\Orchestrating a brighter world NEC

Professional installation projectors ideal for
corporate, higher education and museum applications

# PA803UL / PA703UL

HDBT™ HDMI® HIGH-DEFINITION MULTIMEDIA INTERFACE

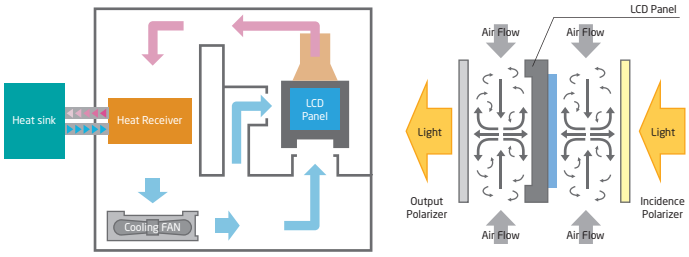
# Powerful laser installation projectors equipped to take on the most demanding integration projects

## The World's First Filter-free Laser Projector using LCD Technology

### Filter-free Structure with NEC's Original Cooling System

High dustproof performance is achieved by NEC's proprietary sealed jet impingement cooling structure. Due to its excellent dustproof performance, this projector does not have the cumbersome filters that ordinary LCD projectors require. The new laser-based LCD projector offers better TCO (total cost of ownership) with less maintenance.

NEC's unique LCD panel cooling design




### A Long-life Laser Diode is Provided in the Light Module

Advanced laser technology delivers a reliable light source up to 20,000 hours.

### Maintains the Set Brightness for a Long Time

The projector is equipped with a "constant brightness mode" that detects changes in brightness due to aging and automatically adjusts the output to keep the brightness constant. This makes it possible to project with stable brightness for a long time.

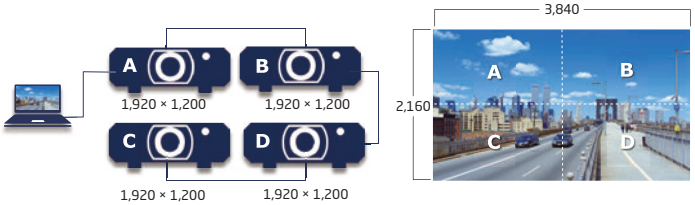
### Risk Group 2 Saves You Installation and Operation Effort

Because of Risk Group 2 compliance based on the projector safety standards, no prescribed safety precautions are necessary.

## Excellent Ease of Installation and Functionality in Various Uses and Applications

### Multi-screen Function

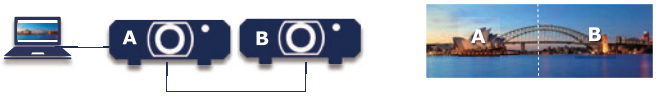
Multi-display capabilities and tiling technologies are integrated. The projector is also equipped with multiple digital input and HDBaseT output terminals that can connect multiple projectors in a digital daisy chain. These cutting-edge built-in functions produce a beautiful 4K high-resolution image using 4 projectors and various picture-in-picture and picture-by-picture configurations.




e.g. 4K projection by Daisy Chain and Screen Splitter (Multi-display)

### Edge Blending

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




e.g. Horizontal high resolution image by side edge blending

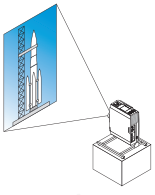
### Optional Lenses with Peripheral Motorised Focus Features and Advanced Dust-proof Construction

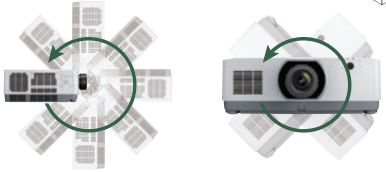
Three types of optional lenses for the NP40ZL, NP41ZL and NP43ZL are available as dust proof lenses with motorised zoom and focus and a memory function. A selection of these lenses with wide vertical and horizontal lens shift and control code emulation are available, guaranteeing hassle-free installation and replacement of existing installation projectors. The newly added ultra short throw lens of the NP44ML can eliminate space challenges with shorter projection distances (such as 100" at only 0.7 m distance). The NP40ZL, NP41ZL and NP44ML lenses are also equipped with peripheral motorised focus, and focus adjustment is possible in two stages by the centre and the periphery, which offers excellent image quality.

