■ Specifications

Model name				HC7000
Projection system				Transmissive liquid crystal system
Panel specs	Panel size			0.74type x3 Aspect ratio 16:9 with micro lens
	Number of pixels			1920x1080 (total 2,073,600 pixels)
	Drive system			3 primary color liquid-crystal shutter system
	Array			Stripe pattern
Optical specs	Zoom / focus operation			1.6-power zoom / motorized
	Lens shift			Motorized up-down 75% / right-left 5%
	Throw ratio			1.42-2.26
	Projection lens			f=23.5-37.6mm / 0.9"-1.5" F2.5-3.1
	Light source lamp			160W
	Optical system			Mirror color separation / prism synthesis system
	Iris			Auto-iris
Projection screen size (inches)				50-300: (Diagonal)
Images	Brightness (lm)			1000
	Contrast ratio			72000:1 (Auto-Iris) typ.
	Resolution	PC input		VGA*640x480 - UXGA*1600x1200
	Scan frequency	Horizontal (kHz)		15-100kHz
		Vertical (Hz)		24, 50Hz-120Hz
Input signal system	Video			NTSC, NTSC4.43, PAL (including PAL-M and N), SECAM, PAL-60, Video input: 480i/p, 576i/p, 1080i 60/50, 1080p 60/50/24, 720p 60/50
	PC			PC/AT compatibles, Mac
Input	Video	PC input	Mini D-Sub 15 pin	1 terminal
		HDMI input	HDMI terminal	2 terminals
		Composites	RCA terminal	1 terminal
		S	S-Video terminal	1 terminal
		Components	RCA terminal	1 terminal (component can also be input to Mini D-Sub 15 pin)
	Serial / RS-232C standard			1 terminal (D-Sub 9 pin)
Output	Trigger terminal			1 terminal
Functions	Digital keystone			Vertical ±15steps
	Fan noise			17dBA (at low mode)
	Power source voltage			AC100V 50/60Hz
	Power consumption (W)			250 (at stand by 7W)
	Weight (kg / lbs)			7.5 / 16.5
	Main unit dimensions	WxDxH		427x440x159mm / 16.8"x17.3"x6.3" (excluding height adjustment)
Other	Supplied accessories			Power source cord (2.9m), Remote control, AA batteries (x2), RGB signal cable, RS-232C cable, Lens cap, Lamp replacement tray
Warranty				2-years parts and labor, 1-year or 500 hours on lamp (whichever comes first)

*: SVGA,XGA,WXGA,SXGA,UXGA are registered trademarks of IBM Corporation of the United States

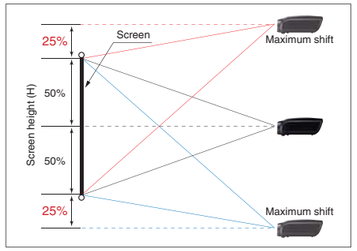
■ Projection distance

Screen size (16:9)				Projection distance		Up-down lens shift		Right-Left lens shift	
Diagonal		W (width)	H (height)	Max Zoom	Min Zoom	Down	Up	Left	Right
inch	cm	inch	inch	inch	inch	inch	inch	inch	inch
50	127	43.7	24.4	59	98	19 ← 0 →	19	2.4 ← 0 →	2.4
60	152	52.4	29.5	71	118	22 ← 0 →	22	2.8 ← 0 →	2.8
70	178	61.0	34.3	87	138	26 ← 0 →	26	3.1 ← 0 →	3.1
80	203	69.7	39.4	98	158	30 ← 0 →	30	3.5 ← 0 →	3.5
90	229	78.3	44.1	110	177	33 ← 0 →	33	3.9 ← 0 →	3.9
100	254	87.0	49.2	122	197	37 ← 0 →	37	4.3 ← 0 →	4.3
110	279	96.1	53.9	134	217	41 ← 0 →	41	4.7 ← 0 →	4.7
120	305	104.7	58.7	150	236	44 ← 0 →	44	5.1 ← 0 →	5.1
130	330	113.4	63.8	161	256	48 ← 0 →	48	5.5 ← 0 →	5.5
140	356	122.0	68.5	173	276	52 ← 0 →	52	5.9 ← 0 →	5.9
150	381	130.7	73.6	185	299	55 ← 0 →	55	6.7 ← 0 →	6.7
200	508	174.4	98.0	248	398	74 ← 0 →	74	8.7 ← 0 →	8.7
250	635	217.7	122.4	311	496	92 ← 0 →	92	11 ← 0 →	11
300	762	261.4	147.2	374	598	110 ← 0 →	110	13 ← 0 →	13

