The home of the turntable

THE VINYL ENGINE®

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Technics

QUARTZ Direct Drive Turntable

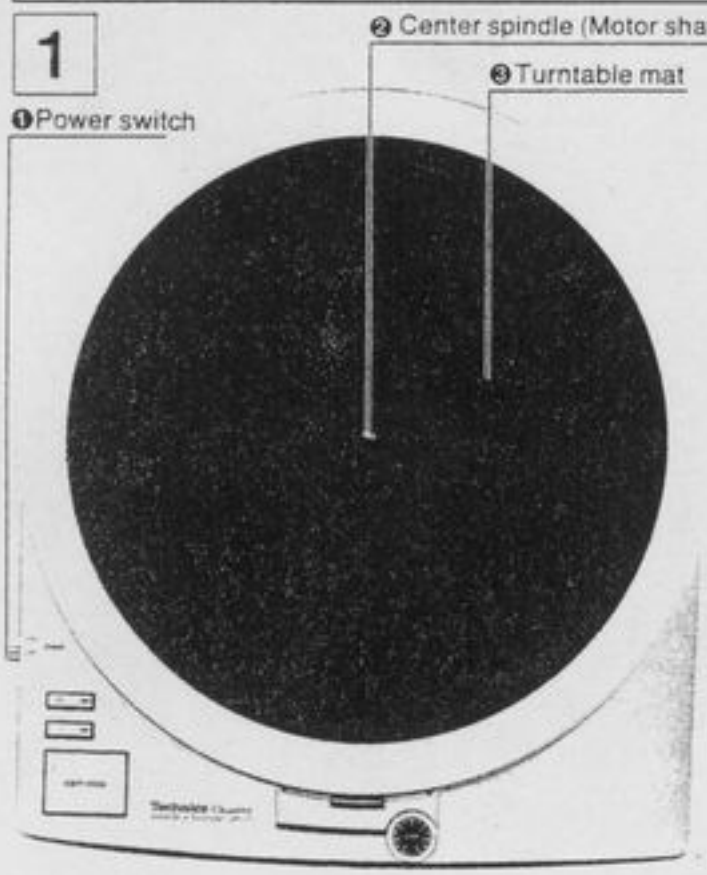
