MODEL M8D STEREO STANDARD PHONO CARTRIDGE

GENERAL

The Model M8D Stereo Standard Dynetic Phono Cartridge has been developed for use in all high fidelity applications. It has been designed to connect into magnetic and constant velocity inputs.

The Model M8D is completely compatible. In other words, the Model M8D will play Stereo Discs Stereophonically, Monaural Discs Monaurally, and Stereo Discs Monaurally without excessive wear and without distortion.

The Model M8D utilizes the same moving magnet principle employed in both the Studio, Professional and Custom Dynetic Phono Cartridges and offers the same important features, such as:

- High needle compliance.
- Low needle talk.
- Low tracking forces.
- Wide range frequency response.
- Magnetic induction from external fields is reduced to a minimum.
- No magnetic attraction to steel turntables.

SPECIFICATIONS

Response Frequency Characteristics: From 30 to 15,000 c.p.s.
Output Voltage: 5 millivolts per channel.
Channel Separation: More than 20db at 1000 c.p.s.
Recommended Load Impedance: 47,000 ohms (per channel) for Stereo. 22,000 ohms for monaural. Higher values will produce a slight increase in high frequency response.

Stylus: Number N8D
Radius .0007" (0.018 mm.) Diamond
Compliance: VERTICAL \frac{1}{\text{per dyne}} \cdot \frac{\text{centimeters}}{\text{centimeters}}
HORIZONTAL \frac{3.0 \times 10^{-4}}{\text{per dyne}} \cdot \frac{\text{centimeters}}{\text{centimeters}}
Tracking Force: 5 to 8 grams (6 grams optimum)
Inductance: 420 millihenries
Terminals: 4 terminals. An independent ground terminal for each channel. (See Fig. 1).
Mounting: Standard 1/2" (12.7 mm.) mounting centers using \#3 or \#4 machine screws. .437" (11.1 mm.) mounting centers using \#2 machine screws.
Weight: 9.0 grams (.32 oz.)

MOUNTING

The M8D Cartridge has standard 1/2" (12.7 mm.) mounting centers. Two \#3-48 x 1/4" (6.4 mm.) long machine screws are supplied with each cartridge for mounting purposes. By using \#2 machine screws, the cartridge can be mounted on .437" (11.1 mm.) centers. It is important, during installation, that the line on the front of the cartridge be perpendicular to the turntable or record surface. If no adjustment is available to do this, a paper or metal shim can be used on one mounting post to adjust angle of cartridge.

The recommended needle point force for optimum results is 6 grams. When replacing magnetic cartridges, adjustment is generally unnecessary. Should it be necessary, adjustment may usually be made by adjusting the counter balance or spring at rear of arm. Forces up to 8 grams may be used if needed to provide proper cycling of the record changer.

CONNECTIONS

The M8D cartridge utilizes a 4 terminal arrangement for connections having a separate ground terminal for each channel. (See Figure 1).

For Stereo reproduction, terminal "R" and its ground terminal represent the right channel (outside groove wall). Terminal "L" and its ground terminal represents the left channel (inside groove wall).

To use a 4Lead arrangement connect each section of the cartridge to separate amplifiers. To prevent "ground loops" and hum, no common connection should exist between the two amplifier systems.

When used with a 3-Lead arrangement, the shield lead should be connected to both of the ground terminals at the cartridge. No other common ground connection should exist.

For single channel reproduction of Monaural or Stereo recordings, connect the "hot" lead to both "R" and "L" terminals and connect the ground or shield lead to both of the ground terminals marked "G".

For 3-Lead arrangement and for single channel reproduction, a "double loop" pin jack is provided to make a convenient connection between the two ground terminals—simply slide the loop ends onto the ground terminals. This connection should be made before connecting the regular terminal jacks to the cartridge. Connect ground pin jack to either ground terminal.

Figure 1
CAUTION

Do not make solder connections to cartridge terminals. Make all solder connections to terminals jacks provided.

PHASING

It is important to maintain correct phasing of both loudspeakers. Although the phasing of the M8D cartridge is carefully controlled, there are many possibilities where a particular High Fidelity system can cause opposite phasing of the sound from the speakers. The phasing can be easily checked by a listening test. Play a monaural record using the M8D. Reverse the connections of the wires to one speaker. This can be done at the amplifier or the speaker, which ever is more convenient. When the sound appears to come from a point halfway between the speakers, they are in phase. Also, bass reproduction will be much fuller when speakers are correctly phased.

STYLUS REPLACEMENT

SPECIAL NOTE: Because the stylus-magnet assembly plays such an extremely important part in the overall performance of the Stereo Standard Dynetic Phonograph Reproducer, be certain that any replacement stylus is a genuine Shure "Stereo Standard Dynetic" stylus.

The stylus assembly, when installed in the cartridge is practically immune to damage during normal usage. However, care should be taken to avoid bending or distorting the stylus assembly when it is installed or removed.

Stylus replacement is simple and fast. (See Figure 2). To replace (Step 1) — Insert fingernail file (or a similarly pointed tool) behind the lip at the front of the stylus spade. Care must be taken not to deform needle shank (portion holding needle tip) or spring wire in the stylus assembly. (Step 2) — Withdraw stylus by pulling forward out of cartridge—lift completely out with thumb and forefinger. (Step 3) — Grasp new stylus between thumb and forefinger and insert into stylus socket cartridge. (Step 4) — Press stylus into socket until it is firmly seated. Apply pressure at the front portion of the spade. Care must be taken not to allow the finger to slip off the front of the stylus spade resulting in damage to the stylus tip.

GUARANTEE

The M8D Stereo Standard Dynetic Cartridges are guaranteed to be free from electrical and mechanical defects for one year from the date of shipment from the factory, provided all instructions are complied with fully. The guarantee does not cover needle wear nor does it cover damage to the needle assembly from abuse or mishandling.

Figure 2

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