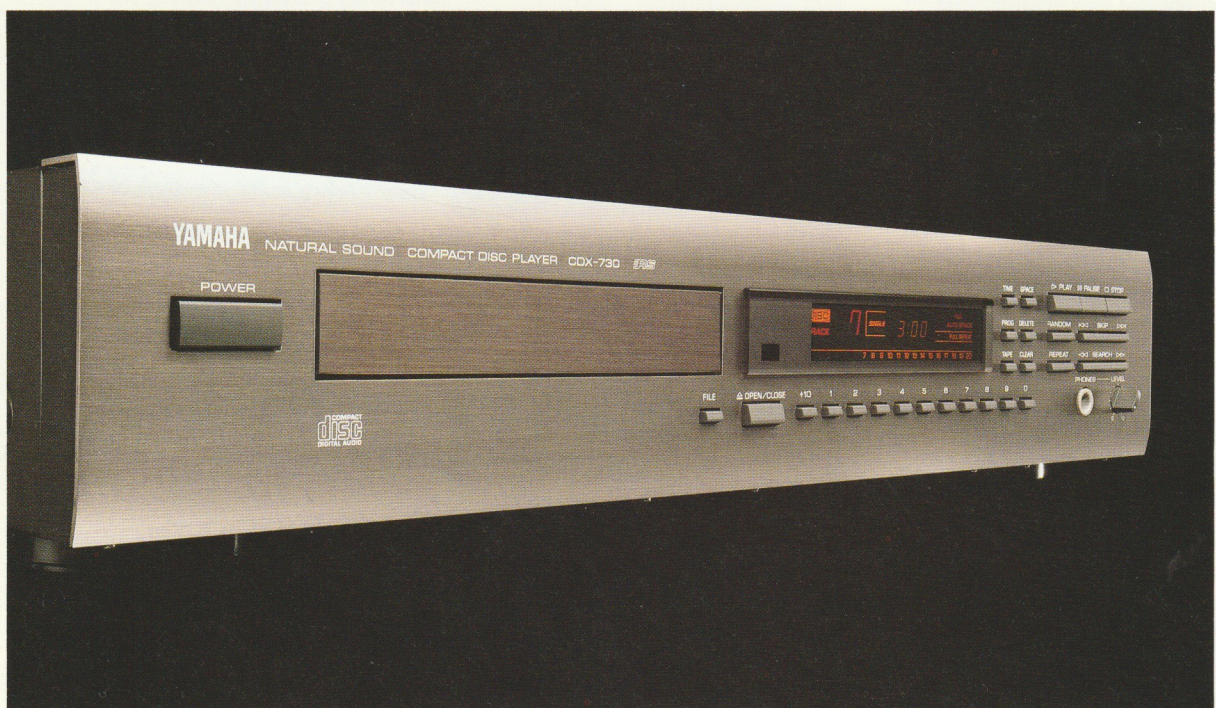


# YAMAHA

[Ti]  
TITANIUM SERIES

# CDX-730 RS CDX-530 RS

Natural Sound Compact Disc Players



Hi-bit CD COMPACT  
SINGLE DIGITAL AUDIO





CDX-730

# Yamaha Digital Technology: It Makes a Difference



You may wonder why Yamaha continues to work so hard at improving compact disc player technology. After all, since CD players are digital, there's not much difference between them, right? It's all just zeros and ones.

Wrong. There are many factors contributing to differences between players, most notably the digital to analog conversion process. And digital sound is *not* distortion-free—there can be a considerable amount of distortion in the digital process.

That's why Yamaha's Hi-Bit Digital Technology is such good news. It incorporates a number of new techniques and circuits that result in an output waveform that is smoother and more precise than previously possible, for ultra-low distortion and high signal-to-noise ratio.

A number of other Yamaha innovations have been included, as well, such as intelligent digital servo circuitry, a floating suspension system, and an anti-resonance, anti-vibration design.

It all makes a difference—the difference between ordinary CD performance and truly high quality sound reproduction.

## 8-Times Oversampling Digital Filter with Noise Shaping

The most significant technological advance in these CD players is the 8-times oversampling digital filter, with 18-bit data output. Its 352.8 kHz sampling rate puts the inherent digital sampling noise so far above the audio signal frequencies that it has no effect whatsoever. And since the sampling density is so high, the output waveform is incredibly smooth. With 8-times oversampling, the Hi-Bit digital filter can

be said to have reached perfection in a practical sense, by reducing both noise and ripple to a level below the sensitivity of the following D/A converter stage.

