

TROUBLE CHART (CONT'D.)

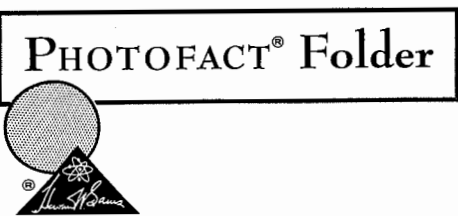
Symptom.	Cause	Remedy
	2. Idler wheel (44) or motor pulley height incorrect.	2. Place the speed change in the 16 2/3 rpm position. Adjust the motor pulley so the top of the pulley is level with the top of the idler wheel (44). Next, adjust the idler wheel adjusting strip (120) so the bottom of the idler wheel is 1/64" above the adjacent pulley step.
	3. Wrong motor pulley.	3. Make sure the correct motor pulley for the line frequency is on the motor. Nicel for 50 cycle and brass for 60 cycle.

MECHANICAL PARTS LIST (CONT'D.)

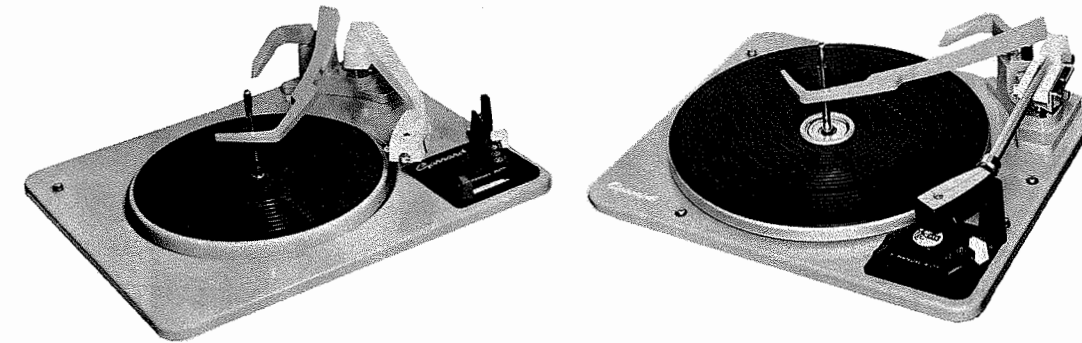
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
54	44705	Spring-Model Autoslim	88	58343	Lifting Spindle
55	44128	Lifting Screw-Model Autoslim	89	58348	Friction Link
56	44710	Counterbalance Spring-Model Autoslim	90	58958	Pickup Cam-Model AT6
57		Mtg. Screw, Tone Arm Bracket		58317	Pickup Cam-Model Autoslim
58		Safety Spring	91	41787	Spring Clip
59	58392	Bracket, Tone Arm-Model Autoslim	92	58324	Release Lever
60	41757	Locking Spring-Model Autoslim	93	40695	Washer
61	40000	Stylus Set-down Adj. Screw-Model Autoslim	94	41787	Spring Clip
62	58384	Adjusting Plate-Model Autoslim	95	58325	Control Lever Unit
63	41093	Adjusting Nut-Model Autoslim	96	41787	Spring Clip
64	44127	Cartridge Mtg. Screw - Model Autoslim	97	58310	Switch Lever
65	58719	Cartridge Mtg. Bracket-Model Autoslim	98	41787	Spring Clip
66	44127	Cartridge Mtg. Screw-Model AT6	99	58303	Selector Lever
67	58891	Tone Arm Head Ass'y. - Model AT6	100	44706	Selector Spring
68	58719	Cartridge Mtg. Bracket-Model AT6	101	41095	Fixing Nut
69	44120	Transit Screw	102	44715	Index Spring-Model AT6
70	41787	Spring Clip		41993	Index Spring-Model Autoslim
71	40695	Washer	103	41998	Return Spring
72	41991	Spring Blade	104	41759	Pawl Spring-Model Autoslim
73	44125	Screw, Spring Blade	105	58731	Switch Cover-Model AT6
74	41631	Return Spring		58277	Switch Cover-Model Autoslim
75	58327	Reject Lever	106	44708	Lifting Spring
76	58325	Lever Unit, Speed Control	107	42526	Spring Washer
77		Automatic Switch Lever	108	41008	Nut
78		Automatic Control Lever	109	41787	Spring Clip
79	58563	Lower Casting Ass'y.	110		Spring Clip
80	44125	Mounting Screw	111	41848	Index Spring
81	43813	Spring Clip, Overarm	112	41848	Index Spring
82	43200	Steel Ball	113	58209	Support Bracket
83	58293	Pickup Lever Unit	114	41787	Spring Clip
84	41985	Friction Spring	115	58274	Speed Lever
85	58316	Collar	116	43129	Motor Mounts
86	58313	Auto Stop Link	117	58640	Motor D35-Model AT6
87	44133	Screw, Auto Stop Link		58640/ 01	High Range Motor-Model Autoslim
				58640/ 03	Low Range Motor-Model Autoslim
				58640/ 05	Dual Range Motor-Model Autoslim
			118	58212	Index Bracket
			119	58219	Speed Cam
			120	58210	Adjusting Strip

