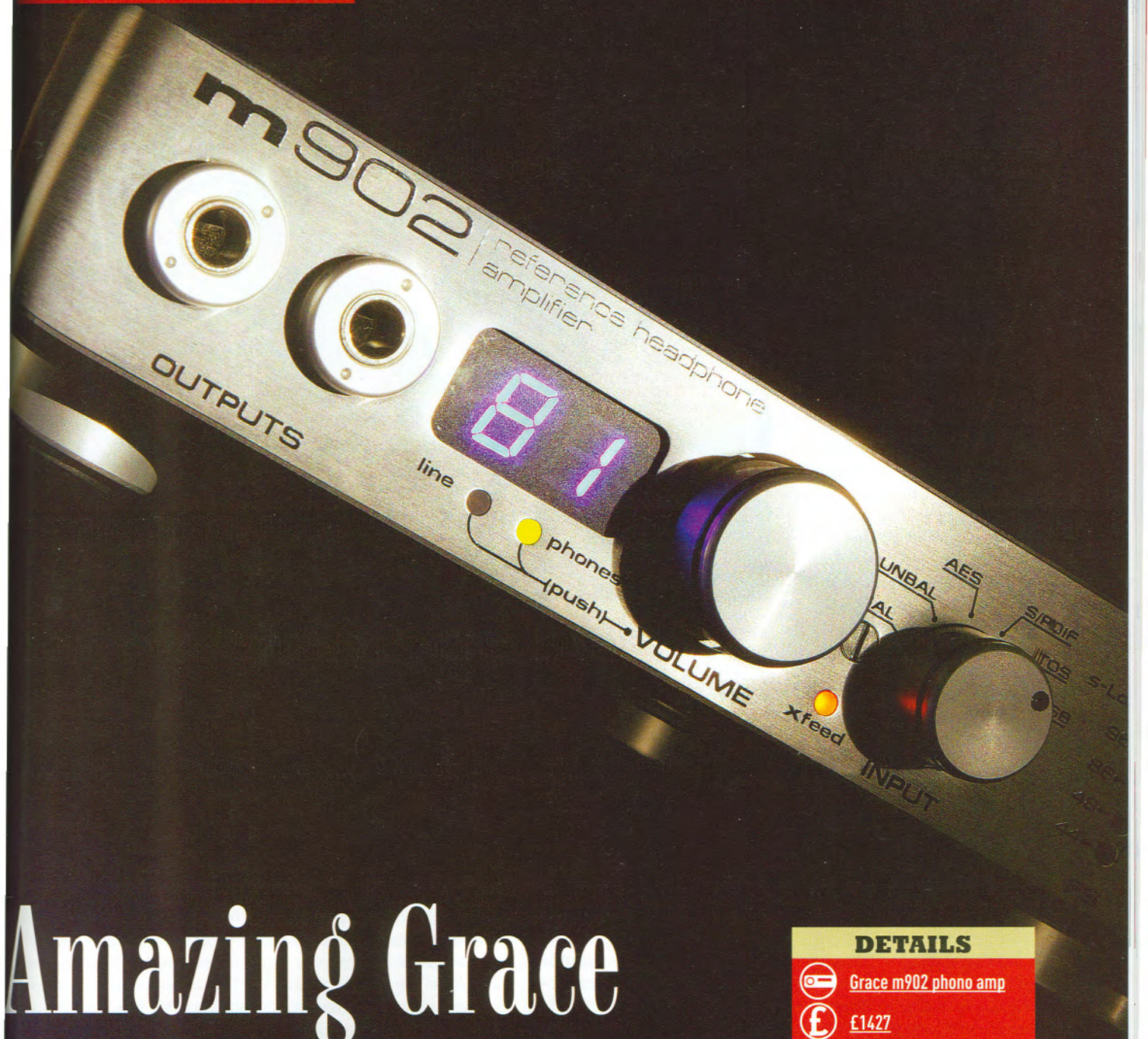

Amazing Grace

Hmm...something cool from the pro sector. **Ken Kessler** discovers a headphone amp/DAC/pre-amp that takes private listening to new highs, plus from Manley a solution to adding more inputs to pre-amps

Because the chasm between audiophiles and professionals seems as wide as ever – they think we're freaks and we know they're deaf – those rare 'crossover' moments are all the more delicious. For instance, they've given us Nagra, the LS3/5a and myriad headphones, while we've given (some of) them superior cables, Wilson speakers and various valve amps. The latest gem to escape the clutches of studio denizens is so utterly captivating that you can only grin stupidly when you try it.

Quite how Stateside manufacturer Grace Design came up with the idea of a combination miniature headphone amplifier/D-to-A converter/pre-amp isn't clear, but apparently the topology is familiar to and useful for studio personnel. What's clear is that there are no domestic audio equivalents that spring to mind unless you qualify any full-size pre-amp with onboard DAC and headphone outputs as a direct rival. Or, conversely, any overkill DAC with a non-digital line input and headphone output. But it's the 'pro-ness' of the Grace m902 – construction, facilities, seriousness – as well as its diminutive size that make it more than a basic DAC-cum-pre-amp variant.

