

**PG-F312X**



**Note:** The PG-F312X is identical in appearance to the PG-F212X and the PG-F262X with the exception of the model number indication.

**Optional Accessories**

**AN-F212LP or AN-F212LP/1:** User Replaceable Replacement Lamp; **AN-MR2:** Remote IR Receiver (for forward/back presentation control); **AN-XRCM30** Ceiling Mounting Bracket; **AN-EP101B:** Extension Tube for Ceiling Mount; **AN-JT200:** Angle Mount Joint for Ceiling Mount; **AN-CMCSS16:** 16" Security Cable Kit; **AN-CMCSS46:** 46" Security Cable Kit; **AN-C3CP2:** 3-RCA to 15-pin D-sub Cable (10'); **AN-A1RS:** RS-232C Adapter; **AN-C600WCC:** Hard-Shell Wheeled Storage Case; **AN-C600SC:** "ATA" type Heavy-Duty Shipping Case; **AN-C500SB:** Light-Duty Storage Bag.

**Specifications**

Models	PG-F312X	PG-F262X	PG-F212X
Display device	0.55" DLP® chip x 1		
Resolution	XGA (1,024 x 768)		
Brightness	3,000 ANSI lumens	2,600 ANSI lumens	2,300 ANSI lumens
Contrast ratio	2,200:1		
Lens	F number	F2.5-2.6	
	Zoom	Manual, x1.15 (f=20.4-23.5 mm)	
	Focus	Manual	
Picture size	40" (102 cm) to 300" (762 cm)		
Projector distance	40":1.5 - 1.7m, 100":3.7 - 4.3 m, 300":11.2 m		
Input signals	Computer RGB *Compression	UXGA**2, SXGA+**2, SXGA*, WXGA*, XGA, SVA, VGA / Mac 21**12, 19**2, 16**2, 13**2	
	DTV	1080P, 1080i, 720P, 576P, 576i, 540P, 480P, 480i / NTSC, PAL, SECAM	
Input terminals	DVI-I (Compatible with HDCP)	x1	
	Computer / Component (mini D-sub 15 pin)	x1	
	S-Video (mini DIN 4 pin)	x1	
	Video (RCA)	x1	
	Audio (ø3.5 mm stereo mini jack)	x1	
Output terminals	Audio (RCA)	x1 (L/R)	
	Computer / Component (mini D-sub 15 pin)	x1	
Control and Communication terminals	Audio (ø3.5 mm stereo mini jack)	x1 (variable audio output)	
	USB (Type B)	x1	
	RS-232C (mini DIN 9 pin)	x1	
Horizontal frequency	15 - 110 kHz		
Vertical frequency	45 - 85 Hz		
Speaker	2W (mono)		
Fan noise	37 db (Bright), 29 db (Eco+Quiet)	35 db (Bright), 29 db (Eco+Quiet)	32 db (Bright), 29 db (Eco+Quiet)
Projection lamp	250 W	230W	200 W
Lamp life	4,000 hours (Eco+Quiet)**3		
On-screen display languages	English, German, Spanish, Dutch, French, Italian, Swedish, Portuguese, Russian, Polish, Hungarian, Turkish, Arabic, Persian, Simplified Chinese, Korean, Japanese		
Rated voltage	AC 100-240 V		
Rated frequency	50/60 Hz		
Input current	3.4 A	3.2 A	2.9 A
Power consumption (standby)	326 W (5.0 W) with AC 100 V, 316 W (5.7 W) with AC 240 V	303 W (5.0 W) with AC 100 V, 293 W (5.7 W) with AC 240 V	267 W (5.0 W) with AC 100 V, 259 W (5.7 W) with AC 240 V
Heat dissipation	1,230 BTU / hour with AC 110 V (Bright), 830 BTU / hour with AC 100 V (Eco+Quiet), 1,190 BTU / hour with AC 240 V, 810 BTU / hour with AC 240 V (Eco+Quiet)	1,140 BTU / hour with AC 110 V (Bright), 830 BTU / hour with AC 100 V (Eco+Quiet), 1,100 BTU / hour with AC 240 V, 810 BTU / hour with AC 240 V (Eco+Quiet)	1,010 BTU / hour with AC 110 V (Bright), 830 BTU / hour with AC 100 V (Eco+Quiet), 980 BTU / hour with AC 240 V, 810 BTU / hour with AC 240 V (Eco+Quiet)
Operation temperature	41°F to 95°F (+5°C to +35°C)		
Cabinet	Plastic		
Dimensions (main body only) W x H x D	10 1/8" x 3 3/8" x 10 7/8" (270 x 89 x 265 mm)		
Weight (approximately)	6.4 lbs. (2.9 kg)		
Supplied accessories	Remote control, two R-6 batteries, power cord - 6' (1.8 m), RGB cable - 10' (3.0 m), lens cap, DIN-D-sub RS-232C adapter - 5 5/8" (15 cm), storage case, operation manual, CD-ROM		
Limited Warranty**4	2 years parts/labor including 2 years of Sharp ER 24-hour turnaround Express Repair. 90-day lamp warranty		
UPC	074000365537	074000365551	074000365568

