



**LRB 7x50 /  
LRB 7x50 SPD**

**LASER RANGEFINDER BINOCULAR**

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**10. QUALITY CERTIFICATE**

The LRB 7X50 / LRB 7X50SPD is suited for usage.

Production date \_\_\_\_\_

Serial number \_\_\_\_\_

Quality Inspector signature \_\_\_\_\_

Purchase date \_\_\_\_\_

Salesman \_\_\_\_\_

Quality Assurance Seal \_\_\_\_\_

**Features of the LRB 7X50 / LRB 7X50SPD Laser Rangefinder Binocular**

- Latest digital circuitry allows targeting through most types of glass
- 'Last Target' measurement
- Meters/Yards display
- Last 10 readings recall
- Selectable reticle shape (+ or □)
- Target quality indicator
- Speed detector (MPH/KMH only on LRB 7x50SPD model)

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**BEFORE USE CAREFULLY READ ALL THE INSTRUCTIONS!**

**FAILURE TO OBEY THE INSTRUCTIONS WILL VOID THE WARRANTY!**

**1. BRIEF DESCRIPTION**

**LRB 7X50 / LRB 7X50SPD Laser Rangefinder Binocular** is an advanced Laser Range Finder system that provides instant distance and speed (SPD modification) measuring consistently and accurately. The outstanding optics provides a sharp, clear image under all conditions. LRB utilizes a revolutionary digital design, which outperforms any other product in its class and price range.

The unit sends invisible eye safe laser beam pulses to a target. The returned pulses are captured by the digital circuitry. The time difference between emitted and received pulses works as an input data for the calculations determining the distance to the target.

**9. CUSTOMER SUPPORT**

Should you experience any difficulties with your Newcon OPTIK product, consult the enclosed manual. If the problem remains unresolved, contact our customer support department at (416) 663-6963 or Toll free at 1-877-368-6666. Our operating hours are 9am-5pm, Monday - Friday, Standard East Time.

**At no time should equipment be sent back to Newcon without following the instructions of our technical support department. Newcon accepts no responsibility for unauthorized returns.**

To locate NEWCON Authorized Dealer call:  
Tel: (416) 663-6963 Fax: (416) 663-9065  
Email: [newconsales@newcon-optik.com](mailto:newconsales@newcon-optik.com)  
Website: [www.newcon-optik.com](http://www.newcon-optik.com)

The defective products should be shipped to:  
In USA: 2331 Superior Ave. Cleveland, OH 44114  
In Canada: 105 Sparks Ave., Toronto, ON M2H 2S5  
From International:  
105 Sparks Ave., Toronto, ON M2H 2S5, CANADA

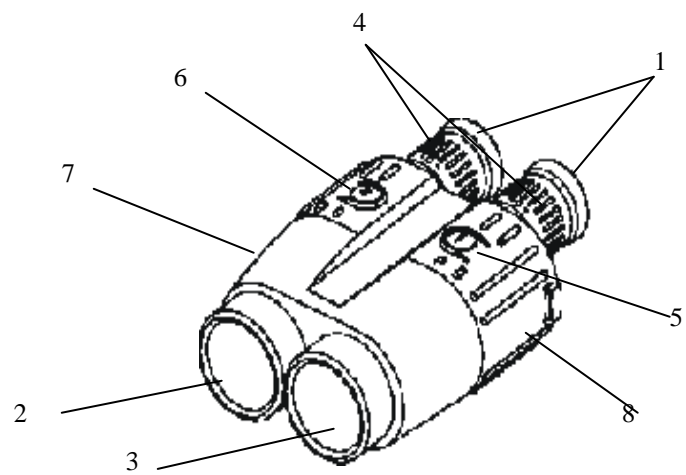
## 8. WARRANTY

**NEWCON OPTIK** warrants this product against defects in material and workmanship for one year from the date of the original date of consumer's purchase, but no more than 18 months from the date of manufacturing. Should your Newcon product prove defective during this period, please bring the product securely packaged in its original container or an equivalent, along with proof of the date of original purchase, to your Newcon Dealer. Newcon will repair (or at its option replace), the product or part thereof, which, on inspection by Newcon, is found to be defective in materials or workmanship.

