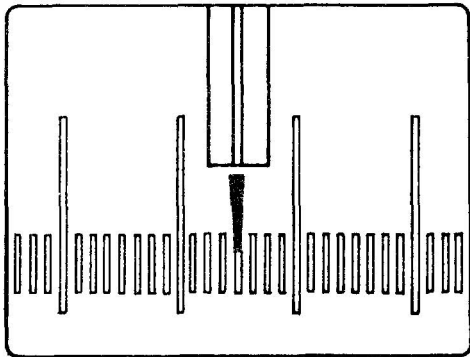


SHURE®

M97 LT



HYPERELLIPTICAL

The Shure M97 LT ERA IV Cartridge mounts directly to Technics Linear Tracking Turntables such as Models SL-10, SL-15, and SL-7. This cartridge brings outstanding trackability, transparent frequency response, and phenomenally low distortion to the Technics Linear Tracking Turntables.

La Shure M97 LT, cellule l'ERE IV, s'adapte directement sur les platines Technics SL-10, SL-15 et SL-7, platines à bras tangentiel. Cette cellule apporte aux platines Technics, une formidable capacité de lecture, une réponse en fréquences très étendue, et une distorsion extraordinairement faible. Se reporter à la page 13 pour plus ample information en Français.

Das SHURE Modell M97 LT, ein Tonabnehmer AERA IV, paßt direkt zu Technics Plattenspielern mit Tangential-Tonarmen. Zum Beispiel zu den Modellen SL-10, SL-15 und SL-7. Dieser Tonabnehmer bietet hervorragende Abtastfähigkeit, einenglatten Frequenzgang und außergewöhnlich geringe Verzerrungswerte in Verbindung mit dem Tangential-Tonarm einiger Plattenspieler von Technics. Siehe Seite 15 für weitere Hinweise in Deutsch.

La Shure M97 LT, una cápsula ERA IV, se monta directamente en los giradiscos tangenciales Technics, Modelos SL-10, SL-15 y SL-7. Esta cápsula consigue una extraordinaria habilidad de lectura, una transparente respuesta de frecuencias y una distorsión considerablemente baja en los giradiscos tangenciales Technics. Vea en la página 17 más instrucciones en español.

MOUNTING, MONTAGE, MONTAJE

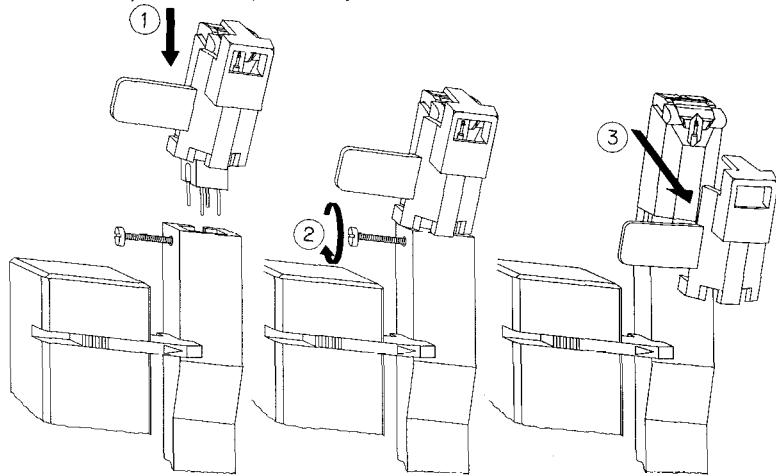


FIGURE 1

STYLUS CLEANING

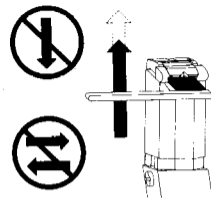
Use a soft brush with an alcohol-distilled water solution or Shure Stylus Cleaning Solution. (See your dealer and ask for the Shure SK-1, Stylus Cleaning Kit.) Brush only from back to front as shown in Figure 2. Other commercial cleaning solutions may cause stylus damage.

STYLUS REPLACEMENT

Place the Technics Linear Tracking arm in a convenient position as follows.

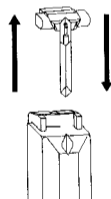
1. With the lid closed, use the "manual" mode to move the arm to approximately the center of its travel.
2. Make certain the cartridge is cued "up" (raised off the record), and press the Off-On switch "Off."
3. Raise the lid.

Replace the stylus as shown in Figure 3. Always hold the stylus only by the plastic grip; take care not to touch or damage the shank or diamond tip.



