

User Manual 2018

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General Safety Information

Read and understand all safety information and operation instructions before you operate or install the product or the system. Use only genuine spare parts or accessories that have been recommended or approved by Hudson Spider. Other accessories or spare parts may cause hazards, damage the product or invalidate the warranty. Check all cables and devices for visible damage before you work with the

If the product or accessory is visibly damaged, the product or accessory must no longer be used. Replace or repair the respective part. In case of

repairs, please contact Hudson Spider or an authorized dealer.

system. Defective electric or electronic devices must not be used.

Never attempt to repair any part of the product on your own. Maintenance and repair work is only to be carried out by Hudson Spider or an authorized service center.

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DMX MODE

The default operating mode for the AC400 DMX 4x8 is DMX Mode, in which the AC400 DMX 4x8 is always checking for and responding

to an active DMX signal.

• There are several settings that can be adjusted during DMX operation (see "Settings" section).

Additionally, the DMX start address must be set

(see "Setting DMX Start Address" section)

• If no DMX signal is present or if local (non-DMX) control is preferred,

change the mode to Local Mode (see "Local Mode" section)

SETTINGS

The following settings can be adjusted on the AC400 DMX 4x8:

• Smoothing (Smooth)

Smoothing increases resolution during fades and, in doing so, helps to eliminate visible "steppiness" in the dimming range, especially at the low end. If high speed changes are needed, smoothing may be turned off

POWERING THE AC400 DMX 4X8

The AC400 DMX 4x8 runs o of AC voltage (90VAC to 305VAC; 50/60 Hz). Additionally, the AC400 DMX 4x8 comes equipped with a 12VDC convenience outlet for powering ancillary devices, such as a LiteDimmer Wireless TRX unit (sold separately).

HOW TO INSTALL

To install the AC400 DMX 4x8, complete the following:

1) Position the power switch (located above the AC power input) to off

2) Install the AC input lead into the AC power input.

3) Connect the load to the PL7 DC output connector.

Be sure to observe the power capacity (400W) of the AC400 DMX 4x8. 4) If a DMX connection is desired, provide DMX signal to the DMX input of the AC400 DMX 4x8.

5) Position the power switch to on

You are now ready to operate the AC400 DMX 4x8.

Power Suppy / Dimmer LITEDIMMER PLus AC400 DMX 4X8

The AC400 DMX 4x8 is the ideal companion for powering the Hudson Spider RedBack.

Its rugged housing includes several mounting options along with four 1/4-20 (SAE) threads for attaching clamps, making it suitable for over-head setups. Locking connections provide AC input and DC output along with DMX pass-through. The unit operates all"Plus+Compatible" Hybrid fixtures up to 400W. The internal electronics include genuine LiteDimmer circuits known for smooth low end dimming, flicker-free operation, and rock solid reliability. Simple manual control is provided through the backlit display along with access to DMX settings.

CHECKING SETTINGS

To check the AC400 DMX 4x8 for both DMX Mode and/or Local Mode parameters, complete any one of the following steps:



LOCAL MODE

To control the AC400 DMX 4x8 locally without a DMX signal, complete the following steps:



Home Screen (Steps 1)











Local Mode Screen (Step 4)

- Navigate to the Local Mode Screen from the Home Screen by pressing the right button (►).
- Press the center button (Edit) from the Local Mode Screen to invoke local control of the AC400 DMX 4x8. A cursor will begin flashing over (Mstr) master intensity in the top right of the screen.
- Use the right button (+) to increase and the left button (-) to decrease the master intensity. Master intensity is displayed in percentage (0% to 100%). When the desired intensity is displayed, press the center button (Next) to advance to Kelvin (CCT) adjustment.
- 4) Use the right button (+) to increase and the left button (-) to decrease the CCT. CCT is displayed in degrees Kelvin (2600K to 6200K). When the desired Kelvin is displayed, press the center button (Next) to confirm CCT adjustment.
- To continue making master intensity (Mstr) and/or Kelvin (CCT) adjustments, press the center button (Next), and repeat Steps #3 and #4.