\*\*1 Compatible in intelligent compression  
 \*\*2 Analog RGB signal only  
 \*\*3 Up to 3000 hours lamp life in low power ("eco+quiet") mode; up to 2000 hours lamp life in standard mode.  
 \*\*4 See warranty statement in the product operation manual, or as a PDF download on www.sharpsusa.com.  
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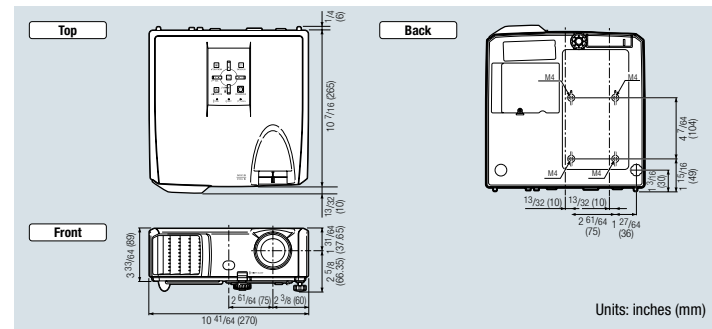
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**Dimensions (PG-F312X / F262X / F212X)**



**PG-F312X, PG-F262X, PG-F212X**  
 XGA Conference/Classroom Data-Video Projectors



**Sharp's New High Performance DLP® Projectors with BrilliantColor™ Technology offer Vibrant Color Reproduction, Exceptional Compatibility and Reliability for Corporate and Educational Applications**

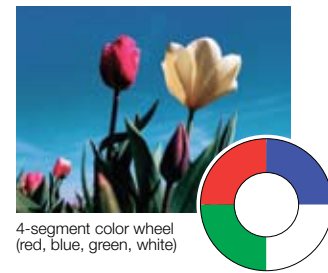


# DLP® Performance with BrilliantColor™ Technology and Six-Segment Color Wheel Provides Superior Color Reproduction with Exceptionally High Image Quality

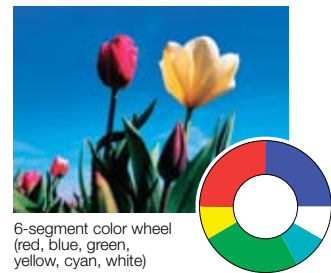
## Cutting Edge Technology Provides High-Quality Pictures

### BrilliantColor Technology with Six-Segment Color Wheel

BrilliantColor Technology improves picture brilliance particularly for intermediate colors, providing natural, detailed images. Sharp has also developed a 3x Speed Color Wheel with six color segments including yellow and cyan added to red, green, blue and white. With Sharp's unique color matching technology and these six color combinations, images can be reproduced with extreme high accuracy.



4-segment color wheel (red, blue, green, white)



6-segment color wheel (red, blue, green, yellow, cyan, white)

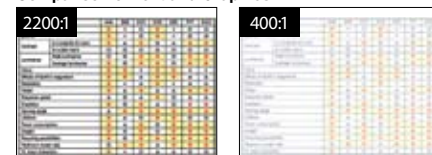
### 2200:1 High-Contrast, High-Quality Image

By utilizing the DLP optical system and Sharp's optical technology, these projectors produce crisp details and sharper blacks in black parts thanks to a 2200:1 high contrast ratio.

#### Comparison of Dark Scenes



#### Comparison of Text and Graphics



PG-F312X

Models in the same class as these frequently provide a contrast ratio of 400:1

## Outstanding Performance and High-Quality Reliability

### High Brightness: 3000 ANSI lumens (PG-F312X), 2600 ANSI lumens (PG-F262X), 2300 ANSI lumens (PG-F212X)

Sharp's advanced optoelectronics technology maximizes light output, providing crystal clear images in amazingly high brightness.

