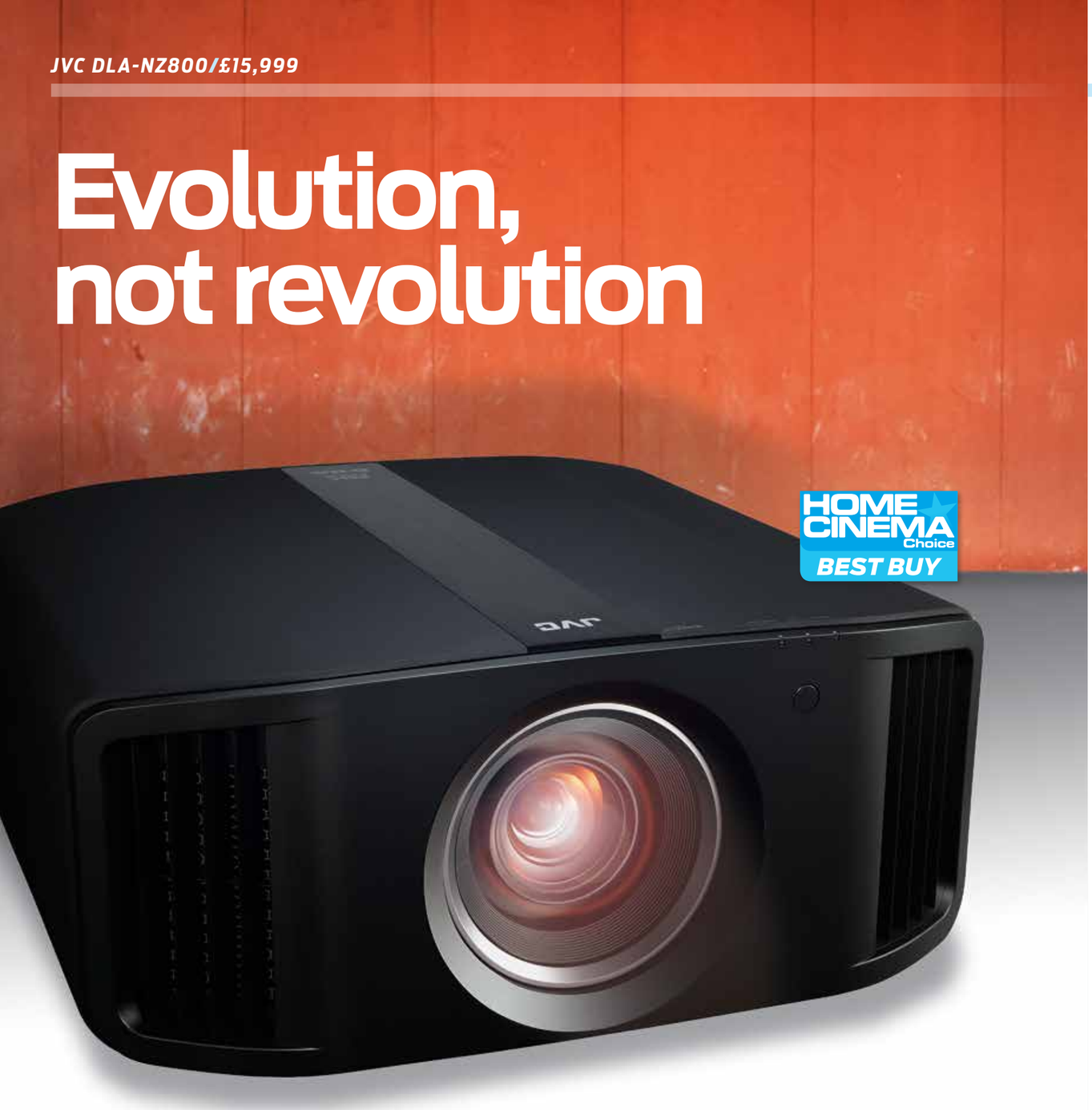
Evolution, not revolution



HOME CINEMA Choice BEST BUY

JVC's latest midrange 4K laser beamer adds a few new features, but is that enough for **Steve Withers**?

JVC's projector releases have been less frequent of late, beginning with the introduction of the N/NX series of native 4K projectors in late 2018, and followed by the laser-powered NZ series at the end of 2021. These relatively long gaps between new models were supported by regular (and free) firmware updates that added new features such as Frame Adapt HDR and Theatre Optimiser.

