laser
light source

Timetable

	Monday	Tuesday	Wednesday	
	13:00 - 17:00	9:00 - 10:00	9:00 - 11:00	
	1177-A	1327-B	2377-C	
	Basic Calculus	Calculus -1	⊕	
			13:00 - 17:00	

4K UHD READY

PA Series

Professional Installation Projectors ideal for corporate, higher education and museum applications

LCD laser installation projectors extreme brightness captivates audiences in conference rooms, auditoriums and sanctuaries

Powerful Tools

- Multi-display support with Picture by Picture/Picture in Picture
- TileMatrix (internal multi-screen splitter) enables 4Kx2K resolution utilizing 4 projectors without the need for external hardware
- Built-in daisy chain capabilities support multi-display applications
- Seamlessly blend multiple images with integrated edge blending capabilities

Integrated

- 4K Ready - Display stunning 4K 60P content using NEC's proprietary high performance video processing/scaling chip without the loss of critical details. HDR10 and BT.2020 signals from "Ultra HD Blu-ray" and "4K TV broadcasting" are supported on all digital inputs
- Integrated software applications such as AMX Beacon, Crestron Roomview, Extron XTP and PJ Link allow for complete control system support
- Lower the cost of your installation by eliminating the need for costly reprogramming of a control system. (supports competitors commands, call NEC for complete list)

4K UHD READY

Flexible

- Enjoy greater installation flexibility with motorized bayonet style lenses providing quick and easy exchanges. Lens throw distances range from 2.5 to 68.5 ft
  - New NP44ML-02LK UST lens placing the projector above the screen and out of site (installation may place the projector above the ceiling line)
- Roll-free installation capabilities make these projector ideal for almost any install environment, including portrait orientation
- Up to 60% vertical lens shift and +/- 30% horizontal lens shift capabilities make alignment easy

Laser

- Images appear immediately after power on due to instantaneous start up of the laser
- Dual blue laser systems provide best in class white balance over the life of the projector
- Inorganic optical components create longer lifetime and greater peace of mind
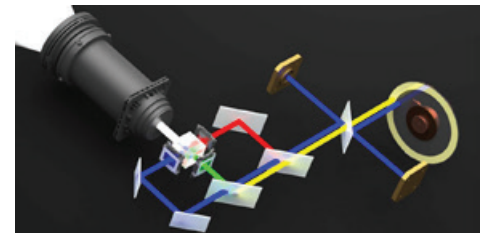
Filter Free

- Filter free LCD projector
- Sealed LCD cooling system prevents dust from reaching the optics and eliminates the need for a filter
- External air never reaches the optical path
- No dust artifacts or decrease in brightness
- LCD Laser Projector that is maintenance free!

NEC's Unique LCD Panel Cooling Design
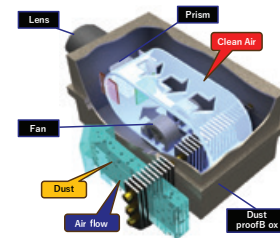
Stacking correction

The industry's first built-in stacking correction capabilities (up to four projectors) allows the projectors to boost an image's brightness up to 40,000 lumens, which is ideal for larger-sized screens and environments with heavy ambient light. This feature also prevents the complete loss of an image, which can happen when using only one projector.
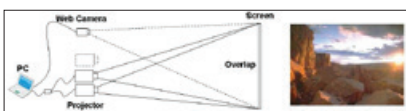
Edge blending

This function seamlessly blends multiple projected images to display a single high-resolution image.

ProAssist™

Projector management software for installation professionals provides full projector control for multiple screens to create the perfect image. Controls such as input switching, picture, lens, edge blending, uniformity and gamma control are adjustable though the GUI.

ProAssist™

Built-In HDBaseT Support

Simplify your installations with HDBaseT. Optimized for video applications and supporting uncompressed full HD digital video, audio, ethernet, power and various control signals. With only a single cable (up to 100m) to run, infrastructure and labor costs are reduced, installations are significantly easier, and there is no cable clutter to manage. With uncompressed HD video support, images have never been more stunning. What's more, control signals are contained in the same cable.

