

# NP Portable Series

## NP310, NP410, NP410W, NP510 and NP510W digital projectors

Easy to use and at the right price, NP Portable Series projectors provide all the essential features that you need to connect with your audience.

### ESSENTIAL FEATURES FOR EASE OF USE

- **Plug and Play** intuitive setup and operation
- **Top cover lamp change** provides for easy lamp changes without removal of the projector from the mount
- **Bright images** easily viewed in any application
- **Versatile, color-coded connections** to computer, video sources and external monitor
- **Automatic keystone correction technology** instantly projects a square image even when the projector is set up at a steep offset angle to the screen
- **Autosense™** intuitively syncs the projector with most computer signals and features one-touch image optimization
- **One-touch source changes and complete menu control** using the intuitive projector keypad
- **Integrated RJ45 connection** for quick connection to the LAN (10/100 base-T capability)
- **Remote diagnostics** enable the user to monitor and make adjustments to the projector remotely



### VERSATILE FEATURES AND POWERFUL PERFORMANCE

- **Remarkable contrast ratio (2000:1)** enhances your image (NP310 & NP410)
- With **XGA and WXGA native resolutions**, high brightness up to 3000 lumens and patented NEC technologies, NP Portable Series projectors display impressive image quality
- **Dual computer inputs, including DVI-I**, ensure quick switching between presentations
- **Powerful 7-watt speaker** provides volume needed for large rooms
- **Virtual Remote (DDC/CI)** over the VGA cable to control the projector directly from a computer without the need for additional control cables
- **Variable audio-out** enables 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.
- **Built-in wall color correction presets** provide for adaptive color tone correction to display properly on non-white surfaces
- **Easy control from remote** allows you to adjust lamp mode, aspect ratio, volume and image all with the touch of a button

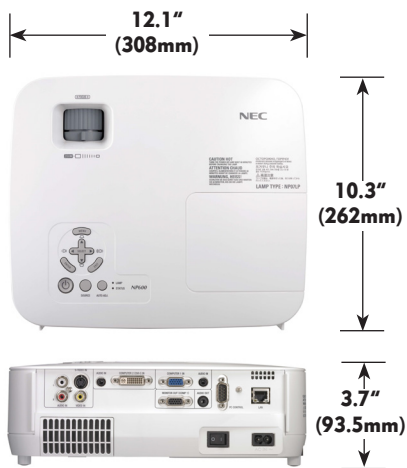
### Series Features and Benefits

CLOSED CAPTIONING  
 LONG LAMP LIFE (UP TO 5000 HOURS)  
 EASY TO USE  
 VIRTUAL REMOTE  
 MONITOR OUTPUT  
 AUTOMATIC KEYSTONE CORRECTION  
 7-WATT SPEAKER  
 DVI-I INPUT  
 VARIABLE AUDIO OUT  
 LONG FILTER LIFE

### DESIGNED WITH THE ENVIRONMENT IN MIND

- **Extended lamp life with ECO Mode™ technology** increases lamp life up to 5000 hours, while lowering power consumption
- **Power management** enables projector to automatically turn off when an incoming signal is not detected from any of the inputs
- **Auto Power On** via the RGB (15-pin) input connector when a signal is detected from a computer
- **Carbon savings meter** calculates the positive effects of operating the projector in ECO Mode, which is encouraged by an optional message at startup. A green ECO Mode button on the remote control makes the switch easy.
- **Quick start (3 to 4 seconds)** lets you begin presenting in seconds while quick shutdown (immediate power off with no cooling required after shutdown) ensures efficient energy usage
- **Sleep timer** can be set to automatically turn off the projector at set countdown times
- **Filter life** increased by three times compared to previous generation models
- **Low power consumption (0.6W in stand-by mode)** minimizes energy costs





## UNIQUE FEATURES

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

**64-step image magnification** with location control

**Countdown sleep timer** can be set to automatically turn off the projector

**Built-in HTTP page** for control and monitoring over a LAN network

**Built-in closed captioning** enables decoding and display of text information from a video

**Nearly silent operation** with noise level as low as 29dB in ECO Mode

**Password protection** restricts unauthorized use of projector

**Cabinet control lock setting** enables user to deactivate buttons on cabinet to prevent unwanted changes to projector settings

**Email notification** informs the system administrator when the lamp approaches the end of its useful life

## WARRANTY

Registered owners receive a 2-year parts and labor warranty including the first year of InstaCare. The lamp is covered for one year or 500 hours - whichever comes first. InstaCare provides the original owner one year of either limited 3-business-day repair/return or next-business-day exchange.

