

Technics
The science of sound

SL-7



Quartz Direct Drive
Linear Tracking Turntable



Technics Stands the World of Turntables On Its Head... Again

Even at first glance, the Technics SL-7 looks revolutionary. First of all, you'll notice its compact size—it's no bigger than a handful of records (8.8 cm high). And the tonearm is built into the top of the turntable. In fact, the SL-7 is completely self-contained. You don't need a separate tonearm, cartridge, disc stabilizer, or even a 45 rpm adaptor. Yet despite all this sophisticated machinery, it is difficult to imagine a more convenient turntable, or one which is more enjoyable to operate.

Full Automation

The most difficult part of using the SL-7 is deciding which record you want to hear—the SL-7 does virtually everything else. Put the record on the platter, close the top, and press the start button. The platter sets itself to rotate at the correct speed, and the linear tracking tonearm cues itself to the lead-in groove and plays the record. You won't hear any annoying pops, because the SL-7's muting circuit guards against these noises. When the record is over, the arm returns

to rest and the turntable shuts off. Of course, not everyone wants to listen to a complete album from start to finish. Suppose you want to skip ahead to the next cut. Press the cueing button—the arm will lift off the record. Press the start button lightly and the arm will slowly



advance toward the center of the record. If you press the button a little harder, the arm will travel more quickly. When you get to the song you want (an illuminated pointer on the top of the SL-7 helps you to locate the exact position of the arm in relation to the record), release the button, and press the cueing button again. It's easy. And it's precise. You never even touch the tonearm. You can also set the SL-7 to repeat the record. Press the repeat button and you'll hear the record again. Or, if you want to replay the disc from the beginning during play, press start while the turntable is in operation—it will return to the first track. To stop

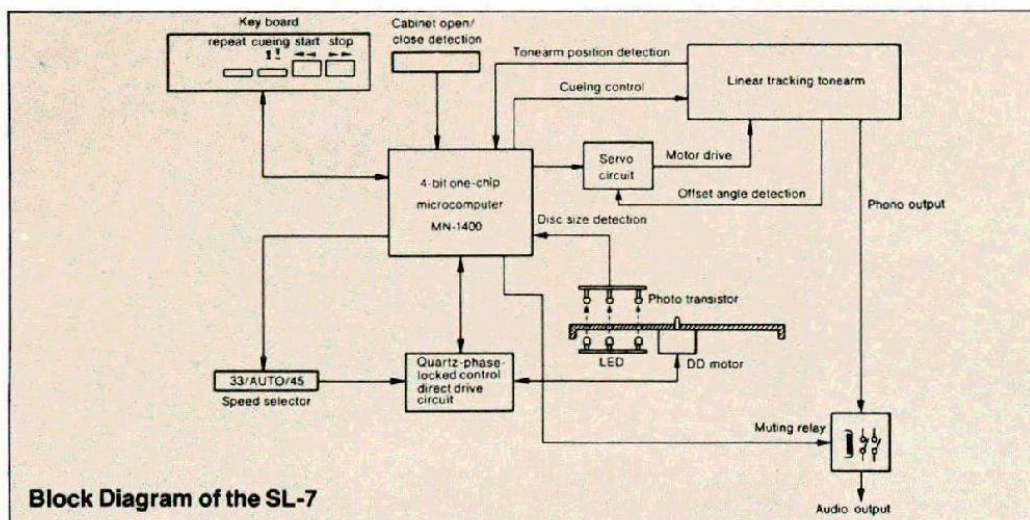
the turntable during play, just press stop. Or, open the top of the SL-7 and it will stop and shut off.

Foolproof Operation

The SL-7 doesn't make mistakes—even if you do. You cannot lower the tonearm onto an empty platter, because the SL-7 won't even turn on without a record on the platter. That's just one benefit of the micro-computer-controlled optoelectronic sensor. You can't set the wrong speed either because that setting is made automatically by the SL-7.



The SL-7 assumes that it should play 30 cm records at 33-1/3 rpm and 18 cm discs at 45 rpm, which is almost always the case. But you can override the automation and set the speed manually, since occasional EPs or special discs are recorded at different speeds. And it would be difficult to damage the stylus or the tonearm, because you never need



to touch either—everything is controlled from the outside. So the SL-7 not only protects itself, it also protects your valuable records. It is to record playing what the cassette deck was to tape recording—the ultimate in easy, safe, convenient operation.

