

CLARION NX500

Text by Gary Springgay // Photos by Manufacturer



En the world of car audio, some of the best products have come as a result of manufacturers listening to their dealers and end users in order to develop new gear with the improvements in features and ergonomics people are looking for. One company that has obviously spent some time listening to customer feedback is Clarion. As a result, the entire Clarion headunit line for 2010 has been improved in terms of features, functionality, and cosmetic appearance.

In this review, we're going to take a look at the new Clarion NX500 Multimedia Navigation receiver.

COOL FEATURES

The Clarion NX500 DVD/Navigation receiver is a double DIN chassis unit, incorporating the latest and greatest features that everyone wants in their ride. Incorporating a 6.5" QVGA color touch screen monitor, the \$999.00 NX500 is fully self contained, and does not require an outboard "black box".

Fully compatible with CD/DVD/DVD+R/DVD+RW, and CD-DA/HDCD-R/RW, MP3/WMA formats, the NX500 (and its single DIN, fold-out screen brother the NZ500) are exceptional audio-video navigation units. The NX500 features built-in GPS navigation, built-in Bluetooth for hands-free telephone control, phone book access, and A2DP/AVRCP audio streaming and, of course, full USB iPod and iPhone compatibility. Video playback from an iPod is available using an optional cable (CCA723 or CCA748).

Because the iPod connection is USB based, you can also simply plug a USB thumb drive into the supplied USB extension cable, and bring your music with you that way too. The NX500 can also be paired with Sirius Satellite Radio and is also HD Radio ready

(with the optional THD400 module). The popular new iTunes tagging functionality is also included.

Rear seat entertainment options are covered with the front and rear A/V inputs and a dedicated rear A/V output. An input for a rear-view camera is also provided, as well as reverse gear engagement wire.

The built-in GPS navigation uses 2009 map data from TeleAtlas which is stored on NAND flash memory for quick response and access to navigation maps. The unit comes pre-loaded with complete maps for the United States and Canada, and features more than 12 million POIs and full text to speech capability for spoken street names and directions.

The NX500 is also equipped with an input jack for interfacing with existing OEM steering wheel controls, and all of the connections on the rear of the chassis are made via pigtail plug-in connectors to assist in reducing unnecessary wiring clutter and improves mounting depth clearances in shallow installations.

On the audio end of things, the NX500 uses a 24-Bit D/A converter, and a built-in four channel amplifier that provides 18 watts per channel and

