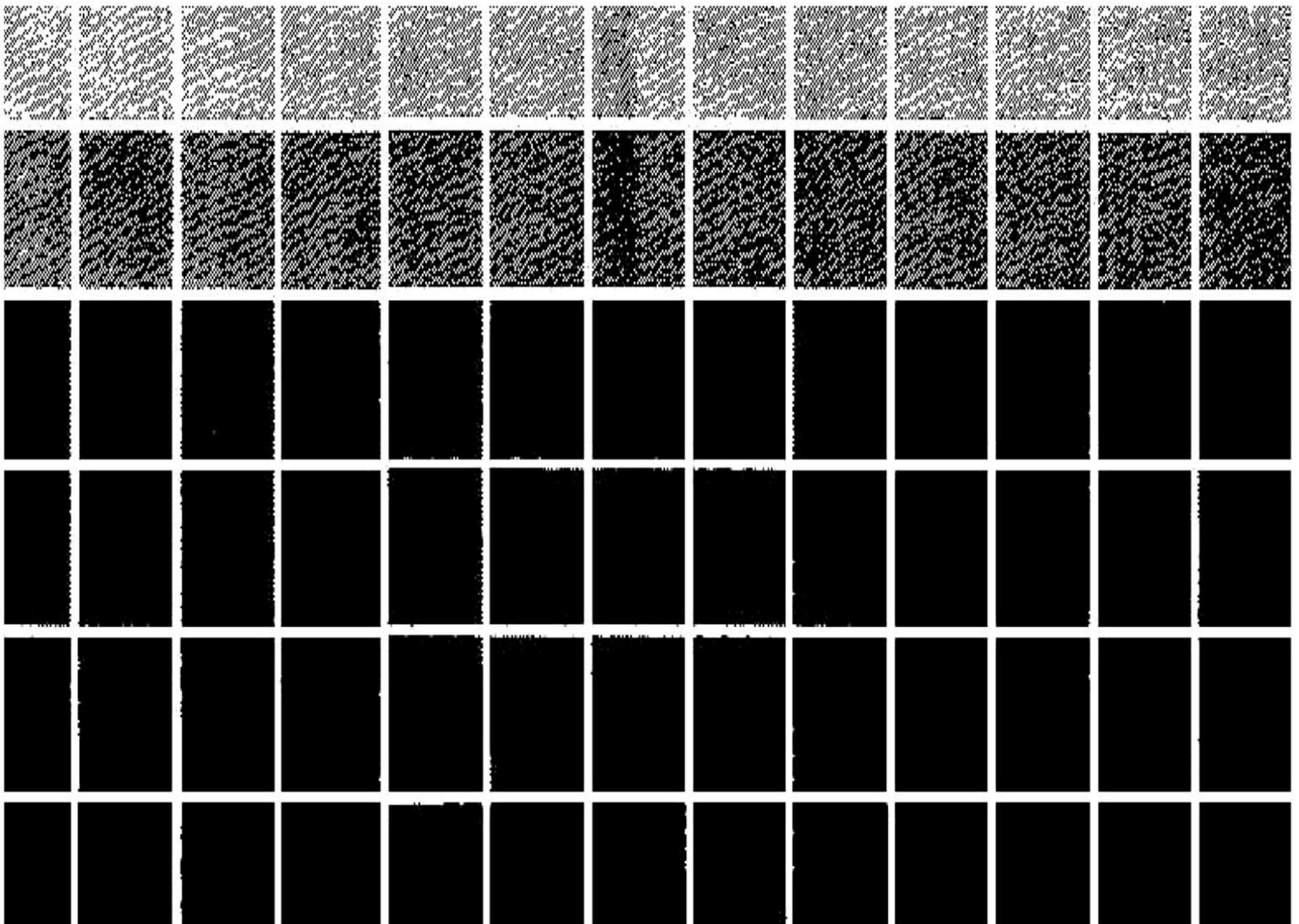


GRUNDIG

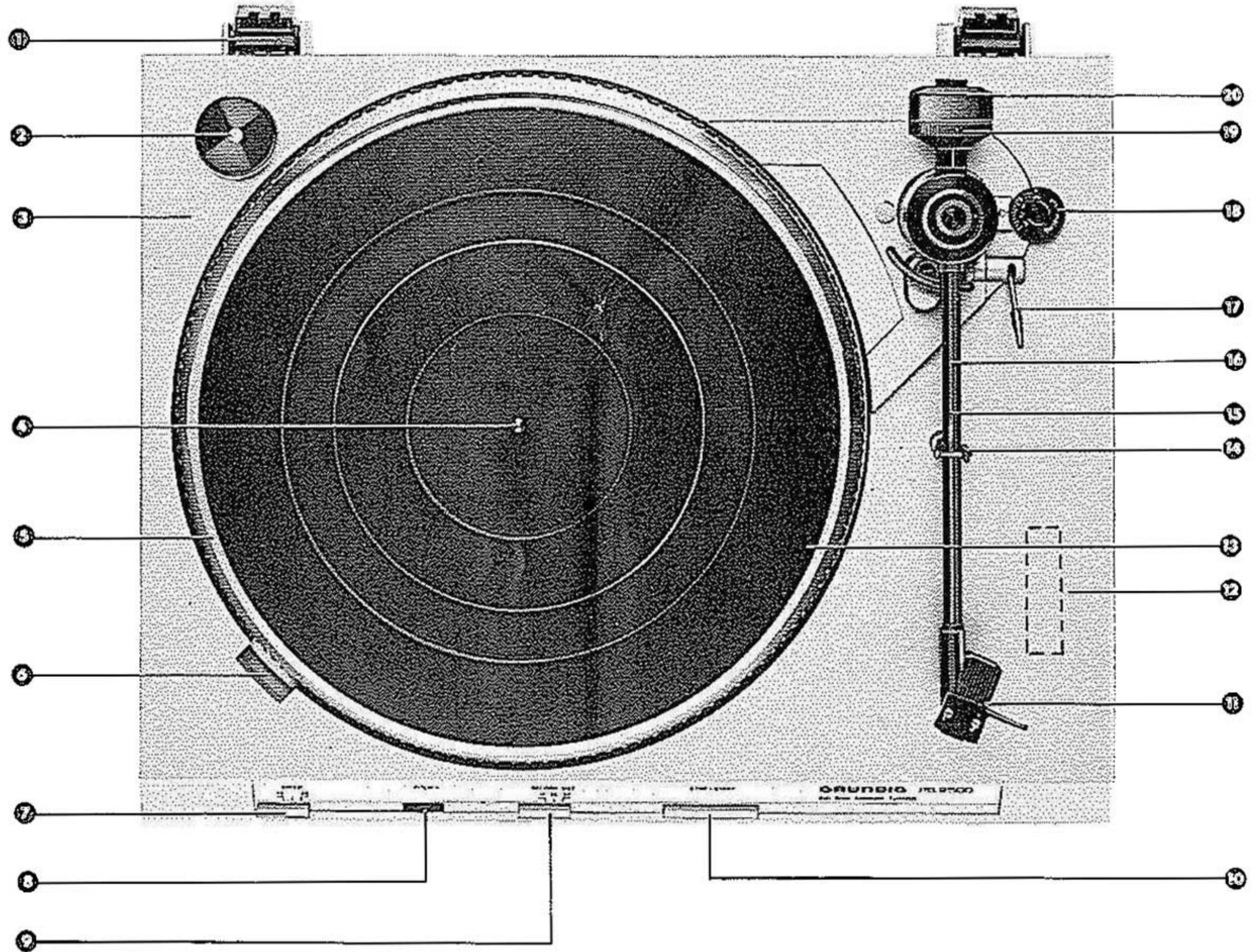
PS 2500

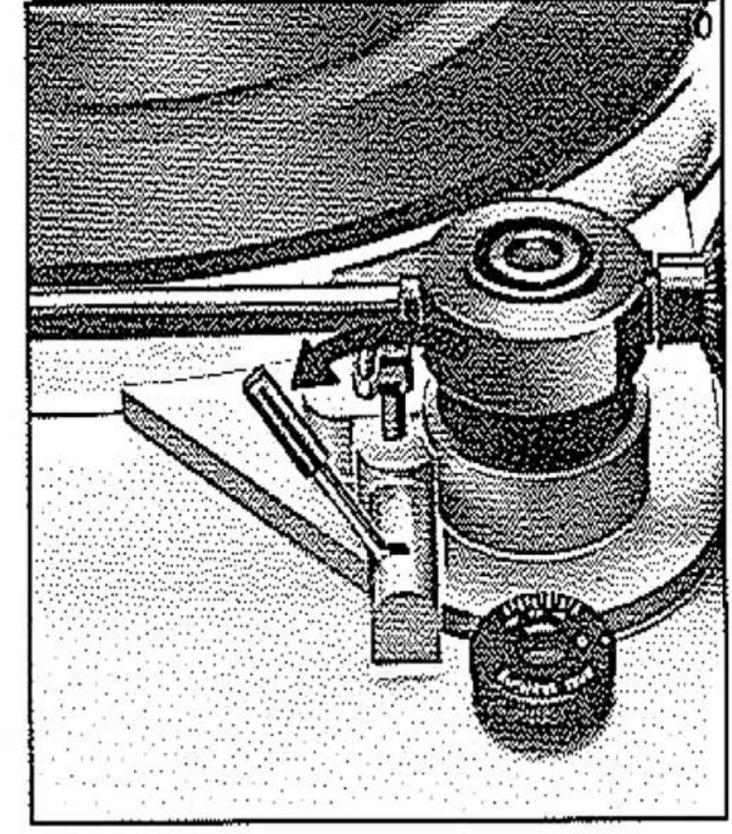