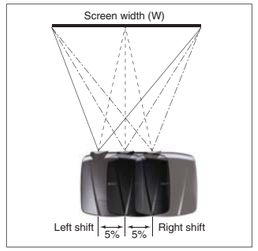
Screen size (4:3)				Projection image size (16:9)				Projection distance		Up-down lens shift		Right-Left lens shift	
Diagonal		W (width)	H (height)	Diagonal	W (width)	H (height)	Black zone	Max Zoom	Min Zoom	Down	Up	Left	Right
inch	cm	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
50	127	40.2	29.9	46.1	40.2	22.4	3.9	55	91	16.9 ← 0 →	16.9	1.9 ← 0 →	1.9
60	152	48.0	35.8	55.1	48.0	27.2	4.3	67	106	20.0 ← 0 →	20.0	2.4 ← 0 →	2.4
70	178	55.9	42.1	64.2	55.9	31.5	5.1	79	126	23.6 ← 0 →	23.6	2.8 ← 0 →	2.8
80	203	64.2	48.0	73.6	64.2	35.8	5.9	91	148	27.2 ← 0 →	27.2	3.1 ← 0 →	3.1
90	229	72.0	53.9	82.7	72.0	40.6	6.7	102	161	30.3 ← 0 →	30.3	3.5 ← 0 →	3.5
100	254	79.9	59.8	91.7	79.9	44.9	7.5	114	181	33.9 ← 0 →	33.9	3.9 ← 0 →	3.9
110	279	88.2	66.1	101	88.2	49.6	8.3	122	201	37.0 ← 0 →	37.0	4.3 ← 0 →	4.3
120	305	96.1	72.0	110	96.1	53.9	9.1	134	217	40.6 ← 0 →	40.6	4.7 ← 0 →	4.7
130	330	104	77.9	119	104	58.7	9.8	146	236	43.7 ← 0 →	43.7	5.1 ← 0 →	5.1
140	356	112	83.9	128	112	62.9	10.6	158	256	47.2 ← 0 →	47.2	5.5 ← 0 →	5.5
150	381	120	90.2	138	120	67.3	11.4	169	272	50.8 ← 0 →	50.8	5.9 ← 0 →	5.9
200	508	160	120	183	160	90.2	14.9	228	366	67.3 ← 0 →	67.3	7.9 ← 0 →	7.9
250	635	200	150	230	200	113	18.9	284	457	84.3 ← 0 →	84.3	9.8 ← 0 →	9.8
300	762	240	180	275	240	135	22.4	343	547	101 ← 0 →	101	12 ← 0 →	12

* The above figures are approximate and may be slightly different from the actual measurements.

