GRACE DESIGN MODEL 101

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To the observation that you can never be too rich or too good-looking, I would add that your recording signal path can never be too pristine. Microphones and mic preamps, after all, are the points at which the signal starts, so it only makes sense to ensure that each component is as clean, quiet, and accurate as possible (assuming that you're not intentionally seeking distortion, coloration, or the like).

The best gear comes at a price, and usually a steep one, which is why recordists working in personal and project studios must often settle for a compromise between quality and affordability. Fortunately, the gap between the two tends to narrow each year, thanks to low-end companies steadily improving their lot and to high-end outfits finding ways to reduce costs yet retain quality.

Grace Design, highly respected manufacturer of premium mic preamps such as the Model 201 and the Lunatec V2, is helping to further reduce the chasm between price and performance. The company's new Model 101 offers the same dazzling specs and immaculate sound (or lack of sound) as its forebears, but it is priced at less than $700. I used the 101 in numerous recording sessions during a period of several months; my only unanswered question is how in the world this small boutique audio manufacturer managed to put together a world-class preamp that's within the budget of nearly anyone with a mic and a part-time job.

BUMPER TO BUMPER

The Model 101 is a single-channel, solid-state, half-rack mic preamp featuring a balanced, transformerless mic input and a high-impedance instrument input. The build is sturdy and elegant, and the unit's chrome front panel, which sports the same retro-modern metallic gleam and rounded contours as the company's Models 801 and 201, is so lovely that it practically begs to be smudged with fingerprints.

The 101's few front-panel features are laid out cleanly and labeled clearly. From left to right, it has a ¼-inch high-impedance direct injection (DI) jack (labeled HIZ), a 48V phantom-power switch, large easily grasped Gain and Trim knobs, a 75 Hz highpass-filter switch (labeled HPF), and a power switch beneath a recessed amber power-indicator light. Another recessed bulb in the top center of the panel glows green to indicate signal presence of -20 dBu and higher; when the signal level hits +16 dBu (a conservative 9 dB below clipping), the indicator turns red, bringing to mind the brake lights in the chrome bumper of a muscle car.

The Gain knob range is marked 10 dB (counterclockwise) to 60 dB (clockwise), with no intermediate calibration marks. Rather than use a standard linear potentiometer, Grace upped the ante by employing a precision stepped-gain switch with 11 positions. Each detent on the Gain knob corresponds to a 5 dB gain change, facilitating repeatable settings for anyone willing to count switch clicks. The continuously variable Trim control, useful for reducing gain in increments of fewer than 5 dB, is meant to be set to unity (fully clockwise in the 0 dB position) but can provide 10 dB of attenuation at its lowest (counterclockwise) setting.

The rear panel of the 101's sturdy all-metal chassis provides a balanced input and a balanced output on gold-plated Neutrik XLR connectors, along with a balanced ¼-inch TRS output. Power is supplied to the unit by a 6V wall-wart transformer. Although that may elicit grumbles, the alternative, a built-in toroidal AC transformer and linear power supply, would have resulted in a larger and more costly product. In addition, according to Grace Design, this is not your run-of-the-mill wall wart; rather, it is a high-quality power supply.

The lack of a polarity-reverse switch, a useful feature that Grace includes on its 801 and 201 models, is always vexing to me as a studio engineer. In multiple-mic setups or when interfacing with older gear in my studio, I often need to check and reverse polarity at the preamp. So when testing the Model 101, I kept a polarity-reversing XLR cable (one with pin 2 wired to pin 3 at the other end) within reach. However, considering the cost-to-quality factor of the unit, not having a polarity-reverse switch is an inconvenience I can easily overlook.

More troublesome is the absence of an indicator light accompanying the phantom-power switch. Because of the unit's snazzy front-panel sculpting, the position of the 101's 48V switch is difficult to see at a glance. Fortunately, that didn't lead to any mishaps during the test period; nevertheless, it's easy to imagine someone accidentally disconnecting a condenser mic from the 101 while the phantom power is on, perhaps resulting in a loud pop and possibly even blown tweeters.

HEAVYWEIGHT BOUT

The solid-state preamps in my studio are European and expensive, which means that I pitted the diminutive 101 against some heavyweight competition in recording sessions. Nonetheless, during the testing, the Grace preamp was predictably neutral in character and impressively close to the technical ideal of a sonically transparent "wire with gain."

(continued)

PRODUCT SUMMARY Grace Design Model101 microphone preamp and DI, ***$695***

PROS: World-class sound and construction. Superlative high-end response. Affordable. Easy to set up and use. Sufficient gain for ribbon mics and quiet sources. DI sounds great on guitar and bass. No electrolytic capacitors in signal path. Gold-plated XLR input and output connectors. Precision silver-contact stepped gain switch.

CONS: No polarity-reverse switch. No phantom-power indicator light. Wall-wart AC transformer.