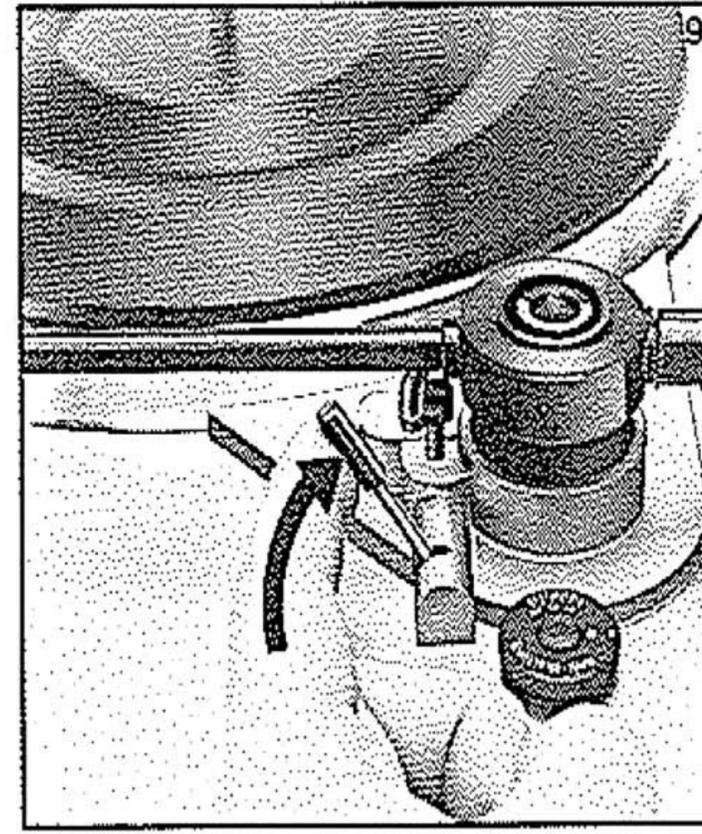
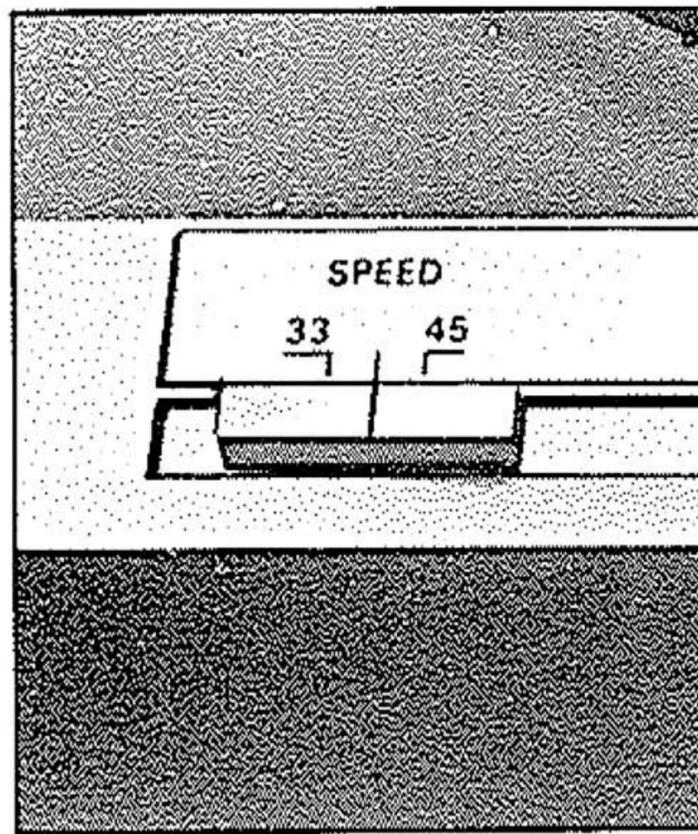
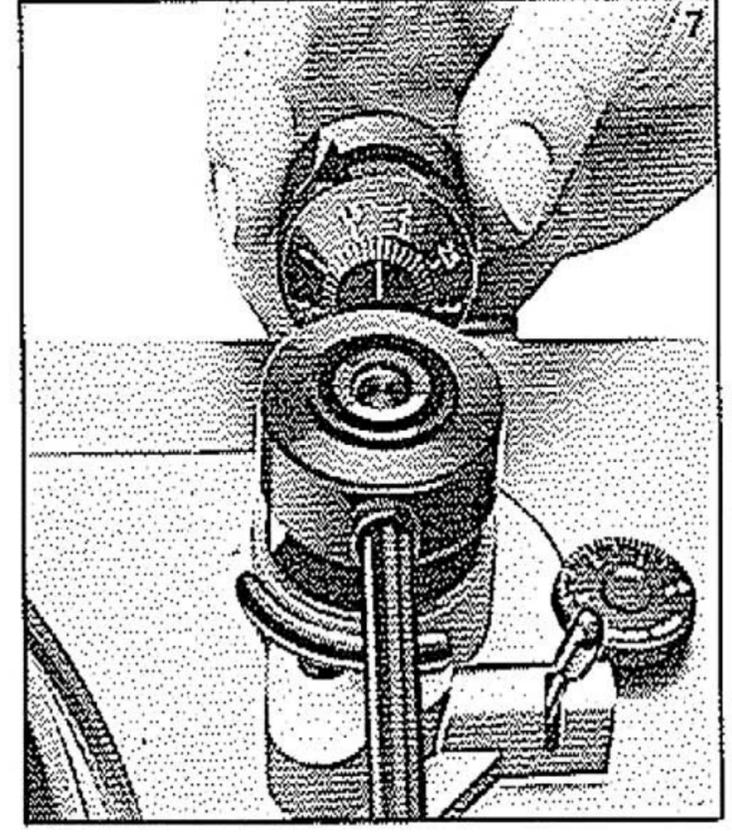
