Helix MAX 150S/AG/B
Battery Pack
Instructional Manual

THIS BATTERY SHIPS IN STORAGE MODE.
Press the LED button to awaken the battery pack. You may also charge the battery pack full to awaken. Keep in mind some 3rd party chargers will not charge the pack when in storage mode. If the battery is in storage mode(LCD blank), the battery pack is functional, but no smart data transmission will occur.

Introduction:

Thank you for your choice in purchasing a Core SWX battery pack. The battery is designed to improve and assist you in your mobile powering requirements. This product is at the pinnacle of technological advancements, offering the features and performance of several different products, making it the most advanced battery product in the industry.

Please read this manual to help you understand and capitalize on the features of this battery.

Features:

- Helix Dual Voltage output(14v/28v)
- Real time backlit LCD
- On-Board Microprocessor stores: Name, Serial Number, Voltage, Temperature, Current, Chemistry Type, Charge Cycles, and Date of Manufacturing.
- The Viewfinder Capacity Display communicates with the camera to display your remaining battery capacity in your camera's viewfinder. This includes Sony, BMD, ARRI and RED models.
- Four Stage, accurate, LED power gauge.
- No memory effect.
- Temperature, current, and voltage protection.
- Rubberized casing provides a shock absorbing, non-slip shell to protect the battery pack.
- Incorporated ptap output as well as a 5v USB. The USB can also be used as a firmware update port.

*contact Core SWX for confirmation of battery charger compatibility if using other chargers.

Operation:

1. ***Charging the Battery:***
   - CoreSWX Helix batteries were designed to be used with Core SWX chargers. Any other charger may damage the battery and/or the charger. Please contact us before using other chargers.
   - CoreSWX batteries can be recharged in any charge condition.
   - Charge the battery in ambient temperature range of 0°C and 45°C. For best results charge in an environment between 10°C and 35°C. Charging in conditions outside the aforementioned ranges may inhibit the pack from reaching maximum charge capacity.

2. ***Discharging the battery:***
   - Maximum continuous discharge for the is 20A(288W) with a 10second peak discharge rate of maximum continuous discharge at 28v is 10A.
   - The LCD automatically switches between 3 different phases; Normal Runtime(based on default 30wh draw), Remaining Runtime(based on actual draw, when in use), and Remaining Charge Time(when connected to a charger).
   - Press the side LED button for 1 second to activate the backlight feature.
   - During operation, the battery samples the current entering or exiting the battery in 7 second intervals. During the charging process, the charge current fluctuates, causing the Charge Time readings to vary.

LED Indication Guide:

Battery Charge Level:

1 Segment: 0-24%
2 Segment: 25-49%
3 Segment: 50-74%
4 Segment: 75%-100%

Over time the RunTime LCD and power gauge's accuracy is dependent upon a full charge and discharge. At least once every 2 months the battery should be fully cycled(discharged and echarged) so the battery can relearn the capacity of the battery.

Runtime LCD Display

The Helix Max 150 is equipped with a 3-phase backlit runtime LCD, strategically mounted on the front of the pack, providing the camera operator or grip the ability to access information on battery life and charge status at a glance. This advanced LCD is designed to display estimated runtime when the pack is not in use and actual calculated runtime when it is in use by sampling the load every 3 seconds. Additionally, the LCD displays a bar graph, runtime in hours and minutes, and remaining percentage capacity.

Camera Communication:

Once connected to a camera which supports SMBUS or single-line data communication, the battery will convey, in realtime, power data to the camera.

VoltBridge RFID Function:

HelixMax batteries have an integrated RFID tag which communicates with compatible NFC reading devices like your mobile phone. To read your battery packs' vitals simply use an NFC app and touch your phone to the 'ID' icon on the front of the pack. Additional functionality with the VoltBridge ID app(releasing Summer 2024) will allow you to store and analyze battery data.

Helix High Voltage Output:

When a Helix pack is placed on Helix Mount plate the LCD's "HV" icon will illuminate in the lower right corner of the LCD. Additional device which support Helix's protocol are the RED V-Raptor XL camera as well as B-mount plates configured for High Voltage pass through such as the Alexa S35's B-mount plate.