GARRARD MODELS AT-6, AUTOSLIM

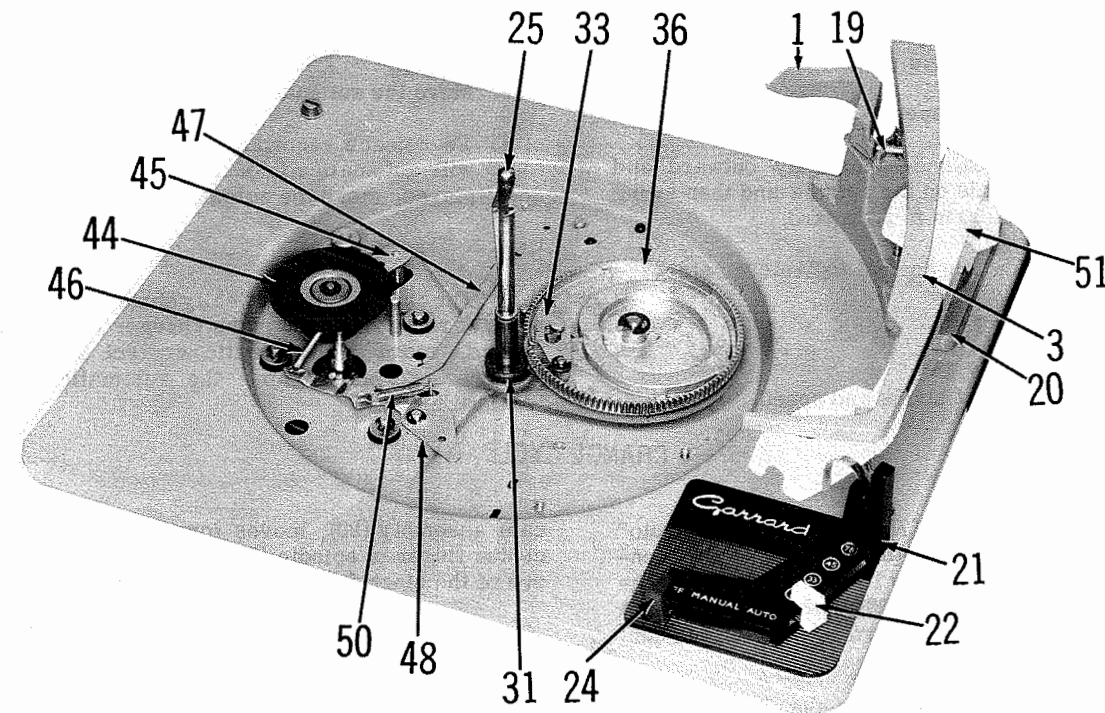
SET 638 FOLDER 7



GARRARD MODELS AT-6, AUTOSLIM



TRADE NAME	Garrard Models AT6, Autoslim
SUPPLIER	Garrard Sales Corp., 80 Shore Road, Port Washington, N. Y.
TYPE SET	AC Operated 4 Speed Automatic Record Changer for Playing 7", 10", or 12" Records which may be intermixed if they are of the same speed.
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles



