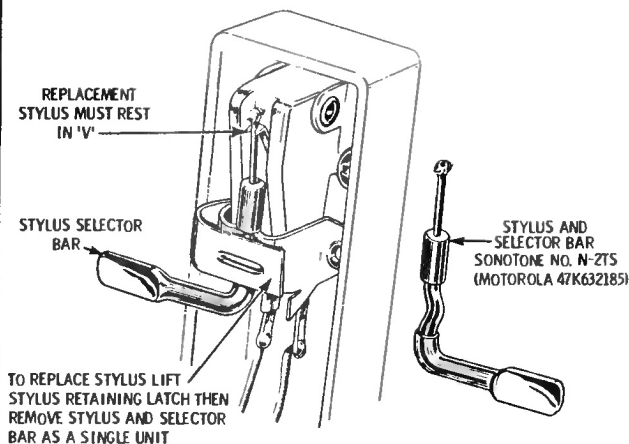


MOTOROLA

RECORD CHANGER
MODEL BR2RC
PART NO 59D636270

STYLUS RENEWAL

(Service material below and on the next eight pages.)



To renew a SONOTONE stylus, gently lift tone arm and lift stylus retaining latch, then remove stylus and selector bar as a single unit. When installing new stylus, be sure stylus rests in V. Replace with SONOTONE No. N-2TS (Motorola Part No. 47K632185).

OPERATING INSTRUCTIONS

This record changer will operate only on 117 volt 60 cycle AC.

Loading. --Lift the record control arm by holding it at the far end (i.e., end furthest away from the center spindle) and then swing it clear of the records. Then, taking each record singly, place it on the center spindle resting the first record on the spindle ledge. Hold the record in position with the left hand and load the others with the right hand in the same way. When all records are in position, replace the record control arm over the center spindle. If the records are all of one diameter, it may be more convenient to group the ten together; see that the center holes are all in line and place the group on the center spindle.

Starting Up. --Make sure that the pickup stylus is correct—that is, either 78 or 33-45 and similarly the speed knob. The Pickup is correctly set for 78 RPM records when knob at the front of the Pickup is so positioned that the number 78 (Std) is upright. To position the Pickup for long-playing records, the numbers 33-45 (LP) must be upright. Then move the On/Off/Manual/Reject Knob to the left firmly but not too roughly. That is all that is required.

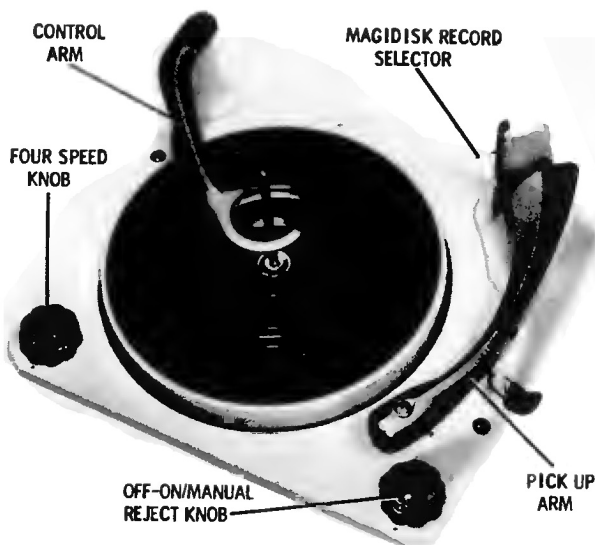
Rejecting. --To reject a record, merely move the On/Off/Manual/Reject Knob to the LEFT.

When the last record is finished the machine will switch itself off automatically.

Manual Operation. --To play records singly on the record changer, the following procedure should be adopted: Place desired record on the turntable manually and replace control arm in its operating position. Turn On/Off/Manual/Reject switch to the "Manual" position only. The turntable will now revolve at the selected speed. Lift the Pickup off its rest and place in position on record. The record will now play and when completed the Pickup will return to rest and the unit will switch off automatically in the normal manner.

To Remove the Records. --Lift the record control arm and turn it out of the way. Grasp the records together and lift them gently from the center spindle, easing them past the ledge on the spindle.

After loading always see that the Magidisk Record Selector Arm (Item 8M139) is out and not stuck in a vertical position. In other words, it must be BELOW the records.



GENERAL INFORMATION

This record changer is designed to play all of the existing types of phonograph records in common use. First, there is the record that rotates at a speed of 78 revolutions per minute. This type has been in common use for many years. Generally, this record is produced in two diameters, 10" and 12", playing respectively about 3-1/2 and 5 minutes per side. This record changer will play a total of ten records of average thickness at one loading, and the different diameters can be mixed; the machine itself will select the correct conditions for each diameter WITHOUT any adjustment. The only manual adjustment necessary is to turn the Pickup to the 78 position and rotate the speed control knob to the 78 position.

Secondly, there is the record that rotates at 33-1/3 revolutions per minute. This is commonly called the LP or long-playing type. It is generally produced in two diameters--12" and 10". The playing time is much longer per side than with the old 78 RPM type. Thus, one side of the 12" diameter can play up to 20 minutes. Again this record changer will accept a mixed loading of the different diameters and will automatically select the correct conditions for each. Again the only manual adjustments are the Pickup to the 33-1/3 position and the speed changer knob also to the 33-1/3 position.

Thirdly, there is the record that rotates at 45 revolutions per minute. This is only produced in the 7" diameter size. Some of these records are sold with a large center hole which must have an adaptor plate fitted to reduce the hole size to the common standard to fit the center spindle. The more recent tendency is to sell 45 RPM records with the standard small hole, allowing this center to be pushed out when the large hole is required. With these records the speed must be set to the 45 position and the Pickup set to the 33-1/3 position.

Fourthly, there is the record that rotates at 16-2/3 revolutions per minute. This is, at present, only produced in the 7" diameter size. Generally speaking, it is advisable to play these records singly. Some of these records are manufactured with a very large center hole. In such cases, they are sold with a special cardboard adaptor which reduces this hole to the standard size for normal use. Many records are, however, manufactured with the small standard center hole. With these records, set speed change knob to the 16-2/3 position and the Pickup to the 33-1/3 position.

