



LRB 7x50
LASER RANGE FINDER BINOCULAR

105 Sparks Ave., Toronto, ON M2H 2S5

IMPORTANT INFORMATION

Read prior to activation

You have just purchased a sophisticated electro-optical device that emits invisible laser radiation. To operate it properly, please read this manual carefully.

- **NEVER** direct laser beam at the eyes of people or animals
- **NEVER** aim the unit at the Sun or bright sources of light
- **NEVER** subject the unit to impacts
- **NEVER** transport the unit without its case
- **NEVER** disassemble the unit. This may be hazardous for you due to high voltage currents in the system
- **ALWAYS** keep the unit out of children's reach
- **ALWAYS** remove the battery when the device is not in use for a long period
- **ALWAYS** store in a dry place
- **Caution** - use of controls or adjustments, or performance of procedures other than those

specified herein may result in hazardous radiation exposure

- **Caution** - use of optical instruments such as binoculars, loupes, mirrors, lenses, etc. with this product increases risk of ocular damage.
- **Note:** Avoid eye exposure to direct laser beam or its close reflection
- Prevent bright light from focussing through the eyepiece

CONTENTS

1.	BRIEF DESCRIPTION	2
2.	DEVICE APPEARANCE	4
3.	DELIVERY SET	7
4.	SPECIFICATIONS	8
5.	OPERATION INSTRUCTIONS	10
	5.1. Installing the battery	10
	5.2. Maximum distance	11
	5.3. Distance Measurement	12
	5.4. Mode selection	13
	5.5. Additional display information	14
6.	STORAGE AND MAINTENANCE	15
7.	TROUBLESHOOTING	16
8.	WARRANTY	18
9.	CUSTOMER SUPPORT	20
10.	QUALITY CERTIFICATE	21

**CAREFULLY READ ALL THE
INSTRUCTIONS PRIOR TO USE!
FAILURE TO OBEY THE INSTRUCTIONS
WILL VOID THE WARRANTY AND MAY
CAUSE INJURY!**

1. BRIEF DESCRIPTION

LRB 7x50 Laser Rangefinder Binoculars (System) is an advanced laser range finder system that enables instant distance measurements. Outstanding optics provide a sharp, clear image under any observation conditions.

The unit utilises time-of-flight method of distance measurement. The System sends invisible, eye safe laser pulses to the target. The returned pulses are captured by the digital circuitry. The time difference is used to calculate the distance to the target.

The unit complies with CFR 21, Part 1040.10 and Part 1040.11.

Key Features

- Modern digital circuitry allows targeting through most types of glass
- Meters/Yards display
- Last 10 measurements recall
- Selectable reticle shape (-|- or □)

2. DEVICE APPEARANCE

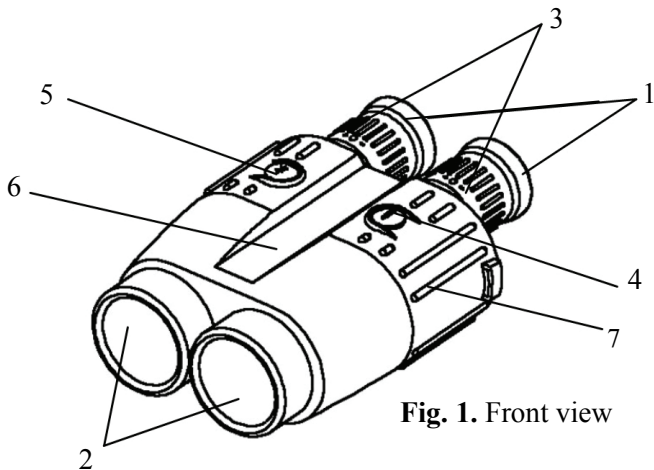


Fig. 1. Front view

1 – Eyepieces

3 – Dioptric adjustment rings

5 – Action button

7 – Rubberized grip

2 – Objective lens

4 – Mode button

6 – Body of the device

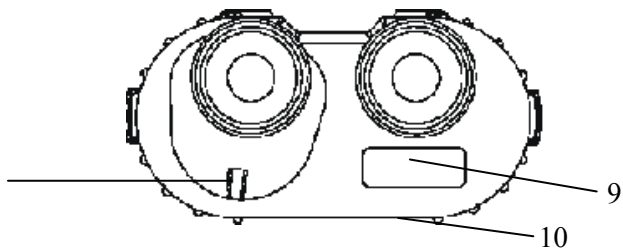


Fig. 2 Rear view

- 8 – Interpupillary distance adjustment lever
- 9 – Model number plate
- 10 – Identification and certification label / battery compartment cover (at the bottom):



