

**PJ WX3231N** WXGA  
Networkable 2,500 lm Mobile Projector

**PJ WX3131** WXGA  
2,500 lm Mobile Projector

**PJ X3241N** XGA  
Networkable 3,300 lm Mobile Projector

**PJ X3241** XGA  
3,300 lm Mobile Projector

**PJ X3131** XGA  
2,500 lm Mobile Projector

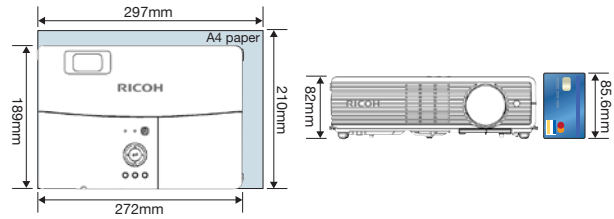


# Functionality That Anyone Can Master: Target Achieved. The PJ Series Opens Up The World Of Projectors To Everyone.

## Portable Enough To Use Anywhere You Like

### Compact & Lightweight

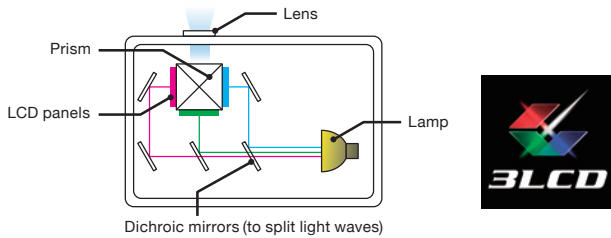
This projector needs less space than a piece of A4 paper. Stands just as tall as an IC card. You can set it up by the side of your desk or in the corner of a room in your client's office. At just 1.8 kilograms\*, anyone can carry it anywhere.  
\* Weight for the PJ WX3131 & PJ X3131 is 1.8 kg, the PJ X3241 and WX3231N is 1.9, the PJ X3241N is 2.0.



## Ricoh's High Image Quality Is Built On An Array Of Optical Technologies

### 3-LCD System

Our projectors use a 3LCD system that splits the projected light into red, green, and blue, the three primary colors, and uses a prism to fuse them back together. This system has excellent color reproduction and brightness.



### Natural Color Enhancer (NCE)

WX3231N X3241N

These projectors use Natural Color Enhancer, a color compensation technology developed by Ricoh. Instantly differentiates between CG and natural images, ameliorates poor color reproduction in dark areas, and reproduces vivid colors. Helps produce effective displays.



## Array Of Functions Makes Setting Up The Projector Easy

### Quick Start And Quick Shutdown

Start up just 8\* seconds after turning the power on. Meetings and presentations can be started right away. Also, just unplug the cord to shutdown and quickly put away the projector. Equipped with functions to keep you from waiting.

\* Time for the lamp to light

### Auto Set Function

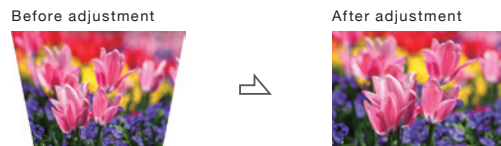
Equipped with an auto set function that makes it easy to get the projector ready to go. Automatically adjusts for flicker and the position of the projected image.

\* Only for computer signals.

### Auto Keystone Function (compensates distorted projection)

When keystone distortion in the vertical direction is detected in the projected image, compensation is done automatically to match the angle that the projector is set up. This function is useful when you need to set up quickly while visiting a customer.

\* The projected image is slightly reduced after keystone adjustment.



\*The projected image is slightly reduced after keystone adjustment.

## Loaded With A Variety Of Functions So It Is Easy To Use

### Mute & Freeze

You can temporarily stop the sound or the action with the MUTE and FREEZE buttons on the remote control. This way people can express their opinions during the presentation to make meetings more effective.

### Resize

The "RESIZE" button on the remote control lets you resize (enlarge) the image. It is easy to move the enlarged portion with the remote control too.

\* The enlarged image becomes grainy.

### Blackboard Mode

It is possible to adjust the hue of the projected image to compensate for the color of the screen, such as when projecting onto a blackboard (or green, black, brown, blue, or beige wall).

### Password Setting & Key Lock

The projector can be protected with a password to limit access and assure security. The key lock function is also useful to prevent people from making mistakes while operating the projector.

### User Logo Function

A company logo or standby message can be displayed while the projector is starting up or when there is no signal.

### Computer-Free Presentations

WX3231N X3241N

JPEG images and MPEG1 or MPEG2\*1 can be projected directly from the USB memory on which they are stored. Plus, you can use specialized software to convert\*2 Microsoft PowerPoint files to JPEG and store them on a USB memory. This makes it possible to give a presentation without a computer and without problems.

