# LOUDSPEAKER

Three-way loudspeaker with mid/treble horns Made by: Klipsch Group, Inc., Indianapolis, USA Supplied by: Henley Audio, Oxfordshire, UK Telephone: 01235 511 166 Veb: www.klipsch.com; www.henleyaudio.co.uk . Price: £3500



# Klipsch Heresy IV

tapping

With a heritage that can be traced back over 60 years, and still now only in its fourth generation, the Heresy is manna from heaven for the nonconformist audiophile Review: Mark Craven Lab: Paul Miller

merican loudspeaker marque Klipsch has a longer history than many, something emphasised by its new 'p\*\*\*ing off the neighbours since 1946' slogan. And its Heresy model itself dates back to 1957 [albeit under a different name – see boxout, p65], when company founder Paul W Klipsch first developed a compact three-way floorstander to act as a centre speaker within a stereo installation. It has remained part of the Klipsch stable ever since, undergoing revisions first in 1985 and then 2006. Now it has been relaunched as the Heresy IV, priced £3500

per pair and forming the entry point to the Klipsch Heritage range. Loudspeaker styling

has come a long way since the days of Elvis Presley and Pat Boone, but you wouldn't really

know it to look at the Heresy IV. Indeed, those who cherish the tall, slender, curved floorstanders of today may view this squat, 63cm-tall model with suspicion. Yet while the form factor takes some getting used to, the overall aesthetic is rather charming.

#### TRACTRIX TACTICS

The Heresy IV lives up to its Heritage billing by not venturing far away from the look of its progenitor, with squared edges and a book-matched wood veneer finish available in American Walnut, Natural Cherry, Distressed Oak or Satin Black Ash. Underneath are MDF cabinets, crafted at Klipsch's Hope, Arkansas plant. The magnetic grille – also revamped for this generation - adds to the retro vibe, and with drivers black and their fixings exposed underneath, I quickly found I much preferred the grille left on.

At 40cm deep and 33cm wide, the Heresy IV pushes the concept of a 'compact' speaker to the limit, but it's reasonably easy to manoeuvre around during set-up, thanks to a moderate 21kg weight. It's supplied with its base already attached; a slanted matte black

riser that causes the front baffle to angle slightly upwards, a method of - hopefully - focusing the speaker's driver output to ear height. The base can be removed if a cabinet installation, or placement on (large) stands, is preferred.

The basic engineering principle of the Heresy IV can also be traced back to its 1950s forebear. It's a three-way model, using a 305mm woofer with horn-loaded midrange and high frequency compression drivers. Yet this update introduces several new features over the 2006 Heresy III [HFN Mar '10]. Chief

among these

is a rear port, 'Forget footthe first ever on a Heresy model, which this was fistenables the loudspeaker pumping to claim improved sensitivity and bass

extension [see PM's Lab Report, p67]. This new addition

borrows from the Klipsch loudspeaker playbook, using its familiar Tractrix horn geometry; its ports, says the company, have 'the most efficient, fastest air transfer in their class', while internal flares work to reduce both air turbulence and port noise.

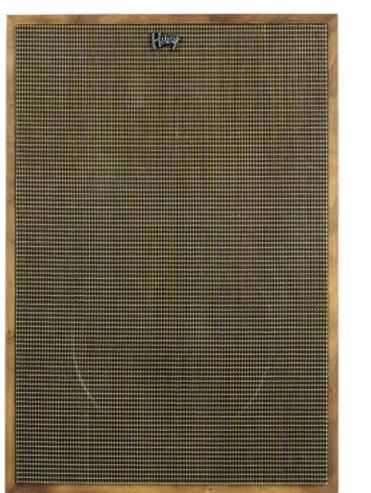
The Heresy IV's HF compression driver is an evolution of

**RIGHT: Klipsch's reflex**loaded cabinet hosts a 305mm fibre-coned bass unit and horn-loaded 45mm polyimide mid and 25mm titanium treble compression drivers

the Heresy III's, mounting a K-107-TI 1in titanium diaphragm within a Tractrix horn. Klipsch has made changes here, too, fitting a new phase plug to improve dispersion.

#### COMPLEX CROSSOVER

Underneath the tweeter horn sits the loudspeaker's most up-to-date driver, a 44.5mm midrange compression unit (the polvimide K-702), again horn-loaded. Joining the Heresy IV's refreshed drivers and bass reflex design is a similarly complex crossover based on the 'steep



slope' model of the company's La Scala [HFN Jun '19], Cornwall and Klipschorn models. The bass/mid crossover is set at an optimistically high 850Hz, while the tweeter patrols from 4.5kHz upwards. An aluminium input panel on the speaker's rear offers dual binding posts for bi-wire/ bi-amp scenarios, feeding into internal cabling sourced from AudioQuest.