GARRARD MODELS AT-6, AUTOSLIM

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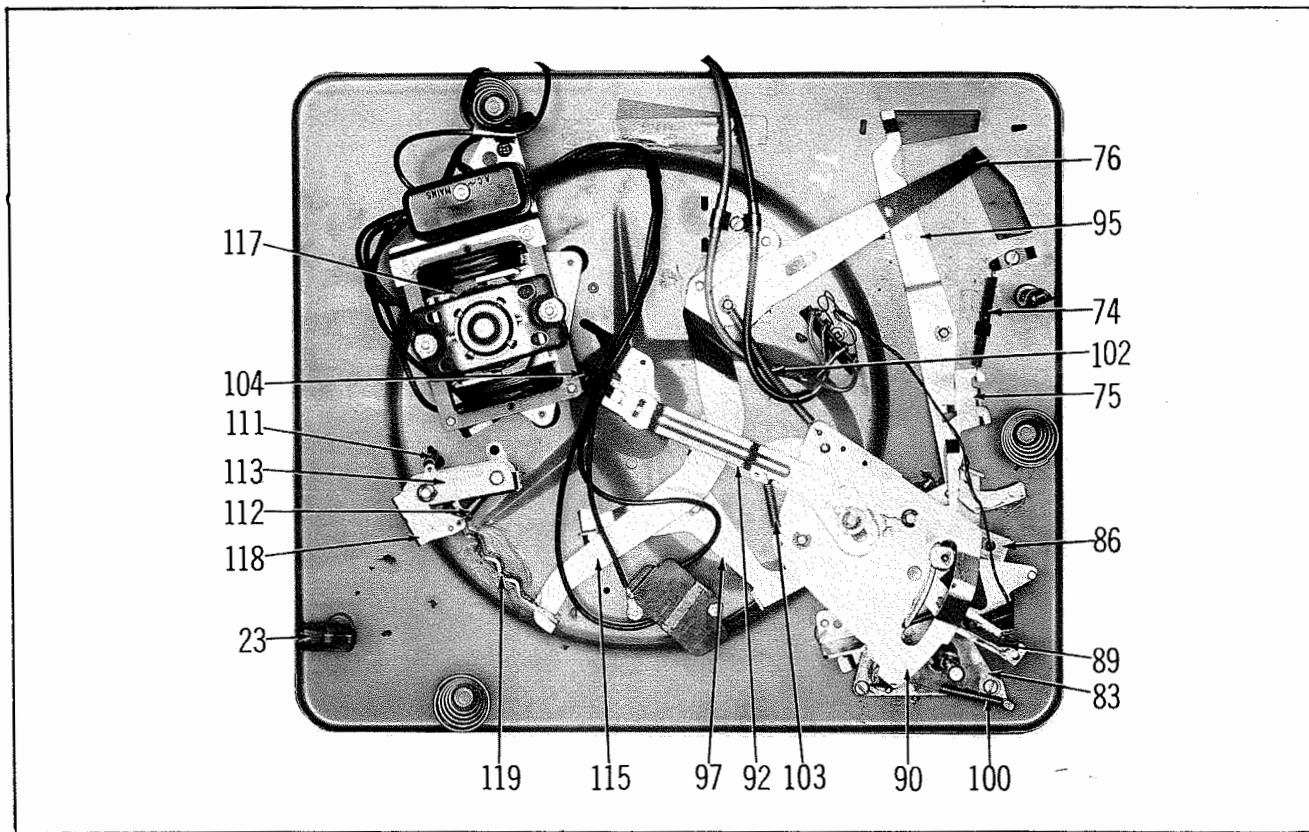
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



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BOTTOM VIEW OF MECHANISM

OPERATING INSTRUCTIONS

Automatic

1. Select the correct stylus and raise the tone arm to release it from the catch.
2. Select the correct speed.
3. Swing record balance arm fully outward and place the records on the spindle and then swing record balance arm fully inward.
4. Move the automatic control to "Auto" to start the changer.

2. Swing record balance arm fully outward and place a record on the turntable; then swing record balance arm fully inward.
3. Move the automatic control to "Manual".
4. To reject a record or switch the changer so it will automatically shut off after the record is played, move the automatic control to "Auto".

Stop

The changer automatically shuts off after playing the last record. To stop the changer while playing a record, move the automatic control to "Off". To restart the record, move the automatic control to "Manual".

Manual

1. Select the correct stylus and speed.

CHANGE CYCLE

When the reject lever (75) is pushed to the "Auto" position, power is applied to the changer. It also contacts and pushes the auto stop link (86) inward and the collar on the auto stop link (86) pushes the trip pawl (33) on cam assembly (36) outward so it makes contact with the turntable hub.