* After installing the NP44ML on the projector, be sure to secure it to the projector using the support kit (NP01LK) sold separately.

### Highly Flexible Installation Options with 360 ° Positioning in any Direction

This projector can be installed universally at any angle. Tilt-free, roll-free and portrait installations are supported. The projector can be rotated freely (360°) to point up or down depending on the installation requirements and can be rotated and installed on its side to create a portrait image.





# A High-definition Design to Meet the Era of High-resolution Content and Devices

## NEC's Unique High-definition Functionality with the 4th Generation of "SweetVision" for 4K Content

The 4th generation of "SweetVision" supports 4K 60 Hz input signals and has been upgraded to support HDR10 and Rec.2020 signal. It offers a high definition image by raising the contrast in the boundary parts of an image by using the "Craik-O'Brien-Cornsweet effect".

## Supports High-definition Processing of Both Digital and Analogue Inputs

10-bit high-definition signal processing is possible with all digital and analogue inputs. An image can be projected with an excellent contrast of 1024 gradations and over 1 billion colours in 4K images.

## Support for 4K Input

The HDMI and HDBaseT input terminals support up to 4K video for display of ultrahigh resolution video.

# Multiple Input Terminals for HDMI and DisplayPort and Input and Output Terminals for HDBaseT

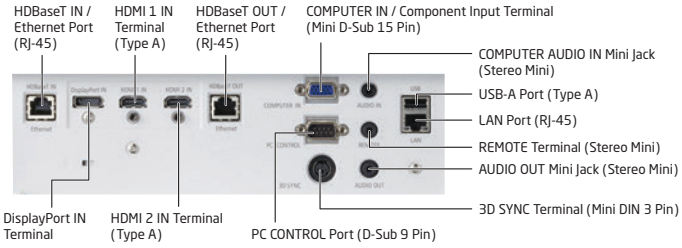
## Built-in HDBaseT ( In/out )

Simplify your installations with HDBaseT, which is optimised for video applications and supports uncompressed full HD digital video, audio, Ethernet, power and various control signals. With only a single cable (up to 100 m) to run, infrastructure and labour 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.

## Digital Inputs

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

### Terminals




# Other Useful Functions and Features

- Cornerstone
- Geometric correction to project an image on more non-standard surfaces
- Stacking correction to boost image brightness
- Centre lens design for easy setup
- Lens memory
- Seamless switch function for smoother screen changes when switching the signal
- Wall colour correction
- PIN security / control panel lock / security bar / security slot
- DICOM simulation
- Cable cover included as an accessory

### Network Control

- NaViSet Administrator 2
- PC control
- Alert mail
- CRESTRON ROOMVIEW with emergency function and Extron XTP compatibility
- AMX BEACON
- PJLink
- HTTP server (projector adjustment)

NaViSet Administrator 2

## PA803UL

8,000lumens | WUXGA | 18.2kg

## PA703UL

7,000lumens | WUXGA | 18.2kg

Brightness using NP41ZL.
Weight does not include lens.