### Low Fan Noise

The DLP high-speed color wheel with non-contact Fluid Dynamic Bearings together with multiple ultra-quiet cooling fans reduce unpleasant noise, enabling quiet operation at 29dB in Quiet mode. The operation is so quiet it typically causes no disturbance even in meetings or school classes.

### Filter-Free Design

The DLP sealed system prevents dust, dirt and smoke from entering core parts of the optics to a much greater degree. The system also needs no filter and less maintenance, resulting in lower cost of ownership and longer use.

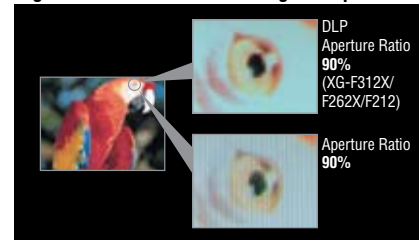
### DVI-I Terminal with DLP System for Full Digital Projection

Full digital projection with the DVI input terminal and DLP system enables virtually noise-free images from digital sources. The terminal also complies with High-bandwidth Digital Content Protection (HDCP) to support digital video content in high-definition. This DVI-I terminal additionally may be used as second analog RGB input when used with an appropriate adapter or interface.

### DLP Digital Image

Using DLP chip, each pixel is individually composed of one of over a half a million micromirrors to produce a high resolution, and the micromirrors lie at a distance of merely one micron, providing a seamless finely detailed picture. Also, high-speed on/off switching delivers smooth moving scenes.

### High-Resolution Seamless Image Comparison



### 3x Speed Color Wheel

The projectors employ a color wheel with an engine speed of up to 3x, improving color break-up to an invisible level. Also, the non-contact Fluid Dynamic Bearings for the high-speed rotating color wheel axle have an extremely long lifespan.

### IP Conversion Image Processing

Image Processing provides optimal video performance. The motion-adaptive scan images produce smooth moving scenes and ensure smooth natural lines and edges for 480i and 576i.



Without TrueVision™ Image Processing

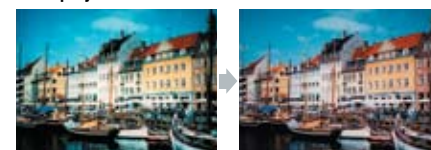
With TrueVision Image Processing

### Long-Life High-Performance DLP Picture

With DLP technology minimally absorbing high-output light, the projectors maintain uniform color reproduction capability for an exceptionally long period of time. DLP chip formation with finely structured mirrors additionally provide stable performance and deliver high-quality pictures for extended periods. The DLP chip contributes to a long lifespan.

In addition, because there is no burn-in or remaining afterimage, the projectors are ideal for still picture projection such as for guidance board applications and projecting CAD images.

#### DLP® projection



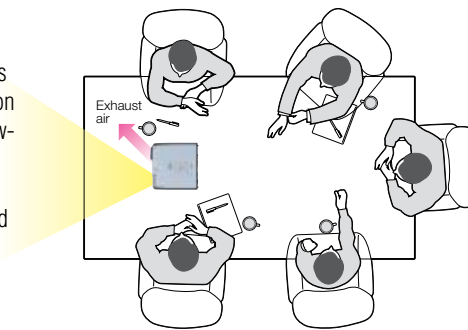
By RIT/Munsell Color Science Laboratory Test

After 4,100 hours (The picture shows no significant deterioration even after using the DLP chip 4,100 hours.)

## Intuitive Design and Functions to Support Presentation Convenience

### Front Exhaust Engine

The new projector series has an exhaust engine on the front so that the viewers can remain focused on the screen without distractions of noise and air which may disturb viewers.



### Direct Power Off Switching

Direct Power Off lets users immediately unplug the projector and move it from the location. In addition, it helps control the power simultaneously for multiple projectors by using the room's primary power switch in conjunction with the auto restart function.

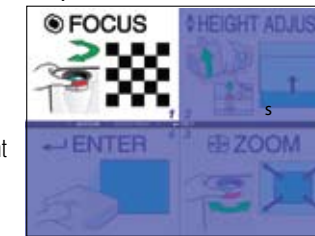
### Quick Start

It takes only approximately 3 seconds at start up to project an image.

### Setup Guide for Interactive Operation

The Setup Guide provides intuitive OSD images to show the next step interactively for setup including focus, zoom and height adjustment.

#### Setup Guides



Setup guide is displayed after the projector is turned on.

