STEINER
Nothing Escapes You

English

INSTRUCTION MANUAL

M830r LRF 1535nm
LASER RANGEFINDER

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As accessory the tripod adapter (A 1/4 inch) is included to this product. It consists of the adapter, 2x hexagon socket head cap screw M3x16, 1x hexagon socket head cap screw M3x12 and 1x hex - wrench 2.5 mm.
Additionally, the tripod adapter is compatible to other adaptions (not included) e.g. from "Spuhr - Adjustment device".

ATTACHING THE TRIPOD ADAPTER:
Replace the 3 screws on the back side of the binocular with the hex - wrench and attach the tripod adapter with the included screws **8** and **9** .

INSERTING AND REPLACING THE BATTERY

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The laser range finder is powered by a type CR123A lithium battery.

1. To insert and replace the battery, unscrew the battery cover **10** by turning counterclockwise.
2. Insert the battery with the positive end forward (according to the symbol in the battery compartment).
3. Screw the battery cover back on by turning clockwise.

BATTERY CHARGE LEVEL

A new battery is sufficient for more than 5,000 measurements at 20°C. Depending on the conditions of use, the battery life time can be significantly shorter than this. Low temperatures and frequent use of the scan mode shortens the battery life. Low battery level is indicated by a flashing display.

Warning: Cold conditions effect the battery performance.

POWER/MEASURE BUTTON **3**

To measure the distance to an object, it has to be targeted precisely. For this purpose, the target mark is activated by pressing and holding the button **3**. Once the button **3** is released, the distance measurement is made and the measurement value is subsequently displayed.

You can start a new measurement at any time by pressing and releasing the button **3** again.

Under conditions of reduced visibility, such as fog or dust, the unit may not receive sufficient reflection of the laser. In such conditions the error code '----' is displayed.

Note: Depending on the setting of the interocular distance the display and reticle may be slightly sloped.

OPERATION

SET BUTTON 4

The range can be displayed either in meters or in yards. To change this press button **3** to power on the device. Press button **4** for 3 seconds, until m/y symbol starts to flash. Any further press of button **4** will toggle between m/y. The setting is stored by not pressing any button for 5 seconds.

SCAN MODE

The STEINER Military M830r LRF Laser Rangefinder binocular can also be used to measure continuously (scan mode). The scan mode is particularly helpful for measuring small or moving targets. By pressing the button **3** more than approximately 3 seconds, the binocular switches to scan mode and then takes measurements continuously. A new measurement is taken every 1.5 seconds.

Note: Scan mode consumes more power than individual measuring. Scan mode switches off automatically after approximately 20 seconds.

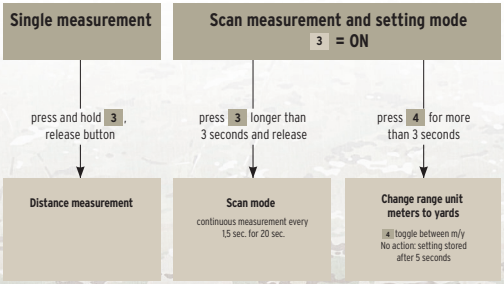
RANGE ACCURACY

The STEINER Military M830r LRF Laser Rangefinder binocular has a measuring range of 50 meters / 55 yards up to 6,000 meters* / 6,561 yards* with an accuracy (1σ) up to ± 5 meters / ± 6 yards.

Factors affecting measurement range:

Range	higher	lower
Color of object	white	black
Angle to object	vertical	acute
Size of object	large	small
General brightness	low (cloudy)	high (midday sun)
Atmospheric conditions	clear homogeneous	hazy inhomogeneous
Object structure	e.g. building wall	e.g. bush, tree

User Interface:



* NATO Target (2.3x2.3m) observer visibility 10 km

USE OF RETICLE

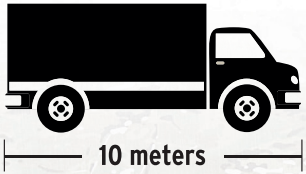
RETICLE

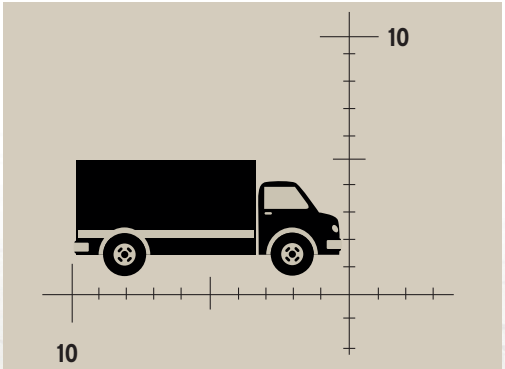
The right side of the binocular includes a horizontal and vertical scale reticle, graduated in mil increment markings.

In determing range, if an object fills the 10 mil unit marking on the horizontal reticle scale and is known to be 10 meters wide, the object is 1,000 meters away. If the same size object fills 20 mil unit markings, it would be 500 meters away. objects are often viewed obliquely along the horizontal axis.

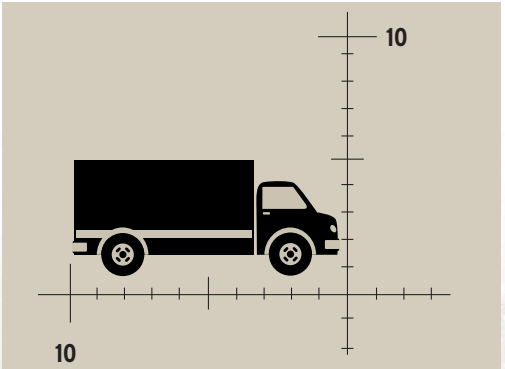
When this formula is used, the distance will be given in the same units of measurement (feet, meters, etc.) as is used in estimating the known size of the object.