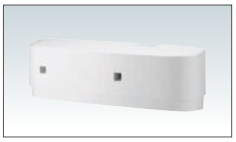
## Specifications

| Model | | NP-PA803UL | NP-PA703UL |
|---|---|---|---|
| Method | | Three primary colour liquid crystal shutter projection | |
| Specifications of main parts | | | |
| Liquid crystal panel | Size | 0.76" (with DMLA) × 3 (aspect ratio: 16:10) | |
| Liquid crystal panel | Pixels*1 | 2,304,000 (1,920 dots × 1,200 lines) | |
| Projection lenses*2 | Zoom | Motorised (Digital Zoom) (zoom range depends on lens) | |
| Projection lenses*2 | Focus | Motorised | |
| Projection lenses*2 | Lens shifting | Refer to Lens specifications | |
| Light source | | Laser diode | |
| Light source (laser diode) life*3 | | 20,000 H | |
| Light output*3 *4 *5 *6 | Normal mode | 8,000 lumens | 7,000 lumens |
| Light output*3 *4 *5 *6 | ECO 1 mode | 6,400 lumens | 5,600 lumens |
| Light output*3 *4 *5 *6 | ECO 2 mode | 4,800 lumens | 4,200 lumens |
| Light output*3 *4 *5 *6 | Long life mode | 2,400 lumens | 2,100 lumens |
| Contrast ratio*5 (all white / all black) | | 2,500k: 1 with dynamic contrast | |
| Screen size (throw distance) | | 50" to 500" (throw distance depends on lens) | |
| Colour reproducibility | | 10-bit colour processing (approx. 1.07 billion colours) | |
| Scan rate | Horizontal | Analogue: 15 kHz, 24 to 100 kHz (24 kHz or greater for RGB inputs), conforms to VESA standards / Digital: 15 kHz, 24 to 153 kHz, conforms to VESA standards | |
| Scan rate | Vertical | Analogue: 48 Hz, 50 to 85 Hz, 100, 120 Hz conforms to VESA standards / Digital: 24, 25, 30, 48 Hz, 50 to 85 Hz, 100, 120 Hz conforms to VESA standards | |
| Maximum resolution (horizontal × vertical) | | Analogue: 1,920 × 1,200 (with Advanced AccuBlend) / Digital: 4,096 × 2,160 (with Advanced AccuBlend) | |
| Keystone correction | Horizontal | Manual, Approx. ± 40 Max degrees | |
| Keystone correction | Vertical | Manual, Approx. ± 40 Max degrees | |
| Input / output connectors | | | |
| Computer / component | Video input | Mini D-Sub 15-pin × 1 | |
| Computer / component | Audio input | Stereo mini jack × 1 | |
| Computer / component | Audio output | Stereo mini jack × 1 (common for all signals) | |
| HDMI | Video input | Type A HDMI connector × 2, Deep Colour (colour depth): Support 8 bits, 10 bits, 12 bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, YCbCr420, Rec.2020, Rec.709, Rec.601, Support 4K, 3D, HDCP*7, LipSync, HDR | |
| HDMI | Audio input | Yes | |
| HDBaseT / Ethernet Port | Video input | RJ45 × 1, Support 100BASE-TX, Deep Colour (colour depth): Support 8 bits, 10 bits, 12 bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, YCbCr420, Rec.2020, Rec.709, Rec.601, Support 4K, 3D, HDCP*7, LipSync, HDR | |
| HDBaseT / Ethernet Port | Audio input | Yes | |
| HDBaseT / Ethernet Port | Video output | RJ45 × 1, Support 100BASE-TX, Deep Colour (colour depth): Support 8 bits, 10 bits, 12 bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, Rec.709, Rec.601, Support 4K, 3D, HDCP*7, LipSync | |
| HDBaseT / Ethernet Port | Audio output | Yes | |
| DisplayPort | Video input | DisplayPort 20 pin connecter × 1, Deep Colour (colour depth): Support 8 bits, 10 bits, 12 bits, Colourimetry Support: RGB, YCbCr444, YCbCr422, Rec.709, Rec.601, Support 4K, 3D, HDCP*7 | |
| DisplayPort | Audio input | Yes | |
| PC control connector | | D-Sub 9-pin × 1 | |
| USB port | | USB type A × 1, (USB 2.0 High speed / Full speed / Low speed) for Mouse | |
| Ethernet / LAN / HDBaseT port | | RJ-45 × 1, Supports 10BASE-T / 100BASE-TX, HDBaseT | |
| Remote connector | | Stereo mini jack × 1 | |
| 3D SYNC output terminal | | 5 V / 10 mA, synchronized signal output for 3D use | |
| Usage environment | | Operating temperature: 5 to 40°C*8, Operating humidity: 20 to 80 % (with no condensation) | |
| Usage environment | | Storage temperature: -10 to 50°C, Storage humidity: 20 to 80 % (with no condensation) | |
| Usage environment | | Operating altitude: 0 to 3,650 m (1,700 to 3,650 m: Set [FAN MODE] to [HIGH ALTITUDE]) | |
| Power supply | | 100 to 240 V AC, 50/60 Hz | |
| Power consumption | Normal mode | 798 W (100 to 130 V) / 774 W (200 to 240 V) | 647 W (100 to 130 V) / 632 W (200 to 240 V) |
| Power consumption | ECO 1 mode | 604 W (100 to 130 V) / 592 W (200 to 240 V) | 531 W (100 to 130 V) / 522 W (200 to 240 V) |
| Power consumption | ECO 2 mode | 470 W (100 to 130 V) / 464 W (200 to 240 V) | 414 W (100 to 130 V) / 410 W (200 to 240 V) |
| Power consumption | Long life mode | 285 W (100 to 130 V) / 285 W (200 to 240 V) | 276 W (100 to 130 V) / 276 W (200 to 240 V) |
| Power consumption | STANDBY (Link-up) | 0.15 W (100 to 130 V) / 0.21 W (200 to 240 V) | |
| Power consumption | STANDBY (Link-down)*9 | 0.11 W (100 to 130 V) / 0.16 W (200 to 240 V) | |
| Rated input current | | 11.8 A to 5.2 A | 10.5 A to 4.5 A |
| Dimensions (W × H × D) | | 580 × 205 × 490 mm (Net dimensions, not including protruding parts), 909 × 322 × 731 mm (Gross dimensions) | |
| Weight | | 18.2 kg (not including lens), 24.4 kg (Gross weight) | |

