

Directions for Eliminating Minor Troubles



1004

The following table gives directions for dealing with minor difficulties which may arise during fitting, in transit, or from improper handling.

If there is a fault not dealt with in this table the unit should be handed in to one of our servicing agents for a thorough overhaul.

Please make sure that genuine DUAL components are used for all replacements — this is the only way to ensure perfect working.

SYMPTOM	CAUSE	REMEDY
Starting		
Changer does not start after switching on and pressing Start Button.	No supply to motor.	Test supply socket for mains voltage. Check internal mercury switch (52) for continuity.
Current supply and mercury switch function normally, but changer will not start.	No supply to motor.	Voltage selector not engaged. Make sure it is fully home in appropriate position.
Tone arm moves, turntable does not revolve.	Speed control is still at zero (transit position).	Move speed control knob (56) to desired position.
Turntable revolves at wrong speed.	Wrong motor pulley (107) for frequency of local supply.	Change motor pulley (special servicing instruction available upon request).
Tone arm lifts and returns to its rest without playing record.	Tone arm was returned to rest manually at previous playing.	Start changer again. The tone arm should be controlled only by the push buttons.
Tone arm descends on to turntable before a record has dropped.	Repeat button was pressed before Start button.	Stop changer. Start button should be pressed first.
Operation		
With thin record spindle in use several records drop at once.	<ul style="list-style-type: none"> a) Lowest record in the stack is out of position. b) Safety latch is pushed upwards on <i>record spindle</i>. 	<ul style="list-style-type: none"> a) Lift off stack of records and replace evenly. b) Push latch at top end of spindle to its <i>lowest position</i>.
Turntable loses speed as record drops.	<ul style="list-style-type: none"> a) Record spindle is not locked. b) Release rocker (14) has too much lift. 	<ul style="list-style-type: none"> a) After inserting changer spindle into center hole turn spindle until it clicks. b) Adjust eccentric (R1).
Failure to drop or incorrect dropping.	<ul style="list-style-type: none"> a) Release rocker (14) does not move freely. b) Pin of release rocker is broken. 	<ul style="list-style-type: none"> a) Make sure hole in centre spindle is free of obstructions (bits of labels, etc.) b) Replace pin (28).
Repeat does not work.	Release rocker (14) not being made inoperative.	Adjust release plate (67).
Stop mechanism fails to work.	Trip rocker not being released.	Lever operating the trip rocker (1) is impeded. Check the spring for this lever under main plate (16).
Record played singly, or last record in stack does not repeat.	Normal operation.	See Operating Instructions.

SYMPTOM	CAUSE	REMEDY
After pressing Stop button and starting again another record falls.	Normal operation.	Repeat button should have been pressed before operating Stop button and re-starting. Interrupted record will then repeat.
Tone arm does not descend to its rest properly and motor continues to run.	Locking lever (50) does not engage in recess in tone arm.	Adjust the stop for positioning tone arm above rest (10). Then adjust height of locking lever to suit this (R 6).
Turntable does not attain correct speed.	a) Different mains frequency. b) Slipping drive. c) Friction in motor bearing or drive bearings.	a) Check mains frequency and if necessary use a motor pulley (107) with plus or minus allowance. b) Clean all oil and grease from friction surfaces of drive (101, 103, 104, 105, 106). c) Clean bearings in motor or drive wheels and re-oil (Shell AB 11 or instrument oil).
Changer drops several records in succession without playing them.	a) Trip mechanism engages too soon. b) Cam does not stop after revolving 360°, trip lever (7) does not engage in notch in cam (37).	a) Move set-down position of stylus outwards by adjusting the index fork eccentric (R 2). b) Insufficient clearance between rubber ring of intermediate wheel (17) and motor spindle. Adjust to 0.6 mm (.024") with nut (R 5). (Cam at zero position).
Changer occasionally plays only inner part of records.	a) Feeler mechanism in pick-up head is out of adjustment. b) Feeler mechanism in pick-up head insufficiently retracted.	a) Change pick-up head (shell only, not cartridge). b) Push pick-up head into tone arm until it clicks (catch spring on side must engage).
After playing record pick-up continues in run-out groove.	a) No standard run-out groove on record. b) Trip mechanism insensitive.	a) Replace record. b) Adjust setting of trip mechanism (35).
Changer shuts off after each record. Turntable stops.	Over arm wrongly positioned or spreader spring binding.	Place over arm (55) on stack of records free the spreader spring (F 6).
Faulty record dropping, centre holes damaged or chipped.	Record stack not lying parallel to turntable.	Always use over arm (55) and if necessary adjust it to hold record stack exactly horizontal.
Changer does not stop after playing last record but continues repeating it.	Last record shut-off not working.	Check mounting of over arm (55) so that its lowest position can be reached.
After feeler mechanism has retracted over record edge, tone arm moves across record grooves towards center of record.	a) Stylus point is lifted out of groove by accumulated dust. b) Stylus point broken or chipped by rough treatment.	a) Remove pick-up head (press catch spring), and clean dust from stylus with soft brush. b) Check stylus with needle tester, and replace if necessary.
Tone arm runs off edge of record without finding run-in groove.	a) Changer not horizontal. b) Tone arm brake badly adjusted. c) Faults in feeler mechanism of pick-up head. d) Record has no run-in groove.	a) Level the changer. b) Adjust tone arm brake with set nut (R 4). c) Renew pick-up head (154) (Shell only, not cartridge). d) Replace record.
Pick-up jumps grooves.	Insufficient playing weight.	Adjust pick-up weight to 8—9 grammes with set screw in front of tone arm base (131).

