

Falcon NCS-03

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Attention!

Before exploitation of the sight acquaint with the present operation manual. The damage of the device to a consequent of incorrect exploitation and storage remove the warranty bonds of the producer.

1. Description of a sight.

"Falcon NCS-03" (in a further sight) is 1-Gen night vision hunting sight with the built-in infra-red (IR) illuminator and is intended for orientation on terrain and supports of aiming fire from the hunting weapon in conditions of low intensity of illumination at ambient temperature from a - 20 up to a + 40 degree. The distance of vision of the target depends on conditions of observation and nature of the target. The applying of the IR-illuminator is effective on distances up to 75 m.

The device has following features:

- modern design;
- 1 click = 1/9 MOA
- an all-metal high-strength body;
- is water-tight;
- the aiming reticule always is in center a field of vision;
- brightness control of an aiming reticule;
- ergonomic attachment;
- the silent converter of voltage.

2. Characteristics.

Amplification of light.....	1000 times
Resolution , not less.....	35 lines/mm
Magnification.....	2.5 ^x
Objective aperture.....	57 mm
Angular field of vision.....	10°
Eye relief.....	50 mm
Diopter adjustment.....	± 4
Power of the IR- illumination not less.....	25 mW
Supply voltage.....	3 V (AA, 2 pcs)
Overall dimensions with rubber eyepiece.....	275x100x95 mm
Mass no more.....	1,2 kg

3. Complete set.

Sight	1 pcs.
The operation manual	1 pcs.
Case.....	1 pcs.
Weaver rail	1 pcs.
Box	1 pcs.



Fig. 1 Exterior of a sight "Falcon NCS-03"

1- rubber eyepiece; 2- battery compartment; 3- elevation adjustment; 4- reticule brightness control ; 5- lens cover; 6- front lens; 7- IR-illuminator; 9- diopter adjustment; 10- power switch ; 11-weaver bracket; 12- course windage adjustment; 13- fixing screws; 14- windage adjustment.

4. Design of the sight.

The basis of the sight (see pict. 1) is the structural steel hull, to which one the main clusters and gears fasten: a cover of a lens 5, gears of adjustments arranged under covers 3 and 14, IR- illuminator 7, eyepiece with rings of tuning 9, eye-shield 1 and bracket 11.

The actuation of the device implements the rotary switch 10, which one has six positions: OFF - is switched off, ON - is switched on without the IR-illuminator, IR - is switched on with the IR-illuminator. The turn of the disconnecting switch is made in any user-friendly direction. The batteries of AA-type are pasted into a battery compartment arranged under a cover 2. Attention! Abide polarity! Is indicated on a cover of a battery compartment.

The elevation setting on weapon is made through a bracket 11. For this purpose it is necessary to unscrew nuts 13 on a bracket 11 and to establish a sight so that clamps of a bracket have enveloped active faces of a slideway of weapon. Thus one of clamps should be snapped in one of cross-sectional grooves routing. Restrict nuts 13 brackets 11.

The cover 5 is intended for protection of lenses of a lens at haul and activity with a sight in daylight. The focusing of the eyepiece is made by rotation of a ring 9. The eye-shield 1 serves for fixing of an eye concerning a magnifying glass and exception of hit in an eye of light from extraneous sources. The change of brightness of glow of an aiming reticule implements a handwheel 4. Set-up on zero of a sight implements through gears of adjustments arranged under covers 3 and 14.

5. Set-up on zero.

Establish batteries in a sight and fix it on weapon according to the guidelines of point 4. Set-up on zero to make at temperature of exploitation of a sight in the following order:

- to establish weapon with a sight on the aiming machine tool. In a field of view of a sight there should not be bright light sources. At their presence or high intensity of illumination of the target a cover of a lens not remove;
- to establish the target on distance, with which one you will shoot on hunting;
- to switch-on a sight and to aim on center of the target on a mechanical sight;
- gyrating a ring of the eyepiece to achieve sharp vision of the purpose;
- if the center of the target does not coincide a laying mark, that, previously having removed covers 3 and 14, rotation of handwheels of adjustments on a vertical and horizon to achieve their adjustment. The turn of a handwheel of adjustment on three clicks enters the correction 1/3 MOA;
- to shoot in the target 3-4 times;
- to determine an accuracy of hits and position of a midpoint of hit;
- at a straddling of a midpoint of hit with center of the target, rotation of handwheels of adjustments to mate it with an aiming reticule;
- to make monitoring fire.

The sight is customized on fire with selected distances.

6. Activity with a sight.

Before actuation of a sight to be convinced, that the bright light sources (lanterns, head lamp of automobiles etc.) in a field of view miss. By activity in twilights and night to remove a protective cover 5. To switch-on the sight by the switch 10. At intensity of illumination is lower than 0,05 lx to switch-on the IR-illuminator (position IR of the switch 10). By rotation of the ring 9 to achieve sharp vision of an aiming reticule. By rotation of a handwheel 4 to establish optimal brightness of glow of an aiming reticule. By moving of weapon with a sight to mate an aiming reticule with the target. Shoot. After stoppage with a sight to establish the switch 10 in position OFF and to establish a protective cover 5.

It is forbidden:

- to actuate a sight in light time of day with an opened cover of a lens;
- to look through a sight at bright light sources;;
- to look on the live IR- illuminator from spacing interval less than 0,5 m;
- at fire to look in a sight from spacing interval less than 50 mm;

- to store a sight with established batteries.

