

NORTHERN LIGHT CA.

MODEL : A4000

PRIMARY CANISTER LIGHT



RENE GAUTHIER photography

***CONGRATULATIONS ON YOUR NEW ACQUISITION OF THE
NORTHERN LIGHT PRIMARY DIVE LIGHT BUILT FOR
TECHNICAL DIVERS THAT DEMAND PERFORMANCE.***

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CRITICAL WARNINGS

THIS MANUAL MUST BE READ IN FULL

FAILURE TO READ THIS MANUAL AND FOLLOW THE PRECAUTIONS IN THIS MANUAL COULD RESULT IN SERIOUS INJURY OR DEATH OR PROPERTY DAMAGE

WARNING

**THIS IS A VERY HIGH-POWER LED LIGHT THAT COULD CAUSE TEMPORARY OR PERMANENT EYE DAMAGE TO YOURSELF OR YOUR DIVE BUDDIES OR AQUATIC LIFE.
DO NOT SHINE INTO EYES.**

WARNING

THIS IS NOT A TOY FOR CHILDREN TO PLAY WITH.

WARNING

**DO NOT MOVE THE PRODUCT WHILE CONNECTED TO AC POWER CHARGER. DO NOT PULL THE POWER CHORD TO DISCONNECT THE AC POWER CHARGER BY THE WIRE (THIS CAN CAUSE DAMAGE TO THE POWER CHORD AND COULD CAUSE FIRE OR ELECTRIC SHOCK).
USE THE CHORD PLUG TO INSERT AND REMOVE FROM THE WALL. DO NOT USE THE AC POWER CHARGER WHEN THE HOUSEHOLD POWER SOCKET HAS DAMAGE, OR THE HOUSEHOLD POWER SOCKET IS LOOSE, (THIS COULD CAUSE FIRE OR ELECTRIC SHOCK).**

**DO NOT WRAP/COVER THE DIVE LIGHT OR AC POWER CHARGER IN A CLOTH OR BLANKET OR ANY FLAMMABLE MATERIAL WHILE CHARGING. THE CHARGER MUST BE OPEN TO AIR TO ALLOW HEAT TO DISSIPATE FROM THE CHARGER AND THE CANISTER BATTERY.
ONLY CHARGE ON NON-FLAMMABLE SURFACE AWAY FROM WINDOW CURTAINS OR OTHER FLAMMABLE ITEMS.**

WARNING

**NEVER ATTEMPT TO DISASSEMBLE OR MODIFY THE AC CHARGER (FAILURE TO DO SO COULD CAUSE FIRE OR ELECTRIC SHOCK).
DO NOT GET CHARGER WET. DO NOT USE CHARGER IN WET ENVIRONMENTS LIKE BATHROOMS OR NEAR KITCHEN SINKS (ELECTRIC SHOCK AND/OR PRODUCT DAMAGE COULD OCCUR DUE TO MOISTURE).
DO NOT TOUCH THE WIRE OR CHARGER WITH WET HANDS.**

WARNING

DO NOT USE ANY OTHER CHARGER THEN THE SUPPLIED CHARGER TO CHARGE THE BATTERY PACK. CONTACT NORTHERN LIGHT CA. FOR REPLACEMENT CHARGER IF EVER NEEDED.

WARNING

CHARGING WIRES MUST BE CONNECTED TO THE BATTERY CANISTER WITH CORRECT POLARITY IE: RED WIRE TO RED CANISTER PLUG. FAILURE TO DO SO COULD CAUSE PERMANENT DAMAGE TO THE BATTERY AND THE AC CHARGER. THE AC CHARGER USES A TEMPERATURE SENSOR THAT MUST BE USED FOR EVERY CHARGE - THIS IS A SAFETY BACKUP.

WARNING

IN THE EVENT OF THE BATTERY CANISTER OVER PRESSURE SAFETY RELEASE PLUG BECOMING LOOSE OR POPPING OUT YOU MUST STOP CHARGING AND USE OF THE DIVE LIGHT IMMEDIATELY. THE BATTERY PACK MUST BE REPLACED AND HAS PERMANENT DAMAGE. IF THE OVER PRESSURE SAFETY RELEASE PLUG IS OUT OF THE BATTERY CANISTER DO NOT REPLACE IT. FLAMMABLE /EXPLOSIVE GASES MAY BE PRESENT. DO NOT BREATHE VENTING GASES. PROTECT YOUR FACE AND EYES.