MOTOROLA Record Changer Model BR2RC Service Material

LUBRICATION

A periodic check should be made to insure that your changer is lubricated adequately at the points detailed below:

Heavy grease should be used on the following points:

- (a) Main slide (Item 8M162), grease faces rubbed by cam (8M168), and also end of tongue.
- (b) Actuating lever (8M152), grease inside face of pawl re-setting strip.
- (c) Reset arm (8M204), grease portion that rubs on cam gear (8M160).
- (d) Main sub-plate (8M169), grease guide slots.
- (e) Ballrace (8M68), fill ballrace cup with grease and assemble with open end upwards.
- (f) Four speed pawl (8M52), grease nose of pawl.
- (g) Speed change slide (8M44), grease location steps.

Light oil should be used on the following points:

- (a) Control spindle (8M4), oil spindle.
- (b) T. T. Bearing (8M63 and 8M65).
- (c) Rivet (8M135), oil sparingly taking care not to drip oil down on to plastic selector arm bearing (8M138).
- (d) Rivet (8M116).
- (e) Jockey pulley bearing (8M33).
- (f) Speed change slide (8M44), oil portion of mainplate over which slide moves.

PLEASE NOTE

No oil should be used on the Magidisk Record Selector Bearing (see Figure 7).

ADJUSTMENTS

Needle Set-Down. --The set-down position of the needle on the record is adjusted by manipulation of the needle adjusting screw (Item 8M261). (See Figure 4.) Adjust this screw until the correct set-down of the needle on a 10" record is obtained. The correct position is 1/8" from the edge of the record. It is advisable to make this adjustment with a stack of 10" records on the turntable. When correctly positioned for a 10" record, the 12" and 7" needle set-down will also be correct.

Pickup Arm Height. --The pickup arm height is adjusted by the pickup height adjusting screw (Item 8M257). (See Figure 4.) To raise the height of the pickup arm, turn this screw counterclockwise. To lower the pickup arm turn clockwise. The pickup height should be adjusted so that with a stack of ten average thickness records on the turntable, the point of the needle clears the top record by 1/16 inch. A check should then be made to insure that the pickup

arm clears the underside of records loaded on the center spindle.

Needle Pressure. --Adjustments may be made by re-positioning the pickup balance spring (Item 8M263) in the various adjusting holes provided (see Figure 4) until the correct pressure is obtained.

Adjusting of Speed Change. --

- (1) Set the four speed knob at the 16-2/3 RPM position.
- (2) Slacken setscrews on the 4-speed pulley (Item 8M94) and adjust until the jockey pulley (Item 8M32) is engaged on the smallest pulley diameter just clear of the top step (see Figure 2).
- (3) Tighten setscrews.

DISMANTLING

- (1) Turntable Assembly (Item 8M62A)

Remove circlip (Item 8M109) and lift the turntable vertically upwards over the center spindle. Take care not to lose the thin thrust washer (that sticks to underside of turntable boss), ballrace of second thrust washer. NOTE: Before replacing assembly, set speed knob to 45 RPM. This allows easy maneuverability of jockey pulley when replacing turntable, without possible danger of bending jockey arm.

- (2) To Remove Control Arm Assembly (Item 8M2A) (See Figure 7)

Remove pin (Item 8M5) on underside of control arm spindle (Item 8M4) (See Figure 3).

- (3) Pickup Arm Assembly

This must be done after the changer has switched itself off. Unsolder the pickup leads from the connecting tagstrip. Un-screw the pickup top bearing (see Figure 4) and then lift the pickup arm clear. Replace the pickup top bearing to avoid losing the spacer washer.

- (4) Main Sub-Assembly

Remove turntable and pickup arm as described and 3 screws (Items 8M114, 8M115 and 8M190) holding sub unit. Main sub-assembly can then be gently removed from unit-plate.

- (5) Sonotone 2TS Cartridge (from pickup arm)

Unscrew the two self-tapping screws securing the cartridge bracket to the arm moulding. Ease the two pickup lead tags from the lugs at the rear of the cartridge case.

TROUBLE SHOOTING CHART

SYMPTOMS	CAUSE	REMEDY
1. Turntable does not rotate when On/Off/Reject Knob is turned to "ON"	(1) No current to motor	(a) Check that current has reached record changer motor. (b) Check that switch box assembly is functioning correctly. (c) Check all wiring and solder terminals to and from the switch box assembly (see Figure 1).
	(2) Motor defective	(a) Remove the turntable and allow the motor to operate without load. If motor spindle is not rotating and voltage is reaching the motor, the motor is faulty. Repair or replace. (b) Check that the 4-speed pulley (Figure 2) is not loose on motor spindle. If loose adjust as under "Adjustments of Speed Change".
	(3) Jockey pulley not engaging turntable rim.	(a) Check that the jockey pulley is free to pivot. (b) Check that the jockey pulley spring is correctly positioned (see Figure 2).

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TROUBLE CHART - Cont'd

SYMPTOMS	CAUSE	REMEDY
		(c) Carefully clean the inside rim of turntable and rubber tire on jockey pulley to insure that they are free from oil and grit.
II. Turntable revolves when On/Off/Reject Knob is turned to "ON" but pickup remains stationary on its rest.	(1) Incorrect manipulation of control.	Insure that the On/Off/Reject knob is turned to its fullest extremity in the "ON" direction. This does not apply when operating the changer manually.
III. Pickup lifts but fails to move in when record drops. The pickup returns to rest and the turntable continues to revolve	(1) Stop pin (Item 8M199) (see Figure 3) not dropping freely. (2) Adjusting link (Item BM20B) too tight (see Figure 3). (3) Stiffness in stop bracket assembly bearing (see Figure 3)	Remove all grease, oil, grit, burrs or rust carefully from the stop pin and spring (Item BM201) and insure that spring is not damaged. Slacken adjusting link by decreasing bend. Free and lightly oil.

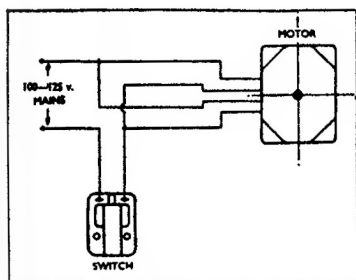


FIGURE 1.