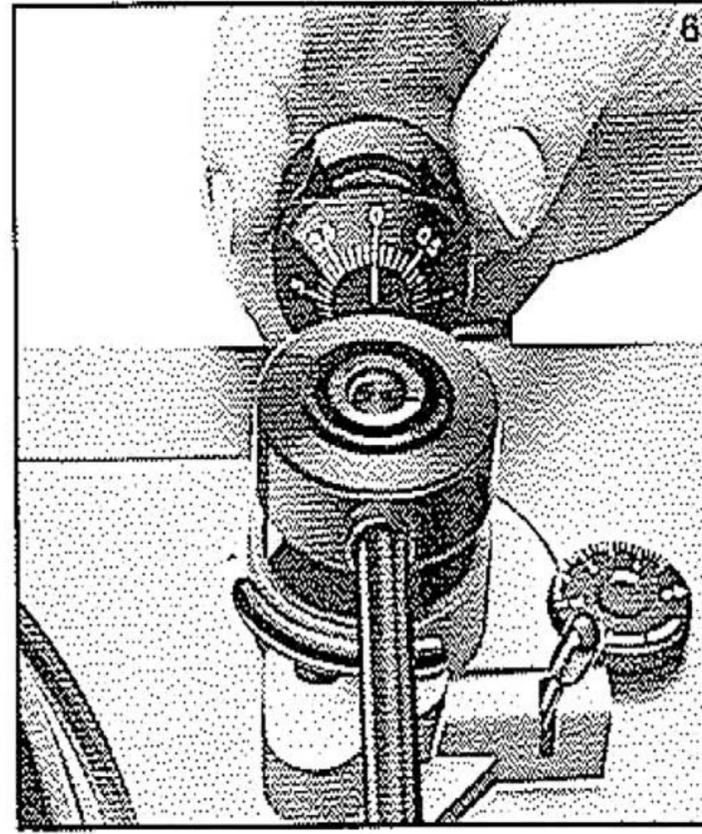
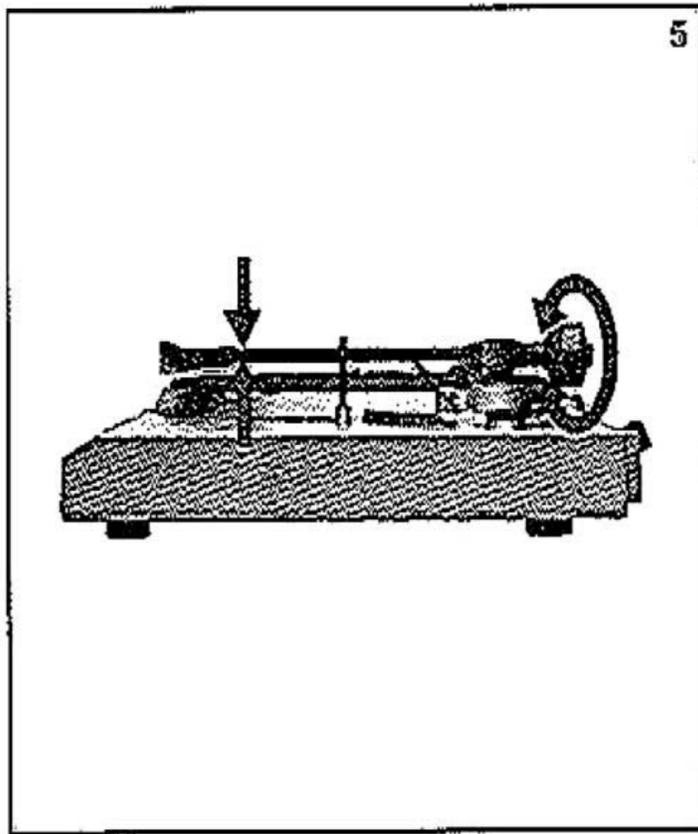
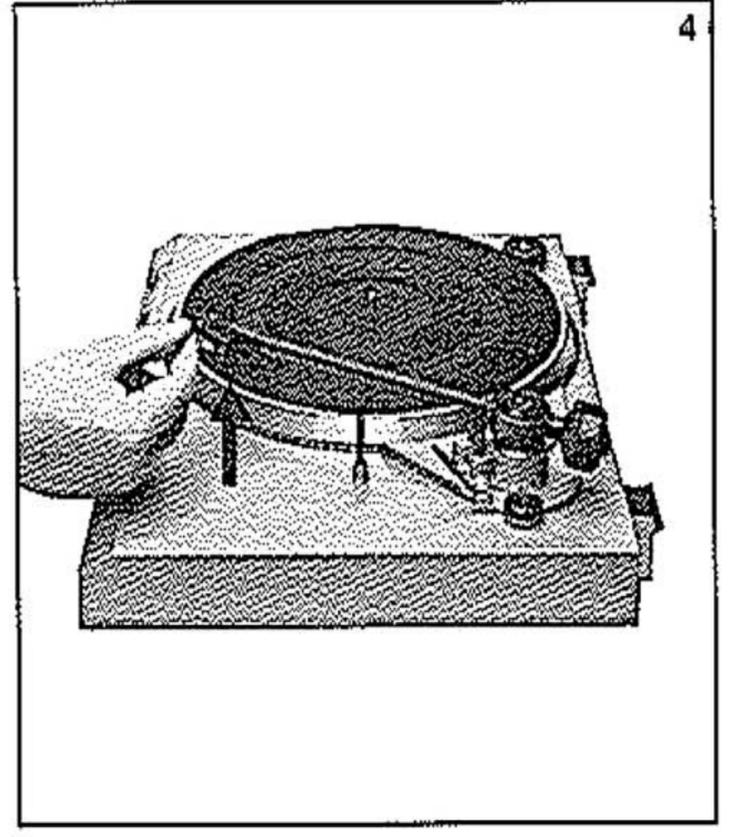
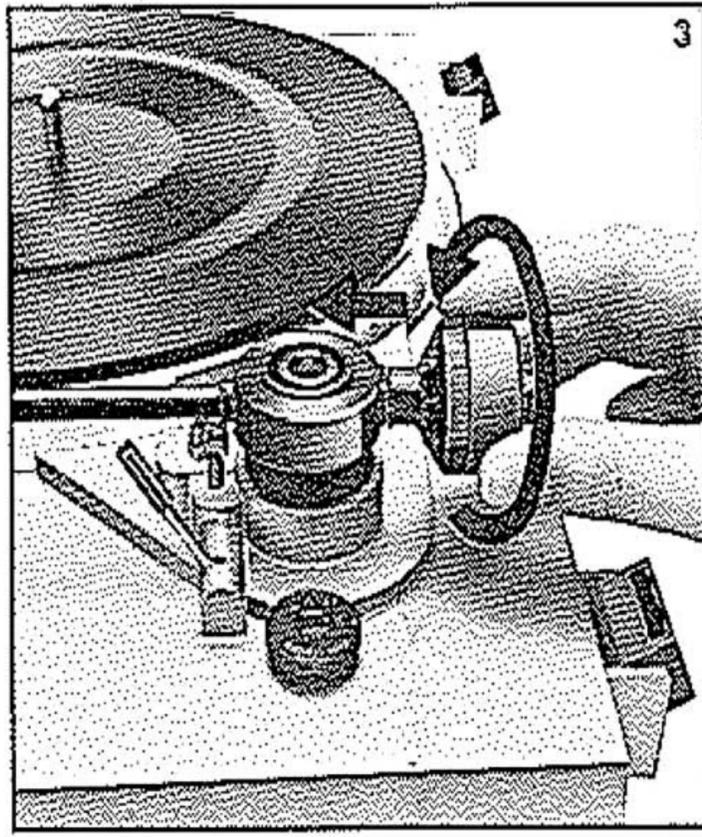