### *What This Warranty Does Not Cover:*

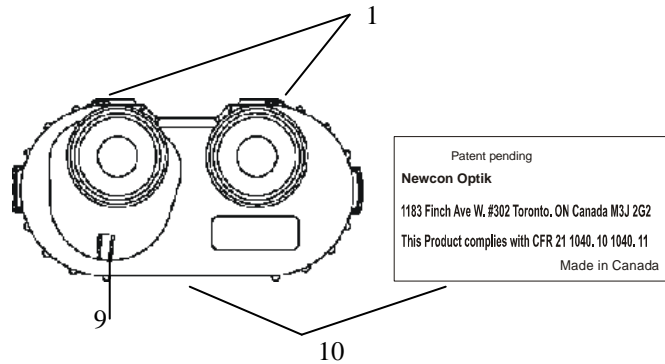
**NEWCON** is not responsible for warranty service should the product fail to be properly maintained or fail to function properly as a result of misuse, abuse, improper installation, neglect, damage caused by disasters such as fire, flood, lightning, improper electrical current, or service other than by a NEWCON Authorized Service. Postage, insurance, or shipping costs incurred in presenting your NEWCON product for warranty service are your responsibility. Please include a check or money order made out to NEWCON OPTIK for the amount of \$15.00 to cover shipping and handling. This covers products shipped in the USA or Canada only.

## 2. APPEARANCE OF THE DEVICE



1 – Eyepieces; 2 – Objective lens / Emitting lens  
3 – Objective lens / Receiver lens; 4 – Dioptic correction ring;  
5 – Mode button; 6 – Action button; 7 – Body of the device;  
8 – Rubber grip

**Fig. 1**



**1** – Eyepieces with diopter adjustment; **9** – Inter-pupillary distance adjustment lever; **10**- Identification label (Located in the bottom)

**Fig. 2**

### **3. SUPPLIED ACCESSORIES**

LRB 7X50 is supplied in the following assembly:

- Device	1 pc.
- Carrying case	1 pc.
- Neck strap	1 pc.
- User's manual	1 pc.
- Warranty card	1 pc.
- 9V battery (optional)	1 pc.

### **7. TROUBLESHOOTING**

*The range-measuring mode does not work.*

Press the Action button again.

Check that the battery is installed properly. Check the charge of the battery. Replace it if it is weak.

*How can I clear last reading before making next measurement?*

Direct the unit's LCD reticle at the new target, press the Action button. The new reading will appear.

*There are black dots in the image.*

A LCD (Liquid Crystal Display) is installed in the optical channel of the device. Due to manufacturing imperfections in the production process of the LCD, small black dots, scratches and other blemishes might be visible. Those blemishes are strictly regulated for maximum allowed number, size and location. It does not degrade the product's performance.

*Range measurement cannot be obtained.*

- Check if range detection mode is activated (message READY appears on the LCD display)
- Check if Action button is pressed
- Make sure that neither your hand nor finger is blocking objective lenses.
- Hold the unit firmly (avoid hand tremor) while you are pressing the Action button.
- Check if the target is within the measuring range of the device

**6. STORAGE AND MAINTENANCE INSTRUCTIONS.**

**Precautions:** LRB is a sophisticated precision optical instrument equipped with electronics. Therefore, it should be handled with due care.