Just look at this little treasure! Into a box measuring a teensy 8.5 x 8.25 x 1.7in (wdh), they've managed to pack a superb-quality headphone amplifier able to drive two sets of cans to ear-bursting levels, plus a 24-bit/192 DAC fed by TOSlink optical, phono-style coax (S/PDIF) and balanced XLR (AES) digital inputs. Moreover, there is USB computer interfacing, which supports 16-bit/44.1 and 48kHz. As well as the digital inputs,

DETAILS

- Grace m902 phono amp
- £1427
- www.gracedesign.com
- 01296 681313
- Revealing, yet inviting
- Thin-sounding DAC

The fascia [right] features two headphone outputs, together with the upsampling options [far right] offered by the DAC

the rear features a pair of RCA line level inputs, a pair of XLR balanced inputs and a pair of single-ended analogue outputs; I suppose space precluded the addition of a pair of XLR balanced outputs. These are the makings of a full-blown system controller: four digital inputs, two line inputs, a DAC, remote control – add source, amp and speakers, and you're away.

On the front panel are two 1/4in headphone inputs, a display that shows output level and the various menu functions, a large rotary volume control, the input selector and the on/off switch. Press the volume control, and you access menus for setting balance, choosing high or low gain and other options for interfacing it with monitoring systems.

THE TECHNOLOGY

Grace adds other niceties to the recipe, including its proprietary s-Lock dual stage PLL (Phase Lock Loop) for extremely low intrinsic jitter and 'rock solid digital performance'. Another feature, the effectiveness and appeal of which are determined by personal taste, headphone selection and head shape, is the XFeed setting. This is said to 'simulate the acoustics of a loudspeaker listening environment, which significantly improves imaging while reducing listening fatigue when using headphones.'

Designed by Dr. Jan Meier, XFeed employs carefully designed signal 'crossfeed' filtering and delay circuits to simulate HRTF (Head Related Transfer Functions). Other headphone amp manufacturers have similar offerings, and their efficacy can vary from recording to recording and headphone to headphone, so consider it a freebie. But it does have an intriguing effect on in-your-head imaging, so don't dismiss it.

'Pipeline' was fat and tight, with the kind of flow that has gibbering idiots howling about rhythm and timing

Over the years, I've played with a number of headphone amplifiers including wonderful units from Grado, AudioValve, Musical Fidelity and others, and they're heartily recommend if your system lacks a headphone output but you don't need the addition of a DAC. But the m902 must be looked at primarily as a 'reference headphone amplifier' regardless of its other capabilities. What it does above and beyond other headphone amps is offer universality, in that its 'high-current transimpedance amplifier circuitry' seems to drive any headphones you connect to it, even with silly, low impedances like the legendary Beyer DT48s (25 ohms!!).

While nothing can convert the sound of a dynamic headphone into the open, airy brilliance that is the sound of a Stax electrostatic, the Grace is so clear and uncoloured that I can't recall headphone monitoring that was so truly naked and revealing. Ordinarily, this is a moot virtue for audiophiles, but remember this was designed for professionals to use for monitoring the recording process. It has to be revealing. But Grace must have an audiophile in its ranks, because the sound is also smooth and inviting.

With a pristine stereo transfer of Bobby Vinton's *Blue Velvet*, the backing vocals possessed a sheen of Mathis-grade, while the slapped electric bass was both round and solid. Speaking of bass, the opening

MANLEY SKIPJACK

I bought the Skipjack at Stereophile's New York high-end show, begging Eveanna Manley to sell it to me. It's Manley's solution to adding more inputs to pre-amps with only one line input. But its secret weapon, and why I wanted it, is its ability to do seamless A/B/C/D/X switching for blind listening tests.

In basic form, the Skipjack will feed sources in this manner: 4 stereo inputs to 1 stereo output, 3 stereo inputs to 2 stereo outputs, 1 stereo source to one of 4 stereo destinations, 1 of 2 stereo sources to 1 of 3 stereo destinations, etc. Now the one I have is pre-production, eg the remote is hardwired, so there may be changes and alternatives, like a balanced version or one for multi-channel, and certainly infra-red or RF remote.

As Eveanna Manley explained: 'These basic functions extend the number of inputs on a typical hi-fi pre-amplifier or receiver which often have too few, especially in the case of surround receivers that only have one set of 'Direct Inputs' that bypass all digital conversions and processing. But it is also intended as a wonderful way to compare multiple audio products with minimal electronics in the audio path.