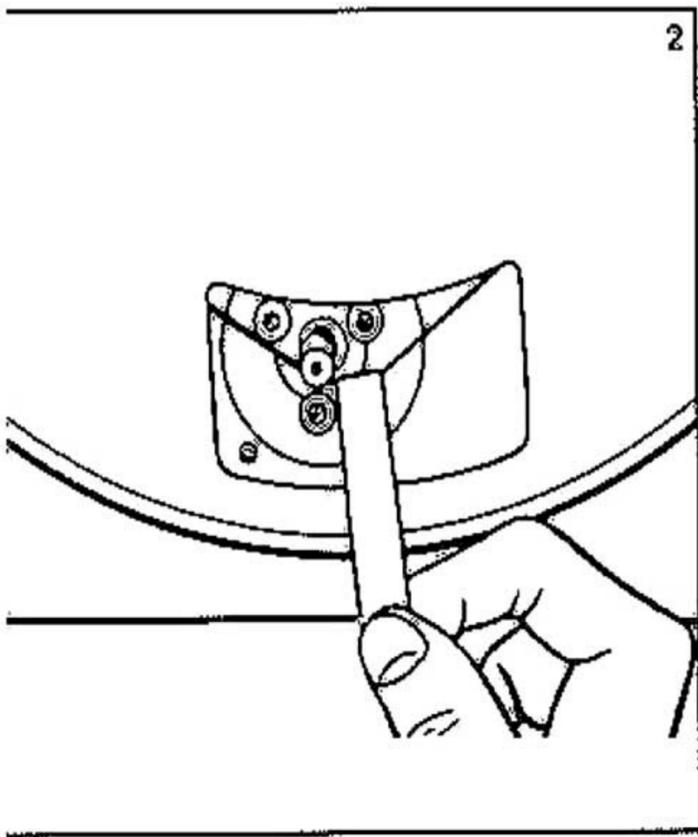
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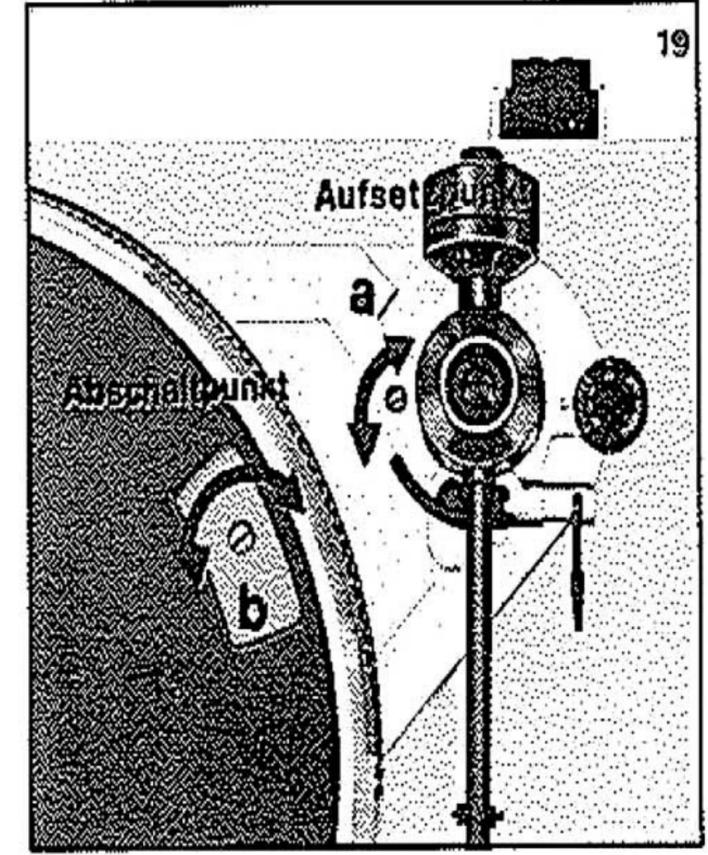
