



The "Lantan" group of companies LLC.

USER MANUAL
Laser target designator for speargun
LD-50R



Yekaterinburg, Russia.

1. THE PURPOSE OF THE PRODUCT

1. Laser designator (LD) is designed to simplify and speed up the process of aiming at subwater hunting. Using LD, you do not require to raise the speargun to eye level and align the front sight entirely to the target. This allows you to shoot "from the hip" and from other uncomfortable positions, even at an angle of 90 or more to the side. As a result, the effectiveness of hunting is significantly increased, and the number of wounds decreases.

The LD can be used with all types of spearguns having a tube 29-32 mm diameter. Manufacturing of a special bracket at the customer request also is possible.

2. TECHNICAL PARAMETERS

2.1. Overall dimensions:

- diameter, mm.....	14
- length, mm.....	170

2.2 Weight, g85

2.3 Power supply AAA batteries, pcs.....2

2.4. The laser designator is shown at fig.1.

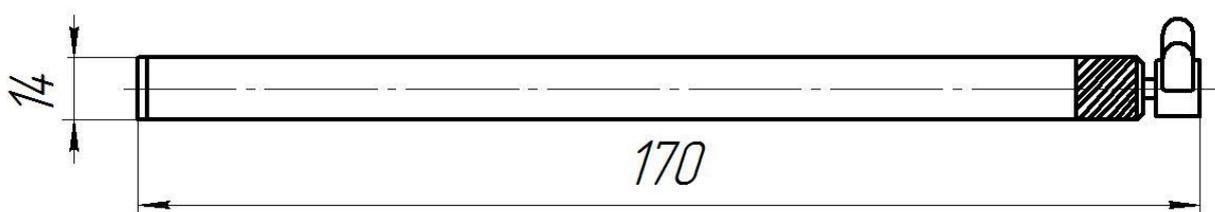


Fig.1

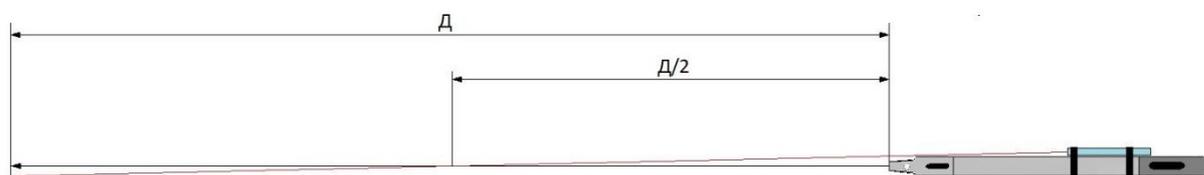
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4. DESIGN AND OPERATION PRINCIPLES

The principle of operation is that the LD creates a light beam as close as possible to the barrel axis. Therefore, the light spot on the target is the optimal point of aiming from any position. This is especially important when hunting in reeds, bushes and other limited space, where normal aiming is impossible.

LD is an electronic device consisting of a sealed housing, a laser module and a power supply with a switch. It is attached to the receiver of the gun with two brackets that allow you to adjust and fix the correct position of the beam, and then tighten the screws. The figures below shows how to mount and adjust the LD.



Horizontal adjustment. R - the maximum range of fire, say, 2 m. $R / 2$ - the point of intersection of the beam and the barrel axis (1 m). In this case, when shooting at a range of 1 m, the hit will be perfectly in the horizontal plane, and at a range of 2 m, the hit point will be 25 mm to the right of the aiming point, which is quite acceptable for spearfishing.

To adjust, unscrew the levers from the handwheel-switch, insert the LD into the brackets hole, put on the receiver of the gun, install it in a convenient place to turn on and slightly tighten the mounting screws. Rotate the LD and watch the position of the light spot: it should coincide with the axis of the bore at a distance of 1 m.

Vertical adjustment. Move the rear and front brackets up and down until the beam crosses the barrel axis (BA) at a distance of 1m, both horizontally and vertically. Please note that when tightening the bracket screw, the corresponding part of the LD slightly removes from the receiver (i.e., if you tighten the rear bracket, the beam will move towards the BA, and vice versa). You can use it for adjusting. Find the correct position and finally tighten the bracket screws.

The intersection of the beam with the BA at a distance of 1 m in both planes, as a rule, provides an accurate hit. Normally the procedure described provides to find quickly the desired position of a laser target designator. After this, screw the levers into the handwheel-switch in a convenient position to turn on. If you still do not succeed, we will help.

To replace the batteries, unscrew the rear cap. Insert the batteries "plus" forward. To turn LD on, rotate the handwheel with the levers clockwise.

Do not keep the LD "ON" for a long time. The approximate duration of LD operation is a few hours, depending on the ambient temperature and batteries capacity.

The warranty period is 12 months from the date of sale.

CONTACTS FOR COMMUNICATION

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Packing date_____

Quality controller _____