

## Why the T-7000

Is the World's Most Technically Advanced CD Transport.

1. **Extremely Low Jitter:** Almost all CD transports clock the bi-phase data stream in a casual way, with little attention paid to issues such as logic-induced modulation (LIM), power supply-induced logic switching noise, and circuit layout.

On the T-7000, the output data stream is re-clocked at the output of the transport, thus avoiding these inherent problems. As a result, the T-7000 achieves less than 10 picoseconds rms of jitter at the output. This is the lowest measured jitter we have ever recorded on any transport.

2. **Virtually No RF Noise:** Most CD transports employ low-cost, low-bandwidth output transformers with relatively high interwinding capacitance. This causes high-frequency roll-off and RF contamination of the binary output signal. Both of these effects introduce further jitter into the signal, which is then communicated through the coaxial interconnect to the D/A converter.

On the T-7000, a custom, ultra-low capacitance, high-bandwidth output transformer is used. As a consequence, high-frequency roll-off and RF contamination of the output signal is reduced by up to 30 dB. This results in a pure, clean square-wave signal which affords a highly accurate trigger and correspondingly low jitter in the reconstructed musical waveform at the D/A converter.

3. **Matched 75 Ohm Impedance:** Most CD transports do not have a 75-ohm output impedance. Since all high-quality D/A converters have a 75-ohm *input* impedance, this mismatch results in cable reflections. Cable reflections cause variability in receiver triggering, resulting in added jitter-related distortion.

The T-7000's output is precisely calibrated to 75 ohms, resulting in minimal cable reflection and precise triggering when a 75-ohm coaxial interconnect is used.

4. **AT&T Glass:** Points 2 and 3 above become non-issues with an AT&T glass fiber-optic interface. This is because the optical medium has inherent immunity to RF and electromagnetic interference. In addition, optical impedance matching is precise, and the coherent bandwidth is such that high-frequency roll-off is a non-issue. Therefore, provided that the output of the transport is inherently jitter-free (see point 1), the AT&T glass interface provides optimal communication of this signal to the D/A converter. This provides exceptionally clean triggering and a very pure, jitter-free musical result.

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