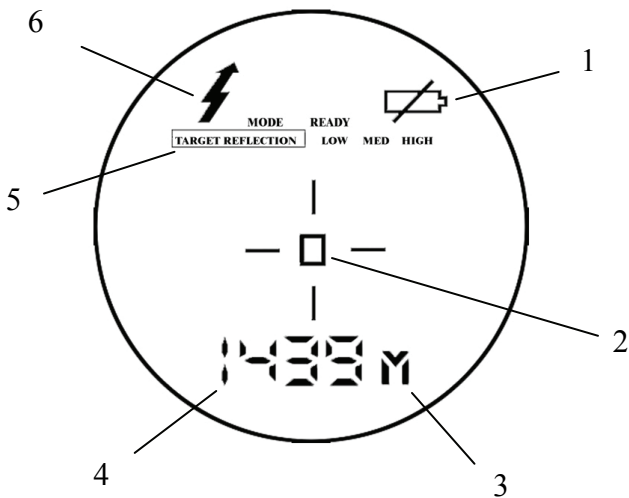


Fig. 3. Liquid Crystal Display (LCD)

- | | |
|------------------------------|-------------------------------|
| 1 – Low battery indicator | 2 – Reticle (either - - or □) |
| 3 – Units of measurement | 4 – Measurement result |
| 5 – Target quality indicator | 6 – Laser active indicator |

3. DELIVERY SET

Standard delivery set for LRB 7X50 includes:

- Device	1 pc.
- Carrying case	1 pc.
- Neck strap	1 pc.
- Cleaning cloth	1 pc.
- User's manual	1 pc.
- Warranty card	1 pc.
- 9V battery	1 pc.

4. SPECIFICATIONS

Optics

Magnification	7x
Objective lens diameter	50 mm
Exit pupil diameter	7.1 mm
Field of view	5°
Type of coating	Fully multi-coated optics
Interpupillary distance	58-72 mm
Dioptr adjustment range	±4

Range Finder

Laser	Class 1, eye safe, 905 nm
Measuring range	20 – 1,500 m
Accuracy	±1 m
Meters / Yards display	Yes
Last 10 measurements recall	Yes
Reticle	⊕ or □

Power

Battery	9V Alkaline
Battery capacity	Min 5,000 measurements (Continuous operation)
'Low Battery' indicator	Yes

Environmental

Operational temperature range	-25...+50°C (-13...+122°F)
Storage temperature range	-45...+65°C (-49...+149°F)

Mechanics

Tripod thread	¼" x 20 TPI
Weight without battery	1.3kg
Dimensions	210x150x60 mm

5. OPERATION INSTRUCTIONS

5.1. Installing the battery

- Unscrew the screw and open the battery compartment cover (10, Fig.2)
- Connect a battery to the battery snap and insert it into battery compartment
- Close the cover and tighten the screw.

The unit is fully operational when battery voltage is higher than 7V. A '**LOW BATTERY**' warning is displayed when battery voltage falls below 7.2V.

After changing the battery, it is recommended to run the CL (CLEAR) mode (refer mode selection procedure) to clear the on-board memory. If this is not done the recall function will not work properly.

The System should be powered with Alkaline or Lithium batteries capable to sustain current drain up to 150 mA.

5.2. Maximum distance

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

Target reflectivity depends on its color, surface finish, size, shape, position in relation to the laser beam, etc. Bright target colors are more reflective than darks. A polished surface is more reflective than a rough one. Larger targets reflect better than small ones. Ranging a target perpendicular to the laser beam provides better results than the one positioned at a sharp angle to the beam.

Weather conditions that influence air transparency (rain, fog, snow, mist) reduce maximum range. Bright sunny days will reduce performance as well as IR sun radiation may cover reflected laser pulses. While the unit will measure through many glass types, measuring through glass may reduce accuracy.

Natural hand tremor decreases the accuracy of long distance ranging. Using of a tripod is highly recommended.

5.3. Distance Measurement

When the Rangefinder is off the LCD Display is blank (transparent).

Pressing any of the operating buttons activates the System and the Display. At start the System assumes READY mode of operation and word READY appears on the LCD.

Pressing Action button (5, Fig. 1) at this point triggers a distance measuring, and the result will be displayed (4, 3, Fig. 3).

