



# RECHARGEABLE HEADLIGHT

## VOLT1700™

### HL-EL1020RC Manual

Before using the light, read this manual thoroughly and keep it for future reference. Do not use the light in any way other than as described in this manual.



Design Pat. Pending  
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EL1020RC-220310 3

### ⚠ WARNING!!!

- This light emits an extremely powerful beam equivalent to automobile headlight so it may cause a hazardous situation depending on the beam angle used. Be sure to direct the light beam downward so the driver approaching does not get dazzled.
- Before your trip, please make sure the light is firmly mounted to the bracket and it lights up. The light must not be obscured.
- Always pay attention to the remaining battery power by checking the indicator periodically while using the light.
- Do not disassemble or modify the light or any of the included items.

### ⚠ CAUTION!

- Do not use high mode on public roads.
- Do not stare at the light when it is illuminating. Otherwise it may damage your eyesight.
- Operating the light while riding is dangerous. Always ride safely.
- Note that the light becomes hot while illuminated. Do not block the lens or cover the light.
- Due to the variability of LEDs, the color and brightness may differ even between devices with the same model number.
- Do not place it within children's reach.
- In preparation for unexpected battery shutoff, we recommend you carry a spare cartridge battery and light.
- When used with a cyclocomputer, attach the headlight as far away from the cyclocomputer as possible, as it may affect measurement.
- This device is rated IPX4 based on JIS C0920. Do not immerse the device in water. Doing so may cause a malfunction. Wipe off any moisture after using the device in rainy weather.
- Do not subject the light to strong vibrations, impacts, or excessive force. Discontinue use if any abnormality occurs.
- Do not charge or use the battery at any voltage or polarity other than that specified. Do not short-circuit the battery.
- Do not drop the light into a fire or heat the light.
- If the light unit or parts become dirty with mud, etc., clean with a soft cloth which is moistened with mild soap. Never apply paint thinner, benzene or alcohol; damage will result.

### ⚠ LITHIUM-ION BATTERIES

Recharge the battery for first time use or after long period of storage:

The voltage of the battery may drop due to self-discharge during long period of storage. Always fully charge the battery before use.

#### Cautions for charging and usage:

- Using a PC or USB battery charger with an output current of 1.5 A or more is recommended for charging.
- Please be sure that no dust or other foreign objects are attached to the plug of the USB cable before charging.
- Do not subject the light to vibrations while charging.
- When your PC is in sleep state, the unit cannot be charged.
- Once charging is completed, be sure to disconnect the USB cable from the charging port.
- Charging and lighting times are approximate values, and will vary by environmental and user conditions.
- Charging, discharging, and storing in high temperatures will cause the rechargeable battery to deteriorate faster. Do not place the light inside a vehicle or near a heater. Make sure to charge only when the ambient temperature is between 41°F and 104°F (5°C and 40°C).
- When the operating time decreases significantly, the battery life is close to an end. Replace the cartridge battery with a new one.

#### Cautions on storage:

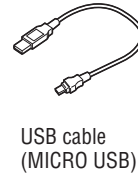
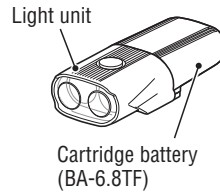
- If the device will not be used for a long period of time, store it in a location that is not too hot or too humid.
- Charge the battery for about 30 minutes every 6 months.
- When you store the cartridge battery alone, be sure to install the cap. Otherwise, damage or a fire may be caused by short circuit.

#### Cautions for dispose:

Dispose of used cartridge batteries appropriately according to local regulations.

### ⚠ Before Initial Use

This unit is shipped with small charge to check the light. Be sure to charge it before use, according to the instructions "HOW TO CHARGE" and "Cautions for charging and usage".

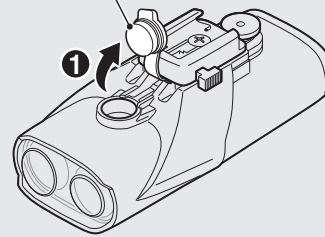


## 1 HOW TO CHARGE

### Standard charging time

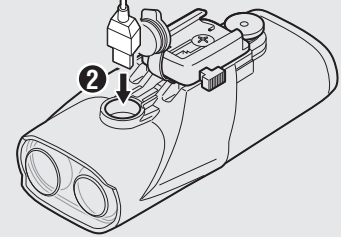
Approx. **5.5 (1.5 A) – 15 (0.5 A) h**

Charge jack cover



USB cable

To PC or USB battery charger



1. Connect the light unit to your PC or a commercial USB battery charger using the USB cable.

(1) – (2)

The switch lights up, and charging starts.

| Switch button light   | State (charging rate)    |
|-----------------------|--------------------------|
| Illuminated in red    | Charging (less than 50%) |
| Illuminated in orange | Charging (more than 50%) |
| Illuminated in green  | Charging is completed    |

\* When your PC is in sleep state, the unit cannot be charged.