The spec sheet implies a very sensitive speaker that's equally easy to drive [again, see PM's Lab Report]. There's also a claim of placement flexibility although the new rear ports necessitate at least 30cm from the rear wall, while positioning further into the room is recommended if bass energy becomes too uncontrolled. I settled on a classic equilateral triangle layout, with the enclosures approximately seven feet apart.

# LIVE AND DIRECT

Speakers that don't require significant amplification to put on a show will always have appeal, not least from the 300B triode fan club, and from the perspective

## WHAT'S IN A NAME?

of driving ability alone the Heresy IV is really quite special. I'm struggling to recall a speaker that has as much get-up-and-go as this vintage wannabe. It plays loud with minimal effort, an attribute that inevitably informs its overall presentation. There's impressive dynamic ability, a direct nature to its mids and highs, and grippy bass.



As the story goes, when told that making a non-corner horn loudspeaker for three-channel stereo use was 'heresy', Paul W. Klipsch replied: 'that's exactly what I'm going to call it'. Yet it took the Alabama brand seven years to build up the courage, instead naming its new speaker the Model H until 1964. In the intervening period, Klipsch asked its dealers and owners for suggestions, which ranged from the sensible - 'Klipschette' and 'Twelve and Two' - to the surreal - 'Rad-O-Horn' and 'Hcspilk' - before settling on Heresy. The first Model H was made in late 1957, and for a short period in 1958 a 200mm bass driver variant, the Model H-8, was also produced. A key difference to the modern Heresy IV was the Model H's bass response. Devised primarily for use as a limited-bandwidth 'centre channel' with the substantial Klipschorn or Shorthorn models, the H's low-frequency output was attenuated below 80Hz. The crossover network was redesigned for full-range playback when the speaker was sold in pairs.

> There's a distinctive sound here to go with the distinctive aesthetic, but it won't be to everyone's taste. Critics of horn-loaded drivers sometimes deride them as 'shouty', more megaphonic than stereophonic. The Heresy IV isn't as uncouth as that, but its energetic and forceful nature does leave less room for sweetness and light. Eager to please, it has a tendency to make 'an event' out of everything you play through it.

The changing dynamics of the piano accompaniment in Simon and Garfunkel's 'Bridge Over Troubled Water' [Columbia 495084 2] were well presented, as were the tonal variations of the duet, but lovers of this emotional ballad may prefer a speaker with a more laid-back approach, and a smoother feel to high frequencies.

The soundstage created with the speakers on their base risers was a little different to the norm, too. As perhaps expected, the imaging felt lower than it should, although this was more or less apparent from one track to the next. Yo-Yo Ma's performance of Bach's Cello Suite No 1 found the instrument rooted to the floor, whereas Stevie Ray Vaughan's 'Tin Pan Alley' [Tidal, 44.1kHz/16-bit] saw blues guitar licks and snare drum rimshots lifted higher within the soundstage.

#### **TOTALLY IN TUNE**

It may by now seem as if I didn't enjoy listening to the Heresy IV. Nothing could be further from the truth. Once I'd reconfigured my expectations of what a £3500 speaker should sound like, I became rather addicted to the way this model threw itself into the music.

There were many moments when it seemed to be totally in tune with my listening. Paul van Dyk's seminal trance track 'For An Angel' [Tidal, 44.1kHz/16-bit] allowed the Heresy IVs to do a more than passable impression of a nightclub sound ⊖

# LOUDSPEAKER



system – and that shouldn't be taken in any way as a criticism. The soundstage was reasonably wide and packed with detail, and the bass drums that pound out the track's rhythm felt as if they were beating directly against my chest. Forget foot-tapping, this was fist-pumping.

The Rolling Stones' 'Start Me Up' [*Tattoo You*; Virgin 7243-8-39521-2-0] was equally infectious. The opening guitar riff was rich and resonant, the drum track enjoyed an enormous reverb, and Mick Jagger's vocal idiosyncrasies flourished. This studio track almost acquired the instancy of a live recording. Above all, it sounded... fun.

#### SHINE A LIGHT

Of the Heresy IV's trio of drivers, the 300mm fibre composite woofer is the least remarkable. Yet its presence is always felt. It's easy to imagine a driver of this size sounding a bit ponderous, especially when paired with a horn-loaded mid and high but, due to its stiff lightweight cone and steep roll-off, it avoids bloat and keeps up the pace. Bass has texture and definition, and there was always enough depth to not leave me feeling undersold. At times, such as in Dire Straits' 'So

#### LEFT: This is the first Heresy to employ a rear-firing Tractrixprofile port, visible here below the two sets of bi-wire/bi-ampcompatible 4mm speaker terminals

Far Away' [*Brothers In Arms*; Vertigo 824 499-2], fluid basslines became a little bumpy, but the dynamic ability displayed elsewhere on this track was ample restitution.

