

Integrated amp with network/USB inputs. Rated at 60W/8ohm
Made by: Hegel Music Systems AS, Oslo, Norway
Supplied by: Hegel Music Systems AS
Telephone: +47 22 605660
Web: www.hegel.com
Price: £1500

AUDIO
FILE



NETWORK-ATTACHED AMP

Hegel H95

The new entry-level model in the Norwegian company's amp range is a sensible mix of facilities and performance – or at least it would be, if the sound wasn't sensational!

Review: **Andrew Everard** Lab: **Paul Miller**

Oslo-based Hegel has been enjoying something of a purple patch of late: not content with raising eyebrows with the sheer performance of its flagship H590 integrated amplifier [HFN Oct '18], it went on to get dangerously near that level with the much more affordable H390 model [HFN Aug '19], offering almost all of big brother's sound quality for not much more than half the price. Our HFN review concluded that it was 'sensationally good value, with a clean, powerful sound and bags of musicality, not to mention exceptional flexibility including onboard network streaming'. Unsurprisingly, it won the 2019-20 EISA Award for 'Best High-End Amplifier' [see this year's EISA Awards, p72].

ENGINE FOR CHANGE

Now Hegel is tackling the other end of its product lineup, with a replacement for the entry-level H-Series model, the H90. The new H95 sells for £1500, making it a little more than the model it supersedes. The H90 was only launched three years ago, stepping up from the previous H90 by including Hegel's SoundEngine 2 regime, which uses local and adaptive feedforward – rather than global feedback – technology to tackle distortion within the amp stages. The design also promises a high damping factor, and even better speaker control, which has long been a Hegel strength.

Since the H90 was so fundamentally well-sorted, it may seem prudent to wonder why a replacement was needed so soon. The answer, as is usually the case with this enterprising manufacturer, is that nothing ever stands still. Since rolling out the H90, it has launched its H120 and H190 [HFN Jan '18] models – in addition to the aforementioned H590 and H390 – and realised the developments made for those models had something to offer lower

down the range. Or, to put it rather more prosaically, the world of digital music keeps moving on and the H90's streaming and DAC implementations were beginning to look a bit long in the tooth.

With improvements to the company's UPnP streaming solution, the addition of Spotify Connect and a forthcoming update to bring them AirPlay 2 capability, the H120 and H190 were already way ahead of the H90, so those features have been carried over to the new H95, along with the latest menu system that allows for those all-important 'over the air' updates and the potential for future upgrades.

The network 'business end' of the H95 isn't quite the same as that offered further up the range, however. Something had to give in order to hit the intended price-point, so the new model lacks the extended 'custom installation' facilities of IP and Control4 remote operation, and neither will this model be upgradable to become a Roon endpoint. The RC10

remote handset provided with the H120 upwards is also missing – with H95 it's (perhaps appropriately) a £95 optional extra [see p55]. Apart from changing the volume from a distance, you probably won't need it, but it's a reassuringly chunky metal-clad device nonetheless.

FLEXIBLE FRIEND

Building on the platform of the H90, Hegel's engineers have made only mild changes to the analogue section of the amplifier, with improvements to the power supplies, and also to the headphone output to reduce noise. The big change, however, is in the digital section here, which uses the same DAC as the H120 and H190. This is Hegel's in-house designed 'SynchroDAC' technology, using balanced signal processing throughout to, it claims, maintain dynamic range and reduce distortion [see PM's Lab Report, p55].

So, the H95 may be the least powerful of the company's H-Series amps, being



RIGHT: One pair of Sanken power transistors are deployed per channel [heatsinks, top left], fed from a toroidal transformer and linear PSU [right]. Libre-sourced digital board [lower right] offers USB and network access



specified at 60W/8ohm rather than the 75W of the H120, and may have a slightly simplified network interface – at least in terms of capability – but that doesn't stop it being a rather flexible little amplifier.

As well as its network connection via Ethernet, it has an asynchronous USB-B input, three optical digital inputs and a single coaxial (RCA) input. The balanced analogue inputs found further up the range are also missing here, but the H95 has two sets of line-ins on RCAs, plus a pair for its variable preamp output, allowing the amp to be connected to an external power amplifier either for biamping suitable loudspeakers or to facilitate a future system upgrade.

WAKE UP CALL

Any of the inputs can also be configured as a 'bypass' – fixed-level inputs for use with an external surround processor – and it's also possible to set the maximum volume level for both the amplifier's main output and the headphone socket. Finally, via the

optional remote control handset, the start-up volume can be set if required.

The H95 also offers 'wake on LAN', a neat touch allowing you to use Spotify or AirPlay from a portable device, so even when it's off the amp will come out of standby and start playing. It's a handy feature should you want to punt the output from, say, the BBC Sounds app running on your phone to the 'big system'.

