

Changes for the Better

Mitsubishi DLP™ Projector
Home Theater Projection System



Extraordinary Performance

We re going to change the way you live.



High Contrast *3600:1*
HC2000



Just imagine
Powerful imagery. Intense and beautiful.
So real it engulfs the imagination and soul.
An entirely new dimension of entertainment.
All in the privacy of your home.

It's yours for the asking.
Performance, reliability and Mitsubishi picture quality.
The HC2000 home theater projector.
Indulge yourself, you deserve it.

Mitsubishi-Making Dreams Reality



High Contrast *3600:1*

HC2000

Astonishing Color Reproduction-Videophile Paradise

Stunning Picture Quality

Images that are true-to-life

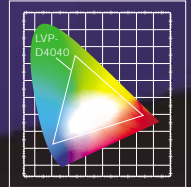
Picture quality equivalent to 3-lens RGB projection systems achieved. Processing technologies have been enhanced, expanding the color spectrum to enable the reproduction of beautiful images in real-life color.



Previous Model



HC2000



Color Matrix

DVE Color Wheel

8-color Architecture



The dark video enhancement (DVE) color wheel reduces noise that causes the visible artifacts in the shadows of images. The 8-section architecture (two each of R, G and B, plus two dark-green) minimizes gray-scale slippage for more precise reproduction of truer blacks. Also, the variable speed Color Wheel provides you the best alternative for further enhanced image performance. 4x speed optimizes the linearity of the color graduation. 5x speed reduces the color breaking noise. The HC2000 is the first to offer this "audience friendly" function.

Industry-leading Shadow Correction & Quiet Operation

23dBA

Ultra-quiet Operation



Fan noise reduced to match the industry-leading standard of 23dBA by utilizing a fully enclosed optics system, low-noise sirocco fan, adjustable exhaust duct and lining the interior with high-performance soundproofing material. (Low-lamp mode)

New Optics System

Built-in Engine



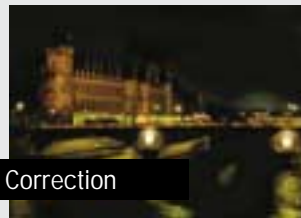
Optimizing the optical incidence design of the DMD chip enables production of a more compact internal reflector layout for the optics system. Careful consideration was given to the lens aperture in order to improve reproduction of dark areas and achieve a darkness equivalent to that of 3-lens systems.

Impressive Shadowing, Vivid Colors, Richer Tones



Color Temperature Adjustment

Five color temperature settings are provided to ensure optimum image reproduction for any use: High Bright, 6500k, Special, User 1 and User 2. The Special setting is truly special, recommended by Mitsubishi engineers for reproducing monochrome images. When using the High Bright, 6500k or Special settings, once the desired picture quality has been adjusted, the setting can be saved to the User 1 or User 2 settings for instantaneous recall at a later time.



Shadow Correction



Movie buffs with an eye for detail have commented that a way to increase the level of blackness reproduced is needed, as conventional brightness adjustment isn't enough. The HC2000 is equipped with this unique function, making it possible for users to adjust only the darkness gray-scale. The 5-step adjustment feature offers plenty of freedom to set darkness gradation to a level that brings out the desired image detail.

Analog Switching & Image Processing

High-performance Conversion

Analog signals are digitalized using a 350MHz wideband A/D converter (Analog Devices, Inc.), and high-performance image conversion enables the reproduction of beautiful images without blurring or picture degradation. Progressive conversion at the time of feeding data from NTSC (2-3 pull-down) or PAL (2-2 pull-down) film sources is also possible.



Long-life Lamp – Up to 3,000 hours

Digital Micromirror Device

At the core of the optics system is a digital micromirror device (DMD) with more than a million microscopic mirrors densely mounted on a single chip. Light from the lamp is reflected off the mirrors and through the lens to project the desired image. This truly digital device controls each mirror individually, switching it either on or off as required, and its non-mechanical architecture eliminates noise and picture degradation. A shorter, wider panel design and innovative optical and electrical systems have been incorporated, enabling more efficient use of light and the reproduction of brilliant XGA (1280 x 720 pixels) high-definition images that virtually come to life.

Cool Operation - No More Overheating

The DLP™ system uses mirrors to reflect light through the lens, thus reducing the heat generated during operation and eliminating projector overheating.

3600:1 - Taking Contrast to the Limit

Utilization of the newly developed HD2+ panel-on which mirror attachment points have been greatly reduced in size, mirror tilt angle increased from ± 10 to $\pm 20^\circ$ and mirror backside coated applying HD2 dark-metal processing-has resulted in a reduction in light diffusion and a tremendous improvement in brightness. Amazingly high contrast of 3600:1 enables the reproduction of images with stunning sharpness and life-like detail.

89% Aperture - Crystal Clear Images

In order to minimize the gap between pixels, an aperture ratio of 89% has been adopted for the DLP™ system, enabling the reproduction of clear, seamless images with dazzling beauty.

