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Technics

QUARTZ Direct Drive
Fully Automatic Turntable System

SL-QL5

Operating Instructions

TAP is the standard mark for the "P-mount" plug-in-connector system. Products carrying this mark are interchangeable and compatible with each other.

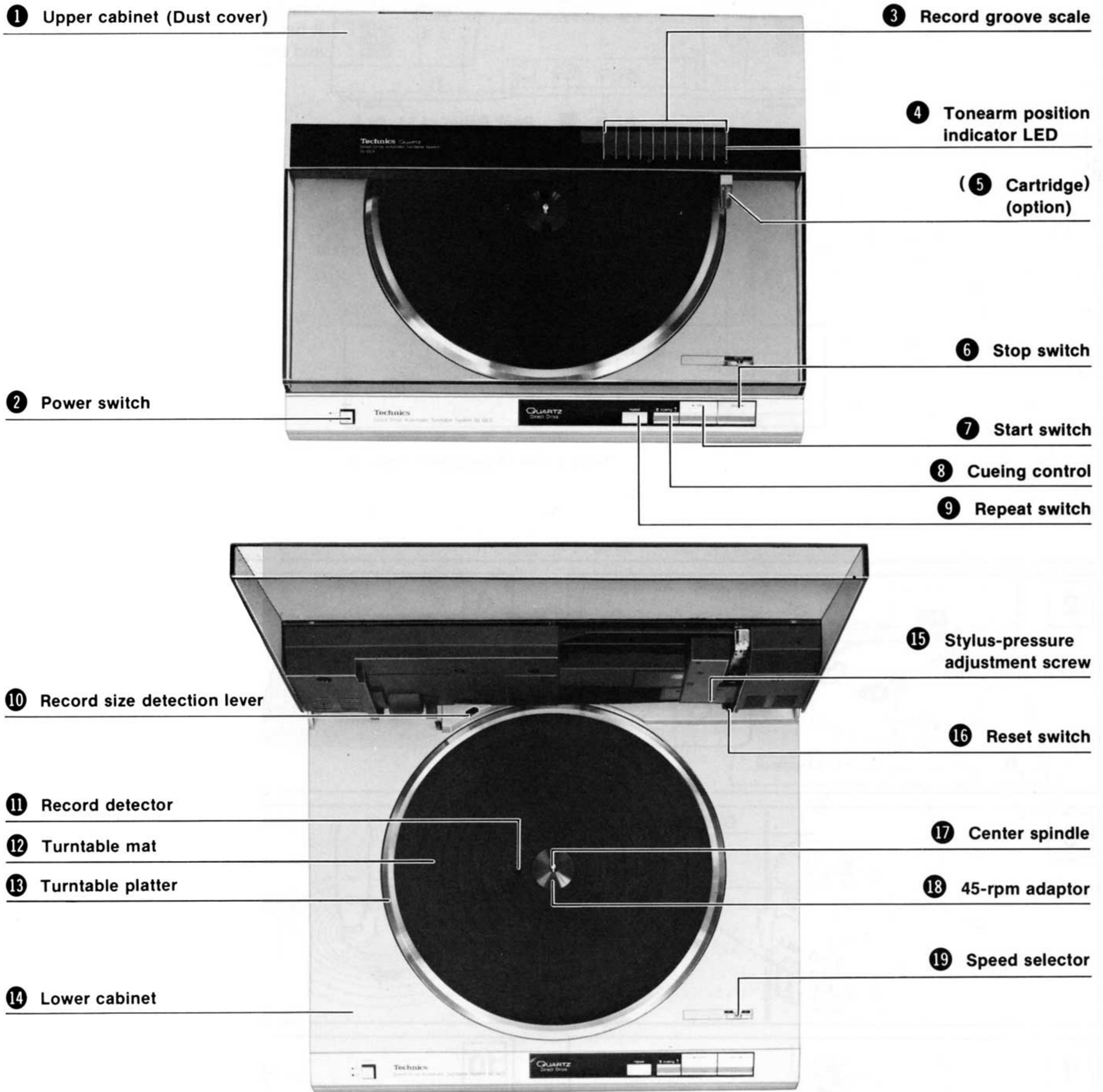


The model number of this product may be found on the back of the unit, and the serial number on the bottom of the unit. Please note the model and serial numbers of this unit in the space provided below and retain this booklet as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER **SL-QL5**