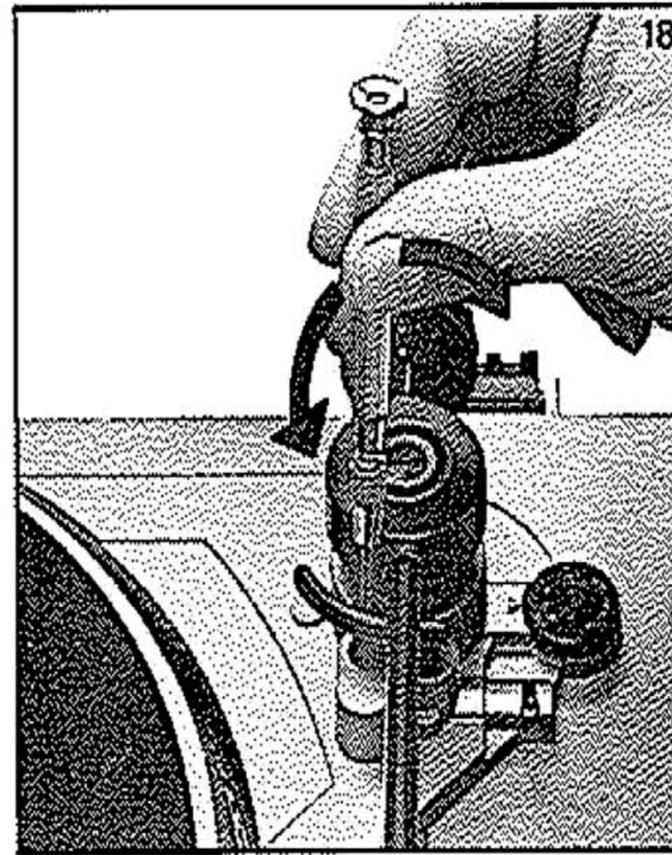
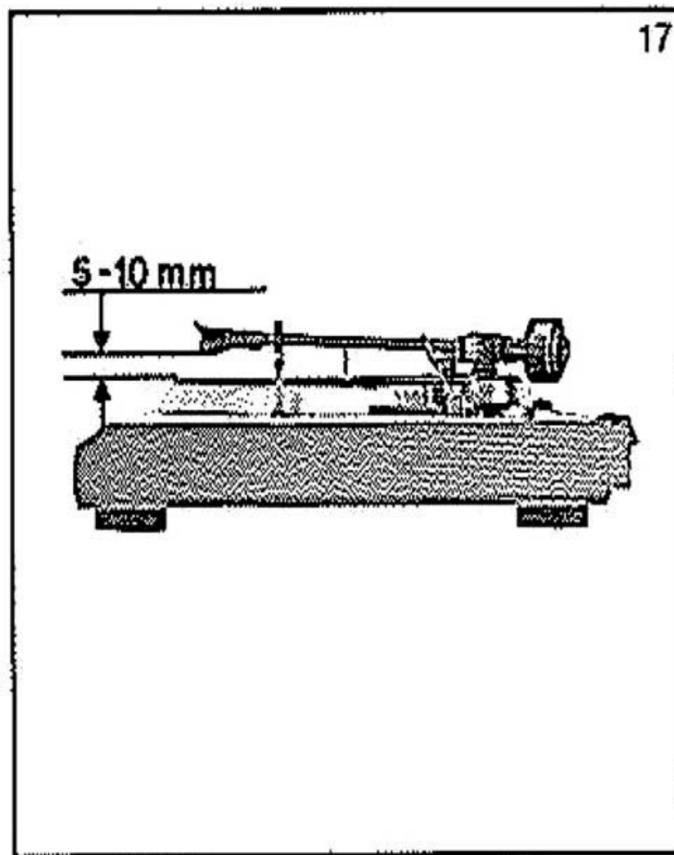
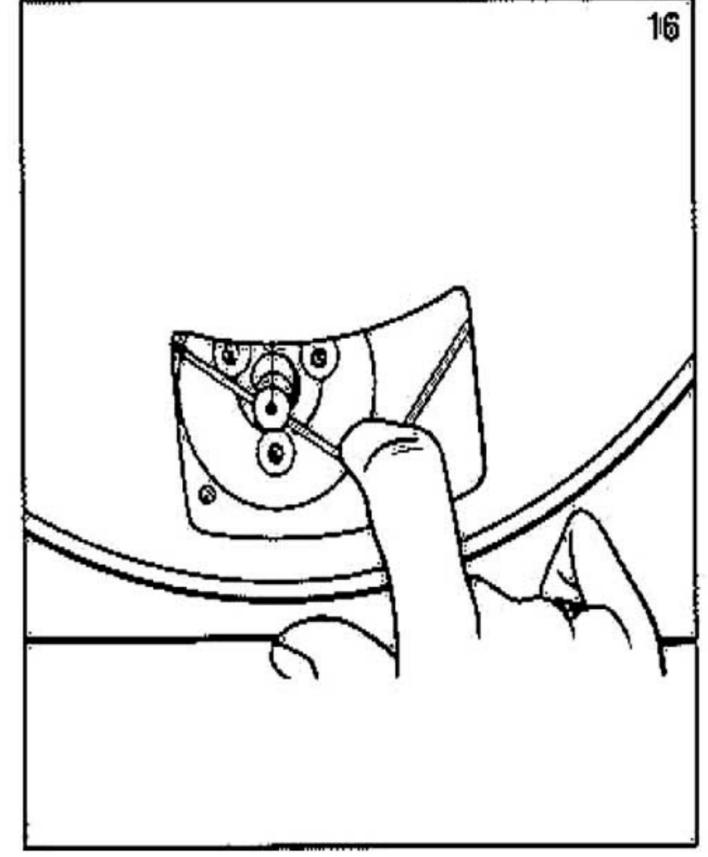
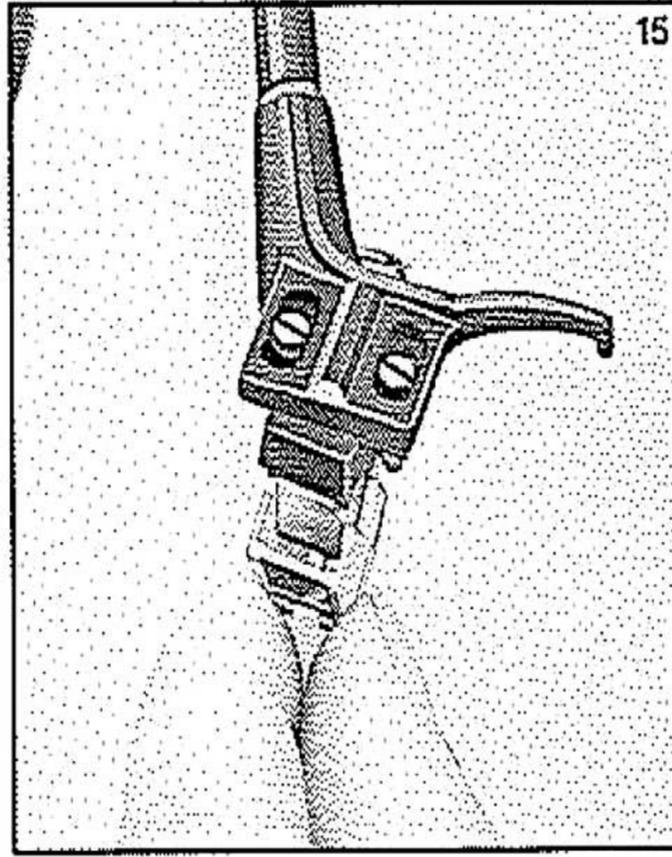