## IN THE BOX

Carrying case, remote control, batteries, power cord, RGB signal cable, lens cap, user's manual on CD-ROM, quick start guide, product registration card, DVI-I - VGA adapter



## Specifications for NP310, NP410, NP410W, NP510 & NP510W

<b>OPTICAL</b>	
Display Technology	NP310/NP410: 0.63" LCD NP510: 0.63" LCD with MLA NP410W/NP510W: 0.59" LCD with MLA
Native Resolution	NP310/NP410/NP510: XGA 1024 x 768 NP410W/NP510W: WXGA 1280 x 800
Maximum Light Output (lumens)	UXGA 1600 x 1200 NP310: 2200 normal / Eco = approx. 80% of normal mode NP410: 2600 normal / Eco = approx. 80% of normal mode NP410W: 2600 normal / Eco = approx. 70% of normal mode NP510: 3000 normal / Eco = approx. 80% of normal mode NP510W: 3000 normal / Eco = approx. 70% of normal mode
Contrast Ratio	NP310/NP410: 2000:1 NP410W: 450:1 NP510/NP510W: 500:1
Lamp Type	NP310/NP410/NP510: 180W AC / 168W eco NP410W/NP510W: 230W AC / 168W eco
Lamp Life (up to)	4000 hours normal / 5000 hours eco
Screen Size (diagonal)	21 - 300 in., 0.53-7.6m
Throw Ratio	1.5 - 1.8
Projection Distance	NP310/NP410/NP510: 2.3 - 37.1 ft. / 0.7 - 11.3m NP410W/NP510W: 2.6 - 39 ft. / 0.8 - 11.9m
Projection Angle	NP310/NP410/NP510: 7.9 - 8.3° tele / 9.5 - 10.0° wide NP410W/NP510W: 7.6 - 7.9° tele / 9.1 - 9.5° wide
Lens	1.0 to 1.2
Zoom	Manual
Focus	F = 1.7 - 2.07, f = 18.9 - 22.7mm
F-#, f-#	Automatic or manual +/- 30°
Keystone Correction	
<b>SIGNAL COMPATIBILITY/CONNECTIVITY</b>	
Scan Rate	Horizontal 15 - 100 kHz / Vertical 50 - 120 Hz
Supported Video Standards	NTSC, NTSC4.43, PAL, PAL-60, PAL-M, PAL-N, SECAM
SD/HD Video Signal Compatibility	1080i, 720p, 576p, 576i, 480p, 480i, Y/Cb/Cr component (with optional adapter - ADP-CV1E)
PC Signal Compatibility	VGA, SVGA, XGA, SXGA, SXGA+, UXGA
Macintosh Compatibility	Yes
Input/Output Terminals	
RGB 1 (analog)	15 pin
RGB2	DVI-I w/ HDCP
Video 1	RCA
Video 2	S-Video
Audio 1	L/R RCA (shared by video sources)
Audio 2	1/8 in. stereo
Audio 3	1/8 in. stereo
Audio Out	mini stereo (Variable audio out)
Monitor Out	Yes
Audio	7W speaker
External Control	RS-232, IR, LAN, DDC/CI
Sync Compatibility	Separate Sync / Composite Sync / Sync on G
<b>ELECTRICAL</b>	
Power Req.	100 - 240V AC, 50/60Hz
Input Current	NP310/NP410/NP510: 3.2A/1.4A NP410W/NP510W: 3.8A/1.5A
Power Consumption (Normal Mode/ECO Mode/Standby (Power Saving))	NP310/NP410/NP510: 251W / 203W / 0.6W NP410W/NP510W: 312W / 237W / 0.6W
<b>MECHANICAL</b>	
Installation Orientation	Floor/Front, Floor/Rear, Ceiling/Front, Ceiling/Rear
Dimensions (WxDxH)	12.1 x 10.3 x 3.7 in. / 308 x 262 x 93.5mm
Net Weight	6.6 lbs. / 3 kg
Fan Noise	35 dB normal / 29 dB eco
Regulations	UL60950-1, CSA60950-1, FCC Part 15 Class B, ICES-03 Class B, NOM-001-SCFI-1993
<b>ENVIRONMENTAL</b>	
Operational Temp	41° - 95°F / 5° - 40°C
Humidity	20-80% non-condensing
Storage	14° - 122°F / -10° - 50°C
<b>ACCESSORIES</b>	
NP01MR	IR receiver enables PJ remote to control PC and MAC functions
WPA001	802.11b/g wireless adapter
SPKR30	Amplified 30 watt speaker
ADP-CV1E	Component video to VGA adapter
LEATHERROLLER	Leather case with compartments for laptop and projector
NP600CM	Ceiling mount
NP01UCM	Universal ceiling mount for projectors weighing less than 40 pounds
ADJ006009	6 to 9 inch adjustable extension column for use with projector mount
ADJ0012018	12 to 18 inch adjustable extension column for use with projector mount
ADJ0203	2 to 3 foot adjustable extension column for use with projector mount
ADJ0305	3 to 5 foot adjustable extension column for use with projector mount
SCP100	Adjustable suspended ceiling plate for use with ceiling mount
NP14LP	Replacement lamp for NP310, NP410 and NP510
NP07LP	Replacement lamp for NP410W and NP510W
RMT-PJ29	Replacement remote control
<b>WARRANTY PROGRAMS</b>	
NECEW1-MP	Extends term of parts and labor warranty to 3 years
NECEW2-MP	Extends term of parts and labor warranty to 4 years
ADVEXON1-MP	Extends term of InstaCare service program to 2 years
ADVEXON2-MP	Extends term of InstaCare service program to 3 years
NECECO	Projector recycling program, disposal certificate

Additional accessories are available, including screens, carts, mount accessories and replacement cables. Visit [www.necdisplay.com](http://www.necdisplay.com) for details.

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