This tactic proved popular with owners, so many were perhaps caught off guard when JVC recently announced new NZ800 and NZ900 models. Clearly, the company has decided there are things it wants to upgrade in terms of hardware, and not just software.

Talking 'bout my generation

The updated D-ILA range retains the DLA-NP5 lamp-based 4K projector (£6,495), which still represents the entry-point. The laser-powered DLA-NZ7 beamer [*HCC* #334] also remains available, offering an impressive level of performance at a reduced price of £8,995.

The two new models are the DLA-NZ800 and the range-topping DLA-NZ900. The former, on test here, is priced at £15,999, which is the same as the superb DLA-NZ8 [*HCC* #329] that preceded it, but the latter is a grand more than the DLA-NZ9 it replaces, at £25,999.

The big difference this time is a new three-chip D-ILA device, which is JVC's proprietary version of LCoS (liquid crystal on silicon). This third-generation 0.69in native 4K (4,096 x 2,160) D-ILA chip, engineered via an upgraded manufacturing process, claims to improve the alignment control of the liquid crystals to deliver deeper blacks and increased brightness.

As a result, the claimed native contrast rises from 80,000 to 100,000:1 and brightness from 2,500 to 2,700 Lumens for the NZ800, while the flagship NZ900's contrast ratio goes from 100,000 to 150,000:1 and its output jumps from 3,000 to 3,300 Lumens.

The two new beamers also include second-generation 8K/e-shiftX, which uses a physical device to shift each pixel by 0.5 pixels in four directions (up, down, left and right), thus allowing for projection of a full 8K resolution (8,192 x 4,320) image. JVC says its new iteration is more sophisticated, therefore improving sharpness and detail across a wide range of content.

There's a new Deep Black function that employs a revised algorithm to further enhance black levels without crushing shadows, thus maximising the dynamic range of the Gen3 D-ILA devices to deliver images with improved contrast. In addition, the dynamic laser control adds a Balanced setting for even punchier pictures without introducing crush, clipping or brightness pumping.

The new projectors can also read DML (Display Mastering Luminance) metadata, which informs its tone mapping of the peak brightness of the display on which the content was originally mastered. This is useful because the more data the tone mapping has to work with, the better the results.

Finally, a Vivid mode has been added for SDR content, which could prove good for watching sports or gaming when there's ambient light in the room – although if you're buying a cinema projector at this price you should be using it in a blacked-out environment to get the full benefits.

Raise a glass

The two new models still use JVC's BLU-Escent laser light source, with its claimed longevity of 20,000 hours, and combine it with the same high quality all-glass lenses (65mm for the NZ800 and 100mm for the NZ900). These are coated on the inside to suppress reflected light and improve contrast performance even further.

If you're wondering why the NZ900 is brighter and has better contrast numbers compared to the NZ800, the answer is primarily this massive 100mm lens – but whether you think those benefits and a slightly sharper image justify a ten grand premium is between you and your wallet.

Connectivity is a pair of HDMI 2.1 inputs with 48Gbps bandwidth, meaning they can accept 4K/120p high frame rate content for gaming, and even 8K/60p – assuming you can find a source. They also support 3D and high dynamic range – specifically HDR10, HLG, and HDR10+, but not Dolby Vision.

JVC arguably leads the way in projected HDR on consumer >

AV INFO

PRODUCT: Premium 4K HDR home cinema projector with JVC's 8K e-shiftX tech

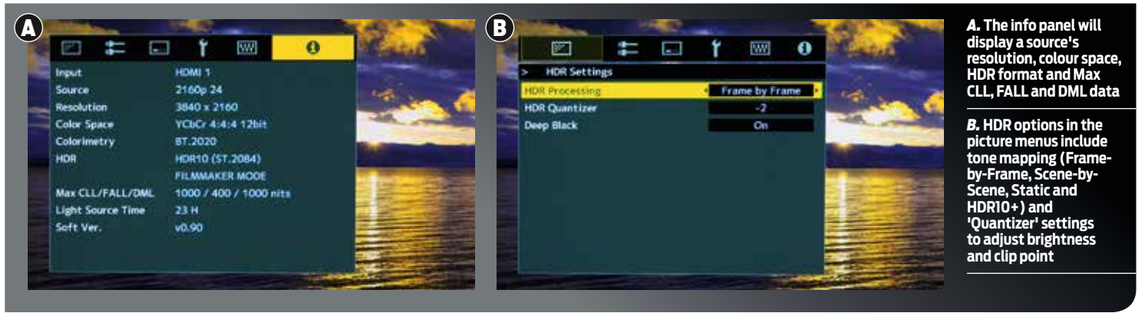
POSITION: Mid-point between DLA-NZ7 and DLA-NZ900

