

TURNTABLE SHEET

Guide Book

TS-10

CERAMIC TURNTABLE SHEET (TS-10)

OWNER'S MANUAL

For greater listening pleasure, read this manual carefully to get the best performance from your TS-10.

Every TS 10 is carefully inspected before it leaves the factory. If the TS-10 is found to have been damaged during shipment, please contact your nearest KENWOOD SERVICE DEPOT.

FEATURES

- KENWOOD has long been proposing the so-called "Transient load theory" for phono-disc reproduction. The theory clarifies transient response of turntable platters that results from the reaction of disc tracing, which deteriorates phono-disc reproduction quality.
TS-10 CERAMIC TURNTABLE SHEET has been designed to provide exactly the high mechanical impedance under the stylus, and high anti-vibration performance.
- The material of the TS-10 is basically a ceramic, containing fine sapphire crystals the hardness of which is nearly equal to that of diamond. It is made by sintering alumina. The sintered alumina ceramic is porous and is impregnated with 50% silicone rubber. The modulus of elasticity of alumina, which demonstrates the rigidity of the alumina sheet, is $38,000 \text{ kg/mm}^2$. As a result of this high rigidity, the TS-10 prevents low-range vibration from reaching the record.
The silicone rubber impregnated in the sheet which occupies 18% of the TS-10 volume absorbs high-and middle-range vibration.
- Using the TS-10 in conjunction with the optional accessories INNER DISC STABILIZER (DS-21) and OUTER DISC STABILIZER (DS-20) will bring about improvement in the quality of sound reproduction.
- The package for the TS-10 can be used as a spare record sleeve.

HOW TO USE THE TS-10

- Remove the rubber turntable sheet from the KD-750/650/600 etc. Install the TS-10 with the aluminum disk facing upwards (refer to Fig. 1).

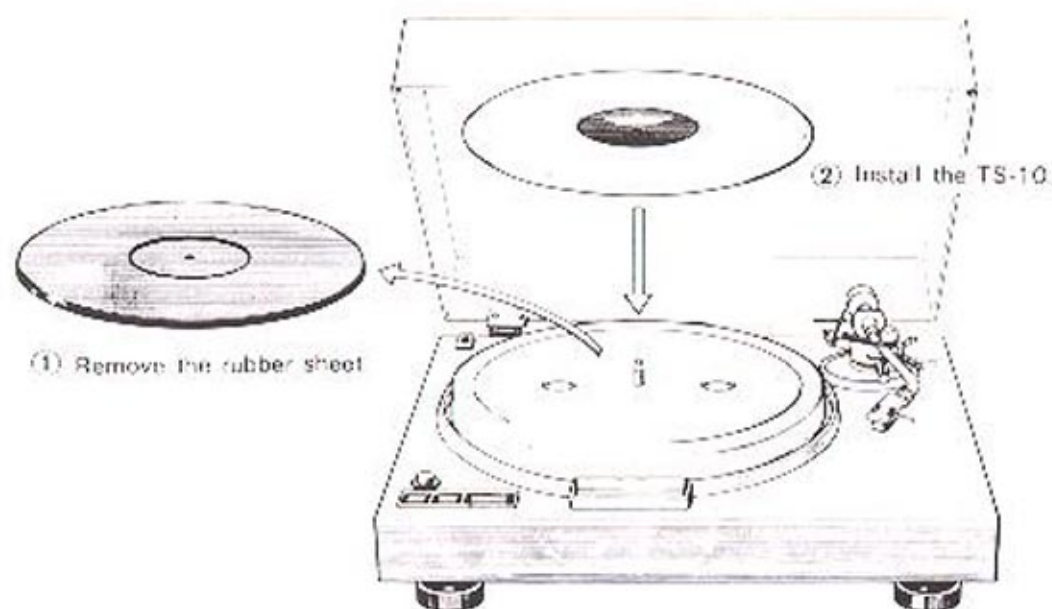


Fig. 1

Note:

- The TS-10 cannot be installed on some turntables of other manufacturers.
 - When installing the TS-10, exercise care to avoid bringing the stylus into contact with the TS-10.
 - Dust and dirt on the TS-10 will damage the record. Clean the TS-10 with a dry cloth before installation.
 - The TS-10 is precision finished, and must be treated with care at all times to avoid damaging it. If the TS-10 is dropped onto hard floor it will break.
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- As the TS-10 is not coated with paint for the protection of surface hardness, crystals may appear on the surface, depending on the direction of crystallization.
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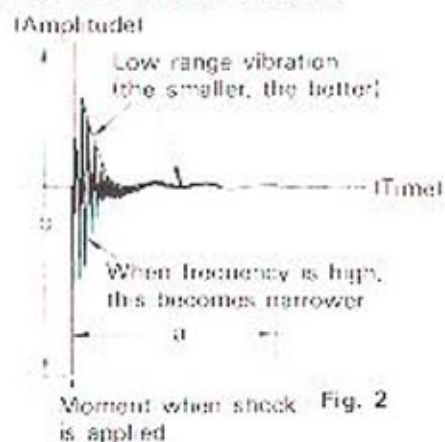
REFERENCE (Additional Technical Data)

The anti-vibration performance of several materials tested in our laboratory is discussed in the following.

Each turntable sheet tested had the same shape.

