EVGA SUPERNOVA

NEX1500

1500W Power Supply User Guide

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Introduction: Premium Power

Thank you for purchasing an EVGA NEX-1500 power supply. The NEX-1500 is a premium quality power supply intended to meet the needs of the most demanding enthusiast systems. Designed with enthusiast needs in mind the NEX series is the best choice to power next generation systems.

This manual will cover important information regarding the specifications, installation, features, and operations of your EVGA NEX-1500 power supply.

Safety Information

WARNING: This unit has no user-serviceable parts inside. Opening the casing presents a risk of electrocution and will void the warranty. EVGA will not be responsible for any result of improper use, use for which the product was not intended, or use inconsistent with the warranty terms (available for review at *www.evga.com/support/warranty*) and this manual (also available at *www.evga.com/support/manuals*).

WARNING: Do not operate this power supply with any power cord but the one provided. If your cord is lost or damaged, please contact EVGA for a replacement.

WARNING: Do not operate this power supply with an extension cord or power strip. Plug directly into the wall socket or an Uninterruptable Power Supply rated for 2800VA or greater.

Features

EVGA SUPERNOVA

The NEX-1500 is compatible with the unique and exclusive EVGA SuperNOVA software that lets you monitor and control your power supply from your desktop. Monitor and adjust voltage, change fan speed, and even switch between single and multiple rails!

TOP TIER PERFORMANCE

The NEX-1500 has class-defining performance with **ultra stable voltage** and extremely **clean outputs**. This can help you achieve the highest possible overclock, or just the most stability and reliability. The NEX-1500 also has high efficiency **up to 90%** at 50 degrees Celsius and is **80PLUS Gold** certified.

THE BEST PROTECTION

The NEX-1500 comes equipped with the most comprehensive protection set possible, including Over Voltage Protection (**OVP**), Under Voltage Protection (**UVP**), Over Power Protection (**OPP**), Short Circuit Protection (**SCP**), Over Temperature Protection (**OTP**), and Over Current Protection (**OCP**). This product is also covered by our industry-leading **five year warranty**.

BEST BUILD QUALITY

The NEX-1500 is built to the highest standards, using **Japanese capacitors** rated at 105 degrees Celsius and high quality brand-name semiconductor components for the highest performance and reliability.

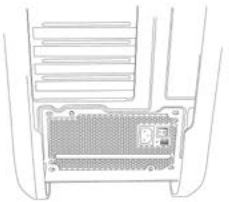
FULLY MODULAR CABLES

The NEX-1500 is designed with the enthusiast in mind with fully modular.

Installation

1. Remove the power supply from its packaging.

2. Use the provided screws to install the power supply into your computer case. **NOTE:** It is recommended to install the power supply with the fan facing down. However, if your case places the power supply at the bottom of the case and there are no ventilation holes there, it may be best to install the power supply with the fan facing up for greater efficiency and reliability.



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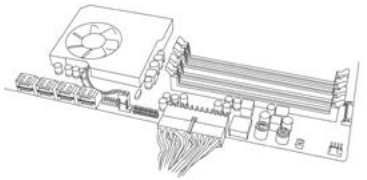
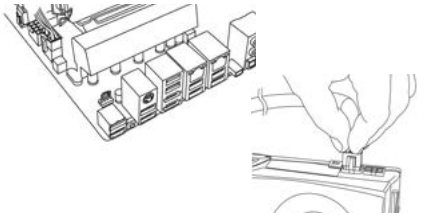
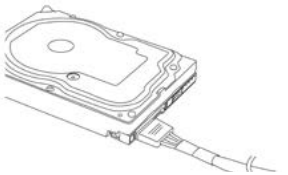
3. Connect the 24-pin ATX cable to the power supply and the motherboard.



4. Connect the 8-pin EPS12V cable(s) to the power supply and the motherboard. Connect the 6/8-pin PCIe cables to the power supply and your graphics card(s). **NOTE:** Do not attempt to plug an 8-pin PCIe cable into a 6-pin connector without first detaching the two extra pins.

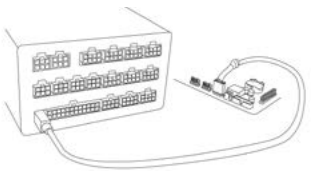


5. Connect the SATA cables to your power supply and drives (hard drives, solid state drives, optical drives).



6. Connect the peripheral “molex” connectors to the power supply and your fans and other devices.

7. Connect the provided EVGA USB cable to your power supply and your motherboard’s USB header.



8. Connect the AC power cord to your power supply and to the wall, and turn the power switch to the ON position.

Advanced Features

VOLTAGE AND CURRENT MONITORING

EVGA SuperNova software allows you to monitor your power supply's performance in real time, so you can gauge your system's power usage and your power supply's health. SuperNOVA allows you to monitor up to six performance characteristics at once, including the voltage of all rails, output current, input current and voltage, fan speed, power consumption, efficiency, and more! Finally, you can adjust the output of your +12V rail from 11.8V to 12.6V or anywhere in-between for maximum overclocking performance. SuperNova can be downloaded at EVGA.com

OVERCLOCK YOUR POWER SUPPLY

At EVGA, we know that squeezing the best performance out of your system sometimes means taking risks. Therefore we offer the ability to raise the trip point of this unit's Over Power Protection, to allow the unit to be overloaded to a degree. In effect, your 1500W power supply becomes a 1650W power supply, allowing you to push your system to its limits. You can enable this feature through our SuperNOVA software, or by manual switch located on the power supply next to the on/off switch – DIP switch #2.

