

Technics

The science of sound

SP-10MK3



Quartz Synthesizer Direct Drive Turntable



Once Again Technics Extends the Frontiers of Excellence

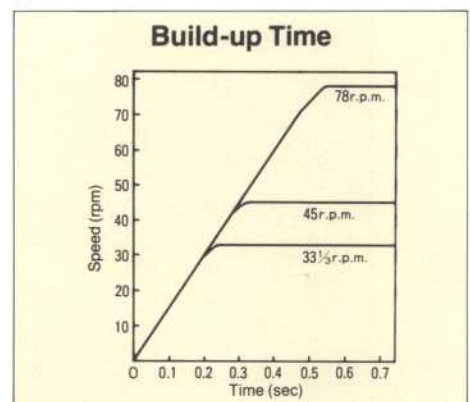
Presenting the SP-10MK3, the most advanced quartz synthesizer DD turntable from Technics, the acknowledged hi-fi turntable leader. Both specifications and sound quality reveal that the SP-10MK3 extends the frontiers of excellence. For example, starting torque is 16 kg·cm, and only one quarter of a second is required to reach rated speed; moment of inertia is 1.1 ton·cm², wow & flutter is 0.015% WRMS, rumble is -92 dB (DIN-B), and quartz locked pitch is adjustable in 0.1% step increments or decrements up to ±9.9%. For serious audiophiles and audio professionals, this is the

turntable by which all the others must be judged.

16 kg·cm Enormous Starting Torque

This turntable employs an ultra low speed brushless DC motor based on the Technics SP-02 cutting lathe drive system known throughout the world for its very high torque. The SP-10MK3 boasts 16 kg·cm starting torque, a huge amount for a consumer turntable and 2.5 times that of the SP-10MK2. This brings the massive 10 kg platter up to rated speed (33-1/3 rpm) in 0.25 sec. or 30° of a full rotation. Radio stations

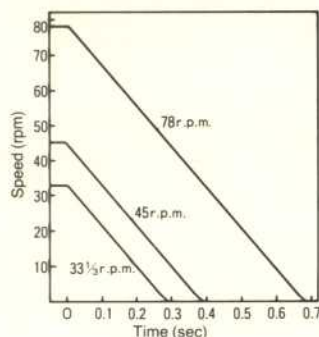
and other professionals will be quick to appreciate the precise timing that is made possible when starting play with the stylus in the grooves.



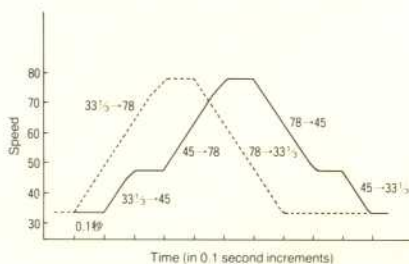
Electronic and Mechanical Braking Provide Rapid Speed Change and 0.3 sec. Braking Time

Mechanical braking and reverse torque bring the heavy 10 kg platter to a full stop (from 33-1/3 rpm) in just 0.3 sec. with virtually no shock noise. Quick speed changes are another benefit—high start up torque is applied to raise speed, while the electronic brake is applied to go to a lower speed. Partial mechanical braking is maintained when the turntable is stopped, thus allowing precise cueing while contributing to stylus protection.

Braking Time



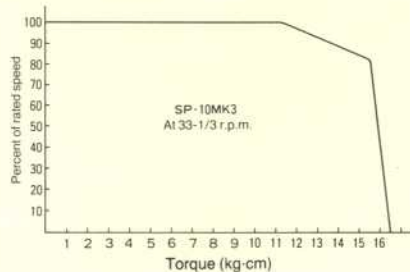
Speed Change Response



1.1 ton-cm² Moment of Inertia

Huge moment of inertia results from the 10 kg platter made of diecast aluminum with a 15 mm thick copper alloy surface layer. Therefore there is no change in speed with any fixed load up to 10 kg-cm—equivalent to 1000 tonearms tracking at 2 g each. Of course, the real benefit is that the platter keeps rotating at exactly rated speed even if you accidentally touch it during play.