Installation Flexibility

The days of critical turntable installation are over. You can hang the SL-7 vertically on a wall. You can stand it on its side. It will even play upside down. No matter how it's placed, the SL-7 will perform as if it were on a level tabletop. This allows a tremendous variety of installation options. In fact, you can put the SL-7 almost anywhere. It's quite apparent that smaller components are gaining popularity in the hi-fi marketplace. Despite this trend, turntables have not kept pace—the Technics SL-7 (and its big brother, the SL-10) is the only available turntable which is a good cosmetic match for micro components. At just 31.5 cm × 31.5 cm, it is about as small as a turntable can be; after all, LP's are 30 cm in diameter. So you can take your SL-7 any-

where you take your micro-components—a kitchen, a boat, a cramped apartment. It's compact enough to go anywhere. But even if you don't own a micro system, you'll still appreciate the tasteful, elegant styling of the SL-7. The controls are light-touch so they are flush with the panel, and the lines are sleek and compact. And, most important, its performance is every bit as excellent as its appearance.

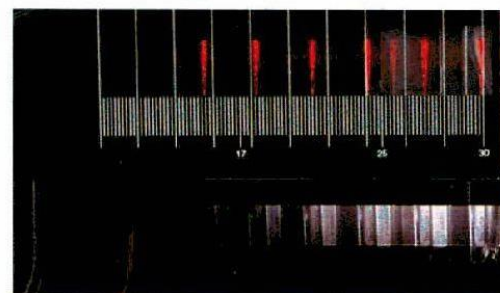
Superb Basic Performance

The SL-7 boasts truly outstanding performance based on any criteria. Consider the numbers: wow and flutter—0.025% WRMS, rumble—78 dB DIN B, speed accuracy—±0.002%. And, of course, the direct drive design means a low speed motor and specs which don't deteriorate with age. These specifications are excellent. Yet the most exciting performance story is that of our linear tracking tonearm.

Linear Tracking for Linear Sound

Any pivoting tonearm has inherent problems—one of them is tracking error. This occurs because the

arm tends to drift from side to side. Tracking error results in increased record wear and distortion. Another problem with pivoting arm designs is that the lateral force on the tonearm tends to pull the cartridge towards the inner groove in the record; this problem is commonly called skating.



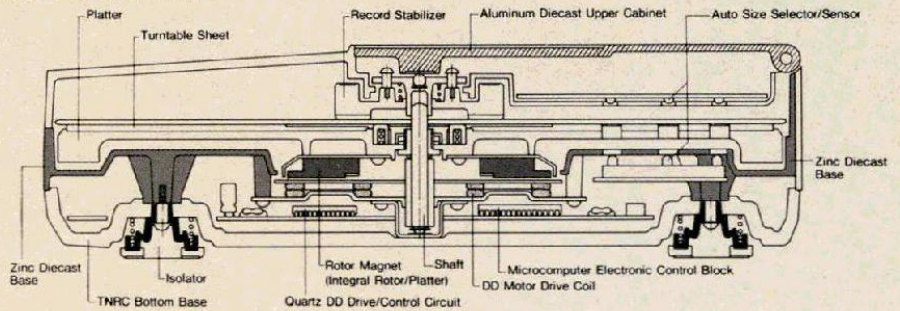
By contrast, a linear tracking tonearm maintains a virtually ideal tangential angle to the grooves, and effectively conquers both these problems. Also, there is no need for mechanical extras, like anti-skating devices. The arm on the SL-7 is driven by a separate DC motor and governed by an optical sensor near the cartridge and microcomputer. And the arm is dynamically balanced (as opposed to the more common static balance system): The center of gravity is at the center of the rotation axis, so the gimbal suspended tonearm—with its dynamic balance system—maintains stability in any position. So the arm maintains excellent tracking, yet does not require critical horizontal placement. So you can see that the Technics SL-7 has been designed for a striking combination of performance and convenience. It would be difficult to top its superb sound, beautiful styling, and almost unbelievable operating convenience, particularly in light of its relatively modest price tag.



