



Clarion's HXD2 Source Unit Takes You Into The Recording Studio.

High-definition sound fills the driver with a sense of superiority. There is a true feeling of joy and emotion when you are face to face with music. In the pursuit of sound that is infinitely near to the original sound and generously supplied with cutting-edge technology, the creation of the HX series has brought Clarion's exceptional sound to a new high peak. The ultimate sound field and space are produced from Clarion's cutting-edge technology oriented circuitry, along with individually selected parts and raw materials, all united perfectly with the amplifiers and speakers. For drivers who demand the "real thing", Clarion offers the ultimate sound with these high-performance features and components.



From the pursuit of faithful sound source playback to the body layout, the series flagship model HX-D2 is packed with all of the functions one could possibly want from a modern main unit. The 96 kHz Sampling D/A converter draws out the delicate nuances and reverberations from the sound, while the 5 Band Parametric EQ creates the sound balance that perfectly matches your tastes. Additionally, the Glass Epoxy 4-Layer Circuit Board and external power supply unit DC/DC converter provide stable circuit operation and high-quality sound. Clarion offers sound that reaches the next level to discerning car audio fans who appreciate the subtle differences in sound, and that are searching for the ultimate in car sound quality.

HX-D2

CD RECEIVER/CeNET CONTROL



- Dual 24-bit / 96kHz sampling digital to analogue burr-brown converters and DSP
- Built-in 4-way crossovers
- 5-band parametric equaliser
- Digital time alignment for each line level output
- 8-channel/4-volt gold plate oxygen-free RCA output
- 0.5dB-step electronic volume adjustment circuit
- Copper plated chassis
- External DC/DC converter
- CeNET control of: 6-disc CD changer, and TV tuner
- 2 x 2-channel AUX inputs
- Zinc die-cast faceplate
- Fiber optic input/output
- Vacuum florescent display
- 18FM, 6AM station presets
- CeNET iPod interface compatible

96kHz Sampling D/A Converter

Conventional CD players could only reproduce up to around 20kHz.

Sampling takes place to convert digital signals to analogue. In this process, digitised sound with a frequency range of up to about half the sampling frequency is reproduced. For example, in the case of CDs which are sampled at a frequency of 44.1kHz, playback is possible for up to half that, or 22.05 kHz. Sampling is set at 44.1kHz to achieve reproduction of highs in the neighborhood of 20kHz.

Harmonic elements included in high range add richness and depth to sound.

The format specifications for CD deemed the high frequency elements above 20kHz as inaudible by the human ear, and thus they were not recorded. And even if such high frequencies were reproduced during playback, they would be detected as noise elements and removed by a digital filter. Not only that, but phase distortion was introduced as a result of noise cut-off by the filter, thereby inhibiting the accurate reproduction of high frequency sounds. Ironically, it is the harmonic elements contained in this high frequency range that affects the depth and nuance of sound.

96kHz sampling enables reproduction of sounds faithful to the original source.

The 96kHz Sampling D/A converter samples at a much higher rate than the usual 44.1kHz to offer reproduction frequencies as high as 48kHz (half the sampling frequency of 96kHz), surpassing the format specifications for CD as the first such D/A Converter for car audio use. By broadening the sampling range, it becomes possible to reproduce the subtle nuances and depth contained in harmonic elements while reducing phase distortion in the high frequency range, delivering the full expressiveness and natural resonance that is inherently present in sound.

Copper Plated Chassis prevents sound deterioration

Uses a copper plated chassis to minimize the generation of spurious electrical current which can adversely affect sections that have a bearing on the signal, as well as noise interception caused by electrical shielding effect. By incorporating a zinc diecast panel, with its large specific gravity, high rigidity and low resonance, sound quality deterioration due to vibration is reduced. And by externally positioning noise generating parts such as the power supply, VFD devices for the display and the drive mechanism, the sources of noise are eliminated.

Burr Brown advanced segment type 24-bit D/A converter

After high sampling the data is processed by an advanced segment type Burr Brown 24-bit D/A Converter which offers superior dynamic characteristics and is resistant to clock jitter. Since the D/A Converter's internal structure is a 4DAC configuration which operates on L/R± differential, higher accuracy in D/A Conversion is afforded.

Display OFF function

Turns off the display circuits when a CD or other source is being played, preventing pulse noise from the display section from affecting sound quality.

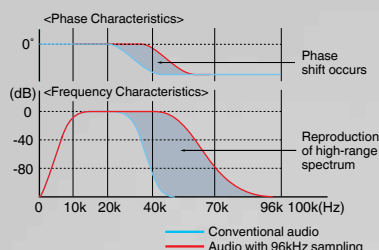
Keeping great sound in and noise out: The HX-D2's DC/DC converter

Consisting of only the highest quality components – from the chassis to the wiring and fuses – the HX-D2's external power supply is the heart of this audiophile-grade main unit. With its six-sided shielded casing, this design thoroughly keeps out noise, even during high load bursts. And to prevent any vibration, Clarion wraps this high-quality power supply in an aluminum diecast casing, and a copper-plated chassis. Internally, the HX-D2's power supply utilises toroidal choke coils, which minimise car noise and power loss. The unit also utilises a large-capacity, low-impedance condenser, which allows this external component to supply pure power. Clarion takes this a step further by equipping the power supply with a gold-plated connection terminal, which minimises power loss.

World's finest 0.7cm-step Digital Time Alignment

This function lets you set each speaker in a maximum 8-channel system to deliver the same acoustic effects with pinpoint accuracy, regardless of the listener's seat position (FRONT-L, FRONT-R, FRONT, REAR, and FULL SEAT position selectable). The Front L/R, Rear L/R, Centre speaker and Subwoofer work in harmony to create a seamless soundscape. It's possible to quickly and easily select the acoustic pattern of the system, or choose different settings according to the number of passengers or type of vehicle. (Adjustable range: 0 – 500cm, in 7mm steps)

Conceptual Diagram of Frequency/Phase Characteristics



96kHz Sampling
D/A Converter



Copper Plated Chassis
Prevents Sound Deterioration



World's First 0.5dB Step
Electronic Volume Circuit



Silver-Coated SK-6N
(99.999% Oxygen-Free) Copper RCA