

Technics

The science of sound

SL-MA1



Wooden Cabinet Quartz DD
Fully Automatic Turntable

1. **Multi-function. Electronic Drive Tonearm for full automation.**
2. **Boron-nickel low-mass tonearm with gimbal suspension.**
3. **Anti-resonant wooden cabinet with TNRC.**

ELECTRONIC DRIVE TONEARM FOR SPECTACULAR PERFORMANCE

Combining the sensitivity and stable support of a conventional static balanced tonearm with the multi-function automation of microprocessor control Technics Electronic Drive Tonearm delivers the kind of high performance you've come to expect from a world leader in audio technology. Technics makes this technology available in our new SL-MA1 Quartz Direct Drive turntable. But this Electronic Drive Tonearm is only one of the SL-MA1's valuable features. This turntable also offers wood and special TNRC construction to help damp external vibrations. A quartz

direct drive motor to help improve rotational precision. And Technics developed **TP** P-Mount cartridge connector system for optimum compatibility, mounting precision and convenience. All packaged in a convenient wood grain cabinet.

Electronic Drive Tonearm Multi-function automatic operation & multi-information display

In the SL-MA1, tonearm movement is electronically controlled, thereby enabling incredibly smooth operation. How? Technics uses an original Electronic Drive Tonearm system that has a horizontal drive actuator in the arm base. This permits free horizontal and vertical movement without the need of intermediate cams or gears. An optical sensor detects the tonearm's position, then passes this data on to a microcomputer that controls the tonearm's movement (according to input from the front panel controls). The absence of drive parts in the tonearm help eliminate an undesirable

load or drag on the arm as it is playing the record and aids in reinforcing the sensitivity and stability of the precision gimbal suspension system. For easy access, all control keys are conveniently located on the front panel of the cabinet. Thanks to this Electronic Drive Tonearm system, you can enjoy the convenience of the multi-function fully automatic features described below.

• Auto lead-in and auto disc size selection

Press the start/stop key once and the optoelectronic sensor automatically detects the record size and begins playing the record. The tonearm only moves if there is a record on the platter.

