
U H Q R B Y M O B I L E F I D E L I T Y S O U N D L A B

Technical Specifications Manual

Welcome to a whole new world of phonography.

You are about to embark upon a new category of listening experience . . . the likes of which have only been dreamed about by the most dedicated audiophiles.

The UHQR (Ultra High Quality Record) by Mobile Fidelity Sound Lab combines the revolutionary mastering technology developed and used exclusively by Mobile Fidelity Sound Lab with a revolutionary new technology in pressing records developed by the Victor Company of Japan (JVC).

Allow us to detail the technical aspects of this audio breakthrough . . . UHQR by Mobile Fidelity Sound Lab:

The manufacturing process employed by JVC to achieve the UHQR's technological uniqueness

was an outgrowth of its pioneering research with the original CD-4 disc and current VHD/ADH video-disc processes. Low frequency range distortion, which has to be compensated for in conventional records, has been reduced to a minimum. Additionally, various mid and high frequency range characteristics have been dramatically improved . . . so much so that theoretical values have nearly been achieved.

The discs are made of Super Vinyl, stressing high forming accuracy and excellent wear resistance through an ultra-rigid quality control program. The individual UHQR disc is flatter and thicker than a conventional record, significantly reducing disc surface vibration. All in all, individual quality variations in each UHQR are at an absolute minimum.

ANALYTICAL PROFILE/UHQ

SUPER VINYL:

Super Vinyl was developed by effecting improvements on the material of the CD-4 record. This newly developed material has already proved its excellent performance via the technical record used in calibration of the phono pickup, the first factor that governs the quality of reproduced sound. It is also employed on the technical record used for adjusting the record cutting lathe. The most important requirements that this material must fulfill are adequate elasticity and extreme durability. JVC has met these requirements through the use of a highly polymerized synthetic resin with high vinyl-acetate content derived

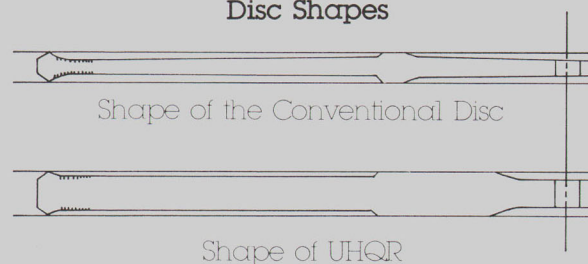
from a vinylchloride-vinylacetate copolymer. In the development of this material, hundreds of substances were tested in an attempt to select an optimum additive agent. These efforts have reaped rewards in the form of a disc material which wears least and offers a much better S/N ratio. Its frequency response is so accurate that the specification of ± 0.5 dB is maintained over a frequency range of 20 Hz to 20 kHz. This performance level never changes, no matter how often the UHQ disc is played.

DISC PROFILE:

In pursuit of ideal sound reproduction, the UHQ disc surface slant has been eliminated to impart perfect flatness to the disc, eliminating this element of tracking error. Disc flatness has been increased to minimize

mechanical pickup vibration and disc surface vibration due to reproduced sound pressure from the speaker (acoustical feedback).

Disc Shapes



FLAT FACE:

If the disc has minute surface irregularities called "orange peel," low frequency noise is produced to the detriment of the quality of the reproduced sound. To prevent the occurrence of this noise, an ultra-precision mold is used to achieve perfect surface flatness of the disc. Additionally, the back of the stamper is given a smooth finish by a polishing machine developed by JVC. As a result, orange peel, unwanted sound and dis-

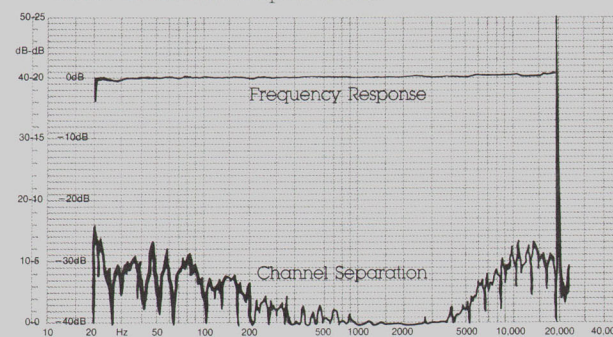
tortion have been eliminated to give the UHQ its incredibly clear and distinct sound.

HIGH PRECISION PRESS:

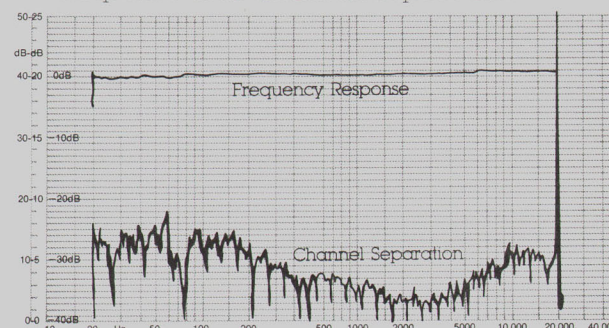
Each UHQ is pressed on a totally unique, high precision press developed by JVC. It is instrumental in the minimization of disc eccentricity and warpage, which cause wow and flutter that debase the quality of reproduced sound.