If measurement is unsuccessful then four dashes '----' will appear in the numerical area. For a reliable measurement the target must be more than 20 m away.

5.4. Mode selection

Pressing MODE button (4, Fig. 1) in READY mode brings the System to mode selecting. Every pressing of the Mode button brings the next mode name to the LCD, so that user can scan through all available modes. When new mode appears on LCD it flashes, to select it press Action button.

The following sequence of modes is available:

Displayed on LCD	Function
Y	Select Yards for distance measurement
M	Select Meters for distance measurement
- -	Reticle shape.
□	Reticle shape.

rEC1	<p>Displays the last 10 measurement results starting from the last one. Results are numbered and displayed in the following order: rEC1, distance 1, rEC2, distance 2, ..., rEC0, distance 0. Press Action button to switch along this string.</p> <p>Last 10 measurements are kept in the System even when it is off.</p>
CL	Clears results of all measurements.

The System keeps the selected parameters until they are reset.

5.5. Additional display information

Laser active indicator (6, Fig.3) flashes, when the unit emits laser radiation.

A **LOW BATTERY** pictogram appears on LCD when voltage of the battery voltage drops below 7.2 volt. At this point the System is still fully functional as it can operate at the voltage level above 7 volt.

6. STORAGE AND MAINTENANCE

The unit is a sophisticated precision optical instrument equipped with laser and electronics. Therefore, it should be handled with due care.

- Keep away from direct sunlight.
- Avoid impacts, jolts, dust, moisture, and sharp changes of temperature.
- Do not use the device at temperatures higher than 50°C (122°F).
- Do not touch optical surfaces. Doing so may damage the anti-reflection coating.
- Clean optical surfaces only with professional camera lens cleaning supplies.
- Clean the exterior of the unit with a soft clean cloth.
- Keep the unit 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.

7. TROUBLESHOOTING

Ranging does not work. The display is transparent.

Check the charge of the battery. Replace it if it is weak.

Ranging does not work. The display indicates results of the last measurement.

Wait for 10 seconds until the display becomes transparent, and press the Action button again.

Black dots are visible on LCD.

Liquid Crystal Display may have small black dots, scratches and other blemishes inherited from the manufacturing process. These flaws are strictly regulated by number, area and location and do not degrade the product's measurement capabilities.

Range measurement cannot be obtained.

- Make sure that neither your hand nor finger is blocking objective lens, laser emitting lens or receiver lens.

- Hold the unit firmly (avoid hand tremor) while pressing the Action button.
- Check that the target is within measuring range of the device and the gating mode does not cut it off.

8. WARRANTY

NEWCON warrants this product against defects in material and workmanship for one year from the date of the original purchase. Longer warranty is available, subject to the terms of the specific sales contract. Should your Newcon product prove to be defective during this period, please deliver the product securely packaged in its original container or an equivalent, along with the proof of the original purchase date to your Newcon Dealer.

Newcon will repair (or at its option replace with the same or comparable model), 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 as a result of improper maintenance, misuse, abuse, improper installation, neglect, damage caused by disasters such as fire, flooding, lightning, improper power supply, or service other than by a **NEWCON** Authorized Service.

Postage, insurance, and shipping costs incurred while presenting your NEWCON product for warranty service are your responsibility.

If shipping from North America please include a cheque or money order payable to NEWCON OPTIK for the amount of US\$15.00 to cover handling and return shipping.

9. CUSTOMER SUPPORT

Should you experience any difficulties with your NEWCON OPTIK product, consult this manual first. If the problem remains unresolved, contact our customer support department at +1 (416) 663-6963 or toll free at 1-877-368-6666.

Our operating hours are 9 am-5 pm,
Monday - Friday, Eastern Standard Time.

At no time should equipment be sent back to Newcon without following the instructions of our technical support department.

NEWCON OPTIK accepts no responsibility for unauthorized returns.

To locate NEWCON Authorized Dealer call:

Tel: +1 (416) 663-6963

Fax: +1 (416) 663-9065

Email: newconsales@newcon-optik.com

Web: www.newcon-optik.com

The defective products should be shipped to:

From the USA only:

2498 Superior Ave. Cleveland, OH 44114

From all other countries:

105 Sparks Ave., Toronto, ON, M2H 2S5, CANADA

10.QUALITY CERTIFICATE

LRB 7x50 with serial number _____
has passed the quality inspection.

Production date _____

Quality Inspector _____

Purchase date _____

NEWCON OPTIK™

Printed in Canada