

PSU
SIGHT WITH VARIABLE ZOOM
SERVICE MANUAL

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This service manual is for learning the design, maintenance, operation and storage of sight with variable zoom PSU.

The manual describes the following:

- Intention;
- Specification;
- Information concerning design and operation of the article which is necessary for correct maintenance and usage of all its functions.

1 DESCRIPTION AND OPERATION

1.1 Purpose

1.1.1 Optical sight with variable zoom PSU, hereafter referred to as “the sight,” is intended for terrain observation, detection, choosing targets and for aimed firing from small arms having a Picatinny rail not less than 105 mm in length.

1.1.2 Reticle illumination allows aiming in twilight and at night under conditions of reduced target visibility.

1.1.3 The sight operates within the ambient temperature range of minus 40 °C to plus 50 °C and relative humidity of up to 100 % at a temperature of 25 °C.

1.2 Specifications

Table 1

Characteristic	Value
Magnification power, x	1 and 4
Field of view, deg	
– for 1 ^x	26
– for 4 ^x	6.5
Exit pupil, mm	8
Eye relief, mm	70
Adjustment range of the sight by height and by direction, mil	± 0–10
Overall dimensions, mm	189x79x74
Weight, kg	0.77
The height of optical axis to the seat plane, mm	37.5
Power supply	CR2032 3V

1.3 Delivery set

Table 2

Designation	Quantity	Note
Sight PSU	1	Without power supply
Wrench	1	
Napkin	1	
Bag*	1	
Box*	1	
Service Manual	1	

* Optional

1.4 Controls

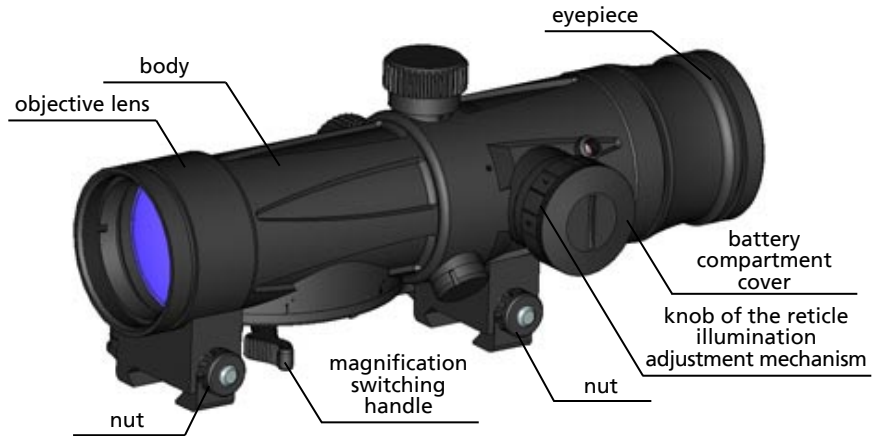


Figure 1

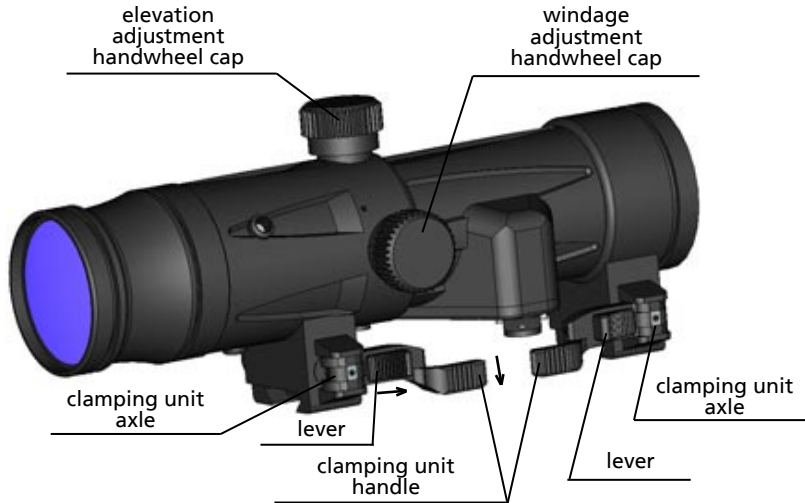


Figure 2

1.5 Field of view

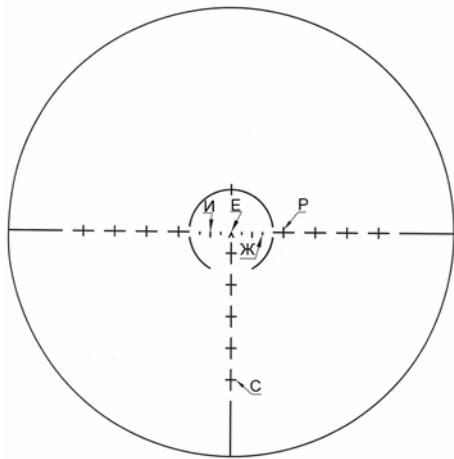


Figure 3

Marks	Angular value from the top of peak E to marks, mil.					
Ж, И to the right and left	0-00	0-01	0-02	0-03		
P to the right and left	0-00	0-05	0-08	0-11	0-14	
C down	0-00	0-02	0-05	0-08	0-11	0-14

1.6 Operation procedure

1.6.1 Before operation it is necessary to install the battery in the following order:

- Unscrew the battery cover (figure 1).
- Install the battery CR2032 3V "+" sign to the outside.
- Wrap the battery cover.