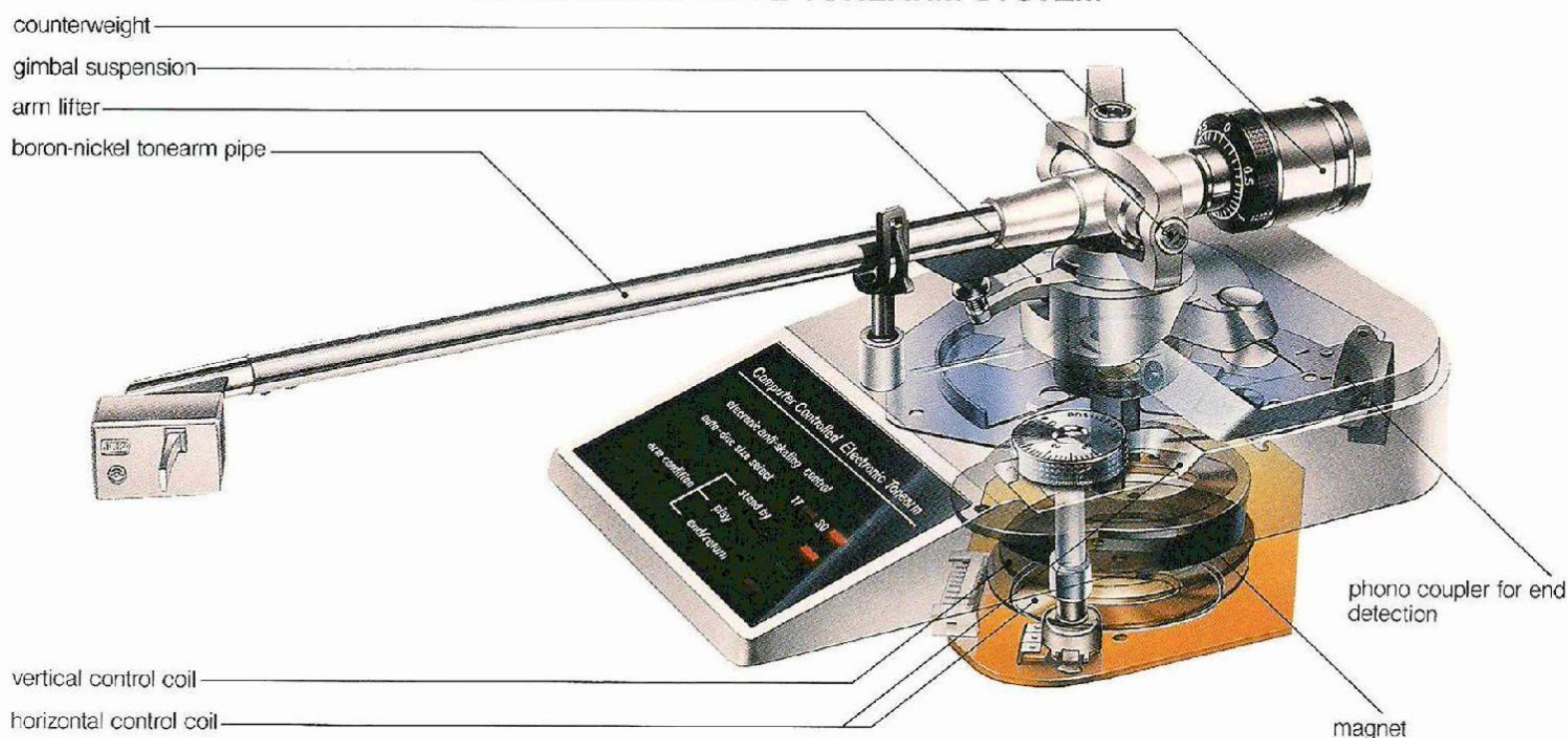
• Automatic disc speed selection

Full size LP records are played at 33-1/3 rpm; singles 45 rpm without the need for any adjustments. Use the front panel speed selection key only when playing non-standard discs such as 45rpm 12" records.

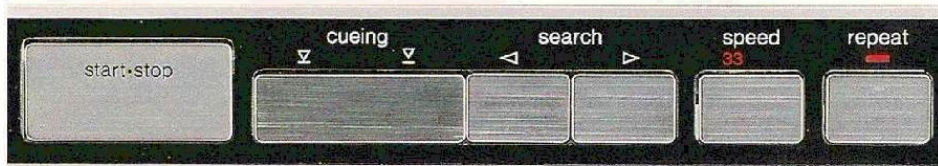
• Auto return and auto-stop

By detecting the faster lateral movement of the tonearm in the lead-

ELECTRONIC DRIVE TONEARM SYSTEM



More advanced technology for more beautiful music.



out grooves, the system "knows" when to raise the tonearm and return it to the arm rest. To return the tonearm during play, simply press the start/stop key.

• 2-speed search function and auto cue

Search inward or outward with the front panel control keys. Press lightly for slow movement; harder for faster movement. When depressed during play, the search keys automatically raise the tonearm, and lower it when released. Separate cueing keys are also provided.

• Repeat

Play the same record side again by pressing the repeat key.

• Restart

Press the start/stop key twice during play to replay the record from the beginning.

• Manual play

For use like a professional turntable, manually move the tonearm to the desired position and simply press the start/stop key.

• Multi-information display panel

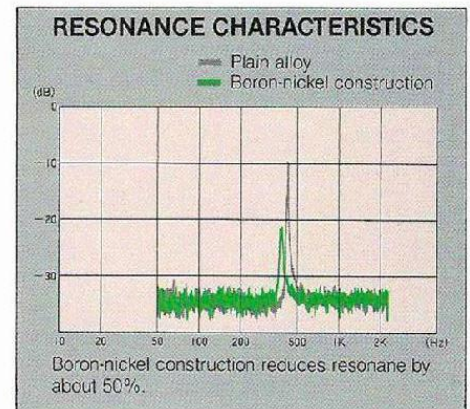
A panel located on the front of the arm base displays indicators for settings and tonearm operations. Information includes: disc size selection, arm status, and electronic anti-skating control.

Arm status indication switches between standby, play, and end/return, according to power, cueing, and position. The end/return indicator flashes when the tonearm nears the end of the record.

Boron-nickel low-mass straight tonearm

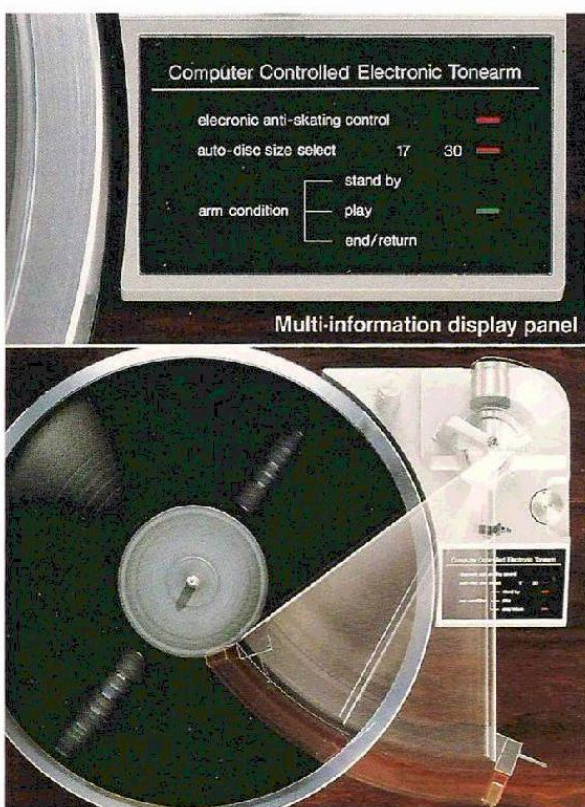
The lightweight, tubular, straight tonearm on the SL-MA1 is constructed

of a boron-nickel alloy for excellent rigidity and strength that also helps to minimize resonances.