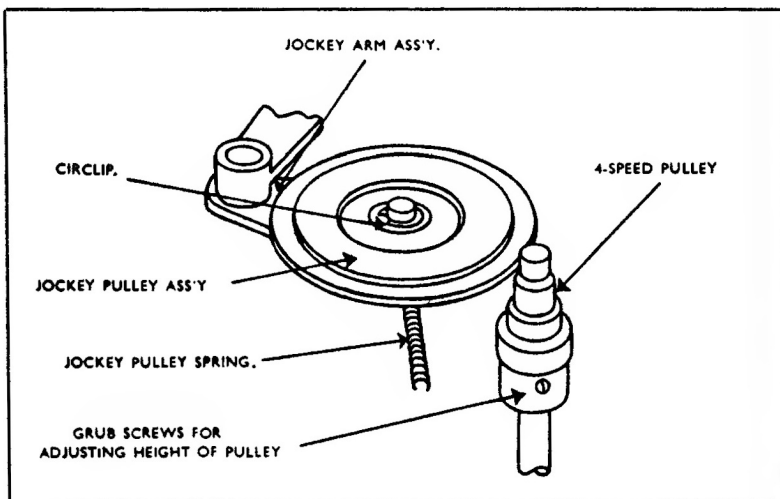


FIGURE 2.

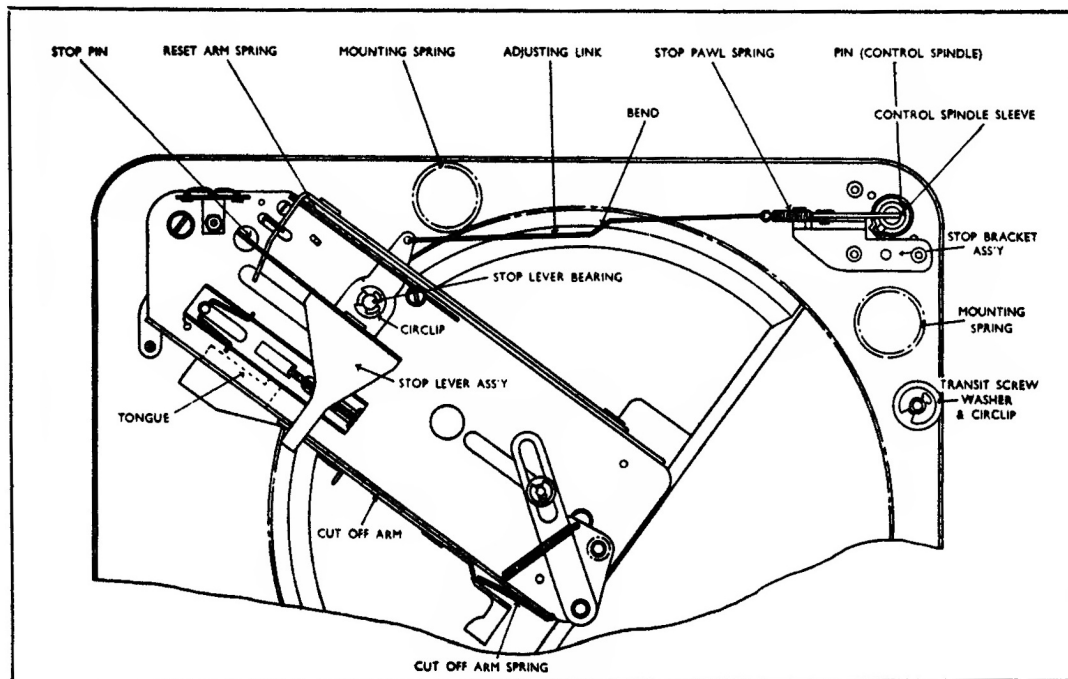


FIGURE 3.

TROUBLE CHART - Cont'd

SYMPTOMS	CAUSE	REMEDY
IV. Pickup lifts but fails to move in when record drops. Pickup returns to rest and changer switches off.	(1) Cut off arm (Item 8M228) (see Figure 3) not returning to neutral position. (2) Undue friction at stop lever assembly bearing (see Figure 3) (3) Stiffness in stop bracket assembly bearing (see Figure 3)	(a) Cut off arm spring (Item 8M227) (see Figure 3) damaged. Replace. (b) Friction on moving surfaces of cut off arm. This lever must be absolutely free to slide in its slots. Check for rust, frays in slots, etc. Remove, clean and lightly oil. Free and lightly oil.
V. Pickup arm strikes record on spindle when it rises or needle catches on last record when it moves out.	(1) Pickup arm height not adjusted properly. (2) Control arm (Item 8M2) not holding records level. (3) Needle bent in crystal cartridge	See instructions for "Adjusting Pickup Arm Height" under "Adjustment". Hold control column securely and twist control arm until it will hold record stack parallel to top of turntable (see Figure 3). Replace needle. (See necessary instructions under "Dismantling".)
VI. Turntable speed too slow.	(1) Tightness in motor bearing. (2) Binding in turntable bearing. (3) Jockey pulley slip. (4) Input voltage too low (5) Operating temperature too low. (6) Undersized 4-speed pulley	Tap lightly the side of motor laminations to free self-aligning bearings. Check turntable bearing for freedom. If it does not turn easily when disengaged from the jockey pulley assembly (Item 8M32A) remove turntable, clean off foreign matter and lubricate with light mineral oil. Remove turntable and clean rim of jockey pulley. Oil jockey unit joints and pivots and make sure all move freely. Remove any trace of oil on jockey pulley rubber or inside of turntable rim. The input voltage should be not less than 100 volts. If the machine has been standing in a cold place or operated in surroundings at a temperature of less than 45°F, the turntable speed may be too slow initially. Remove turntable and fit new 4-speed pulley. Pulleys are available as follows: Small-red pulley; Medium-green pulley; Large-blue pulley. To increase turntable speed remove existing pulley from the motor shaft and fit the next size larger, or vice versa to reduce speed. When fitting new 4-speed pulley see "Adjustments of Speed Change" under "Adjustments".
VII. Turntable speed too fast.	(1) Input voltage too high. (2) Oversize 4-speed pulley.	Replace 4-speed pulley as instructed at "6" under "Turntable Speed Too Slow"
VIII. Changer continues to cycle. With pickup dropping on to record during every cycle.	(1) Pawl reset strip (see Figure 5) distorted. (2) Actuating pawl and friction link assembly (see Figure 5) too free.	Make sure that this strip is straight and resets friction link (Item 8M154) and actuating pawl (Item 8M156) by engaging with friction link shoulder during cycle (see Figure 5). Damp down the bearings of this assembly by smearing with medium grease.
IX. Noise during playing of record.	(1) Motor rumble. (2) Defective turntable bearing. (3) Defective jockey pulley. (4) Defective records (5) Squeaks	If a low pitched rumbling sound comes from the loudspeaker while the record is being played, check the motor rubber mountings to be sure the motor is freely suspended on them. The motor lead wires should have slack to allow the motor to float. Check for foreign matter in the bearings, defective balls, binding between balls, ball cage and thrust washers. Grease ballrace and washers. Lubricate with light mineral oil. A rapid thumping sound while the motor is running may indicate a flat on the motor jockey pulley (Item 8M32) (Figure 2). If this condition has not cleared up after 10 minutes of running time, remove the turntable and check the rubber tire on the jockey pulley. If the surface is not smooth, replace the jockey pulley. Should the bearings of the jockey assembly show signs of excessive wear, replace the jockey unit assembly. Worn or defective records cause needle scratch and distortion of the recorded sound. If the record is warped it may slip on the other records causing "wow". An enlarged hole in the record can also cause "wow". Squeaking sounds as the changer operates indicates a lack of oil. Lubricate.
X. Distortion of recorded sound.	(1) Defective record. (2) Defective amplifier. (3) Bad cartridge. (4) Dust on needle.	(See "4" under "Noise during playing of record.") Check both amplifier and speaker. Replace. (See instructions under "Dismantling".) Brush off dust with finger.
XI. No sound during playing.	(1) Defective cartridge. (2) Defective wiring. (3) Defective amplifier. (4) Loose cartridge socket tags.	Replace. (See instructions under "Dismantling".) Check pickup leads for short or open lead. Check amplifier and speaker. Remove, tighten slightly and replace.