\*1 Only PS format. \*2 A JPEG conversion tool is required.



### Voice Guidance Function

WX3231N X3241N

The voice guidance announces problems with the projector, such as a faulty cooling fan, a dirty air filter, or other trouble.

\* The voice guidance function supports 25 languages.

### Mouse Remote Control (accessory)

WX3231N X3241N

The mouse remote control accessory can operate the projector and operate as a mouse pointer for the computer.

### HDMI Terminal

WX3231N X3241N

It is possible to connect DVD players or other video and audio equipment via a digital signal on a single cable.

## Connecting To A Network Is Even More Workable

### Supports Both Wired And Wireless LAN WX3231N X3241N

You can easily connect to wired or wireless LAN without troublesome settings by using Ricoh's own Network Utility. It is also possible to connect to a network using the "Network Projector"™ function standard in Windows Vista® and Windows® 7. This makes transfer of images from a computer easy.

\* Video and audio are not supported.

### Projector Management Utility WX3231N X3241N

You can do the LAN settings, turn the power on or off, and other settings for multiple network projectors on a network from a computer. With PLink™ compatibility, you can manage other brands of network projectors that are PLink compatible.

\* PLink is a standardized open protocol established by the Japan Business Machine and Information System Industries Association (JBMI) for controlling projectors on a network.

### Multiscreen Function WX3231N X3241N

By installing the network utility, you can project four different images to four different projectors from one computer. This can be used for large conferences or seminars.

\* The multiscreen function does not operate on Windows® 7.

\* This function is not for projection of one computer image data to multiple projectors.

### Status Notification By Email WX3231N X3241N

Automatic notification of error information can be sent to a specified email address if the lamp needs to be changed or an error occurs.

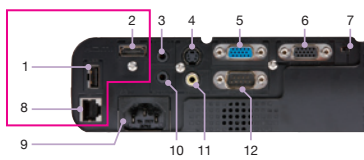
\* A system for sending email, such as an SMTP server, is required.

## Substantial Hardware And User Interfaces

### Interface Terminals

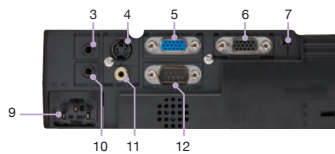
The projector is equipped with a variety of input and output terminals so it can be used in a wide range of locations. Connecting to various other equipment expands the possibilities for presentations even more.

< PJ WX3231N / X3241N / X3241\* >



- 1: USB
- 2: HDMI
- 3: AUDIO IN
- 4: S-VIDEO
- 5: COMPUTER 1 IN
- 6: COMPUTER 2 IN
- 7: Changeover switch\*
- 8: LAN
- 9: AC IN
- 10: AUDIO OUT
- 11: VIDEO
- 12: CONTROL

< PJ WX3131 / X3131 >



- 3: AUDIO IN
- 4: S-VIDEO
- 5: COMPUTER 1 IN
- 6: COMPUTER 2 IN
- 7: Changeover switch\*
- 9: AC IN
- 10: AUDIO OUT
- 11: VIDEO
- 12: CONTROL

\* The changeover switch changes between the COMPUTER 2 IN terminal and the MONITOR OUT terminal.

\* PJ X3241 is non-carried 1, 2, 8.

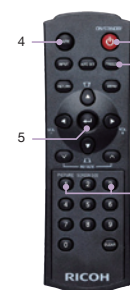
### Remote Control

The remote control helps get full performance from the PJ. This specialized remote control comes with the projector and has a variety of functions that are easy to use.

< PJ WX3231N / X3241N >



< PJ WX3131 / X3241 / X3131 >



- 1: ON/STAND BY button
- 2: FREEZE button
- 3: RESIZE button
- 4: MUTE button
- 5: ENTER button
- 6: MOUSE CONTROL button

While the cover is open.

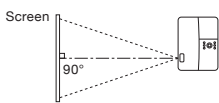
## PROJECTION DISTANCE & SCREEN SIZE

Use the following diagrams, tables, and equations to determine the projection distance and size of the projected image.

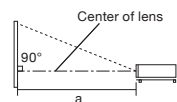
The sizes of the projected images are is for a full size image without keystone adjustment.

PJ WX3231N / WX3131

As seen from above



As seen from the side



The distance from the lens to the screen is a in meters and the supported range is 0.94 m to 11.58 m. The center of the lens is at the bottom edge of the screen.