Gimbal suspension

The tonearm on the SL-MA1 features Technics precision 4-point gimbal suspension system that helps to reduce friction in both directions of rotation. The result is very high sensitivity for excellent groove tracking. The strength of the gimbal suspension mechanism and its aluminum diecast support portion aid in preventing vibrations.



Wood and TNRC cabinet construction

To help resist external vibrations and damp resonances, the SL-MA1 is constructed of an original anti-resonant wood and TNRC. The outer, upper base uses wood particle board manufactured under a special ultra-fine particle high compression process. The bottom base is made of precision molded TNRC (Technics Non-Resonant Compound). Large insulator feet made of rubber material, selected for its superb damping characteristics, support the bottom base. The inert turntable mat also helps to damp resonances. What's more, the cabinet is attractively finished to complement most any interior.

Quartz DD accuracy and reliability

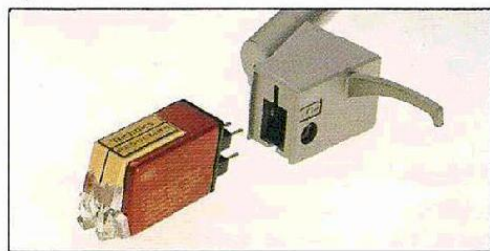
The SL-MA1 features Technics quartz phase locked direct drive DC motor with integral rotor-platter and full cycle detection FG (frequency generator) servo. The signal from the FG is compared with an unwavering quartz

crystal reference and phase locked to prevent even minor speed irregularities. The resulting wow & flutter is only 0.025% WRMS. Speed deviation: $\pm 0.002\%$. Rumble: -81dB (DIN B).

T4P P-Mount cartridge connector system

Technics original T4P P-Mount cartridge connector system is featured on the SL-MA1. Simply plug a cartridge into the end of the tonearm and tighten a single screw. No adjustments are needed.

T4P P-Mount system helps make cartridge changing easy and helps assure a secure connection and optimum match with the tonearm.



Other features

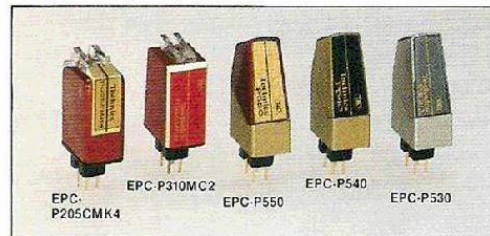
- 32.5cm (12 $\frac{13}{16}$ ") diameter aluminum diecast turntable platter.

- Electronic braking system helps bring platter to a quick stop.
- Special electronic muting circuit shuts out stylus contact noise during cueing.
- Fine tracking force and anti-skating adjustment ($1.25 \pm 0.25\text{g}$).
- Hinged, detachable dust cover.
- 45rpm (singles) adaptor.

Plentiful selection of T4P P-Mount cartridges

A wide variety of T4P cartridges are available from over 20 of the world leaders including Technics, Ortofon, Shure, Audio-Technica, Empire, Pickering, and Stanton. Whichever T4P model you choose, MM or MC, it will be a perfect match for the SL-MA1.

T4P is the standard mark for the "P-Mount" plug-in connector system. Products carrying this mark are interchangeable and compatible with each other.



Technical Specifications

TURNTABLE SECTION

Type: Quartz-phase-locked direct drive fully automatic turntable

Functions:

Automatic speed and disc size selection, automatic detection of disc, auto lead-in, 2-speed search function of tonearm, auto-return, auto-stop and repeat

Motor: Ultra-low-speed brushless DC motor

Turntable platter:

Aluminum diecast 32.5cm (12 $\frac{13}{16}$ ") diameter, weight 1.4kg (3.1 lb) (including platter mat)

Moment of inertia:

200kg $\cdot\text{cm}^2$ (including platter mat)

Turntable speeds: 33-1/3 and 45rpm

Braking system: Electronic brake

Speed accuracy: Within $\pm 0.002\%$

Wow and flutter: 0.012% WRMS*

0.025% WRMS (JIS C5521)

$\pm 0.031\%$ peak (IEC 98A weighted)

Rumble: -81dB DIN B (IEC 98A weighted)

ONEARM SECTION

Type: Plug-in connector straight tonearm static-balanced type with gimbal suspension

Effective length: 230mm (9 $\frac{1}{16}$ ")

Overhang: 15mm (1 $\frac{9}{32}$ ")

Offset angle: 22°

Friction: 7mg (horizontal and vertical)

Tracking error angle:

+0°32' at the inner groove of record

+2°32' at the outer groove of record

Effective mass: 9g (without cartridge)

Resonance frequency:

8.5Hz with a cartridge compliance of $12 \times 10^{-6}\text{cm/dyne}$ (cartridge weight: 6g, tracking force: 1.25g)

Tracking force: 0 ~ 2g

GENERAL

Power supply: AC 120V, 50/60Hz

Power consumption: 15W

Dimensions (W x H x D):

453 x 170 x 408mm (17 $\frac{27}{32}$ " x 6 $\frac{11}{16}$ " x 16 $\frac{1}{16}$ ")

Weight: 9.0kg (19.8 lb)

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

Design and specifications are subject to change without notice.

Technics

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