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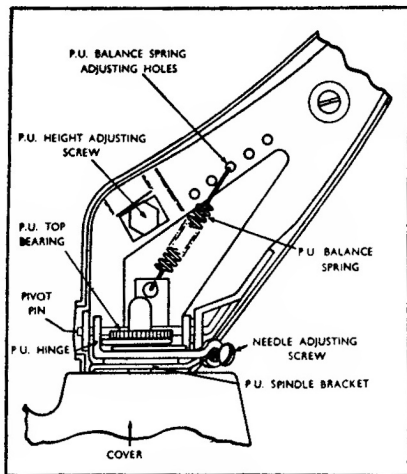


FIGURE 4.

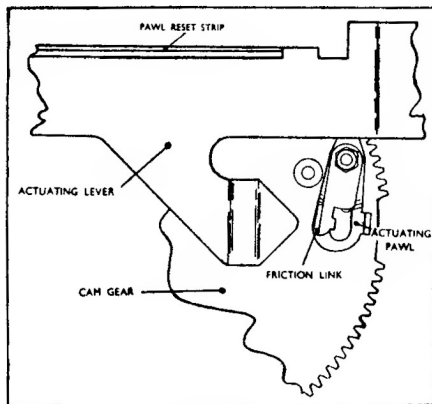


FIGURE 5.

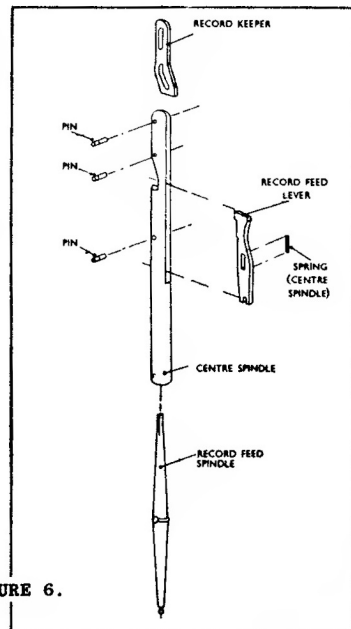


FIGURE 6.

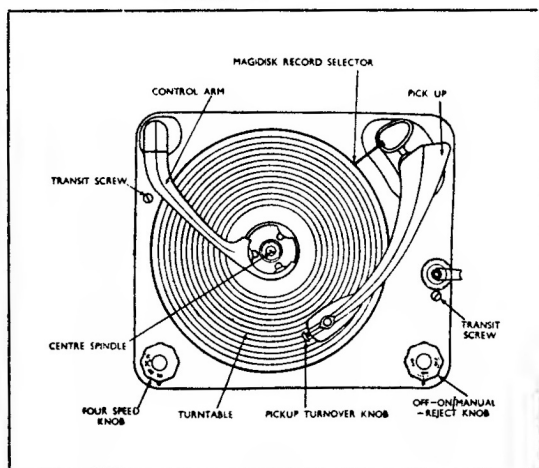


FIGURE 7.

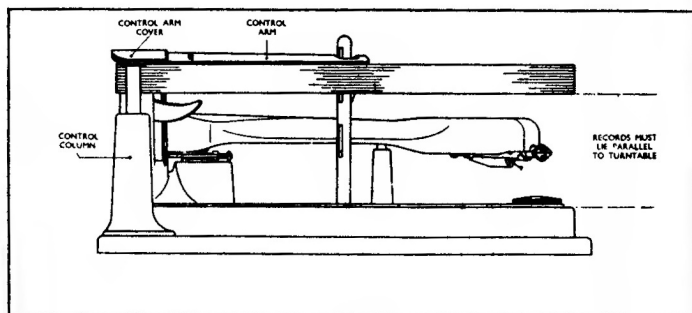


FIGURE 8.