PEERS: Sony VPL-XW7000ES

1. Chassis size and styling is identical to the earlier NZ8 model

2. JVC's 65mm 'high-contrast' lens uses an all-glass, 17-element construction

3. Remote control has been slightly tweaked to be easier to use in the dark



A. The info panel will display a source's resolution, colour space, HDR format and Max CLL, FALL and DML data

B. HDR options in the picture menus include tone mapping (Frame-by-Frame, Scene-by-Scene, Static and HDR10+) and 'Quantizer' settings to adjust brightness and clip point

projectors, using cutting-edge features and tone mapping to deliver dazzling images despite the hardware's inherent brightness limitations. Frame Adapt HDR (now in Gen3 guise) analyses HDR10 content on a frame-by-frame basis to optimise the image, while 18-bit gamma processing promises smoother and finer gradations. Finally, the Theatre Optimiser enhances tone mapping by allowing for the size and gain of your screen.

'The level of detail is often breathtaking, letting you appreciate *Dune*'s production design and costumes'

Familiar face

The NZ800 looks identical to the previous NZ8, with the same massive matt-black chassis and solid build quality. The remote is almost the same but enjoys a couple of minor tweaks with a more luminescent Light button, and small bumps to identify the On/Standby and Enter buttons in the dark.

Installation remains simple thanks to generous motorised focus, (2x) zoom and shift controls, along with precise lens memories for those with a 'Scope screen. This beamer is intended for medium and large home cinemas and can be stand or ceiling mounted – but whatever your installation plans remember it weighs in at 23.1kg.

The menus largely remain the same, aside from the addition of the new features, and there's the Filmmaker Mode option that was added to JVC models via an earlier firmware update. A full set of ISF-certified controls, with a six-axis colour management system, supports the professional calibration that many buyers will go for.

JVC previously changed its laser power settings from low/mid/high to a sliding scale from 1 to 100. However, with the initial implementation the fan noise noticeably increased at the point where those three earlier settings had been. Now the NZ800 gradually increases the brightness without sudden increases in fan noise, making the control more granular and thus more useful.

Best in show

As an owner of an NZ8 I was able to compare that PJ with the NZ800, and was impressed by the screen uniformity and lack of any bright corners. Black levels are awesome, with contrast measurements of between 80,000 to 100,000:1. JVC is being truthful in its marketing claims, and its new projector remains class-leading in this regard.

The wide colour gamut coverage measures 100 per cent of DCI-P3, which is excellent, but to achieve this JVC uses a colour filter that reduces the brightness by about 20 per cent. The NZ800's extra Lumens (with minimal additional fan noise) therefore come in handy.

While I doubt most people buying the NZ800 have gaming in mind, if it's a priority there's much to recommend, from the 4K/120p support to the longevity of the laser light source and an input lag of only 36ms.

One final observation before I get into the nitty-gritty. The e-shift device is now nearly silent, which is great news if, like me, you have acute hearing. I enjoy the perceived increase in sharpness and detail that e-shift offers, but I struggle with the noise it makes on my NZ8.

Given JVC's legendary prowess with contrast, I kicked off my audition with the 4K Blu-ray of *The Crow*. This is a film that's swathed in darkness, so any display needs to do it justice in terms of black levels and shadow detail, while also rendering the 4K visuals to their full extent.

The NZ800 didn't disappoint, with an exceptional image that adds layers to the numerous nighttime scenes, plunging into abyssal blacks when necessary while teasing out all the finer details in the film's shadowy underworld. The PJ's Deep Black function lives up to its name without adding any crush, and the dynamic tone mapping picks out all the specular highlights in the HDR10 images, ensuring the rain-slicked streets really pop.