SERIAL NUMBER _____

Parts identification



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

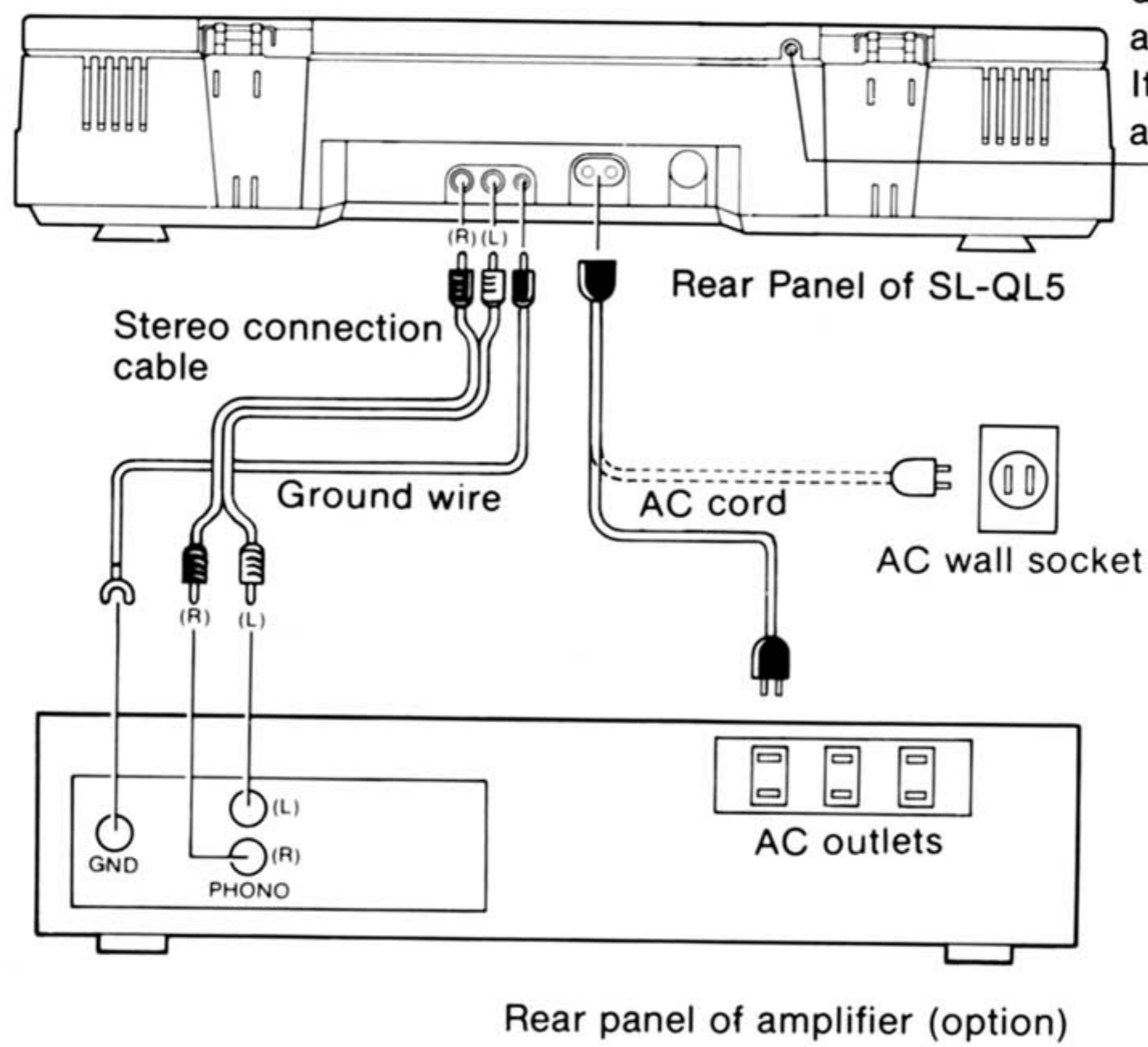


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



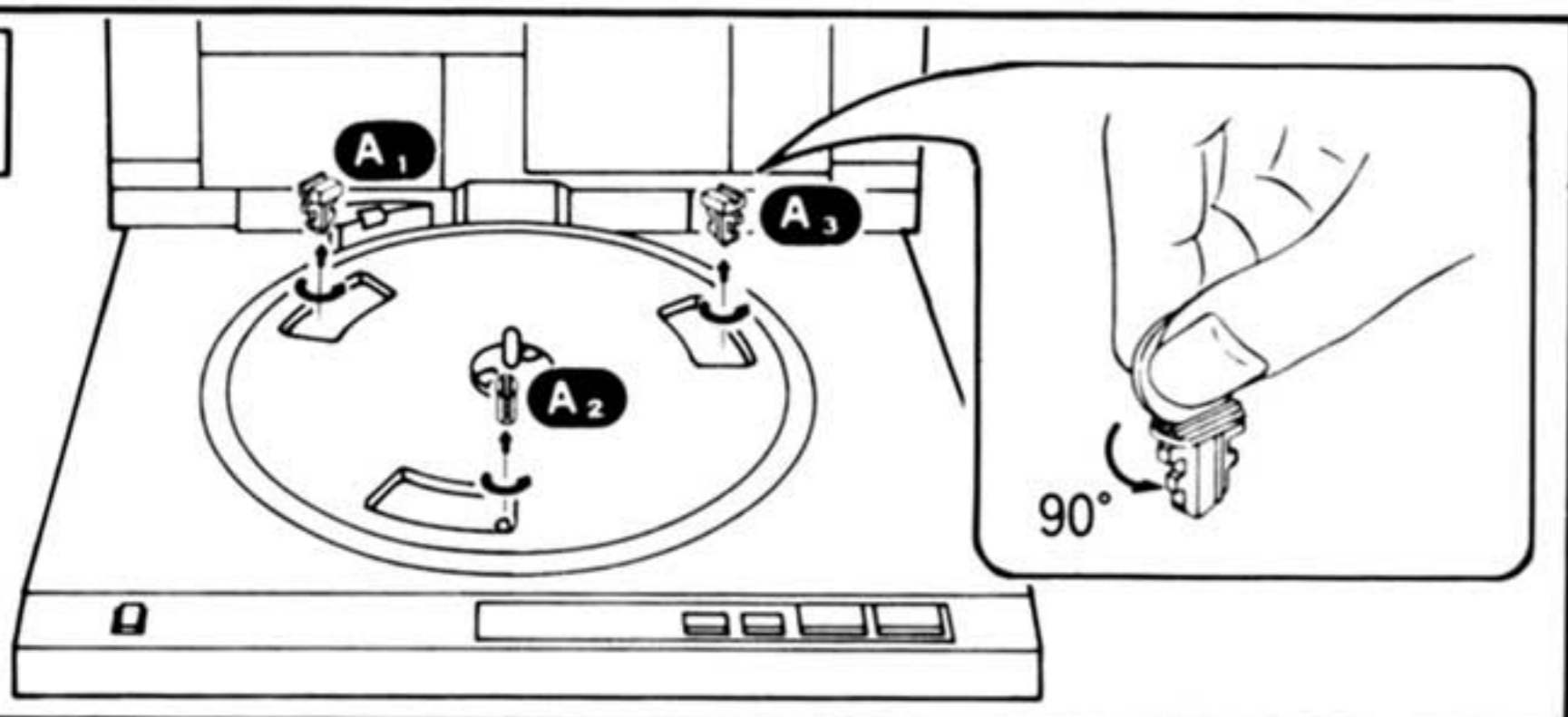
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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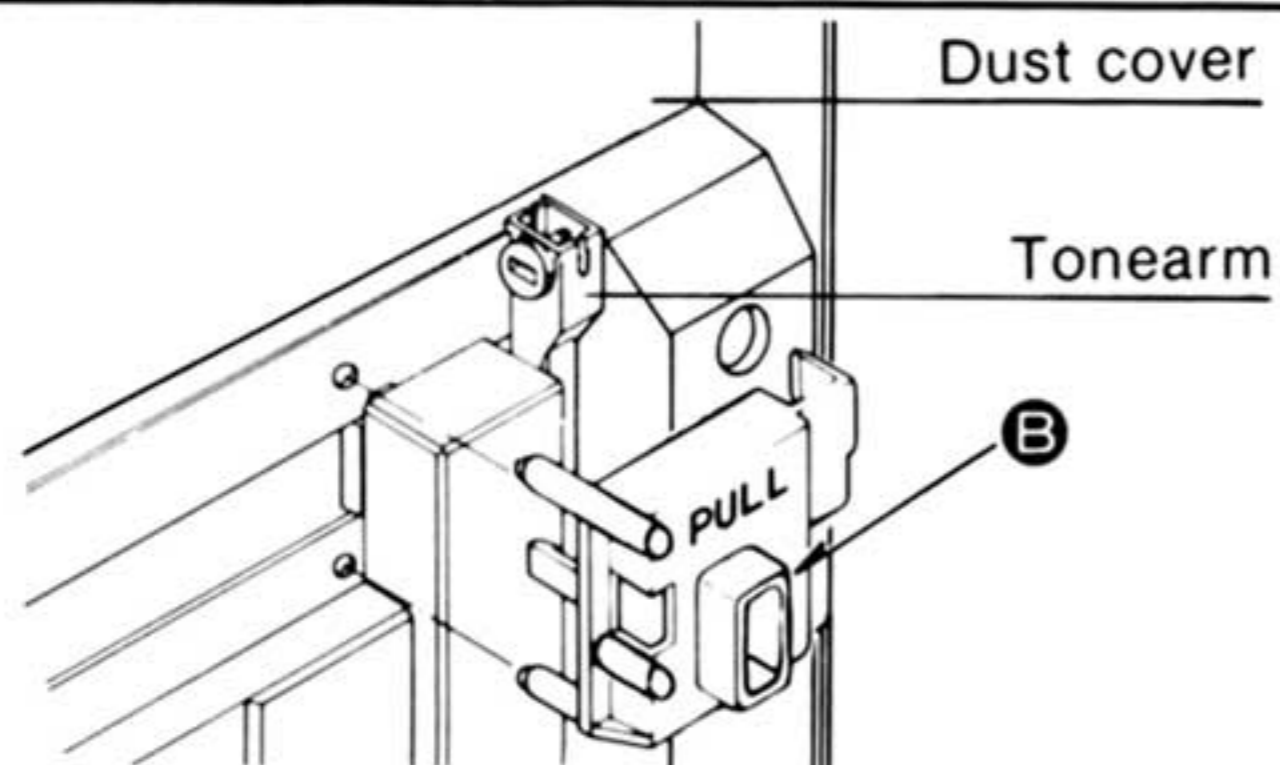


