# SHARP.

## PG-F317X, PG-F312X, PG-F262X, PG-F212X
XGA Conference/Classroom Data-Video Projectors



**NOW with Built-in Closed Caption**

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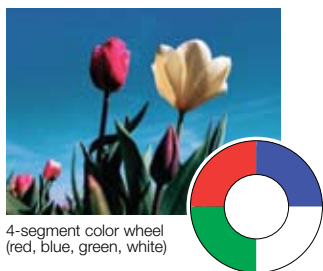
**PICTURE BY DLP®**
TEXAS INSTRUMENTS

**FEATURES BrilliantColor™**
With Multi-Color Processing For Rich, Vibrant Colors

# DLP® Performance with BrilliantColor™ Technology Provides Superior Color Reproduction with Except
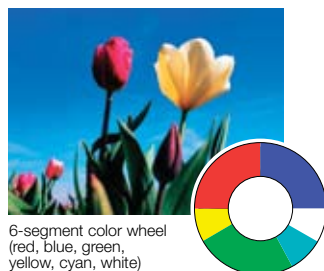
## Cutting Edge Technology Provides High-Quality Pictures

### 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 are reproduced with extreme high accuracy.



FEATURES
**BrilliantColor™**
With Multi-Color Processing
For Rich, Vibrant Colors!
DLP



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

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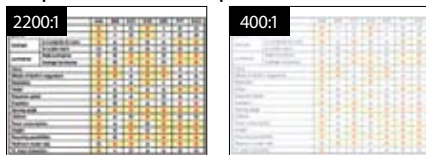(red, blue, green, yellow, cyan, white)

### 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**



2200:1

400:1

**Comparison of Text and Graphics**



2200:1

400:1

PG-F312X

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

### 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 a second analog RGB input when coupled with an appropriate adapter or interface.

### DLP® Digital Image

Using a DLP® chip, the image is composed of more than a half million micromirrors which are separated from each other by a distance of merely one micron. This provides a seamless, finely detailed picture. High-speed on/off switching additionally helps deliver smooth full-motion video.

**High-Resolution Seamless Image Comparison**



DLP®
Aperture Ratio
**90%**
(PG-F317X / F312X / F262X / F212X)

Aperture Ratio
**90%**

### 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 1080i display.



Without TrueVision™ Image Processing

With TrueVision™ Image Processing

## Outstanding Performance and High-Quality Reliability

### High Brightness: 3000 ANSI lumens (PG-F317X and 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.
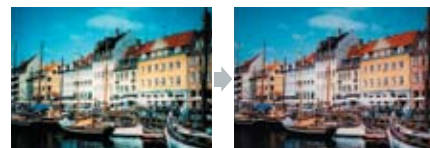
### Filter-Free Design

The DLP® sealed system limits dust, dirt and smoke from entering core parts of the optics. The system also needs no filter and less maintenance, resulting in a lower cost of ownership and longer lifespan.

### Long-Life High-Performance DLP® Picture

With DLP® technology, the projectors maintain a uniform color reproduction capability for an exceptionally long period of time. DLP® chip formation, in coordination with finely structured mirrors, additionally provides stable performance and delivers high-quality pictures for extended periods.

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**


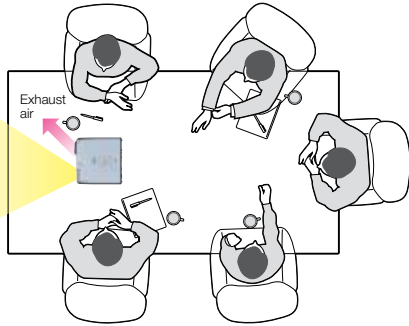
By RIT/Munsell Color Science Laboratory Test

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

# and Six-Segment Color Wheel
## ...ionally High Image Quality

### 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.

Exhaust air

### Direct Power Off Switching

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

### Quick Start

It only takes 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, including focus, zoom and height adjustment.

**Setup Guides**

◉ FOCUS · HEIGHT ADJUST
↵ ENTER · ⊕ ZOOM

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 and satellite boxes, laptop and desktop computers, HDTV tuners, VCRs and video game consoles. DVI-I and D-sub terminals (in/out) are also provided.

Note: PG-F317X also includes RJ-45 LAN terminal (not shown in above image).

## 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.
- **RJ-45 Network Connector (PG-F317X only)** for remote access by web browser, diagnosis and auto e-mail sending, and ability to link to a specific website for service and support.