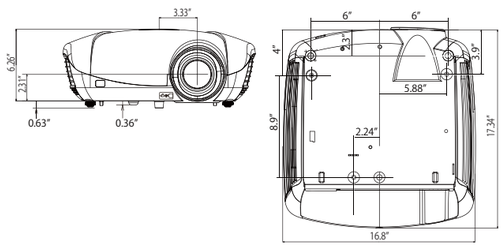
■ Vertical direction



■ Horizontal direction



■ Dimensions



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08-08 - LITHC7000

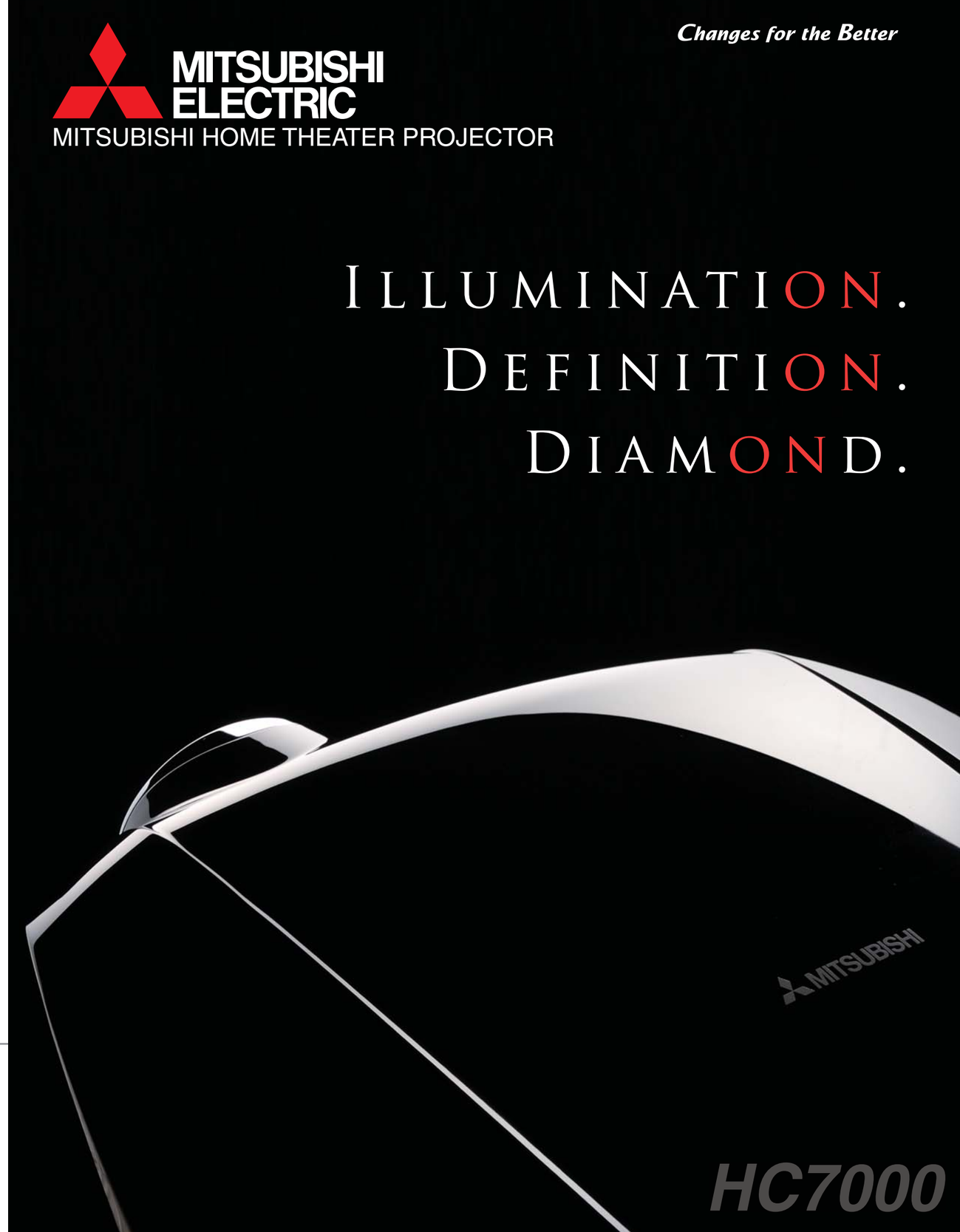
New publication, effective Aug. 2008
Specifications subject to change without notice.

Changes for the Better

MITSUBISHI ELECTRIC

MITSUBISHI HOME THEATER PROJECTOR

ILLUMINATION.
DEFINITION.
DIAMOND.



The beauty is the performance

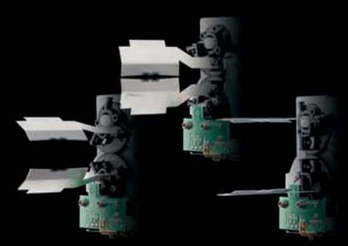
Evolutionary in design and functionality,
its alluring presence expresses sheer pleasure in every way and form.
Embodied with cutting-edge full high-definition technologies,
including advanced black color reproduction techniques,
the HC7000 is setting standards for the industry.
Dynamic and intriguing, exciting the senses...
Just wait until you turn it on!

NEW HC7000

The ultimate in black color reproduction.

Newly Developed Diamond Black Iris with 1/60-second Iris Control

Evolutionary advancements in the HC7000 include the adoption of Mitsubishi's original Diamond Black Iris technology. The iris section takes on a "diamond-cut" shape that prevents light refraction and realizes an enhanced level of contrast. True blacks are clearly depicted even during sequences of continual bright-dark scene intervals, ensuring the reproduction of every detail with vivid clarity. Combined together with Mitsubishi's innovative contrast control, a perfect balance between blacks, the brightest whites and the full color spectrum in between is achieved.