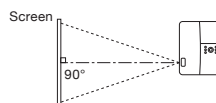
$$a \text{ (Shortest)} = \frac{\text{Size of the projected image (diagonal)} - 0.758}{31.022}$$

$$a \text{ (Longest)} = \frac{\text{Size of the projected image (diagonal)} - 0.643}{25.845}$$

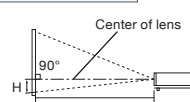
Size of the projected image (diagonal) (cm)	Projection distance a (m)	
	Shortest (maximum zoom)	Longest (minimum zoom)
30 (76)	0.94	1.14
40 (102)	1.27	1.52
50 (127)	1.59	1.91
60 (152)	1.91	2.30
70 (178)	2.23	2.68
80 (203)	2.55	3.07
90 (229)	2.88	3.46
100 (254)	3.20	3.84
120 (305)	3.84	4.62
150 (381)	4.81	5.78
200 (508)	6.42	7.71
250 (635)	8.03	9.65
300 (762)	9.65	11.58

PJ X3241N / X3241 / X3131

As seen from above



As seen from the side



The distance from the lens to the screen is a in meters and the supported range is 0.89 m to 10.94 m. The distance from the center of the lens to the bottom edge of the screen.

$$a \text{ (Shortest)} = \frac{\text{Size of the projected image (diagonal)} - 0.890}{32.863}$$

$$a \text{ (Longest)} = \frac{\text{Size of the projected image (diagonal)} - 0.748}{27.363}$$

$$a \text{ (Shortest)} = \frac{\text{Size of the projected image (diagonal)} - 0.795}{32.885}$$

$$a \text{ (Longest)} = \frac{\text{Size of the projected image (diagonal)} - 0.673}{27.397}$$

Size of the projected image (cm)	Projection distance a (m)		Height (H) (cm)
	Shortest (maximum zoom)	Longest (minimum zoom)	
30 (76)	0.89	1.07	6.50
40 (102)	1.19	1.44	8.70
50 (127)	1.49 (1.50*)	1.80	10.90
60 (152)	1.80	2.17	13.10
70 (178)	2.10	2.53	15.20
80 (203)	2.41	2.90	17.40
90 (229)	2.71	3.26	19.60
100 (254)	3.02	3.63	21.80
120 (305)	3.62 (3.63*)	4.36	26.10
150 (381)	4.54	5.46 (5.45*)	32.70
200 (508)	6.06	7.28	43.50
250 (635)	7.58	9.11 (9.10*)	54.40
300 (762)	9.10	10.94 (10.93*)	65.30

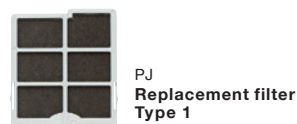
\* The values in parentheses () are for the PJ X3241, X3131 series.

## CONSUMABLE GOODS

### Consumable



PJ Replacement lamp Type 1



PJ Replacement filter Type 1

\* Consumable parts for the PJ WX3231N, WX3131, X3241N, X3241, and X3131.  
\* The expected hours of use before replacement for the lamp are 3000 hours in standard mode and 4000 hours in low mode.

