



**Larson Electronics LLC** [www.LarsonElectronics.com](http://www.LarsonElectronics.com) [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com)  
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## **ATX-20-SA**

When starting the flashlight for the first time (cold start), it is recommended that user allows HID to power up to full (40-60 seconds) before powering off again. This allows the lamp time to achieve a temperature hot enough to vaporize the additives and prevent deposits from forming on the inner arc chamber walls. When powering up, it is normal for the lamp to “flicker”, this is the result of the metal salts in the arc chamber vaporizing. You will also see a slight shade of red and blue. As the light comes to temperature the flickering will subside, the arc will stabilize, and the light output will increase. The light emitted from the flashlight is a higher Kelvin temperature (blue in color) than ordinary flashlights. Full light output occurs in 10-15 seconds. If momentary shut off of the light is needed you can instantly restart the light without worry of damage or cool down. It is suggested not to “flash” the light, as this will shorten run time and lamp life.

### **CHARGING THE FLASHLIGHT**

1. Before charging, power off the HID flashlight. It is to remain powered off while charging.
2. Charger stand required to charge EP batteries. Set the battery into the battery charging stand.  
**CAUTION:** Use only the supplied flashlight chargers; do not use other chargers as this will cause battery failure, overheating and possibly explosion.
3. Connect the charger plug to AC wall power or the DC power source (if DC charger is being used).
4. Charging time will be approximately 2.5 hours.
5. When the charge is complete, (indicated by Green LED), unplug the charger from the power source and disconnect the battery jack from the flashlight. Replace the rubber cap of the female receptor (on end cap) to prevent water from seeping in.
6. The optional Battery Charger Stand may be used to charge a spare Lithium Battery with either the AC or DC battery chargers.

### **NOTE:**

When charging for long periods of time, the charger and battery will get hot. This is normal. If excessive heat or order is noticed disconnect the charger immediately.

- The charger uses a 2-color LED indicator (Red and Green):
- When connecting power, the LED will illuminate *Green*.
- While charging, the LED will illuminate *Red*.
- When fully charged, the LED will again illuminate *Green*.

Do not leave the light or battery on charger past full charge or the overcharge circuit protection will activate.

Please refer to *Overcharge Notice* section, if light fails to ignite after a full recharge.



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## **BATTERY REPLACEMENT**

The flashlight is modular in design. Replacement of the lithium battery module is as follows:

1. To remove the battery: Power off light and carefully rotate the battery counter clockwise away from the ballast housing.
2. To replace the battery: Be careful to line up the battery with the ballast and rotate the battery clockwise on to the ballast housing, be careful not to cross thread. Tighten snugly.
3. *DO NOT FORCE OR OVER TIGHTEN* as damage will occur and you will void your warranty.

### **NOTICE:**

While replacing the battery, please make sure that your flashlight is in the "OFF" position, otherwise damage can result to the lithium battery, electronic ballast and electrical connection between ballast and lamp

## **LAMP AND BALLAST REPLACEMENT**

**CAUTION NOTICE:** Before replacing lamp, make sure the light is "OFF" for a minimum of 10 minutes or longer to ensure any stored power has dissipated, to avoid electric shock from stored energy in the ballast, and temperature of lens has cooled enough to avoid being burned from high temperature.

The lens cap has a "fine thread". Grasp the lamp-head-housing (serrated edge behind lens protector), with one and while grasping the lens cap in the other, rotate the lens cap counter clockwise to access the lamp. While removing the lens cap, be careful not to drop lens, spacer and lamp to avoid damage.

While installing the lamp module, inspect the rubber O-rings for chaffing or breakage, Replace if signs of wear. There is a plastic spacer between the lens and the outer reflector. The flat side faces the lens and the slotted side faces the reflector. Check the rubber seal under the clear lens for wear or breakage, replace if signs of wear. A dab of silicon lubricant or low mineral petroleum jelly should be used on the threads of the light head before replacing the lens cap. Be careful not to cross thread and **DO NOT FORCE**, or you will void your warranty and your light will be rendered inoperative.

## **BATTERY CHARGING NOTICE INFORMATION**

A safety circuit is incorporated into the battery to protect from over-charging and rapid discharging of the Lithium Ion battery. In the event of a rapid discharge, due to short circuiting the battery or an over charge condition, the internal circuit will trip and render the battery inoperative and will have to be replaced. The charger will indicate a full charge condition (Green LED), but the battery will not power the light.

Do not short circuit the battery. A short circuit will occur if the electrical contacts, (contact rings), on the inside end of the battery come in contact with each other by metal (such as coins, clips, pens, keys or necklaces, etc.). This will cause the internal fuse to blow.

The battery and charger are calibrated to sense charge rate and charge capacity. Under normal circumstances the system works reliably. Excessive temperature, power surges, or shock can cause the circuits to sense an unstable condition that will cause the internal fuse to blow.

## **BATTERIES**



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Batteries can be charged and discharged hundreds of times. When a noticeable drop in battery performance occurs, it is time to replace the battery module. We recommend changing the battery once a year depending on usage. Shorter durations may be necessary with extensive use of the light.

While charger is not in use, disconnect the power supply. Do not leave the battery on the charger past full charge indication as the charger could sense an overcharge condition if a power surge occurs. Overcharge can shorten the lifespan of the battery. Before charging, make sure the power switch is "OFF".

Only use the charger and battery that was shipped with the light. Do not use other types of batteries or chargers. To do so will damage the light and void your warranty. Your dealer has spare batteries and chargers available.