

PLAYBACK

Harman caps brands with Crown

Crown was founded in 1947 by Ruby and Clarence Moore as the International Radio and Electronics Corporation, and brought to market many firsts in the tape recorder category, as well as both vacuum tube and solid-state amplification. On a time line, Crown products have been associated with many of the best-known recording artists, such as Tony Bennett, Bill Haley and the Comets, Elvis Presley, Miles Davis, The Beach Boys, Faith Hill and U2. Crown introduced its first solid-state amplifier in 1964, and the renowned DC-300 in 1967 (called best stereo amplifier in the world by High Fidelity Magazine in 1969). Crown is best known today for its professional series of amplifiers, used in stadiums and theaters worldwide. Sixteen of the top 20 grossing tours this year were powered by Crown, a company purchased by Harman International Industries, Inc. in 2000. The engineering department alone employs over 55 people who continue to be based out of a facility in Elkhart, IN. **Mike Giffin** is president of the mobile systems division of the Harman Consumer Group. **Andy Wehmeyer** is the product marketing manager, and **Michael Silber** is the director of product marketing.

Here, Giffin, Wehmeyer and Silber discuss the acquisition of Crown and related 12-volt products from JBL coming to retailers in the near future.

Sheveloff: Tell me a little about Harman's strategy in acquiring a company such as Crown.

Giffin: Crown is famous for their pro amplifiers — they are the kings of big power, durability, efficiency and sound quality. They know how to fill massive stadiums and concert halls with great sound. Crown was acquired by Harman in order to round out the profes-

sional division's position in every dimension of the pro sound industry, from the recording studio to the concert hall. Harman is parent to a host of highly respected professional brands, such as Studer, AKG, Lexicon, AMEK, BSS, Soundcraft, dbx, Digitech, DOD, and JBL PRO. The only thing missing was an amplifier manufacturer, and management felt that the engineering

Giffin: Shortly after the acquisition, Harman corporate management suggested that we investigate Crown as a possible resource for this type of project, and possibly develop a car audio engineering cell within Crown, in Indiana. We went out there and spoke to the staff, including well known designer Gerald Stanley, who felt very comfortable and motivated once they were assured that our goal was to create the biggest, most technologically advanced, best-sounding car amplifier in the world. "The more power you want us to work with, and the higher your performance standards, the more comfortable we are," was their response.

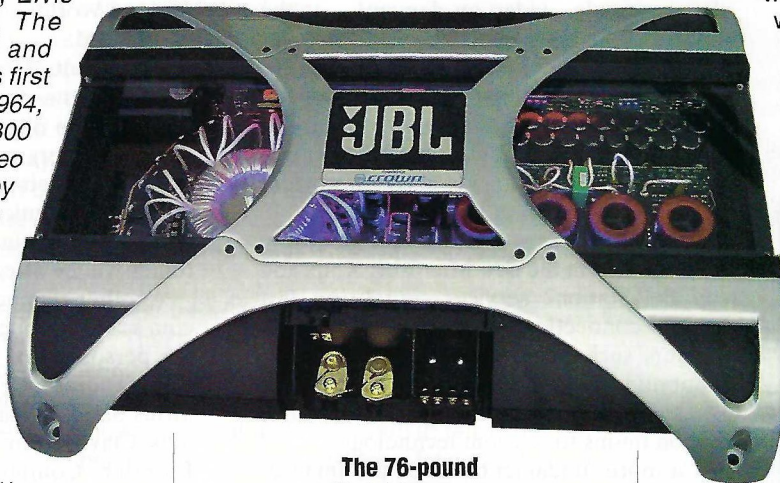
Sheveloff: Under what brand name will these new products be introduced?

Wehmeyer: They will wear a badge that says JBL, powered by Crown.

The first model is in the final stages of development, and is called the JBL A6000GTi. It is a dedicated low-frequency amplifier capable of 6,000 watts into 6 ohms, 6000 watts into 1 ohm, and virtually anything in between. The A6000GTi is a two-channel bridgeable design that can be configured to either double its current output or double its voltage output according to the resistive load by bridging the two channels or connecting them in parallel. Only Crown has been able to make this possible at very high power levels, and the related methodology is patented.

