

Handheld Series Operation Manual

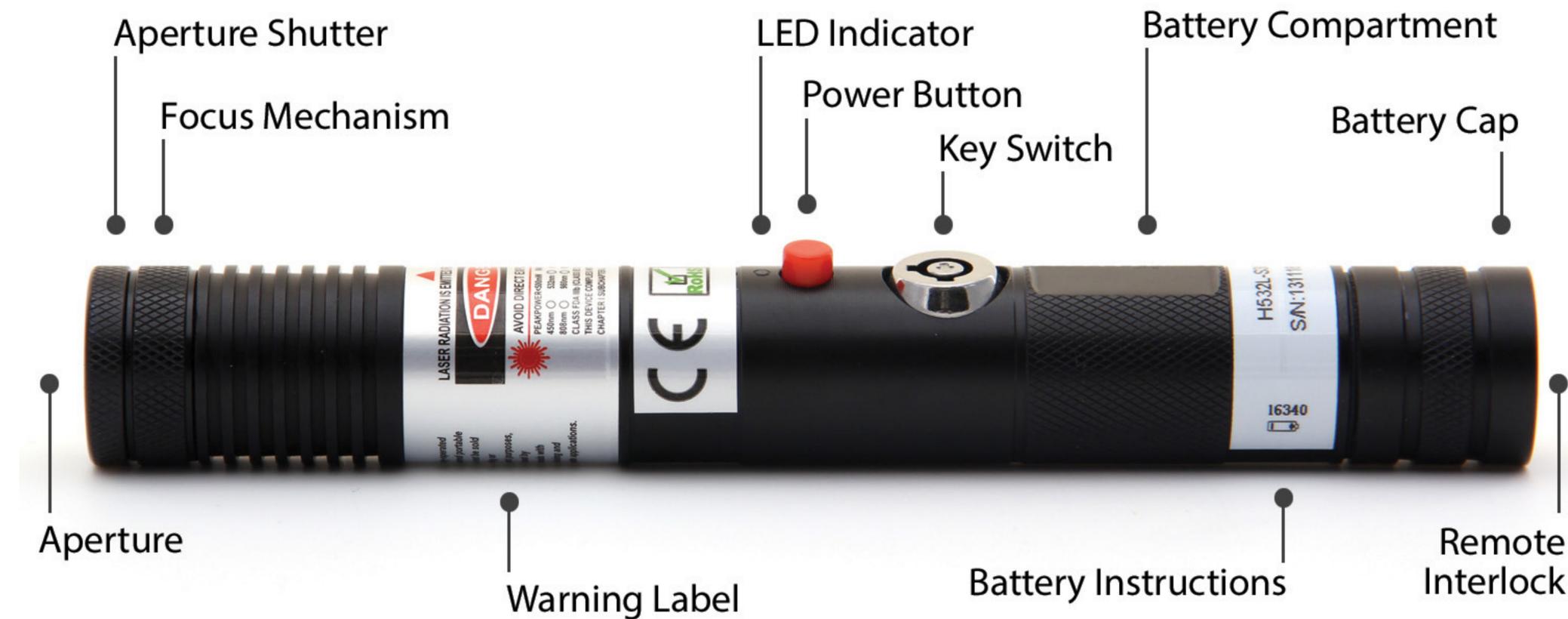
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LASER DIAGRAM



TECHNICAL SPECIFICATIONS

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Series:	Handheld Series
Dimension:	Ø23.5mm x 180mm
Weight:	120 grams
Laser Class:	3B / 4
Available Colors:	Violet, Blue, Green, Red, Infrared
Wavelength:	405nm 445nm 515nm 532nm 635nm 650nm 808nm 980nm
Power Output:	100 - 500mW 500 - 1000mW 30 - 50mW 100 - 300mW 100 - 180mW 100 - 300mW 300 - 1000mW 200mW - 800mW
Beam Diameter:	< 2.5mm < 2.5mm < 2.5mm < 2.0mm 4 x 4mm 4 x 4mm 3 x 3mm < 2.5mm
Beam Divergence, Full Angle:	< 3.0mRad < 3.0mRad < 3.0mRad < 2.0mRad < 5.0mRad < 5.0mRad < 6.0mRad < 6.0mRad
NOHD:	24 - 53m 53 - 75m 13 - 17m 36 - 62m 14 - 19m 14 - 25m 21 - 38m 17 - 34m
Required Eyewear:	O.D. 4+
Power Consumption:	3.7V, 1-2A
Power Supply:	1x / 2x 16340 3.7V Lithium-Ion Rechargeable Batteries (based on model)
Battery Lifetime:	45 - 90 minutes
Mode/Switch:	Constant Wave, On / Off
Duty Cycle:	Continuous
Diode Lifetime:	> 5,000 Hours
Warranty:	12 Months

