

XeVISION™

HID Xenon & LED Lighting Technology for Aerospace, Military and Industry

XeVision™ XeRay™ XV-LX70 HID Searchlight

User's Manual

Doc: XVLX70-HC-MAN - Version Sep 2013



Barn Burner on Steroids

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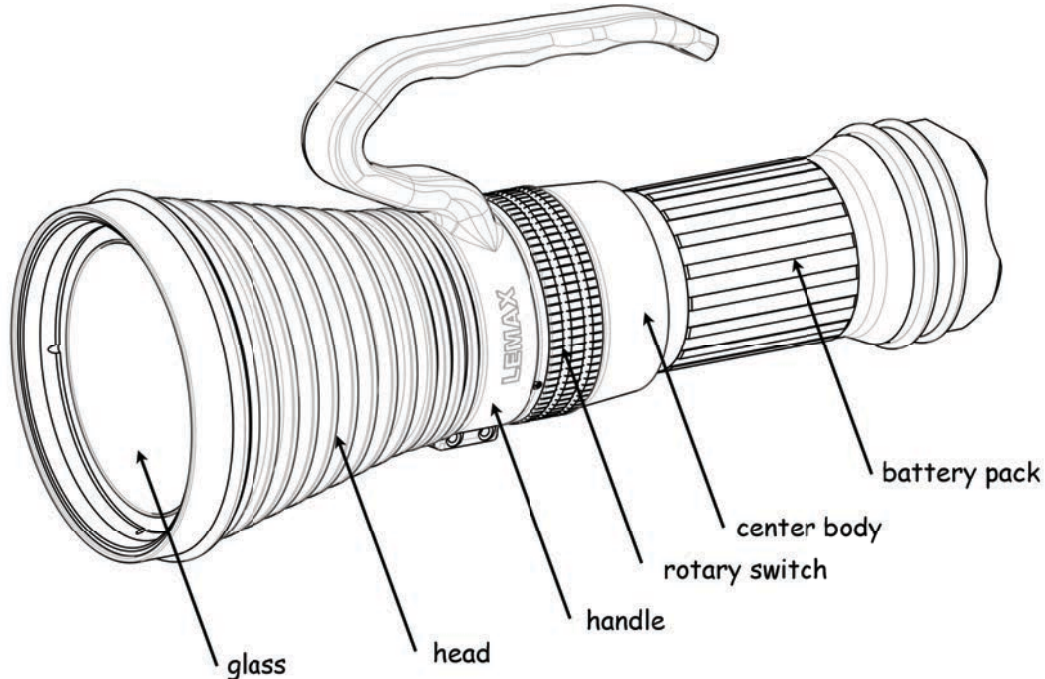
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For your safety

To prevent damage to the searchlight or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment. Keep these safety instructions for all who use the product.



Warning

- The searchlight has a high energy output and it becomes hot during extended operation (especially the front glass). Provide open air flow access for cooling. Avoid proximity to flammable surfaces!



Do not disassemble

- Do not disassemble the searchlight! It is designed to fulfill the demands for operation in extreme conditions. Disassembly not performed by professionals may result in product failure of sensitive internal parts of the searchlight. Contact XeVision for necessary repairs.

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If you lend the device also include the user's manual

- This manual should be located within reach of the person(s) using the device.
- Only those persons well acquainted with the user's manual contents, should be allowed to use the searchlight.



Keep out of reach from children

- Children are forbidden to use the searchlight without supervision of an adult. The temperature of the bulb increases after a longer runtime and it may cause serious burns. Also the lamp is intensely bright, it could do retinal eye damage.



Storage

- Do not store the searchlight in wet or humid places or in a space where the ambient temperature may exceed 40 °C or below 0 °C for extended periods.



Cleaning

- Use always a piece of clean cloth to clean the searchlight. Do not use any kind of solvents or chemicals.
- Rinse the searchlight with generous amounts of fresh water after using the searchlight in salt water!



Charging

- Always use the provided charger. Incorrect charging may cause serious damage to the battery pack. Do not use the charger if the cable or any part of the charger has been damaged. Damaged parts should be replaced by XeVision.
- Do not disassemble the charger. Any kind of repairs must be done by XeVision. Incorrect assembly or disassembly or other incorrect manipulation may cause short circuit and complete failure of the searchlight.
- Always unplug the cable of the charger before any kind of maintenance or cleaning!
- The charger has been designed ONLY to be used indoors.
- The charger must not be plugged in unattended for extended time after the battery has been fully charged!
- Do not use the charger near flammable liquids and in explosive environments, it may cause ignition of fumes and explosion.



Do not expose the searchlight to extreme conditions if it is not necessary

- Extreme conditions are e.g.: Low and high temperatures (under 0° C and above 50° C), severe shocks and impacts, acids, Long term water exposure, etc.

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Warning

- Do not locate the searchlight near fire or other sources of heat. It may cause damage to the product.



