



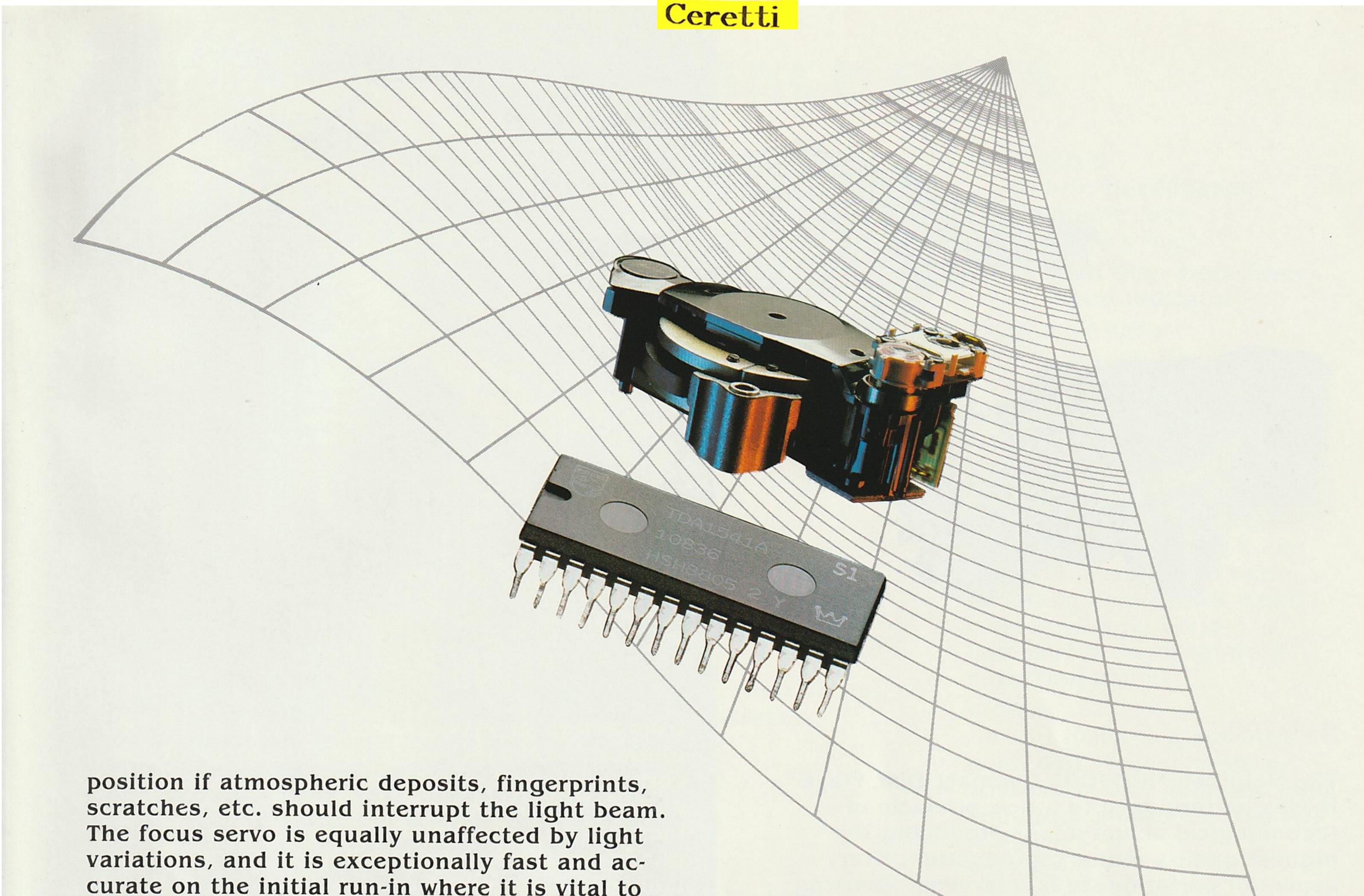
that it is flat to within its own thickness - an essential condition for the suspension to meet its specification. To preserve this flatness condition both during assembly and in operation, this delicate component is covered by a protective shield. The focus motor is so light and compact that it can be mounted directly on the arm, instead of an isolating or damping bridge. With this construction the two principal lowfrequency resonances are completely eliminated. The extremely low mass of the moving assembly and the focus lens with its actuator and suspension permits corresponding reductions in the mass of the focus motor magnet, the counterweight and the complete arm, all of which is an important key to the superiority of this design.