LASER OPERATION



Battery Instructions

The Handheld Series is powered by either 1x or 2x 16340 3.7V lithium-ion rechargeable batteries based on model. While you will not find this type of battery at the local market or electronics store, it is readily available on the internet such as on Ebay and Amazon.

To get started, open the battery compartment by twisting the end cap counter clockwise until it is completely removed. A label near the opening of the battery compartment shows the proper polarity of how the batteries are to be inserted. Place the batteries into the laser now. When complete, screw the battery cap back onto the laser by twisting clockwise.

Unlocking The Laser

The Handheld Series is equipped with a series of safety locks and features that prevent the unauthorized use of this laser. Before you can activate this laser, it must first be unlocked.

STEP 1: Remote Interlock

The remote interlock is a pin type lock that must be attached in order for the laser turn on. Two types of interlock keys are provided, the pin and loop. When you receive your laser, the pin key is already inserted into the remote interlock. If this is removed, your laser will not turn on.



The loop key is used if you require the addition of a third party switch to activate the laser remotely. Simply cut the red wire and attach the remote switch.

LASER OPERATION

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STEP 2: Key Switch

A key is required to unlock this laser. When you receive your laser, the arrow on the lock mechanism is pointed away from the aperture, the hole where the laser beam exits the laser. This is the locked position.

To unlock, insert the set of keys that came with your laser by aligning the notch on the key with the groove on the lock mechanism. Turn clockwise so the arrow points toward the aperture. This is the active position.

STEP 3: Aperture Shutter

The last step in unlocking the Handheld Series is opening the aperture shutter. This is the lens cover that blocks the laser beam from exiting the laser. Twist the aperture shutter mechanism clockwise to open the aperture.



Laser Activation

If you've followed the battery and unlocking steps properly, your laser is now ready to be turned on.

At this time, the laser is armed. For some models, the LED indicator is green when armed.

To turn the laser on, press power button until you feel or hear a faint click.

To turn the laser off, press the power button again and release your finger.

For pulsed Handheld Series lasers using the Smart-Click system, press and release the power button to activate constant wave mode. Press and release the power button a second time to activate pulse mode at frequency of 2Hz. Press and release the power button a third time to turn the laser off.

The LED power indicator is red/blue when the laser is powered on.



LASER OPERATION

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Adjust Focus

The Handheld Series has unique focus adjusting abilities where you can widen the laser beam into a laser flashlight. To adjust focus, simply twist the focus mechanism counter clockwise along with the aperture shutter. Please refer to the Laser Diagram above for the location of the focus mechanism.

You can gently twist the focus mechanism until you are no longer able to do so. Do not use force to twist the focus mechanism beyond its intended length.

When you are no longer using the laser, return the focus mechanism back to its original position.

Did you know? Based on experience, the number one reason why your laser is not working is because the batteries are inserted incorrectly. Open the battery compartment and double check the polarity of the batteries with the instructions on the label.



