DEva Integrated Lighting System
1000W 120/240v

Owner's Manual

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Congratulations on your new DEva Integrated Lighting System! The DEva combines a unique low-frequency square wave ballast with a computer-designed DE reflector for one amazing, computer-controlled grow light system. We hope you dig it the most.

This manual will tell you to to hang, connect and operate your new DEva.

The Box Contains

- DEva Integrated Lighting System
- Power Cord
- RJ-14 Data Cable
- RJ-14 Dual Splitter

Installing Your DEva

The DEva comes fully assembled, lamp installed and ready to go.

Before lighting up, make sure to:

1. Remove all packing material and tape
2. Double check the lamp is installed correctly and the lamp connectors CLICK down solid
3. Use clean gloves when handling the DE lamp

Hang the DEva from the four eyebolts installed on the top of the light, and make sure to use a cable tie or similar to fix the power cord to one of the hanging chains so that the DEva isn't hanging from the power cord. Make sure to add a “drip loop” in the power cord to keep condensation out, too.

A good install, with drip loop, should look something like this:

Front Panel Controls

The front panel of the DEva has a pushbutton for setting power level, and connector for 120/240 volt AC power and a connector for external control by a computer, the Revolution RLC1 or Autopilot PX1 Digital Lighting Controllers.

Each button press moves the power setting one LED to the right. DEva waits for three (3) seconds after the last button press before doing anything, so you can't accidentally turn your lights off.

Blinking LEDs - What Your DEva Is Telling You

OFF Blinks Once A Second – Over Temperature
If the DEva internal circuits reach 80 Celsius, it's way too hot and she will shut off with the OFF LED blinking on and off once a second. Once the internal temperature cools to 50 Celsius DEva will automatically restart.

OFF Blinks Four Times A Second – Ignition Timeout
If the lamp fails to ignite, DEva will wait and try again for 30 minutes like this:

- Wait 5 minutes, try again
- Wait 5 minutes, try again
- Wait 10 minutes, try again
- Wait 10 minutes, try again
- Give up, switch off, this is not happening

After 30 minutes and five (5) tries to start, DEva flashes the OFF LED four (4) times a second to let you know that she's off, and intending to stay off until reset or power is removed.

If the OFF LED is flashing fast you can either remove and reapply power, or simply press the button to restart the ignition sequence. We suggest replacing the lamp first – if it doesn't light in a half hour of trying, it probably isn't going to.

Selected Power LED Blinks Once A Second – Low Voltage

When incoming power drops below 115 volts the LED for your chosen power level will blink once a second indicating output power is limited due to low incoming supply voltage.

Incoming Voltage	Maximum output power
115 VAC or more	All power levels selectable
Less than 115 VAC	1000W
Less than 110 VAC	750W
Less than 100 VAC	OFF

If incoming voltage remains at or below 100 VAC (a failing generator or brownout, for example) DEva will remain off until voltage rises above 110 volts. If the voltage drops below about 90 volts, DEva will indicate this by all lights going dark.

External Control

The RLC1 Digital Lighting Controller can control 512 DEva lights in two zones. You can set on and off times, sunrise and sunset ramps, dimming with temperature and over temperature shutdown for each zone.

When the provided RJ-12 phone cable is plugged into the DEva and an RLC1 controller, the front panel lights on the DEva will show the closest power setting and the LED will blink off, very briefly, once a second to show you that the DEva is controlled by an outside source and that pressing the button will not work.

If the cable becomes disconnected, or the RLC1 stops working DEva will return to manual control at whatever power level was last selected – just as you would expect.

Technical Specifications

Input Voltage	120/240 volts AC, 50/60 Hz
Input Current	4.40 amperes @ 240 volts
System efficiency	94.7% @ 240 volts
Driver efficiency at full power	> 98%
Power factor	> 99.4%
Light Source	1000W 400v double-ended lamp
Luminous Flux	> 2100 uMole/sec
External Dim	Revolution or Autopilot controller
External Dim Connector	RJ14 telephone interconnect type (6P6C)
Internal Dim	Push button on panel
Output power	600 – 1150 dimmable in 1% steps
Dimming	Pushbutton or external controller
Certifications	CSA, CE, FCC Part 18 Class B, FCC Part 15 Class B
Dimensions	305mm x 650mm x 135mm (about 26 x 12 x 5 inches)

FCC Compliance Statement

The DEva Integrated Lighting System has been tested at FCC-certified laboratories in the United States and conforms to FCC's Part 18B Consumer standard for Industrial, Scientific, and Medical Equipment for both conducted and radiated emissions. Although not required by the FCC, the DEva has also been qualified in the same laboratory to pass FCC Part 15B, usually reserved for computers, pro audio, and similar consumer electronic devices.

Given that all electronic equipment emits some RF energy, please note that compliance with these standards does not mean a zero level of emission, only a very low level of emission. The FCC requires that for safety we also state:

> *This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45-30 MHz.*
>
> *This device complies with Part 18 of the FCC Rules.*

DEva
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