

100 Watt Wireless Power Supply for LED Fixtures

model: LED100

technical data sheet



The *LED100* supplies power and data for up to two Color Kinetics ColorBlast LED fixtures or Altman Spectra PARs as well as Color Kinetics iColor Cove, and similar products. The *LED100* also features a DMX512 output to drive additional DMX512 devices.

The *LED100* eliminates the need to set the DMX address of the lighting fixture (ColorBlast or Spectra PAR) by re-patching the incoming DMX. All fixtures can be left at the default address of '001'. The desired DMX address is then set at the *LED100*. The fixture plugged into output 1 responds to the three DMX channels starting with the selected address. The fixture plugged into output 2 responds to the next three DMX channels. For users who prefer to set the DMX address at the fixture, patching may be disabled (by setting the *LED100* address to 000). Setting the *LED100* address to 600 through 899 selects various stand-alone modes (solid colors, color fades, strobe effects, etc.)

Power for the *LED100* is supplied by two electrical vehicle batteries. The battery tray accepts two 7.2 Amp-hour, two 12 Amp-hour, or two 15 Amp-hour batteries. The *LED100* is supplied with two 15 Amp-hour batteries installed. The internal meter displays battery voltage. Batteries are recharged by a built in, universal (100-240VAC) 4-stage charger. The charger changes from pulse charge, to constant current, to constant voltage, to maintain/float based on the battery's charge. Lead-acid batteries like to be held fully charged so it is acceptable (even encouraged) to leave the *LED100* plugged in while awaiting use.

The *LED100* may be plugged into AC power while in use. The built in charger supplies sufficient current to run a ColorBlast 12 indefinitely in a single saturated color (red, green, or blue), running a rolling color fade, with any two colors on at 95%, or all three colors on at 75%. Higher intensities than these will gradually discharge the battery but will not harm the *LED100*.

Wireless DMX control is from Wireless Solutions in Sweden. It is compatible with all Wireless Solutions products as well as their OEM partner's products such as Doug Fleenor Design's Marconi line and wireless products from Lightronics, SGM, Leprecon, and Elation. The W-DMX system has been used to send a DMX512 signal across the English Channel using a booster and high gain antennas. Typical range for the *LED100* is 100 meters indoors in a crowd (with their associated LED electronic devices) to 1000 meters outdoors line-of-sight. Gain antennas easily increase this range.

To assign (link, bind, etc.) the *LED100* to a W-DMX transmitter:

Both the *LED100* and W-DMX transmitter must be powered up and within range of each other.

Using a paper clip, press and hold the recessed CONFIG button on the *LED100* until the ASSIGNED indicator goes off (about 5 seconds). This will unassign the *LED100* from any other transmitter.

On the W-DMX transmitter this receiver is to listen to, press and release the configuration button. (This button may be labeled CONFIG, LINK, ASSIGN, FUNCTION, etc. depending on the manufacturer). The W-DMX transmitter will then broadcast a signal telling all unassigned W-DMX receivers, to assign themselves to this transmitter.

If successful, the *LED100* ASSIGNED and RF LINK indicators will illuminate.

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SPECIFICATIONS: Model *LED100* - 100 Watt Wireless Power Supply for LED Fixtures

Input signal: W-DMX signal from any W-DMX transmitter (i.e. Doug Fleenor Design's Marconi TX)

Input circuit: W-DMX 'pico' card from Wireless Solutions, AB

Frequency band: 2.4 GHz ISM band (2402 - 2479 MHz)

Antenna connector: Reverse polarity SMA connector

Supplied antenna: 2 dBi omni directional 2.4 GHz

DMX512 output: Slew rate limited EIA-485 driver. All 512 channels.

LED fixture output: DMX512 timings and protocol with 24V single ended signal (for ColorBlast and Spectra PAR)

Output connectors: LED fixture: Gold plated 4 pin female XLR (Neutrik D-1 series) rated at 10 amps
DMX512: Gold plated 5 pin female XLR (Neutrik D-1 series)

Output pinouts:

<u>DMX512:</u>	<u>LED Fixture:</u>
Pin 1: Common	Pin 1: +24V
Pin 2: Data -	Pin 2: not used
Pin 3: Data +	Pin 3: Data
Pin 4/5: Not used	Pin 4: Common

Output current (power): 4.2 amps (100 watts) continuous

Run time:
(from full charge) Single ColorBlast 12, Single Spectra PAR, or Two ColorBlast 6
24 Hours on a rolling color fade (red to green to blue to red, etc.)
18 Hours with one LED color on full (red or green or blue)
12 Hours with two LED colors on full
6 Hours with three LED colors on full (full white)
Run time with two ColorBlast12 or two Spectra PAR is slightly less than half these times

Recharge time: 10 Hours from fully discharged batteries
Recharge time is approximately equal to time of use (very roughly)

Charge type: 4 stage: Pulse (1.5A pulses), Constant current (1.5A), Constant voltage (28.8V), Float (27.6V)

Battery life: 1800 charge/discharge cycles at 30% discharge
400 charge/discharge cycles at 100% discharge

Indicators: Red: POWER, Blue: ASSIGNED, Yellow: RF LINK, Green: DMX512
Charge indicator: Flashing: Pre-charge, Orange: Charging, Green: Charged
Three digit DMX Start Address and Voltmeter display

User controls: On/off toggle switch, DC Rated 20A
Three push buttons to set DMX Start Address
One push button to activate Voltmeter
One (recessed) configure push button

Fixture mounting: One top mounted 1/2-13 nut with 1/2-13 bolt and washer supplied

Color: Black with white silkscreen nomenclature

Size and weight: 8.5"h X 6.5"d X 9.5"w, 29 pounds

Mounting options: Two 1/2" holes for half couplers or "C" Clamps



Fixture not included