SYMPTOM	CAUSE	REMEDY
Reproduction Reproduction distorted and unsatisfactory.	a) Impedance mismatch.	a) Amplifier input of about 1 Megohm is required. When changer is played through radio, receiver circuit must be disconnected in phono position.
	b) Stylus points are worn or chipped.	b) Renew needle assembly.
	c) Cartridge is damaged.	c) Renew cartridge.
Hum audible when playing records.	Wrongly connected.	a) Reverse black terminals of pick-up connections. b) See that green terminal is properly connected to earth socket of amplifier or receiver and to earth lead of the installation.
Pitch variation (wow) during reproduction.	a) Records displaced due to over-size, or eccentric, centre hole.	a) Replace records.
	b) Records are warped and sliding on one another.	b) Replace warped records.
	c) Friction drive between motor and turntable slipping.	c) Make sure working surfaces of drive wheels (101, 103, 104, 105, 106) are quite free from oil and grease.
Excessive surface noise.	a) Stylus point worn or chipped.	a) Replace needle assembly.
	b) Records previously played with steel needles or having non-standard grooves (old records).	b) Use special pick-up head (K 3) with over-size stylus points.
	c) Records of poor quality or partly worn.	c) Replace records, or turn down treble tone control of amplifier or receiver.
Hooting while playing and especially when using bass boost.	Acoustic feedback.	Check that the spring suspension is working properly. The chassis must be freely suspended and the leads must not be taut.

For cleaning records — especially the delicate micro-groove records — we recommend using our

DUAL Micro-Pianissimo

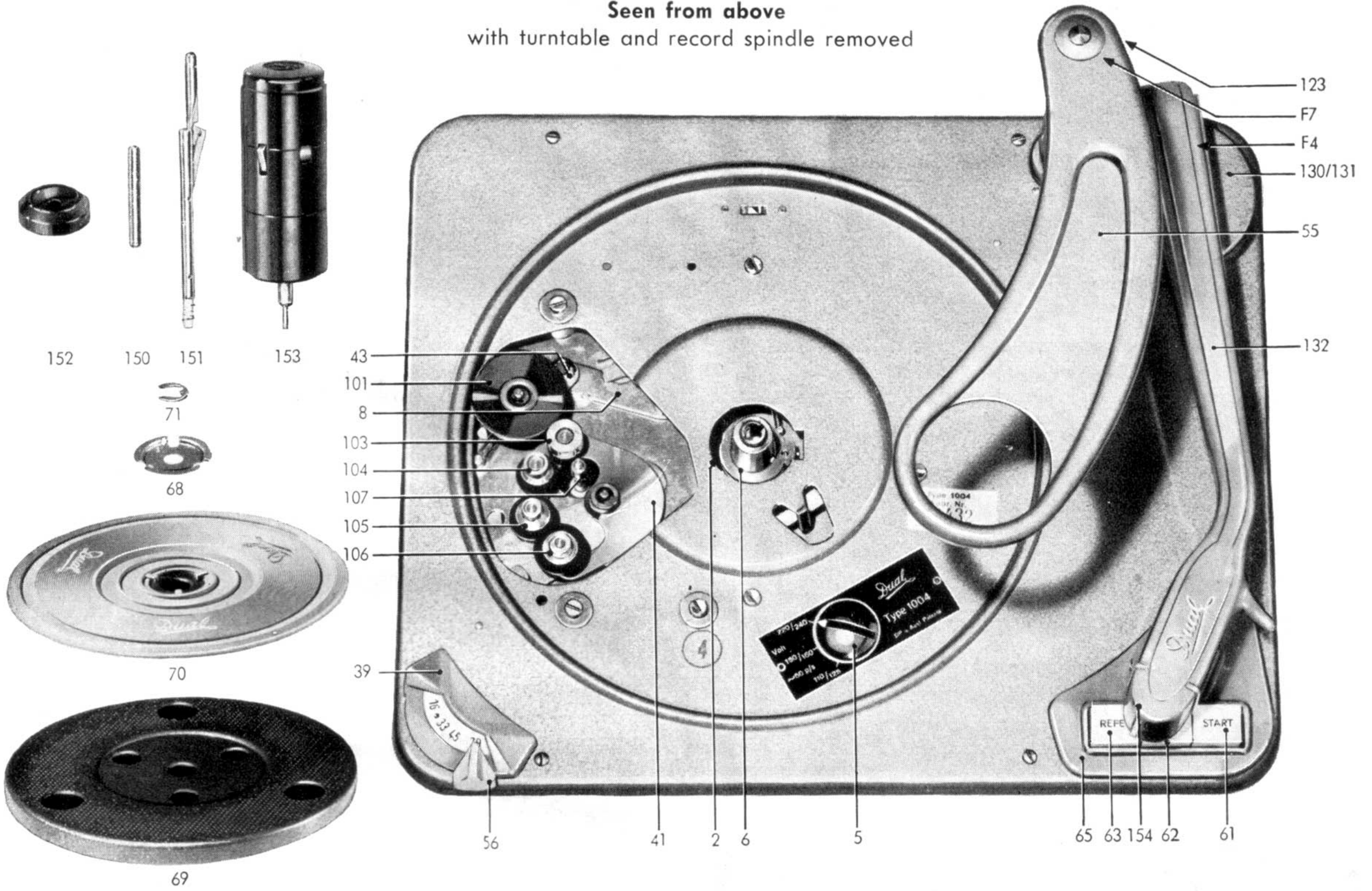
record cleaner which cleans both sides of the record simultaneously and also removes troublesome static charges. (Ask for descriptive leaflet).



