# Discrete Evolution

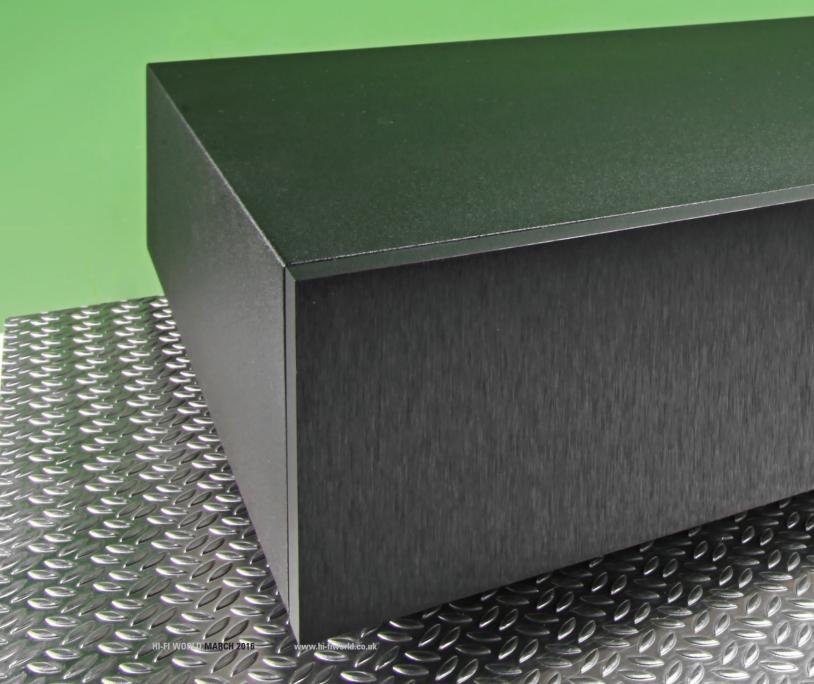
Naim has upgraded its Classic range of power amplifiers with the new Discrete Regulator first developed for the company's flagship Statement pre/power combination. Jon Myles explains the move – and checks out the new NAP 200 DR.

ake a look through Naim's 2016 product catalogue and you'll find the company manufactures an array of products including CD players, streamers, DACs,

integrated amplifiers, one-box music systems, loudspeakers and the costno-object £155,000 Statement pre/ power combination.

But Salisbury's finest first built its reputation with its range of power

amplifiers - starting with the NAP 200 way back in 1973. This was soon followed by the iconic NAP 250 and NAP 300 that used similar circuit designs with over-engineered power supplies for maximum dynamics. All



this was before the introduction of the (then) flagship NAP 500 at the turn of the millennium.

All three models are still going strong, albeit having undergone a series of revisions and improvements over the years in terms of circuitry, transistors and even casework.

But Naim has now introduced what could be the most significant upgrade yet to the venerable line-up in the shape of its new Discrete Regulator (DR) — a technology first developed for the aforementioned flagship Statement amplifier.

In short, the DR is an in-house designed voltage regulator which is said to better the usual industry-standard monolithic chips more commonly used for the purpose, by employing discrete components carefully selected by Naim's engineers over a two-year development period. The result is said to be a lower noise

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floor across the board as well as a vastly improved impulse response and an accordingly smoother power delivery.

The NAP 250, 300 and 500 power amplifiers all now also feature the new high-power NA0009 transistors developed for the Statement while the DR is used to regulate the power supply to the entire amplifier.

The NAP 200, by contrast,

doesn't employ the new NA0009 as it wouldn't benefit from the extra current handling capabilities. The NAP 200 also does not use regulated rails for the power amplifier section. It can, however, provide power to an attached Naim pre-amplifier so this supply has now been upgraded to the DR module. Various smaller improvements have also been made to internal componentry and circuit layout to further improve the NAP





The NAP 200's rear panel is elegantly simple - featuring loudspeaker sockets and Naim's preferred DIN socket for connection to a pre-amp.

200 DR's overall performance.

Design-wise the NAP 200 DR looks identical to its predecessor - with the triptych-fronted, low resonance, black anodised aluminium casing and glowing green logo common to all the Classic series amplifiers. On the rear are the 'speaker outputs that accept only banana plugs, and Naim's preferred DIN socket connection for attaching to the pre-amp.