SP-25

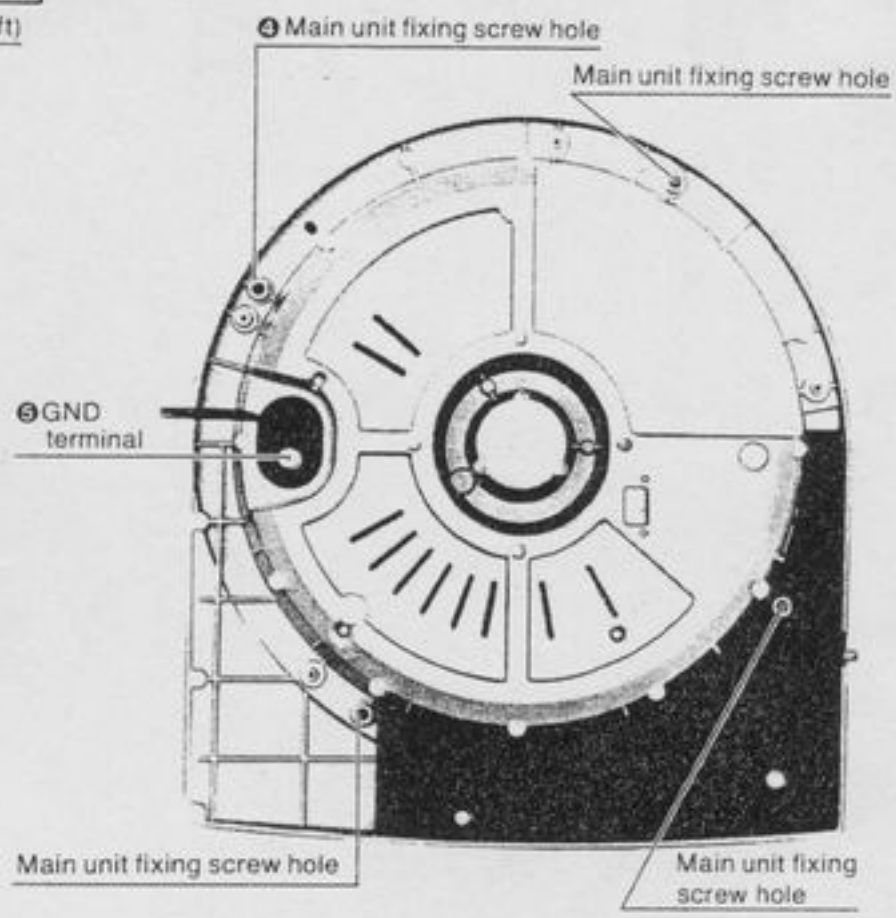
Operating instructions

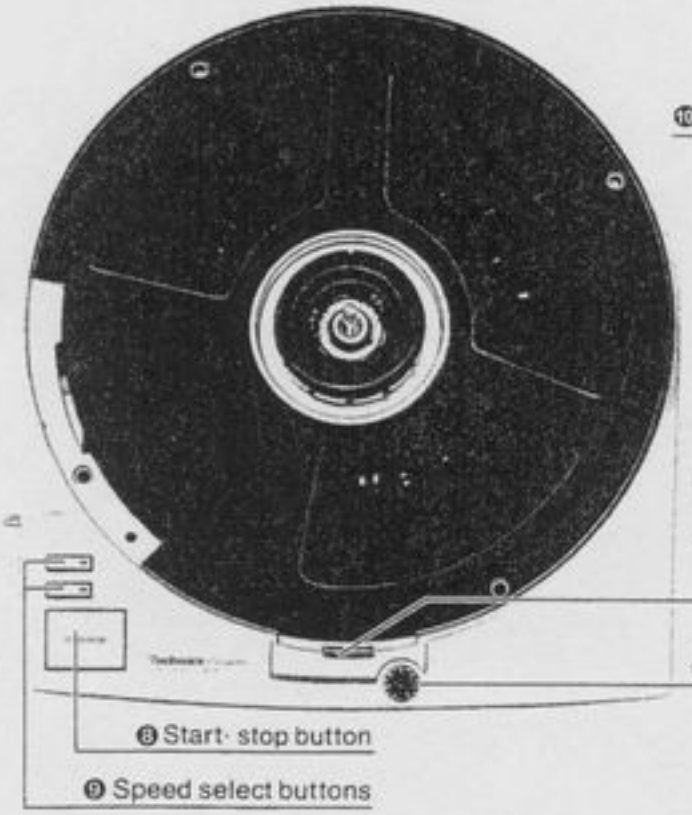
Before operating this set, please read these instructions completely.