When the HV icon is present on the LCD the battery natively switched to high voltage output so that DC 22-33.6v(dependent on charge capacity) is being supplied to the device.

Once the pack is removed from the Helix-supported device, the HV icon will disappear signifying the pack has switched back to native 14.4v (DC 11-16.8v dependent on charge capacity).

The ptap output on the pack when the pack is native 14.4v is unregulated(DC 11-16.8v dependent on charge capacity). When the pack is put into HV mode, the ptap is regulated for up to 5A output at 15v DC.

The USB output of the pack is consistently regulated at DC 5v 3A no matter the phase of the battery pack.

Battery Storage:

In the event the battery pack won't be used for an extended period of time, store the battery pack at 40% charged in an environment between 10°C and 35°C. Every two months the battery pack should be fully cycled to reduce the change of self discharge and capacity loss.

Reset/restore Function:

In the event the battery shuts down, it is possible the battery pack's protection internal circuitry was activated. To restore the pack, following the steps below:

1. If it's an Anton/Bauer® charger, and the battery is fully depleted, continually connect and disconnect the pack on the charger several times to reach a minimum voltage so the charger recognizes the battery.
2. Reset the sleep mode function by pressing the LED button for 15 to 30 seconds.
3. There is a hard reset button in between the two ptap terminals. Press it and then after 5 seconds press the side LED button to wake up the pack.
4. Fully charge/discharge the battery to cycle

Firmware Update Function:

In the event the battery shuts down, it is possible the battery pack's protection internal circuitry was activated. To restore the pack, following the steps below:

1. If it's an Anton/Bauer® charger, and the battery is fully depleted, continually connect and disconnect the pack on the charger several times to reach a minimum voltage so the charger recognizes the battery.
2. Reset the sleep mode function by pressing the LED button for 15 to 30 seconds.
3. There is a hard reset button in between the two ptap terminals. Press it and then after 5 seconds press the side LED button to wake up the pack.
4. Fully charge/discharge the battery to cycle

Notes on Use:

● An increase in temperature is normal during charging and discharging.
● Make sure to keep battery contacts clean.
● Do not attempt to disassemble the battery. Please contact Core SWX for any service issues.
● Keep batteries separated when transporting.
● Keep battery pack dry and avoid use in humid environments.

HelixMAX 150S, HelixMAX 150AG, HelixMAX 150B Air Transport Compliance

The battery pack models listed above contain more than 8 grams of equivalent lithium content. Those wanting to transport this pack via Air should contact Core SWX for latest guidance prior to doing so.

Specification Data:
Helix MAX 150S: V-mount Connection
Helix MAX 150AG: 3-Stud Mount Connection
Helix Max 150B: B-mount Connection*

Capacity: 148Wh(14.8v, 10Ah)
Size: 3.54″ x 4.65″x 2.72″
Weight: 2.2lbs.
Load: 20A @ 16.8v, 10A @ 33.6v
* The Helix Max 150B battery product is made in accordance with ARRI's B-mount platform and functions to the specifications set forth for dual voltage output.

Warranty:
This product is warranted to the Original Purchaser against all defects in material and or workmanship for the period herein.
The warranty period shall be, 2 years for parts and labor, unless otherwise noted. Core SWX agrees to pay equal return freight costs to return the product the same method it was received. In the event of an issue, purchaser agrees to the below RMA procedure.
Procedure:
1. Go to http://www.coreswx.com and to the the support section to fill out the online RMA form.
2. Print the RMA number confirmation, and ship the product needing service to Core SWX, LLC. along with RMA number confirmation, and copy of bill of sale.
3. All shipments must be done either through UPS or FEDEX, and insured if necessary
4. Core SWX, LLC. is not responsible for any lost shipments.

Core SWX reserves the right to repair or replace any defective product under warranty after Core SWX determines which is more practical.
If Core SWX receives defective product for warranty repair and they are found to be defective as a result of misuse or other damage, not caused by normal wear and tear, Core SWX will notify the customer of an estimate of repair. Customer will incur costs. There are no further warranties, either expressed or implied, including warranties of merchantability or fitness for a particular purpose that has any bearing upon this transaction.

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The following US patents apply 10,197,630 and 10,630,095.