The linear motor which drives the laser pen across the disc - a vital factor in combining accurate tracking with fast track accessing - has been reconfigured to virtually eliminate axial torsion in the swinging arm. As a result, the new swinging arm transports the laser assembly across the disc with exceptional smoothness and accuracy during crossing modes for search, review and stopping.

Trackability is the measure of a player's ability to stay on track in order to read out all the encoded information on a compact disc. The McIntosh player is designed and engineered to track better, even when the disc has deposits, fingerprints, scratches or optical irregularities. A laser beam is not mechanically restrained by a groove. It has to be centered along a microscopically narrow track, and held at the exact focal distance. The quality of the readout depends on built-in trackability. The McIntosh solid-state laser unit avoids unnecessary mass and complexity to insure ideal trackability.

The new low mass laser pen accesses tracks faster and more accurately. Average access time is no more than 1 second. It's easier to locate tracks or indexes, forward or backward, to go to any required piece of music, or to find the exact point wanted within a music passage. Part of the excellent trackability results from the new low mass, low inertia, high compliance single beam laser pen.

The single-spot laser - which was already recognized for its readout purity - stays even more precisely on track and in focus. The digital signal that is read out is processed even more truthfully. Even in the face of disc eccentricity and warp and of disc defects or dirt that would interrupt play in the majority of players, the sound of the McIntosh is superb. A servo mechanism that responds to disc eccentricity or unevenness hold the elegantly compact laser pen on track. This servo device uses built-in compensation for varying disc reflectivity or changes of the laser, and remembers its proper



Both high-precision servos, the tracking servo and the focus servo are integrated to a higher degree than ever, embodying many functions that have to be performed with discreet components in other players. For these functions, there is no wear, no deterioration with time, and no set-up adjustment to go wrong. Thus a permanent improvement in readout accuracy is achieved.

establish the focal distance quickly. Better

trackability produces a high quality readout,

refined still further by superior error correction.

REFINEMENTS TO THE ALL-INTEGRATED ELECTRONICS

The value of all-integrated electronics is already well recognized. Compact Disc players could never have been built out of discrete components in small enough dimensions to be practical devices, and the costs would be prohibitive. The advanced integration techniques incorporated in the MCD 7007 provide virtually all digital functions within the integrated circuits. Even the self-regulating and reference circuits are designed in the new VLS (very large scale) integrated circuit. You gain in value because the VLS eliminates the need for factory adjustment. There is nothing to adjust so nothing can go out of adjustment assuring constant highest quality sound. You get very high standards of performance, consistency and reliability.

Demodulation, full-performance, error detection and correction and basic concealment of uncorrectable audio data are all performed in the VLS chip. These circuits include a fully-integrated demodulator PLL and an adaptive data slicer, a large FIFO memory to absorb the effects of inevitable drive motor fluctuations, and adaptive error correction which can handle bursts of up to 15 audio frames. This highly-advanced concept takes performance closer than ever to the theoretical maximum.

DIGITAL TO ANALOG CONVERTER

The digital to analog converter has been completely redesigned. In conjunction with the improved digital filter, it has yielded an important improvement in amplitude linearity, right down to the lowest signal levels. Other advantages include a wide operating temperature range (-40 to 85°C), excellent electrostatic protection and lower power dissipation. The performance selected McIntosh 'Golden Crown' delivers the highest achievable performance. Certainly one of the finest digital-to-analog converters in the world.

Truly, the McINTOSH MCD7007 Compact Disc player sets superlative new standards for musical purity and enjoyment.

PERFORMANCE DATA

AUDIO

NUMBER OF CHANNELS
2

FREQUENCY RESPONSE

20-20,000 Hz, +0, -0.3 dB

DYNAMIC RANGE

96 dB (114 dB EIA)

SIGNAL-TO-NOISE RATIO

107 dB (A)

CHANNEL SEPARATION

102 dB (at 1000 Hz)

TOTAL HARMONIC DISTORTION

0.0012% (at 1000 Hz)

WOW AND FLUTTER

Quartz crystal precision

SAMPLING RATE

176.4 kHz

D/A CONVERSION

Quadruple oversampling (176.4 kHz) with digital filter and two 16-bit D/A converters

ERROR CORRECTION SYSTEM

Cross Interleave Reed Solomon Code (CIRC)

