

CAUTION

Failure to observe the following warnings may result in serious injury. Warranties will be void if the following 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' or double ended 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 and grounded.
- 4) Do not hang the ballast by the power or lamp cord.
- 5) Mount each unit at least 150mm (6inches) apart.
- 6) Do not attempt to open or modify the Nanolux Ballast, high power electrical devices can cause severe injury or death.
- 7) Ensure the ballast 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 Technology Inc warrants the mechanical and electronic components of this product to be free of defects in material and workmanship if used under normal operating conditions for a period of two (2) years from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use Nanolux Technology Inc shall, at its discretion, either replace or repair the product using suitable new or refurbished parts. In case Nanolux Technology Inc decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. two (2) years from the date of purchase of the original product. For service return the ballast to your shop with the **original sales receipt**.

For more information about Nanolux products please visit nanoluxtech.com

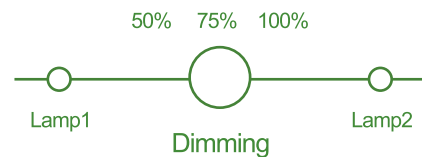


PATENTED PRODUCTS, COUNTERFEITING NOT ALLOWED.

Designed by NANOLUX in California
Made in China

OPERATING MANUAL

DIGITAL ELECTRONIC BALLAST FLIP SERIES



ADJUSTABLE
POWER+
SOFT DIM

NANOLUX
www.nanoluxtech.com
Illuminating Your Grow

PLEASE READ THESE INSTRUCTIONS FIRST BEFORE INSTALLATION

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.

PRODUCT DESCRIPTION

- 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 lamps arc tube.

SPECIFICATIONS

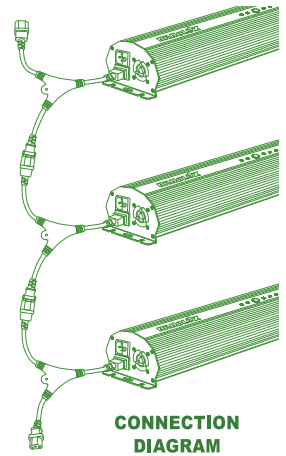
	IUF1000W	IEF600W
Input Voltage	120VAC/208VAC/240VAC/277VAC	220VAC/240VAC
Output Voltage	200V-300V	90V-130V
Input Frequency	50-60Hz	50-60Hz
Output Power	1000W Max	600W Max
Power Factor	≥0.99	≥0.99
Crest Factor	< 1.7	< 1.7
THD	≤10%	≤10%
Dimming	50%-75%-100%	
Strike Lamp	HPS/MH	
Protection Function	Over Temperature Protection ; Over/Under Voltage Protection ; Open/Short Circuit Protection ;	
Ballast Size (L*W*H)	402 x 131.8 x 8 7.6mm 15.8 x 5.2 x 3.4 inch	289 x 131.8 x 87.6mm 11.4 x 5.2 x 3.4 inch
Ballast Weight	2.9kgs 6.4lbs	1.96kgs 4.32lbs

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 units as dry as possible will extend its life. 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 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.
- 7) An unlimited number of Nanolux Flip Ballast can be connected together.



DIMMING & LED DIAGNOSTIC SYSTEM

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. Nanolux Flip ballasts are also equipped with soft start solution which gives each ballast a 0-15 second window which it will ignite the lamp. This allows for a lower initial power draw when using multiple ballasts for larger gardens.

LED DIAGNOSTIC SYSTEM

The NanoLux Flip Ballast has been intergraded with a 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 (IEF600W/145Vac - IUF1000W/90Vac) and over voltage (310Vac) 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°C(149°F) restart when the temperature is under 55°C(131°F)