*1: Effective pixels are more than 99.99 %. *2: Refer to Lens Specifications *3: Time at which the laser light source is at half brightness; not a guaranteed time. *4: This is the light output value (lumens) when the lens unit, NP41ZL, is mounted and when the [PRESET] mode is set to [HIGH-BRIGHT]. The light output values will be dropped according to the setting of [LIGHT MODE]. If any other mode is selected as the [PRESET] mode, the light output value may drop slightly. *5: Compliance with ISO21118-2012 *6: When attached with NP41ZL *7: If you are unable to view material via the HDMI DisplayPort and HDBaseT input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community. (Digital Content Protection, LLC). Video: HDR, Deep Colour, 8/10/12-bit, Lip Sync. Audio: LPCM; up to 2 ch, sample rate 32/44.1/48 kHz, sample bit; 16/20/24-bit, HDMI: Supports HDCP2.2/1.4, DisplayPort: Supports HDCP1.4, HDBaseT: Supports HDCP2.2/1.4
*8: Depending on the altitude and temperature, the projector goes into "Forced ECO Mode" when [NORMAL] or [ECO1] has been selected for [LIGHT MODE]. *9: Internal measured value. All wired network ports are connected and active.

## Included Accessories

Cable cover



Remote control unit

## Options

Lenses
NP40ZL NP41ZL
NP43ZL NP44ML

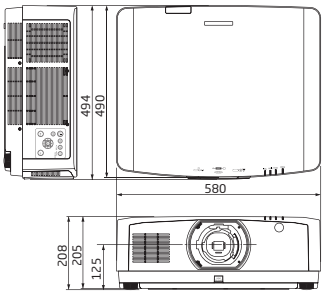
Lens support kit
NP01LK

MultiPresenter Stick
DS1-MP10RX*

* Make sure to choose the appropriate MultPresenter Stick for the usage country or area by visiting our website. (https://www.nec-display.com/ap/en_display/mp10rx/index.html)