AUDIO OUTPUT LEVEL 2.5V

IMPEDANCE HEADPHONES

8-1000 ohms

Output for digital signal processing

OPTICAL READOUT SYSTEM

LASER

Semi-conductor AIGaAs

WAVE LENGTH

780 nm

SIGNAL FORMAT

SAMPLING FREQUENCY

44.1 kHz

QUANTIZATION

16-bit linear/channel

DISC

DIAMETER

120 mm

THICKNESS

1.2 mm

ROTATION (seen from

reading side)

Counter-clockwise

SCANNING VELOCITY

1.2-1.4 m/s

ROTATION SPEED

500-200 rpm

PLAYING TIME (maximum)

74 minutes (stereo)

TRACK PITCH

 $1.6 \mu m$

MATERIAL

Plastic

BUTTONS

Power Load Play* Scan* A ► B* ■ Rev* FF **▶** ▶ * Review Select Repeat* Store* Pause* Stop* Clear 0 thru 9 Time Volume * Back Track* Volume ▼* Next

*also provided on HR7007 Remote Control Transmitter.

Track*

CONTROLS

Level for Headphones Headphone Jack

SPECIAL FEATURE

Damaged Disc/Mute Error Correction Indicator

POWER SUPPLY

120V, 50/60 Hz, 30 watts

MECHANICAL INFORMATION

SIZE

Front panel measures 16 1/8 inches wide (41 cm) by 5 7/16 inches high (13.8 cm) by 13 inches deep (33 cm), including connectors. Knob clearance required is 3/4 inches (1.9 cm) in front of mounting panel.

FINISH

Front panel is glass with gold/teal nomenclature illumination and anodized gold and black aluminum. Chassis is black.

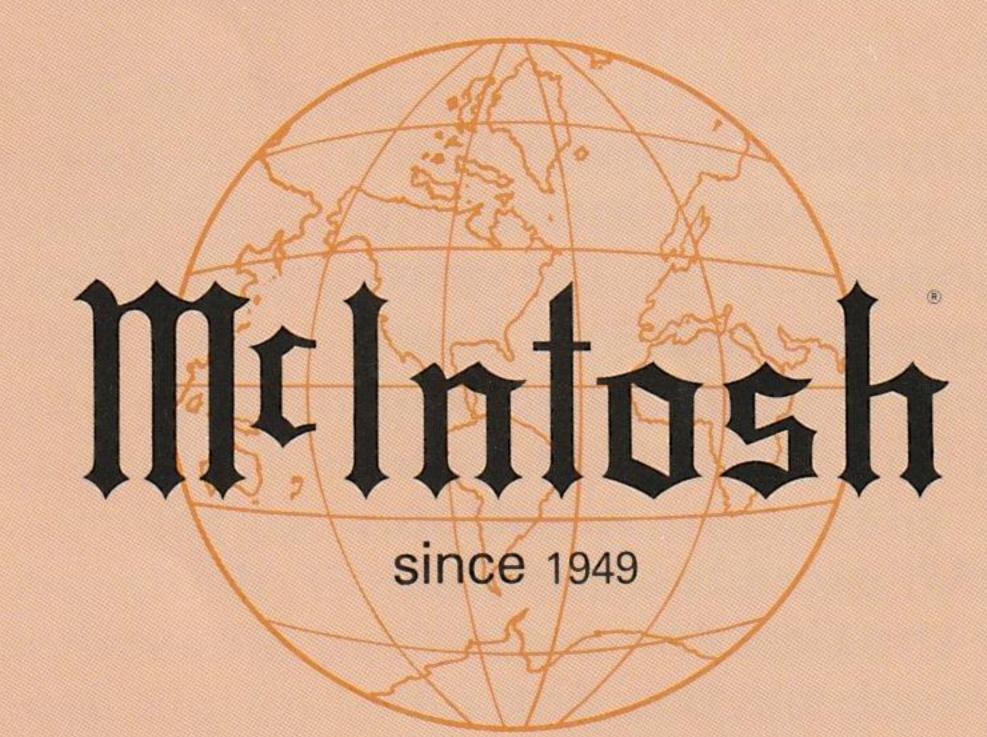
MOUNTING

Exclusive McIntosh developed professional PANLOC.

WEIGHT

18 pounds (8.2 kg) net, 30 pounds (13.6 kg) in shipping carton.

Franchised Dealer:



McINTOSH LABORATORY INC. 2 CHAMBERS ST., BINGHAMTON, N.Y. 13903-2699 607-723-3512

The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated who reserve the right to improve design without notice.