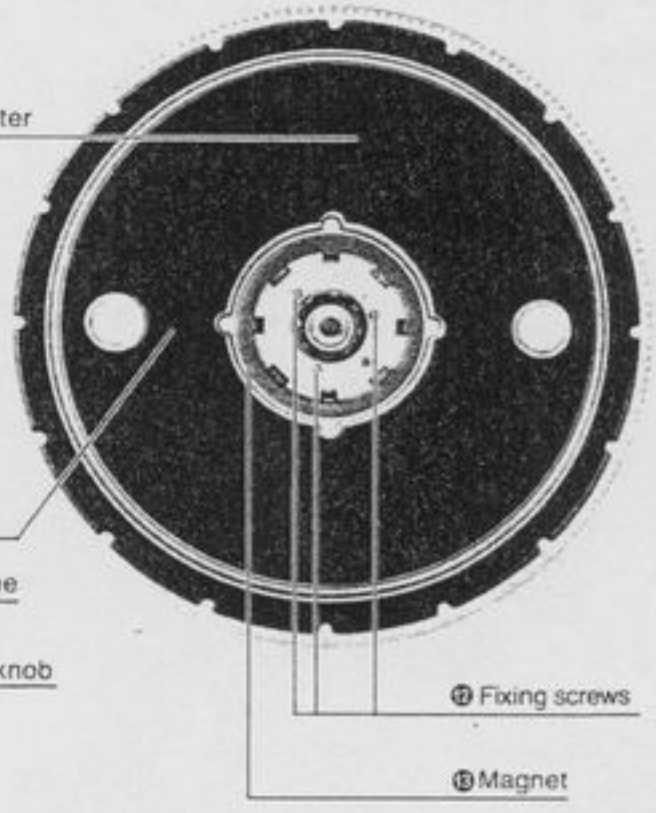
Parts identification

1









Before use

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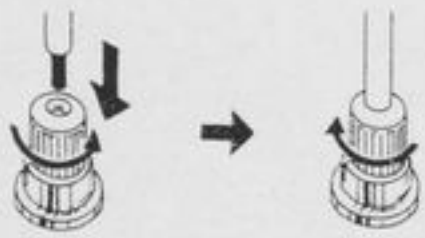

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Assembly and set-up

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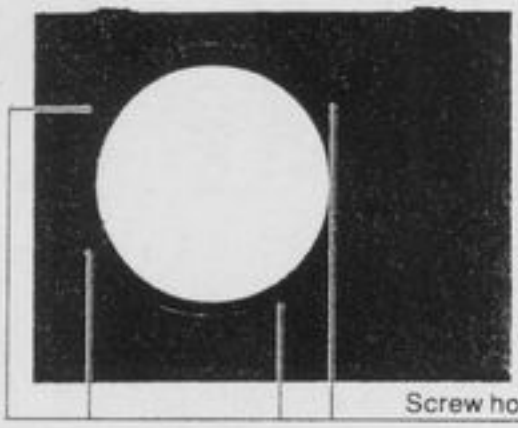

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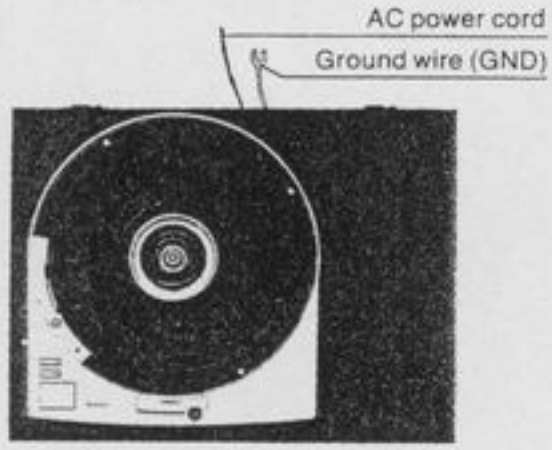

Connections

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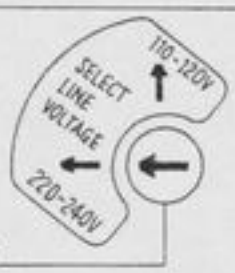

AC line-voltage selector

How to operate

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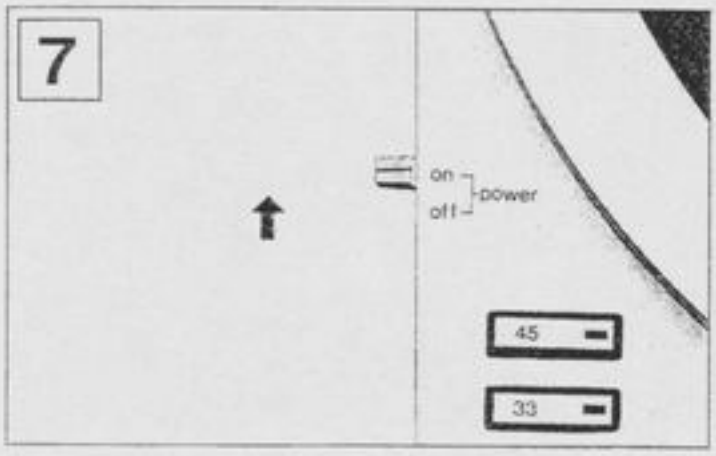

