

MIX[®]

FIELD TEST

GRACE DESIGN MODEL 801

8-CHANNEL MICROPHONE PREAMPLIFIER

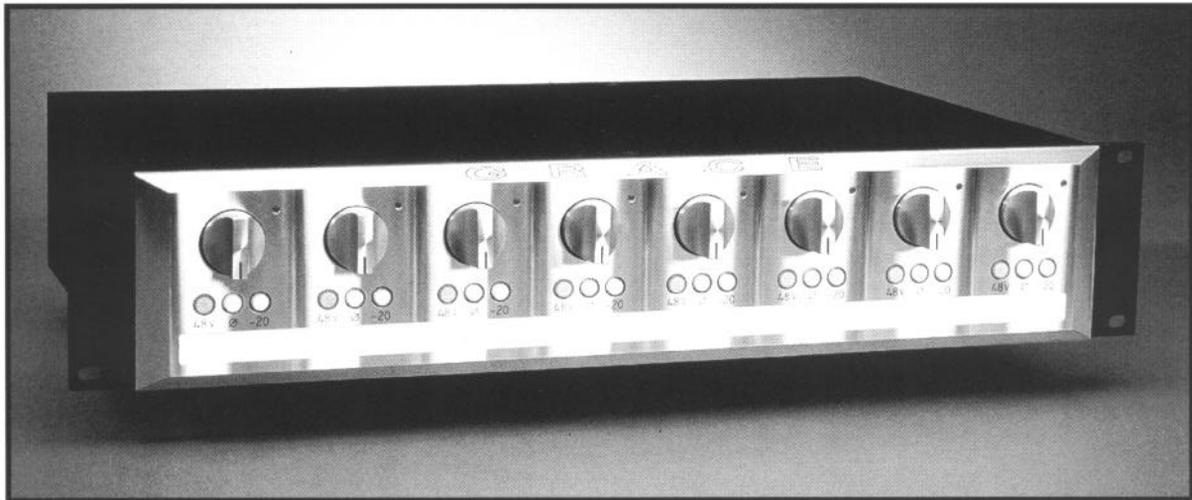
In spite of its reputation as a laid-back resort, Boulder, Colo., has always been a hotbed of activity in the realm of audio technology. Companies hailing from the area include Boulder Amplification, Peak Audio, WaveFrame (which later relocated to Calif.) and Grace Design. Although it has kept a low profile, Grace Design has been creating high-performance audio recording products for more

than a decade. the Class AB design eliminates the excessive power dissipation and long-term reliability problems associated with Class A designs. The output stage is capable of driving long capacitive cable runs and load impedances down to 50 ohms.

The 801's front panel is straightforward, elegantly designed and includes illuminated switches for 48VDC phantom power, phase

former. AC power is switchable for 100/120/220/240-Volt operation, and the front panel has LEDs indicating the status of the various supply rails. The detachable PS cable is an ample 8 feet long, which allows users to place the power supply well away from the electronics.

Inside the 801, the attention to detail is meticulous. The resistor ladders (made from 1% metal film



than a decade.

Currently, the Grace Design product line consists of the Model 201 (2-channel) and 801 (8-channel) mic preamps. Both models are solid-state designs, combining the Burr-Brown INA103 monolithic low-noise instrumentation amplifier and a transformerless balanced output stage featuring two high-speed (2000V/us) AD844AN trans-impedance amplifiers with high-output current capability. The output devices operate in Class AR mode, which essentially eliminates crossover distortion resulting from the output devices switching on and off as the signal passes the zero crossing point. In addition,

reverse and -20dB pad. The gain controls are 24-position switches with an 18 to 64dB gain range in 2dB steps. A bicolor peak LED glows green at -14 dB and turns red at +16 dB; a scribble strip can be used with dry- or wet-erase pens. The rear panel is simple, with a 7-pin XLR for the external power supply and eight XLR inputs and outputs—all wired pin 2 hot. The manual includes instructions for making adapters for unbalanced operation.

The half-rackspace, 4-pound outboard power supply is based around a low-noise toroidal trans-

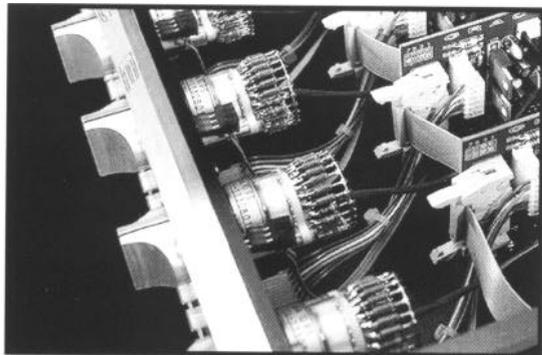
resistors) around the gain switches are hand-soldered, each providing an additional 2dB step of gain control. There are no electrolytic caps in the signal path, and all signal switching is via sealed, gold-plated relays. Additionally, each preamp channel is on a separate PC board, which reduces crosstalk and simplifies servicing.

My complaints about the 801 are minor. There are no markings on the gain controls, so finding a repeatable setting requires counting the clicks. Also, the gain steps are in 2dB increments, so "riding the gain" is not possible. With this in mind, Grace now offers a

BY GEORGE PETERSEN

pull-out trim pot option (\$125, channel).

I used the 801 over a period of months on every type of session. My first assignment for the 801 was an acoustic quartet (guitars, vocals, percussion, acoustic bass and audience mics), recorded live on location. I mounted the 801 in a road case with an ADAT XT, connected via an Elco connector to an XLR snake. This particular session proved to be an ideal



A look under the hood reveals the hand-soldered resistor networks.

test of the 801 and provided an opportunity to try the unit with a combination of condenser and dynamic mics. The results were excellent overall: The vocal tracks were clear and articulate, even with Shure Beta 58s—I'm not sure I've ever heard these workhorse mics sound so good. The acoustic guitar (AKG C-460s) and percussion (Audio-Technica AT-4031s) tracks were revealing. Here, the reproduction of upper harmonic⁵ was superb, particularly noticeable on guitar and hand percussion (finger cymbals, tambourine). A single AKG C-414 ULS was used for audience ambience; here again, the cleanliness of the 801 was a major plus, especially when, during mixing, we had to bring up the level of the audience tracks.

In the studio, the 801 proved no less impressive when recording difficult-to-reproduce instruments such as triangle and solo violin. Simple as it is, a triangle will reveal much about transient performance, and the 801/C-414 ULS combination was right on the money. On solo violin and mandola, I

had the chance to A/B the 801 with my Millennia HV-3 preamps. Both of these units are leagues ahead of the pedestrian preamps in my Soundcraft 600 console, but using a pair of Earthworks ultra-flat TK-40 condensers, I noticed the 801 had a slightly forward HF character compared to the Millennia. However, this difference is subtle and is more like comparing two excellent 1985 Cabernets. Perhaps a more looming factor is that the 801 retails at 54,495, which brings the per-channel pricing down to \$560, certainly affordable for world-class performance.

Overall, the Grace 801 sounds great, is built like a Porsche and is priced right. Anyone looking for a high-quality preamp should check this one out.

Grace Design, Box 204, Boulder, CO 80306; 303/443-7454; fax 303/444-4634. Web site: www.gracedesign.com. ■

Reprinted from Mix, courtesy of Intertec Publishing Corp., Emeryville, CA January 1998. Vol 21. No. 12 all rights reserved.