

# Salvo

***Diving Equipment***

Primary Light  
Guide

USE AND CARE GUIDE

# For Salvo Primary Dive Lights

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© Salvo, LLC  
705 NW Santa Fe Boulevard  
High Springs, FL 32643  
Phone 386.454.0019 • Fax 386.454.1661

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# Lighting Innerspace -- One Explorer at a Time.

*Congratulations on your new acquisition, unarguably the finest lighting equipment used worldwide by cave, wreck, reef and deep explorers.*

A wonderful choice you have made with your light selection. Please take a moment to read through this document. It is provided to answer many frequently asked questions and also as a platform for our recommended care, use, and storage. As always, we recommend that you do not exceed your level of training and wish you many years of safe diving.

If you have additional questions after reading through the manual, please do not hesitate to contact us at 386.454.1440 or via email – [sales@salvodiving.com](mailto:sales@salvodiving.com).

## Light Models

There are three configurations currently available for Salvo primary lights.

- The Havoc II Series – HID Primary Lights
- The Rebel II Series – LED Primary Lights
- The Rebel 12W and Handheld 9W – LED Primary Lights

## Warranty Information

All of the Salvo lights come with a one year warranty from the original date of purchase. The warranty covers all items including battery and charger. Please contact your local dealer or us directly should you experience any issues with your light that you may think is not right.

# Features

*All lights are delivered complete from our facility--including a fully charged battery pack, charger, and of course the light itself.*

## **HAVOC II and REBEL II PRIMARY LIGHTS**

- **Dry Lid Utilizing Banana Connector.** Based on constant customer request and our commitment to manufacture the highest quality primary light, the Havoc II and Rebel II lights utilize banana connectors from battery canister to lid. There are two positions for the lid – storage position and dive position. Also, the new lids have a completely recessed light switch, labeled with the ‘OFF’ position, for maximum protection.



- **Completely sealed Li-Po battery canisters.** Isn't it amazing to see how battery technology has evolved in just the past couple of years? We are the first and only underwater lighting company to be using Li-Po batteries in our primary lights. Why did we seal the pack? To help reduce the cost of repairs due to nicked cords and switch boots along with the occasional improperly latched lids and ‘oops, I forgot to put the o-ring back on the lid.’ The battery pack

is a critical (and pricey) part to your primary light; it deserves the added attention and protection.



- **Delrin™ component construction.** With the exception of the aluminum light heads on the Rebel II 21W LED's, all of our components are housed within Delrin™ bodies. Delrin™ is a lightweight, low-friction, and wear-resistant thermoplastic with good physical and processing properties and capable of operating in temperatures in excess of 200 degrees Fahrenheit (approximately 90 degrees Celsius). It also handles great at sub freezing temperatures, is extremely durable and stands up to the rigors of any diving environment.

# Charging and Storage

*All lighting systems come fully charged from our facility; you will need to use the light before being able to charge it again. There are no customer serviceable components sealed within this pack... SO, STAY OUT OF IT! All warranty claims will be nullified if the internal seal of the pack has been compromised.*

## Charging the Battery Pack

- Make sure to charge your battery 24 hours before diving.
- Connect universal charger to wall outlet.



- Connect battery canister to universal charger. Be mindful of polarity, RED BANANA connector of charger to RED SOCKET of battery canister. BLACK BANANA connector of charger to BLACK SOCKET of battery canister.



- LED will glow red while charging and will turn green when the charge cycle is completed.
- It is recommended from the battery manufacturer to leave the Li-Pol packs partially discharged (30-50% rated capacity) when storing.

## Pre-Dive

*To ensure years of dependable service from your light, follow the steps below during your pre-dive setup.*

- Is your battery charged?
- Inspect and make sure the cord and switch boot do not have any cuts or damage
- **Be certain that the lid sealing o-ring is in place.** There is really no reason to remove this o-ring during storage. Periodically you should inspect the lid o-ring and wipe dry any excess grease and sand, do not lubricate as it will attract dirt and grit.
- Connect the lid assembly to the sealed battery. Be certain that the banana plugs of the lid are lined up with the color indexed sockets of the canister. Gently slide the lid down on the canister until the o-ring makes contact with both the lid and canister. If there is resistance, **STOP!!**, and ensure that the connectors are properly aligned. Never try to forcefully close the canister.