TROUBLESHOOTING (cont'd)

- Output Current (Pwr)
 - The maximum output current of the AC400 DMX 4x8 is 16.67A. Excessive current could cause damage to components and ultimately dimmer failure.



Where to find this information: Power Monitoring Screen

- Navigate to the Power Monitoring Screen from

► the Home Screen by pressing the right button (►).

- Power Monitoring Screen
- Input Control Values(Ch1, Ch2, Ch3, Ch4) For internal purposes only. You may be asked by a LiteGear Service Technician to refer to this screen.
 - If the AC400 DMX 4x8 is experiencing irregular operation, verify DMX channel output. Valid DMX channel output values range from 0 to 255.



- Where to find this information: Power Monitoring Screen
- Navigate to the Power Monitoring Screen from
 - the **Home Screen** by pressing the right button (**b**).

Debugging Screen

- Blank Screen
 - If the screen is on but not displaying any information, press the center button.
 If this does not solve the problem, perform a factory reset (see "Factory Reset").



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- Operating Temperature (Temp)
 - The AC400 DMX 4x8 is comprised of a dimming element and a power supply element. The maximum operating temperature of the power supply element is 158°F (70°C). The dimming element can handle slightly higher temperatures. An overly high operating temperature could cause component failure. Be sure to monitor the temperature, and ensure that the AC400 DMX 4x8 is in an environment that allows it to cool properly.



Where to find this information:

- **Power Monitoring Screen**
- Navigate to the Power Monitoring Screen from the Home Screen by pressing the right button (►).
- Power Monitoring Screen
- Operating Voltage (Volts)
 - The operating voltage of the AC400 DMX 4x8 is 24VDC. Large deviations from this voltage could cause issues.



Power Monitoring Screen

Where to find this information:
Power Monitoring Screen
— Navigate to the Power Monitoring Screen from the Home Screen by pressing the right button (►).

REDBACK

PHOTOMETRICS

CCT (K)	CRI	TLCI	Lumens	fc @ 72 in. (Lux @ 183 cm)	fc @ 84 in. (Lux @ 213 cm)	fc @ 96 in. (Lux @ 244 cm)	fc @ 108 in. (Lux @ 274 cm)	fc @ 120 in. (Lux @ 305 cm)	fc @ 132 in. (Lux @ 335 cm)	fc @ 144 in. (Lux @ 366 cm)	fc @ 156 in. (Lux @ 396 cm)	fc @ 168 in. (Lux @ 427 cm)	fc @ 180 in. (Lux @ 457 cm)	fc @ 192 in. (Lux @ 488 cm)	fc @ 204 in. (Lux @ 518 cm)	fc @ 216 in. (Lux @ 549 cm)	fc @ 228 in. (Lux @ 579 cm)	fc @ 240 in. (Lux @ 610 cm)
2600 ~	95+	95+	15288	179 (1928)	132 (1417)	101 (1085)	79.6 (857)	64.5 (694)	53.3 (574)	44.8 (482)	38.2 (411)	32.9 (354)	28.7 (309)	25.2 (271)	22.3 (240)	19.9 (214)	17.9 (192)	16.1 (174)
			Spread (in.)>	213 x 213	249 x 249	285 x 285	320 x 320	356 x 356	391 x 391	427 x 427	463 x 463	498 x 498	534 x 534	569 x 569	605 x 605	640 x 640	676 x 676	712 x 712
			Spread (cm)>	542 x 542	633 x 633	723 x 723	813 x 813	904 x 904	994 x 994	1085 x 1085	1175 x 1175	1265 x 1265	1356 x 1356	1446 x 1446	1536 x 1536	1627 x 1627	1717 x 1717	1808 x 1808