Sheveloff: Will consumers be able to run this product off of the electrical system in your average car?

Wehmeyer: The current draw of the A6000GTi is indeed huge, and for most cases at least an additional battery will be necessary.



The 76-pound Model A6000GTi

department at Crown was a real treasure-trove of audio know-how. Harman can now rely on Crown as a vast resource for product development throughout the broad spectrum of the Harman companies.

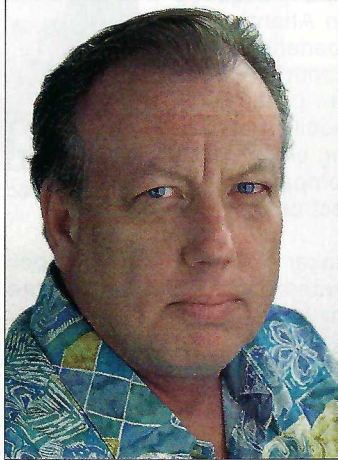
Sheveloff: How did it come about that Crown got involved in a 12-volt (automotive) design project?

"The only thing missing [in Harman] was an amplifier manufacturer, and management felt that the engineering department at Crown was a real treasure-trove of audio know-how...."

The SPL guys are used to making serious modifications to their vehicle's charging system in order to extract every last bit of performance. The Model A6000GTi will benefit from the same measures.

Sheveloff: Talk a little bit about the technology Crown carried over from its pro amplifier designs into the A6000GTi.

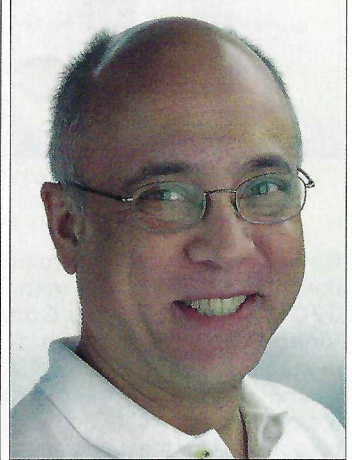
Silber: The A6000GTi utilizes Crown's patented Class I design, otherwise known as Balanced Current Amplification (BCA). This technology is more efficient than a traditional Class D amplifier, but more importantly, the audio signal



MIKE GIFFIN
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with a complementary multi-kilowatt amplifier designed to drive full-range speakers as well as subwoofers.

Sheveloff: Now that the 12-volt cell exists within Crown, what are the long-term plans for future product development?

Giffin: Our strategy for the JBL automotive subwoofer line was to deliver "best-in-class" products first, and then scale them down somewhat for the more mainstream consumer. Now we have the engineering, R&D and

low up with a series of amplifiers based on the Current Servo technology and high damping factor found in the A6000GTi. Those are two attributes that are proprietary to Crown, and we are targeting next summer (2003) for the release of those products.

Sheveloff: What components do you anticipate that consumers will match up to the massive output of the A6000GTi?

Wehmeyer: There are three GTi-series woofers, a 10", a 12", and a 15", currently available. These woofers are designed to handle thousands of watts of power, and they are actually capable of converting the output of the A6000GTi into acoustic energy. Thus, there is a real-world application for the amplifier that our dealers can provide to consumers with confidence.

'Our strategy for the JBL sub line was to deliver "best-in-class" products first, then scale down for the mainstream customer. Now, we have the engineering....to make that happen with JBL amps, as well.'

is much cleaner. It doesn't exhibit many of the unwanted switching artifacts and other forms of distortion associated with Class D. The BCA topology also contributes to Crown's legendary reliability, and is particularly well suited for many high-performance car audio applications where low-impedance loads are common. Also, because BCA performs as if the switching frequency was much higher than it is, we will be able to use that architecture to follow the A6000GTi

manufacturing capabilities to make that happen with the JBL amplifiers, as well. We have begun by building the biggest, baddest expression of power, high output, and clean sound in the category. We will fol-

'....there's a real-world application for the amplifier that our dealers can provide to consumers with confidence.'