

# Superb Playback Solution for Two Channels of Pure Audio Pleasure

CDs have been with us for decades now and continue to provide a convenient, high-quality listening experience. The C-7000R brings together features and refinements to bring the very best out of your audio CDs and CD-R/RWs, and even any MP3- or WMA-encoded discs you may have made on your computer. To ensure minimal signal interference, the C-7000R employs a thermally regulated high-precision clock, PLL ultra-low jitter technology, and a new circuit board construction. All of this highly sensitive componentry is housed in anti-vibration casing, with separate aluminum panels for the top, front, and sides. In keeping with the zero-tolerance approach to interference, digital circuitry and analog circuitry are physically separated, and you have the choice of operating the C-7000R in either digital-only or analog-only mode. The silent disc mechanism and solid die-cast aluminum tray epitomize the unit's audiophile build quality.



**ONKYO®**

C-7000R COMPACT DISC PLAYER

- Plays Audio CD, CD-R, CD-RW, MP3 CD, and WMA CD\*
- DIDRC (Dynamic Intermodulation Distortion Reduction Circuitry)
- Separate Digital/Analog Circuitry
- Separate Massive Transformers for Digital and Analog Circuitry (Toroidal Transformer for Analog Circuitry)
- Thermally Regulated High-Precision Clock
- Silent Disc Mechanism with Solid Die-Cast Aluminum Tray
- Separate Anti-Vibration Aluminum Panels for Top, Front, and Sides
- New Circuit Board Construction to Reduce Vibration
- PLL Ultra Low Jitter Technology
- Separate TI Burr-Brown 192 kHz/24-Bit DACs (PCM1792) for L/R Channels
- Pure Analog Mode
- Pure Digital Mode
- 3 Digital Outputs (Amphenol AES/EBU, Optical, and Coaxial)
- Wide-Spaced, Gold-Plated, Machined Solid Brass Audio Terminals
- Display Dimmer (Normal/Dim/Off)

\*Discs should be properly finalized.

192 kHz/24-bit DIGITAL AUDIO MP3 WMA



Black model available

### DIDRC (Dynamic Intermodulation Distortion Reduction Circuitry)

Since the advent of digital audio, signal-to-noise ratios have improved dramatically. However, the S/N ratio reflects static noise only, and takes no account of another type of noise that occurs as the byproduct of sound reproduction—dynamic noise. To reduce this type of noise, Onkyo has developed DIDRC technology for use in our hi-fi components. Despite being beyond the normal range of human hearing, frequencies above 100 kHz are susceptible to clock pulse and other forms of distortion from digital devices. Such distortion in the super-high-frequency range can generate “beat interference”, which in turn affects the character or atmosphere of the original sound. By improving linearity and reducing distortion in the super-high-frequency range, Onkyo’s new DIDRC technology effectively reduces perceptible noise and delivers clearer-than-ever audio.

### Separate Digital/Analog Circuitry and Transformers

To prevent unwanted interference, the C-7000R employs physically separate circuitry for digital and analog processing. In the same vein, the player also features separate transformers for digital and analog circuitry.

### Thermally Regulated Super-Precision Clock

The C-7000R boasts an extremely precise clocking mechanism that controls and coordinates the timing of all digital signal processes—rather like how a conductor directs and coordinates the individual instruments of an orchestra. The C-7000R uses a state-of-the-art crystal oscillator that achieves a frequency deviation of  $\pm 1.5$  ppm at room temperature—much lower than with a conventional oscillator. Even in surrounding temperatures of  $-30^{\circ}\text{C}$  or  $+80^{\circ}\text{C}$  the frequency remains stable, with only  $\pm 0.5$  ppm of additional frequency deviation.

### PLL (Phase Locked Loop) Ultra-Low Jitter Technology

Jitter is an unwanted side-effect of the digital-to-analog conversion process caused by fluctuations in the time domain of a digital signal. PLL ultra-low jitter technology reduces jitter by comparing the input and output phases of the digital signal and creating an accurate clock waveform. This enhances the precision of digital signal processing and noticeably improves perceived audio quality.

### Silent Disc Mechanism with Die-Cast Tray

Affixed to four supports made of rigid machined brass, the C-7000R’s CD drive provides excellent resistance to internal vibrations. Furthermore, the disc tray is precision-engineered from high-rigidity, die-cast aluminum. Thanks to these advanced design features, the disc mechanism offers smooth and silent operation.

### Separate TI Burr-Brown DACs for L/R Channels

High-quality TI Burr-Brown DACs work to optimize analog audio performance on the C-7000R. The player incorporates two of TI Burr-Brown’s flagship 24-bit PCM1792 DACs. Although these DACs can process two-channel audio on a single chip, Onkyo employs separate chips for each stereo channel, to ensure the most accurate digital-to-analog conversion.

### Audiophile-Quality Parts

The C-7000R incorporates a massive toroidal transformer for the analog circuitry that reduces magnetic flux leakage, improves efficiency, and keeps the power supply stable. For the digital circuitry, meanwhile, it employs a high-quality EI transformer. Wide-spaced, gold-plated, machined solid brass terminals ensure a clean connection and help prevent interference between thick, high-quality cables. Meanwhile, Amphenol AES/EBU digital outputs provide resistance to signal degradation and noise.

### New Circuit Board Construction

Rather than being directly connected to the chassis base, the circuit boards inside the C-7000R are cushioned by internal struts and affixed to the front, side, and rear panels. This method of construction prevents vibrations from the chassis from adversely affecting the circuit boards.

### Separate Panel Construction

The C-7000R features separate aluminum panels for the top, sides, and front to reduce unwanted vibrations caused by internal resonance. Compared to a one-piece chassis design, this construction method offers greater rigidity and improved noise reduction.

## SPECIFICATIONS

### C-7000R Compact Disc Player

|                                 |                                    |
|---------------------------------|------------------------------------|
| Frequency Response              | 2 Hz–20 kHz                        |
| THD (Total Harmonic Distortion) | 0.0015%                            |
| Signal-to-Noise Ratio           | 116 dB                             |
| Audio Dynamic Range             | 100 dB                             |
| Audio Output/Impedance          |                                    |
| Optical                         | –22.5 dBm                          |
| Coaxial                         | 0.5 V <sub>p-p</sub> /75 $\Omega$  |
| AES/EBU                         | 3.3 V <sub>p-p</sub> /110 $\Omega$ |
| Analog                          | 2 V (rms)/330 $\Omega$             |

### General

|                        |                     |
|------------------------|---------------------|
| Power Supply           | AC 230 V~, 50 Hz    |
| Power Consumption      | 18 W                |
| Dimensions (W x H x D) | 435 x 99 x 315.2 mm |
| Weight                 | 12.0 kg             |

### CARTON

|                        |                    |
|------------------------|--------------------|
| Dimensions (W x H x D) | 627 x 250 x 446 mm |
| Weight                 | 13.0 kg            |

### Supplied Accessories

- Instruction manual • AC power cord • RCA audio cable
- Remote controller • AA (R03) batteries x 2