WARNING

THIS PRODUCT IS FOR CERTIFIED SCUBA DIVERS FOR USE IN RECREATIONAL DIVING / TECH DIVING CONDITIONS. NOT FOR COMMERCIAL USE OR EXTENDED USE ON DRY LAND.

WARNING LEGAL DISCLAIMER

BY PURCHASING/GIFT OF THIS PRODUCT THE OWNER/USER ACCEPTS AND AGREES TO ALL WARNINGS EVEN IF THIS MANUAL IS NOT READ OR UNDERSTOOD. OWNER/USER WILL RETAIN THIS MANUAL FOR REFERENCE AND PASS ON THIS MANUAL TO ANY NEW OWNER.

WARNING LEGAL DISCLAIMER

THE USER/OWNER OF THIS PRODUCT ASSUMES ALL LEGAL AND FINANCIAL RESPONSIBILITIES. THE MANUFACTURER/AGENTS ARE NOT LIABLE FOR DAMAGES, DEATH, INJURY IN ANY FORM SEEN OR UNFORSEEN DUE TO MANUFACTURING DESIGN OR ERRORS IN PRODUCT DESIGN.

PACKAGE CONTENT



- **OWNERS MANUAL**
- **AC CHARGER**
- **BATTERY CANISTER**
- **CANISTER HEAD AND LIGHT**
- **2 - SS MOUNTING CLAMPS**
- **1 - 2 INCH NYLON WEBBING**

TECHNICAL SPECIFICATIONS

CANISTER DIMENSIONS

DIAMETER 75mm / 3 inch
LENGTH 300mm / 11.75 inch
WEIGHT 2.64 KG / 5.84 LBS



CHORD LENGTH STANDARD

137cm / 54 inch

LIGHT HEAD

DIAMETER 56mm / 2.20 inch
DIAMETER 63mm / 2.48 inch
LENGTH 105 mm / 4.13 inch



TECHNICAL SPECIFICATIONS

BATTERY INFO:

VOLTAGE 7.4 V NIMH nominal
AMPERE HOUR 10000 MAH
WATT HOURS 90



RUN TIMES

% OF POWER	TOTAL RUN TIME - MINUTES	100% SETTING	90% SETTING	80% SETTING	50% SETTING	30% SETTING	LUMEN
		5	4	3	2	1	
100%	250	120	20	-	-	110	4000
90%	285		150	-	-	135	3600
80%	310			180	-	130	3200
50%	440				420	20	2000
30%	840					840	1200

LIGHT FUNCTIONS FEATURES

- **5 MANUAL SETTINGS WITH AUTOMATIC DIMMING WHEN BATTERY REACHES CERTAIN POWER LEVELS.**
- **TEMPERATURE PROTECTION, POWER TO THE LIGHT HEAD WILL BE CUT UNTIL TEMPERATURE DROPS TO OPERATING TEMPERATURE. THIS COULD TAKE A LONG PERIOD OF TIME IF LEFT OUT OF WATER.**
- **LIGHT SHOULD NOT BE RUN ON HIGH OUT OF THE WATER. FOR SURFACE USE RUN ON LOWEST SETTING.**
- **LOW VOLTAGE PROTECTION - AT 6 VOLTS THE LIGHT WILL BLINK 6 TIMES AND POWER WILL BE CUT. ALWAYS DIVE WITH BACKUP LIGHTS.**
- **MEMORY - THE LIGHT WILL START AT THE LAST SETTING YOU HAD IT ON.**

HOW THE DIMMING WORKS

WHILE THE LIGHT IS ON -TURN OFF -THEN ON-WITHIN 3 SECONDS WILL LOWER THE POWER SETTING.

TURNING THE LIGHT OFF FOR MORE THEN 3 SECONDS AND TURNING IT BACK ON WILL KEEP THE SAME POWER SETTING.

AS BATTERY POWER LOWERS, THE LIGHT WILL AUTO-DIM TO PRESET LEVELS - THE LIGHT WILL BLINK 3 TIMES THEN DROP A POWER LEVEL. REFER TO THE RUN TIMES TABLE (PAGE 6) OF THIS MANUAL.

YOU CAN SWITCH TO ANY LOWER POWER SETTING TO CONSERVE BATTERY AT ANY TIME.



CHARGING THE LIGHT

**FIRST CONNECT THE BANANA PLUGS TO THE BATTERY CANISTER
+ RED TO +RED THEN THE -BLACK TO -SILVER PLUG.**

THEN INSERT THE THERMAL SENSOR INTO ANY OF THE 2 TRAVEL HOLES.

