



Operation Manual



NIGHT VISION GOGGLES

NZT - 22

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

IMPORTANT INFORMATION

Read prior to activation

You have just purchased a complicated electronic device. To operate it properly, please read this manual carefully. Here are some common Precautions that must be noted.

- **NEVER** expose the opened objective lens of an active unit in daylight. At daytime objective lens must be covered by caps. There is a tiny hole in the cap to provide enough light for day time operation.
- **NEVER** aim active unit at intense light sources (i.e. lights, headlamps, campfires, the Moon, etc.)
- **NEVER** reverse the polarity of a battery
- **NEVER** disassemble the unit
- **NEVER** connect the unit to external power sources
- **ALWAYS** remove batteries when not in use for a long period
- **ALWAYS** keep the objective lenses covered when not in use
- **ALWAYS** store in a warm dry place when not in use

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Thank you for purchasing NZT - 22.

Please read all the instructions carefully prior to use.

Failure to follow the instructions may void the warranty.

1. Overview

The night vision NZT-22 is observational optico-electronic goggles, intended for examining objects and orientation at night time or dark conditions. The unit utilizes 2 image intensifiers which amplify available moonlight, starlight or man-made light. The goggles were designed to be easy to use, and provide many years of operation.

Some of the typical activities where the NZT-22 Night Vision Goggles will be useful:

- law enforcement wildlife observation
- security
- search and rescue
- hunting
- photography (Dark room operation)

Features

- Built-in Infra Red illuminator allows observations in total darkness (i.e basement, cave or dark room);
- Flip/flop mechanism allows easy unobstructed vision;

- 2 image intensifiers, one for each eye; provides stereo vision;
- Independently adjustable eyepieces;
- Inter-pupilar distance adjustment;
- Ideal in situations requiring hands-free operation;
- Lightweight and comfortable;
- Soft rubberized eye pieces makes the viewing more comfortable;
- The 3V lithium battery ensures nonstop operation of the device for no less than 100 hours without the I/R illuminator, and 50 hours with the I/R illuminator.

Warning!

After transportation or keeping the device at temperature lower than -25°C (-13°F), the device must be warmed up to ambient temperature, from -25°C (-13°F) to $+40^{\circ}\text{C}$ (104°F), relative humidity of 80% max. at 20°C (68°F), for at least 2 hours.

Precautions

NZT-22 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 touch the optical surfaces with fingers. Doing so may damage the anti-reflection coating.

- Cleaning of optical surfaces is possible only with professional camera lens cleaning supplies.
- To clean the exterior of the device, use only a soft clean cloth.
- Do not take the cover off the lens if not necessary.
- Keep away from heating appliances and central heating.
- Make sure to switch off the unit during periods of non-operation and when storing the device for long period of time.
- Do not apply superfluous efforts at work with lens assembly, agile elements and thread connections.
- Due to considerable optical magnification of the eye-piece some small structures inside the tube coating in the form of dark and/or white points may be seen in the field of view which does not affect the serviceability of the device.;
- The resolving power (resolution) may change in the direction from the center towards the perimeter of the field of view. This is an inherent feature of the image tube type utilized in the device. We would recommend placing the scene of observation in the center of the field of view.

2. Delivery set

NZT-22 is supplied with the following components:

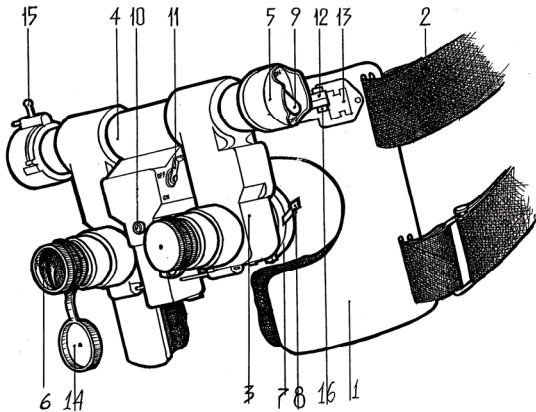
	Quantity
NZT-22	1
Straps	1
Lens caps	2
Manual	1
Warranty Card	1

3. Specifications

Generation	1
Magnification, x	1.15 ± 0.15
Field of view, degrees	36
Dioptric correction	± 5
Operating illumination	from moon light to star's light
Power supply:	
Battery	3V, lithium
Battery type:	CR123
Battery life, hours:	
Without I/R	100
With I/R	50
Dimensions, mm	180×120×170
Weight, kg	0.740

NOTE : As the design is being continuously improved some specifications may differ from those given above.

4. Design



Pic. 1

- | | |
|--------------------------|-----------------------------|
| 1 - Face Mask | 10 - I/R illuminator |
| 2 - Straps | 11 - I/R illuminator switch |
| 3 - Scopes | 12 - Tube Support |
| 4 - Battery Housing | 13 - Holder |
| 5 - Tube | 14 - Lens Cap |
| 6 - Lens | 15 - Locker |
| 7 - Eye-piece | 16 - Nut |
| 8 - Eye-piece adjustment | 17 - Battery House Cover |
| 9 - On-Off Switch | |

5. Operation Instructions

WARNING!