TROUBLE CHART - Cont'd

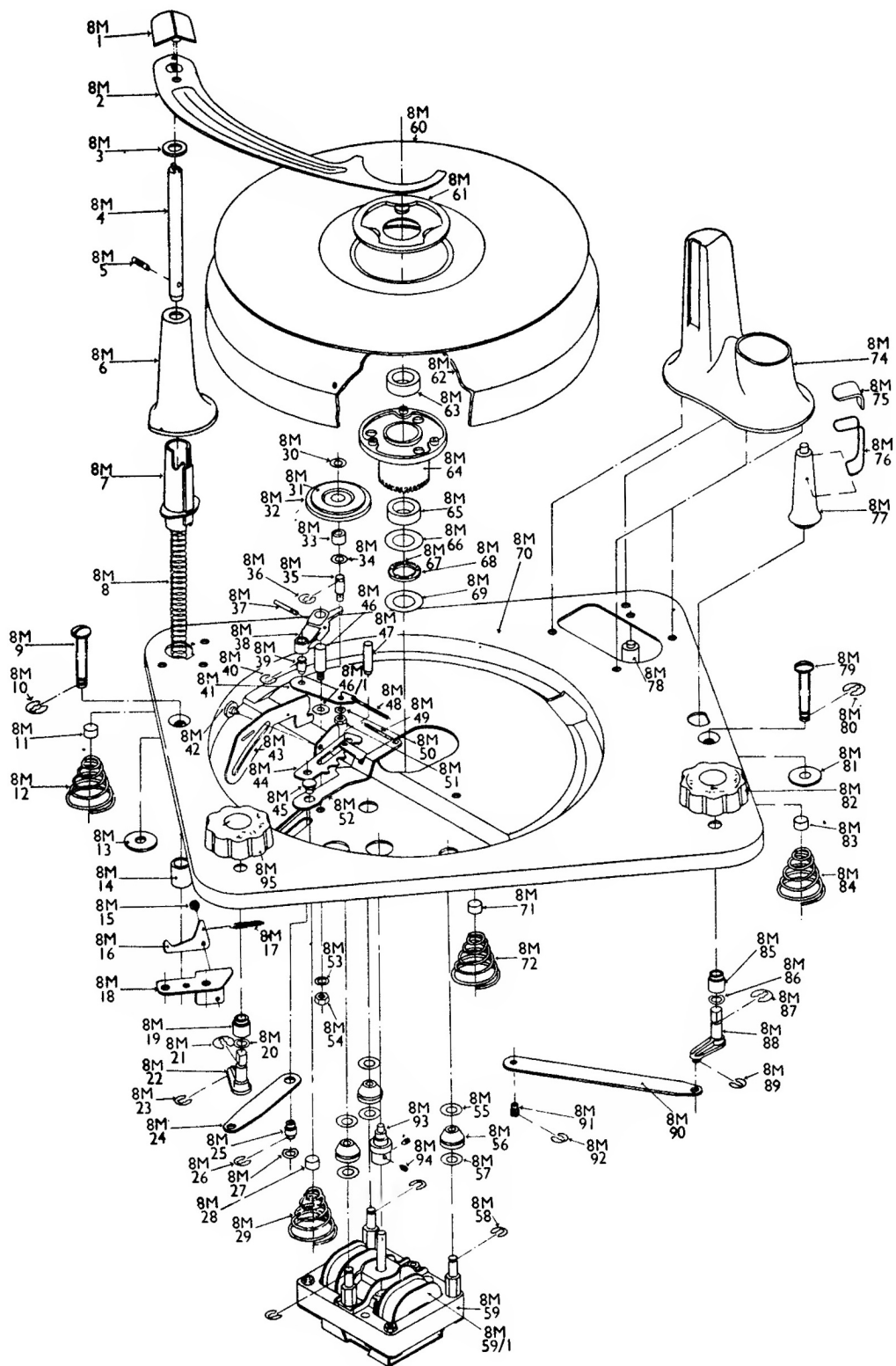
SYMPTOMS	CAUSE	REMEDY
XII. Changer does not shut off after last record has been played, possibly continuing to play the last record from the 7" position.	(1) Control arm (Item 8M2) (Figure 8) binding.	The record control arm must drop below the offset shoulder of the center spindle or the changer will not shut off. Replace or repair. } Tighten adjusting link by increasing bend. Replace or repair. Remove, clean and lightly oil.
	(2) Adjusting link (Item 8M208) broken, disconnected or too slack (see Figure 3).	
	(3) Stop pawl spring (Item 8M17) loose, broken or faulty (see Figure 3).	
	(4) Undue friction at stop lever assembly bearing (see Figure 3).	
XIII. Changer returns pickup to rest before all records have been dropped. Turntable continues to revolve or changer switches itself completely off.	Adjusting link (Item 8M208) too tight (see Figure 3).	Slacken adjusting link by decreasing bend (see Figure 3)
XIV. 4-speed knob (Figure 7) does not select 16, 33, 45 or 78 when registering that speed.	Speed change wrongly adjusted.	Refer to "Adjustments of Speed Change" under "Adjustments".
XV. Record does not drop when changer cycles.	(1) Record feed spindle (Item 8M107) (Figure 6) broken.	Replace record feed spindle or complete center spindle.
	(2) Record feed lever (Item 8M104) (Figure 6) broken.	Replace record feed lever or the complete center spindle.