This screw adjusts the stylus set down position at the beginning of a record. It has been preset at the factory and should not require readjustment.

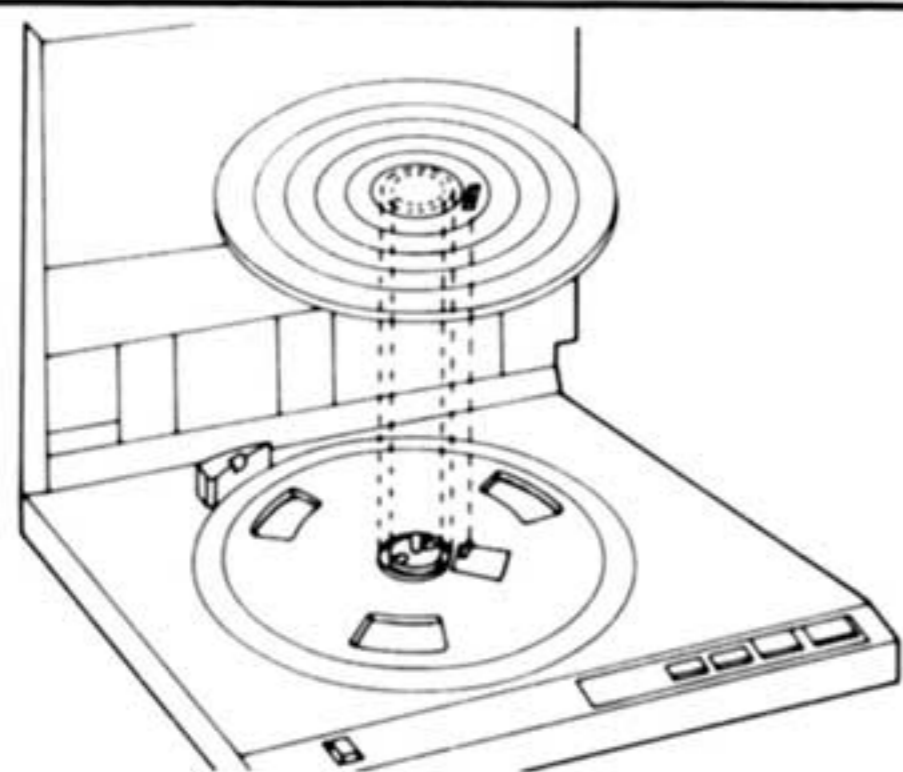
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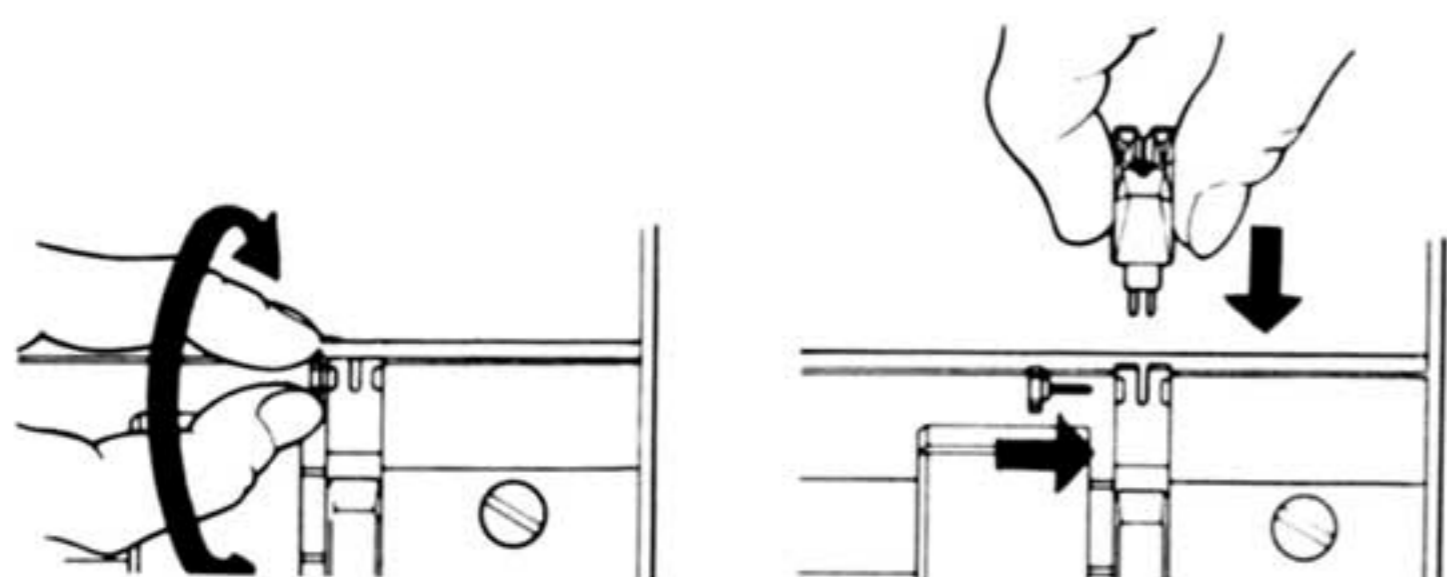