■New Auto-Iris (HC7000)

■Previous Auto-Iris (HC5000)

Extra-low Dispersion Glass Lens for Superior High-definition Resolution

Superior image reproduction is provided using a 17-piece/14 cluster optical system equipped with extra-low dispersion (ED) lenses. Far exceeding the performance of conventional glass lenses, chromatic aberration is virtually eliminated and resolution across the entire screen, including the peripheral edges, is improved. Equipped with a fixed aperture, reproduction of every shade, from grays to the deepest of blacks, is ensured.

■w/o aperture

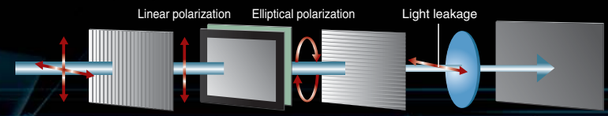
■w/ aperture

Experiencing is Believing.

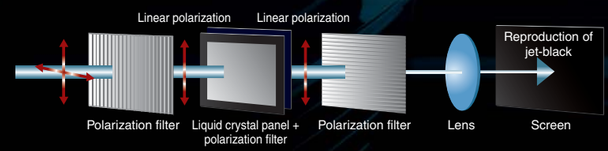
New Optics Panel Delivers Precise Light Focusing and an Amazing Level of High-contrast

Conventional projectors commonly have problems related to loss of light intensity; not so with the HC7000. Degraded polarization results from the offset position of the liquid crystal elements. An optical compensation panel has been newly developed and installed between the liquid crystal panel and polarization filter. This panel corrects the optical projection angle and prevents light leakage, thereby preserving the intensity and realizing new heights in the level of contrast. Together with our high-speed Diamond Black Iris, a high contrast of 72000:1 is achieved for the HC7000.

■Conventional optical system



■New optical compensation panel



Innovative Liquid crystal Panel Cooling System Design Realizes Industry-leading Quiet Operation - 17dBA (at low mode)

A new cooling system is introduced for the liquid crystal panel. It includes a new cooling duct design for the new chassis, a smaller fan motor and a large (low-noise) sirocco fan. As a result, a larger air-intake area is secured and the fan operates at a slower speed, providing improved cooling efficiency owing to the hermetic performance of the new chassis. The end result is industry-leading quiet operation of 17dBA (at low mode). Mitsubishi always aims to produce the quietest projectors in the market.

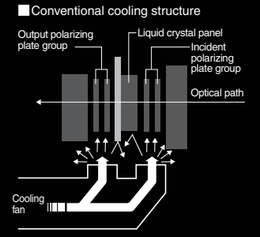
*as of July 2008, for projectors under 7.5kg (in-house study)

Cooling structure adopted to realize silent operation

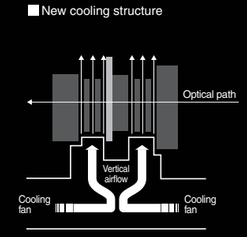
HC7000 sirocco fan

Conventional sirocco fan

■Conventional cooling structure



■New cooling structure



True-to-life Images will Amaze You.

Precision Enhanced with the Addition of Fixed Film/Video Mode to the “Reon-VX” IC from Silicon Optics Inc.

Reon-VX: Next-generation high-performance video processor
Successor to the REALTA IC manufactured by Silicon Optics Inc., renowned for its IC solutions that deliver Hollywood Quality Video (HQV), this high-quality chip is the key to improved image reproduction.

High-precision I/P conversion for all signal sources
Precise and accurate rendering is what you get with Mitsubishi’s 10-bit interlace/progressive (I/P) conversion image processing technology. Be it broadcast satellite movies, mixed video sources or even commercially packaged media, the end result is always the progressive reproduction of high picture quality.

High-performance video scaler
This ultra-precise image scaling function guarantees superior pixel conversion processing when converting resolution up from 720x480p to 1920x1080p. A unique filtering technique enables adaptive switching to a total of 1024 filter tabs each horizontally and vertically, further contributing to the high-definition picture quality of the images. Our Fixed Film/Video Mode greatly improves conversion precision.

14-bit Digital Gamma Correction
Mitsubishi’s original 14-bit gamma correction processing function expands gradation expression power 16-fold over the conventional 10-bit technology. This dramatically raises the projector’s ability to reproduce the subtleties in dark images.