Other Features

- **Integral rotor/platter, quartz phase-locked control direct drive motor with full-cycle detection FG servo system.** This extremely precise drive system provides superb rotational accuracy.
- **Sealed upper and lower sections.** This design isolates the record from external vibrations and foreign objects.
- **Provision for DC power supply.** You can use your car battery or any other DC source for outdoor or remote use.
- **A disc stabilizer is integrated into the top half of the SL-7,** and it automatically fits into place when the turntable is closed. It holds the disc flat in its rotation for steady play. The strobe indications are on the outer rim of the disc stabilizer.
- **A 45 rpm adaptor is built in,** popping up when needed to play records with large center holes.
- **The top half of the unit contains a scale above the tonearm with an**

Cross section of the SL-7

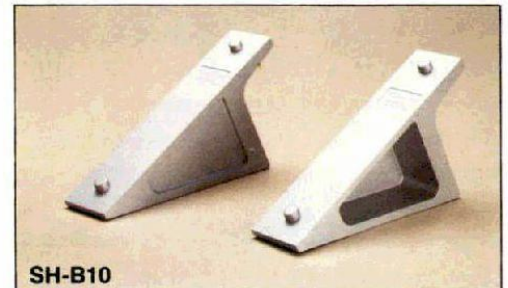


LED pointer, to assist you in locating the precise position of the tonearm in relation to the record on the platter.

- **The linear tracking arm comes equipped with one of Technics' most advanced MM cartridges.** Featuring an all laminated magnetic circuit for faithful extended electromagnetic response, and a pure boron pipe cantilever for the ideal combination of high rigidity and low mass, the EPC-P22S cartridge delivers excellent

frequency response and tracking ability.

- **SH-B10 TNR bottom base** optionally available for exceptional feedback isolation. Also fits SL-15/10 models.



Technical Specifications

TURNTABLE SECTION

Type	Quartz-phase-locked control direct drive fully-automatic (with automatic speed and disc size selection, auto lead-in, automatic detection of disc, 2-speed search function of tonearm, auto-return, auto-stop and repeat)
Motor	Ultra-low-speed brushless DC motor
Turntable platter	Aluminum diecast diameter 30 cm (12")
Turntable speeds	33-1/3 and 45 rpm automatic selection (manual selection possible)
Speed accuracy	Within $\pm 0.002\%$
Wow & flutter	0.012% WRMS* 0.025% WRMS (JIS C5521) $\pm 0.035\%$ peak (IEC 98A weighted)
Rumble	-78 dB DIN B (IEC 98A weighted) -56 dB DIN A (IEC 98A unweighted)

TONEARM SECTION

Type	Dynamic-balanced linear-tracking gimbal-suspension tonearm
Effective length	105 mm (4-1/8")
Tracking error angle	Within $\pm 0.1^\circ$
Effective mass	9 g (including cartridge)
Resonance frequency	12 Hz
Tonearm drive motor	Coreless DC motor

CARTRIDGE SECTION

Type	Moving magnet stereo phono cartridge with one point suspension system
Magnetic circuit	All laminated core
Cantilever	Pure boron pipe cantilever
Magnet	Samarium cobalt (Sm-Co)
Frequency response	10~35,000 Hz 20~10,000 Hz ± 1 dB
Output voltage	2.5 mV 1 kHz, 5 cm/sec zero to peak, lateral velocity (7 mV 1 kHz, 10 cm/sec zero to peak, 45° velocity DIN 45 500)
Channel separation	More than 22 dB (1 kHz)
Channel balance	Within 1.8 dB (1 kHz)

Compliance	12×10^{-6} cm/dyne (100 Hz)
Recommended load impedance	47 k Ω to 100 k Ω
Stylus tip	0.3 $\times$ 0.7 mil elliptical diamond stylus
Tracking force	1.25 ± 0.25 g (12.5 ± 2.5 mN)
Effective moving mass	0.29 mg
Weight	6 g
Replacement stylus	EPS-22ES EPS-22ED

GENERAL

Power supply	AC 120 V, 60 Hz for Canada AC 110~120/220~240 V, 50/60 Hz for AAFES & NEX in Europe & Pacific area
Power consumption	DC 12 V 20 W
Dimensions (W $\times$ H $\times$ D)	31.5 $\times$ 8.8 $\times$ 31.5 cm (12-1/2" $\times$ 3-1/2" $\times$ 12-1/2")
Weight	7 kg. (15.4 lb)

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

Technics

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