LASER SAFETY

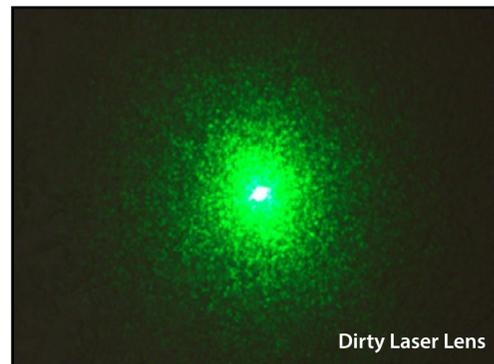
Lasers are powerful devices that emit a coherent beam of light with the potential to cause severe and permanent eye damage. Use common sense and utmost caution when dealing with any laser. Even a low power laser can be potentially dangerous if handled improperly. Lasers are not toys, below are some laser safety tips you should keep in mind when operating a laser:

1. Avoid direct or indirect contact with the eye or skin.
2. The Handheld Series emits a very powerful laser, this is not a laser pointer. Always point the laser away from you and anyone around you. Always wear laser safety glasses when working with this laser.
3. Do not point the laser at reflective surfaces such as a mirror or window. A reflected laser beam carries enough power to be hazardous to your eyes. Never view a laser using an optical instrument, such as binocular or a microscope.
4. Do not look at diffused reflections without proper laser safety glasses especially against a white or light colored background. Our violet and blue lasers emit light near ultraviolet which can cause photochemical damage, reduce exposure if possible.
5. Do not allow children to operate a laser even if supervised.
6. Remove the batteries, lock the laser, and close the aperture shutter when you are no longer working with the laser. This will prevent the laser from being accidentally activated.
7. Do not point a laser at moving motor vehicles or aircrafts. This will cause momentary blindness to the driver or pilot putting potential hundreds of passengers at risk.

MAINTANENCE

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There is no routine maintenance required for this laser. While this is so, the lens of the laser may become dirty resulting in a scattered laser beam and spot. To fix this problem, you can perform the simple cleaning procedure outlined below:



Lens Cleaning Procedure:

What you need: microfiber cloth for lens cleaning, q-tip, and lens cleaning solution (optional)

Step 1: Wash your hands thoroughly with soap and water making sure to dry them completely before starting this procedure.

Step 2: Remove the batteries from the laser so it cannot be accidentally activated.

Step 3: Place the microfiber cloth over the aperture of the laser. Using the q-tip, slowly push the microfiber cloth through the aperture and onto the lens of the laser diode approximately 5mm - 10mm inwards. When you have reached the lens, gently move the q-tip from side to side and rotating in a circular motion.

Step 4: Remove the q-tip and microfiber cloth, insert batteries, and turn the laser on to see if the lens is clean. Repeat if necessary.

Tip: Put 1-2 drops of lens cleaning solution on the microfiber cloth to improve cleaning.

STORAGE

Store the laser in a dry location with temperatures between 0°C - 50°C (32°F - 122°F). To prevent dust from entering through the aperture, store the laser within an enclosed box such as the one that came with the laser. Remove the batteries before storage.

LIMITATION OF LIABILITY

SKY Lasers Ltd, operator www.SKY-Lasers.com, including any of its subsidiaries or affiliates are in no event liable for any direct, indirect, incidental, or consequential injuries or damages associated with the use of this product. By purchasing from www.SKY-Lasers.com, you hereby agree be fully responsible for adhering by any ownership laws for this product in your jurisdiction and will not use this product in violation of any local, state, federal, or country regulations. You should also agree to the following:

I am an adult at least 18 years old.

I take full responsibility for my actions with this product.

I will use common sense when working with this product and follow safety protocols to the best of my knowledge.

I will not point this product at myself, people around me, nor animals.

I will not point this product at moving vehicles or aircrafts.

I understand that pointing a laser at an aircraft is illegal and a felony in the United States.

I will wear laser safety glasses when operating this laser.

WARRANTY

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SKY-Lasers.com warrants the Laser Pointer Series, Handheld Series, and Portable Series lasers for 6 months against defects in workmanship and materials. The warranty does not cover normal wear and tear, or damage due to accident, abuse, misuse, modification, water, pets, children, or 'acts of God.'

Disassembling your laser will void this warranty.

All defective lasers will be replaced or repaired subject to the full discretion of www.SKY-Lasers.com.

Our warranty only extends to the original owner, beginning on the day of purchase, and only to products purchased from our website or an authorized reseller.

This is only a portion of our warranty statement, you can send us an email to get more details.

To claim your warranty, send your inquiry to myskylasers@gmail.com making sure to include the following information:

- Full Name
- Order ID
- Reason for Claim (in detail)