Long Service Life - Endless Hours of Entertainment Await

The service life of the DMD is approximately 100,000 hours, meaning even the most hardcore videophiles can savor the ultimate in high-definition images for years without worry of color distortion.



DLP (Digital Light Processing™) and DMD (Digital Micromirror Device™) are registered trademarks of Texas Instruments, Inc., United States of America.

Multi-zoom Feature with Silhouette and Image Positioning Functions

Cinema Scope screen format

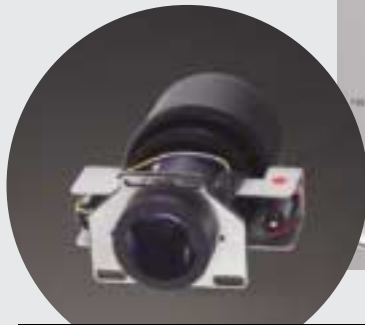


ZOOM1-Top & bottom silhouettes



ZOOM2 - Picture positioning and bottom silhouette

The HC2000 offers a wide variety of screening formats, covering the gambit of multi-angle perspectives for viewer enjoyment. Choices include Cinema Scope (Zoom 1), Vista Size (Zoom 2) and European Vista (Zoom 3) among others. In addition to choosing the screening format, frame adjustment and image positioning are possible when using Cinema Scope.
 Frame adjustment: Insert/Remove silhouettes
 Image positioning: Vertically reposition entire image



Electric Zoom & Lens Shift – Fast, Easy Adjustment

The projector is equipped with a lens diaphragm to optimize light incidence to the DMD chip and a motor-driven lens with focus adjustment and zoom-in (1.35x) capabilities. Manual adjustment of the image position in the vertical plane without moving the projector body is also possible.

The HC2000 is equipped with a long-life 250W UHP bulb. This lamp is highly acclaimed for red color development and outstanding service life of approximately 3,000 hours* (Low-lamp mode).

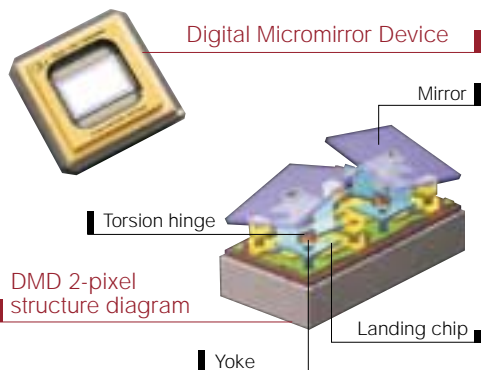
* Service life varies depending on operating environment, usage conditions and maintenance practices, such as cleaning.



Digital Video Interface (DVI)

Full Compatibility

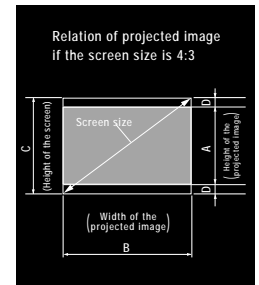
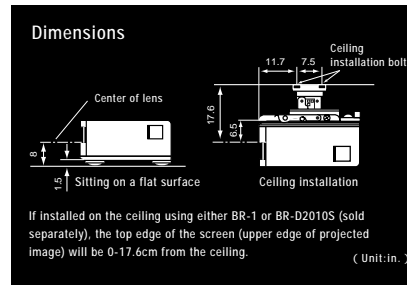
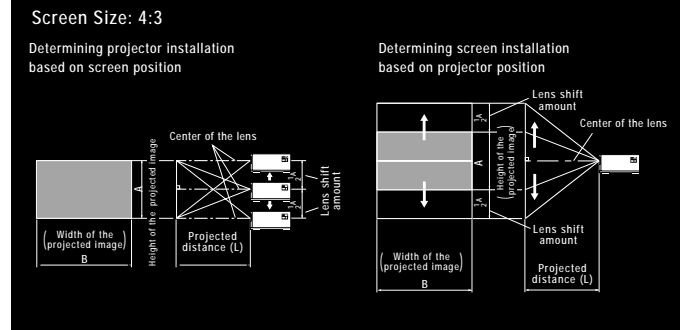
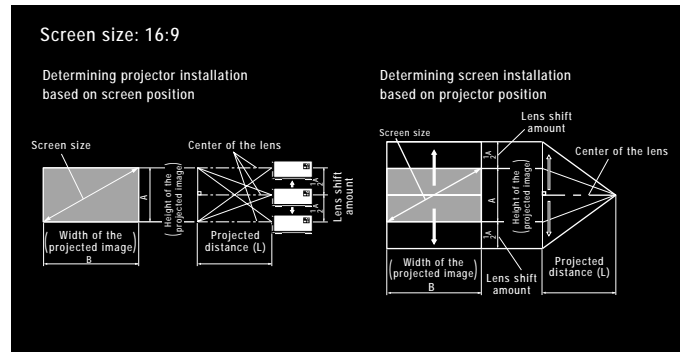
Input terminals are fully compatible with copy protection signals (HDCP) and next-generation standard digital connections (DVI-D HDCP). The all-digital processing capability actualizes high picture quality free of the image degradation common to systems that employ analog signal conversion.



