

JVC[®]

The Perfect Experience / —

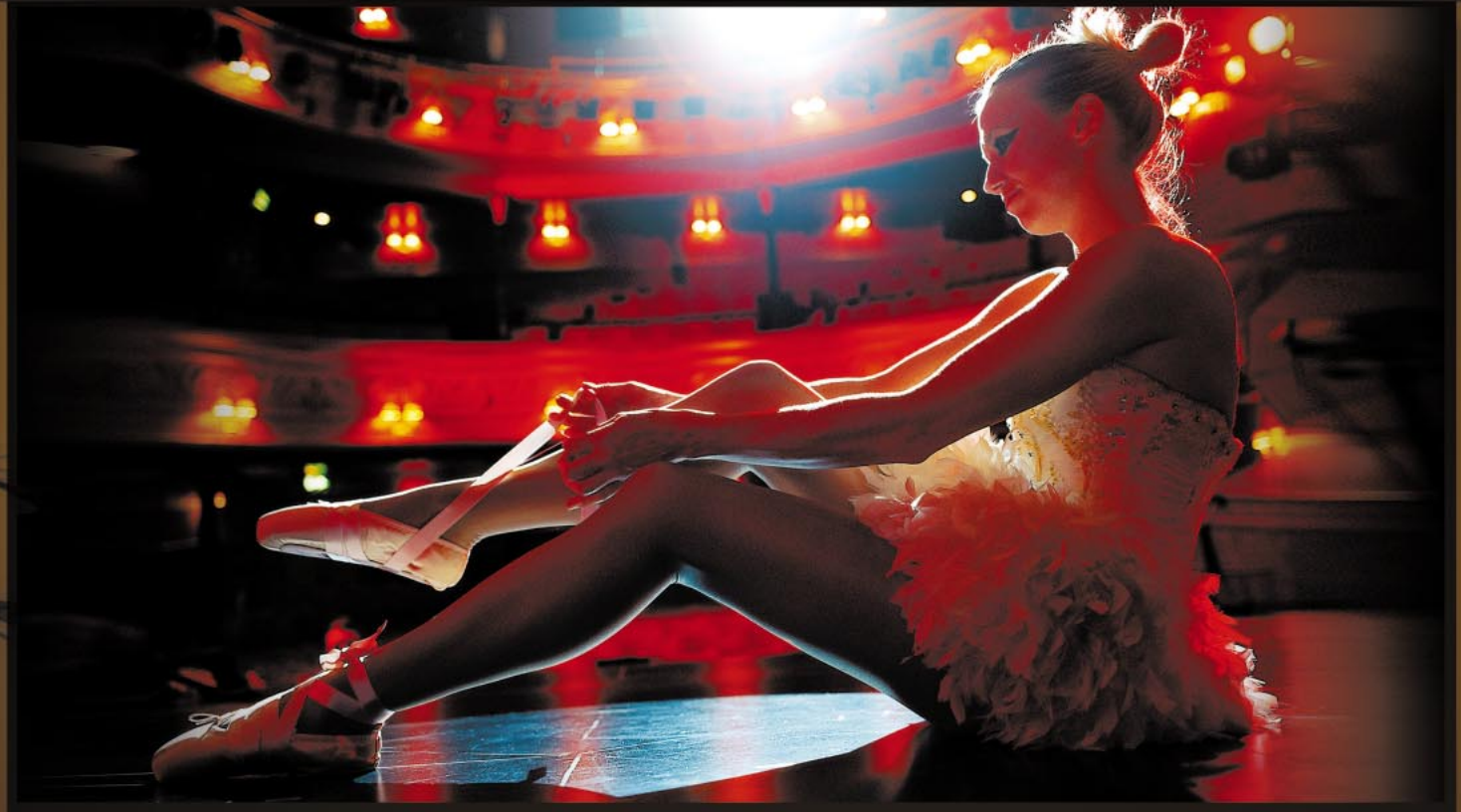
DLA-HD1

Full High-Definition Home Theatre Front Projector



D·ILA[®]

Full HD
1920x1080



True Black

INTELLIGENT PROJECTION SYSTEM



True Black. The Intelligent Projection System makes all scenes shine.

