

SUPERNOVA LED TREAFFIC SIGNAL RETROFIT KIT SPECIFICATIONS

SUPERNOVA ELECTRONICS has introduced LED Based Road Traffic Signals Lamp Head with viable optical intensity and minimum power consumption. The **AllnGap or InGaN** technology of LED emits bright and homogeneous light and is lifelong (i.e. minimum life expectancy 11 years.) compare to the conventional bulb. These lamps are benefited over the conventional incandescent bulb signal lamps.

Few Vital Improvements.

- **No Maintenance Cost**
- **Low Power Consumption**
- **Optimal Visibility**
- **Evenly Distributed Luminosity**
- **High Light Intensity**
- **Compatible With All Standard Signal Heads**
- **Optimal Phantom Light Reduction**
- **Available With All Commonly Used Symbols (For Pedestrian & Vehicular)**

LED VS LIGHT BULBS

Light bulbs produce light over a wide spectrum with only a small fraction, being visible light, the remainder is heat. This inefficiency is eliminated with LED. LEDs produce monochrome radiant in the visible spectrum, thus saving energy, which would normally be used as heat.

BENEFITS

Major problem in cities is electricity, & it's consumption. Incandescent lamps have comparatively low life and need maintenance. In some of the region power cuts are very frequent, which leads to traffic jam as UPS (uninterrupted power supplies) System / Solar based System are uneconomical for incandescent Lamp Based Traffic Signals due to heavy electric consumption. Where as, in LED Based Traffic Signals, it is possible and very easy. Just by replacing bulbs from signal heads in the crossing with **Supernova** LED kits. Now the total consumption of crossing including **Supernova** traffic controller is less than 0.2 KVA. From 2.0 KVA, thus Solar system's can be installed, leading to continuous running of traffic signals in case of no electricity.

LED SIGNAL HEAD FEATURES

FEATURE	ADVANTAGE	BENEFIT
Energy Efficient LED in a superior Optical enhanced design	90% Less consumption of Electricity	Reduce Government Liability Saving Precious Electricity.
Can be operated with Solar/UPS	Signal is operating even during power failure	Reducing Traffic Jams & Accidents.
Maintenance free up to 1,00,000 hours long life	Zero down time/no replacement of bulbs	Saving Cost of Bulbs & maintenance charges.
Easy to Install and no preventive maintenance.	Semi/Un skilled manpower required for Installation.	Reduce Installation & Preventive maintenance Overheads
3 Years warranty	Cost effective operation and satisfaction	Customer protection and reliability

LED Illuminated Traffic Signal Lights

SPECIFICATIONS

1. HOUSING	Fabricated from plastic die molded Conforming to international standard as applicable for 200 / 300 mm dia signals respectively, with Lens. Sealed unit.
2. OPTICAL SYSTEM	LED illuminated optical plate comprising of 5-mm dia ultra bright LED's, spaced at a pitch of 15 mm in an organized matrix. Green / Amber / Red color (also available with pedestrian signs walk don't walk, arrow - ball type).
3. Number of LED's	210mm BALLTYPE = 116, ARROW TYPE = 60 300 mm BALL TYPE = 316 ARROW TYPE = 136
4. POWER REQUIREMENT	24/48 VOLTS D.C. or 110/220 VOLTS A.C.

Green colour wavelength is different as per requirements, can be supplied on customer choice.

LED ELECTRICAL Characteristic at viewing angle 23 degree.

Sr.No.	Colour Of LED	Wavelength <i>lp (nm)</i>	IF=20mA		
			Vf(V)		Iv(mcd)
1	Red	620~635	1.7	2.2	1650~6300
2	Amber	584~600	2.1	2.4	1650~6300
3	Green	520~555	3.5	4.0	1650~6300
4	Bluish Green	500~510	3.6	4.0	2170~8300

CIRCUIT DESCRIPTION:

LED's are soldered in Glass Epoxy PCB. The LED's are operated in a multi channel series/parallel matrix and are multiplexed pulse operated at high frequency, high intensity and low duty cycle to obtain maximum visible brightness at minimum POWER consumption. The electronic circuit is built in the unit itself. With tinted lens for protection in a Sealed beam type plastic housing

How does it work?

The **Supernova** LED KIT convinces with its bright and homogenous light distribution. The LED's are evenly Arranged and grouped in parallel chains on the LED board. In front of each led plate there is lens that protects it from outside dust. The light passes through the tinted or plain lens (as per customer choice) front lens, which is precisely harmonized with the LED Wavelength. This system creates a very homogeneous lit aspect surface, and by using filter (optional) the individual LED's are no longer Perceived as dots O/P intensity is reduced by a fraction. Also comes with auto dimmer that further reduces the power "consumption in night time (optional).

Supernova LED TRAFFIC SIGNALS



□ Overview

1) Features.

- LED TRAFFIC SIGNALS USE 80~90 PERCENT LESS ELECTRICITY than traditional incandescent traffic signals.
- LED TRAFFIC SIGNALS LAST 5~10 TIMES LONGER. This longer life translates into substantial maintenance savings.
- LED TRAFFIC SIGNALS INCREASE VISIBILITY due to High Light Intensity Technology. (applying AlInGaP or InGaN LEDs.)

Description	Incandescent Signals	LED Signals
Power Consumption	100W	5~10W
Sun Phantom	Need color light filter cover, easily produce sun phantom	High, brightness, pure color light, apparent brightness contrast, no sun phantom
Operating Life	4,000 hours	70,000 ~ 100,000 hours
Cost of Maintenance	High	Low(95% cost reductive)
Environmental	Increase of CO2, the pollutant as well	Environment-friendly

2) Specifications

Description	EELED-12 : 12"(300mm)				EELED-8 : 8"(210mm)				EELED-12:12"(300mm) Pedestrian	
	Red	Yellow	Green(Arrow)	Green	Red	Yellow	Green(Arrow)	Green	Red	Green
Size of Lens	12"(300mm)				8"(210mm)				12"(300mm)	
Luminance Intensity(cd)	600	600	8000/m ²	600	300	300	3000/m ²	300	1000/m ²	1000/m ²
Voltage range	120V(80~135V) / 220V(180~250V)									
Frequency range	50~60Hz									
Power Factor	>0.9									
Power consumption	8W	8W	8W	13W	6W	6W	6W	8W	4W	6W
Operating temperature	-10 ~ 65 C									
Dimming function	YES									

- WE WELCOME CUSTOMERS DESIGN & SPECIFICATIONS.