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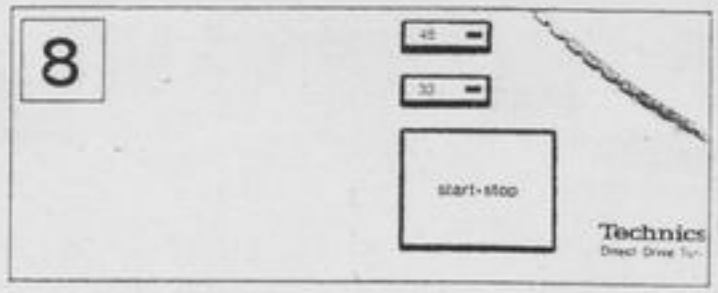

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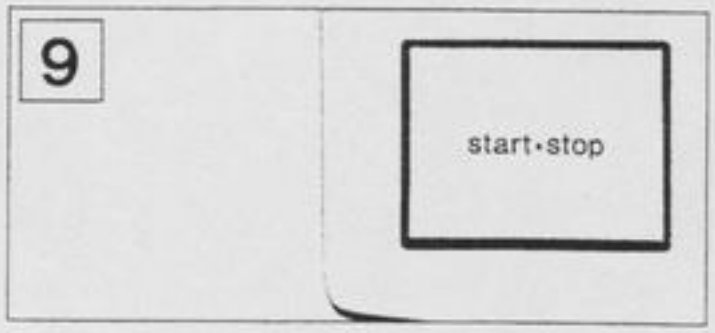

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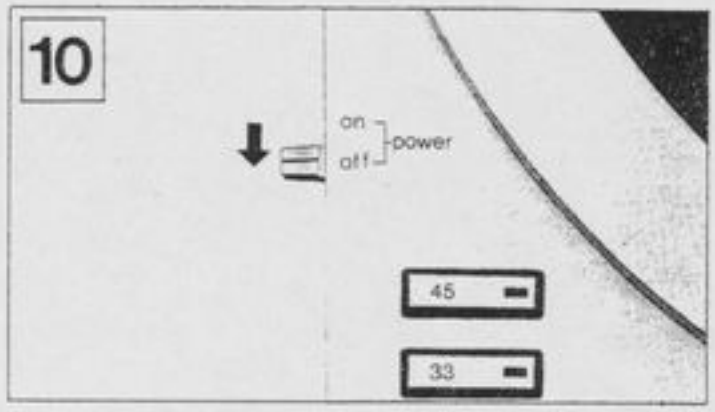

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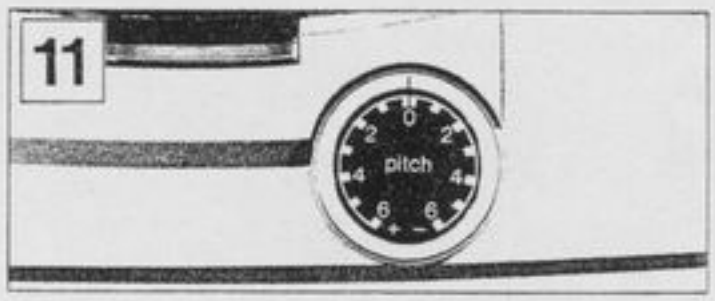

Notes and maintenance

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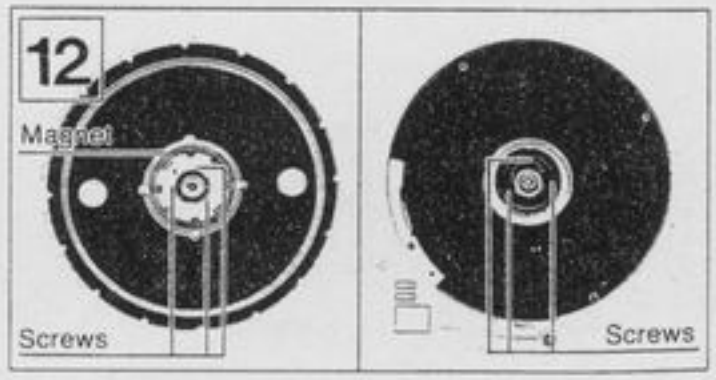