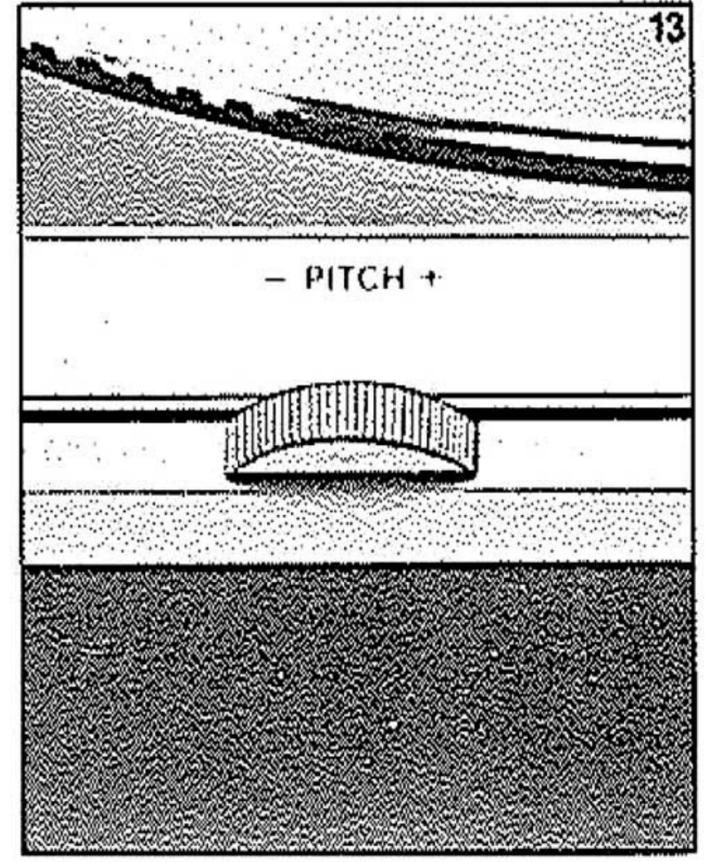
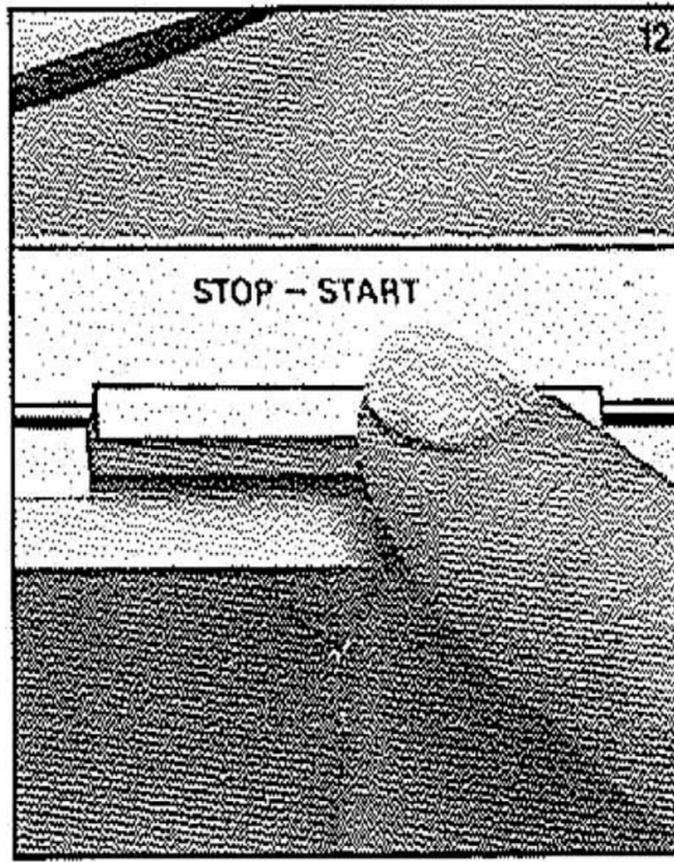
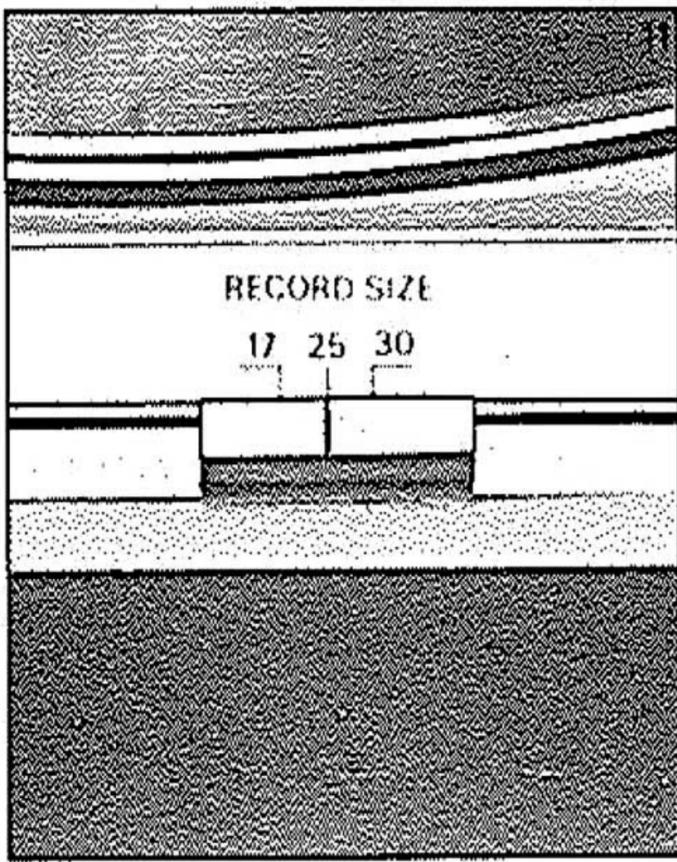