## Multiple Connections for a Wide Range of Applications

### Multiple Input Terminals

Projectors can be connected to DVD players, cable or satellite boxes, laptop and desktop computers, HDTV tuners, VCRs and video game consoles. DVI-I and D-sub terminals (in/out) are also provided.



## Other Outstanding Features

- **Condenser Lens Optics** Crisp detail, sharper black and ghost-less image.
- **4:3 and 16:9 Aspect Ratios and HDTV/DTV and DVD Compatible** (1080P, 1080i, 720P, 576P, 576i, 540P, 480P and 480i).
- **Image Shift Function** Images projected in 16 x 9 format can be vertically shifted for better viewing in limited spaces.
- **Theft Deterrent Function "System Lock"**
- **Key Lock Function**
- **Closed Caption** with black and white text for easy readability

### Interactive Help Menu

The Help Menu displays any problems and assists the user in solving problems with operation.



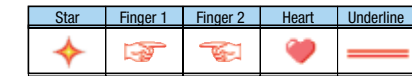
### Presentation Assist Remote Control

A variety of functions can all be performed with the projector remote control to aid your presentations including mouse control and page up and down. In addition, the following functions have been added for further performance.

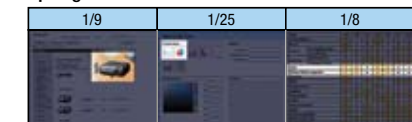
**Pointers:** Five pointer icon shapes can be used to impressively draw attention to your subject.

**Spotlights:** Three spotlight sizes, ranging from 1/25 to 1/9 or 1/8 the screen, provide visual effects to focus on the specified subject.

#### Pointer icons



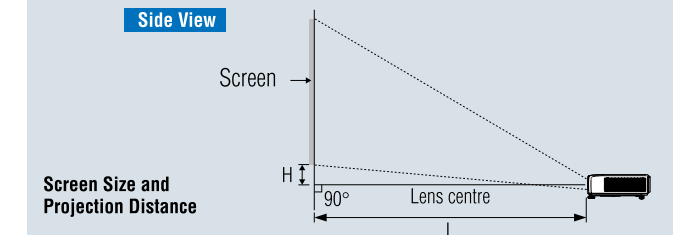
#### Spotlights



### One-touch Advanced Picture Mode

Quickly and directly choose the appropriate settings for the picture mode and lamp brightness to match the intended application.

## Correlation of the Projector to the screen



#### NORMAL Mode (4:3)

Diag.	Picture size		Projection distance [L]		Distance from the bottom of the image to the lens centre [H]
	Width (cm)	Height (cm)	Minimum	Maximum	
300"	240" (610)	180" (457)	36'10" (11.2m)	—	7 9/16" (19cm)
200"	160" (406)	120" (305)	24'7" (7.5m)	28'4" (8.6m)	5 3/16" (13cm)
120"	96" (244)	72" (183)	14'9" (4.5m)	17'0" (5.2m)	3 1/32" (8cm)
100"	80" (203)	60" (152)	12'3" (3.7m)	14'2" (4.3m)	2 33/64" (6cm)
80"	64" (163)	48" (122)	9'10" (3.0m)	11'4" (3.5m)	2 1/64" (5cm)
40"	32" (81)	24" (61)	4'11" (1.5m)	5'8" (1.7m)	1 1/64" (3cm)

#### STRETCH Mode (16:9)

Diag.	Picture size		Projection distance [L]		Distance from the bottom of the image to the lens centre [H]	Adjustable range of image position [S]
	Width (cm)	Height (cm)	Minimum	Maximum		
250"	218" (553)	123" (311)	33'6" (10.2m)	38'8" (11.8m)	27 19/64" (69cm)	±20 27/64" (±52cm)
200"	174" (443)	98" (249)	26'9" (8.2m)	30'11" (9.4m)	21 53/64" (55cm)	±16 11/32" (±42cm)
120"	105" (266)	59" (149)	16'1" (4.9m)	18'7" (5.7m)	13 3/32" (33cm)	±9 13/16" (±25cm)
100"	87" (221)	49" (125)	13'5" (4.1m)	15'5" (4.7m)	10 59/64" (28cm)	±8 11/64" (±21cm)
80"	70" (177)	39" (100)	10'9" (3.3m)	12'4" (3.8m)	8 47/64" (22cm)	±6 17/32" (±17cm)
40"	35" (89)	20" (50)	5'4" (1.6m)	6'2" (1.9m)	4 23/64" (11cm)	±3 17/64" (±8cm)

\* Allow a margin of error in the above values.