

CS-420

CD RECEIVER SYSTEM

ONKYO
IMAGINATIVE SIGHT & SOUND



Quality Audio Playback with a Sense of Convenience and Versatility

Here's an integrated audio system that will more than adequately handle the wide-ranging frequencies of your music, including CDs, MP3s or radio signals. And if you're already actively buying and storing MP3 files, teaming the CS-420 CD receiver system with the iPod through the RI Dock (DS-A1) for the iPod is an attractive option for bringing superior audio fidelity to your MP3s. The CS-420 uses Onkyo's time-tested WRAT (Wide Range Amplifier Technology), Optimum Gain Volume Circuitry and discrete output stage circuitry to ensure that incoming audio signals are output with a quality befitting that of larger systems. Also, the accompanying speakers incorporate Onkyo speaker developments designed to deliver a sound with clarity and purpose. These speakers are further enhanced by a high-gloss piano finish that nicely complements the elegant aluminum front panel of the CD receiver. Stylish, graceful with compelling sound quality—the CS-420 CD receiver system is a welcome addition to any home.

WRAT (Wide Range Amplifier Technology)

Originally developed for our high-end A/V receivers, WRAT is a collection of Onkyo's proprietary technologies that achieves three fundamental goals in the pursuit of superior audio:

- 1) Wider frequency response;
- 2) Reduced amplifier distortion at high volume;
- 3) Better control of current and electro/mechanical kick-back from speakers.

By incorporating WRAT into the CS-420 ensures that you'll get audio playback quality from your MP3s and CDs that just isn't possible from poorly conceived audio components.

Optimum Gain Volume Circuitry

Conventional volume attenuation methods must initially drop a signal close to the noise floor at low volumes. Even though the signal is only tainted with a little noise, the amount increases when the signal is amplified. Onkyo's Optimum Gain Volume Circuitry adjusts the gain so that less than half the amount of attenuation is necessary. The signal never comes close to the noise floor, and thereby eliminates the possibility of noise contamination that plagues conventional volume attenuation methods.

Discrete Output Stage Circuitry

It is all too common for manufacturers of mini systems to employ just one circuit at the output stage. With multiple transistors crammed onto this single circuit, excess heat is generated and the audio signal is compromised. The CS-420 is different. It uses discrete amplifier technology similar to that found on our high-end receivers. Keeping the transistors separate at the output stage enhances cooling, so the CS-420's longevity is extended and interference to the audio signal is reduced.

iPod Playback through Onkyo's RI (Remote Interactive) System Capability

With Onkyo's RI system capabilities, you can add other Onkyo components to the CS-420 and operate them through one single remote control. RI capability also gives you the opportunity to integrate the iPod with your CD receiver system through Onkyo's RI Dock for the iPod (DS-A1). Simply connect the dock to the CS-420, place your iPod in the dock and relish the fuller sound that just can't be experienced through headphones. RI capability also gives you remote operability over your iPod for hands-off control over your digital music. The DS-A1 is compatible with most iPod models, and will also accommodate the latest iPod releases.

2-Way, Bass Reflex Speakers Incorporating Onkyo's Own Speaker Developments

Designed to neatly complement the CD receiver in any room of the home, the CS-420's 2-way, bass reflex speakers are designed to playback music with no interference and maximum efficiency. The Advanced Onkyo Microfiber (A-OMF) diaphragm woofer is made from a three-layer construction that absorbs vibrations that can adversely affect the quality of the emitted sound. This thin yet rigid diaphragm enables an extremely fast and accurate response—essential for the reproduction of quality audio. Also, a V-Line Edge on the suspension suppresses any extraneous vibrations that can cause the sound to deteriorate significantly. Capping it off, an Aero Acoustic Drive (slit duct) has been included to reproduce a sound that is both responsive and spacious in its delivery.