D-ILA®

Full HD
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DLA-HD1

Full High-Definition Home Theatre Front Projector

JVC DLA-HD1 Intelligent Projection System is an extraordinary front projector as it offers an exquisitely detailed full-HD picture with the industry's highest native contrast ratio* of 15,000:1. This is achieved without an iris mechanism to ensure true black reproduction and make colours sparkle, highlighting subtle nuances in scenes. In addition to its beautiful picture quality, this projector also offers appealing versatility and user-friendly operation. The lens shift function allows you to install the projector virtually anywhere in the room, exactly where you want it. What's more, the front cooling design means that it is unnecessary to allocate space on top or behind the projector. And video adjustments are made easy by the handy remote controller that illuminates automatically when the room is dark. Offering optimum levels of performance and quality, the DLA-HD1 is sure to satisfy even the most discerning video enthusiasts.

*1 Native contrast of 15,000:1 for home theatre projectors (JVC survey as of 14 November 2006).





Remarkable Picture Quality

The DLA-HD1 brings full-HD to your home with the industry's highest native contrast ratio: 15,000:1. The "native" means that it does not rely on an iris mechanism to maximize contrast depending on the average brightness of one scene. This technical slight of hand, employed on other projectors, effectively changes overall luminosity, so that blacks are slightly bleached in bright scenes, while light colours appear duller in dark scenes.



Conventional Projector



DLA-HD1

There is neither iris mechanism nor compromise in the DLA-HD1 projector. D-ILA is a mature technology, perfected by JVC, which can reproduce the brightest, most vivid colours simultaneously with the subtlest shadows, down to the deepest, truest blacks. Only D-ILA can reproduce in full the rich image information contained in a high-definition source, be it broadcast or optical disc.

Advanced Technologies

There are number of advanced technologies behind the beautiful picture quality of the DLA-HD1 projector.

1. JVC's original **D-ILA (Direct-drive Image Light Amplifier) technology** ensures a natural, rich, flicker-free picture which does not suffer from the sort of colour-breaking phenomenon that can often occur with single-device projectors, especially when there is rapid movement. The result is a smooth picture, like that produced by film, with fine detail from one edge of the screen to the other. And there is also no obvious "screen-door" effect when using D-ILA devices, so the high-definition picture is like that produced by a film projector.
2. The new **optical engine with wire-grid polarizers** ensures precise light polarization that result in achieving native contrast ratio of 15,000:1. Objects that are normally black are shown with true blacks. And, irrespective of brightness, consistent response is assured, allowing the reproduction of a wide range of intermediate colours.
3. The large diameter, all-glass **Fujinon lens system** with 16 elements in 13 groups significantly reduces chromatic aberration and ensures a high-resolution picture, with every point on the screen perfectly in focus. Also, the high-performance 2x zoom lens enables you to enjoy a large and impressive image even in smaller rooms.
4. Finally, the **VXP video processor** generates high-quality output using a combination of advanced digital technologies.



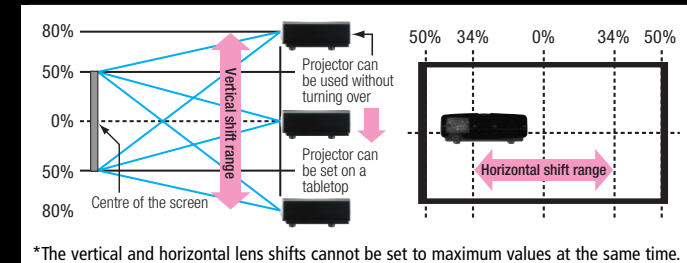
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VXP
BY GENNUM

Easy Home Theatre Setup

Setting up a home theatre system may sound daunting, and in the past it may have been. But JVC has incorporated into the design of the DLA-HD1 projector several ingenious features that make setup flexible and easy.

