KRELL
DIGITAL INC.

MD-10 Compact Disc Transcription Turntable

The MD-10 Compact Disc Transcription Turntable is a distillation of several years intensive research into the CD reading process. Based on principles pioneered for its predecessor, the MD-1, the MD-10 reveals a sonic quality previously considered unattainable from the CD format. The MD-10 establishes a new performance plateau certain to be unsurpassed well into the future.

TECHNOLOGICAL ADVANCES

Clearly the most critical function of the MD-10 is the transfer of data from the disc to the outputs with an absolute minimum of alteration or corruption. Research revealed that the implementation of four-layer circuit boards would provide certain advantages appropriate for the demands of digital circuitry. As contrasted with conventional two-layer boards, four-layer boards provide two extremely significant benefits: a virtually direct path from the power supply to all active circuit components; large ground plane areas to prevent circuit groups from interacting with one another. This creates an ideal environment for the various circuits to operate within. Specifically, the digital, servo motor control and output stages operate with direct access to the power supply and in complete isolation from other electrical activity within the unit. The increase in data accuracy delivered to the processor from this technology is substantial.

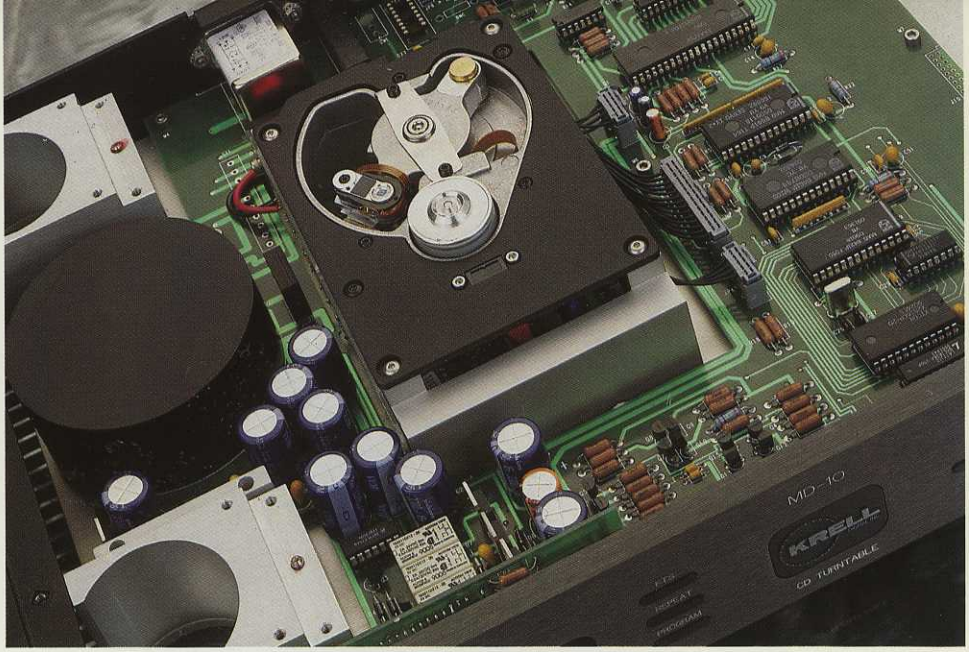
MECHANICAL SOPHISTICATION

The MD-10 employs the finest CD-ROM drive for reading the disc.These drives are intended for defense and medical computer applications, functions which require an extreme degree of initial read accuracy. As utilized in the MD-10, the resultant read purity is extraordinary. The MD-10 does provide superb error correction to compensate for missing or altered data. Error correction, however, will always remain an effective compromise, not a desired solution. Further, the CD-ROM drive is built to withstand 24 hour continuous operation. Its construction provides long-term stability and insures the MD-10 will essentially be immune from laser mis-alignment and mechanical wear problems.

Like an LP turntable, CD turntable performance is degraded when subjected to vibration. The MD-10 design addresses this problem with a robust mechanical construction firmly set in the KRELL tradition. The CD-ROM drive is mounted in a rigid sub-chassis fabricated with machined parts of solid aluminum block. This assembly is mounted in a sophisticated suspension system which isolates it

Front panel switches are laid out in a logical progression. Programming, basic operation and scanning functions are grouped individually.

Cutaway view reveals the meticulous build quality. Leveling components are installed through the towers at left.



from extraneous external vibration and provides for precise leveling. Four leveling suspension towers are fitted into the chassis corners. These towers float the laser/drive subassembly from the outer chassis and, with adjustment of the leveling rings, allow the MD-10 to be made perfectly level. A small eye-type level is mounted into the MD-10 top plate to facilitate the process.

The requirement for absolute stability of the CD-ROM drive also accounts for the MD-10's top-loading design. Drawer-loading assemblies are in conflict with a most basic engineering tenet: fewer moving parts equals greater machanical stability. Only top-load construction allows the mechanical precision and control required for reading the disc with utmost accuracy.

The faceted lucite cover creates a dramatic and unique visual effect.

Mechanical coupling of the disc to the drive is accomplished with a gold-plated, solid brass centering weight. This part is machined to a specific mass and diameter to effectively damp the CD without placement of unneccesary stress on the motor or bearings.