The latter means users of non-Naim equipment will need to buy an RCA-to-DIN lead to connect up to their pre-amps - not ideal but it is the company's way of doing things.

# **SOUND QUALITY**

The new NAP 200 DR was pressed into service with a Naim NAC 202 pre-amp and driving a pair of Spendor's excellent A5R loudspeakers (see review Hi-Fi World, January 2016).

The NAP 200/NAC 202 combination was always a potent performer, displaying all the traditional Naim virtues of drive, toe-tapping rhythmic ability and a big, bold presentation. If there was one criticism, though, it was a slight lack of depth and fluidity to the overall sound.

The DR-equipped version, though, has no such drawbacks. Playing Bruce Springsteen's live rendition of 'This Land Is Your Land' (24/96) there was immediately a more convincing presence to the performance. Springsteen's gentle acoustic guitar figure was more natural while there was a greater sense of air and atmosphere around his voice. The soundstage also reached further behind and beyond the confines of the loudspeakers, better portraying the acoustic atmosphere of the venue it was recorded in.

Moving on to Massive Attack's 'Angel', the NAP 200 DR took a firm grip on the 'speakers to ensure the low bass notes on the first few

bars of the track were powerful and rounded. The amplifier puts out a quoted 70 Watts per channel (see Measured Performance for full details) but in practice it sounds significantly more powerful.

Turn the volume up and it will happily drive even insensitive loudspeakers without showing any obvious signs of strain. That's a trait common to many a Naim amplifier (both power and integrated) but what the Discrete Regulator upgrade does on the NAP 200 is bring an extra air of delicacy and insight to the partnering NAC 202 pre-amp.

There's a greater sense of balance and detail retrieval to the sound that makes the likes of Barb Jungr's 'Man In The Long Black Coat' sound more intimate and enveloping.

As I mentioned earlier, the NAP 200 was already a very good amplifier as it stood - especially when paired with a NAC 202 pre-amp or above. In its new DR incarnation, however, it's taken a significant leap forward.

# **CONCLUSION**

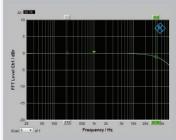
It's great to see some of the research and development that went into the flagship Statement amplifier trickling down to Naim's more affordable and real-world products.

In the case of the NAP 200 the Discrete Regulator brings very real improvements when combined with one of the company's preamps. Together, they retain all the traditional Naim verve and vigour but add greater soundstage and detail to the mix.

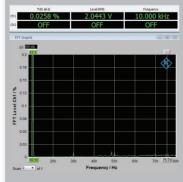
# **MEASURED PERFORMANCE**

The NAP 200 DR delivered 72 Watts into 8 Ohms and 121 Watts into 4 Ohms so it could be seen as an 88 Watt amplifier into a nominally 6 Ohm loudspeaker,

### FREQUENCY RESPONSE



# DISTORTION



which most attempt to be these days. Damping factor was 15, a low value, as always with Naim.

Distortion was very low across the audio band, at 1kHz hovering around 0.005%. At 10kHz 1 Watt into 4 Ohms this figure rose to 0.02% but our analysis shows mainly noise, not distortion harmonics.

Frequency response rolled down slowly above 20kHz to a -1dB point at 36kHz. At low frequencies the amplifier reached down to 4Hz. Input sensitivity was normal at 1V, like most power amps, and noise a low -116dB.

The NAP 200 DR measured very well in all areas. Like all Naims it has low damping factor and rolls off above 20kHz, contributing to its smooth yet powerful sound. NK

Power	72 Watts
Frequency response	4Hz-36kHz
Separation	91dB
Noise	-116dB
Distortion	0.02%
Sensitivity	0.9V
Damping factor	14



# NAIM NAP 200 DR £1995





**OUTSTANDING** - amongst the best

# VERDICT

A fine upgrade to an already impressive power amplifier. Brings added delicacy and depth with no loss of dvnamism.

#### **FOR**

- transparency
- soundstage depth
- bass quality

#### **AGAINST**

- needs pairing with a Naim pre-amp to give of its best
- DIN connection only

# Naim Audio

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