\* Use a USB battery charger of 0.5 A (USB2.0) or more. The cartridge can be fast-charged with high capacity USB battery charger.

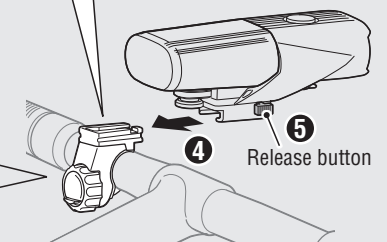
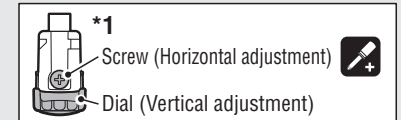
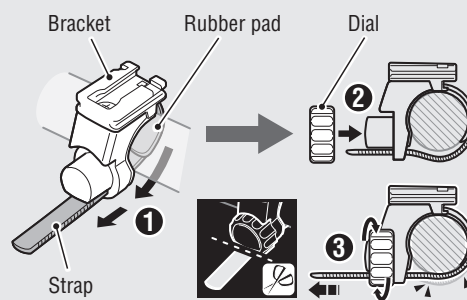
2. After charging is completed, remove the USB cable, and install the charge jack cover.

**CAUTION!: Attach the charge jack cover securely to ensure waterproofness.**

\* The battery charges to about 80% after approximately 12 hours.

\* Charging time is approximate values, and will vary depending on the environmental and usage conditions.

## 2 HOW TO MOUNT TO A BICYCLE



1. Mount the bracket to the handlebar. (1) – (3)
2. Insert the light unit into the bracket until it clicks, and adjust the beam angle. (4)

### ⚠ Beam angle adjustment

Turn on the light on a smooth road at night, and loosen the dial slightly to move the bracket. Adjust the beam angle so it does not direct to a driver approaching and then tighten the dial firmly to fix the bracket.



3. To remove the light unit, pull out it forward while pressing down on the release button (5).

### CAUTION!:

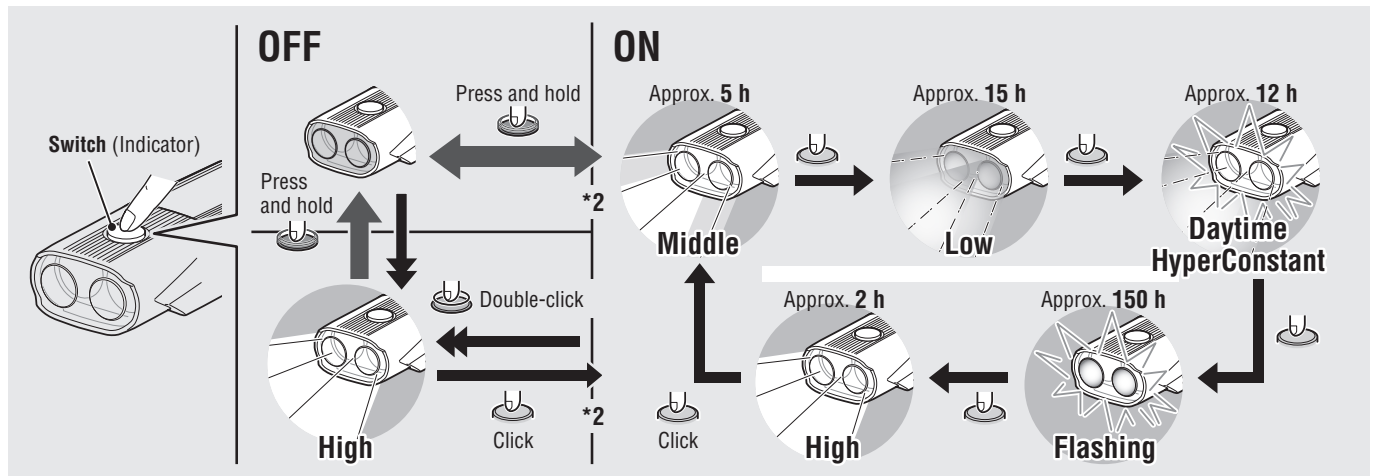
- Be sure to tighten the dial by hand. When you tighten it too hard with a tool, the screw thread may be stripped.
- Check the dial and screw (\*1) on the bracket periodically, and use them without any loosening.
- Round off the cut edge of the bracket strap to prevent injury.