Warning

- **Do NOT touch the gold contact areas of the battery. This could cause a short circuit and may damage the battery!!!** Touching also leaves a residue of body oils from your fingers.





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User's Manual

Notices

- Acquaint yourself FULLY with the functions of the searchlight. Read carefully the user's manual. The searchlight is designed to be used in extreme conditions but there are limits of its utilization – see charging the searchlight.
- The searchlight must be used only with its original charger.
- The searchlight should always be stored with a fully charged battery.
- Be always careful with the use of this HID searchlight. Check the searchlight parts for any kind of damage before use.

XeRay™ XV-LX70 specification summary

Basic parameters

Light source power: 50 W and 70 W, user switchable by magnetic ring switch

Luminous flux: 5300 lumen @ 50 W and 7500 lumen @ 70 W

HID DL50/740 bulb life and XeSparQ™ igniter: 2000 hours

Color temperature: 4000 °K @ 50 W

Power: 12 VDC

Water resistance: 50 m

Maximum lighting distance: 3000 m

Effective lighting distance: 1000 m @ 50 W, 1300 m @ 70 W

Working temperature: -20°C [-4°F] up to +60°C [+140°F]

Max. working temp.: +120°C [248°F] max. 1 min

Surface treatment: Hard anodizing: MIL-A-8625

Continuous run time

Approx. 140 min (50 W), approx. 100 min (70 W)

Weight

XeRay™ XV-LX70 : 2000 g [4.4 lb]

Charger: 345 g [0.76 lb]

Rechargeable batteries

Life cycles: 1000

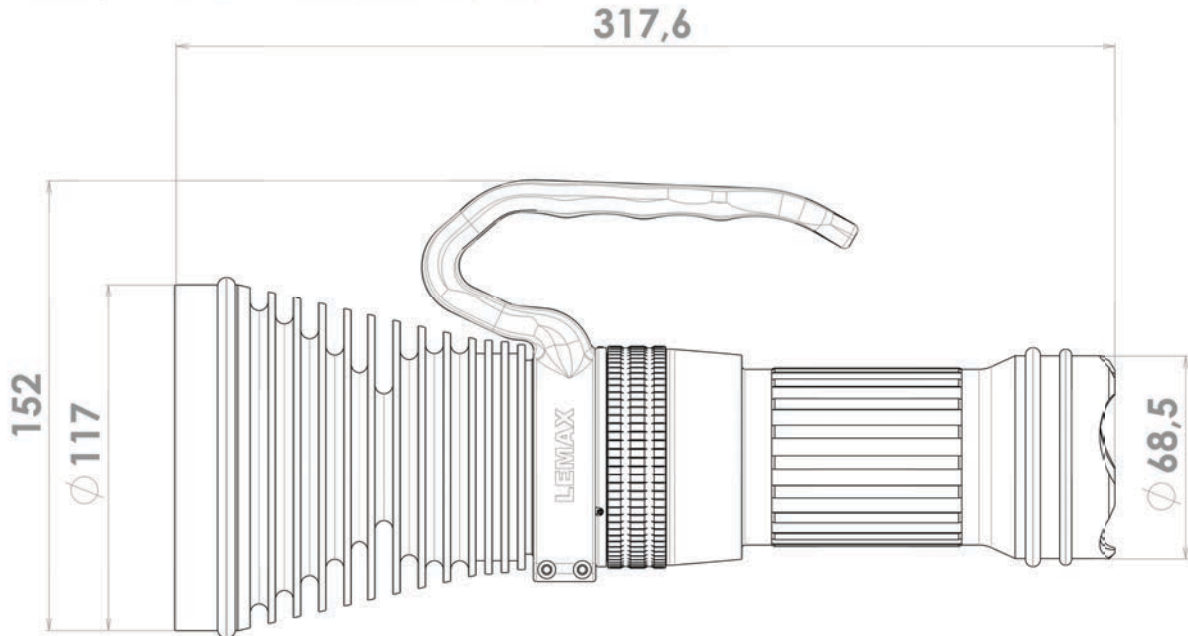
Charge time: HC battery approx. 350 min (at 20°C)

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Dimensions

XeRay™ XV-LX70 dimensions (mm)



What's in the box

XeRay™ XV-LX70 with handle

Battery pack, Li-Ion (14.4 VDC, 8500 mAh)

Charger: AC 100-240V/50-60 Hz

Container with 1 g DOW CORNING High vacuum grease (for head O-ring application only)

Shoulder strap

PELI Case

Optional accessories and spare parts

Battery pack, Li-Ion (14.4 VDC, 8500 mAh)

HID bulb DL50/740 modified

Charger: AC 110-220V/50-60 Hz

Shoulder strap

Yellow (fog) filter

Diffuser lens

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Operation

Charging



Safety First

Indication of battery discharging

The searchlight informs the user by a short interruption of illumination (1/2 second) when the battery has been run down to 20% (approx.) of its rated capacity. The illumination is shortly interrupted every 60 sec thereafter, until the light shuts off fully as the battery has insufficient remaining stored energy for operation.