Get Connected with a Wide Selection of Inputs

- **Multiple Digital computer inputs** ensure quick switching between presentations
- **Five audio inputs (one mini stereo [HDMI1™ & HDMI2™, DisplayPort and HDBaseT)** make it easy to add sound to enhance your presentations

Remote control

Wired and wireless backlit remote allows you to adjust for complete control of the projectors menu structure in a well lit or dark environment. Direct controls such as lamp mode, aspect ratio, volume and input selection eliminates multiple button pushes.

Digital Inputs

Among the PA Series' wide selection of inputs are dual HDMI w/HDCP and DisplayPort w/HDCP for connecting to high-definition sources such as Blu-ray players, cable boxes, satellite receivers and personal computers.

Cable Cover

This included accessory creates a clean look for your installation, while hiding signal cables and the power cord.

Advanced Software Features

Cornerstone

Enhanced keystone correction allows for horizontal, vertical and diagonal image correction for aligned images even when the projector is set up at an angle to the screen.

3D

When combined with active shutter glasses and 3D emitter, the PA Series Projectors create 3D images from a computer or Blu-ray player. The PA Series utilize the 3D sync line output from the projector to connect to the 3D emitter. Optional 3D glasses and emitters from XPAND are available from NEC.

Geometric Correction

Projecting an image isn't confined to a standard flat screen or wall with the NEC PA Series. Geometric correction allows these models to project an image on spheres, cylinders, corner angles and many more non-standard surfaces.

Screen Splitter

NEC is committed to bringing the latest and greatest innovation to projectors. Multi-display capabilities and TileMatrix technologies are integrated into the new PA Series projectors. This processing is all done internally and therefore eliminates the additional hardware typically required to produce a beautiful 4K resolution image.
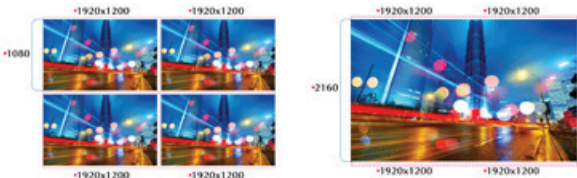
Screen Splitter (Multi Display) by Daisy Chain

Roll Free

When installation requirements dictate the projector needs to be placed at different angles the PA Series with Roll Free capabilities assures it is the correct projector of choice.
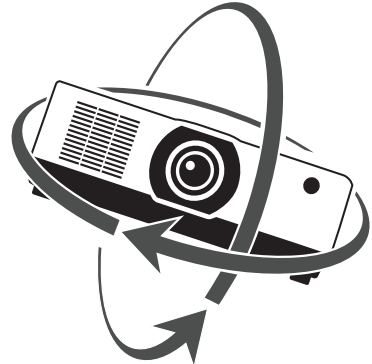
Unique Features

Variable audio-out enables the remote control to be used to adjust volume of self-powered external speakers that are connected to the projector. In stand-by mode, the audio-out stays active, allowing the last input used to pass to the self-powered external speakers.

Advanced AccuBlend™ ensures detailed images when non-native resolution sources are connected to the projector

64-step image magnification with location control

Built-in HTTP page for control and monitoring over a LAN network. Email notification of error messages or lamp end-of-life can be sent to remote locations.

Warranty

Registered owners receive a five (5) years or 20,000 hours (whichever comes first) parts and labor warranty including InstaCare next business day exchange.
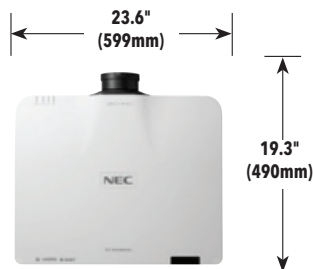
In the Box

Remote control, batteries, power cord, cable cover, user's manual on CD-ROM, quick start guide, product registration card.

