

## Warnings:

Failure to observe the following warnings may result in serious injury or death. Warranties will be voided if warnings are not heeded.

Care and maintenance of your ballast is simple. Wipe the unit down with a clean, dry cloth periodically and keep the high temp, sealed bearing fans free from debris.

- 1) Use only HPS or MH bulbs. Do not use lamps referred to as 'retro' or 'conversion' lamps. Make sure the bulb matches the wattage of the highest output of the ballast.
- 2) Never unplug the power plug or detach lamp cord from socket without turning off the power supply first.
- 3) Make sure the power supply and lamp cable are connected properly.
- 4) Do not hang the ballast by the power or lamp cord.
- 5) Mount each unit at least 150mm (6 inches) apart.
- 6) Do not attempt to open or modify the NanoLux Flip ballast. High power electrical devices can cause severe injury or death.
- 7) Ensure the unit does not come into contact with water. Do not place the ballast in an area where there is a risk of the ballast being submersed, splashed, hosed or sprayed.
- 8) When re-installing lamp, make sure the lamp has time to cool before touching.
- 9) Keep out of reach of children.

## Warranty:

NANOLUX warrants this ballast to be free from defects in material and workmanship for two years. Ballast faults caused by misuse, after abuse or failure to follow instructions are not covered under this warranty. For warranty service, please return the ballast with the original sale receipt and packaging to your place of purchase.

Patent Pending  
**POWERED BY SZNUMBER**

[www.nanoluxballast.com](http://www.nanoluxballast.com)  
[www.nanoluxtech.com](http://www.nanoluxtech.com)



# NANOLUX

You will never need to buy a flip box again for your garden!  
The FIRST electronic ballast on the market with a built in flip relay!

## Flip E-Ballast





You will never need to buy a flip box again for your garden! The Nanolux Flip Ballast is the FIRST electronic ballast on the market with a built-in flip relay. The new Nanolux Flip ballast has put together the best of both worlds by giving you the availability to flip a ballast without having to buy additional hardware and saving you money! When using the ballast in its standard setting, e.g., not set up in a flip application, simply connect the power cable directly to an inline timer or other garden control device.

- Operates two separate lamps on one power supply with built-in "Flip Ballast" technology.
- Can be used as a single/dual lamp ballast or be daisy chained together in sequence with unlimited amount of Nanolux Flip Ballasts (cord included).
- No more dangerous sparking when flipping to different lamps.
- Our High frequency scan technology system increases lamp life and reduces circuit overload and power spikes.
- All in one unit eliminates the need for separate equipment. Less equipment equals less chance of failure.
- LED Diagnostic system helps you immediately determine the status of your ballast or alert you should any problem arise.
- Our patented 9 sided extruded aluminum case dissipates heat better than any unit currently on the market.
- Push button dimming feature is now gradual, not instant, eliminating bulb flicker and increasing the life of a lamp arc tube.

### Specifications:

- 1) Input voltage: 100-265VAC(120V/240V), 8.6 Amp@120V, 4.3 Amp@240V
- 2) Power Factor:  $\geq 0.99$
- 3) Crest Factor:  $< 1.7$
- 4) Total Harmonic Distortion (THD):  $< 10\%$
- 5) Operating Temperature:  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) -  $55^{\circ}\text{C}$  ( $131^{\circ}\text{F}$ )
- 6) Output Frequency:  $\geq 30\text{KHz}$
- 7) Strikes both HPS and MH lamps
- 8) Strikes bulbs up to 65ft
- 9) Ballast size: 402mm $\times$ 131.8mm $\times$ 87.5mm (15.83" $\times$ 5.19" $\times$ 3.44")
- 10) Ballast weight: 2.9kgs (6.39 lbs)

### Operating Instructions:

Install your new NanoLux Flip Ballast™ away from any potential heat or moisture source. Although these units are made to withstand extreme gardening conditions, keeping the unit as cool and dry as possible will extend its life and not promote early failure. With the power off, connect your ballasts together with the UL listed connection cords to 'Daisy Chain' the Nanolux Flip ballasts together.

- 1) Connect each of the 2 (two) lamp cords to the ballast from which you want to flip.
- 2) Connect the first Nanolux Flip ballast in series to your lighting control device or timer.
- 3) Confirm all connections are properly secure.
- 4) Set your lighting control device or timer to the required setting.
- 5) Power the system on, and the default setting to the output to lamp one will turn on first.
- 6) If you have any questions or concerns about installing your new ballast, please contact the place of purchase or a certified electrician.



Connection Diagram

- 7) An unlimited number of Nanolux Flip Ballast can be connected together.
- 8) Dimming  
In addition to the flip feature we have included the popular Dimming function, which allows you to operate your ballast at 100%, 75%, and 50% power. We have also included a soft start solution which gives each ballast a 0-15 seconds window upon which it will ignite the bulb. This allows for a lower initial power draw when using multiple ballasts for larger gardens.
- 9) LED Diagnostic System  
The NanoLux Flip Ballast™ has been integrated with an LED Status Indicator. Use of the LED Status Indicator allows a user to diagnose any problems that may arise with operation of the unit and allows quick and easy diagnosis to get your lighting operating again as quickly as possible or to avoid any potential issues due to equipment failure.

Green: operating normally.

Blink in 1 second: under (80Vac) and over(290Vac) input voltage protection.

Blink in 2 seconds: open and short circuit protection, 50 seconds to restart, will power off after restart 20 times.

Blink in 3 seconds: protection when ambient temperature is over  $65^{\circ}\text{C}$  ( $149^{\circ}\text{F}$ ), restart when the temperature is under  $55^{\circ}\text{C}$  ( $131^{\circ}\text{F}$ ).