And this speaker isn't all about club anthems and upbeat rock 'n' roll. With Kate Bush's 'Wuthering Heights' and then Sting and Melody Gardot's Latin-infused duet 'Little Something' [Tidal Masters], I began to appreciate

the Heresy IV's expressive nature a little better. Bush's famous soprano sliced cleanly through the sparkly instrumentation, avoiding sibilance, while Gardot's breathier vocal had an intimate feel to match the delicate rhythms and guitar.

Most remarkably, throughout my time with the Heresy IV I felt I was hearing familiar tracks in a new light. I wouldn't say its delivery is transparent, but it combines pleasing detail with an uncanny directness, leaving just you and the music and nothing in between.

#### **HI-FI NEWS VERDICT**

In a market dominated by tower speakers and bookshelf models, Klipsch's low-slung Heresy IV stands out, even though it barely stands up at all. Simple to accommodate, and impressively easy to drive, this three-way will bolt on to any amp and make you sit up and listen. It brings music to life in a style that many rivals don't, and while it looks ol' fashioned, it sounds thoroughly modern... and totally Klipsch.

#### Sound Quality: 83%

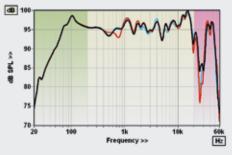
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# LAB REPORT

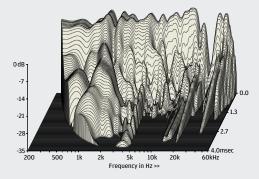
### **KLIPSCH HERESY IV**

With two horns on show there's a hope of high sensitivity and while Klipsch's 99dB spec. is a trifle optimistic, a mean figure of 95.4dB/1m/2.83V (500Hz-8kHz) is still very generous. The figure at 1kHz is higher still at 96.7dB but this coincides with a peak in output [Graph 1, below] and a resonance detected at 1.2kHz in the nearfield analysis of the 305mm fibre-coned woofer. THD also increases from a low 0.3% through the bass to a higher ~1.8% through this region of the midband (all re. 90dB SPL). This mode is also prominent in the CSD waterfall, along with resonances associated with the mid and treble horns at 4kHz and 14kHz-20kHz [see Graph 2]. The 25mm titanium compression tweeter breaks up at an ultrasonic 36kHz [pink shaded area, Graph 1].

The multiple resonances are reflected in the untidy response from 1kHz-20kHz and the moderate  $\pm$ 4.5dB response error but the overall trend is reasonably flat. One speaker [red trace, Graph 1] had a higher  $\pm$ 5.4dB response error and a deviation between 600-900Hz responsible for the poor 2.3dB pair matching, but this improves to 0.8dB between 1kHz-18kHz. The snugly-fitting grille has no significant impact on response [blue trace, Graph 1]. High sensitivity usually means limited bass extension but the Heresy IV's 30Hz-tuned reflex loading has brought this down to a respectable 47Hz (-6dB re. 200Hz) – a 20Hz improvement over the 'III [*HFN* Mar '10], albeit with a 'peaky' alignment [green area, Graph 1]. Nominal impedance is given as 80hm but 40hm would be more accurate given the min. 4.20hm/118Hz. The highest +42°/-52° phase angles are also through the bass, but with such low power required, this should not prove troublesome. PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w. grille, blue



ABOVE: Resonances in the horns are present at 4kHz and high treble but 1kHz mode is linked to woofer

#### **HI-FI NEWS SPECIFICATIONS**

| Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)           | 96.7dB / 95.4dB / 93.5dB        |
|--|---------------------------------|
| Impedance modulus: minimum<br>& maximum (20Hz–20kHz) | 4.15ohm @ 118Hz<br>28ohm @ 72Hz |
| Impedance phase: minimum<br>& maximum (20Hz–20kHz)   | -58° @ 82Hz<br>+42° @ 61Hz      |
| Pair matching/Resp. error (200Hz–20kHz)              | 2.3dB/ ±4.5dB/±5.4dB            |
| LF/HF extension (-6dB ref 200Hz/10kHz)               | 47Hz / 23.7kHz/23.0kHz          |
| THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)               | 0.25% / 1.8% / 0.3%             |
| Dimensions (HWD) / Weight (each)                     | 630x394x337mm / 20kg            |