Ball Bearing
- 106 Quadrant Assembly
- 107 Retaining Clip
- 108 Screw
- 109 Circlip
- 110 Circlip
- 111 Circlip
- 112 Retainer
- 113 Cut-Off Lever Spring
- 114 Cut-Off Lever
- 115 Selector Lever



- 166 Solder Tag
- 169 Spring
- 170 Bracket
- 171 Grub Screw 6BA x 3/8in
- 172 Escutcheon
- 173 Escutcheon Trim
- 174 Raising Arm
- 175 Knob
- 176 Cap
- 177 Screw Cover
- 178 Pick-Up Rest
- 179 Pick-Up Rest Spring
- 180 Pick-Up Clip
- 181 Raising Pad
- 182 Grub Screw 6BA
- 183 Spring
- 184 Position Adjusting Screw
- 185 Circlip
- 189 Stub Spindle
- 190 Circlip
- 195 Turntable Centre Disc
- 196 Turntable Trim
- 197 Turntable Mat
- 198 Turntable Assembly
- 203 Tube End
- 204 Weight Assembly
- 205 Pick-Up Tube
- 206 Solder Tag
- 207 Pick-Up Head Trim
- 208 Pick-Up Head
- 209 Tag Strip
- 210 Screw 6BA
- 211 Mounting Slide
- 212 Tag Contact (4 Off)
- 213 Screw
- 214 Adaptor Plate
- 215 Sleeve (4 Off)
- 216 1 1/2 in Pick-Up Lead (4 Off)
- 217 Tag Contact
- 218 Screw
- 219 Clip Plate
- 220 Pick-Up Balance Wheel Assembly
- 221 20in Quin Pick-Up Lead
- 222 Pick-Up Body Assembly
- 223 Circlip
- 224 Screw
- 225 Screw
- 226 Spring
- 227 Fixed Pivot
- 228 Pick-Up Hinge
- 229 Locking Cone
- 230 Adjustment Screw
- 231 Overload Plate
- 232 Clamping Screw
- 233 Spring
- 234 Adjuster
- 235 Setdown Screw
- 236 Locking Spring
- 237 Thrust Washer

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