STYLUS CLEANING

FIGURE 2



STYLUS REPLACEMENT

FIGURE 3

PREAMPLIFIER SETTING

The M97 LT is a moving magnet cartridge. If your Technics Linear Tracking Turntable has a preamplifier selector switch, (see Figure 4) be sure to set the switch to the moving magnet position (MM).

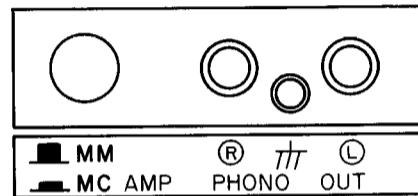


FIGURE 4

TRACKING FORCE

The M97 LT is designed to operate at a tracking force of 1.25 grams optimum. Do not use tracking forces heavier than 1.5 grams. Consult the turntable manufacturer if you have any doubts about whether its tracking force is appropriate.

SPECIAL NOTE

As the only source of contact between the record groove and the balance of your high fidelity system, the stylus in your cartridge plays a critical role in the ultimate quality of sound reproduction. Additionally, because records can be irreparably damaged by a worn stylus, it is essential to ensure that your Shure stylus is in peak condition in order to preserve your records in "mint" condition. Your cartridge can perform at original operating specifications for many years with these simple maintenance steps:

1. Follow the stylus cleaning instructions given on page 4.
2. See your Shure dealer at least once a year for a checkup of your cartridge's stylus. He'll clean it and inspect it for wear.
3. When it becomes necessary to replace your stylus, insist on a genuine Shure replacement. Extensive testing of imitations of Shure styli revealed numerous grave flaws. To be certain that your replacement stylus meets original specifications, look for the name SHURE® on the stylus grip and the words "This Stereo DYNETIC® stylus is precision manufactured by Shure Brothers Inc." on the stylus box.

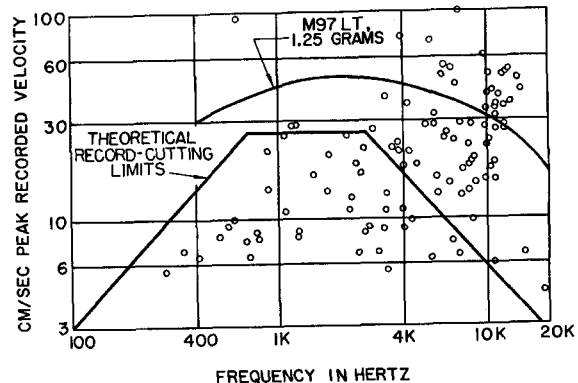
M97 LT: ERA IV PERFORMANCE FOR TECHNICS LINEAR TRACKING TURNTABLES

1. **Demonstrably improved trackability across the entire audio spectrum.**
2. **Telescoped shank structure and new lightweight high-energy magnet for reduced dynamic mechanical impedance.**
3. **Flat response for faithful reproduction across the audio spectrum.**
4. **Hyperelliptical tip configuration for dramatic reduction of both harmonic and intermodulation distortion.**

TRACKABILITY

Trackability—the ability of the stylus to stay in contact with both groove walls—remains the single overwhelming measure of a cartridge's overall performance. In the trackability chart (Figure 5), the pyramidal shape represents the recommended theoretical limits of record cutting velocities. The small scattered circles are the "hottest" recorded velocities actually measured on difficult-to-track records. Although a cartridge with moderate trackability will be able to track all the recorded velocities within the theoretical record-cutting limits, substantially higher trackability is obviously needed to track the recorded velocities actually found on today's discs.

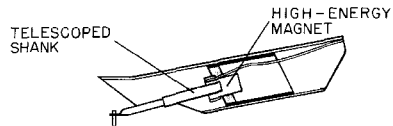
The trackability of the M97 LT at 1.25 grams is shown below.



TRACKABILITY
FIGURE 5

TELESCOPED SHANK AND HIGH-ENERGY MAGNET

The effective mass of the M97 LT moving system has been lowered by utilizing a telescoped shank structure and a new lightweight high-energy magnet (see Figure 6). With no sacrifice in either electrical output level or required shank stiffness, the dynamic mechanical impedance has been significantly reduced. The outcome is flat frequency response and improved trackability in the critical mid and high frequencies.



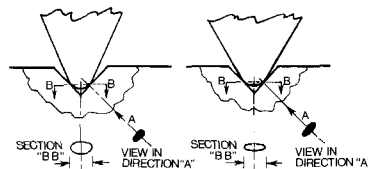
STYLUS CROSS SECTION
FIGURE 6

FLAT FREQUENCY RESPONSE

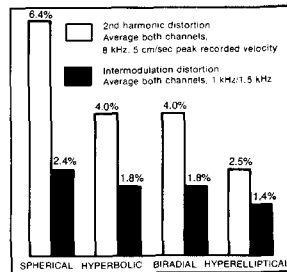
Faithful reproduction of recorded music requires flat frequency response from the phono cartridge, the first element in the reproducing chain. If the cartridge neither adds nor subtracts emphasis at any frequencies, then the sound of the original performance can be recaptured. The M97 LT frequency response is enviably flat and uniform across the audio spectrum. This ensures true high fidelity reproduction of all your recordings.