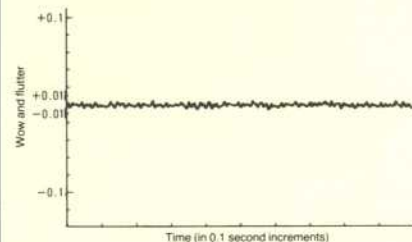
Load Characteristics



Wow & Flutter 0.015% WRMS, Speed Accuracy $\pm 0.001\%$: Ultra-High Precision Integral Rotor-Platter Quartz DD Motor

Unquestionably superior basic performance begins with integral rotor-platter construction direct-drive. Precision is better because the platter, motor and case are not simply stacked one on top of the other. Besides the huge moment of inertia of the heavy platter itself, our full cycle detection FG also contributes to rotational accuracy by supplying a more reliable signal for phase comparison with the reference which is, of course, based on a quartz crystal oscillator of the highest accuracy. Wow & flutter of 0.015% WRMS and speed accuracy of $\pm 0.001\%$ prove the effectiveness of this design. Most test equipment cannot even detect such low levels of deviation.

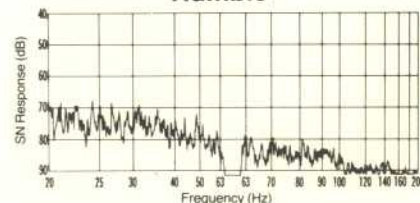
Wow and flutter



Low Rumble —92 dB in the Non-Resonant Technics Tradition

The 10 kg platter both reduces wow & flutter and improves rumble. Also contributing to lower noise is the sophisticated cabinet construction featuring diecast zinc, diecast aluminum, and Technics original acoustic damping material TNRC. (Technics Non-Resonant Compound) in the lower base. —92 dB rumble means real silence; it's a difference you can hear from the moment you lower a stylus into the grooves.

Rumble



Quartz Synthesizer Pitch Control in 0.1% Steps up to $\pm 9.9\%$ at All Three Standard Speeds

Beyond assuring ultra-accurate standard speed rotation, this quartz synthesizer system allows you to raise or lower pitch in 0.1% steps up to $\pm 9.9\%$ while maintaining quartz locked rotational precision. This is applicable at 33-1/3, 45, and 78.26 rpm giving you 199 discrete speeds at each speed, or a total of 597. Applications include matching pitch to one's own musical instrument, fitting a piece of music into a limited time slot, and correcting the pitch deviations which are common in older records cut on inaccurate lathes. On the control unit (power supply) is a button that raises or lowers speed in 0.1% steps with each push. Pushing the clear button returns the platter to rated speed immediately. Pitch lock button with pitch lock display keeps the platter at your selected setting until the pitch lock button is pressed again, regardless of other buttons being pressed. The turntable is equipped with a strobe

that flashes yellow-green at standard speeds and red-orange at other speed settings.

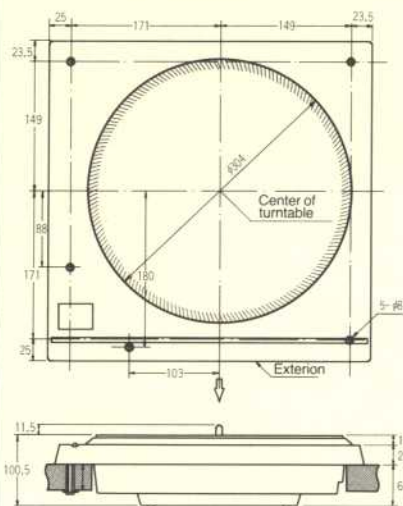
Separately Housed Power Supply and Remote Control Unit

A separate control unit houses the power supply and all circuitry except the motor itself, thereby assuring more reliable operation with freedom from noise. On the smoked acrylic front panel are high visibility LED displays (speed and pitch setting) as well as the on/off switch and soft-touch switches for speed selection and pitch control (with positive click feel). Start/stop and speed selector switches are provided on the turntable itself as well.