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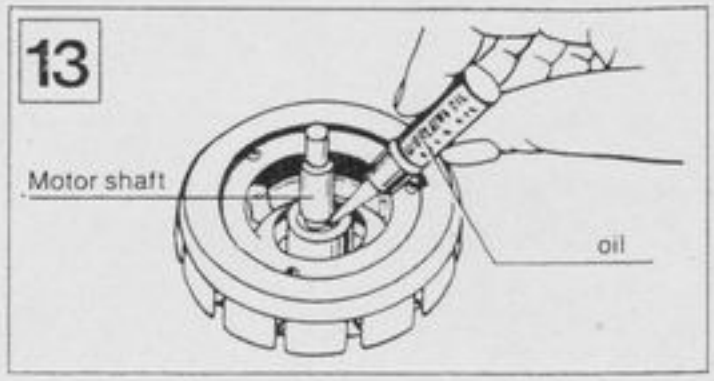

We want to thank you for selecting the SP-25.
For optimum performance, we recommend that you read these instructions carefully.

Before use

Caution:
- Never connect the AC power plug before assembly has been completed.
- Attach the dust cover last, so that assembly and adjustments can be made most conveniently.

■ Checklist of parts

Turntable unit	1
Turntable platter	1
Turntable mat	1
45-rpm adaptor	1
Main unit fixing screw	4
Ground wire (GND)	1
Installation diagram	1

■ Installation of the ground wire (GND) to the GND terminal. (See Fig. 2.)

■ Building your own base or cabinet for this model

SP-25 with a large starting torque of 1,5 kg-cm (lb-in) has the superior feature of reaching constant speed in 0.7 second (at 33-1/3 rpm.).
For this reason we recommend that you use durable and heavy material.
The thickness of the base should be more than 3 cm (1-11/64 inch).
Also use durable and stable insulators (legs).
We recommend that you purchase the optional turntable base Technics SH-15B2, designed exclusively for the SP-25. **(See Fig. 3.)**

■ Drill and cut out the base according to the installation diagram

The installation diagram is drawn in 1/1 actual size.
As paper has a tendency to stretch we suggest that you check the diagram before using it as a template. Check the tonearm mounting position for proper alignment (follow the tonearm manufacturer's specifications).
Also make sure to allow sufficient clearance for power connector and output terminals of the tonearm.

Caution for safe use of this apparatus [FOR UK ONLY]

Caution
- This apparatus is double insulated, safety earth not required.

Important
- **The wires in this mains lead are coloured in accordance with the following code:**

Blue:	**Neutral**
Brown:	**Live**

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.
The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured **BLACK**.
The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured **RED**.

This equipment should be disconnected from the mains when not in use.

Assembly and set-up

Caution: Take care not to damage the power supply cord and bushing when setting up or installing the turntable into a supporting enclosure.

Assembling is explained based on the optional Technics turntable base SH-15B2 for reference in cases where the unit is installed in another cabinet.
SH-15B2 is provided with screw holes (4 places) for mounting SP-25.

1. Install SP-25, with the screw holes aligned. **(See Fig. 4.)**
2. Securely hold at 4 places by the screws supplied with SH-15B2. **(See Fig. 5.)**
3. Pull out the power cord and ground wire (GND) from under the turntable base.
4. After the above, install the turntable platter and turntable mat.

Connections

■ AC line-voltage selector (See Fig. 6.)

Caution:
Make sure that the turntable's AC line-voltage selector is matched to your local voltage before connecting the AC power plug. Never connect to a DC socket.
If the pre-selected voltage is different from your local voltage, turn the AC line-voltage selector with a screwdriver so that it corresponds to your local voltage. **(See Fig. 6.)**
The AC line-voltage selector is located under the turntable platter.

■ Connect the AC power plug.

Connect the AC power plug to an AC wall socket.

■ Connect the output terminals.

Note:
- Be sure to connect the ground terminal firmly to the amplifier or receiver. If this connection is not made or is loose, a power source **"HUM"** will result.