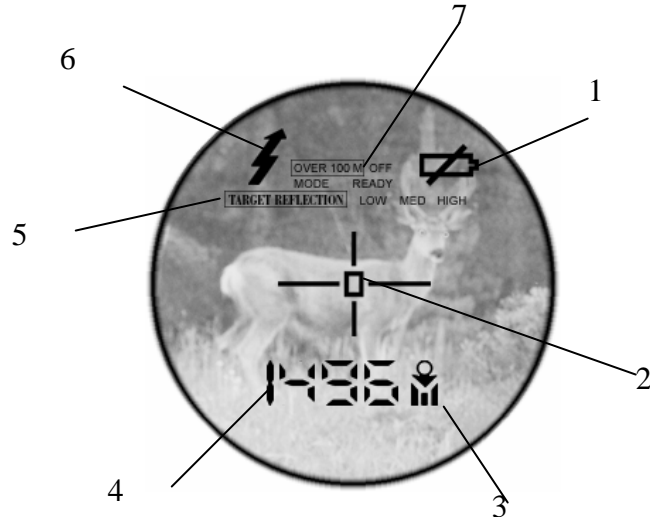
- Keep your device away from direct sunlight, impacts, dust, moisture, and sudden changes of temperatures.
- Do not use the device at temperatures higher than 50°C (122°F).
- Do not touch the optical surfaces with fingers. Doing so may damage the anti-reflection coating.
- Avoid shocks and sharp jolts.
- Cleaning of optical surfaces is allowed with professional camera lens cleaning supplies only.
- To clean the exterior of the device, use a soft clean cloth.
- Keep away from heating appliances and central heating.
- Remove the battery when storing the device for long time.
- All repair works must be performed by an authorized service only.

**4. TECHNICAL CHARACTERISTICS**

<b>1. Optics</b>	Magnification, x Objective lens, mm Exit pupil diameter, mm Field of view Type of coating	7 50 7 5° Fully multi-coated optics
<b>2. Range Finder</b>	Type Measuring range, m Accuracy 'Last Target' measurement Meters/Yards display Last 10 readings recall Reticle shape (+ or □) Target quality indicator	Class 1, eye safe, 905nm 20 – 1,512 ± 1m ± 0.1% Yes Yes Yes Yes Optional
<b>3. Speed Detection</b>	<b>Model LRB 7x50SPD only</b> - Measured speed range, KMH - Accuracy, KMH	Yes 5 – 400 ± 1
<b>4. Misc.</b>	Battery 'Low Battery' indicator Tripod thread Operational temperature range Storage temperature range Weight without battery, g Dimensions, mm	9 V Yes ¼" x 20 -25 / +50°C (-13 / +122°F) -45 / +85°C (-49 / +185°F) 1300 210x150x80

## 5. OPERATION INSTRUCTIONS

### Liquid Crystal Display (LCD)



- 1 – Low Battery indicator; 2 – Reticle (cross or rectangular selectable);  
3 – Units of measurement (Yards, Meters, KMH,  
MPH); 4 – Measurement result;  
5 – Target Quality indicator (optional); 6 – Laser Active indicator  
7 – Over 100m indicator (optional).

**Fig. 3**

The displayed statistical qualification of the reflected signal characterizes variation in expected accuracy of measurements. At qualification **HIGH** the accuracy of measurements is stated as  $\pm 1m$ . At lower rates of statistical qualification the expected accuracy may marginally degrade.

**Please note:** this indicator is optional and may be not activated in your device.

The display presents **LOW BATTERY** pictogram, when voltage of the primary 9-volt battery drops below 7.2 volt. At this point the System is still functional but the battery should be replaced as soon as possible. The System can operate at the voltage level above 7 volt. The System should be powered with Alkaline or Lithium type of batteries capable to sustain current drain up to 150 mA.

The System remains in the active displaying state for 10 seconds after pressing of any of the operating buttons and afterwards it enters the passive low power state.

**OVER 100m** indicator is reserved for the future development. It is not in use in the current configurations.

### c. Additional indicators

Distance measuring procedure includes instant statistical processing of the package of single measuring sessions. If there is more than one measured target in the field of view, the embedded software estimates the most probable one by calculating the number of reflected pulses multiplied by the target statistical weight. This mechanism allows automatic mitigation of the influence of hurdles like rain, flakes, trees, wires and so on.