The cam assembly (36) is driven by the turntable as it rotates. As the cam assembly (36) rotates, the pickup cam assembly (90) is pivoted by the collar following the groove in cam assembly (36). As the pickup cam assembly (90) pivots, the lifting spindle (88) rides up the incline portion of the pickup cam assembly (90), lifting the tone arm. At the same time, the release lever (92), which is connected to the pickup

cam assembly (90), moves forward and actuates the center finger of spindle (25), leaving the bottom record of the stack fall onto the turntable.

Tone arm setdown for 7-, 10-, and 12-inch records is determined by the position of selector arm (1) and selector lever (99).

When a 7-inch record drops to the turntable, the diameter of the record is such that it doesn't strike selector arm (1). Consequently, the 7-inch notch on selector lever (99) engages with the selector lever stop pin. The shaft on selector arm (1) is thus positioned to engage the 7-inch step on pickup lever (83).

TROUBLE CHART (CONT'D.)

Symptom	Cause	Remedy
	2. Lack of lubrication on turntable spindle and ball-race. 3. Power leads to motor tight.	2. Clean and lubricate with light oil. 3. Make sure power leads are free and have some slack so the motor floats freely on its suspension.
	4. Tire on idler wheel (44) defective. 5. Motor pulley defective.	4. Replace idler wheel (44). 5. Replace motor pulley.
Reproduction interference.	1. Cartridge leads loose. 2. Switch contacts bad.	1. Make sure the cartridge leads are tight on the cartridge connection. 2. Make sure the leads are soldered properly on the switch leaf and clean the contacts.
Motor does not run.	1. Loose connection. 2. Switch contacts bad. 3. Motor defective.	1. Make sure all power connections are properly made. 2. Clean the contacts. If motor still does not run, replace the switch. 3. Replace motor.
Motor runs hot.	1. Shorted winding.	1. Replace motor.
Motor runs slow.	1. Lack of lubrication. 2. Bearing out of alignment.	1. Clean the motor shaft and bearings and lubricate with a thin oil. 2. Hit the body of the motor a sharp blow with a piece of wood. If motor still runs slow, remove the bearing cover and check the retaining spring. If spring is broken, replace the cover and bearing assembly.
Records will not drop.	1. Spindle (25) damaged. 2. Record spindle pawl rough. 3. Record balance arm (3) tight. 4. Return spring (103) broken or stretched. 5. Pawl spring (104) broken or stretched.	1. Replace spindle (25). 2. Polish with fine emery cloth. 3. Remove, clean the record balance arm spindle and lubricate with thin oil. 4. Replace return spring (103). 5. Replace pawl spring (104).
Two records drop at once.	1. Center hole in record too large. 2. Record spindle latch sticking.	1. Discard record or play manually. 2. Check for burrs on latch. Check to see it is perfectly flat.
Erratic speed.	1. Oil on motor pulley, idler wheel (44), or inside rim turntable. 2. Motor pulley loose. 3. Warped records.	1. Clean these surfaces with a cloth and alcohol. 2. Reposition motor pulley and tighten. 3. Replace records.
Pickup repeats in record groove when nearing center of record.	1. Stylus pressure insufficient. 2. Stylus worn. 3. Cartridge touching record. 4. Pickup leads binding. 5. Trip link (86) has too much friction.	1. Adjust to manufacturer's recommendation. 2. Replace stylus. 3. Make sure the cartridge mounting screws are tight. 4. Check pickup leads and make sure the tone arm will move freely. 5. Check all associated levers for freedom of movement and lightly grease the slot and end of trip link (86).
The turntable speed is too fast or too slow.	1. Idler wheel (44) binding.	1. If the speed is too slow, remove the idler wheel (44) and clean the spindle and idler wheel bearing; lubricate with light oil and reassemble.

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TRUBLE CHART (CONT'D.)