Placement

- **Place the unit in a stable and horizontal position, where there is little or no vibration.**
- **Locate the unit as far away from the speakers as possible and isolate the unit from sound radiation from them.**
- **Do not place the unit where it is exposed to direct sun, dust, moisture or heat.**
- **Keep it in a well ventilated place.**
- **When a radio is placed too close to the turntable and is played while the turntable is in operation, interference to AM/FM reception may result.**

How to operate

1. Set the power switch to the **"on"** position. **(See Fig. 7.)**
   The revolutions are indicated at 33 (33-1/3 rpm.) of the speed select button. **(See Fig. 8)**
   Upon setting the power switch to **"on"**, the revolutions are changed over to 33-1/3 rpm. at all times.
   If the record to be played is other than a 33-1/3 rpm., depress the speed select button to suit the phono disc to be played.
2. Place a record on the turntable mat.
   Push the start·stop button. **(See Fig. 9.)**
   The turntable platter will begin to rotate and reach its constant rotation speed within 0.7 sec. (33-1/3 rpm.).
3. Upon completion of playing, depress the start·stop button.
   The turntable is instantly stopped by electronic brake system.
   After that, set the power switch to **"off"**. **(See Fig. 10.)**

■ Pitch control (turntable speed fine adjustment).

The turntable speed of this unit can be fine-adjusted about ±6% range. With the pitch control knob at **"0"**, it is set to normal speed (33-1/3 or 45 rpm), and the strobe marks appear to be still.

Note:

The number (1–6) printed on the pitch control knob shows the speed variation (%) approximately.

"+" direction

The speed of the turntable platter will increase. Turn the knob in this direction if the strobe dots seem to be **"falling back"** i.e. seem to be moving counterclockwise. When the dots appear to be stationary, turntable speed is accurate.

"–" direction

The speed of the turntable platter will decrease. Turn the knob in this direction if the dots seem to be **"running ahead"**, i.e. seem to be moving clockwise, until they appear stationary.

Note:

For the strobe-illumination of this unit, a quartz controlled precise strobe-illuminator with red LED illumination is employed. It is essential to carry out turntable speed fine adjustment under the illumination of this LED light emission. Since synchronization is not possible with fluorescent lamps, use of a fluorescent lamp makes the strobe markings look as though they are flowing. Likewise adjustment cannot be made with an incandescent lamp. **(See Fig. 11)**

Notes and maintenance

■ **Be extremely careful about handling the turntable platter. (See Fig. 12.)**
The magnet is attached to the inner reverse surface of the turntable platter.
For handling, extra care should be taken to prevent adhesion of dust or iron filings to the magnet, and not to damage the magnet by accidentally dropping it from a high position.
Do not detach the turntable platter more than necessary.
Should the turntable platter be removed by necessity be sure to first disconnect the power plug.
Keep your hands off the screws at the reverse surface of the turntable platter and motor portion.
Should these screws be loosened, the rated performance of the unit can not be guaranteed.

■ **Wipe the unit with a soft, dry cloth.**
Never use any cleaners containing alcohol, benzene or thinner. Use of a chemical dust cloth should also be avoided.

■ **Lubrication**
Apply 2 or 3 drops of oil once after every 2000 hours of operation. **(See Fig. 13.)**
This time interval is much longer than that of conventional type motors (200—500 hours).
Please purchase original brand of oil (Parts number is **SFWO 010**.)

For longer and safer use of this unit

In order to receive the best service from this unit, and for the safest operation, carefully read the following information.

■ **Power source.**
It is very dangerous to use this unit at a voltage which is different from the rated voltage.
There is danger of combustion if the unit is connected to a power source which is different from the rated voltage.
Be very careful concerning this point.
Direct current cannot be used.
There are some places, such as ships, where direct current is used as the power source. Before connecting the unit, confirm the power source.

■ **Connection of power cord.**
Wet hands are dangerous.
Be sure to never touch the power cord with wet hands because there is danger of electric shock. This is true, of course, of all electric equipment.
Do not pull the power cord.
Never pull the power cord to disconnect it. Always pull the plug only.

■ **Location of unit.**
Choose a place which is not in direct sunlight.
Select a place which will assure good ventilation.

■ **Never place heating equipment nearby.**
Be sure to keep stoves and other sources of heat away from this unit, because heat radiated by such equipment may cause deformation of plastic parts or damage the cabinet, or, at worst, cause a fire.