RATING PRODUCTS FROM 1 TO 5	
Features:	4.5
Ease Of Use:	5.0
Documentation:	5.0
Value:	5.0

HEAVYWEIGHT BOUT

For the 101's first outing, I paired it with a Baltic Latvian Universal Electronics (BLUE) Bottle tube microphone on singer Shelley Doty; the high-end characteristics of that mic-and-preamp combination highlighted an acoustic sibilance problem. Switching preamps (to a Focusrite Red 7) diminished the sibilance, and eventually I chose another mic to filter the vocalist's sizzle. The lesson is that accuracy (the 101's frequency response is virtually flat from 12 Hz to 170 kHz, according to Grace Design) is not always an advantage in the real world of recording.

As it turned out, that was the only occasion in which the 101 wasn't the right tool for the job. Indeed, I soon discovered that the same microphone in the same room sounded stunning through the 101 when used on a different singer. When set up for an impassioned male vocalist with a hint of soulful grit, the signal chain displayed open highs extending into realms only dogs and test gear could appreciate.

A recorded A/B comparison showed that the Focusrite Red 7 had a warmer, chestier sound (a trait of transformers) with a bit more of an up-front attitude and more projection in the crucial 4 kHz range. The Grace, on the other hand, was beautifully airy without a hint of sibilance, and it conveyed more room detail along with a glossy realism. Although both preamps had merits, the next time the singer came into the studio, I set him up with his usual microphone through the Model 101 and never looked back.

The 101 also garnered oohs and ahs for its performance on a track by poet Gilbert Marhoefer for his band, the Apes of God. I had already attempted Marhoefer's spoken-word piece on previous occasions, but until the 101 entered the equation, his voice never quite seemed to cut through the musical accompaniment. Matched again with the BLUE Bottle mic and followed by a Manley Variable Mu tube compressor, the Grace preamp worked like a charm to sharpen the vocal delivery without detracting from the tube warmth of its signal-processing companions.

Paired with an omnidirectional Neumann KM 183 as a distant acoustic-guitar mic, the 101 scored points for openness and radiant high harmonics as compared with a modified Neve 1272 preamp. The Neve seemed to concentrate and thicken the tone of the Taylor acoustic, emphasizing inner chord voicings. In contrast, the 101 brought low- and high-end details dramatically to the fore; discerned every pick stroke in a natural, realistic way; and made the guitar's top E string sparkle.

The 101 also seemed to optimize the omnidirectional characteristics of the KM 183 - to the point that I picked up some distant machine noise coming from the other end of the building. Fortunately, the unit's low-cut filter effectively cut out the rumble without sacrificing the instrument's tone. For pop-music recording, the Neve sound will always have advantages and champions; for accuracy and presence, however, it lost that round to the Grace Model 101.

NO-PAIN GAIN

The 101 has sufficient gain for distant-miking applications and can run at its highest gain setting without noise or artifacts. I teamed it with a Royer SF-1 ribbon mic on two rather delicate acoustic instruments: violin and Japanese koto. The Grace delivered adequate signal for +4 dBu recording to digital and analog media, and it ran clean right up to its +60 dB maximum. More important, the 101's pristine signal path worked beautifully with the ribbon mic, and its ability to convey crisp detail was magical. (For recordists who require even more gain, Grace Design also offers a high-gain version of the Model 101, providing +70 dB maximum gain.)

On various members of the clarinet and saxophone families (recorded through a Lawson L47) and on trumpet (through the BLUE Bottle mic with a B2 capsule), the 101 lent a bright and incisive sheen to tube mics without sounding sterile, harsh, or buzzy. I also used the 101 on clarinet, marimba, violin, and bass drum for a session with composer Beth Custer featuring the Tin Hat Trio. A little reverb really made the instrumental tracks come to life and displayed vividly what the 101's clean electronics and extended high-end response can do.

DIRECT FLIGHT

Used as a DI on a Fender Stratocaster guitar, the Model 101 sounded clearer and less noisy than the other preamp/DI boxes in my rack. Tonally, it came closest to my favorite guitar preamp, the Drawmer 1960, but the 101 provided cleaner, more articulate low notes and glassy, big-budget highs. There, with no EQ and no compression, was the crystalline direct sound, free of midrange muck, I had always imagined hearing from the Drawmer.

After that stunning revelation, I admit that I did not expect miracles from the 101 on direct bass. But it turned out to have more low-end depth and thump than most of my rack inhabitants, eclipsed only by the thunderous fundamentals of the Peavey VMP-2, my long-standing favorite for bass-DI duties. True to its flat-response character, the Grace sounded less thick in the crucial 150 to 300 Hz midbass octave than the other preamp/DIs tested, but don't call it thin just because it isn't fat. As was the case with guitar, the upper notes and harmonics were crisp, and the low end was wonderfully articulated and defined. I expect the 101 would really shine on a high-tech bass rig and allow the instrument to sit in a mix with minimal compression.

GRACEFUL EXIT

For anyone accustomed to making a choice between premium and affordable gear, the Grace Design Model 101 is a real eye-opener. The solid, world-class microphone preamplifier can bring out all the subtleties heard at the microphone without imposing its own personality. In addition to that rare quality, the 101 provides high-end response that seems to extend without limit.

Although it may lack a few features common to other preamps, the modest single-channel unit outperforms any other preamp in its price range and offers serious competition even to legendary models costing three and four times as much. When you add it all up - uncompromising sonic purity, good looks, and affordable price - clearly, the Model 101 is an outstanding value for recordists working at all levels and in all styles of music.

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