Control Unit

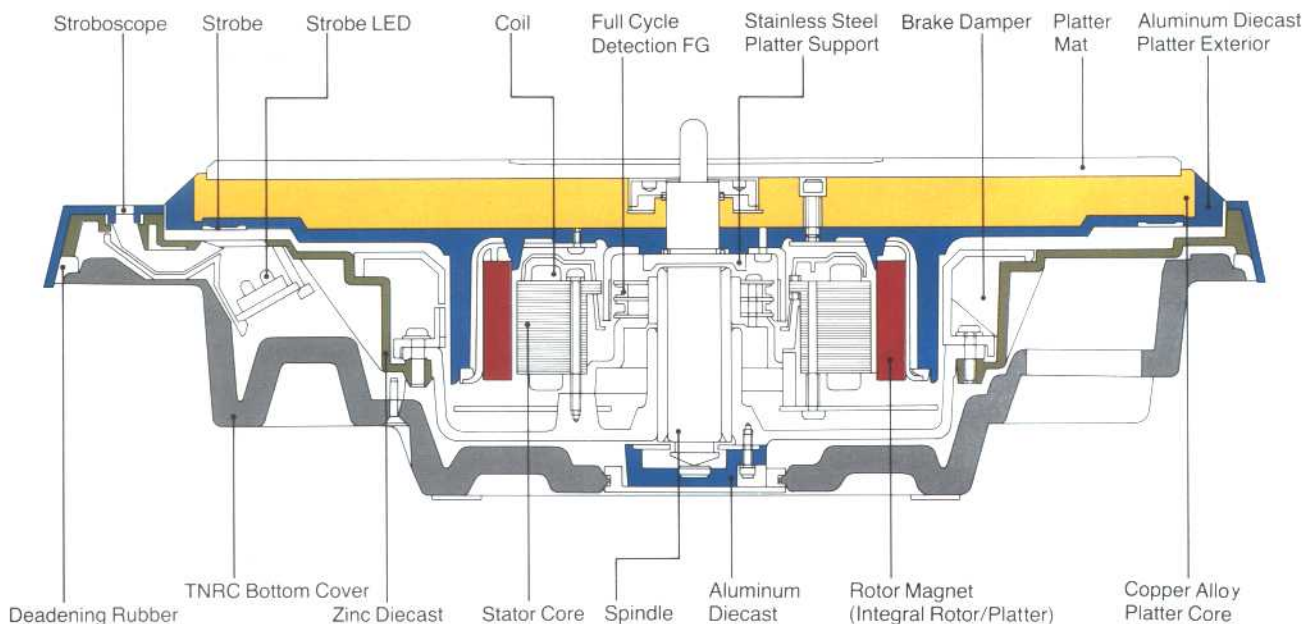
Top and Side Views



Option

- SH-10B5 Recommended Turntable Base for the SP-10MK3.
- EPA-100MK2 Recommended Tonearm for use with the SP-10MK3.

Cross Section of the SP-10MK3



The Next Standard in Hi-Fi Turntable Performance





Technical Specifications

TURNTABLE SECTION

Type	Quartz-phase-locked control direct drive turntable
Motor	Quartz-phase-locked control, ultra low speed brushless DC motor
Turntable platter	Copper alloy + aluminum diecast diameter 32 cm weight 10 kg moment of inertia 1.1ton·cm ² (1100 kg·cm ²)
Turntable speeds	33-1/3, 45 rpm and 78.26 rpm
Pitch controls	Quartz locked pitch control by up to ±9.9%, in 0.1% steps, at all three rated speeds
Starting torque	16 kg·cm
Start-up time	0.25 sec to 33-1/3 rpm
Breaking time	0.3 sec to 33-1/3 rpm
Speed fluctuation due to load torque	0% within 10 kg·cm

Speed drift	Within ±0.001%
Wow & flutter	0.015% WRMS (JIS C5521) ±0.021% weighted zero to peak (DIN 45 507), IEC 98A weighted
Rumble	-92 dB DIN B (IEC 98A weighted) -60 dB DIN A (IEC 98A unweighted)

GENERAL

Power supply	AC 120 V, 50/60 Hz
Dimensions (W×H×D)	36.9×11.3×36.9 cm (Turntable only) (14-17/32"×4-7/16"×14-17/32") 16.6×9.6×41 cm (Control unit) (6-17/32"×3-25/32"×16-5/32")
Weight	18 kg (40 lb) (Turntable only) 6 kg (13.2 lb) (Control unit)

Technics

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