General Notes

- This document contains important instructions and notes to handle the product safely.
- Always follow all safety information for your own protection.
- Please contact a Hudson Spider service technician to do any service and maintenance not described in this manual.
- Please follow the user manual of accessories and third party accessories such as battery packs and battery chargers. They contain important safety and security information.
- Retain this user manual and all user and installation manuals shipped with the system for further reference and possible new owners of this product.
- Hudson Spider products are intended for professional use and may only be operated by qualified persons. They are not for household use.
- Help protect the environment by disposing the package material at your local recycling center.
- All components comply to the guidelines listed below: Low voltage directive 2014/35/EU EMC directive 2014/30/EU RoHS directive 2011/65/EU





SOFTWARE VERSION



Splash Screen 1

SOFTWARE VERSION: v3.141592

Note: Software v3.141592 is beta software. Numbers that appear in the lower left and lower right corners correspond to the software version and are for internal puposes only.

SPECIFICATIONS

RATING:	400W max. total
INPUT:	90~305VAC, 50/60 Hz
OUTPUT:	24VDC (Constant Voltage)
DATA PROTOCOL: .	DMX512
SIZE:	6.5 in. (165.1 mm) width 4.86 in. (123.4 mm) height 14.13 in. (358.9 mm) length
WEIGHT:	11.6 lb; 185.6 oz; 5261.7 g

WARNINGS

Stage and Studio Use Only Dry Location Only Hazardous Voltage Risk of Electrical Shock Disconnect Power before Servicing Not for Residential Use

Designed and Made in California, USA.

Any questions? Comments? Concerns? Contact us at +1 (818) 358-8542.

FACTORY RESET

If the AC400 DMX 4x8 is experiencing irregular operation, a factory reset may be needed. Resetting the operating system can restore normal operation in many cases. To perform a factory reset, perform the following steps:

- 1) Turn the AC400 DMX 4x8 off by flipping the switch above the AC input.
- 2) Press and hold the left button.
- 3) While holding the left button, turn the AC400 DMX 4x8 on by again flipping the switch above the AC input.
- 4) The device will power up to a factory reset screen. When prompted, confirm a factory reset by pressing the right button, which corresponds to "Yes."
- 5) The device will then begin flashing a red indicator light and will prompt to be restarted. At this time, cycle power going to the AC400 DMX 4x8 to finish the operation by turning the AC power switch off and then back on.

Your preferences and settings may now have to be reset.

If the AC400 DMX 4x8 is still experiencing irregular operation after a factory reset, contact LiteGear Technical Support for assistance.

TROUBLESHOOTING

If the AC400 DMX 4x8 is experiencing irregular operation, checking the following may be able to help identify the problem(s):

- DMX Frequency (DMX Hz)
 - With low DMX refresh rates (less than 20 Hz), steppiness (especially on the low end of the dimming range) is possible. The maximum refresh rate when sending information for all 512 channels of a DMX universe is 44 Hz. Higher refresh rates are possible when sending less than 512 channels of information. A DMX frequency of 0 indicates that no DMX signal is being received.



Information Screen

Where to find this information: Splash Screen 2 and Information Screen

- Navigate to Splash Screen 2: Splash
 Screen 2 appears immediately after Splash
 Screen 1 without any prompting.
- Navigate to the Information Screen, which is only a splash screen (i.e., it automatically times out), from the Home Screen by pressing the center button (↔).



Local Mode Screen (Step 5,6, & 7)



Power Monitoring Screen (Step 6)

- Press the right button (i) To view dimmer power monitoring information such as:
 - Operating temperature (Temp) in °F and °C
 - Operating voltage (Volts) in volts DC
 Output current (Pwr) in amps)
 Note: This screen will timeout and revert to Step #3. Repeat Steps #3 and #4.
- 7) To exit Local Mode and revert to DMX operation, press the left button (←).