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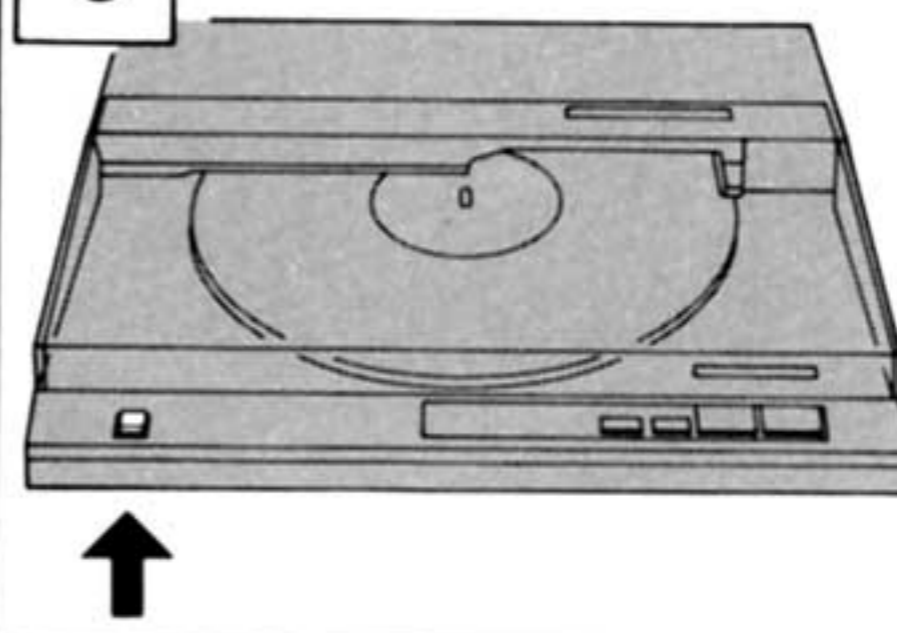
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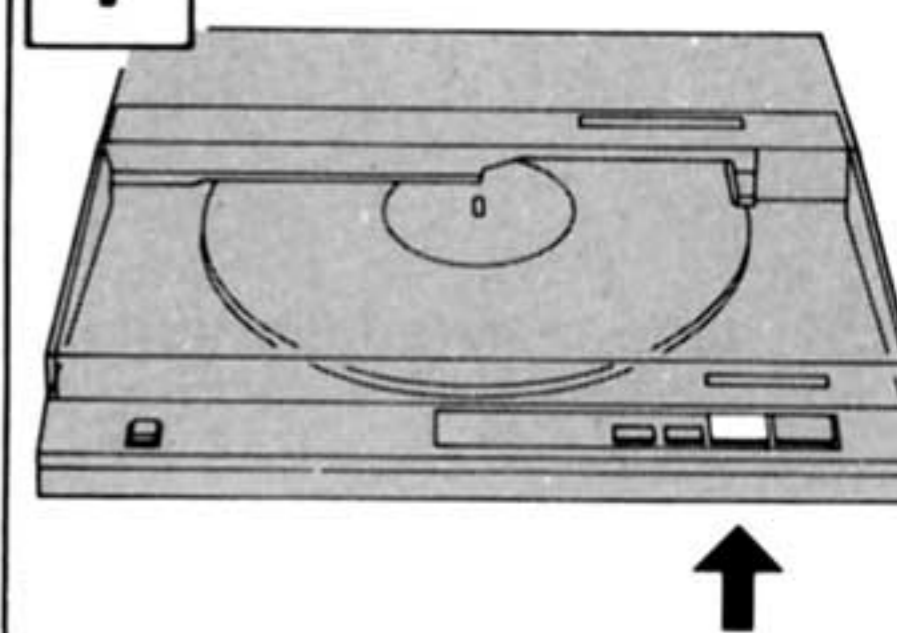
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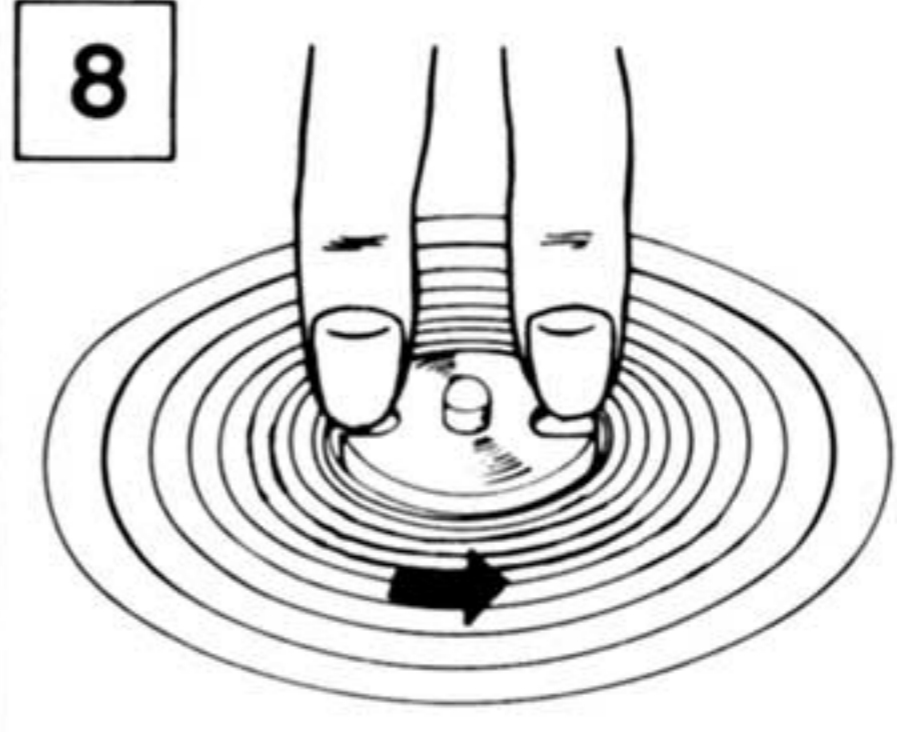
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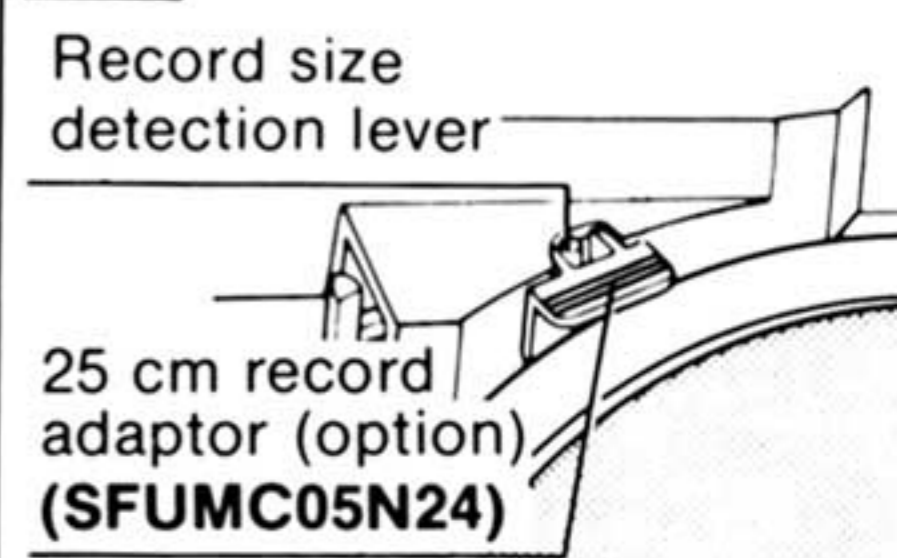
