

# CS-725 CD Receiver System

TITANIUM



VL DIGITAL VL VECTOR LINEAR SHAPING CIRCUITRY MP3 A-OMF RI

## Much More Than a Sum of Parts—Exclusive, Customized and Smart

This compact audio system features a switching design for efficient audio playback. Based on the Onkyo systems that dominate in the Japanese domestic market, the CS-725 is packed with proprietary technologies, customized and selected parts, and intelligent design considerations. The CS-725 uses both Vector Linear (VL) Digital modulation circuitry and Vector Linear Shaping Circuitry (VLSC) to maintain the purity of audio signals. You'll also find a weighty, customized power supply; a robust chassis supported by a steel top cover and aluminum front/side panels; and quality gold-plated input and output terminals. The accompanying gloss-finished speakers sound as good as they look, and serve to round out one of Onkyo's finest compact audio systems to date.

### Vector Linear (VL) Digital Modulation Circuitry for Accurate Conversion

The CR-725 CD receiver's switching amplifier design uses VL Digital modulation circuitry for effective digital-to-analog conversion. To prevent spike noise from introducing inversion-timing errors during the conversion process, VL Digital converts the analog audio signal with a high degree of accuracy. When an analog input is received, the vector generator outputs a current proportional to the size of the analog input. This current is sent to an integrator, where it is charged. When the charge reaches a specified value, the trigger operates and inverts the output pulse. Spike noise is eliminated as negative and positive charges of the waveform cancel each other out.

### Heavy-Duty Power Supply to Support Highly Efficient Amplification

With a focus on providing a highly efficient and stable power supply, the CR-725 CD receiver includes a heavy-duty, customized power transformer designed to fit into the receiver's limited space. The power supply is also equipped with a high-quality capacitor (operating at 4700  $\mu$ F) to store and regulate power for stable, responsive digital amplification.

### Thick, Low-Impedance Bus Plate to Support Current Capability

The CR-725 CD receiver incorporates a thick, low-impedance copper bus plate in the circuitry to ensure a flawless electrical energy path. Furthermore, as the ground potential is capable of imparting noise into the audio signal, the CR-725 CD receiver is constructed so that the ground points of each circuit do not affect one another. The bus plate has proven to be effective in contributing to accurate audio reproduction.

### Vector Linear Shaping Circuitry (VLSC) and Optimum Gain Volume Circuitry to Maintain Clean Audio Signals

The CR-725 CD receiver uses VLSC to produce a noise-free analog signal from digital music sources. This technology is effective in removing pulse noise during the digital-to-analog conversion process, thereby maintaining the purity of the

signal. Employed in Onkyo's A/V receivers and playback components, VLSC ensures you get the best possible audio from CDs and compressed formats such as MP3.

Optimum Gain Volume Circuitry is also used to prevent noise from adversely affecting the audio signal. This circuitry makes adjustments to the gain, thereby reducing attenuation by 50%, so the signal never comes close to the noise floor. By contrast, in conventional volume attenuation methods (where no gain adjustment is made), the signal drops close to the noise floor at low volumes. This taints the signal with noise that is noticeable when the signal is amplified.

### Gloss-Finished Speakers with Select Performance-Enhancing Features

The accompanying D-N10BX two-way, bass-reflex speakers are housed in gloss-finished MDF cabinets that will impress in any environment. Musically, they incorporate a range of Onkyo speaker developments designed to match the CR-725 CD receiver. For example, the woofer cones follow Onkyo's A-OMF Monocoque design and incorporate a diaphragm fiber that supports the speakers' piston motion range. Also, to deliver high-frequency sounds with finesse, the speakers include a ring-drive tweeter that contributes to the restraint of low-frequency interference from inside the speaker. Finally, a duct—called the Aero Acoustic Drive—is included to mitigate interference between high and low frequencies.

### The Option of iPod Playback Through RI (Remote Interactive) Dock for the iPod\*

The RI system enables Onkyo owners to integrate compatible components for operation via a single remote control. It also enables you to integrate the iPod with the CS-725 through Onkyo's optional RI Dock for the iPod. Simply connect the dock to the CD receiver, then place your iPod in the dock for control with the CR-725 CD receiver's remote control. The RI Dock has been hailed by independent experts as offering a "heftier and more detailed" sound than can be experienced with an RCA stereo cable.