Note, however, that Hegel doesn't have a dedicated app to play UPnP music to the H95 – nor indeed any of its amps. Instead it suggests Conversdigital's mconnect Player app as being the best choice for playing music from network stores to the amp. This app is available in a free 'Lite' version with ads, but the full version is hardly going to break the bank at \$5.99, and mconnect also has the benefit of bringing with it Qobuz and Tidal access – subject to the user having the appropriate subscriptions, of course.

However, I also tried the H95 with a range of UPnP/DLNA control apps, including

ABOVE: Instantly recognisable – the H95 is an exemplar of Hegel's trademark simplicity. Source and volume controls flank the display and a power button is hidden under the fascia

Linn's Kinsky, PlugPlayer and Bubble UPnP, and it seemed to work just fine. Yes, it's limited to 96kHz/24-bit when streaming via UPnP, but I get the feeling that'll be more than adequate for most listeners.

REAL SNAP

Having had extremely positive experiences with the 'big bruisers' of the Hegel integrated amplifier range, I approached this baby model with anticipation and trepidation. I hoped it would offer some of the magic of the H390, but was unsure how that would be possible at around a third of the price. I needn't have worried...

Straight out of the blocks the Hegel H95 had my attention with the stripped-down instrumentation of The Steve Howe Trio's 'Fair Weather Friend' [New Frontier; Esoteric Antenna EANTCD1077], presenting the former Yes guitarist's instruments with real snap, son Dylan's drums with persuasive weight and drive, and revelling in the sound of Ross Stanley's Hammond.

Best of all, there's a completely smile-inducing sense of the musicians arrayed before the listener, especially with the H95 driving the equally magical Neat Iota Xplorer speakers [HFN Jul '18], with their ability to present a broad, high soundstage.

The amplifier instantly establishes itself as being controlled, detailed and refined, but at the same time entirely exuberant in the way it launches into music. For example with the Simphonie du Marais's period-instruments reading of Handel's *Water Music & Royal Fireworks* [Musiques à la Chabotterie 605017], directed by ensemble founder Hugo Reyne, the H95 sounds big and stately with the processional episodes. Moreover it also sounds fast and nimble with the dance tunes woven into the piece, all the while bringing out the

'Her voice clear and forceful, but ready to slam with the band'

HEGEL'S HERITAGE

The secret of Hegel's success? It does things its own way, from the extensive in-house product engineering to its entertaining – yes really – instruction manuals, illustrated with colour pictures of Norwegian landscapes, flora and fauna. Though it seems almost like a newcomer on the hi-fi scene, due to the prominence it has achieved in recent years, the company traces its roots back to 1988, and founder Bent Holter's university thesis. The subject? A novel design for the transistors used in amplifiers, and a cure for the common problems of hi-fi systems. Nothing if not ambitious, but that thinking has informed the company's development ever since. Very soon the company's SoundEngine design was laid down, and through the 1990s Hegel struck out into CD players and DACs, hiring extra engineers to develop new technologies. Today the company – named not for the German philosopher but after a rock band in which Holter played during the '90s – has a range including multiple DACs, the Mohican CD player [HFN Oct '16], and amplifiers both integrated and pre/power. And Hegel likes to give its products statements of intent: in the case of the H95 amplifier, adapted from an Einstein quote – 'Intelligence is Change'.

NETWORK-ATTACHED AMP



ABOVE: Substantial 4mm speaker outlets, plus variable preamp outs [far left] are joined by two line inputs. No MM/MC phono input is offered. The row of digital ins [far right] includes three optical, one coaxial, USB-B and an Ethernet port

wonderful character of all those contrabasses and hautbois, set in a rich, reverberant church acoustic that really gives the music space to expand and breathe. And that's especially so in the final section of the 'Fireworks', in which the instruments – augmented with drums – have remarkable presence.

READY TO SLAM

So there I was, all ready to say, 'very good, though it lacks...', but that simply didn't happen. Switching to Sarah Willis's infectious *Mozart y Mambo* set [Alpha 578], on which the horn player is joined by the wonderful Havana Lyceum Orchestra, I was just as impressed by the scale and power of the orchestra in the more obviously Mozart tracks as I was by the lightness and fleetfooted rendition of the mambo ones. Yes, even with the massed horns of 'Qué rico el mambo' – and when the two collide in a mambo based on 'Eine Kleine Nachtmusik', the effect may cause purist jaws to drop, but delivered with the

H95's brio and vitality, it's a total feelgood track.

With the somewhat bleak Americana of Jason Isbell & The 400 Unit's *Reunions* album [Southeastern Records SER992], with its reflections on the current uneasy times, the ability of the H95

LEFT: Hegel's RC10 system handset (a £95 option here) offers input, volume, mute and display adjust for the H95



to delve deep into harmonies and arrangements, making Isbell's vocals clear and forceful, while still be ready to slam when the band does, is effectively deployed. It's all about getting deep into the music, and that's just what this amplifier does.