CHECKING DMX START ADDRESS

To quickly check the current DMX start address for the AC400 DMX 4x8, complete the following steps:



 From the Home Screen, press the center button(+). This will invoke a screen with information about the current state of operation for the AC400 DMX 4x8, including the DMX start address indicated by "DMXadr," to appear before timing out and reverting back to the Home Screen.



DMX Information Screen (Step 1)

SETTING DMX START ADDRESS

To set the DMX start address for the AC400 DMX 4x8, complete the following steps:



DMX Address Screen (Step 5)

0K

*

*

- Navigate to the DMX Address Screen from the Home Screen by pressing the right button (►).
- Press the center button (Edit) from the DMX Address Screen to begin editing the DMX start address. A cursor will begin flashing over the lowest digit of the DMX start address.
- Use the right button () to increase and the left button () to decrease the right digit. When the desired value is displayed, press the center button (Next) to advance to the center digit.
- 4) Repeat Step #3 for the remaining digits.
- 5) When satisfied with the value of the final digit, press the center button (**OK**) to confirm the DMX start address.

Note: The AC400 DMX 4x8 operates with Hybrid functionality, which means the DMX start address corresponds to the intensity control while the next consecutive address corresponds to the CCT control. For example, if the DMX start address is 357, then DMX channel 357 is intensity and channel 358 is CCT.

UNDERSTANDING YOUR DMX MODE SCREENS



Settings Screen

* "Single Circuit" means that the entire unit functions as a single unit. For example; you cannot control one half of the luminaire separately from the other half.

SETTINGS (cont'd)

To change any of the DMX settings, complete the following steps:

cc⊤ 2600k	Mstr Ø% ▶
Home Screen (Step 1)	ON Std
Smooth DMX Curve – Next Settings Screen (Step 3)	ON Std +
Smooth DMX Curve – Next Settings Screen (Step 4)	ON Std +
Smooth DMX Curve - Next Settings Screen (Step 5)	ON Std +

- 1) Navigate to the Settings Screen from the Home Screen by pressing the right button ()
- 2) Press the center button (Edit) from the Settings Screen to begin editing the settings. A cursor will begin flashing on the "Smooth" line.
- 3) Using the right button (+) and the left button (-), toggle between turning Smoothing (indicated by Smooth) on and o. When satis ed, press the center button (Next) to advance to the next setting, DMX Bit Rate (indicated by "DMX") A cursor will begin ashing on the "DMX" line.
- 4) Using the right button (+) and the left button (-), toggle between 8-bit (8b) and 16-bit (16b) bit rates. When satis ed, press the center button (Next) to advance to the next setting, Dimmer Response (indicated by "Curve") A cursor will begin ashing on the "Curve" line.
- 5) Using the left button () and the right button (+), toggle between the standard (Std) and exponential (EXP) curves. When satis ed, press the center button (Next) to con rm any changes to the settings.



- DMX Bit Rate (DMX) (only applies to DMX Mode operation)
- A) 8-bit: Accepts 8-bit data streams.

B) 16-bit: Accepts 16-bit data streams. 16-bit operation can provide greater resolution. Not all DMX consoles support 16-bit DMX streams. This bit rate should be selected only when it is known that the DMX console is outputting a 16-bit data stream.

- Dimmer Response (Curve
- A) Standard (Std): The standard dimming curve is a linear curve, meaning that for every increase in input intensity control there is an equal increase in output intensity control.
- B) Exponential (EXP): The exponential dimming curve allows for greater resolution in the low end of the dimming range. At the low end of the dimming range, changes in input intensity control translate to relatively small changes in output intensity control at the low end and larger changes as the input intensity control increases.

A 12VDC convenience outlet provides power for accessories such as LiteDimmer Wireless receivers or DMX consolesPowering the AC400 DMX 4x8 is simple. It operates on any AC voltage between 90 and 305VAC and includes unique overload circuit protection called CurrentSense. CurrentSense technology allows for the 400W capacity to be doubled to 800W — still only allowing 400W of power to be used — without causing any damage to the xture or the dimmer. Because 400W of power is being distributed evenly to the entire 800W-capable fixture(s), the result is ultrasoft light that is perfect for intimate setups. Be sure to see all other Plus+Compatible products that are useable with your new LiteDimmer+ AC400 DMX 4x8 unit.