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TROUBLE CHART - Cont'd

SYMPTOMS	CAUSE	REMEDY
XVI. Two records drop at once.	<ol style="list-style-type: none"> (1) Hole in record too large. (2) Record keeper (Item 8M100) (Figure 6) not fully down. (3) The record control arm (Item 8M2) not holding records level. 	<p>Replace record. Carefully clean and remove burrs. Do not oil. It should fall under its own weight. Refer to Figure 8. Hold control column securely and twist control arm until it will hold record stack parallel to top face of turntable.</p>
XVII. P. U. does not locate correctly on records.	<ol style="list-style-type: none"> (1) Rubber buffer (Item 8M240) missing or misplaced at rear of P. U. arm. (2) Pickup arm not adjusted properly. (3) Needle bent. 	<p>Replace rubber buffer (Item 8M240) in small hole in the side of the P. U. arm just behind the hinge. Slip eyelet (8M239) over stem of rubber inside arm and clamp tightly. See "Needle Set-Down" under "Adjustments".</p> <p>Replace with new needle. (See necessary instructions under "Stylus Renewal".</p>
XVIII. Pickup remains on record run-out groove, or on last groove.	<ol style="list-style-type: none"> (1) No finishing run-out groove on record. (2) Needle jumps out of groove in record. (3) Faulty actuating pawl and friction link (see Figure 5). 	<p>Check record for eccentric run-out groove in center of record. Some old records and home recordings do not have this eccentric run-out groove.</p> <ol style="list-style-type: none"> (a) Check that needle pressure is correct -should be 8-10 grams. (b) Check that the record is not defective -the run-out groove is often too shallow. (c) The needle point might be damaged or affected by excessive accumulation of dust. Replace or clean. (d) There may be binding in the pickup spindle bracket (Item 8M182 and Items 8M173 and 8M181). Insure that all moving parts are free and lightly oiled. <p>When friction link has been moved towards center of gear wheel and then slowly pushed outwards, it should also carry the actuating pawl outwards from the start of its movement. If the pawl does not move freely with the link, it will not engage the turntable boss to start cycle. Dismantle link and pawl, clean, reassemble and oil. Take care with tiny spring between the two parts.</p>
XIX. Pickup does not move in when set down on record.	No run in groove on record.	Check that the record is of the standard type which has a run-in groove from the outside edge of the record to the recorded section. Some old type records and home recordings do not have this run-in groove.
XX. Needle does not track across record properly.	<ol style="list-style-type: none"> (1) Needle may be clogged with an accumulation of dust or be worn. (2) Pickup leads too tight. (3) Changer not level. (4) Binding or friction in the pickup spindle bracket assembly. (Figure 4) (5) Needle pressure insufficient. (6) Actuating lever (Item 8M152) (Figure 5) not free on slide. (7) Pickup hinge fouling pickup cover (Figure 4). (8) Worn records or records with damaged groove. (9) Pickup spindle bracket (Item 8M182) fouling tongue on stop plate (8M185) in down position of pickup spindle bracket. 	<ol style="list-style-type: none"> (a) Clean the foreign material from around the needle. (b) Check needle to see if the tip is broken or bent and replace if necessary. (To replace see necessary instructions under "Dismantling". <p>Give the pickup leads enough slack to allow the tone arm to move freely across the record. Insure that the changer is level before use. Insure that all moving parts and bearing surfaces in this assembly are free and lightly oil.</p> <p>Check as under "Adjustments". This lever must be absolutely free to slide in slots. Check for bending, rust, frays in slots, etc. Bend hinge up to clear.</p> <p>Replace record.</p> <ol style="list-style-type: none"> (a) Clear dirt. (b) Bend tongue to clear.
XXI. Pickup does not locate on pickup rest	Tongue on stop plate (Item 8M185) not locating in pickup spindle bracket (Item 8M182) due to pin (8M164) being out of line.	Adjust pin (8M164) by bending arm of main slide pressing so that the tongue on (Item 8M185) will slip into the notch on (Item 8M182) when the radial faces of the two pressings are against the pin.
XXII. Turntable slips or stalls.	<ol style="list-style-type: none"> (1) 4-speed knob not set in correct position. (2) 4-speed knob in neutral. (3) Jockey pulley slipping. (4) Insufficient tension on jockey pulley spring (8M48). 	<p>Move knob slightly to allow pawl (8M52) to fall into notch in slide. Set on correct speed. Remove turntable and carefully clean all traces of oil off inside of arm, off jockey pulley tire, and off 4 step pulley. Replace spring.</p>

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MAINPLATE ASSEMBLY

FIGURE 9.

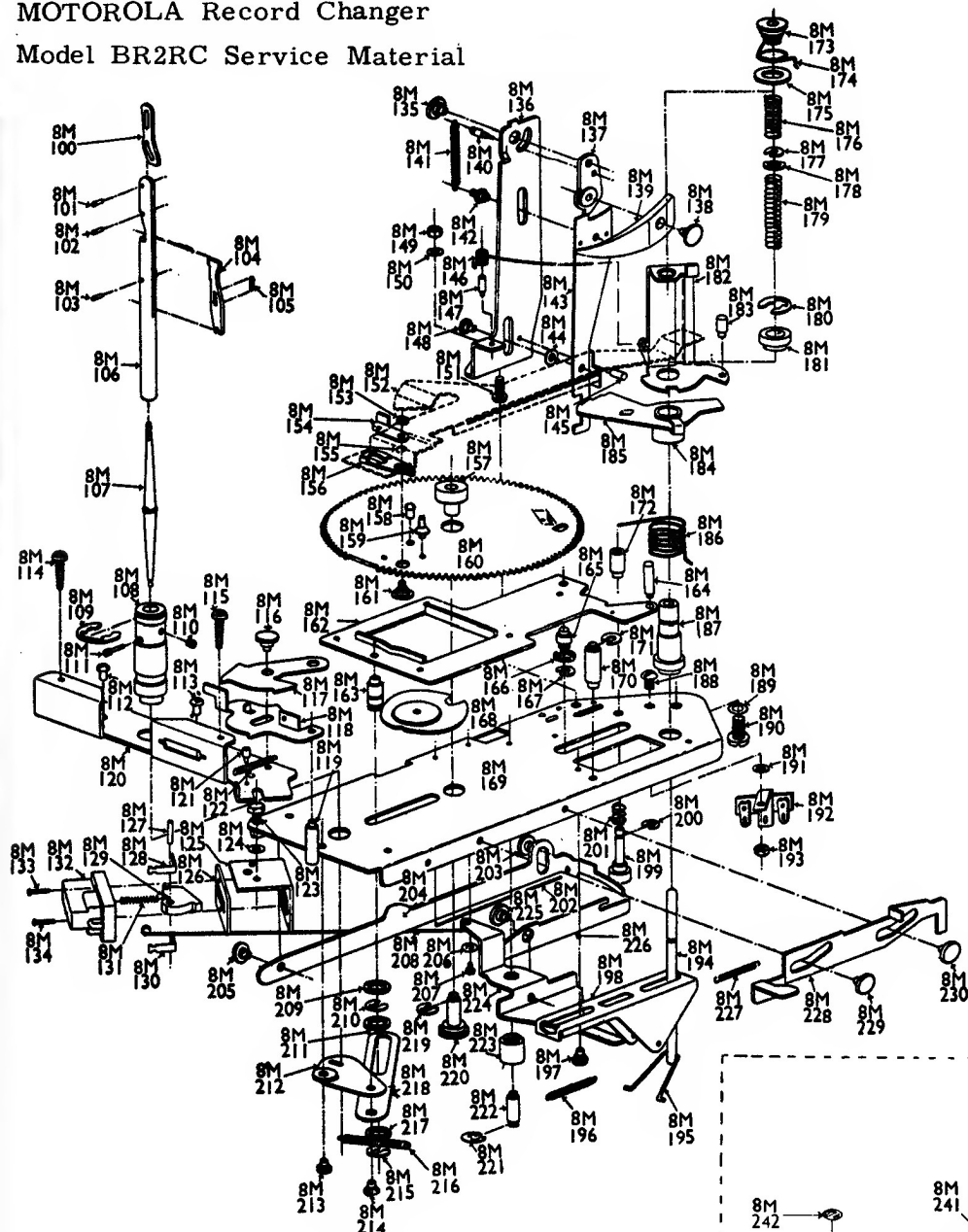
MOTOROLA Record Changer Model BR2RC Service Material