- When closing the locking latches, make sure to apply pressure evenly and simultaneously to the latches.



- Turn on the light and make sure it comes on. It is best to leave the light on for at least 30 seconds before turning off. Although the Brightstar™ bulbs and ballasts are designed to be hot re-strike able, “short-striking” the bulb can cause the life of the bulb to be shorter than normal.
- If the light fails to strike, turn the switch off and wait 5-15 seconds before trying again
- Turn off the light and finish preparing for your dive.

## Post-Dive

*To ensure years of dependable service from your light, follow the steps below during your post--dive breakdown.*

- Always rinse your gear after a salt-water dive
- Before opening the light, make sure you dry any excess water from the lid and canister interface
- Check for any water in the canister. If there was any water intrusion, it is best to detect it early
- Inspect the cord and switch boot for any damage that may have occurred during your dive
- Reinstall the lid assembly to the canister for transport. The battery canister has sockets for storage and transportation. Align the banana plugs 180° opposite from the color indexed

'dive' sockets. Gently slide the lid down on the canister until the o-ring makes contact with both the lid and canister. If there is resistance, **STOP!!**, and ensure that the connectors are properly aligned. Never try to forcefully close the canister.



- We recommend storing your light in a cool dry environment.

## Changing the Bulb

*There are no user serviceable components in the Rebel II series of LED primary lights. If you are experiencing any issues, please return them to Salvo for service, inspection, and repair.*

The Havoc II series of HID primary light features a user replaceable bulb.

- Remove Goodman head by loosening focus adjustment screw to a point where the head will slide freely from the light head.



- Carefully remove the lamp cover by gently pulling it off with a twisting motion. It is best to use a glove or wrap the lamp cover with a small towel to protect your hand from accidental breakage of the glass.



Note – The 35W and 50W Havoc II HID primary lights have an additional collet and external lamp cover o-ring at the base of the lamp cover that needs to be unscrewed and removed before attempting removal of the lamp cover.



- Remove the bulb from the socket and extend it to the end of the lead wires. Carefully unplug the bulb from the wires leading into the ballast body.



- Connect the new bulb to the lead wires from the ballast.
- Reinstall the bulb into the socket. Twist the bulb with a ¼ turn as you do so to help the wires back into the socket assembly.
- Holding the lamp cover with a glove or towel, reinstall the lamp cover with a slight twisting motion.



- The first 2-rings do the sealing. The third O-ring at the bottom is there to cushion the lamp cover and is not there to seal it.
- Do not use grease on these O-rings. The grease will make the O-rings slick and pressure build up during reinstallation will cause the lamp cover to push back off. It is best to replace the O-rings if installing a new bulb.
- Never remove the lamp cover unnecessarily. Most bulbs and lamp covers are not broken during a dive, but most commonly during unnecessary assembly and disassembly.

## Rebel 12 and Handheld 9

*Then Rebel 12W LED and Handheld 9W LED primary lights are unique to other lights because of the way they are charged and switch actuation. These unique features were added to ensure the ultimate in a compact light ideal for today's traveling diver.*

### Charging

- Remove light head from tail piece.



- Inspect threads and o-rings to ensure they are free from dirt and debris.
- Connect universal charger to wall outlet.



- Connect universal charger to tail piece.



- LED will glow red while charging and will turn green when the charge cycle is completed.
- It is recommended from the battery manufacturer to leave the Li-Ion packs partially discharged (30-50% rated capacity) when storing.

## Diving

The switch for the Rebel 12W LED and Handheld 9W LED primary lights is located in the light head and is double o-ring sealed.

- To turn the light on, rotate the head clockwise until the light head turns on. It is not necessary to continue turning the light head after it comes on, it will not get any brighter.
- To turn the light off, rotate the light head counter clockwise. Do not unscrew the tailpiece completely underwater, this will damage the light. When the light turns off, stop.
- It is recommended to lubricate the double o-rings that seal the light head and tail piece in order to guarantee smooth actuation.