Specifications

Model		HC2000			
Projection technology		DLP™			
Panel specifications	Display technology	0.8" DMD reflection, Aspect ratio 16:9			
	Panel size	1280 x 720 pixels			
	Drive system	DMD reflection			
	Array	Striped			
Optics specifications	Zoom/Focus operation	Electric			
	Lens	f (mm)	28.3 - 38.2		
	Projection lamp (W)	250 (UHP)			
	Optics system	Mirror reflection			
Projection screen size (in.)		50 - 250			
Image	Brightness (lumens)		700		
	Colors		16,770,000 (full color)		
	Contrast ratio		3600:1 (Total white/Total black)		
	Resolution	Computer input	640 x 400 (VGA) - 1600 x 1200 (UXGA, compressed)		
		Video input	Horizontal 600 lines		
Scanning rate	Horizontal (kHz)	15 - 100			
	Vertical (kHz)	43 - 85			
Input signal	Computer	PC/AT compatible, Mac, PC98			
	Video	NTSC, NTSC 4.43, PAL, PAL-M/N, PAL-60, SECAM			
Input	Image	Analog RGB	DVI-A BNC x 5	1 system connection (D-SUB conversion cable included) 1 system connection (color coded)	
		Digital RGB	DVI-D	1 system connection (HDCP)	
		Composite	RCA terminal	1 system connection	
		S	S terminal	1 system connection	
		Color differentiation	RCA terminal	1 system connection for RCA terminal (BNC, DVI-A color differentiation input capable)	
	Serial/RS-232C	D-SUB	1 system connection		
Features	Features, Etc.	Gamma Correction	3-pattern		
		Natural Color Matrix	4-color independent adjustment		
		Shadow Correction	5 settings		
	Operating noise		Low-lamp mode: 23dBA, Normal mode: 28dBA		
	Keystone Correction	Vertical keystone	Upper: 50 steps, Lower: 50 steps		
		Horizontal keystone	Right 50 steps, Left 50 steps		
	Power supply		120VAC, 50/60Hz		
	Power consumption (W)		350 (standby time: 11.2)		
	Weight (kg)		7.8		
	Dimensions	Width (mm)	430		
Depth (mm)		307			
Height (mm)		150			
Others	Accessories	Power cord (2.9m), Power plug adapter, Remote control, AAA batteries (x2), DVI-D-Sub cable, RS-232C cable, Lens cap (supplied with main unit)			

HC2000 Projector Installation



HC2000 Projection Calculation (Screen size of 16:9)

Screen size						Projected distance (L)			
16:9 Diagonal		Height A		Width B		Min.		Max.	
inch	cm	inch	cm	inch	cm	inch	cm	inch	cm
50	127	24	62	44	111	69	175	93	236
60	152	30	75	52	133	83	210	111	283
70	178	34	87	61	155	96	245	130	331
80	203	39	100	70	177	110	280	149	378
90	229	44	112	78	199	124	315	167	425
100	254	49	125	87	221	138	350	186	472
110	279	54	137	96	244	152	385	205	520
120	305	59	149	105	266	165	420	223	567
130	330	64	162	113	288	179	455	242	614
140	356	69	174	122	310	193	490	260	661
150	381	74	187	131	332	207	525	279	709
200	508	98	249	174	443	276	700	372	945
250	635	122	311	218	553	344	875	465	1181

HC2000 Projection Calculation (Screen size of 4:3)

Screen size						Size of the projected image				Blank space (D)		Projected distance (L)			
4:3 Diagonal		Height C		Width B		Height C		Width B		space (D)		Min.		Max.	
inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm	inch	cm
50	127	30	76	40	102	22	57	40	102	3.7	9.5	63	161	85	217
60	152	36	91	48	122	27	69	48	122	4.3	11	76	193	102	260
70	178	42	107	56	142	31	80	56	142	5.3	13.5	89	225	120	304
80	203	48	122	64	163	36	91	64	163	6.1	15.5	101	257	137	347
90	229	54	137	72	183	41	103	72	183	6.7	17	114	289	154	390
100	254	60	152	80	203	45	114	80	203	7.5	19	126	321	171	434
110	279	66	168	88	224	50	126	88	224	8.3	21	139	353	188	477
120	305	72	183	96	244	54	137	96	244	9.1	23	152	386	205	520
130	330	78	198	104	264	59	149	104	264	9.6	24.5	165	418	222	564
140	356	84	213	112	284	63	160	112	284	10.4	26.5	177	450	239	607
150	381	90	229	120	305	67	171	120	305	11.4	29	190	482	256	650
200	508	120	305	160	406	90	229	160	406	15.0	38	253	643	341	867
250	635	150	381	200	508	113	286	200	508	18.7	47.5	316	803	427	1084

Options

Replacement Lamp	VLT-D2010LP
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MITSUBISHI ELECTRIC CORPORATION

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