### 3 SWITCH OPERATION (SWITCHING THE LIGHTING MODE)

The ON/OFF and lighting modes are selected using a switch.

\*2 When you turn the light on, it lights up in the last lighting mode you used. (Mode memory function)

\* The light unit may get hot depending on the condition the light is used in but it is not a malfunction. When it gets hot, protection circuit activates and it automatically lowers brightness level. One it is cooled down, the light recovers the previous brightness level.



#### Remaining battery capacity (Battery indicator)

When the switch lights up, there is little remaining battery power.

| Switch button light   | Remaining battery power |
|-----------------------|-------------------------|
| Illuminated in orange | 50 - 30 %               |
| Illuminated in red    | 30 - 15 %               |
| Flashing in red       | Less than 15%           |

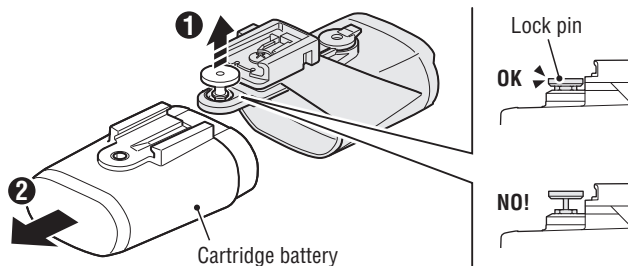
### 4 HOW TO REPLACE THE CARTRIDGE BATTERY

Remove the cartridge battery according to the procedure. (1 - 2)

To install the cartridge, reverse the procedure.

**CAUTION!:** Make sure the lock pin fits firmly into the cartridge battery.

If not locked firmly, the cartridge battery may drop off and it may cause sudden turn off.



### SPECIFICATIONS

|                                    |  |
|------------------------------------|--|
| Light source                       | LED x 2  |
| Cartridge battery                  | Li-ion 3.6 V 6800 mAh : BA-6.8TF   |
| Charge terminal                    | Micro B USB  |
| Operating time                     | High : Approx. 2 hours<br>Middle : Approx. 5 hours<br>Low : Approx. 15 hours<br>Daytime HyperConstant : Approx. 12 hours<br>Flashing : Approx. 150 hours<br>* Average runtime at 20°C. |
| Standard charging time             | Approx. 5.5 (1.5 A) - 15 (0.5 A) hours   |
| Charge voltage                     | 5 V  |
| Temperature range                  | Charging : 41°F - 104°F (5°C - 40°C)<br>Operating : 14°F - 104°F (-10°C - 40°C)  |
| Recharge/discharge number of times | About 300 times<br>(until the rated capacity drops to 70%)   |
| Waterproof                         | IPX4   |
| Dimensions/weight                  | 4-45/64" x 2-13/64" x 1-55/64" (119.3 x 56 x 47.3 mm) /<br>9.04 oz (256.3 g) (Including the cartridge battery)   |

\* The specifications and design are subject to change without notice.

### STANDARD ACCESSORIES

5338827N

FlexTight™ bracket



(H-34N)

5343200

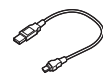
Cartridge battery  
(Li-ion 3.6 V 6800 mAh)



(BA-6.8TF)

5342730

USB cable



(MICRO USB)

### OPTIONAL ACCESSORIES

5341831N

Helmet mount



5342440

Center fork bracket



1604110

Out-front bracket 2



### LIMITED WARRANTY

**2-year Warranty : Light unit only**

**(Deterioration of the cartridge battery is out of warranty)**

CatEye products are warranted to be free of defects from materials and workmanship for a period of 2 years from original purchase. If the product fails to work during normal use, CatEye will repair or replace the defect at no charge. Service must be performed by CatEye or an authorized retailer. To return the product, pack it carefully and enclose the warranty certificate (proof of purchase) with instruction for repair. Please write or type your name and address clearly on the warranty certificate. Insurance, handling and transportation charges to CatEye shall be borne by person desiring service.

For UK and REPUBLIC OF IRELAND consumers, please return to the place of purchase. This does not affect your statutory rights.

**CAT EYE CO., LTD.**

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