As spiffy as *The Crow* looks, its cinematography borders on black and white at times. *Dune: Part Two* (4K Blu-ray) is a more varied visual feast, and the NZ800's ability to handle the full DCI-P3 gamut meant it reproduced the film's creative visuals – from the sandy orange vistas of Arrakis to the lush home world of Christopher Walken's Emperor – in a way that was both nuanced and dramatic.

The level of detail on display is often breathtaking, allowing you to appreciate the production design and costumes for the various worlds within the *Dune* universe. The HDR10 tone mapping is equally impressive, once again delivering inky blacks in the Fremen strongholds, while rendering the burning desert landscapes without any signs of clipping.

The same is true during the film's gladiatorial arena sequence, which was shot with infrared cameras to create an otherworldly monochromatic image caused by the Harkonnen's black sun. Here the image uniformity is most apparent, as is the NZ800's skill at rendering deep shadows juxtaposed with blindingly bright environments without either suffering from a loss of detail.

Get your motor running

Alita: Battle Angel includes an HDR10+ grade on its 4K disc, and the NZ800 detected and read the dynamic metadata without any issues. In this mode the projector doesn't use its filter, so the colours aren't quite as rich, but conversely there's a welcome boost in brightness.

Tone mapping seems to benefit from the extra info, giving the Motorball sequences plenty of well-defined highlights around the race track. The NZ800 also handles the fast motion with aplomb.

The level of detail in the CGI is equally impressive, especially the fine filigree in Alita's first body or the complex gears and Aztec-like designs on Zapan's metal back.

The NZ800 supports 3D playback, although you will need to invest in an optional synchro emitter and active glasses. I popped *Alita*...'s 3D disc in and put the JVC PJ through its paces. As expected, the performance was eye-opening, with bright, colourful and detailed images that give the streets of Iron City plenty of depth. Grewishka's metal claws fly out of the screen without a hint of crosstalk.

Home cinema hero

The DLA-NZ800 is a seriously impressive projector that will further cement JVC's home cinema reputation. True, it's not that much of an upgrade over the previous NZ8 – owners of that model can rest assured their existing unit remains outstanding – but the incremental improvements are worth having. And those who are in the market for a new projector simply won't find better than the NZ800 at this price point ■

SPECIFICATIONS

3D: Yes. Active shutter ***4K:*** Yes. 4,096 x 2,160 (plus 8K/e-ShiftX) ***HDR:*** Yes. HDR10; HLG; HDR10+ ***CONNECTIONS:*** 2 x HDMI inputs; RS-232; USB; 12V trigger; Ethernet; 3D synchro port ***BRIGHTNESS (CLAIMED):*** 2,700 Lumens ***CONTRAST (CLAIMED):*** 100,000:1 (native); infinite (dynamic) ***ZOOM:*** Yes. 2x optical ***DIMENSIONS:*** 500(w) x 234(h) x 505(d)mm ***WEIGHT:*** 23.1kg

FEATURES: Gen3 0.69in 4K D-ILA device; all-glass 65mm lens; BLU-Escent laser diode; claimed average life of 20,000 hours in standard mode; Gen2 8K/e-shiftX (8,192 x 4,320); Auto Tone Mapping; Gen2 Frame Adapt HDR; Theatre Optimiser; Display Mastering Luminance (DML); Deep Black; Low Latency mode; Clear Motion Drive; Motion Enhance; 1.43-2.92:1 throw ratio: motorised zoom, shift and focus; 10 lens memories; HDMI 2.1 (8K/60p, 4K/120p); ISFccc certification; auto calibration

TESTED WITH

THE CROW: This 1994 comic book adaptation about a vengeful rock star remains an enjoyably violent tale. It largely takes place at night, with stylish photography that's a perfect test of a display's black levels and HDR tone mapping. Crisp 4K visuals and a banging soundtrack round out a cracking UHD platter – see p94.

4. The NZ800's two HDMI inputs support 8K/60 and 4K/120

5. Buyer beware: the projector measures 500mm wide and 505mm deep – and weighs 23.1kg

HCC VERDICT ★★★★★

JVC DLA-NZ800
➜ £15,999 ➜ https://uk.jvc.com/

WE SAY: JVC's native 4K laser projector puts its latest-gen D-ILA tech and tone mapping to good use, delivering refined, sharp images with superior contrast and lush HDR.