Comparison of Characteristics of UHQ Technical Disc and Conventional Disc

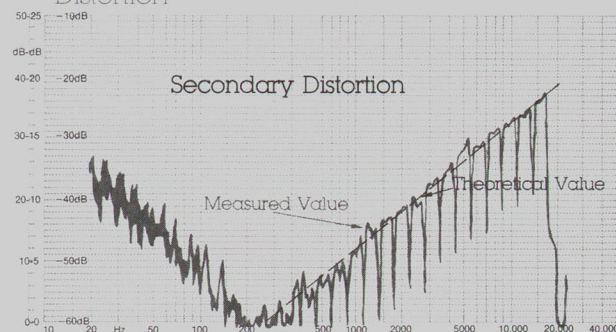
1. UHQ Technical Disc Frequency Response and Channel Separation



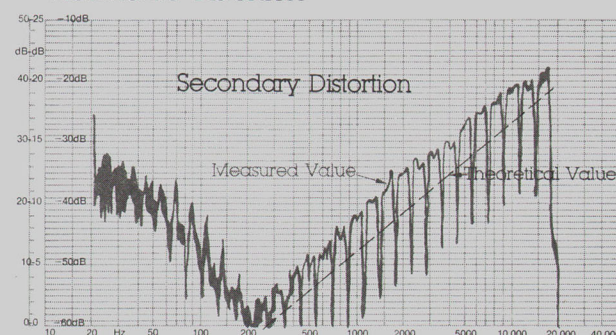
2. Conventional Technical Disc Frequency Response and Channel Separation



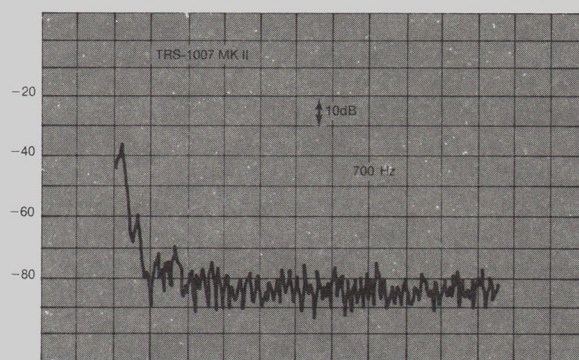
3. UHQR Technical Disc Second-Harmonic Distortion



4. Conventional Technical Disc Second-Harmonic Distortion

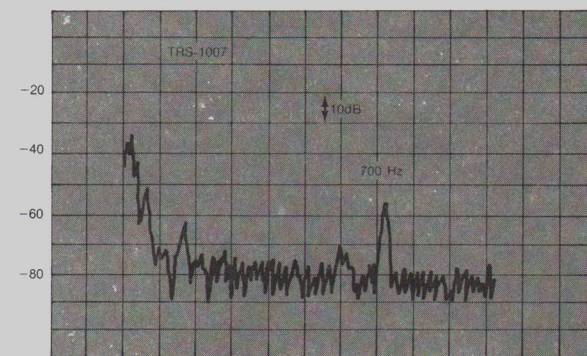


5. UHQR Technical Disc Surface Vibration



Record Weight 200 gr. Thickness 2.3 mm

6. Conventional Technical Disc Surface Vibration



Record Weight 115 gr. Thickness 1.0 mm

SUMMARY: UHQR TECHNICAL PROPERTIES

- Frequency response is flat. Whereas the frequency response of conventional discs is ± 3 dB from 20 Hz to 20 kHz, that of UHQR discs is within ± 0.5 dB.
- Excellent channel separation. The channel separation capability of UHQR discs has been improved by 9 dB at 300 Hz, by 12 dB at 1 kHz, and by 6 dB at 10 kHz, as compared with that of conventional discs.
- Distortion is so low that theoretical values have been nearly achieved. Low, mid, and high range distortions have been improved by 12, 10, and 6 dB or more, respectively.
- Mid-range disc surface vibration has been reduced. Disc surface vibration in the neighborhood of 700 Hz has been reduced by 10 dB.

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- Minimal individual disc quality variations.
- Excellent wear resistance. Since the disc is flat, thick and free from physical shape distortion, it has excellent wear resistance and gives extremely reliable performance.

But, obviously, sound is the most important consideration. The UHQR by Mobile Fidelity Sound Lab provides more solid bass, more substantive imaging, more three-dimensional field, and a much greater definition of inner detail. In total, a significantly more realistic presentation of the recorded information.

It is Mobile Fidelity's experience that most surface noise is generated by mis-application of cleaning preparations to the surfaces of our records. Therefore, we recommend against using same. Instead, careful use and storage in a clean environment, coupled with careful sweeping of the surfaces with a clean, dry, lint-free brush before and after each use will preserve the surfaces. Should this record accumulate cigarette smoke, finger-prints or the like, shame on you! We recommend you have the disc cleaned on a Keith Monks machine.

The first six Limited Edition UHQR titles issued by Mobile Fidelity Sound Lab were:

HOLST: THE PLANETS by Sir Georg Solti
conducting the London Philharmonic
(Winter 1982)
TEA FOR THE TILLERMAN
by Cat Stevens (Winter 1982)
RESPIGHI: FESTE ROMANE
by Lorin Maazel conducting the
Cleveland Orchestra (Winter 1982)

THE DARK SIDE OF THE MOON
by Pink Floyd (Summer 1981)
CRIME OF THE CENTURY
by Supertramp (Summer 1981)
FINGER PAINTINGS
by Earl Klugh (Summer 1981)