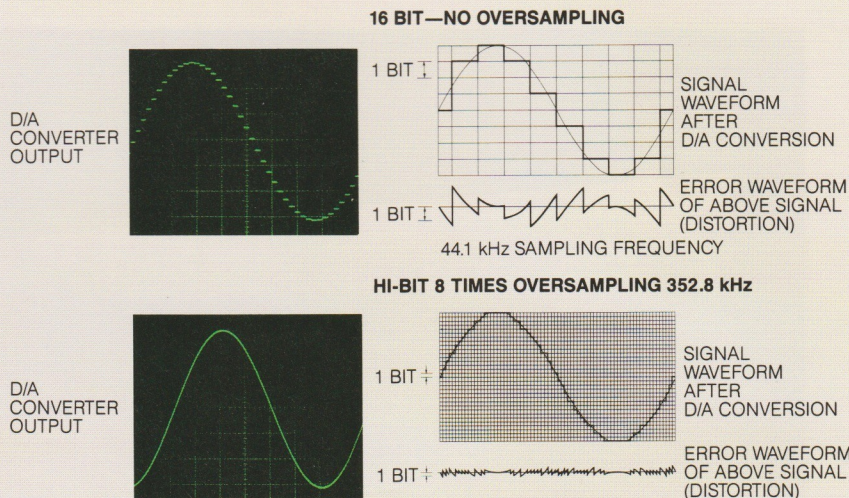
With the addition of Yamaha's unique Noise Shaping circuitry, even quantization noise is virtually eliminated.

The result is a set of very impressive specifications. Harmonic distortion and noise is 0.005%, and the S/N ratio is an amazing 106 dB. Naturally, these numbers translate into audibly superior sound performance.

## 18-Bit Independent Left and Right Channel DACs

Both the CDX-730 and CDX-530 incorporate a pair of high speed digital/analog converters. They are specially designed to match the signal processing capability of the Hi-Bit digital filters and, since each one has to process the signals for only one channel instead of two, they can do their jobs with greater accuracy. The circuitry in the D/A conversion stage has been improved, as well, for a lower incidence of unwanted noise.

### Comparison of Oversampling Waveform Resolution



**Only in a Yamaha** *The reproduction of sound is a commitment that begins and ends with music. A challenge that is met not only in the laboratory, but in the recreation of the human feelings and emotion that are the ultimate test of music.*

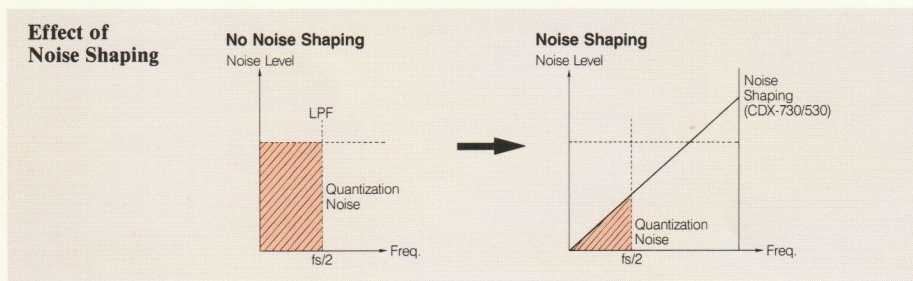
*At Yamaha, we take the commitment seriously. That's why we're specialists in contemporary technologies. We custom design and manufacture LSIs that are the standard of quality for digital sound in both electronic musical instruments and compact disc players. We develop new metals and synthetic materials that recreate the rich acoustic properties of more traditional materials, meeting the stringent requirements of high-performance electronics. And we draw on our skill in craftsmanship, the result of a century of experience in making fine musical instruments, to ensure a special standard of quality in both sound and styling.*

*A standard of quality found only in a Yamaha.*





# CDX-530



## Anti-Resonance, Anti-Vibration Design

At this level of performance, even the slightest amount of vibration can make a difference. Yamaha has thus attacked the problem from all angles, and in addition to isolating the playing mechanisms, has also constructed the exterior to minimize resonance. The heavy-duty chassis and large insulating pads guarantee optimum vibration damping.

The CDX-730 goes a step further with a special vibration-suppressing top plate.

## Intelligent Digital Servo

Although compact discs look alike, each one has its own unique characteristics. These factors, such as defects, type of material, warping or unevenness, as well as dust, skin oil, etc., can affect audio quality. While most CD players use a servo system, ordinary servo circuitry can't cope with all these minute interferences. The Intelligent Digital Servo system overcomes them by constantly monitoring the signal level and adjusting both the pickup and spindle motor to compensate for irregularities.

A Microcomputer-Controlled 2-Way Servo System also improves operational capabil-

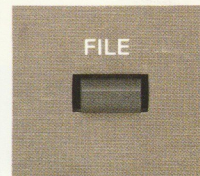
ity by changing the response speed of the servo according to the operation mode.