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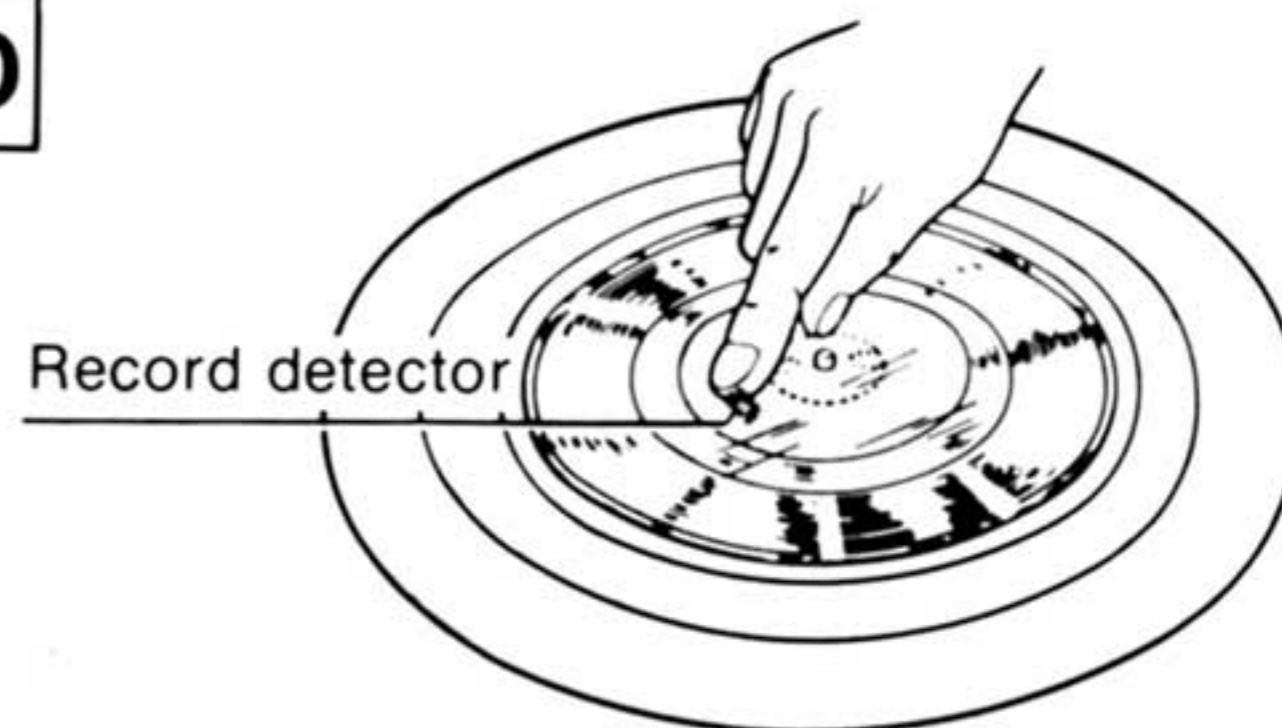
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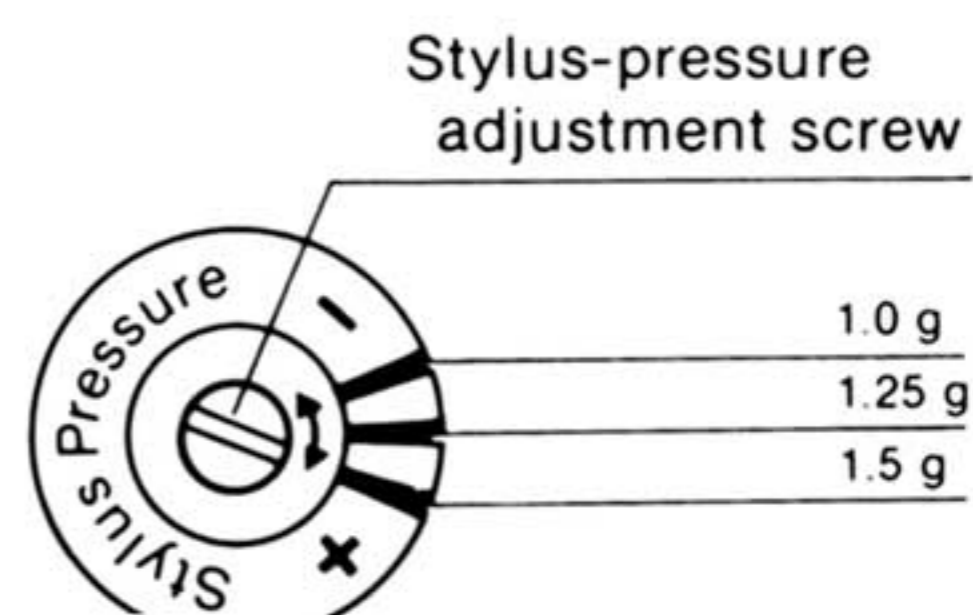
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We want to thank you for selecting the SL-QL5.