CONTROLS & CONNECTIONS

The AC400 DMX 4x8 has the following controls: A) Three Pushbuttons (Functions change depending on the current screen.)

The AC400 DMX 4x8 has the following connections:
B) DMX Input/Output: 5-pin XLR connector
C) AC Power Input (with power switch): C13/C14 plug
D) DC LED Output: PL7 connector
E) DC Convenience Outlet: Barrel (2.1 x 5.5 mm) connector

LITEDIMMER PLus AC400 DMX 4X8 Image on next page



Introduction

Thank you for purchasing the Hudson Spider RedBack.

The RedBack is the only Parabolic LED Lighting fixture on the market. The ultralightweight of under 8lbs makes the RedBack the lightest fixture of its size while producing very little heat lending to a more comfortable environment to performers and crew. The parabolic layout of LED emmiters creates an unparralled directional soft light without the need for diffusion or additional stands and flags to control. Using the RedBack witout the cover allows for minimal wind resistance. When shooting in or on a moving vehicle, or in any high wind situation the RedBack will solve many challenges. Everything from a Key Light, Back Light, Fill Light, Eye Light, Product Light, etc.... the RedBack is your go to workhorse.





DO NOT PRESS BOTH SIDES OF HINGE.

PRESSING BOTH SIDES OF THE HINGE BLOCKS THE OPENING MECHANISM.





PROPER WAY TO OPEN OR CLOSE HINGE.

NOTICE BUTTON IS ONLY BEING PRESSED FROM ONE SIDE ENABLING THE HINGE TO PROPERLY UNLOCK.

Please visit hudsonspider.com to see instructional video







f Power Cable

f Ballast / Dimmer
















Do not operate the product if the ambient temperature exceeds 45° C. Do not expose the product to rain or moisture. Do not use the product for 2 hours when it was exposed to big temperature differences as condensed moisture may damage the product electrically when switched on. Do not bypass any safety feature of the product.

Do not open the product. There are no user serviceable parts inside. In addition to regular visible checks Hudson Spider recommends that all electrical components be checked for electrical safety by a professional every 12 months.

Not observing the safety information or general rules of reason may cause injury or death to yourself and others or damage to equipment.

Intensive use can cause the surface to become warm. Let the product cool off completely before you handle it.

WARNING: Intense light. Never look direct into the light source.

Devices and accessories must be secured against fall when mounted above floor level. Always observe common and local safety regulations.

Make sure the local AC power matches the voltage and frequency range printed on the label of the product. Never use the product when the AC power does not match

Never connect the product to a dimmer system or a dimmer channel in non-dim mode. Doing so will damage the electronics. Damages caused by connecting the product to a not suitable power source are not covered by the warranty.

For example, a RedBack would need to have more than twenty-four (24) broken or damaged emitters to qualify for a warrantied repair.

After a period of one (1) year from the date of the original retail purchase, your RedBack Fixture does not qualify for a warrantied repair, regardless of the number of broken or damaged emitters.

Limits of Liability:

If these products fail or do not perform as warranted, your sole recourse shall be to repair the product as described above. Hudson Spider will not be liable to you or anyone else for any damages that result from the failure of this product. These damages include, but are not limited to, the following: lost profits, damage to other equipment, and incidental or consequential damages arising from the use of or inability to use this product. IN NO EVENT WILL HUDSON SPIDER BE LIABLE FOR MORE THAN THE AMOUNT OF YOUR PURCHASE PRICE, NOT TO EXCEED THE CURRENT LIST PRICE OF THE PRODUCT.