### Interactive Help Menu

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

Picture  SCR · ADJ  PRJ · ADJ  ? Help
There is no picture or audio
- There is no picture or audio
- Vertical stripes or flickering image appear
- Data image is not centered
- Color is faded or poor
- Picture is dark
- The image is distorted
- Reset all adjustments to default settings
⬧ SEL.      ↵ ENTER      ⬛ END

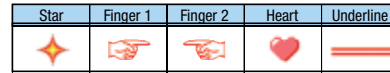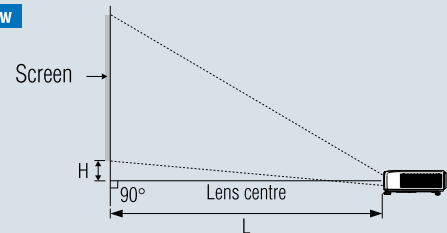### Presentation Assist Remote Control

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

**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**

| Star | Finger 1 | Finger 2 | Heart | Underline |
|------|----------|----------|-------|-----------|
| ✦ | ☞ | ☜ | ♥ | ━━ |

**Spotlights**

| 1/9 | 1/25 | 1/8 |
|-----|------|-----|

### 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

**Side View**

Screen →

Screen Size and Projection Distance

H | 90° | Lens centre
L

**NORMAL Mode (4:3)**

| Picture size | | | Projection distance [L] | | Distance from the bottom of the image to the lens centre [H] |
|---|---|---|---|---|---|
| Diag. | Width (cm) | Height (cm) | Minimum | Maximum | |
| 300" | 240" (610) | 180" (457) | 36'10" (11.2m) | — | 7 9/64" (19cm) |
| 200" | 160" (406) | 120" (305) | 24'7" (7.5m) | 28'4" (8.6m) | 5 3/64" (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)**

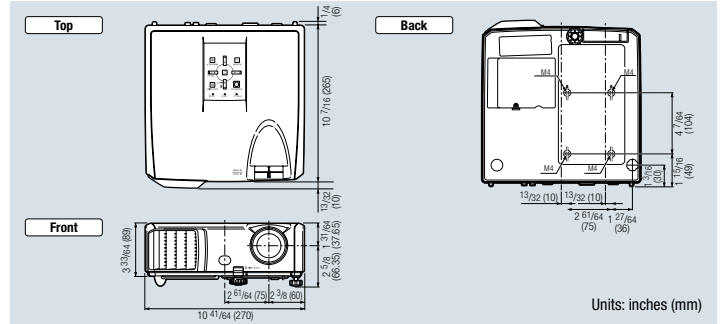| Picture size | | | Projection distance [L] | | Distance from the bottom of the image to the lens centre [H] | Adjustable range of image position [S] |
|---|---|---|---|---|---|---|
| Diag. | Width (cm) | Height (cm) | Minimum | Maximum | | |
| 250" | 218" (553) | 123" (311) | 33'6" (10.2m) | 38'8" (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.

## PG-F312X



**Note:** The PG-F312X is identical in front appearance to the PG-F212X, PG-F262X and PG-F317X with the exception of the model number indication.

## Dimensions (PG-F317X, F312X, F262X, F212X)



Units: inches (mm)

## 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-JT00:** 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-F317X | 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" to 300" | | |
| Projector distance | | 40": 4' 11" – 5' 8";  100": 12' 3" – 14' 2";  300": 36' 10" | | |
| Input signals | Computer RGB  *Compression | UXGA*¹*², SXGA+*¹*², SXGA*¹, WXGA*¹, XGA, SVA, VGA  /  Mac 21"*¹*², 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 | | |
| | Audio (RCA) | x1 (L/R) | | |
| Output terminals | Computer / Component (mini D-sub 15 pin) | x1 | | |
| | Audio (ø3.5 mm stereo mini jack) | x1 (variable audio output) | | |
| Control and Communication terminals | USB (Type B) | x1 | | |
| | RS-232C (mini DIN 9 pin) | x1 | | |
| | RJ-45 LAN | − / x1 | − | − |
| Closed Caption (CC1, CC2) | | Yes | | |
| 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 / 326 W (10.5 W) with AC 100 V; 316 W (11 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 100 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 100 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 100 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 ⁴¹⁄₆₄" x 3 ³⁵⁄₆₄" x 10 ⁷⁄₁₆" (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), len cap, DIN-D-sub RS-232C adapter - 5 ⁵⁄₅₆" (15 cm), storage case, operation manual, CD-ROM | | |
| Limited Warranty*⁴ | | 2 years parts/labor including 2 year of Sharp ER 24-hour turnaround Express Repair.  90-day lamp warranty. | | |
| UPC | | 074000365537 / 074000365520 | 074000365551 | 074000365568 |

*¹ Compatible in intelligent compression
*² Analog RGB signal only
*³ Up to 4000 hours lamp life in low power ("eco+quiet") mode; up to 2000 hours lamp life in standard mode.
*⁴ See warranty statement included with product, or as PDF download at www.sharpusa.com.

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