For optimum performance, we recommend that you read these instructions carefully.

Dear Stereo Fan

Technics. The science of sound. Our name represents over 100 high quality audio products, in every price range.

From our revolutionary direct drive turntables to our highly acclaimed linear phase speakers, Technics quality and value have become almost legendary among audio enthusiasts.

Our truly complete selection of turntables (including belt-drive and quartz-locked, direct-drive models with varying degrees of automation) now includes an exciting line of linear tracking turntables with zero tracking error. Another innovation, direct drive cassette decks, is available in both slim and micro formats. In fact, with Technics micro series, you can assemble an entire system of the highest quality with truly compact dimensions.

Features like our new computer-drive new class-A amplification and quartz-synthesizer tuning have created tremendous excitement among reviewers and customers alike.

Amplifiers, tuners, headphones, microphones, cartridges, open reel decks, sound processors—we are proud of all our high quality equipment and we are constantly seeking to improve our products, in terms of performance and handling ease. In addition, our confidence in the reliability of our merchandise (demonstrated by our warranties) and the reasons for our enormous and rapid growth become obvious.

■ Checklist of Parts

Turntable unit	1
Turntable mat	1
AC power cord	1
Stereo connection cable	1
Ground wire	1

Do not stand this unit on its side or turn it upside down when making connections as the turntable mat could come loose. Make all connections to this unit before removing the packing materials.

Connections

Use the stereo connection cable to connect the turntable to your amplifier or receiver. Be sure that the white plugs are connected to the left channel jacks and the red plugs are connected to the right channel jacks. Plug the ground wire into the turntable's ground jack and connect the wire's spade lug to the amplifier or receiver's ground (GND) screw. Regarding the AC power cord, plug the female end into the turntable AC jack and plug the other end into an AC wall socket. (Fig. 1)

Note that hum may occur if you neglect to connect the ground earth wire.

Set-up

In order to avoid damage due to vibration or shock incurred during shipment, this unit is packed with protective materials **A** and **B**. Be sure to remove these before use. Keep these materials for reuse should it become necessary to transport the turntable again.

1. Remove turntable spacers **A₁~A₃**. (Fig. 2)
2. Pull off the tonearm protection spacer **B**. (Fig. 3)
3. Place the turntable mat on the platter. (Fig. 4)

The mat has an opening which must be lined up with the raised section (the record detector) of the platter.

■ Installation of cartridge

(An example of cartridge installation is shown in Fig. 5)

Plug-in cartridges are now available from Technics and many other of the world's top cartridge manufacturers. All compatible cartridges are identified by the **TAP** mark. These cartridges are designed for perfect matching with this turntable in all areas including weight, tracking force, stylus tip position, and center of gravity. The plug-in cartridge design eliminates the trouble of lead wire connections and tracking force adjustments.

When installing a cartridge, follow the instructions that came with the cartridge.

1. Remove the cartridge set screw, and insert a cartridge firmly into place.
2. Tighten the set screw.

Placement

- Place the unit in a stable and horizontal position where there is little or no vibration.
- Place the unit away from the speakers so that it will be subject to as little direct sound radiation as possible.
- Do not use or store this unit where it will be exposed to dust, dirt, high humidity or high temperature. Do not place it near heaters.
- Place it in a well ventilated location.
- Do not use under direct sunlight, spotlights, or other extremely bright light sources.
- Do not place it near or on top of a power amplifier, since power amplifiers radiate much heat.
- Place the turntable away from the power amplifier to prevent hum.
Hum may be caused by leakage flux from the transformer in the power amplifier (or integrated amplifier). Therefore, if you notice hum, try moving the turntable to a slightly different location, further away from the amplifier.
- If you try to listen to a radio near the turntable while it is turning, you may hear some interference.

Functions

- **To help you to identify all parts of this unit, leave page 3 folded out when you read this page.**

① Upper cabinet (Dust cover):

(Contains tonearm drive mechanism.)

Must be closed during play.

② Power switch:

off: This symbol indicates the “**stand-by**” mode. Power is still supplied to the turntable but not to the circuits.

on: This symbol indicates “**on**”. Push to switch the unit on. Push again to switch the unit to the stand-by mode.

③ Record groove scale:

This scale is graduated in 1 mm indications.

Useful for judging tonearm position.

④ Tonearm position indicator LED:

When the power switch is turned on, the tonearm LED will light up. LED position corresponds to stylus position on the record surface.

⑤ (Cartridge):

The cartridge shown here is an option.

⑥ Stop switch:

For stopping play (reject) and outward cueing.

When you press the stop switch (for less than one second), the tonearm automatically returns to the start position. (auto-return)

If you keep the switch pressed (for more than one second), the tonearm will move outward toward the edge of the record.

If you press the cueing control to raise the tonearm, and then press the stop switch intermittently, the arm will move outward in approximately 1 mm steps.

⑦ Start switch:

For beginning play (auto-start, auto-lead-in) and inward cueing.

When you press the start switch, the tonearm automatically moves to the record's lead-in groove and starts playing. (auto-start, auto-lead-in)

If this switch is pressed during play, the tonearm will return to the start position and begin playing it over again.

If you keep the switch pressed, the tonearm moves inward toward the center of the record.

The tonearm will not move when you press the start switch if there is no record on the platter.

⑧ Cueing control:

For interrupting play

Pressing the cueing control during play causes the tonearm to rise off the record. To resume play, press the control again. A muting circuit cuts out noise when the stylus initially contacts or leaves the record surface.

⑨ Repeat switch:

For repeat play

When you press the repeat switch, an LED lights up and the record is played repeatedly from beginning to end.

When you want to stop this cycle, merely press the repeat switch again.

Pressing the stop switch will cause the tonearm to rise and return to the start position; it will also stop repeat operation.

⑩ Record size detection lever:

Do not touch. This lever operates automatically to detect record size (30 cm, 17 cm).

⑪ Record detector

⑫ Turntable mat:

Do not use any turntable mat except the one supplied.

⑬ Turntable platter

⑭ Lower cabinet

⑮ Stylus-pressure adjustment screw

⑯ Reset switch

This switch automatically returns the tonearm to the start position if the upper cabinet is opened during play. Therefore, this switch is not meant to be operated by hand.

⑰ Center spindle

⑱ 45-rpm adaptor:

For 45 rpm EPs

Press down lightly on the adaptor while turning counter-clockwise and the adaptor will pop up ready for use.

After use, press down and turn clockwise.