'In fact, the audio only passes through the high-end phono connectors, a few inches of audiophile wire, and is switched by sealed gold contact relays where both the signal sides use two switch elements and the ground uses two switch elements for reliable

Press the rotary volume control to access menus for setting both balance and gain

Balanced inputs join RCA ins and single-ended analogue outs, plus a USB computer interface

of the Chantays' *Pipeline* was fat – or should that be 'phat' as it deserves sampling by some lower-octave degenerate – and tight, with the kind of flow that has gibbering idiots howling about pace, rhythm and timing. And if 'weight' is a virtue, check out the sheer mass of the drum in the opening salvo of *That Thing You Do* from the soundtrack of the same name. (God bless Tom Hanks...)

And the sound even retained its openness in the seemingly non-conducive milieu of mono recordings. Kyu Sakamoto's *Sukiyaki* was gorgeous, the whistling solo sounding natural and sibilance-free, every nuance in his voice heard clearly enough to help you brush up on your Japanese – including that tough-to-master 'ng' sound. And Lord knows why, but I got hold of a superb transfer of the Singing Nun's *Dominique*: the acoustic guitar was simply glorious, if not quite convincing enough to make me join the ranks of the Dominicans. It somehow sounded bigger, with its sonic borders outside of the head despite a solid central presence. Ditto the clarity – even with my crappy command of French, I could make out every syllable.

PLAYER SWITCHES

All the while, I was switching between the various CD players' DACs and the Grace's onboard offering. This is one classy converter, able to hold its own with some top notch devices. Aside from its obvious convenience and flexibility (less, of course, HDCD), it does have its own sonic personality. I found its processing less forgiving and more detailed than domestic audio conversion, at times sounding thinner. It certainly proved less romantic than the X-RAY V3 CD player or Denon DVD2500 DVD player used for this test.

One interesting effect of the Grace's DAC was a less 'forward' sound. I realise that's an odd trait to discuss with headphones, but it was identical to the effect through loudspeakers, which I confirmed by feeding the Grace through the Marantz PM-4 integrated amp driving LS3/5As. Whether in your head or out of it, the depth perspective changed. Grab a copy of Wheatus' 'Teenage Dirtbag' and listen to the acoustic guitar at the beginning, and notice the shift, a slight backward step away from the listener with the Grace DAC.

Question time: Do you need an m902? At £1427 inc VAT, plus £90 for the remote, it costs more than most straight (non-DAC-equipped) headphone amps on offer. Meanwhile, Quad 99CDP II owners, for example, have all the digital inputs they could want, and any A/V system with a headphone output would serve, too. But the key is not so much the DAC section – which I will be using as a reference when reviewing CD transports – as it is the headphone amp. If you use headphones even half as much as you listen to your speakers, find a way to hear this. Your ratio of headphone-to-speaker usage will certainly change. And you'll understand why I'm buying one. ◻

redundant and leakage-free connections. In other words, a stereo pair needs four relays and the Skipjack has 28 relays to perform all routing needed.' Switching signals and grounds separately allows the Skipjack to control the timing to a fine degree to minimise clicks.

Housed in an 8in square box only 2in high high with added 'ballast' so it won't be pulled off shelves by heavy cables, the Skipjack uses a small external supply, followed by linear regulators in the box. It has five pairs of stout phonos across the back, five buttons on the front, and a light show explained in the massive owner's manual. Suffice it to say, it's the most sane and flexible switching unit I've found, and it doesn't interfere with the signals. At £749 inc VAT, the Skipjack is irresistible. Add it to the cost of a Grace m902 to expand the latter's input tally, and you have one hell of a pre-amp/DAC combo for £2250, a package that just happens to include one of the finest headphone amplifiers I've ever heard.

THE REPORT

TECH DETAILS • VERDICT

REVIEW SYSTEM

- Beyer DT48 headphones
- Grado RS1 headphones
- Sennheiser HD414 headphones
- Sennheiser HD580 headphones
- Musical Fidelity X-DAC V3 D/A converter
- Musical Fidelity X-RAY CD player
- Musical Fidelity X-RAY V3 CD player
- Marantz CD12 CD transport
- Denon DVD2500 universal player
- Marantz PM-4 integrated amplifier
- Spendor LS3/5A speakers
- Kimber TOSlink cable
- Acrolink 75 ohm digital cable
- Transparent Ultra balanced cable
- Acrolink 7N-A2500 interconnects

SUPPLIER

Aspen Media • 01296 681313 • www.aspen-media.com

TECH SPEC

DIMENSIONS	8.5 x 8.25 x 1.7in (wdh)
WEIGHT	2.2kg

• Full technical specifications for this product can be viewed online at www.gracedesign.com

VERDICT

There's nothing really to touch this if you a need DAC or digital pre-amp with a handful of inputs. If you can factor in heavy headphone usage, the Grace suddenly takes on a unique role. Add the Skipjack if you need more than the two line inputs, and you'll have the neatest, most compact, most ruggedly-built, clean-sounding control centre at the price. Suffice it to say, I'm buying an m902 for my 'desk' system...which I listen to six hours a day, five days a week.