\*Sold separately

# CS-725 CD Receiver System

## CR-725 CD Receiver

### Amplifier Features

- 50 W/Ch, 4  $\Omega$ , 1 kHz, 2 Channels Driven, IEC
- Vector Linear (VL) Digital Technology
- High Instantaneous Current Capability (HICC)
- Customized Heavy-Duty Power Transformer
- Customized Capacitor (4700  $\mu$ F) for Power Supply
- Discrete Output Stage Circuitry
- Optimum Gain Volume Circuitry
- Direct Mode
- 4 Audio Inputs (1 Front Panel) and 2 Outputs
- Subwoofer Pre Out

### CD Player Features

- Plays Audio CDs, MP3s (via CD-R, CD-RW)\*
- Vector Linear Shaping Circuitry (VLSC)
- Wolfson® Stereo DAC
- 4 Play Modes (Normal/Memory/Random/1 Folder)
- Navigation Mode for Selecting and Playing MP3 Files Burned to CD-R, CD-RW
- MP3 Settings for Personal Preferences
- Memory Playback (25-Track Programming)
- 2 Repeat Modes (Track/Full) for CDs and MP3 Folders

\*Discs that have not been properly finalized may be only partially playable or not playable at all.

### Tuner & Other Features

- Preset Function with 40 FM Selections
- Manual and Automatic FM Tuning
- Preset Naming (Up to 8 Characters)
- FM Auto Preset
- 4-Mode Timer (Play or Rec/Once or Every)
- Sleep Timer
- Tone Control (Bass/Treble)
- Super Bass Function
- Battery-Free Memory Back-Up
- FM Indoor Antenna Supplied
- Headphone Jack
- Aluminum Front and Side Panels and Volume Knob
- Robust Steel Top Cover (1.2 mm) to Suppress Vibrations
- Gold-Plated Banana Plug-Compatible Transparent Speaker Posts
- Gold-Plated Input and Output Terminals
- Compatible with RI (Remote Interactive) Dock for the iPod
- RI (Remote Interactive) Remote Control

### D-N10BX(B)

#### 2-Way Bass Reflex Speakers

- 13 cm A-OMF Monocoque Diaphragm Woofer
- 3 cm Ring-Drive Tweeter
- Aero Acoustic Drive for Powerful and Natural Sound
- V-Line Edge to Counteract Unwanted Diaphragm Vibration
- Banana Plug-Compatible Speaker Posts
- Magnetically Shielded
- MDF Cabinet with Gloss Finish
- Impedance: 4  $\Omega$
- Max. Input Power: 45 W
- Frequency Response: 45 Hz–100 kHz

## SPECIFICATIONS

### RECEIVER SECTION

AMPLIFIER SECTION	
Power Output	50 W + 50 W (4 $\Omega$ , 1 kHz, 2 channels driven, IEC)
Dynamic Power	120 W + 120 W (4 $\Omega$ )
Total Harmonic Distortion	0.5% (Rated power), 0.08% (1 kHz, 1 W)
Damping Factor	50 (Front, 1 kHz, 8 $\Omega$ )
Input Sensitivity and Impedance	150 mV/50 k $\Omega$ (Line)
Output Level and Impedance	150 mV/2.2 k $\Omega$ (Rec Out)
Frequency Response	10 Hz–60 kHz +1 dB, -3 dB (Line)
Tone Control	$\pm$ 6 dB, 80 Hz (Bass) $\pm$ 8 dB, 10 kHz (Treble) $\pm$ 8 dB, 80 Hz (Super bass)
Signal-to-Noise Ratio	100 dB (Line, IHF-A)
Speaker Impedance	4 $\Omega$ –16 $\Omega$

### TUNER SECTION

Tuning Frequency Range	FM 87.5 MHz–108 MHz
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### CD PLAYER SECTION

Frequency Response	4 Hz–20 kHz
Audio Dynamic Range	96 dB
Total Harmonic Distortion	0.005%
Wow and Flutter	Below threshold of measurability
Audio Output/Impedance	1.3 V/1 k $\Omega$

### GENERAL

Power Supply	AC 220–230 V~, 50/60 Hz
Power Consumption	42 W
Standby Power Consumption	0.38 W
Dimensions (W x H x D)	205 x 116 x 338 mm
Weight	5.1 kg

### SPEAKER SECTION

Speaker Type	2-way, bass reflex
Drivers	13 cm A-OMF Monocoque diaphragm 3 cm ring-drive
Woofer	13 cm A-OMF Monocoque diaphragm
Tweeter	3 cm ring-drive
Frequency Response	45 Hz–100 kHz
Crossover Frequency	6 kHz
Output Sound Pressure Level	84 dB/W/m
Max. Input Power	70 W
Nominal Impedance	4 $\Omega$

### GENERAL

Dimensions (W x H x D)	167 x 298 x 247 mm
Weight	4.2 kg



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