It is necessary to remember!

- 1). Tag of discharge batteries is the decrease of brightness of the IR-illuminator and aiming reticule. On a frost the capacitance of batteries is notably reduced. Therefore it is recommended to have a padding batteries and to store it in heat.
- 2). The unit of the IR- illuminator is the composite device sensing to mechanical loads. Shocks and dead loads more than 10 H (load created by freight is powerful 1 kg) ARE PROHIBITED, since can break regulation of the illuminator.

7. Maintenance.

For maintenance of a failure-free operation of a sight it is necessary before each usage to make following operations:

- to inspect with the purpose of detection of mechanical damages and corrosion;
- to test mounting of a sight ;
- to test a condition of batteries and contacts in the battery pod (oxidation and presence of salts are invalid);
- to test activity of a sight and IR- illuminator by tentative actuation.

In case of failure detection it is necessary to address to service center or to the vendor of a sight.

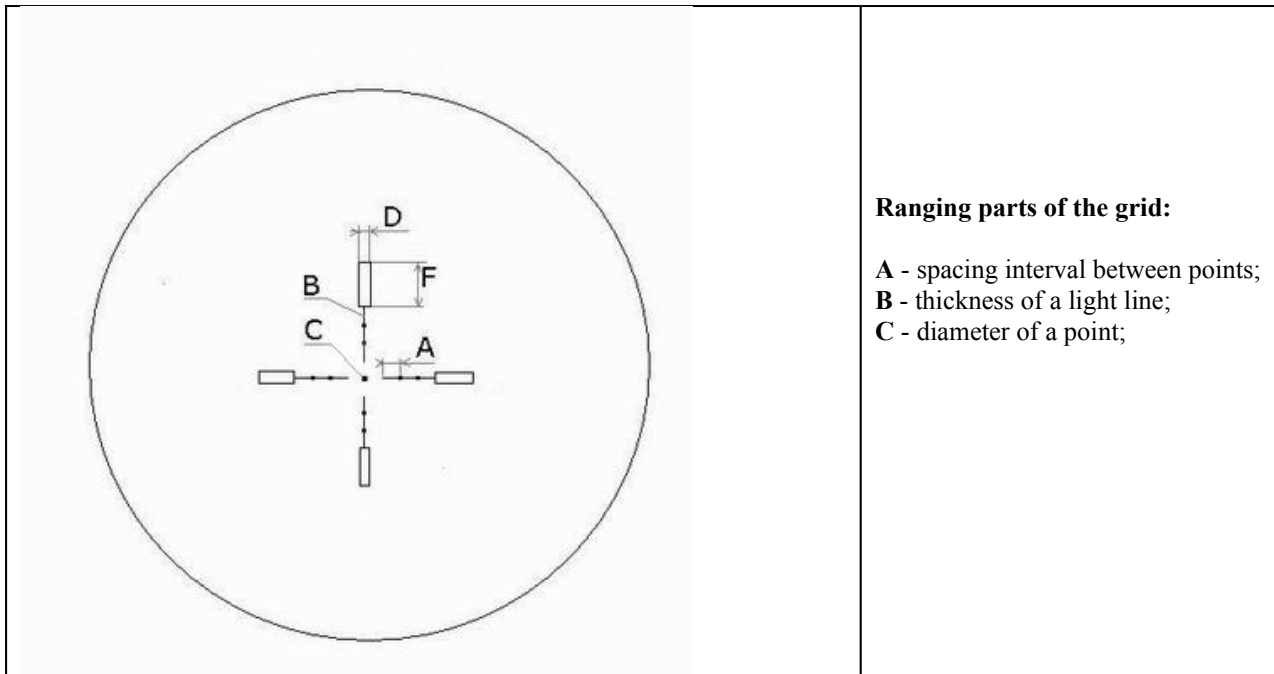
The disassembly of a sight is categorically prohibited!

8. Warranty of the manufacturer.

The sight Falcon NCS-03 manufactured pursuant to the mandatory requirements of state standards and technical conditions and recognized suitable for exploitation. The effective life of ICT (image converter tuber) of the sight is 1000 hours of continuous work. The charge-free warranty service and repair is made within twelve months from the moment of sale.

Addition to the operation manual of the sight Falcon NCS-03.

Your sight has a projection aiming grid “Cross + Dot”, which one makes an effective valuation of spacing interval up to the target. At presence of the table of ballistics of the used cartridge you can make amendments on distance, wind and running speed of the target. The delineation of a grid is shown in a figure 1. To all parts of a grid, through which one it is possible to estimate spacing interval, the alphabetic indexes are assigned. Their angular sizes and linear dimensions of the target apart 100 m applicable to them are indicated in the table 1.



Ranging parts of the grid:

- A - spacing interval between points;
- B - thickness of a light line;
- C - diameter of a point;

The table 1. The sizes of ranging parts of the grid.

Parts of the grid	The angular sizes			The linear size of the target applicable part of the grid on a distance of 100 m, sm
	MIL	MOA	Grades	
A	5	17.189	0.2865	50
B	0.5	1.719	0.0287	5
C	1	3.438	0.0573	10
D	2	6.876	0.1146	20
F	10	34.378	0.5730	100

Spacing interval up to the target is determined under the formula:

Width or altitude of object in centimeters x 10	= Distance in meters
Width or altitude of object in MIL	

The carry of an aiming point from intersection on an adjacent point (part of the grid such as C) changes a angle of targeting on 0.2865 grades.