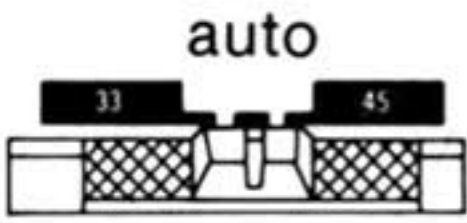
⑲ Speed selector:

In the case of small size 33-1/3 records or larger size 45s set this selector to the appropriate speed.

Operation

- To help you to identify all parts of this unit, leave page 3 folded out when you read pages 6, 7 and 8.

Operation	Effect	Notes
■ Auto-play		
<p>① Open the upper cabinet gently.</p> <p>② Place a record on the turntable mat.</p> <p>③ Set the speed selector to the auto position.</p> <p>④ Close the cabinet gently.</p> <p>⑤ Press the power switch to the on (⏻) position. (Fig. 6)</p> <p>⑥ Press the start switch. (for less than 1 second) (Fig. 7)</p> <p>⑦ After the tonearm returns to the start position, press the power switch to turn off the unit (⏻).</p>	<ul style="list-style-type: none"> • The tonearm automatically selects the record size and speed (for 30 cm and 17 cm records only) and begins record play. • At the end of the record the tonearm rises and automatically returns to the start position. 	<ul style="list-style-type: none"> • Do not press controls until upper cabinet is closed. • For proper operation, wait about two seconds after pressing the power switch before pressing any of the other switches. (This assures dependable and accurate operation.) • If no record is on the platter, it will stop after a few rotations and a clicking noise will be heard, indicating that there is no record; the tonearm does not move in this case. • If you press the start switch for less than one second while a record is being played, the tonearm returns to the lead-in groove and begins playing the record again. The LED of the repeat switch flashes on and off to indicate that this is happening. • If the cabinet is opened during play, the tonearm returns to the start position. (When this occurs, the record size detection lever will make a noise as it touches the record; this does not indicate a malfunction.) • If the power switch is turned off during play, the tonearm rises above the record and stays at that position. Then when the unit is turned on again, the tonearm will return to the start position.
■ Search		
<p>(Moving the tonearm inward and outward)</p> <ul style="list-style-type: none"> • If you press the start switch or stop switch continuously (for more than 2 seconds)... • If you then press intermittently (after pressing continuously for more than 1 second)... • When you stop pressing... • Press the cueing control. 	<ul style="list-style-type: none"> • The tonearm will rise above the record surface and moves slowly inward or outward for about 1 second, and then move faster. • The tonearm will move inward or outward in small steps. • The tonearm will stop. • The tonearm will descend onto the record surface and begin playing the record. 	<ul style="list-style-type: none"> • Note that operation depends on how these switches are pressed. • If the start switch is pressed for less than 1 second, play begins. If the stop switch is pressed for less than 1 second, all functions are cancelled. • The search function can only be used to move the tonearm between the innermost and outermost (lead-in) grooves of the record being played. Therefore, search cannot be used to return the tonearm to the start position when a 17 cm record is on the platter. To return the tonearm to the start position, first press the cueing control to lower the tonearm onto the record. Then press the stop switch for less than 1 second.

Operation	Effect	Notes
Repeat play		
Follow steps ① through ⑤ in "Auto-play operation" section. ⑥ Press the repeat switch. ⑦ Press the start switch.	<ul style="list-style-type: none"> The repeat indicator LED will light up and the record will be played repeatedly. Repeat play will continue until the repeat switch is pressed again. 	<ul style="list-style-type: none"> The repeat switch may be pressed before or during play.
Playing 45-rpm EPs (large center-hole)		
<ul style="list-style-type: none"> Press lightly on the adaptor and turn counterclockwise. (Fig. 8) 	<ul style="list-style-type: none"> The adaptor will pop up. Speed and size selection are automatic so operate the turntable as usual, referring to the operating instructions as necessary. 	
Playing 45-rpm LPs and 33-1/3-rpm singles (17 cm)		
<ul style="list-style-type: none"> Set the speed selector to the correct position (33 or 45). 	<ul style="list-style-type: none"> In this case, speed is not selected automatically. However, record size is still detected automatically, so operate the turntable as usual, referring to the operating instructions as necessary. 	<ul style="list-style-type: none"> Remember to set the selector to the "auto" position after playing non-standard records. Otherwise, other records will also be played at the manually selected speed and automatic speed selection will not take place.
Temporary interruption of play		
<ul style="list-style-type: none"> Press the cueing control to interrupt play. Press again to resume play. 	<ul style="list-style-type: none"> The tonearm will rise above the record surface. The tonearm will be lowered back onto the record surface. 	
Stopping play		
<ul style="list-style-type: none"> Press the stop switch (for less than 1 second). 	<ul style="list-style-type: none"> The tonearm will rise and return to the start position and the turntable will stop. 	<ul style="list-style-type: none"> Pressing the stop switch will only cause play to stop if the switch is pressed for less than 1 second during play (when the stylus is in the grooves). Otherwise (when the tonearm is above the record surface), search operation will take place.

- The turntable may not perform as expected when playing the following kinds of records. This does not mean that there is anything wrong with the turntable. In such cases, follow the directions below.

Record	Operation	Notes
<ul style="list-style-type: none"> 25 cm records. 17 cm records that do not meet the industry standard dimensions. (Too big) 	<ol style="list-style-type: none"> Use an optional adaptor for 25 cm records (SFUMC05N24), as shown in the illustration (Fig. 9), hold the record size detector in place (so it doesn't move), and put on the desired record. Hold down the start switch so that the tonearm moves over to a position above the desired record's lead-in grooves. Push the cueing control. Speed will be set to 33 rpm automatically. 	<ul style="list-style-type: none"> This adaptor makes the turntable operate as if it were playing a 30 cm record. Therefore, if you simply press the start switch, the tonearm will set down on the empty part of the platter. You must keep the start switch held down until the tonearm moves over to a position above the lead-in grooves of your record, then press the cueing control to begin play. Be sure to remove the adaptor when playing ordinary records.
<ul style="list-style-type: none"> 17 cm records that do not meet the industry standard dimensions. (Too small) 	Use the search (manual) function to move the tonearm to the desired position, then press the cueing control. Speed will be set to 45 rpm automatically.	<ul style="list-style-type: none"> Repeat play is not possible for 25 cm records or records that do not meet the industry standard dimensions because size is not automatically detected.
<ul style="list-style-type: none"> Light, thin or badly warped records. 	<ol style="list-style-type: none"> Ensure record detector is activated by pressing record down on to turntable. (Fig. 10) If the record detector is not pushed down, the platter will stop after a few rotations. The tonearm will not move. Operate according to the directions in the auto-play section. 	<ul style="list-style-type: none"> Set the speed selector to 33 or 45 depending on the correct speed for the record in question. In some cases it is not possible to play records that do not meet the industry standard dimensions.