Take, for example, the **lens shift function**. Its generous $\pm 80\%$ vertical range means you can install the projector on a table, the floor or the ceiling, and still position the picture just where you want it. The same intelligent projection system offers a $\pm 34\%$ horizontal shift, so you do not have to have the projector directly in front of the screen either.



Installing a projector on the ceiling has usually been problematic because of the top cooling vents, but JVC has put both **air intake and exhaust vents on the front of the unit**. You can thus place the DLA-HD1 projector right up against a wall, or even tabletop.

Another thoughtful touch is the position of the access panel for replacing the lamp. This is on the side of the projector, so is always easy to get to.



User-friendly Design & Controls

Once installed, the DLA-HD1 projector continues to be user-friendly every day – starting with handy **self-illuminating remote control**. The buttons light up automatically, making it easy to operate even in a dark room. The remote control also includes direct keys to adjust frequently used functions such as contrast and brightness, in addition to video input selection.

A convenient and detailed **video adjustment menu** allows you to easily adjust the picture to suit the source video and your own preferences.

Additionally, the projector is equipped with 2 separate HDMI terminals on the back panel that ensure HDTV signals are transferred without any degradation.



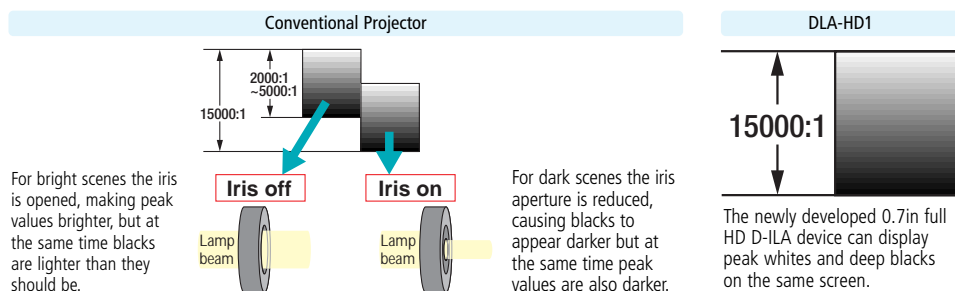
HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE



Technologies in Detail

Comparison between conventional projectors and the DLA-HD1

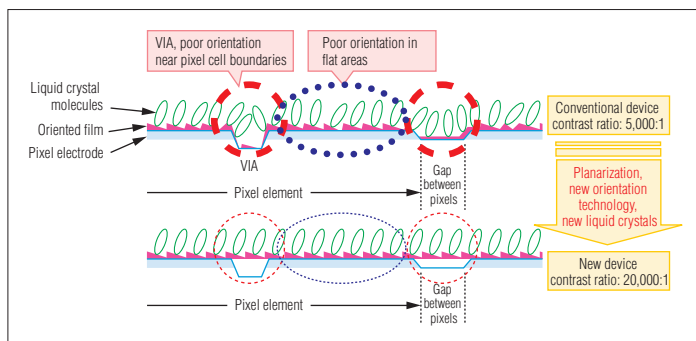
The secret behind the exquisite, film-like picture quality with 15,000:1 native contrast ratio lies in the innovative D-ILA device technology, the optical engine and the fact the DLA-HD1 projector does not rely on iris control. Conventional front projectors use an iris control to boost contrast ratio. With such projectors, picture resolution may be excellent, but the picture lacks good contrast. Here you can see the difference between a conventional projector with iris control and JVC's DLA-HD1.



Newly developed 0.7-in. full HD D-ILA device

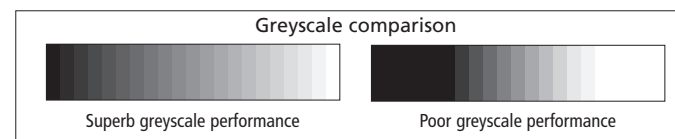
Conventional D-ILA devices suffer from surface unevenness, minute gaps and irregularities that are unavoidable using normal semiconductor manufacturing processes. Discontinuities between individual pixel cells or where the pixel cells are connected with the underlying semiconductor structure disturb the orientation of the liquid crystals, and the resulting diffraction and other effects lead to stray light. In the manufacture of this newly developed device, technology has been adopted to ensure extreme planarization; this reduces to an absolute minimum such stray light.