HYPERELLIPTICAL STYLUS TIP

The hyperelliptical nude diamond tip configuration of the M97 LT represents a significant advance in tip design for stereo sound reproduction. As shown in Figure 7, its "footprint" (black oval) is longer and narrower than the traditional biradial (elliptical) tip-groove contact area. Because the hyperelliptical footprint geometry is narrower than both the biradial and long-contact shapes such as the hyperbolic, it is pre-eminent for reproduction of the stereo-cut groove. In fact, as a result of the optimized contact area of the hyperelliptical tip, both harmonic distortion (white bars in Figure 8) and intermodulation distortion (black bars) are dramatically reduced.



BIRADIAL TIP HYPERELLIPTICAL TIP
FIGURE 7



HARMONIC AND INTERMODULATION
DISTORTION FOR VARIOUS TIP SHAPES

FIGURE 8

SPECIFICATIONS

Frequency Response: 20 to 20,000 Hz

Typical Trackability (at 1.25 grams tracking force, in cm/sec peak velocity):

400 Hz – 30 cm/sec

1,000 Hz – 44 cm/sec

5,000 Hz – 41 cm/sec

10,000 Hz – 31 cm/sec

Output Voltage (at 1,000 Hz, 5 cm/sec peak velocity): 4.0 mV per channel

Channel Balance: Within 2 dB

Channel Separation (minimum): 25 dB at 1,000 Hz

Optimum Load: 47,000 ohms resistance in parallel with 200 to 300 picofarads capacitance per channel. Load resistance can be up to 70,000 ohms with almost no audible change in frequency response. Total capacitance includes both the tone arm wiring and amplifier input circuit.

Inductance: 700 millihenries

DC Resistance: 1550 ohms

Tracking Force: 1.25 grams optimum; 1.5 grams maximum

Net weight: 6 grams

Replacement Stylus: N97LT with hyperelliptical nude diamond tip, Red grip

RECOMMANDATIONS POUR LE NETTOYAGE DE LA POINTE: Utilisez une brosse douce, humectée d'alcool pur ou dilué. Les liquides de nettoyage vendus dans le commerce peuvent endommager ou corroder la pointe. Brossez toujours d'arrière en avant.

REPLACEMENT DU DIAMANT: Placer le bras de la platine Technics dans la position adéquate. Opérer comme suit:

1. Le capot étant fermé, utiliser le mode "manuel" pour placer le bras approximativement à mi-course.
2. S'assurer que le bras est en position "up" (cellule non en contact avec le disque), et mettre le contacteur d'alimentation de la platine sur "off."
3. Soulever le capot.

Remplacer le diamant comme la figure. Tenir le diamant par le plastique, prendre garde à ne pas toucher ou endommager le diamant ou le tube porte pointe.

REGLAGE DU PREAMPLI: La M97 LT est une cellule à aimant mobile. Si votre platine Technics a un préampli cellule incorporé, assurez vous que le selecteur est sur la position MM (moving magnet).

FORCE D'APPUI: La M97 LT est conçu pour fonctionner à une force d'appui optimale de 1,25 g. Ne pas utiliser de pression plus importante que 1,5 g. En cas de doute, contacter le fabricant de la platine afin de s'assurer que la force d'appui est correcte.

FULL ONE-YEAR WARRANTY: Shure Brothers Incorporated ("Shure"), 222 Hartrey Avenue, Evanston, Illinois 60204, warrants to the owner of this product that it will be free, in normal use, of any defects in workmanship and materials for a period of one year from date of purchase. You should retain proof of date of purchase. Shure is not liable for any consequential damages. If this Shure product has any defects as described above, carefully repack the unit and return it prepaid to:

Shure Brothers Incorporated
Attention: Service Department
1501 West Shure Drive
Arlington Heights, Illinois 60004

If you are not in the United States, return the unit to your dealer or Authorized Service Center for repair. The unit will be repaired or replaced and returned to you promptly, and if it cannot be repaired or replaced, you may elect to receive a refund. This warranty does not include stylus wear.

PATENT NOTICE: Cartridge and stylus manufactured under one or more of the following U.S. Patents: 3,055,988; 3,077,521; 3,077,522; and 3,463,889. Other patents pending.

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