Symptom	Cause	Remedy
	3. Motor pulley loose.	3. Position the pulley and tighten the two set screws.
	4. Flat spots on idler wheel (44).	4. Replace idler wheel (44).
	5. Unbalanced rotor or bent shaft.	5. In either case, replace the rotor and shaft since they are one unit.
Does not shut off after the last record is played or before the record is played.	1. Record support arm spindle binding. 2. Too much friction on the automatic control lever (78). 3. Automatic switch lever (97) stiff.	1. Remove record support arm; clean the spindle and grease lightly. 2. Check for restriction by associated levers. Grease the end of the automatic control lever (78) where it actuates the switch lever (97). 3. Check to see if the tail of the automatic switch lever (97) is square with the baseplate and will return under its spring tension when moved away from the pickup arm.
Tone arm lands too far in or out.	1. Tone arm setdown misadjusted. 2. Nut (101) on selector lever (99) loose. 3. Record selector arm (1) damaged.	1. See "Tone Arm Setdown" under "Adjustments". 2. Tighten the nut. 3. Replace record selector arm (1).
The selection of records is erratic.	1. Nut (101) on selector lever (99) loose. 2. Selector spring (100) weak, broken, or off its connecting pin. 3. Friction link (89) needs lubricating.	1. Tighten nut (101). 2. Replace selector spring (100). 3. Lubricate friction link (89) with grease on its surface and in the slot.
Tone arm jumps the first few grooves after landing on record.	1. Too light a stylus pressure. 2. Worn or wrong stylus. 3. Changer not level. 4. Pickup leads binding. 5. Friction too great in friction link (89). 6. Records being played have a groove guard.	1. Adjust stylus pressure according to manufacturer's recommendation. 2. If stylus is worn, replace. Check stylus for records being played. 3. Level the changer by placing a level on the turntable and placing a shim under the cabinet if necessary. 4. Make sure leads are free and not restricting the tone arm movement. 5. Lubricate friction link (89) on its surface and in the slot. 6. Adjust the set-down position so the stylus will just clear the groove guard.
Tone arm fails to lower onto record.	1. Lifting spindle (88) sticking. 2. Tone arm pivot screw (15) binding.	1. Lubricate lifting spindle (88) with light oil. Check lifting spring (106) to see if it has slipped over the retaining shoulder of the lifting spindle (88). 2. Lubricate the hinge pin with light oil.
Tone arm begins to lower and then swings in.	1. Pickup leads not free. 2. Lifting spring (106) or friction spring (84) defective.	1. Free the leads so the tone arm moves freely. 2. Replace defective spring.
Stylus does not track.	1. Worn or wrong stylus. 2. Stylus pressure too light. 3. Tone arm pivot screw (15) binding.	1. Replace worn stylus or select correct stylus for records being played. 2. Adjust to manufacturer's recommendation. 3. Lubricate the hinge pin with light oil.
Rumble noise when changer is running.	1. Dirty idler wheel (44).	1. Clean tire of idler wheel (44) with a cloth dipped in alcohol.

When a 10-inch record drops to the turntable, the edge of the record strikes and moves selector arm (1). This, in turn, pivots selector lever (99) far enough for the 10-inch notch to engage the selector lever stop pin. The shaft on selector arm (1) is thus positioned to engage the 10-inch step on pickup lever (83).

When a 12-inch record drops to the turntable, the edge of the record strikes and moves selector arm (1) far enough to allow the 12-inch notch on selector lever (99) to engage the selector lever stop pin. The shaft on selector arm (1) is positioned to engage the 12-inch step on pickup lever (83).

After the record drops, the pickup cam assembly (90) pivots and pulls the friction link (89) along with it and swings the tone arm in over the lead-in groove of the record. As the pickup cam assembly (90) continues to pivot, the lifting spindle (88) rides down the incline portion of the pickup cam assembly (90) and sets the stylus down on the record. At the same time, the pickup cam assembly (90) contacts the selector lever (99) and pushes it clear of the pickup lever assembly (83) so the pickup lever assembly (83) is free to move as the stylus follows the groove of the record.

When the tone arm nears the end of the record, the pin on the pickup lever assembly (83) contacts and slowly moves the auto stop link (86) toward the trip pawl (33). When the tone arm enters the lead-out groove of the record, the faster movement of the tone

arm causes the auto stop link (86) to make firm contact with the trip pawl (33), pushing it out so it contacts the turntable hub. As the turntable rotates, cam assembly (36) rotates and the collar on pickup cam assembly (90) follows the groove of cam (36) and pivots the pickup cam assembly (90) so the lifting spindle (88) will raise the tone arm from the record. Due to friction applied to the pickup cam assembly (90), the tone arm will swing out over the rest post and the next record is dropped onto the turntable. After the record drops, the pickup cam assembly (90) continues to pivot and pulls the tone arm in over the lead-in groove of the record.

When the last record drops, the record support arm (3) drops and automatic switch lever (77) falls into the cutout in the shaft of the record support arm (3). After the last record is played, the changer will cycle. As the pickup cam assembly (90) pivots, the automatic switch lever (77) is pulled in against the third step of the pickup lever assembly (83) by its tension spring and prevents the tone arm from moving in over the record. The pin on the switch lever (97) is engaged in the slot of the automatic switch lever (77). As the pickup cam assembly (90) continues to pivot, it contacts the vertical tab of the automatic switch lever (97) and moves it away from the pickup cam assembly (90).