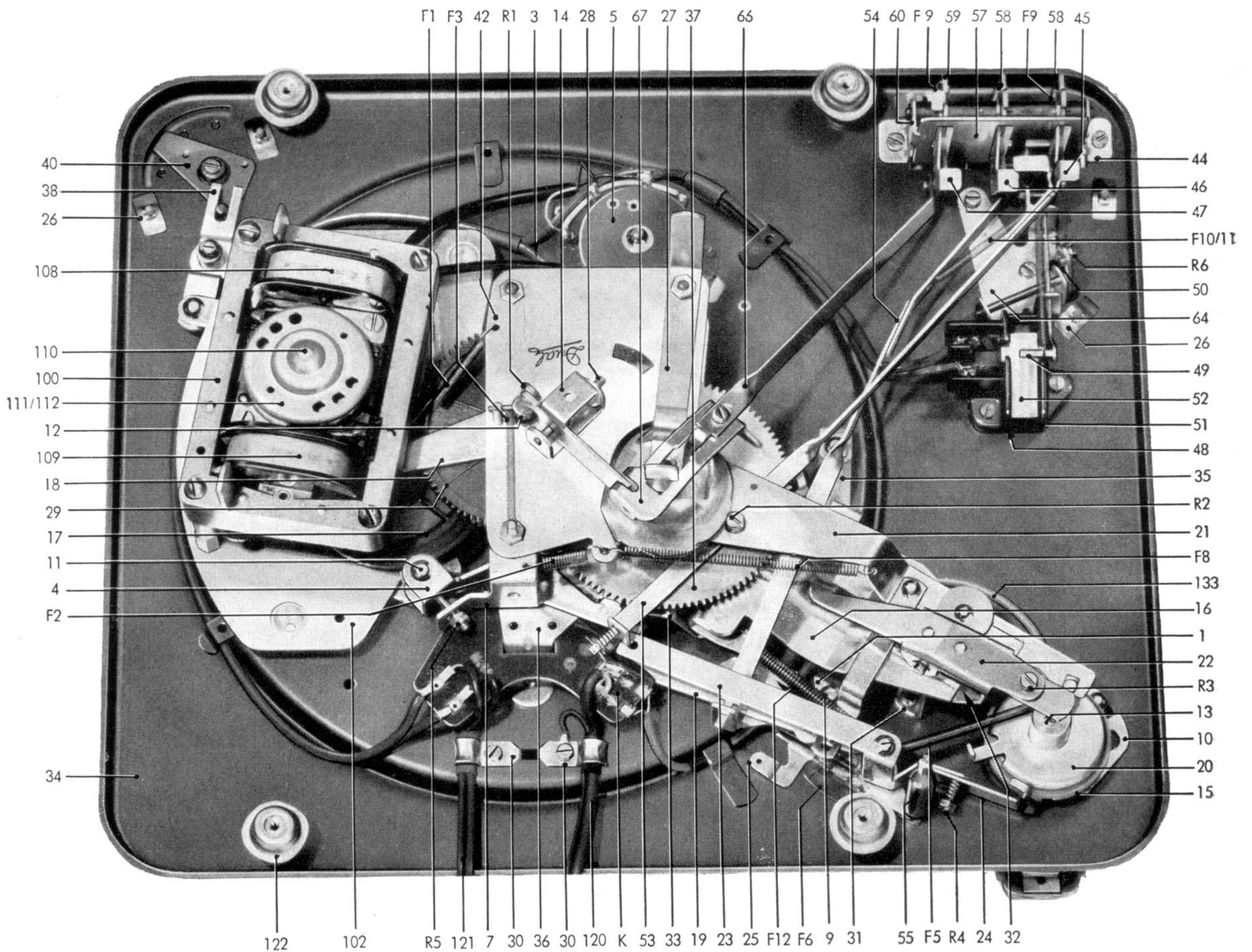
GEBRÜDER STEIDINGER · ST. GEORGEN / SCHWARZWALD

DUAL RECORD CHANGER 1004

Seen from above
with turntable and record spindle removed



Seen from below



R1 to R6 and K denote adjustment points