## Floating Suspension System

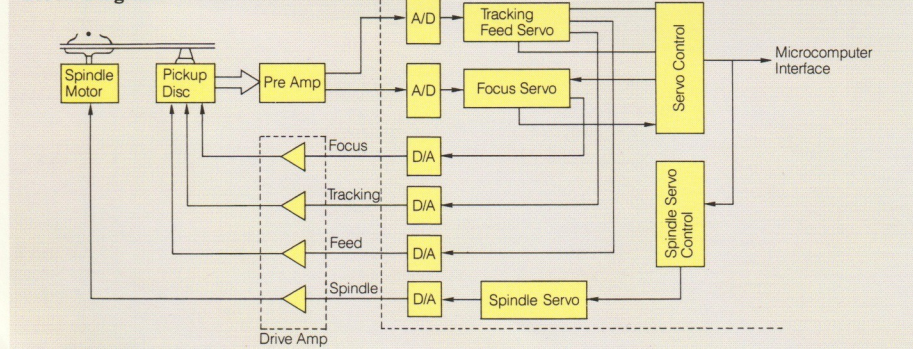
Tracking errors, which can modulate the CD pickup signal, are caused by external vibrations. To eliminate these errors, and thus produce a signal with less distortion, both players employ Yamaha's unique Floating Suspension System, which isolates the disc loading and rotational mechanisms. In addition, they also utilize a newly designed magnetic clamp to hold the disc in place more securely.

## Program File (CDX-730)

Yamaha's new Program File function lets you listen to the tracks on your CDs in the order you desire—every time you play them. All you do is program the play sequence you want to hear, then each time you use that CD, the songs will be automatically played in that order. Up to 100 discs of ten selections each can be entered, and there's a memory backup.



## Intelligent Digital Servo Block Diagram



## Tape Edit

The tape edit function offers automatic, random or manual selection of certain songs on a compact disc to fit within the recording time of a cassette tape. Simply input the tape length and the CD player will fill the tape, even inserting a pause at the end of the tape, allowing you to turn the cassette over. In manual mode, you can program the selections you desire and the remaining recording time will be displayed.

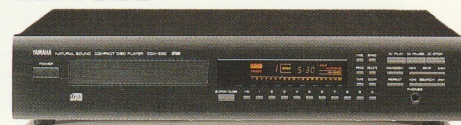


CDX-730



also available in black

CDX-530



also available in black



### 4-Way Repeat Play

Both the CDX-730 and CDX-530 let you choose how to hear the selections on disc. You can repeat all the selections on the disc in order, or at random. You can play a single selection over and over, or you can repeat a sequence of programmed selections.

### 8-cm (3") CD Single Compatibility

Yamaha CD players offer the most advanced hardware, so naturally they have kept up with the newest software. Both models are capable of playing the new 8-cm (3") CD singles.

### Optical Digital Output (CDX-730)

The CDX-730 is equipped with a digital output terminal, allowing the digital signal (before D/A conversion) to be sent directly to a digital amplifier. The optical coupling minimizes the chance of interference, so the purity of the signal is not degraded during transmission.

### Highly Informative LCD Display

The CDX-730 and CDX-530 include a comprehensive liquid crystal display so you always know what mode you're in and where you are on the disc. The track number is displayed, as well as a variety of operation indicators. Four different time displays can be selected. "Total" shows the entire disc time, "Total" Remain shows the remaining time from the present track to the end of the disc, "Single" shows the length of the present track, and "Single" Remain shows the time remaining on the present track.

### Other Features

- 25-Track Random Access Programmable Play
- Direct Track Access
- Index Search (by Remote Control)
- 3-Way Music Search
- Skip Play
- Auto Space Insert
- Multi-Mode Timer-Controlled Play (Repeat or Single Play of Random/Program/Full Selections)
- Calendar Display
- Front Panel Headphones Jack
- Headphone Level Control (CDX-730)
- Wireless Remote Control Unit
- RS Integrated Remote Control Compatibility



### CDX-730/CDX-530 SPECIFICATIONS

	CDX-730	CDX-530
<b>Frequency Response</b>	2—20,000 Hz, +0.5 -1.0 dB	2—20,000 Hz, +0.5 -1.0 dB
<b>Harmonic Distortion + Noise</b>	0.005% (1 kHz)	0.005% (1 kHz)
<b>Dynamic Range</b>	94 dB	94 dB
<b>Signal-to-Noise Ratio</b>	106 dB	106 dB
<b>Channel Separation</b>	90 dB (1 kHz)	90 dB (1 kHz)

	CDX-730	CDX-530
<b>Wow &amp; Flutter</b>	Unmeasurable	Unmeasurable
<b>Output Level</b>	2 Vrms	2 Vrms
<b>Dimensions (W x H x D)</b>	435 x 92.5 x 271 mm (17-1/8" x 3-5/8" x 10-11/16")	435 x 92.5 x 267 mm (17-1/8" x 3-5/8" x 10-1/2")
<b>Weight</b>	3.9 kg (8 lbs. 9 oz.)	3.7 kg (8 lbs. 2 oz.)

Specifications subject to change without notice.  
The **IRS** symbol indicates compatibility with all Yamaha **IRS** integrated remote system control receivers and integrated amplifiers.

For details please contact:

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