Moreover, as a result of employing new liquid crystal materials and orientation technologies, the gap between pixel cells has been optimized, reducing it from the previous 3.2 microns to 2.3 microns, cutting light loss from the liquid crystal layer itself, and significantly improving compensation accuracy. Such new technologies have realized the extremely high device contrast ratio of 20,000:1, and at the same time halved response time from 8msec (Tr+Td) to 4msec.



Professional-standard greyscale performance

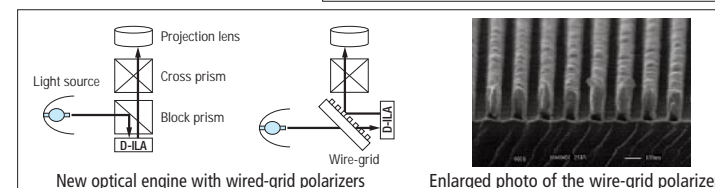
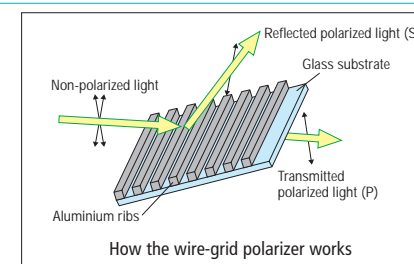
JVC's original D-ILA pulse drive produces clear, high-precision gradations without employing error diffusion. High-precision calibration technology enables the faithful reproduction of dark pictures, in which luminance is 10% or less, so that the blacks can still be differentiated, thus resulting in pictures with appreciable texture.



New optical engine with wire-grid polarizers

Using a conventional PBS (Polarizing Beam Splitter), comprised of a glass prism with multilayer interference film, optical properties can vary considerably depending on the angle of the incident light beam; this makes it difficult to realize high contrast.

However, the wire grid design employed for JVC's newly developed optical engine uses an inorganic reflective polarizing plate made from a glass substrate on the surface of which are ultra-fine aluminium ribs. This reduces to an absolute minimum the amount of stray light reaching the lens. The combination of this polarizer with the newly developed D-ILA device increases contrast by a factor of 5.



GF9351 video processor from Gennum Corporation



The GF9351 video processor made by Gennum Corporation ensures the faithful reproduction of high-quality images thanks to a high-precision scaling function and four VXP™ technologies — FineEdge™, FidelityEngine™, TruMotionHD™ and RealityExpansion™.

Four VXP™ Technologies

◆ FineEdge™

Edge correction technology that gets rid of the jaggy artefacts that can affect diagonal lines, creating instead smooth outlines.

◆ FidelityEngine™

Imaging technology that improves detail while reducing noise. This technology ensures a clear, detailed picture even when using video sources with lower resolutions.

◆ TruMotionHD™

De-interlacing technology that supports HD signals (1080i), converting them to high-quality 1080p signals for playback.

◆ RealityExpansion™

10-bit image processing technology. This technology can upsample 4:2:2 (Y:Cb:Cr) video signals to the 4:4:4 format; it delivers outstanding image processing at a level comparable to that of broadcast masters.