GB

Carefully read these operating instructions through page by page and you will then quickly be able to operate your machine correctly. To help you to identify all the parts of your machine mentioned, fold page 3, 4 and 5 out when reading the instructions.







PS 2500 **GB**

The PS 2500 HiFi record deck is a belt-driven unit with tachogenerator and servo-controlled DC motor.

Other advantages of the record deck are:

- controls sited at the front of the unit,
- effective damping of complete unit against impact sound,
- electronic speed selection,
- fine speed control employing illuminated stroboscope,
- hydraulically damped tonearm lift,
- anti-skating (side thrust) control,
- automatic single-record operation with auto-start, auto-stop and return.

Controls (Fig. 1)

- ① Hinge
- ② Adapter (bobby) for 45 rpm records
- ③ Record player base
- ④ Turntable spindle
- ⑤ Turntable
- ⑥ Stroboscope/switch-on control
- ⑦ Speed selector switch
- ⑧ Pitch control
- ⑨ Record-size selector
- ⑩ Start-stop button
- ⑪ Tonearm head shell
- ⑫ Space for GRUNDIG Record Brush
- ⑬ Turntable mat
- ⑭ Tonearm rest
- ⑮ Tonearm lock
- ⑯ Tonearm
- ⑰ Lift lever
- ⑱ Anti-skating control knob
- ⑲ Stylus force adjustment ring
- ⑳ Counterweight

Installation

If your dealer has assembled the record player, proceed to section headed "Operation".

Assembly

The turntable, the counterweight and the adapter (bobby) for 45 rpm records are separately packed in the carton.

To assemble proceed as follows:

1. Place the turntable on the spindle provided.
2. Stretch the drive belt over the drive spindle as shown in the diagram 2 and then remove the tape.
3. Place the mat on the turntable.
4. Now rotate the turntable about 10 turns in the clockwise direction to set the automatic mechanism of the tonearm drive in the start position.
5. Screw the counterweight onto the end of the tonearm at the back (Fig. 3).

Adjustment of the Stylus Force

The stylus force is the vertical force exerted by the stylus on the record.

Every cartridge has an optimum stylus force which is given in its technical specification.

This force must be precisely adjusted since if it is too high or too low, your records and the stylus may be damaged, or reproduction distorted.

The stylus force for the cartridge fitted is 17.5 ± 2.5 mN (approx. 1.75 ± 0.25 g).

The stylus force is adjusted as follows:

1. Remove the stylus shield.
2. Lift the tonearm off its support (Fig. 4).
3. Rotate the counterweight until the tonearm is balanced (Fig. 5).
4. Lift the tonearm onto its rest and apply the locking bracket.
5. Hold the counterweight (Fig. 6) and rotate the stylus force adjustment ring until its "0" mark coincides with the line at the rear end of the tonearm.
6. Rotate the counterweight in the direction of the arrow (Fig. 7) until the stylus force for the cartridge is reached on the scale.

Adjustment of the Anti-skating Force (Side-thrust)

The lateral skating force (side-thrust) acting on a tonearm may lead to distortion and one-sided wear of the stylus and/or record grooves. To compensate for the skating force an opposing force must be applied to the tonearm which is precisely adjusted in size and direction. This is done by the anti-skating device.

The anti-skating device has to be set to a value which corresponds to the stylus force. This is done by setting the anti-skating adjustment knob to the same value as is indicated on the stylus force adjustment ring.

Fitting the Cover

Hold both sides of the cover and fit into the two hinges from above.

Connections

Mains Connection

The standard model of the record deck is designed for 220...230 V, 50 Hz mains supply.

Additional Information for Appliances Used in Great Britain

Fit or have fitted a 13 amp 3-pin plug and fit the plug with a 3/5 amp fuse. Connect the brown wire of the mains lead to the live pin, marked "L" or "red" or "brown" and the blue wire to the neutral pin, marked "N" or "black" or "blue". On no account must either of the wires be connected to the earth pin, marked "E" or "green" or "green/yellow".

Sets sold in Great Britain are suitable for operation from a mains supply of 240 V AC.

IMPORTANT:

Disconnect from the mains supply by removing the mains plug from the wall socket when not in use for long periods.

Plug into mains socket.

Plug the connecting cable into the magnetic pickup socket of your amplifier or receiver.

(If necessary, set the "input sensitivity" switch on your amplifier or receiver to MM — moving magnet —).

Operation

Manual Playing

1. Place the record on the turntable.
2. Remove the stylus guard.
3. Disengage the tonearm locking bracket.
4. Set the speed selector switch to 33 $\frac{1}{3}$ rpm or 45 rpm depending on the record to be played (Fig. 8).
5. Set the lift lever to "up" (Fig. 9).
6. Swing the tonearm over the desired groove. The turntable will start to rotate and the stroboscope lamp will come on.
7. Set the lift lever to "down". The tonearm will be slowly lowered down onto the record and playing will begin (Fig. 10).
8. When the record has been played, the tonearm will automatically lift and return to the tonearm rest (auto return) and the turntable will stop.