## Cabinet dimensions

Unit: mm



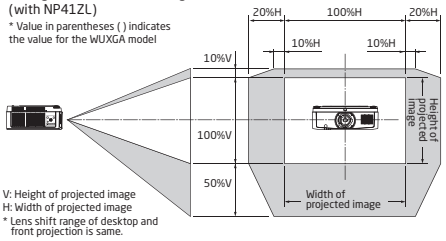

## Optional Lens Specifications

| Model | NP44ML* | NP40ZL | NP41ZL | NP43ZL |
|---|---|---|---|---|
| Lens Type | Fixed Ultra Short Throw Lens | Zoom Lens | Zoom Lens | Zoom Lens |
| Zoom / Focus | Motorized (Focus) | Motorised | Motorised | Motorised |
| F# (Wide - Tele) | 2.0 | 2.0 - 2.5 | 1.7 - 2.0 | 2.2 - 2.6 |
| f (mm) | 6.27 | 13.3 - 18.6 | 21.8 - 49.7 | 49.7 - 99.8 |
| Throw ratio (WUXGA @ 100 inch) | 0.32:1 | 0.79 - 1.11:1 | 1.30 - 3.02:1 | 2.99 - 5.93:1 |
| Zoom Ratio | – | 1.4 | 2.3 | 2.0 |
| Screen Size (Performance guarantee range) | 100 - 400 inch (100 - 350 inch) | 50 - 500 inch (80 - 200 inch) | 50 - 500 inch (80 - 200 inch) | 50 - 500 inch (80 - 200 inch) |
| Light Output NP-PA803UL | 6,240 lumens | 6,800 lumens | 8,000 lumens | 6,400 lumens |
| Light Output NP-PA703UL | 5,460 lumens | 5,950 lumens | 7,000 lumens | 5,600 lumens |
| Weight | 3.1 kg | 1.63 kg | 1.69 kg | 1.77 kg |

* After installing the lens unit NP44ML on the projector, be sure to secure it to the projector using the support kit (NP01LK) sold separately.
* The lens unit NP44ML does not support LENS CALIBRATION, LENS SHIFT and LENS MEMORY.

### Lens shift range

Ceiling mount / Front shooting (with NP41ZL)
* Value in parentheses ( ) indicates the value for the WUXGA model




V: Height of projected image
H: Width of projected image
* Lens shift range of desktop and front projection is same.

## Throwing distance and Screen size

NP-PA803UL / NP-PA703UL (WUXGA) Unit: m

| Screen Size (W × H) | Lens unit model name | | | |
|---|---|---|---|---|
| | NP44ML | NP40ZL | NP41ZL | NP43ZL |
| 50" (1.08 × 0.67) | – | 0.8 to 1.2 | 1.4 to 3.2 | 3.3 to 6.4 |
| 60" (1.29 × 0.81) | – | 1.0 to 1.4 | 1.7 to 3.9 | 3.9 to 7.7 |
| 80" (1.72 × 1.08) | – | 1.4 to 1.9 | 2.2 to 5.2 | 5.2 to 10.2 |
| 100" (2.15 × 1.35) | 0.70 | 1.7 to 2.4 | 2.8 to 6.5 | 6.4 to 12.8 |
| 120" (2.59 × 1.62) | 0.84 | 2.0 to 2.9 | 3.4 to 7.8 | 7.7 to 15.3 |
| 150" (3.23 × 2.02) | 1.06 | 2.6 to 3.6 | 4.2 to 9.8 | 9.6 to 19.1 |
| 200" (4.31 × 2.69) | 1.43 | 3.4 to 4.8 | 5.7 to 13.0 | 12.8 to 25.4 |
| 240" (5.17 × 3.23) | 1.72 | 4.1 to 5.8 | 6.8 to 15.6 | 15.3 to 30.5 |
| 300" (6.46 × 4.04) | 2.16 | 5.2 to 7.3 | 8.5 to 19.6 | 19.1 to 38.1 |
| 400" (8.62 × 5.39) | 2.89 | 6.9 to 9.7 | 11.4 to 26.1 | 25.4 to 50.8 |
| 500" (10.77 × 6.73) | – | 8.6 to 12.1 | 14.2 to 32.6 | 31.7 to 63.4 |

* Stated projection distances are standard values from lens or mirror surface to screen centre.
* For a stack installation, the recommended projection distances will be different.
* The values in the table are design values and may vary.
* After installing the lens unit NP44ML on the projector, be sure to secure it to the projector using the support kit (NP01LK) sold separately.

- Do not stare into the lens while in use.
- The projector can be unplugged immediately after it is turned off. Parts of the projector become heated during operation. Use caution when picking up the projector immediately after it has been operating.



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https://www.nec-display.com/ap/

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