REPLACEMENT PARTS LIST

Ref. No.	Part Number	Description	Ref. No.	Part Number	Description
8M2A	1K837028	Control Arm Assem (incl 8M1, 8M2, 8M4).....	8M114	3K837082	No. 8 x 1/4" S.T. Screw.....
8M3	4K837027	Felt Washer.....	8M115	3K837082	No. 8 x 1/4" S.T. Screw.....
8M5	22K837028	Pin (Control Spindle).....	8M118A	7K837083	Latch Plate Assem (incl 8M118, 8M119).....
8M8	41K837029	Spring (Control Column).....	8M120A	7K837084	Support Brkt Assem (incl 8M118, 8M117, 8M18A, 8M120, 8M121, 8M122).....
8M9	3K837030	Transit Screw (mounts with 8M10 circlip).....	8M122	41K837085	Spring (Latch Plate).....
-	3K837070	Transit Screw (mounts with hair-clip).....	8M123	3K837088	Screw 4 B.A. x 1/4" Hex.....
8M10	4K837031	Circlip.....	8M124	4K837058	4 B.A. Lockwasher.....
8M13	4K837032	Washer (Unit Mtg).....	8M132A	40K837087	Switch Box Assem (incl 8M125, 8M128, 8M127, 8M128, 8M129, 8M130, 8M131, 8M132, 8M133, 8M134).....
8M14	43K837033	Control Spindle Sleeve.....	8M138A	1K837088	Selector Column Assem (incl 8M138, 8M137A, 8M141, 8M142, 8M143, 8M144, 8M145, 8M147, 8M148).....
8M17	41K837034	Spring (Stop Pawl).....	8M137A	1K837089	Trip Arm Assem & Rivet (incl 8M135, 8M137, 8M138, 8M139, 8M140).....
8M18A	1K837035	Stop Brkt Assem (incl 8M15, 8M18, 8M18).....	8M148	41K837090	Spring (Tracking).....
8M20	4K837038	Spring Washer.....	8M149	2K837057	4 B.A. Full Nut.....
8M21	4K837037	Circlip.....	8M150	4K837058	4 B.A. Lockwasher.....
8M22	40K837038	Switch Reject Arm.....	8M151	3K837091	Screw 4 B.A. x 3/8" R.H.....
8M23	4K837037	Circlip.....	8M152	45K837092	Actuating Lever.....
8M24	45K837039	Speed Change Link.....	8M153	2K837093	8 B.A. Locknut.....
8M28	4K837037	Circlip.....	8M154	45K837094	Friction Link.....
8M27	4K837040	Spring Washer.....	8M155	41K837095	Actuating Pressure Spring.....
8M30	4K837041	J.P. Spindle Washer.....	8M158	45K837098	Actuating Pawl.....
8M31A	1K837042	Jockey Unit Assem (incl 8M30, 8M32A, 8M44, 8M35, 8M38, 8M38A, 8M40, 8M41A, 8M50, 8M51).....	8M160A	4K837097	Cam Gear Assem (incl 8M153, 8M154, 8M155, 8M158, 8M157, 8M158, 8M159, 8M160, 8M161, 8M165).....
8M32	49K837043	Jockey Pulley Tyre.....	8M181	45K837098	Actuating Pivot.....
8M32A	1K637044	Jockey Pulley Assem (incl 8M31, 8M32, 8M33).....	8M188	4K837099	Washer.....
8M34	4K837041	J.P. Spindle Washer.....	8M187	4K837037	Circlip.....
8M35	47K837045	J.P. Spindle.....	8M189A	1K837100	Main Sub Plate Riveting Assem (incl 8M108, 8M112, 8M113, 8M120A, 8M189, 8M170, 8M172, 8M187, 8M197, 8M203, 8M204, 8M205, 8M212A, 8M220, 8M222, 8M228, 8M229, 8M230).....
8M38	4K837037	Circlip.....	8M171	4K837037	Circlip.....
8M38A	1K837048	Speed Change Lever Assem (incl 8M37, 8M38).....	8M173	4K837101	P.U. Top Bearing.....
8M40	4K837037	Circlip.....	8M174	41K837102	Spring (P.U. Overload).....
8M41A	1K837047	Jockey Arm Assem (incl 8M39, 8M41).....	8M175	4K837103	Washer.....
8M44A	1K837048	Speed Change Slide Assem (incl 8M25, 8M42, 8M43, 8M44).....	8M178	41K837104	Spring (Gate Actuating).....
8M48	4K837049	Speed Change Pivot.....	8M177	4K837105	Circlip.....
8M48/1	4K837050	Washer.....	8M178	4K837108	2 B.A. Plain Washer.....
8M48	41K837051	Spring (Jockey Arm).....	8M179	41K837107	Spring (P.U. Raising).....
8M49	41K837052	Spring (4-Speed Pawl).....	8M180	4K837108	Circlip.....
8M50	4K837053	8 B.A. Lockwasher.....	8M181	43K837109	P.U. Bottom Bearing.....
8M51	2K837054	8 B.A. Half Nut.....	8M182A	7K837110	P.U. Spindle Brkt Assem (incl 8M182, 8M183).....
8M52A	1K837055	4-Speed Pawl Assem & Rivet (incl 8M45, 8M47, 8M52).....	8M185A	64K837111	Stop Plate Assem (incl 8M184, 8M185).....
8M53	4K837058	4 B.A. Lockwasher.....	8M188	41K837112	Spring (P.U. Return).....
8M54	2K837057	4 B.A. Full Nut.....	8M188	3K837081	Screw 4 B.A. x 3/8" R.H.....
8M55	4K837058	Washer (Motor Mtg) (3).....	8M189	4K837113	2 B.A. Lockwasher.....
8M58	5K837059	Rubber Mtg (3).....	8M190	3K837114	Screw 2 B.A. x 1/4" R.M.....
8M57	4K837058	Washer (Motor Mtg) (3).....	8M191	4K837058	4 B.A. Lockwasher.....
8M58	4K837037	Circlip.....	8M192	31K837115	Tag Mtg Strip.....
8M59	59K837080	V.P. 10 D Motor (117 volt, 80 cycle AC).....	8M193	2K837057	4 B.A. Full Nut.....
8M80	75K837081	Turntable Mat.....	8M194A	47K837118	P.U. Spindle Assem (incl 8M194, 8M195).....
8M62A	1K837082	Turntable Assem (incl 8M81, 8M82, 8M83, 8M84, 8M85).....	8M198	41K837117	Spring (T.8. Return).....
8M88	4K837083	Thrust Washer.....	8M198	7K837118	Toggle Slide.....
8M68A	4K837084	Ballrace & Thrust Washers (incl 8M88, 8M87, 8M88, 8M89).....	8M199	22K837119	Stop Pin.....
8M89	4K837083	Thrust Washer.....	8M200	4K837120	Circlip.....
8M75	15K837088	P.U. Clip Cover.....	8M201	41K837121	Spring (Stop Pin).....
8M78	42K837087	P.U. Clip.....	8M202	41K837122	Spring (Reset Arm).....
8M79	3K837030	Transit Screw (mounts with 8M80 circlip).....	8M208	4K837123	Washer.....
-	3K837070	Transit Screw (mounts with hair-pin clip).....	8M207	3K837082	No. 8 x 1/4" S.T. Screw.....
8M80	4K837031	Circlip.....	8M208	45K837124	Adjusting Link.....
8M81	4K837032	Washer (Unit Mtg).....	8M209	4K837125	Spacer Washer.....
8M82	38K837088	Reject Knob.....	8M210	4K837037	Circlip.....
8M88	4K837038	Spring Washer.....	8M211	4K837125	Spacer Washer.....
8M87	4K837037	Circlip.....	8M212A	84K837128	Record Feed Plate Assem & Rivet (incl 8M212, 8M213, 8M214, 8M218).....
8M88	40K837038	Switch Reject Arm.....	8M215	4K837037	Circlip.....
8M89	4K837037	Circlip.....	8M218	41K837127	Spring.....
8M90A	1K837089	Reject Link Assem (incl 8M90, 8M91).....	8M217	4K837125	Spacer Washer.....
8M92	4K837037	Circlip.....	8M219	4K837037	Circlip.....
8M93A-8R	49K837071	4-Speed Pulley Assem: small (red) incl set screws - 80 cycle.....	8M221	4K837128	Circlip.....
8M93A-8PG	49K837072	4-Speed Pulley Assem: nominal (green or no color) incl set screws - 60 cycle.....	8M224A	1K837129	Stop Lever Assem (incl 8M223, 8M224, 8M225, 8M228).....
8M93A-8B	49K837073	4-Speed Pulley Assem: large (blue) incl set screws - 60 cycle	8M227	41K837130	Spring (Cut Off Arm).....
8M93A-5R	49K837158	4-Speed Pulley Assem: small (red) incl set screws - 50 cycle.....	8M239	5K837131	Eyelet.....
8M93A-5PG	49K837157	4-Speed Pulley Assem: nominal (green or no color) incl set screws - 50 cycle.....	8M240	48K837132	Rubber Stop.....
8M93A-5B	49K837158	4-Speed Pulley Assem: large (blue) incl set screws - 50 cycle	8M241	45K837133	P.U. Arm.....
8M94	3K837074	Set Screw 4 B.A. x 3/18" (2).....	8M241A	45K837134	P.U. Arm Assem (incl 8M239, 8M240, 8M241, 8M242, 8M244, 8M245, 8M248, 8M247, 8M248, 8M249, 8M250, 8M251, 8M252, 8M253, 8M254, 8M255, 8M258, 8M257, 8M258, 8M259, 8M280, 8M261, 8M282A, 8M263, 8M284, 8M285).....
8M95	38K837075	4-Speed Knob.....	8M242	49K837135	Disc Label.....
8M100	42K837078	Record Keeper.....	8M248	30K837138	P.U. Lead (18").....
8M108A	47K837077	Center Spindle Assem (incl 8M100, 8M101, 8M102, 8M103, 8M104, 8M105, 8M108, 8M107).....	8M249	37K837137	3 mm PVC Sleeving (4").....
8M107	47K837078	Record Feed Spindle.....	8M250	84K837138	Damping Weight Plate.....
8M109	4K837078	Circlip (T.T. Bearing).....	8M251	42K837139	Screw Fix (S.F.R. 1041/17/00).....
8M110	3K837080	Set Screw (4 B.A. x 3/32").....	8M252	5K837140	Rubber Grommet (P.B.C.G. 42).....
8M111	3K637081	Shouldered Screw.....	8M253	3K837141	No. 4 x 3/8" S.T. Screw.....
			8M254	5K837140	Rubber Grommet (P.B.C.G. 42).....
			8M255	3K637141	No. 4 x 3/8" S.T. Screw.....