Qualitative result of the statistical processing is presented on the Display as a message **TARGET REFLECTION (5)**. There are four statistical qualifications of the reflected signal:

- **NO TARGET REFLECTION** – when a steady reflected signal isn't received. Numerical display shows four dashes at the distance displaying area;
- **TARGET REFLECTION LOW** – when the number of steady received reflected signals is just enough to make acceptable conclusion about the measured distance;
- **TARGET REFLECTION MED** - when the number of steady received reflected signals is in medium range and enough to make positive conclusion about the measured distance;
- **TARGET REFLECTION HIGH** - when the number of steady received reflected signals is qualified to be enough to make reliable conclusion about the measured distance.

### 5.1. Preparing the Device for Operation.

- Unbolt the screw and open the battery compartment cover (10) (fig. 2).
- Insert one 9V battery (sold separately) into the battery compartment observing correct polarity.
- Close the battery compartment cover (10) and tighten the screw.
- Adjust the interpupillary distance with lever (9) (fig.2).
- Adjust the eye relief distance by folding the eyepiece rubbers (1).

After changing the battery, it is recommended to run the CL (CLEAR) mode (refer mode selection procedure).

### 5.2. Distance Measuring Procedure

#### a. Measuring state

When the Rangefinder is in the passive, low power state, the LCD Display is blank (transparent).

Pressing any of the operating buttons activates the System and the Display. Initially the System always assumes READY mode of operation and word READY appears on the Display.

Pressing Action button (6) (fig. 1) at this point triggers a distance measuring session, and the result will be displayed in numerical form (4) (fig. 3) (if measurement is unsuccessful then four dashes '----' will appear in the numerical area). **Please note** that the target must be over 20m away.

**Optional scanning mode:** If the Action button (6) is held (pressed) for more than 3 seconds, the System automatically enters SCANNING mode. Being in this mode, the System repetitively performs distance measuring and displaying. The time interval between measurements is approximately 1 second. **Please note:** this feature is optional and not necessarily present in your device.

The maximum measuring range for most objects will be 1512 meters. The maximum measured distance will vary greatly depending on the reflectivity of the target, weather conditions and more.

Target reflectivity depends on its color, surface finish, shape etc. Bright colors are more reflective than darks. A polished surface is more reflective than a rough one. Larger targets are easier for distance measuring. Measuring a target faced at 90° (perpendicular to the laser beams path) provides optimal results. Bad weather conditions (rain, fog, snow, mist) will reduce the maximum measured range.

Bright sunny days will reduce performance as well  
While the unit will work through many glass types, measuring through glass will affect the results.

**b. Mode selection state**

Pressing MODE button (5) when the System is in READY mode brings the System to the Mode selecting state. By pressing the Mode button, you can sequentially scan the Modes.

The Mode under selection is being indicated on the Display by flashing of the selectable feature. The "flashing" feature can be selected by pressing the Action button (6).

The System operates in the setting Modes that are displayed as follows (refer to fig.3):

**Y/M** – units of measurement: yards or meters (3).

**KMH/MPH** – units of speed measurement: km/hour or miles/hour (3). **Please note:** the speed-measuring units exist in LRB 7x50 SPD only.

**Shape** of the reticle: cross shape or rectangular shape (2). **Please note:** this feature is optional and not necessarily present in your device.

**rEC1** - recall function. Upon pressing the Action button (6) (fig. 1) the Display will sequentially show results of last 10 measurements, starting from the latest one. The number appearing after word "rEC" shows the number of the measurement counted back in the sequence. When the System is in inactive state the 10 previous measurements are stored within the System and may be recalled any time;

**CL** - clear data function: upon pressing the Action button (6) (fig. 1) the entire data on all previous measurements will be erased. **Please note:** After changing a battery the recall stack should be cleared by exercising the **CL** mode.

**Self-test (optional)** – checks the display by turning on all display segments during 5 seconds. **Please note:** this feature is optional and not necessarily present in your device.