A record was placed on the turntable and the damping factor measured when a one-pulse shock was applied.

Explanation of the characteristics



a = Decay time: the shorter, the better

b = First oscillation: the smaller, the better.

1) TS-10



Fig. 3

Note that (a) is very short, (b) is very small and there is little low range vibrations.

2) Glass sheet

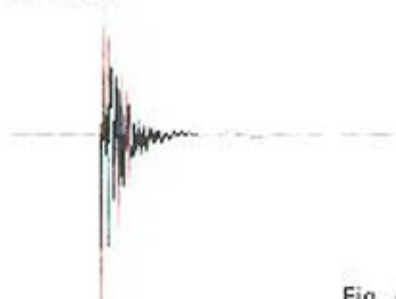


Fig. 4

The value of (a) is reasonably good. The value of (b) is larger than that of the TS-10. Low-range vibration is present because of the resonant properties of the glass.

3) Rubber sheet (made by Kenwood)

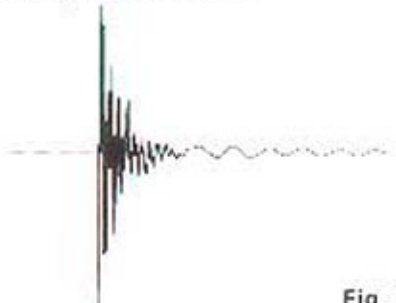


Fig. 5

The values of (a) and (b) of our rubber sheet are good compared to other maker's sheets. However, rubber is not rigid, and low range vibration is prolonged. The value of (b) is larger than that of the other materials.

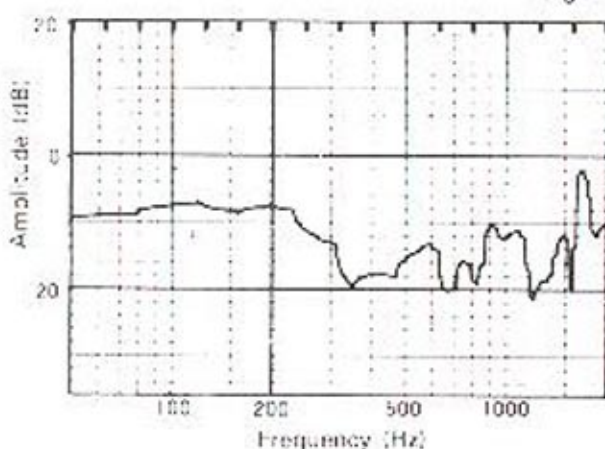
Frequency analysis of record vibration using different turntable sheets

The figures below show the frequency data of record vibration when turntable sheets made of different materials are used.

Ideally, both amplitude level and level variation must be as low as possible.

1) TS-10

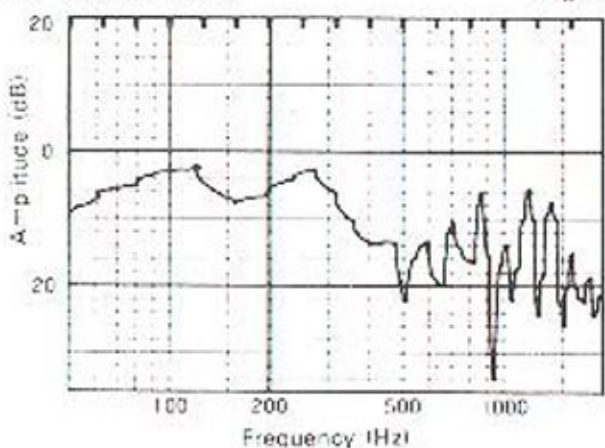
Fig. 6



The amplitude is very low and vibration in the low and middle ranges is negligible. What is more, variation is extremely small.

2) Glass sheet

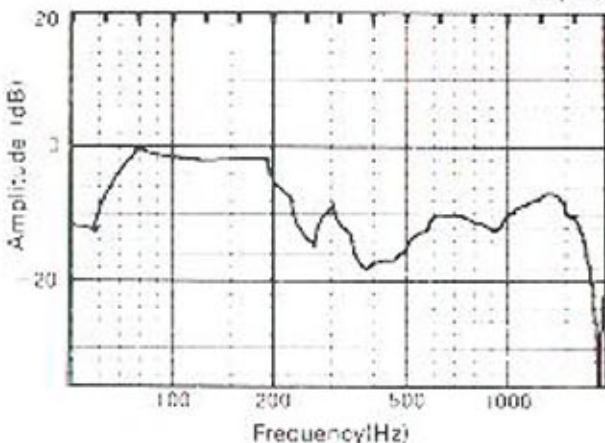
Fig. 7



The high rigidity of glass prevents low-range vibration. However, level variations above the middle range are too high.

3) Rubber sheet

Fig. 8



Because of the low rigidity of rubber, vibration below 200 Hz cannot be avoided.

SPECIFICATIONS

Material	Open pore type ceramic
Main material	White electrically fused alumina particles (approx. 45 microns)
Connective material	High viscosity glass
Porosity :.....	18% (45 micron pores)
Mean specific gravity	2.48
Diameter	303 mm (11-15/16")
Thickness	7.0 mm (1/4")
Weight	1,200 g (2.65 lbs)

Specifications are subject to change in line with improvements without notice.

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