SPECIFICATION

Main specifications

		PJ WX3231N	PJ WX3131	PJ X3241N	PJ X3241	PJ X3131	
System		3 transparent liquid crystal panels					
Resolution		1,024,000 pixels (1,280×800)		786,432 pixels (1,024×768)		1,024,000 pixels (1,280×800)	
Liquid crystal panel shape	Size	0.59 inch		0.70 inch		0.63 inch	
	Aspect ratio	16:10		4:3			
Luminous flux (brightness)		2,500 lm		3,300 lm		2,500lm	
Color reproduction		16,770,000 colors					
Contrast ratio		320:1					
Size of projected image		30 to 300 inches					
Projection distance		0.94 to 11.58 m		0.89 to 10.94 m		0.89 to 10.93 m	
Lamp		High-pressure mercury lamp (190 W in standard mode, 144 W in low mode)		High-pressure mercury lamp (180 W in standard mode, 136 W in low mode)			
Guaranteed service life of projector		3,500 hours					
RGB compatible signal	Real resolution	WXGA (1,280×800 dots), XGA (1,024×768 dots) SVGA (800×600 dots), VGA (640×480 dots)		XGA (1,024×768 dots), SVGA (800×600 dots), VGA (640×480 dots)			
	Compressed representation	UXGA (1,600×1,200 dots), SXGA (1,280×1,024 dots)	UXGA(1,600×1,200dots), SXGA(1,280×1,024dots), WXGA(1,280×800dots)			UXGA (1,600×1,200 dots), SXGA (1,280×1,024 dots)	
Video compatible signal		NTSC, PAL, SECAM					
Analog RGB compatible scanning frequency	Horizontal	15.63 to 106.25 kHz					
	Vertical	50 to 85 Hz					
USB memory compatible file format		JPEG, MPEG1, MPEG2 (PS format only)	-	JPEG, MPEG1, MPEG2 (PS format only)	-		
Projection lens	Brightness: F value	F: 1.7 to 1.87		F: 1.6 to 1.76		F: 1.7 to 1.87	
	Focal length: f value	f: 19.2 to 23.1 mm		f: 21.5 to 25.8 mm		f: 19.2 to 23.1 mm	
	Scale factor	1.2 x					
	Zoom	Manual					
	Focus	Manual					
Interface	RGB input	Mini D-sub 15 pin x 2					
	RGB output	Mini D-sub 15 pin x 1 (input and change over)					
	Video input	HDMI terminal x 1 S-VIDEO terminal mini DIN-4 pin x 1 RCA pin jack x 1	S-VIDEO terminal mini DIN-4 pin x 1 RCA pin jack x 1	HDMI terminal x 1 S-VIDEO terminal mini DIN-4 pin x 1 RCA pin jack x 1	S-VIDEO terminal mini DIN-4 pin x 1 RCA pin jack x 1		
	Video output	None					
	Audio input	3.5Φ stereo mini pin jack x 1					
	Audio output	3.5Φ stereo mini pin jack x 1					
	USB	TYPE-A (USB 2.0 High-Speed) x 1	-	TYPE-A (USB 2.0 High-Speed) x 1	-		
	Wired LAN	RJ45 (100BASE-T) x 1	-	RJ45 (100BASE-T) x 1	-		
	Wireless LAN	IEEE 802.11b/g compliant	-	IEEE 802.11b/g compliant	-		
	RS232C	Mini D-sub 9 pin x 1 (for projector control)					
Supported OS	Network projector	Windows Vista® (Home Basic not supported), Windows® 7 (Home Premium not supported)	-	Windows Vista® (Home Basic not supported), Windows® 7 (Home Premium not supported)	-		
	Network utility	Windows® 2000, XP, 7 and Vista® (Windows® 7 does not support multiscreen)	-	Windows® 2000, XP, 7 and Vista® (Windows® 7 does not support multiscreen)	-		
	JPEG conversion tool	Windows® 2000, XP, 7 and Vista®	-	Windows® 2000, XP, 7 and Vista®	-		
	Projector management utility	Windows® 2000, XP, 7 and Vista® PJLink Class 1 compatible	-	Windows® 2000, XP, 7 and Vista® PJLink Class 1 compatible	-		
Built-in speaker		1 W mono					
Dimensions (W x D x H) (excluding protrusions)		295 x 196 x 82 mm	272 x 189 x 82 mm	295 x 196 x 82 mm	295 x 196 x 82 mm	272 x 189 x 82 mm	
Weight		2.0kg / 4.41lb	1.8kg / 3.96lb	2.0kg / 4.41lb	1.9kg / 4.19lb	1.8kg / 3.96lb	
Power consumption	While operating	Standard mode: 280 W or less					Standard mode: 270 W or less
	In standby	-	0.4 W	-	0.4 W		
	In standby Network ON	8.0 W	-	8.0 W	-		
	In standby Network OFF	0.4 W	-	0.4 W	-		
Power		100 V - 240 V ±10%					
Accessories packaged with projector	Cables	RGB cable (3 m) & 3-pin power cable (3 m) / 2-pin power cable (3 m) / EU					
	CD-ROM	Network utility JPEG conversion tool Projector management utility Instruction manual Instruction manual for projector management utility	Instruction manual	Network utility JPEG conversion tool Projector management utility Instruction manual Instruction manual for projector management utility	Instruction manual		
	Carrying case	Specialized soft-side case Interior size: 300 x 81 x 215 mm Exterior size: 340 x 170 x 235 mm	Specialized soft-side case Interior size: 272 x 81 x 188 mm Exterior size: 320 x 170 x 225 mm	Specialized soft-side case Interior size: 300 x 81 x 215 mm Exterior size: 340 x 170 x 235 mm	Specialized soft-side case Interior size: 300 x 81 x 215 mm Exterior size: 340 x 170 x 235 mm	Specialized soft-side case Interior size: 272 x 81 x 188 mm Exterior size: 320 x 170 x 225 mm	
	Remote control	Mouse remote control Mouse remote control receiver	Wireless remote control	Mouse remote control Mouse remote control receiver	Mouse remote control Mouse remote control receiver	Wireless remote control	