Never operate your night vision device at daylight without the lens cover on! Never direct the lens to bright light!

5.1. Prior to use

1. Unpack the device. In order to install the battery, first make sure the switches (9) and (11) are in the OFF position. Unscrew the battery house cover (17), and install the battery. Observe the correct polarity indicated on the housing. Screw the battery house cover back on.

Check the functioning of the device by switching it on (click switch 9) and looking through eye-pieces (7). **(Make sure the lens caps are on while operating during the day).** If power supply and the batteries are O.K., you will see greenish lit screen. If the screen is not lit, check the batteries. Replace the batteries if necessary. If everything works, now is a great time to fill the warranty card.

Note: The unit will remain on for up to several minutes after switching the power off. This is normal

5.2. Testing of operation

When wearing the goggles; the eye-relief (the distance between your eyes and the eye-pieces), should be 15mm. In order to achieve this, loosen nuts (16) on two holders (13); moving supports (12) in holders (13), set the required distance

between the eyes and the eye-pieces; then screw the nuts (16) to the home position. Turn on the NZT-22 by switching the switch (9) to the ON position. The green screens of the scopes must be lit. Direct the device on an object placed within 8-15m from the viewer. Turning the eye-pieces (7) using handles (8) and the lens (6) try to achieve the sharpest image on the screen of the image tube. Moving the scopes (3) along the tube (5) set the proper distance between the eyes.

5.3. Operation at night

Take off the lens covers (14) from the lenses (6). Turn on the device using switch (9). In case of insufficient lighting when observing an object which is situated not far from the viewer, turn on the I/R illuminator by switching the handle (11) to the ON position.

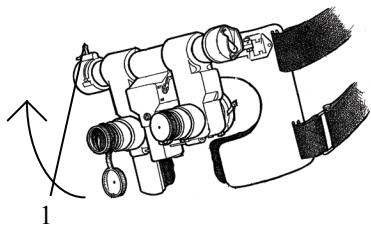
Note: The illuminator will be activated only if the unit has been already switched on by switch (9).

If brightness of the screen is decreasing, replace the batteries.

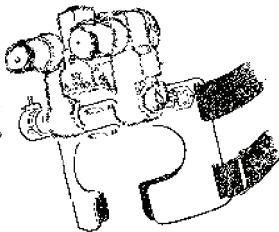
Take out the batteries during long periods of non-operation.

After operation turn off the unit by using switch (9) in the OFF position. Put protective lens caps on the lenses. After switching the unit off, it may still be lit 5-10 min. till the complete discharge of the power unit. This feature can be used to economically utilize the battery's power by periodically switching on and off the device during operation.

You can raise the unit while it is off by using the “flip/flop” feature (pic. 2). To swing the unit into off-working position; put the locker (1) in the vertical position and move the handle forward ; swing the unit 90° around the axis of the tube; fix the position of the unit by switching the locker back (1).



PIC. 2A



PIC. 2B

1. Locker

After operation remove the battery from the battery compartment to avoid any damage of the device in case of occasional leakage of electrolyte from the battery.

6. TROUBLESHOOTING

6.1. The monocular does not work.

Check that the battery is installed properly.

Check the battery charge. Replace if it is weak.

6.2. The image does not appear in focus.

Bring the inspected object to the center of the image. Turning the eye-pieces (8) adjust to achieve the clearest image on the screen. Then obtain the most clear-cut image of the object focusing with ring,(6). Repeat the steps of focusing if necessary

If the view still does not seem in focus, clean the lenses; they could be foggy or dusty.

6.3. Image flashes

It is normal for the unit to flash within the first 2 minutes of activation. If the flashing continues afterwards the following is a possible cause: bright environment (even with the caps closed!)

6.4. Condensation accumulates on the parts.

It is O.K. to use the scope in cold. However, when the unit is brought from the cold into a warm environment, it has to warm up for up to 2 hours (not minutes !). Only then it is allowed to turn it ON again.

6.5. Visibility decreases and / or disappears.

Bright light sources (moon, projectors or headlights) may cause visibility to degrade or even completely disappear. Move the goggles away from the light source immediately. The image should be restored in within 2 minutes.

Poor atmospheric conditions such as fog, haze or extremely dark environments, will decrease the visibility distance of the unit.

7. 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 \$15.00 to cover handling and return shipping.

8. 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, 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: (416) 663-6963 Fax: (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

9. ACCEPTANCE CERTIFICATE

NIGHT VISION DEVICE NZT 22

Serial number: _____

Complies with all technical specifications and has passed the inspection.

Date of production: _____

Quality Inspector: _____

Quality Assurance Seal

R1-4.11

NEWCON OPTIK™

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