At the same time, it exerts pressure on the switch lever assembly (97), causing it to pivot and leaving the spring-loaded switch to open and remove the power from the changer.

ADJUSTMENTS

Height

On Model AT6, adjust screw (7A); and on Model Autoslim, adjust screw (55) so the point of the stylus will be 7/8-inch above the turntable mat surface at the outside edge position of a 7-inch record as the tone arm returns to its rest post.

Set Down

On Model AT6, turn screw (13B); and on Model Autoslim, turn screw (61) clockwise to move the tone

arm in and counterclockwise to move the tone arm out.

Stylus Pressure

On Model AT6 loosen knurled nut (14) and slide the pointer to the desired pressure and tighten knurled nut (14).

On Model Autoslim turn knurled nut (63) clockwise to decrease the pressure and counterclockwise to increase pressure. On both models, adjust pressure to the cartridge manufacturer's recommendation.

LUBRICATION

Grease the slot in the pickup cam assembly (90) and the friction link (89).

Grease the automatic switch lever (97) where it slides on the baseplate and where it contacts the steps in the pickup cam assembly (90).

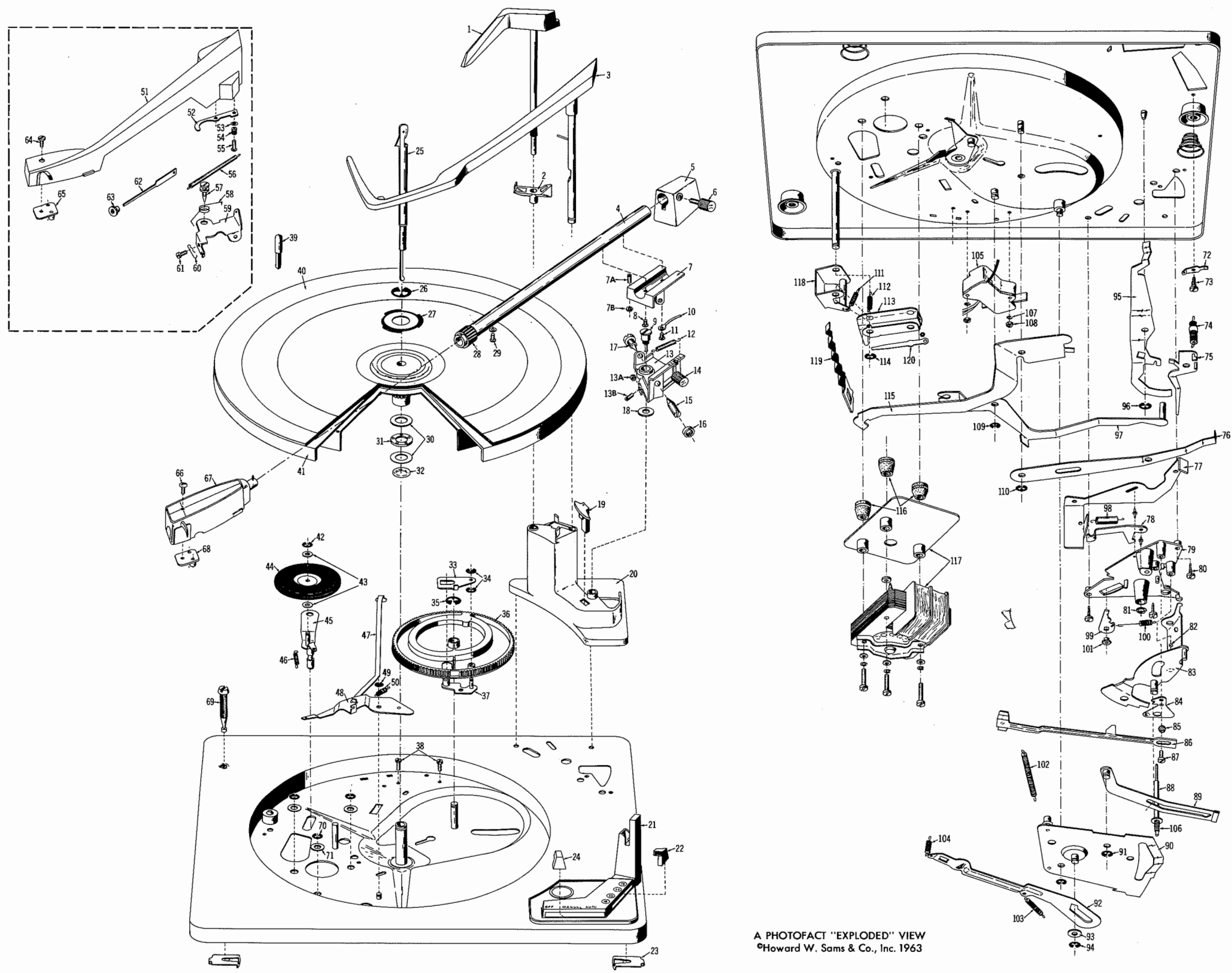
TRUBLE CHART

Symptom	Cause	Remedy
Turntable does not rotate when motor is running.	1. Driving surfaces oily. 2. Idler wheel tension spring (46) off or broken.	1. Clean all driving surfaces with a cloth and alcohol. 2. Replace idler wheel tension spring (46).
Wow and Flutter.	1. Turntable spindle tight. 2. Inside of turntable rim dirty.	1. Clean the spindle and lubricate the spindle and ball race with light oil. 2. Clean inside of rim with a cloth and alcohol.

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AT-6, AUTOSLIM

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MECHANICAL PARTS LIST



A PHOTOFAC "EXPLODED" VIEW
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EXPLODED VIEW OF MECHANISM

Ref. No.	Part No.	Description
1	58868	Selector Arm-Model AT6