MOTOROLA Record Changer

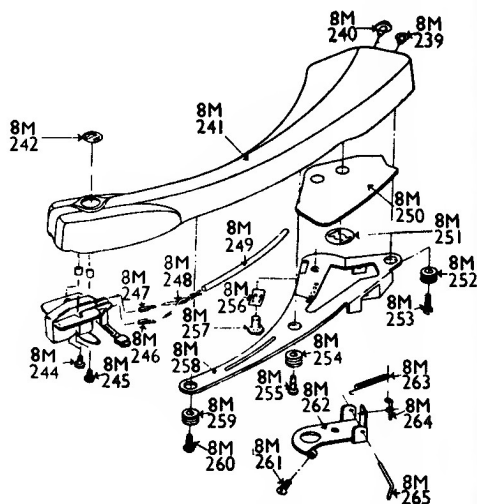
Model BR2RC Service Material



MAIN SUB PLATE

FIGURE 10.

Ref. No.	Part Number	Description
8M256	42K637142	Spire Flat Nut (S.N.P. 1301/17/0)
8M257	3K637143	P.U. Height Adj Screw
8M258	7K637144	P.U. Support Bracket
8M259	5K637140	Rubber Grommet (P.B.C.G. 42)
8M260	3K637141	No. 4 x 3/8" S.T. Screw
8M261	3K637145	6 B.A. x 3/8" R.H. Screw
8M262A	55K637146	P.U. Hinge Assem (incl 8M262, 8M264)
8M263	41K637147	Spring (P.U. Balance)
8M265	22K637148	Pivot Pin
-	59B634441	Cartridge, Sonotone 2TS (incl stylus)
-	47K632185	Stylus, Sonotone M-2TS (dual sapphire)
-	47K636271	Spindle, 45RPM
-	3K637149	Screw, cartridge mtg: No. 4 x 7/16" S.T.
-	43K637150	Bushing, cartridge mtg.
-	39K637191	Cartridge Contact



PICKUP ARM ASSEMBLY

FIGURE 11.