Accessories

RMT-PJ40	Replacement Remote Control
Optional Lenses	NP11FL, NP12ZL, NP13ZL, NP14ZL, NP15ZL, NP40ZL, NP41ZL, NP43ZL, NP44ML-02LK
XPAND X105-RF-1	3D Glasses
XPAND AD025-RF-X1	RF Emitter
IPJ2000CM	Ceiling Mount
AEC006009	Adjustable Extension Column, 6" - 9"
AEC012018	Adjustable Extension Column, 12" - 18" Adjustable
AEC0203	Extension Column, 2' - 3'
AEC0305	Adjustable Extension Column, 3' - 5
NP01PW1	Power Cord
RGBCBL-PJPX	RGB Signal Cable

Ordering Model Numbers

NP-PA804UL-B	NP-PA1004UL-B
NP-PA804UL-B-41	NP-PA1004UL-B-41
NP-PA804UL-W	NP-PA1004UL-W
NP-PA804UL-W-41	NP-PA1004UL-W-41

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
IEC 60825-1:2014

FOR USA
CLASS 3R LASER PRODUCT
AVOID DIRECT EYE EXPOSURE
LASER RADIATION
IEC 60825-1:2007
WAVE LENGTH: 455 nm
MAX OUTPUT: 333 mW
24L89881

LASER APERTURE OUVERTURE LASER

23.6" (599mm)

19.3" (490mm)

8.5" (216mm)

	NP-PA804UL	NP-PA1004UL
LCD Specifications	0.76" LCD w/ MLA	
Light Output (lumens)	8200	10000
Resolution — Native	WUXGA 1920 x 1200	
Resolution — Maximum	4K 4096 x 2160	
Contrast Ratio (up to)	3,000,000:1 (with Dynamic Contrast)	
Laser Life (up to)	20,000 hours	
Screen Size (diagonal)	40 to 150 in. / 1.02 to 3.8m, NP11FL; 30 to 500 in. / 0.76 to 12.7m, NP12ZL; 40 to 500 in. / 1.02 to 12.7m, NP13ZL; 50 to 500 in. / 1.27 to 12.7m, , NP40ZL, NP41ZL, NP43ZL; 60 to 500 in. / 1.52 to 12.7m, NP14ZL, NP15ZL; 100 to 400 in. / 2.54 to 10.16m, NP44ML-02LK	

Throw Ratio		
NP11FL	0.79:1	
NP12ZL	1.16 - 1.52:1	
NP13ZL	1.46 - 2.95:1	
NP14ZL	2.90 - 4.64:1	
NP15ZL	4.59 - 7.02:1	
NP44ML-02LK	0.32:1	
NP40ZL	0.79 - 1.11:1	
NP41ZL	1.30 - 3.02:1	
NP43ZL	2.99 - 5.93:1	

Projection Distance	2.5 to 68.5 ft. / 0.74 to 20.9m	
Projection Angle	10.3 to 10.8° tele / 13.7 to 14.5° wide	

Lens			
	Zoom	Motorized	
		NP11FL	-
		NP12ZL	1.3x
		NP13ZL	2.0x
		NP14ZL	1.6x
		NP15ZL	1.52x
		NP44ML-02LK	1.0x
		NP40ZL	1.4x
		NP41ZL	2.3x
		NP43ZL	2.0x
	Focus	Motorized	
		NP11FL	F=2.3, f= 13.2mm, 2.6lbs. / 1.2 kg
		NP12ZL	Maual zoom / focus, F=2.2 to 2.69, f= 19.4 to 25.3mm, 2.6lbs. / 1.2 kg
		NP13ZL	Maual zoom / focus, F= 1.7 to 2.37, f= 24.2 to 48.6mm, 1.6lbs. / 0.84 kg
		NP14ZL	Maual zoom / focus, F= 2.2 to 2.64, f= 48.5 to 77.6mm, 2.2lbs. / 1.0 kg
		NP15ZL	Maual zoom / focus, F= 2.2 to 2.7, f= 76.6 to 116.5mm, 2.2lbs. / 1.0 kg
		NP44ML-02LK	Motorized zoom / focus, F=2.0, f= 6.27, 6.8 lbs. / 3.1 kg
		NP40ZL	Motorized zoom / focus, F=2.0 to 2.5, f= 13.3 to 18.6mm, 3.5lbs. / 1.6 kg
		NP41ZL	Motorized zoom / focus, F=1.7 to 2.0, f= 21.8 to 49.8mm, 3.7 lbs. / 1.7 kg
		NP43ZL	Motorized zoom / focus, F=2.2 to 2.6, f= 49.7 to 99.8mm, 3.7 lbs. / 1.7 kg
	Shift	+50/-10% Vertical, +/-30% Horizontal	
	Shutter	Laser Shutter	