Notes and maintenance

- **Auto-return operation will not function if you press the power switch while a record is being played.**

The tonearm will rise above the record surface but stay where it is.
Therefore, if you then press the switch again to turn it on, the tonearm will go back to the start position.
- **Be sure to remove all dirt and dust from the stylus tip and the record.**

The cartridge stylus is an extremely delicate and precisely manufactured device designed for picking up the subtle nuances of the record grooves. Therefore, be very careful not to touch it, push on it, or apply excessive force in any way.
The stylus tip cannot retain proper groove contact when it is dirty. This causes bad sound reproduction and excess wear on the stylus tip and grooves. Therefore, use a brush to remove dust and dirt by brushing upward.
Also, use a good record cleaner to remove dust and dirt from the grooves.
- **Wipe the cabinet with a soft, dry cloth.**

Never use volatile cleaners such as alcohol, benzine or thinner.
Do not use chemically treated dust cloths. Do not expose the panel to insecticide spray.
To remove stubborn spots, first pull out the AC plug.
Then wipe the cabinet with a soft cloth slightly moistened with a mild soap and water solution.
Do not wipe the upper cabinet during play, or the tonearm may be attracted toward the upper cabinet due to the generation of static electricity.
- **Open the upper cabinet gently.**
- **Always close the upper cabinet completely.**

If the upper cabinet is not completely closed, the stylus cannot contact the grooves properly and turntable will not operate correctly.
Check again before starting play.
- **Adjust the stylus pressure in the following cases.**

Stylus pressure is normally set to 1.25 g but may be raised or lowered by ± 0.25 g.
It may be necessary to increase stylus pressure when playing records cut at high levels, or when room temperature is low, or when the unit easily picks up external vibrations. This will help prevent distortion and groove-skipping.
In such cases, turn the screw clockwise (+), as indicated in the illustration. **(Fig. 11)**
Note:
Do not turn the stylus-pressure adjustment screw further than the set limits (1.5 g~1.0 g).
- **Unplug from AC outlet if unit will not be used for an extended period of time.**

Suggestions for safety

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

1. **Avoid places where there is water or humidity.**

Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.
2. **Do not allow water or any foreign object to get inside this unit.**

Do not place small metal objects or anything containing liquid on or near the unit.
3. **Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.**

Do not place this unit in a bookcase or between cabinets, unless proper ventilation is provided, or where curtains or furniture may obstruct the ventilation holes.
4. **Place this unit away from heat-emitting appliances.**

Never place this unit on or near a radiator, heat register, stove, or any other heat-emitting equipment (including amplifiers).
5. **Placement**

Place the unit on a stable, vibration-free, level shelf or stand.
6. **Use of a cart or stand.**

When deciding on a cart or stand, be sure to use only with the cart or stand recommended by the manufacturer.
7. **Wall or ceiling installation.**

If the unit is to be mounted on a wall or ceiling, be sure to do so only as recommended by the manufacturer.
8. **Check the voltage rating of this unit before connecting the unit to a power source.**

Be sure to connect the unit only to the type of power source indicated in the operating instructions, or as indicated on the unit itself.
9. **Care of the power cord and plug.**

Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed or frayed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.
10. **If the unit will not be used for an extended period of time:**

Be sure to disconnect the power cord from the wall outlet.
11. **Maintenance**

Refer to the operating instructions for details.
12. **Never attempt repairs yourself:**
 - (a) If the power cord or plug is damaged.
 - (b) If a foreign object has fallen or liquid has spilled into it.
 - (c) If the unit is exposed to rain.
 - (d) If the unit does not function normally, or if operation shows a distinct change in performance.
 - (e) If the unit has been dropped and the cabinet or chassis are damaged. . . etc.

Unplug the power cord and have it checked by a qualified technician (or the dealer from whom the unit was purchased or the nearest servicenter).
13. **Repairs**

Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest servicenter).

Quick Reference Chart for Start and Stop Operation

Switch pressed Cueing up/down	Start Switch				Stop Switch			
	Pressed momentarily (less than one second)	Pressed intermittently	Pressed continuously		Pressed momentarily (less than one second)	Pressed intermittently	Pressed continuously	
			(about 1 second)	(more than 2 seconds)			(about 1 second)	(more than 2 seconds)
Cueing up (▼)	————	Tonearm moves inward in small steps.	Tonearm moves inward.	Moves faster.	————	Tonearm moves outward in small steps.	Tonearm moves outward.	Moves faster.
Cueing down (▲)	Tonearm rises and returns to start position and begins play again.	————	Tonearm rises and moves inward.	Tonearm rises and moves faster.	Auto-return (reject)	————	Tonearm rises and moves outward.	Tonearm rises and moves faster.

Specifications

■ General

Power supply:	120 V AC, 60 Hz
Power consumption:	10W
Dimensions: (W×H×D)	43 × 8.8 × 35 cm (16-59/64" × 3-1/2" × 13-25/32") 43 × 38.5 × 35 cm (16-59/64" × 15-23/64" × 13-25/32") (Maximum height when dust cover is open.)
Weight:	5.1 kg (11.2lb.)

■ Turntable section

Type:	Direct drive Fully automatic turntable
Features:	Auto start/Auto lead-in Auto return Auto stop Repeat play Auto speed select Manual speed selection possible Auto size select Record presence detection
Drive method:	Direct drive
Motor:	Brushless DC motor
Drive control method:	Quartz-phase-locked control
Turntable platter:	Aluminum die-cast Diameter 30 cm (12")
Turntable speeds:	33-1/3 rpm and 45 rpm Auto speed select (Manual selection possible)
Wow and flutter:	0.012% WRMS* 0.025% WRMS (JIS C5521) ±0.035% peak (IEC 98A Weighted)

* Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble:	-56 dB (IEC 98A Unweighted) -78 dB (IEC 98A Weighted)
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■ Tonearm section

Type:	Dynamic balanced type Linear tracking tonearm 4-pivot gimbal suspension
Effective length:	10.5 cm (4-1/8")
Tracking error angle:	Within ±0.1°
Effective mass:	9 g (including cartridge)
Resonance frequency:	12 Hz
Tonearm drive motor:	DC motor
Phono cable capacitance:	150 pF

Specifications subject to change without notice.
Weight and dimensions shown are approximate.

CAUTION

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.

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