And though one might expect this amp, with its comprehensive streaming capabilities, to have its competence slewed heavily in favour of music played in digitally, it's as impressive when fed via its analogue inputs. Yes, there's just the two of them, and as already mentioned the H95 forgoes the XLRs of its more upmarket brethren, but these analogue ins are no makeweight or a sop to 'legacy sources'.

Connecting my usual Naim network player to the analogue ins – and here we're talking a source playing through an amp less than a tenth of its price, the extra space, grunt and rhythmic acuity of the ND 555/555PS [HFN Apr '19] was clearly evident via the H95 – but the amp's onboard network facility wasn't that far off, and delivered similar qualities, just to a lesser extent. And considering all else this amp offers, that's pretty impressive. ☺

HI-FI NEWS VERDICT

The Hegel success story continues with this entry-level amplifier, combining a streaming capability with the company's usual simplicity of design and superb sound. This isn't quite a giant-killer in the mould of the H390, but it's still a remarkable amplifier for the money, with power, poise and above all a hugely involving presentation. If your budget will only stretch this far, you will not be disappointed.

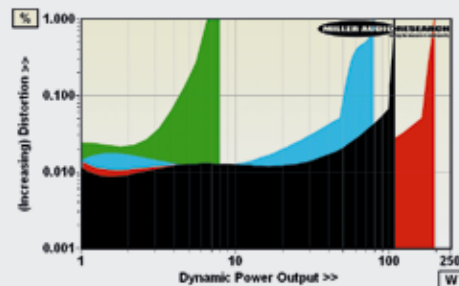
Sound Quality: 84%



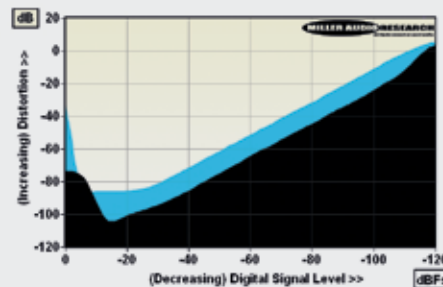
HEGEL H95

If Hegel's mammoth H590 [HFN Oct '18] and H390 [HFN Aug '19] are both kilowatt-capable integrated amplifiers then the new baby of the range is necessarily more 'measured' in its, er, measurements. It's certainly very comfortable driving 8 and 4ohm loads where its 60W specification is bested to the tune of 2x73W and 2x106W, respectively, and there's a useful amount of headroom to sustain 108W/8ohm and 196W/4ohm under dynamic conditions (all <1% THD). But with just a pair of output devices per channel [see inside picture, p52], and modest power supply, current-limiting restricts its output to 79W/2ohm and just 6W/1ohm [see Graph 1, below]. Clearly, 8ohm nominal impedance speakers are the order of the day here. Otherwise the H95 is 'pure Hegel' with a sensible +31.5dB overall gain, an above-average 89dB A-wtd S/N ratio (re. 0dBW) and a frequency response tailored to ±1dB between 5Hz-45kHz (-3.5dB/100kHz). Distortion holds to <0.01% up to 10W/8ohm, increasing to 0.016% up to 50W (20Hz-1kHz), and to 0.04% at 20kHz/10W.

The Libra-sourced digital board features an AKM AK4490 DAC with its linear phase/fast roll-off filter. The preamp RCAs offer a 2.43V output from a high 778ohm source impedance, and 101dB A-wtd S/N ratio, but clips above 1V output (volume = 84) at 20kHz. The top 15dB of its digital/preamp dynamic range is sub-optimal in terms of distortion [see Graph 2] but below -15dBfs THD falls to as low as 0.001-0.0025% (20Hz-20kHz, -20dBfs) and boasts super-flat response limits of ±0.02dB/20kHz and ±0.02dB/45kHz with 48kHz and 96kHz media, respectively (192kHz inputs are downsampled to 96kHz). Jitter, meanwhile, is low at 30psec (48kHz/24-bit) and 135psec (96kHz/24-bit). PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 7.0A



ABOVE: Distortion versus 24-bit digital signal level over a 120dB range at 1kHz (black) and 20kHz (blue)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	73W / 106W
Dynamic power (<1% THD, 8/4/2/1ohm)	108W / 196W / 79W / 6W
Output impedance (20Hz-20kHz)	0.019-0.052ohm (778ohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.26dB/-3.5dB
Digital jitter (S/PDIF at 48kHz/96kHz)	30psec / 135psec
A-wtd S/N ratio (re. 0dBW/0dBfs)	89.3dB (Analogue) / 100.9dB (Dig)
Dist. (20Hz-20kHz: 0dBW/-20dBfs)	0.006-0.03%/0.001-0.0025%
Power consumption (idle/rated o/p)	22W / 250W (2W standby)
Dimensions (WHD) / Weight	430x100x350mm / 11kg