THE CHARGER HAS 2 CHARGE RATES, CHARGE THE LIGHT ON 2A ALWAYS.

REFER TO THE BELOW PHOTO FOR PROPER CONNECTIONS.

DO NOT MIX WIRES - DAMAGE COULD RESULT.

CHARGE THE BATTERY WITH THE CANISTER STANDING UP.

LAST STEP IS TO PLUG THE POWER AC CHARGER INTO THE WALL POWER.

**ONCE CHARGING STARTS THE LIGHT ON THE CHARGER WILL TURN RED
AND STAY A SOLID RED.**

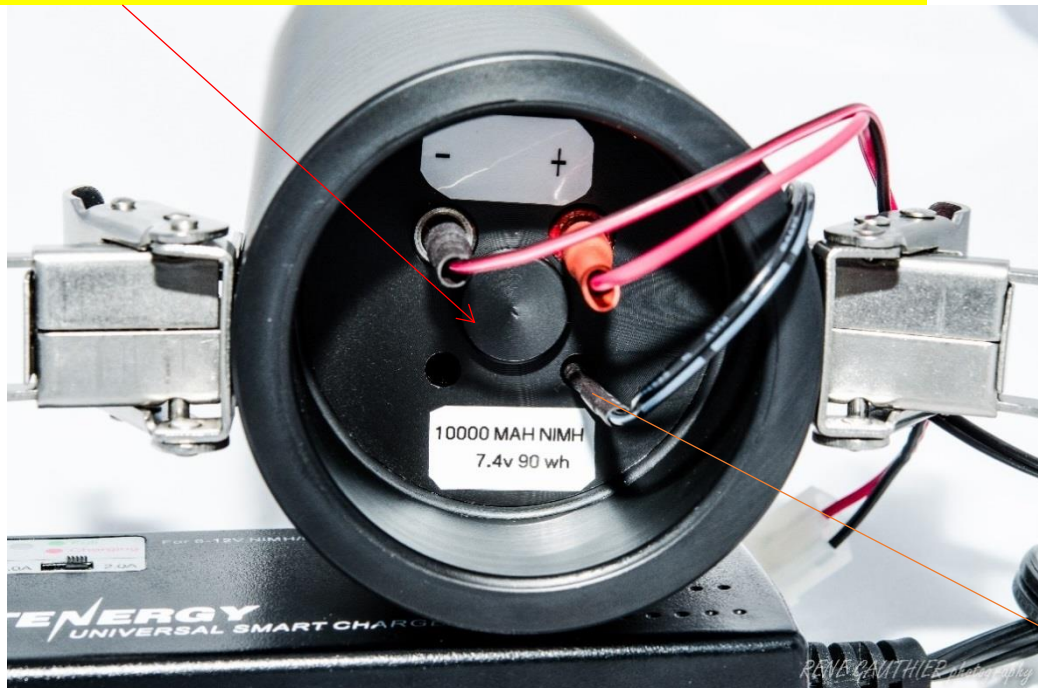
THE LIGHT WILL CHANGE TO GREEN WHEN FULLY CHARGED.

CHARGE TIMES WILL VARY. 5 HOURS APPROX FROM FULLY DISCHARGED.

**DURING CHARGING THE CANISTER WILL WARM UP THIS IS NORMAL FOR
NIMH BATTERIES. A THERMAL PROTECTION SWITCH PROTECTS THE
BATTERY FROM OVERHEATING DURING CHARGING.**

NEVER CHARGE THE LIGHT UNATTENDED.

CANISTER OVER PRESSURE SAFETY RELEASE PLUG



THERMAL SENSOR

CHARGING COMPLETE

WHEN FULLY CHARGED (**GREEN LIGHT) REMOVE THE AC CHARGER POWER
PLUG FROM THE WALL FIRST BEFORE DISCONNECTING THE CHARGE
CHORDS FROM THE BATTERY PACK.**

AIR TRAVEL

IF YOU TRAVEL WITH YOUR LIGHT YOU MUST DO 2 THINGS.

- **DO NOT FULLY CHARGE YOUR LIGHT FOR FLIGHT.**
- **ROTATE THE CANISTER CAP SO THE POWER PLUGS LINE UP WITH THE TRAVEL HOLES SO THE LIGHT CAN NOT BE TURNED ON IN TRANSPORT.**
- **YOUR DIVE LIGHT SHOULD BE A CARRY-ON ITEM, NOT CHECK IN. CHECK WITH YOUR AIR CARRIER.**

THE BATTERY IS NICKEL METAL HYDRIDE WHICH IS A SAFE CHEMISTRY TO FLY WITH UNLIKE LITHIUM ION THAT HAS GROWING RESTRICTION WITH AIR TRAVEL.