Laser accuracy can be affected by external light present in the read area. To combat this effect, the Ambient Light Cancellation System was developed for the MD-10. A complex of LEDs are mounted adjacent to the laser read area to prevent contamination of the data stream by reflected, extraneous light.

CONVENIENCE FEATURES

The MD-10 has a compliment of four digital output formats. Two coaxial outputs on RCA connectors and one fibre optic output in the industry standard Tosh-link format are provided. The fourth output, identified as AT&T, employs an ST connector. This fibre optic format has a data rate of 50M bits and offers the best available transmission from turntable to processor. It is the only format with sufficient rise time to maintain critical timing information without induction of jitter. In comparison, the Tosh-link format has a data rate of 6M bits. A two meter AT&T cable is provided with the MD-10 when purchased with a KRELL processor fitted with the AT&T format.

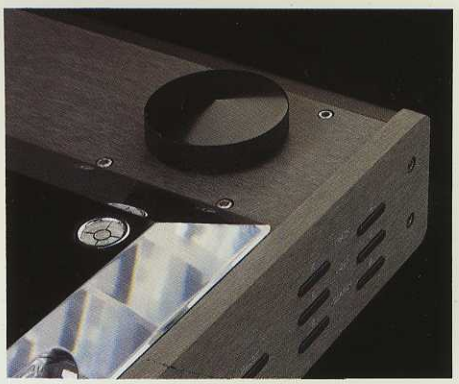
The MD-10 also has a complete array of programming functions, all of which are activated from its remote control. In addition to standard functions such as special playing orders and repeat, the MD-10 has Philips Favorite Track Selection (FTS) system. With FTS you can enter playing information for specific CDs into the MD-10 memory. Each time you play an FTS disc, you can recall this information and the MD-10 will play the disc as previously instructed. You also have the option of playing the disc normally or setting up a new playing order.

SIGNATURE AESTHETICS

One look at the MD-10 reveals that no compromise was allowed in its aesthetic presentation. The heavy protective dust cover is machined from a solid lucite block and hand-polished to enhance the prismatic effect of its design. Front plates are hand-brushed before hard coat anodizing to create a rich, grained texture. Front and rear panel legends are computer engraved, yielding a quality of appearance and touch far beyond the conventional.

A TANGIBLE SENSE OF QUALITY

KRELL strives to make quality tangible. An audition of the MD-10 will immediately reveal its superb sonic character. Scrutiny of the fit and finish will make apparent its unique and superior construction. A discussion with other Krell owners will complete the equation: Krell delivers what many promise—real quality in technology, appearance, construction and consideration of its customers.



Custom knurled knobs top the suspension towers. A circular level facilitates quick, accurate leveling.

SPECIFICATIONS

Transport
CD-ROM drive with long-life motor, swing-arm design and unicast frame

Laser
Single beam

Laser Lens
Glass

Outputs
Digital only in CD format:
One fibre optic in AT&T format using ST connector
One fibre optic in industry standard Tosh-link format
Two coaxial outputs using RCA connectors

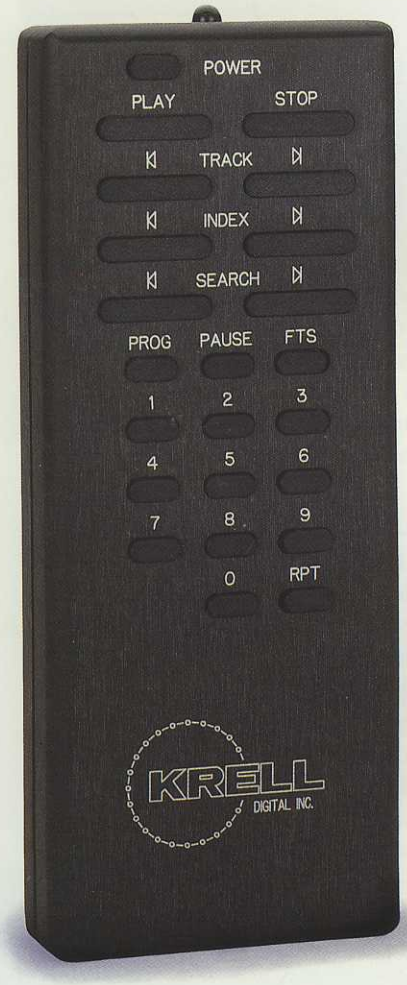
Remote Control
Full function with 10 key pad, wireless infrared

Warranty
Five years parts and labor on electronic parts
Three years parts and labor on transport-related parts

Dimensions
19" wide, 12.5" deep
6" high, cover closed
15" high, cover open

Weight
28 pounds in shipping carton
25 pounds, unit only

Krell Digital, Inc. reserves the right to change this product's features and specifications without notice.



MD-10 REMOTE CONTROL

The MD-10 Remote Control is constructed with the same care and attention to detail as the MD-10 itself. Machined from solid aluminum block, the parts are hand brushed, anodized and computer-engraved. Switching and transmitting circuitry is encased between the two halves.

The rounded curves and substantial weight of the remote create a graceful tactile sense that adds to the pleasure of using the MD-10.

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