	58301	Selector Arm-Model Autoslim
2	58953	Extension,Selector-Model AT6
3	58870	Record Balance Arm-Model AT6
	58305	Record Balance Arm-Model Autoslim
4	58586	Tone Arm-Model AT6
5	58595	Counter Balance, Tone Arm - Model AT6
6	58919	Screw, Counter Balance-Model AT6
7		Base, Tone Arm-Part of Ref.No. 4
7A	40240	Height Adjustment Screw-Model AT6
7B	41037	Height Nut - Model AT6
8		Screw, Tone Arm Base
9		Mtg. Screw, Tone Arm Bracket-Model AT6
10		Clamp, Ground
11		Screw, Tone Arm Base
12	44713	Pressure Spring, Pointer Stylus - Model AT6
13	58884	Bracket Ass'y. Tone Arm-Model AT6
13A		Nut Set-down - Model AT6
13B		Screw, Set-down - Model AT6
14	44135	Clamping Screw, Pointer-Model AT6
15	58592	Pivot Screw - Model AT6
16	41098	Pivot Locking Nut - Model AT6
17	58590	Pivot Screw Ass'y.-Model AT6
18		Washer - Model AT6
19		Stop - Model AT6
20	59022	Upper Casting - Model AT6
	58284	Upper Casting-Model Autoslim
21	58883	Control Moulding-Model AT6
	58396	Control Moulding-Model Autoslim
22	58273	Knob-Ivory
23	41977	Transit Screw Clip
24	58273	Knob-Red
25	58874	Spindle, Automatic-Model AT6
	58338	Spindle, Automatic-Model Autoslim
26	43826	Clip, Turntable
27	58011	Nameplate, Turntable-Model AT6
28		Collar, Tone Arm
29		Set Screw
30	40894	Thrust Washer
31	58229	Ball Race
32	58749	Ring, Cushion
33	58335	Trip Pawl
34	41787	Spring Clip
35	41788	Spring Clip
36	58330	Cam
37	58331	Pivot Plate Unit
38	44129	Screws, Switch Mounting
39	58954	Spindle, Manual
40	57422	Turntable Mat-Model AT6
	58361	Turntable Mat-Model Autoslim
41	58856	Turntable Ass'y.-Model AT6
	58224	Turntable Ass'y.-Model Autoslim
42	43818	Spring Clip
43	40826	Presspahn Washer
44	58220	Idler Wheel
45	58215	Support Lever
46	41992	Tension Spring, Intermediate Wheel
47	58568	Tension Link
48	58298	Tension Lever
49	41787	Spring Clip
50	41503	Tension Spring
51	58382	Tone Arm Casting-Model Autoslim
52	58385	Height Setting Blade-Model Autoslim
53	40690	Washer - Model Autoslim

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