TRAVEL HOLES



POWER PLUGS



HOW TO REMOVE THE CANISTER TOP

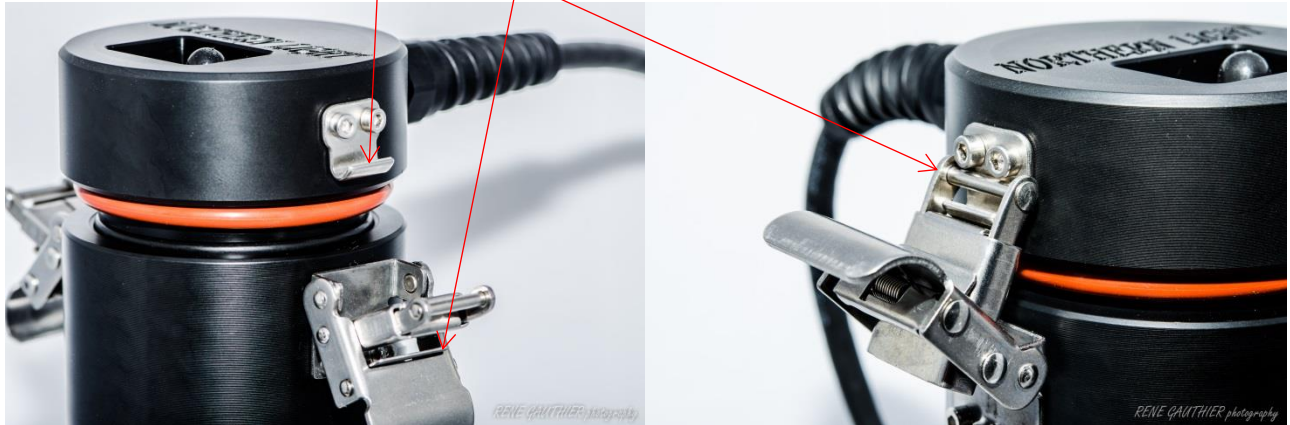
NORTHERN LIGHT HAS ADDED A SECOND O RING THAT GIVES YOU DOUBLE PROTECTION OF THE BATTERY, THIS CAUSES A VACUUM WHEN REMOVING THE TOP FROM THE CANISTER.

A DISASSEMBLY TECHNIQUE THAT MUST BE FOLLOWED HAS BEEN DEVELOPED TO MAKE THIS ALMOST EFFORTLESS.

1. **UNLOCK THE LATCHES.**
2. **ON BOTH SIDES: PLACE THE LATCHES BAR UNDER THE CANISTER CAPS RETAINER SCREWS.**
3. **PLACE YOUR THUMBS ON THE TOP OF THE CANISTER CAP AND FINGERS ON THE LATCH ARMS WHILE PUSHING THE CAP UP WITH THE LATCH ARMS, THIS WILL MOVE THE CAP UP AND READY THE CAP FOR THE NEXT STEP.**
4. **NOW PLACE THE LATCH ARM BAR ON THE UNDERSIDE OF THE CAP RETAINER AND LIKE STEP 3 PUSH THE CAP UP TO POP THE SEAL.**
5. **NOW YOU CAN REMOVE THE CANISTER CAP.**
6. **LIGHT O RING LUBE CAN BE USED ON THE SECOND SEALING O RING TO AID IN ASSEMBLY. NEVER LUBE THE BIG PRIMARY SEAL THIS WILL ATTRACT DIRT. ALWAYS ENSURE THE O RINGS ARE FREE OF DIRT AND HAIRS.**

CANISTER CAP REMOVAL

- 1. RELEASE THE LATCHES**
- 2. LATCH BAR**
- 3. CAP RETAINER**



WATCH THE VIDEO DEMONSTRATION ON YOUTUBE

NORTHERN LIGHT CA

<https://youtu.be/jG0RjqW-f3E>

MAINTENANCE

TO KEEP YOUR LIGHT IN TOP RUNNING CONDITION BY SENDING IT IN FOR ANNUAL MAINTENANCE, NEW O RINGS AND NEW LIGHT CHORD WILL BE ADDED

Email for pricing

THANK YOU FOR YOUR PURCHASE OF THE NORTHERN LIGHT CANISTER LIGHT.

WISHING YOU MANY GREAT ADVENTURES.

EMAIL FOR SERVICE OR QUESTIONS

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