CS-420

CD RECEIVER SYSTEM

CR-B8 CD Receiver

Amplifier Features

- 24 watts per channel minimum into 4 ohms, 1 kHz, JEITA
- WRAT (Wide Range Amplifier Technology)
- High-current, low-impedance drive
- Discrete output stage circuitry
- Optimum Gain Volume Control Circuitry
- 3 audio inputs and 2 outputs
- Tone control (Bass/Treble)
- 2-Step Super Bass control
- Subwoofer pre out

CD Player Features

- Plays audio CDs, MP3 CDs, CD-Rs and CD-RWs*
- Optical digital output
- Single-bit D/A converter
- Memory playback (25-track programming)
- 3 CD play modes (Normal/Random/Memory)
- 4 MP3 play modes (Normal/Random/Memory/Group)
- 2 Repeat modes (Track/All)

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

Tuner & Other Features

- Compatible with RI Dock for the iPod
- 4-mode timer (Play or Rec/Once or Every)
- Sleep timer
- 30 FM/AM random presets
- Automatic FM scan tuning
- Battery-free memory backup
- Aluminum front panel
- Headphone jack
- RI (Remote Interactive) remote control

D-B8 2-Way, Bass Reflex Loudspeakers

- 13 cm A-OMF diaphragm woofer
- 2.5 cm soft-dome tweeter
- Aero Acoustic Drive for powerful and natural sound
- V-Line Edge to minimize vibrations
- MDF cabinet with high-gloss piano finish
- Magnetically shielded
- 4 ohms impedance
- Max. input power: 70 W
- Frequency response: 50 Hz-35 kHz

SPECIFICATIONS

CR-B8

AMPLIFIER SECTION

Power Output	24 W/Ch (4 Ω , 1 kHz, JEITA)
Dynamic Power	26 W (4 Ω)
THD (Total Harmonic Distortion)	0.4 % (Rated Power)
Damping Factor	25 (Front, 8 Ω , 1 kHz)
Input Sensitivity and Impedance	150 mV/50 k Ω
Line	150 mV/50 k Ω
Output Level and Impedance	150 mV/2.2 k Ω
Rec Out	150 mV/2.2 k Ω
Frequency Response	10 Hz-100 kHz \pm 3 dB (Line)
Tone Control	\pm 10 dB, 100 Hz (BASS) \pm 10 dB, 10 kHz (TREBLE) + 4.5 dB, 80 Hz (SUPER BASS 1) + 7.5 dB, 80 Hz (SUPER BASS 2)
Signal-to-Noise Ratio	100 dB (Line, IHF-A)
Speaker Impedance	4 Ω -16 Ω

TUNER SECTION

[FM]

Tuning Frequency Range	87.5 MHz-108.0 MHz
Usable Sensitivity	17.2 dBf, 2.0 μ V (75 Ω , IHF)/11.2 dBf, 1.0 μ V (75 Ω , IHF)
Stereo/Mono	17.2 dBf, 2.0 μ V (75 Ω , IHF)/11.2 dBf, 1.0 μ V (75 Ω , IHF)
Signal-to-Noise Ratio	65 dB (IHF-A)/67 dB (IHF-A)
Stereo/Mono	65 dB (IHF-A)/67 dB (IHF-A)
Total Harmonic Distortion	0.5 % (1 kHz)/0.4 % (1 kHz)
Stereo/Mono	0.5 % (1 kHz)/0.4 % (1 kHz)
Frequency Response	30 Hz-15 kHz \pm 1.5 dB
Stereo Separation	40 dB at 1 kHz
[AM]	
Tuning Frequency Range	522 kHz-1.611 kHz
Usable Sensitivity	30 μ V
Signal-to-Noise Ratio	40 dB
Total Harmonic Distortion	0.7 % (1 kHz)

CD PLAYER SECTION

Frequency Response	10 Hz-20 kHz
Dynamic Range	92 dB
Total Harmonic Distortion	0.009 %
Wow and Flutter	Below threshold of measurability
Audio Output/Impedance	
Digital (Optical)	- 22.5 dBm
Analog	1.3 V/2.2 k Ω

GENERAL

Power Supply	AC 220/120 V, 50/60 Hz
Power Consumption	68 W
Standby Power Consumption	0.3/0.2 W
Dimensions (W x H x D)	155 x 241 x 354 mm
Weight	4.6 kg

D-B8

Speaker Type	2-Way, Bass-Reflex
Drivers	
Woofer	13 cm A-OMF Diaphragm
Tweeter	2.5 cm Soft-Dome
Frequency Response	50 Hz-35 kHz
Crossover Frequency	6.5 kHz
Output Sound Pressure Level	82 dB/W/m
Max. Input Power	70 W
Nominal Impedance	4 Ω
Dimensions (W x H x D)	150 x 241 x 263 mm
Weight	3.6 kg

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice.

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