After the searchlight starts with this indication, the effective discharge of the battery you have approx. 20% of the actual running time left until full shutdown of the searchlight.

When using the 70 watt (high) setting, once the 20% battery level is reached, first the searchlight automatically reduces to the 50 watt setting to conserve available battery power. Then the unit also starts the light interruption sequence as explained above.

After switching off or fully discharging wait 5 min and connect the searchlight to the charger.

Charging

1. To charge the battery, unscrew the battery assembly (rear part of the searchlight) from the body of the searchlight. Use force (torque) only as necessary for connection and disconnection of the battery from the searchlight. Because of the sealing O-ring additional torque is not needed and will make future removal more difficult.
2. Connect the charger to the source of the electric current first.
3. Screw the battery to the charger.
4. The green light starts blinking.
5. The charging cycle is finished when the light is steady green.
6. **Before connecting the battery back to the searchlight XERAY™ XV-LX70, oil the sealing ring and also the screw thread if necessary.**



XeRay™ XV-LX70 - do not touch the battery gold contacts!

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The searchlight is equipped with a set of Li-Ion cells assembled (enclosed) in an anodized aluminum housing, (battery pack) that can be recharged repeatedly. Cells **are heavily** under load (power drain) **during operation of the searchlight. Therefore wait 5 min after finishing use of (turned off) the searchlight, before recharging.** If you connect the searchlight to the charger immediately after switching off of the searchlight or immediately after complete discharge, the charger will not start the charging! The internal batteries need a few minutes to cool down.

Check the small indicator LED on the charger:

Green light off – Battery is not connected

Green light blinking – Charging

Green light on – Battery is full

Red light blinking – caution! – faulty operation, please disconnect and try again

ON-OFF Switch

The black rotary dial just behind the handle serves to switch the searchlight on and off.

Switching the searchlight on/off:

70 W – Quickly rotate the dial clockwise 360°.

50 W – Quickly rotate the dial counterclockwise 360°.

OFF – Quickly rotate the dial in opposite direction of the selected wattage

Note: Quick movements are necessary to switch the searchlight ON or OFF.



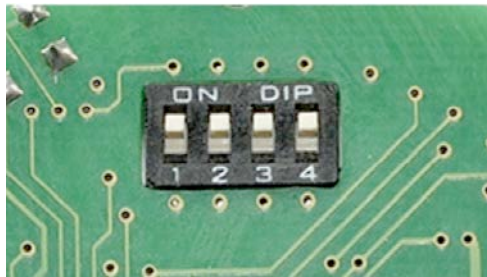
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Additional power functions

In addition to the normal operation of the XeRay™ XV-LX70 HID searchlight through simple external manipulation, an internal dip switch array is provided for two group of advanced functions (Factory settings – all switches set to ON).

The dip switch array can only be accessed after the battery has been removed. The dip switch array is located on the PCB inside the XeRay™ XV-LX70 HID searchlight body, see picture below:



In order to switch the individual dip switches a ball pen may be used.

XeRay™ XV-LX70 Output power preset

This setting is defined by selection of switch 1 and switch 2

Normal dual power mode, 50/70 W is selected

Switch 1 ON

Switch 2 ON

Permanent single power mode, 50 W is selected

Switch 1 ON

Switch 2 OFF

Permanent single power mode, 70 W is selected

Switch 1 OFF

Switch 2 ON

XeRay™ XV-LX70 Input power control function

This setting is defined by selection of switch 3 and switch 4, and will be released in the near future (status aug. 2013). It will control external power sources and remote control.

Internal battery mode (factory setting)

Switch 3 ON

Switch 4 ON

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Maintenance

If the XeRay™ XV-LX70 Searchlight is used every day, then at least once per week lightly apply oil to the battery O-ring seal and screw thread with an adequate oil or grease. Clean the screw thread and remove any dirt particles if necessary. Use only oil or grease suitable for screw threads. Note: For the lamp head only it is imperative to use specially formulated low vapor pressure lubricating oil or grease like the DOW CORNING High vacuum grease included. The head is removed only when changing the HID bulb - only by authorized trained personnel.

Transport

While transporting the searchlight by airplane keep the battery pack disconnected from the main body of the searchlight. Protect the Gold battery pack contacts from any metal objects, preventing the possibility of a short circuit, uncontrolled discharge rate and possible fire or explosion.

Warranty

The limited warranty is 12 months (except the battery warranty, which is 6 months) and starts with signing the delivery documents. The warranty does not cover any damage caused by mechanical damage, transportation, unauthorized operation or by the improper storage.

Product disposal



Symbol for separate disposal in European Countries

This symbol indicates that this product is to be collected separately.

The following apply only to users in European countries:

- This product is designated for separate disposal at an appropriate collection point. Do not dispose together with household waste.
- For more information, contact XeVision or the local authorities in charge of waste management.

Product origin

This product is assembled in USA by XeVision™.

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