Full 10-bit 4:4:4 Signal Processing
HQV noise-reduction (TRNR, MNR/BAR) reduces buzzing and block noise.
Chromatic up-sampling errors reduced

HQV

1.6X Power Zoom/Focus DramaticallyImproves High-definition Resolution and Set-up Ease

Using the 100-type size (16:9) enables not only the adjustment of projection distance from 10.1ft to 16.4ft, but also brilliant crystal-clear images in tight spots where sufficient distance to the screen cannot be kept. With a vertical lens shift range of 75% and horizontal range of 5%, installation is simple and easy. Two-stage adjustment, quick and fine, has been added to the power drive to enhance usability.

Full High-definition Liquid crystal Panel (1920x1080)

京都 FULL HD 1080

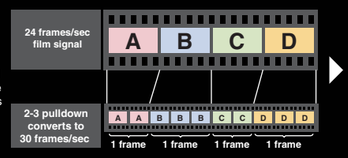
3LCD

An inorganic liquid-crystal panel is incorporated, creating deep rich blacks and eliminating the need for the rubbing process. This realizes the reproduction of vivid high-definition images with no vertical lines. The rate panel service life is approximately tenfold that of organic film panels, translating into years of high picture quality viewing enjoyment.

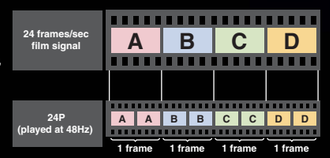
24P Blu-ray Direct Input Compatibility – Reproduction of Original Image Motion

The HC7000 is compatible with Blu-ray 24P direct output. Thanks to an output of up to 48P (96Hz liquid crystal panel driver), twice the speed of conventional movie signals (24 frames/sec), unbelievably life-like images are reproduced with a smoothness and texture detail that mirror the original.

■2-3 Pulldown
When processing 24 frames/sec images at 60 frames/sec, smooth motion becomes distorted because the signals in the 2- and 3-frame sequences cause overflow into the third B-frame.



■24P Direct Output
With a signal processing speed of 24 frames/sec increased to 48 frames/sec, the sequence created aligns the signal, providing a smoothness and textured detail that mirror the original.



Flexibile and Versatile Home Theater.

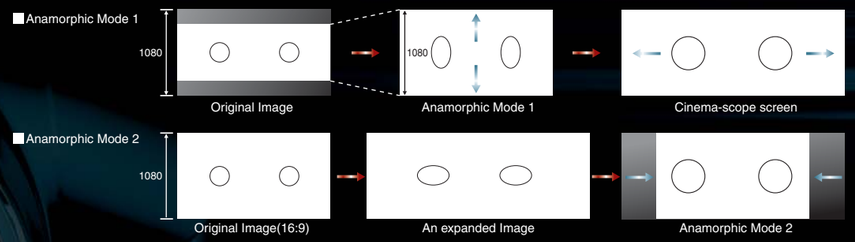
“Deep Color” Compatible HDMI 1.3 Input Terminals

The HC7000 has two HDMI input terminals, and is capable of processing high-contrast images from 10- and 12-bit video signals in addition to the conventional 8-bit signal.

HDMI™ HIGH DEFINITION MULTIMEDIA INTERFACE

Anamorphic Lens Compatibility - Choose Setting Based on Media Played

The anamorphic lens compatibility of the HC7000 widens the projection range of cinema-scope images. Mode 1 provides extended projection, and Mode 2 is for images other than cinema-scope, which mirror the original with the anamorphic lens attached.



Amazingly Easy to Use Anytime, Anywhere

3D Micro-surface Air Filter
The HC7000 comes with an air filter that has a three-dimensional honeycomb structure, a microscopic filtering surface and a special electrostatic film for enhanced filtering efficiency. It attaches to the side of the projector and works as an air purification system to prevent dirt and other air-borne particulates from entering the chassis.

Trigger Terminal
The HC7000 is equipped with a projector power switch/screen extension/retraction trigger combination, creating a convenient one-touch operation function for cinema viewing. The anamorphic modes can also be controlled.

Long-life Lamp (up to 5000 hours)
The projection lamp has a long 5000-hour estimated service life for months of uninterrupted viewing pleasure. When its time to clean or replace the lamp, a side-loading installation design makes it so the projector does not need to be moved. So regardless of installation–whether suspended from the ceiling or sitting on a shelf–lamp maintenance and replacement is simple and easy.

Illuminated Remote Controller
The button on the remote controller illuminate automatically, promising easy, trouble-free operation even in the darkest of rooms. Convenience is also improved with a function that enables the screen to be adjusted directly from the remote controller.