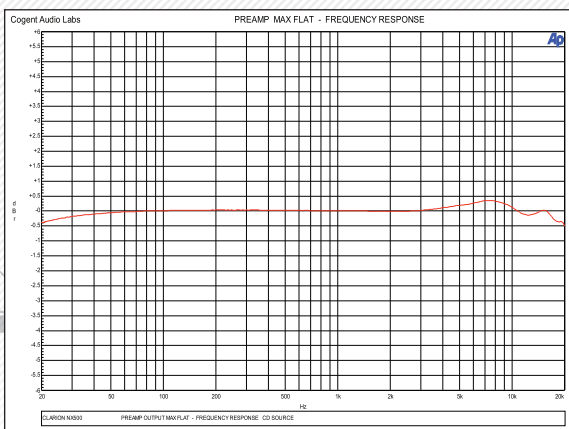
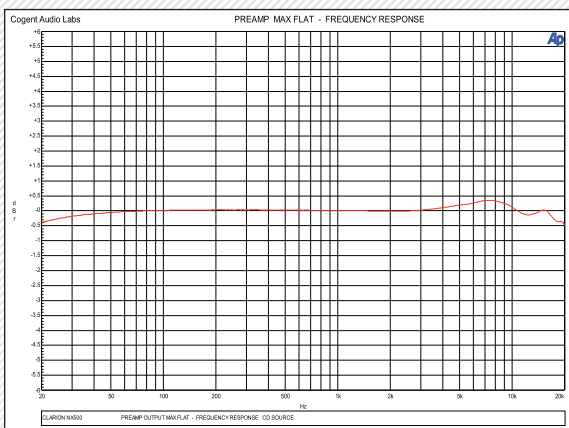
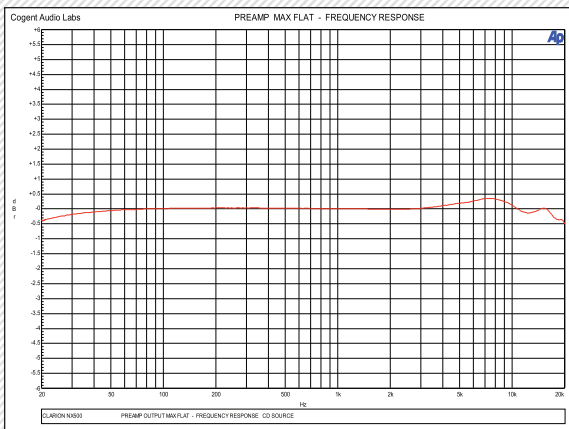
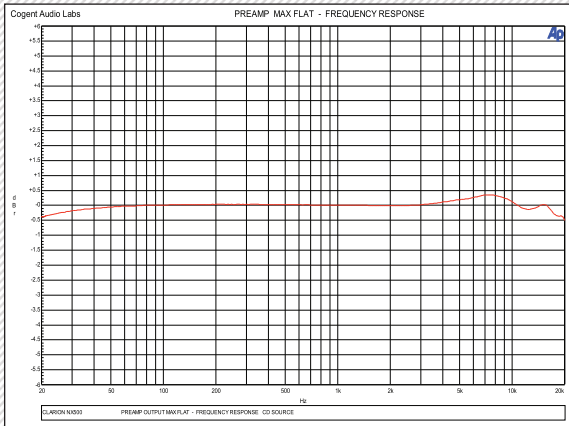
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3 pairs of RCA outputs rated at 2 Volts each provide signal to your external amplifiers. A wireless remote control is also included for those too lazy to reach the dashboard.

CONTROLS AND ERGONOMICS

The front panel of the NX500 is very intuitive and easy to use, even if you are one of the people who never open the owner's manual. It's quite apparent that a lot of thought went into the design and layout of the touch screen icons, controls and menus, because everything is easy to find, and quite simple to access. The icon-based GUI is easy to read and operate. Setup is fairly painless and quickly >>

CLARION NX500



accomplished, which is more than can be said for some of Clarion's competition. The 6.5" TFT touch screen can be setup in either 4:3 or 16:9 aspect ratios, and is surface treated to resist dust and grime from constant use. One of my favorite features that Clarion got totally right, in my opinion, was the choice of a rotary volume control, which is one of only four "hard-key" controls, the others being the eject button, and buttons to switch from AV to Navi, and a source select button. Another feature I particularly liked was the simple front-loading disc slot that does not require the front panel to have to motorize out of the way to insert or eject a disc.

To make changes and adjustments to the audio settings requires one touch of the screen, which brings up a single page menu where all audio settings (Balance, Fader, Tone, EQ presets) are done from a common menu, so it's easy to see at a glance just where everything is set. Also on this same page there is a separate volume control for the subwoofer level, so frequent level adjustments are quite simple. The NX500 has eleven preset EQ curves, and one that is user adjustable. Adjustments of the tone settings are made by what is basically a DSP powered 2 band parametric equalizer, which allows you to select one of four center frequencies for the bass control, (60, 80, 100 or 200Hz) and another four frequencies (10k, 12.5k, 15k, or 17.5kHz) for the treble control. Also included in the DSP processing is the ability to chose the Q-factor of the bass tone control and one of three subwoofer crossover frequencies. (80, 100 or 120Hz)