Note: EVGA "OC Mode" will only work with 230VAC input. If user activates OC Mode on 115VAC input the OC Mode will be disabled and the Over Current and Over Power protections will remain set at 1500W.

SINGLE / MULTIPLE RAIL TOGGLE

The NEX-1500 comes with Over Current Protection on the +12V rail enabled by default, dividing it into **eight 20A (240W) +12V rails**. This protects your system and the power supply from **overloading** and certain types of **short circuit**. This protection should normally be invisible to overclockers and has **no effect on power supply performance or efficiency**. However, under extreme conditions it may be possible to trip the multi-rail +12V OCP on accident, causing the power supply to shut down. In these situations we allow you to disable multi-rail +12V OCP, turning it into a **single rail** power supply. This can be done through our SuperNOVA software, or by manual switch located on the power supply next to the on/off switch – DIP switch #3.

MANUAL FAN CONTROL

The NEX-1500 has a PWM controlled fan that balances cooling performance and efficiency versus noise and fan wear. However, fan control is fully adjustable via our SuperNOVA software. (**NOTE:** If a low fan speed is insufficient to keep the power supply cool, user input may be overridden to prevent unit Over Temperature shutdown). If noise levels and fan wear are not a concern for you, you can manually set the fan speed to 100% via a manual switch located on the power supply next to the on/off switch – DIP switch #4.

Cable Configuration

Modular Connector	Cables (distance to first connector)	Cable Color	+12V Rail
MB	1x ATX 24/20 pin (750mm)	Black	+12V1
CPU0	1x EPS12V 8 pin + PCIe 6 pin (750mm) 1x EPS12V 8 pin + PCIe 6 pin x2 (750mm)	Black	+12V2 / +12V3
CPU1			+12V5 / +12V6
VGA0	4x PCIe 6+2 pin x2 (750mm) 4x PCIe 6+2 pin x2 (600mm)	Red	+12V1
VGA1			+12V4
VGA2			+12V3
VGA3			+12V8
VGA4			+12V4
VGA5			+12V5
VGA6			+12V6
VGA7			+12V7
SATA0	2x SATA 5 pin x3 (650mm) 1x SATA 5 pin x3 (550mm) 1x SATA 5 pin x3 (450mm)	Black	+12V8
SATA1			
SATA2			
SATA3			
PERP0	2x Molex 4 pin x4 (550mm)	Black	+12V7
PERP1			
USB	1x USB (850mm)	Black	N/A
N/A	1x Molex -> FPP 4 pin x2 adapter (150mm)	Black	N/A

Specifications

Label

EVGA	ATX Power supply			+50°C ambient @ full load								
	120-PG-1500			+40°C ambient @ 110% load								
AC Input	100-240 VAC			18-10A, 47-63 Hz, IEC 60320 C-20 input connector								
DC Output	+5V	+3.3V	+12V1	+12V2	+12V3	+12V4	+12V5	+12V6	+12V7	+12V8	-12V	+5Vsb
MAX output, A	25	25	20	20	20	20	20	20	20	20	0.8	4
Combined, W	150		1485 / 1600								9.6	20
OCP Sum			131 A in normal mode, 145 A in OC mode									
Output power, Pcont	1500W @ +50°C Normal / 1650W @ OC											

Dimensions: 85 x 150 x 200 mm

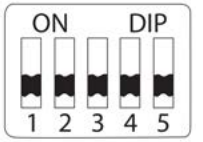
Over Voltage Protection, Under Voltage Protection, Short Circuit Protection, Over Temperature Protection, Over Power Protection.

Rail	OCP trip point	OVP Range	UVP Range
+12V (1-8)	25A	+13.3V -- +14.5V	+9.5V -- +10.5V
+12V (single)	131A		
+5V	27.5A	+5.7V -- +6.5V	+4.0V -- +4.3V
+3.3V	27.5A	+3.9V -- +4.5V	+2.8V -- +3.0V
+5VSB	4.2A	+5.7V -- +6.5V	+4.0V -- +4.5V

Note: Over Current Protection has a ten second delay before shutting down the PSU. This allows the PSU to support greater peak loads.

DIP Switches

Switch Position	Function ON	Function OFF
1	Turn PSU on w/o motherboard	N/A
2	Enable OC mode (1650W)	Disable OC mode
3	Enable +12V Single Rail operation	Enable +12V Multi Rail operation
4	Force Fan 100%	Enable fan PWM control
5	Enable User DIP Switches	Disable User DIP Switches



DIP Switch #5 must be turned on for other Dip Switches to operate. While DIP Switch #5 is on, the DIP switch settings will take priority over firmware or software settings. While DIP Switch #5 is turned off, the PSU will default to the settings present in the PSU firmware or in the SuperNova software.

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