1.6.2 The aiming mark brightness adjustment is carried out by turning the handwheel of the reticle illumination adjustment mechanism. The handwheel is marked by digits from 0 to 7. When the handwheel position «0» of the reticle illumination adjustment mechanism coincides with an index on the case, the reticle illumination is off. Increasing the number increases the brightness.

1.6.3 Adjustment screws are designed to match the sight of weapons and have discrete shift with fixation.

To protect the adjustment screws from dirt and moisture the caps are provided (figure 2).

1.6.4 Magnification switching handle (figure 1) has two fixed positions 1^x and 4^x. Switch magnification in the following order:

- Press down the magnification switching handle.
- Push the magnification switching handle for 1^x or pull for 4^x against the stop.

1.6.5 The clamping unit for fixing the sight on the gun is located on the bottom part of the body (figure 2).

1.7 Tools and accessories

1.7.1 A soft napkin is intended for cleaning external surfaces of optical parts.

1.7.2 A wrench is intended for adjustment of the sight.

2 OPERATIONS

2.1 Operational constraints

To ensure reliable operation of the sight, it is necessary to observe the following rules:

- Read the manual before operation.
- Protect the sight from field damage.

- Do not touch external optical surfaces with bare hands and protect them from scratches.
- Do not bring an eye to the eyepiece closer than 70 mm to avoid damage.

DO NOT USE THE SIGHT WHILE IT IS LOOSE ON THE WEAPON.

2.2 Preparing the sight for operation

2.2.1 To prepare the sight for operation:

- Carry out external examination and wipe the optical surfaces by cloth if needed.
- Wipe the mounting seat of the sight.
- Install the battery CR2032 3V.

2.3 Operation

2.3.1 Mounting the sight on the weapon

To mount the sight on the weapon:

- Wipe off the rail on the weapon.
- Shift the lever (figure 2) and turn the clamping unit handle back.
- Place the sight onto the weapon.
- Fix the clamping unit handle backwards until it clicks.

If the mounting is insecure:

- Turn the clamping unit handle back.
- Push against the stop to the axle of the clamping unit from the handle, unscrew the nut (figure 1) (counter)clockwise at the required angle.
- Fix the clamping unit handle (figure 2).
- Insure secure mounting of the sight on the weapon. Repeat the procedure if necessary.

CAUTION! THE SIGHT MUST BE FASTENED SECURELY ON THE RAIL OF A WEAPON.

2.3.2 Adjustment of the sight (Zeroing) on a weapon

To zero a weapon (use 4x magnification mode):

- Mount the sight on the weapon according to point 2.3.1.
- Set a target at 100 meters. To make a target draw a circle 440 mm in diameter on white paper.
 - Fire four careful shots off a rest, aiming using the peak of the aiming mark at the center of a target.
 - Determine the position of the mean point of impact (MPI). For this connect in pairs bullet holes by lines, and then connect the middle of the lines. The junction of these lines is the MPI.
- If the sight is adjusted the bullet hole matches with the MPI or deviate from it for not more than 1 cm.
- Otherwise it is necessary to unscrew caps (figure 2) from the adjustment mechanisms. Taking into consideration the deviation direction of the bullet hole relative to the aiming point turn the adjustment mechanisms by height and by

direction using the included wrench till the bullet hole matches with the MPI. One click turn of the adjustment screws gives shift of the MPI for 1 cm at the distance of 100 meters.

- Fire a shot to check zeroing accuracy.
- Screw up the caps.

CAUTION! DO NOT TURN ADJUSTMENT MECHANISM AT MORE THAN $\pm 0-10$ FROM THE MIDDLE POSITION.

2.3.3 Aiming

Match a peak of the aiming mark with an aiming point when shooting.

To prevent “dumping” of the weapon, the lines to the left and right of the aiming point must be horizontal.

3 STORAGE AND MAINTENANCE RULES

DO NOT disassemble the device during the operational process!

Protect the device from mechanical damages to avoid the injury to optical details and the light element, which includes the light source.

External optical surfaces are to be wiped with a clean soft cloth. Oil stains and coating can be removed with a cloth saturated with an alcohol.

Protect lenses from scratches during operation and storage.

Optimal storage conditions are at temperature from 5 to 40 °C and at relative humidity not more than 85 %.

It is recommended to store the sight without installed battery.

4 ACCEPTANCE CERTIFICATE

Sight PSU, serial № _____, is manufactured in accordance with the requirements of mandatory state requirements, effective technical documentation and is found fit for operation.

Date of issue _____

Signatures _____

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Прицел со сменным увеличением ПСУ.
Руководство по эксплуатации на английском языке