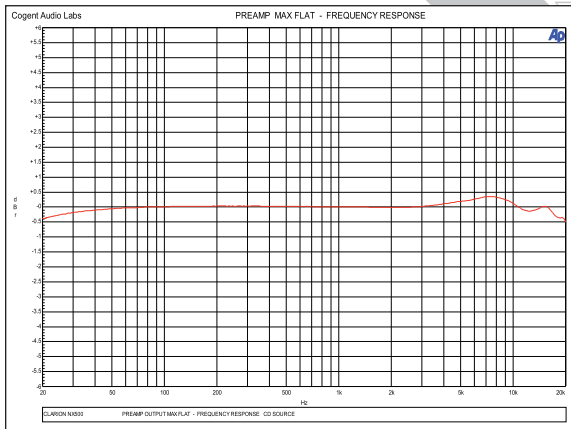
The navigation section also proved quite easy to use, and the mapping is clear and easy to read on-screen. A defeatable automatic Day/Night function will automatically change the navigation map display to the appropriate bright or dark background to coincide with sunrise and sunset. In addition to graphic directions, the NX500 provides voice guidance and turn-by-turn directions using the built in text-to-speech processing. You can select spoken directions in English, French or Spanish. If you prefer, the volume of the navigational voice can be set to increase and decrease with changes in speed. If you're the type that doesn't take direction well, the voice guidance can also simply be turned off.

LISTENING

I connected the NX500 in my listening room, and armed with my favorite evaluation discs, and my iPod, I sat down and began to play with the unit. As I mentioned earlier, the new Clarion piece was really intuitive to use, and I had no difficulty navigating through and finding all the adjustments and setup options quite quickly. Sonically, I came away quite pleased with the NX500. These days we simply expect basic performance parameters like a flat frequency response and accurate left to right channel balance, and the Clarion proved excellent in these regards, producing a very good stereo image with good high frequency detail and definition. The tone controls and other various adjustments proved very effective, and I noted a distinct lack of ticking or "zipper" noise while making adjustments.

Another feature I discovered during my listening session is the electronic skip protection. With a regular audio CD there is a 10 second memory buffer, and a 45 second buffer on discs recorded with MP3 files. This skip protection will go a long way to ensuring skip free performance even with high performance suspensions and low profile tires. One minor gripe is not being able to go backwards on a CD from track 1 to the last track by pressing the < key. However, the Clarion does have the ability for direct track access, so this issue turned out to be inconsequential.

The tuner was very good, with excellent FM reception and one of the best AM sections I've found in a while. Clarion did not include the optional HD radio module with the test unit, so I can't comment on its performance.



MEASURED SPECIFICATIONS

AMPLIFIER

CEA-2006A Power per channel [all channels driven, @ 4 ohms]	18.6 watts/ch x 4
A Wtd S/N Ratio [ref to 2V/1W @ 4 ohms] Amplified output	-78.8dBA [CD]
THD+N @ 2V/1W @ 4 ohms 1kHz	0.3%
Frequency Response [-3.0dB]	20Hz - 20kHz

PREAMP SECTION

Max Usable Output Voltage	2.5Vrms
A Wtd S/N Ratio ref to full output voltage	-88.5dBA
Output Impedance	138 ohms
Frequency Response [-3.0dB]	20Hz - 20kHz

ON THE BENCH

After all the listening was completed, I moved the NX500 into the electronics lab and ran the usual battery of tests. I'm happy to report the Clarion's real world performance exceeded all of the published specifications on every parameter I checked. The built in amplifier developed 18.6W x 4, and the RCA outputs also exceeded their 2V rated output.

Output impedance was quite good at a fairly low 138 ohms, so noise avoidance characteristics should be quite good. Stereo separation was also very good,

as was signal to noise performance. The tone controls and built in filters worked exactly as advertised, and were accurate in both frequency and amplitude adjustments. Disc load times were slightly longer than average, but certainly not intolerable.

CONCLUSION

My hat is off to the folks at Clarion who obviously took their customers feedback seriously, and developed a product that's far superior to the one it replaced. The NX500 is easy to use, sounds good, and has all the multimedia and convenience

bases covered as well. From its excellent video quality to the safety and convenience of the navigation system and Bluetooth integration, this piece could easily become the cornerstone in a great system. **PAS**

Clarion

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