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If, however, it is determined that your RedBack Fixture does not qualify for a warrantied repair after inspection, you will receive a notification stating the reason(s) for our decision and a detailed quote for the cost of the repairs including shipping charges to return your Hudson Spider Fixture after it is repaired. Should you choose not to repair your RedBack Fixture, you are still liable for shipping charges to have your RedBack Fixture returned to you.

Hudson Spider is not responsible for the payment of any customs clearance fees or duties.

*The determination given by a Hudson Spider Customer Service representative that a product may be subject to a warrantied repair is only the first step in fully determining whether or not a repair falls under warranty. Final determination will be provided by a LiteGearTM Service Technician upon inspection of the product

You must acquire an RMA number and deliver the defective unit to Hudson Spider in order to obtain service under this warranty. A sales receipt may be required to verify the original retail purchase. All returned units must have the RMA number visible on the outside of the shipping package. RMA numbers are valid for 30 days after the number is issued.

After receiving an RMA number, Hudson Spider, at its sole discretion, will issue you a shipping label (Ground service only) for delivery of your RedBack Fixture back to Hudson Spider. Upon arriving at the Hudson Spider warehouse, your RedBack Fixture will be thoroughly inspected by a Hudson Spider Service Technician. If it is determined that your RedBack Fixture qualifies for a warrantied repair, Hudson Spider, at its sole discretion, will perform the warrantied repair as enumerated in the "OurWarranty toYou" section above. Hudson Spider, at its sole discretion, will pay the return shipping costs (Ground service only).

Hudson Spider specifically disclaims all other warranties, expressed or implied, and the user shall deem the installation or use of this product an acceptance of these terms.

Hudson Spider specifically disclaims all other warranties, expressed or implied, and the user shall deem the installation or use of this product an acceptance of these terms.

RMA Numbers Are Required for All Product Returns and Can Be Obtained by Doing One of the Following:

- By sending an email to info@hudsonspider.com.
- By calling (661) 888-1305

and speaking to a Hudson Spider Customer Service Representative.

Once a Hudson Spider Customer Service Representative determines that you have a problem that may qualify as a warrantied repair, you will be provided an RMA number*.

Product Failures Not Covered by This Warranty:

This warranty covers defects in manufacturing that arise from the correct use of your RedBack Fixture. It is limited to defects in materials or workmanship and does not cover damage caused by, but not limited to, the following: abuse, misuse, unauthorized modification, lightning or power surge damage, extreme heat or cold, corrosive environments, moisture, or any acts of God. The warranty does not apply to any product with a missing, altered, or defaced serial number.

Within the first (30) days from the date of the original retail purchase, your RedBack Fixture qualifies for a warrantied repair, at the sole discretion of Hudson Spider, when any number of broken or damaged emitters exists. Following the first thirty (30) days from the date of the original retail purchase, your RedBack Fixture qualifies for a warrantied repair, at the sole discretion of Hudson Spider, when the total number of broken or damaged emitters exceeds the following thresholds: six (6) emitters per circuit board

LIMITED WARRANTY FOR HUDSON SPIDER REDBACK

Our Warranty To You:

Hudson Spider, LLC (Hudson Spider) warrants your RedBack Fixture to be free from physical defects in material and workmanship for a period of one (1) year from the date of the original retail purchase; some exceptions apply (see below). If you discover a defect covered by this warranty, Hudson Spider will repair or replace the product at its sole discretion using new or refurbished components. This warranty is transferable.

Register Your RedBack

Hudson Spider recommends that you register your product at http://www.hudsonspider.com to stay up to date on the latest Hudson Spider news.

CAUTION: High voltage! Danger! Always disconnect the product from mains voltage before you connect or disconnect a cable.

Always keep cables away from the product during operation. Disconnect all cables prior to transport.

Intended use

This product is intended to illuminate persons and objects in a dry environment.

Always follow the safety information.

Any usage other than described above is not permitted and can damage the product and lead to associated risks such as short- circuit, fire, electric shock, etc. You are not allowed to modify the product.