Replace the stylus guard to protect the tip of the stylus against damage.

Automatic Playing

1. Set the speed selector switch in the same way as for manual playing and remove the tonearm locking bracket.
2. Set the record-size selector switch (Fig. 11) in accordance to the diameter of record to be played (17 cm = 7", 25 cm = 10", 30 cm = 12").
3. Depress the start-stop button (Fig. 12). The stroboscope lamp will come on. The tonearm will automatically swing out over the edge of the record and be slowly lowered down onto the run-in groove (auto start) so that playing will begin.
4. After the record has been played, the tonearm will automatically return to its rest (auto return).

Rejection

Depress the start-stop button. The tonearm will automatically return to its rest and the deck will switch off.

Interruption of Play

Set the lift lever to "up". The pickup head will lift off the record.

Playing 45 rpm records with large centre hole

Place the 45 rpm adapter piece (bobby) on the turntable spindle. Set the speed selector switch to 45 rpm. Set the record size selector switch to the diameter of the record to be played.

Pitch Control

The pitch of the two standard speeds 33 $\frac{1}{3}$ and 45 rpm can be varied with the pitch adjustment over a range of approximately 6% (Fig. 13).

The pitch adjustment allows the pitch to be changed by varying the playing speed, for instance, if an instrument is to be played along with a record the pitch of the record may have to be adjusted to it.

The precise adjustment of both turntable speeds can be checked by means of the illuminated stroboscope divisions on the edge of the turntable while a record is being played. The upper stroboscope divisions are for 45 rpm and the lower ones for 33 $\frac{1}{3}$ rpm. If the speed is correct, the division markings appear to be stationary. If the markings appear to move in the direction in which the turntable is rotating, the speed is too high. Turn the control in the direction marked - until the markings appear to be stationary. If, on the other hand, the markings appear to move backwards, the turntable speed is too slow and the control should be moved in the direction marked + until the markings appear stationary.

Notes and maintenance instructions

The cover and record deck base should be cleaned by wiping with a dry soft cloth. Never use cleaning agents which contain alcohol, benzine or paint thinner.

Carefully remove any dust or dirt on the stylus and records.

Dust and dirt not only impairs reproduction, but may also cause excessive record and stylus wear.

Every time the record is removed from its jacket, the record attains a static charge.

This static charge attracts dust from the air and the turntable which deposits in the fine grooves of the record. During playback, this dust is pressed into the groove walls causing further noise interference.

This static charge can be remedied with the GRUNDIG Record Brush.

Hold this brush for several turns onto the rotating record and the dust will be removed.

The brush (Fig. 14) with holder can be attached to the record player base at the right of the tone arm using a double-sided adhesive tape (Fig. 1).

The GRUNDIG Record Film is especially suited for the cleaning of dirty records.

The viscous fluid is applied directly onto the surface of the record and removed after drying using a strip of adhesive film, thus permitting gentle removal of dust particles.

Replacing the Stylus

This deck is fitted with a diamond stylus.

The life of the stylus will depend on the conditions of use, but it is advisable to replace it at the first sign of wear. The average life is about 500 operating hours.

The genuine replacement stylus for this deck is the Audio Technica ATN-71.

1. Press the stylus holder downwards and pull it out as shown in Fig. 15.
2. Insert the lug at the back of the stylus carrier into the cartridge and press the carrier upwards at the front (it will lock in position).

Removal and Installation of the Turntable (see Fig. 16)

The drive belt is stretched around the inner edge of the turntable and over the drive spindle.

Before removing the turntable, first remove the drive belt from the drive spindle.

When installing the turntable, lower it onto the spindle provided and stretch the belt over the drive spindle.

Note:

Ensure that no oil or grease gets onto the drive belt. If this should happen, first disconnect the mains plug and then clean the belt with alcohol.

Adjustment instructions

Adjustment of the Tonearm Lift

(see Figs. 17 and 18).

The tonearm lift, ie: the distance between the point of the stylus and the surface of the record with the lever in the "up" position is set to 5 - 10 mm in the factory.

If you use another type of pickup or if adjustment becomes absolutely necessary, proceed as follows:

1. Put the stylus guard on to protect the tip of the stylus from damage.
Swing the tonearm out towards the turntable spindle.
2. Rotate the adjusting screw clockwise or counterclockwise while pressing the tonearm lift guide down.

Clockwise rotation

— height decreases.

Counterclockwise rotation

— height increases.

Note:

Since the adjustment screw with its hexagonal head engages in the lift guide, the guide must be pressed down during adjustment so that the screw can be turned.

Adjusting the Tonearm Automatic Set-down Point (see Fig. 19a)

(Remove rubber cap).

If the set-down point is outside the record

— rotate clockwise.

If the set-down point is within the playing area of the record

— rotate counterclockwise.

Adjustment of Automatic Switch-off Point (see Fig. 19b)

(Remove turntable mat).

If the tonearm returns too early

— rotate clockwise.

If the tonearm does not return after the run-out groove is reached

— rotate counterclockwise.

Specification

General Data

Power supply: 220 - 230 V \pm 10%, 50 Hz

Power consumption: 3 W

Dimensions (W x H x D): 450 x 128.5 x 372 mm

Weight: 4.6 kg

Record deck

Type: Automatic record deck with Automatic start, Automatic return, Automatic stop

Drive: Belt-drive

Motor: Servo-controlled DC motor

Turntable: Cast aluminium, Diameter 31.7 cm

Turntable speeds: 33 $\frac{1}{3}$ and 45 rpm

Stylus pressure adjustment range: 0 - 40 mN \approx 0 - 4 g

Wow-and-flutter: \pm 0.07% peak DIN B

Rumble noise ratio: -70 dB DIN B

Cartridge

Model: Audio Technica AT-71

Type: Moving-magnet

Frequency response: 20 Hz - 22 kHz \pm 2 dB

Channel separation: 23 dB at 1 kHz

Channel difference: < 2 dB at 1 kHz

Compliance (dynamic): 5×10^{-6} cm/dyn at 100 Hz

Stylus force: 17.5 \pm 2.5 mN (1.75 \pm 0.25 g)

Impedance: 47 k Ω || 100 pF

Replacement stylus: ATN-71

Subject to alteration without prior notice.

The specified weights and dimensions are approximate.