The same formula can be used to determine range with the verticle scale when the height of an object is known. The use of the verticle scale is preferred (especially on level terrain), since objects are often viewed obliquely along the horizontal axis.



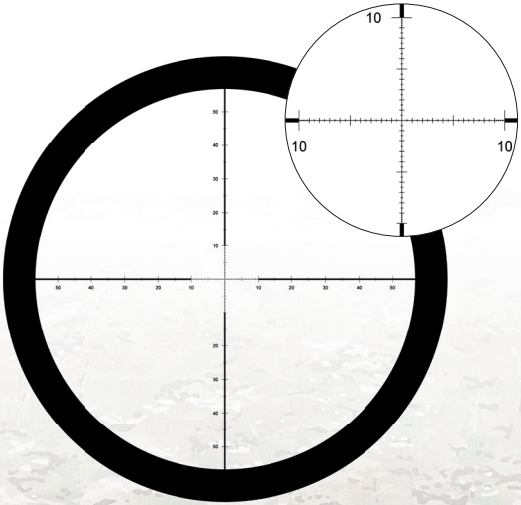


$$\text{SIZE} = \frac{\text{Distance x Scale Size}}{1{,}000}$$



$$\text{DISTANCE} = \frac{\text{Known Size}}{\text{Scale Size}} \times 1{,}000$$

RETICLE / DISPLAY



CLEANING

Blow away any dust or debris on the lenses.

To remove dirt or fingerprints, clean with cleaning cloth by rubbing in a circular motion. Use of a cloth or unnecessary rubbing may scratch the lens surface and eventually cause permanent damage.

For more thorough cleaning, use a lens cleaning fluid. Always apply the fluid to the cleaning cloth, never directly on the lenses.

CAUTION!

When using the binoculars, never point directly at the sun. The heat generated by the focused rays of the sun may be very harmful and might cause serious damage to your eyes.

TECHNICAL DATA

General Specification**	
Magnification	8x
Entrance pupil	30 mm
Exit pupil	3.75 mm
Eye relief	16.8 mm
Twilight factor	15.5
Luminosity	14.1
Field of view at 1,000 m angular	114 m 6.5°
Dioptric range	± 5 dpt
Resolving power	≤ 11.25“
Interpupillary distance	56 - 74 mm
Operating temperature	-20° / +50°C
Storage temperature	-40° / +80°C
Waterproof	5 meters
Reticle	Mil-Dot (SUMR)
Focus system	Ocular individual adjustment
Measuring range	50m/55yds - 6,000m/6,561 yds*
Accuracy (1 σ)	+/-5m / +/-6yds

Weight (approx.)	
Binocular	950 g
Carrying strap	54 g
Objective caps	24 g
Eyepiece cover	18 g

Dimensions (approx.)**	
Height	130 mm
Width	165 mm
Depth	70 mm

Laser Eyesafe invisible laser (1535nm) according to EN 60825-1:2007 and FDA class 1

Accessory Tripod adapter 1/4 inch thread

* NATO Target (2.3 x 2.3m) observer visibility 10 km

** Figures correspond to an ocular adjustment of 0 dpt. and an interpupillary distance of 65 mm. Specifications are subject to change without prior notice as a result of ongoing technical development.

General information:
The instrument meets the laser class 1 according to EN and FDA. It is classified as eye safe and can be used in any way. For safety precaution it should however not be pointed directly at people.

User information for the disposal of electrical and electronic equipment (private households):
This symbol on products and/or accompanying documents indicates that used electrical and electronic products are not to be mixed with ordinary household waste. Take these products to the appropriate collection point for proper handling, recovery and recycling, where they will be taken back for free. In some states, it may also be possible to hand in these products to your local dealer when purchasing a corresponding new product. The proper disposal of this product serves to protect the environment and prevents possible harmful effects on human beings and their surroundings, which may arise as a result of incorrect handling of waste. More detailed information on your nearest collection point is available from your local authority. According to state law, fines may be issued for the incorrect disposal of this type of waste.

For business customers within the European Union:
To dispose electrical and electronic equipment, please contact your dealer or supplier, who will be able to provide you with more information.

Information on disposal in other countries outside of the European Union:
This symbol is applicable only in the European Union. Please contact your local authority or your dealer if you wish to dispose of this product and enquire about how to dispose of it.

Battery disposal
- Do not dispose of batteries with household waste!
- Please use any existing return system in your local area when returning used batteries.
- Please only hand in discharged batteries.
- Batteries are generally discharged when the equipment operated with them:
- switches off or indicates 'battery empty'
- the battery no longer functions correctly after an extended period in use.

To prevent short circuits, cover the battery contacts with an adhesive strip.

Germany:
As a consumer, you have a legal obligation to
return used batteries. You can hand in your batteries for free
to wherever the batteries were purchased or to the public
collection points in your city or community.
You will find these symbols on batteries that contain harmful substances:
Pb = Battery contains lead
Cd = Battery contains cadmium
Hg = Battery contains mercury
Li = Battery contains lithium

Important notice for USA
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.