Projection Distance Chart

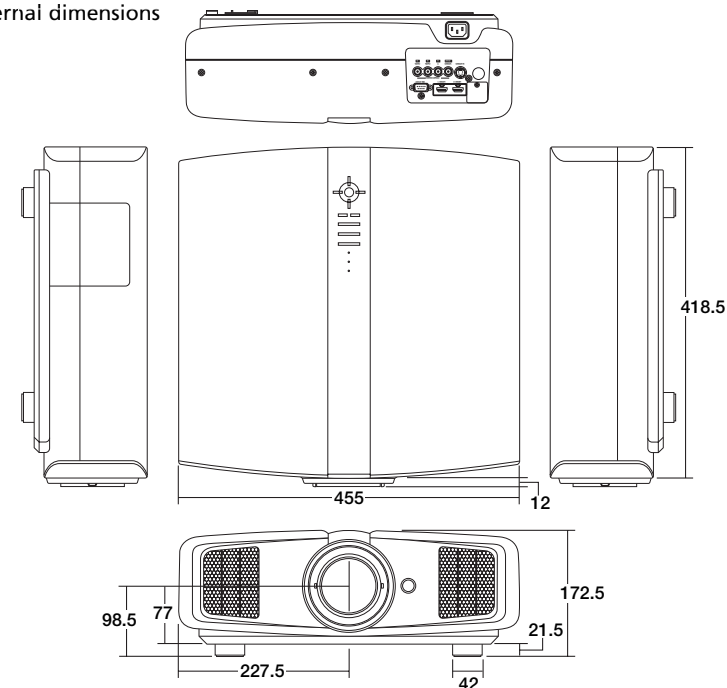
Display size (16:9)			Projection distance	
Inch	W (mm)	H (mm)	Wide (m)	Tele (m)
60	1,328	747	1.78	3.63
70	1,549	872	2.09	4.24
80	1,771	996	2.40	4.86
90	1,992	1,121	2.71	5.47
100	2,214	1,245	3.01	6.08
110	2,435	1,370	3.32	6.70
120	2,656	1,494	3.63	7.31
130	2,878	1,619	3.93	7.93
140	3,099	1,743	4.24	8.54
150	3,320	1,868	4.55	9.16
160	3,542	1,992	4.86	9.77
170	3,763	2,117	5.16	10.38
180	3,984	2,241	5.47	11.00
190	4,206	2,366	5.78	11.61
200	4,427	2,490	6.08	12.23

*Projection distances are design specifications, so there is $\pm 5\%$ variation.

Specifications

Display device	Full HD D-ILA device
Panel size	0.7 inch x 3 (16:9)
Resolution	1,920 x 1,080 pixels
Lens	X2 Manual zoom/focus lens f=21.3-42.6mm F=3.2-4.3
Projection size	60 inches to 200 inches
Lens shift function	$\pm 80\%$ vertical and $\pm 34\%$ horizontal
Light source lamp	200-watt ultra high-pressure mercury lamp
Light output	700 lm
Contrast ratio	15,000:1
Video input terminals	HDMI x 2 Component x 1 (3RCA) can also be used as a RGB terminal. S Video terminal (mini DIN4 pin) x 1 Composite x 1 (1RCA terminal)
Control terminals	RS-232 (D-sub9 pin)
Video input signals	480i/p, 576i/p, 720p60/50, 1080i60/50, 1080p60/50/24, NTSC/NTSC4.43/PAL-M/PAL-N/SECAM
Noise level	25dB (in normal mode)
Power consumption	280 watts (2.7 watts while in stand-by)
Dimensions (W x H x D)	455 x 172.5 x 418.5mm (without extrusions)
Weight	11.6kg
Provided accessories	Power source cable x 2, self-illuminating remote control x 1, AAA size batteries, and lens cap

External dimensions



Rear terminals



Optional Accessory



User-replaceable Lamp
BHL5009-S

Inside this projector there is a high-pressure mercury lamp. This type of lamp may break, emitting a loud noise, when it is subjected to shock or after it has been used for some length of time. Please note that, depending on how the projector is used, there can be considerable variance between individual lamps as regards how many hours they will operate before requiring replacement. A separate charge is payable for installation, if required.

Design and specifications are subject to change without notice.

• Depending on your computer monitor characteristics, the product colours seen on this website may appear slightly different to the actual colours.

• The projector lamp requires periodic replacement and is not covered by warranty.

• Please be aware that, because the D-ILA device is manufactured using highly advanced technologies, 0.01% or fewer of the pixels may be non-performing (always on or off).

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