■ **Especially for families with children.**
Take care that no small items, such as metal objects, are put inside this unit.
In addition, children should be especially warned not to put anything into the ventilation holes, such as toys or a screwdriver because these things may cause an electric shock or result in a malfunction of the unit.

■ **If water spills on the unit.**
If water should happen to spill on the unit, from an overturned vase for example, there is danger of fire or electric shock. Disconnect the power plug from the electric outlet immediately, and contact the store from which the unit was purchased.

■ **Reconstruction can cause accidents.**
Absolutely never try to remodel, reconstruct or repair this unit yourself. Do not attempt to touch any internal parts because to do so may result in an electric shock or other accident.

■ **Be sure the power is off.**
After you have finished using this unit, check once more to be sure that the power is off. If the unit is left with the power on for a long period of time, it may not only be damaged, thus shortening its useful life, but may also lead to a dangerous accident.

Features

■ Oversized turntable that cuts off and absorbs external vibrations

Rased on analysis of the turntable vibration modes and vibrations in the sound range, a special viscoelastic material is applied to the reverse surface of the turntable platter for deadening.
The deadening material is applied to the undersurface and outer periphery of the turntable platter, with the rubber turntable mat on the surface settled into the turntable platter. This design is superior in acoustic characteristics even at high sound levels through elimination of turntable resonance and absorption of external vibration.
Moreover, the oversized aluminum die-cast turntable platter, 33.9 cm (13-11/32") in diameter, is heavy with a moment of inertia of 250 kg·cm² (85 lb·in²) for large heavy weight 1.85 kg (4 lb) class design.

■ Vibration damping structure by the precision aluminum die-cast cabinet and TNRC

The acoustical characteristics of the player system are inevitably affected by the turntable platter and cabinet employed. The SP-25 adopts an aluminum die-cast cabinet superior in strength, with high processing accuracy. Through cutting-off and absorption of external vibrations, the unit is designed for improved acoustic characteristics, with susceptibility to feedback minimized.

■ Quartz Controlled Rotation Accuracy

The SP-25 utilizes the oscillation of a quartz crystal as a reference signal or source. This oscillation is not affected by temperature change or power fluctuations. By synchronizing the rotation of the turntable platter accurately to the reference signal, speed drift of the unit is held within ±0.002% (33-1/3 rpm.).

■ Technics' unique motor construction in which the rotor of the motor is integrally formed with the turntable

■ High torque motor of 1.5 kg·cm with starting time of 0.7 second is capable of instant speed change-over (at 33-1/3 rpm.)

■ Stable and positive mechanism that can stand frequent use for business use, etc. and a switch section with point contacts

■ Electronic brake

Specifications

General

Power supply:	~110–120/220–240 V, 50 or 60 Hz
Power consumption:	11 W
Dimensions: (W×H×D)	34.9×8.5×37.2 cm (13-3/4×3-1/64×14-41/64 inches)
Weight:	4.8 kg (10.6 lb)

Turntable section

Type:	Quartz direct drive
Drive method:	Direct Drive
Motor:	Brushless DC motor
Drive control method:	Quartz-phase-locked control
Turntable platter:	Aluminum die-cast, diameter 33.9 cm (13-11/32 inches) weight 1.85 kg (4 lb)
Moment of inertia:	250 kg·cm² (85 lb·in²)
Turntable speeds:	33-1/3 rpm and 45 rpm
Turntable speed fine adjustment:	±6% adjustment range
Starting torque:	1.5 kg·cm (1.31 lb·in)
Build-up time:	0.7 s. from standstill
Braking system:	Electrical braking
Speed fluctuation due to load torque:	0% within 1.0 kg·cm (at a stylus pressure of 200 g)
Speed drift:	Within ±0.002% (33-1/3,45 rpm)
Wow and flutter:	0.01% WRMS* 0.025% WRMS (JIS C5521) ±0.035% peak (IEC 98A Weighted)

*This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter. Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble:	–56 dB (IEC 98A Unweighted) –78 dB (IEC 98A Weighted)

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