Keystone Correction	+/- 40° horizontal, +/- 40° vertical	
Synchronization Range — Horizontal	Analog: 15-100kHz, Digital: 15-153kHz	
Synchronization Range — Vertical	Analog: 48-120Hz, Digital: 24-120Hz	
Supported Video Standards	NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM	
SD/HD Video Signal Compatibility	480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 4K	
PC Signal Compatibility	VGA, SVGA, XGA, SXGA, SXGA+, UXGA, WUXGA, Quad HD	
Macintosh Compatibility	Yes	

Input Terminals		
RGB1 (analog)	VGA 15 pin D-sub, Component video using ADP-CV1E adapter	
RGB2 (digital)	HDMI (V2.0) w/HDCP (V1.4/2.2)	
RGB3 (digital)	HDMI (V2.0) w/HDCP (V1.4/2.2)	
RGB4 (digital)	DisplayPort w/HDCP (V1.3)	
RGB5 (digital)	HDBaseT w/HDCP (V1.4/2.2)	
Audio1	Stereo Mini Jack	

Output Terminals		
Monitor Out	HDBaseT w/HDCP (V1.4/2.2)	
Audio Out	Stereo Mini Jack	
3D Sync Line	3Pin Din	

External Control	RS-232, IR, HDBaseT, DDC/CI, RJ-45, USB (USB 2.0)	
Sync Compatibility	Separate Sync / Composite Sync / Sync on G	
Power Requirements	100-240V AC, 50/60 Hz	
Input Current	8.6A - 3.8A	11.8A - 5.2A
Power Consumption (ECO off/ECO Mode/Standby/Standyby-Power Saving)	635W / 515W / 0.8W / 0.22W	750W / 610W / 0.8W / 0.22W
Installation Orientation	Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear	
Product Dimensions (WxDxH)	23.6 x 8.5 x 19.3 in. / 599 x 216 x 490 mm	
Net Weight	53.1 lbs. / 24.1 kg	53.8 lbs. / 24.4 kg
Shipping Dimensions (WxDxH)	28.9 x 14.1 x 24.8 in. / 735 x 359 x 631 mm	
Gross Weight	63.3 lbs. / 28.7 kg	63.7 lbs. / 28.9 kg
Fan Noise	30 dB normal / 28 dB eco	35 dB normal / 32 dB eco

Regulations		
US	USA UL60950-1: 2nd edition, FCC Part15 Subpart B(ANSI C63.4.2014)	
Canada	CAN/CSA C22.2 No.60950-1-07,2nd Edition,2014, ICES-003 Issue6 (ANSI C63.4:2014)	

Operating		
Temperature	32°-104°F / 0°-40°C	
Humidity	20-80% non-condensing	

Storage		
Temperature	14-122°F / -10 50°C	
Humidity	20% - 80% (non-condensing)	

Ordering Model Number	NP-PA804UL-B, NP-PA804UL-W	NP-PA1004UL-B, NP-PA1004UL-W

* Lens does not ship with the projector.
Additional accessories are available, including screens, carts, mount accessories and replacement cables.
Visit www.necdisplay.com for details.

Sharp NEC Display Solutions of America
www.sharpnecdisplays.us