



I4-technology LLC Russian vendor and manufacturer of high-tech electronics

Spy cameras detector "BugHunter TM DVIDEO NANO»

User manual

INTK.201219.003 RE



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The User Manual includes key features, operating instructions (intended use, maintenance, repair, storage and transportation) of spy cameras detector "Bughunter TM DVIDEO NANO " (hereinafter - device).

Latent videorecording equipment can be installed in saunas, hotels, restaurants, locker rooms, and sport clubs, tanning salons, offices, in fitting shops, hostels and rental apartments as well as in many other places.

Device helps to make yourself safe from unrighteous interference in your private life.

Before using the device, please, carefully read the supplied User Manual.

Following the instructions, restrictions and guidelines contained in User Manual will extend the life of the device and allow you to use it most effectively.

Violation of the storage instructions and operating rules will lead to manufacturer warranty termination.

WARNING! Before using, the device should be kept at room temperature for two hours after storing in a cold room or transporting in wintertime.

1 DEVICE DESCRIPTION AND OPERATION

1.1 Device application

1.1.1 It is a portable device designed to detect spy (veiled as different interior items) cameras regardless of whether they are ON or OFF. The device can detect not only wired cameras, but also wireless which use transmitter capable of sending information at 10 meters or even 100 meters distance.

1.1.2 Device operating instructions:

- Surrounding air temperature, °C from – 40 to + 55
- Relative air humidity at 25°C, % up to 98
- Atmospheric pressure from 66,6 kPa up to 106,6 kPa (from 500 mmHg up to 800 mmHg)

1.2 Technical specifications

1.2.1 Visual appearance of the device is shown on Figure. 1.



Figure 1. Visual appearance of the device

1.2.1 Dimensions, mm	70 x 52 x 21
1.2.2 Weight, including batteries, kg.....	0,05
1.2.4 Power supply	3,7 (built-in battery)
1.2.5 Maximum current consumption by the device, mA.....	250
1.2.6 Operating time on battery (without charging), h	10
1.2.7 Maximum range of cameras detection, m	up to 18
1.2.8 Battery charging time, h	3

1.3 Device components

1.3.1 Device components and supplied package are shown on Table 1.

Table 1

№	Description	Quantity
1	Spy cameras detector "Bughunter TM DVIDEO NANO" INTK. 201219.003 RE	1
2	Battery charger	1
3	Individual package	1
4	User manual INTK. 201219.003 RE	1

1.3.2 Location of the device's main parts is shown in Figure 2.



Figure 2 – Components assembly

The housing is constructed of high impact ABS plastic.

In housing are installed:

- 1 – Power switch (On/Off)
- 2 – LEDs
- 3 – Lens with red filter
- 4 – Power jack for battery charger
- 5 – Battery charge indicator

1.4 Structure and functioning

1.4.1 Operating principle is based on the effect of the reverse flare. Device emits light and receives the reflected emission (including the reflected flares from spy cameras). Since the brightness of the reflected beam from the camera lens is in several times higher than the reflections from other objects, then to determine the location of a camera is quite simple.

1.4.2 The device runs under command of microcontroller with embedded software.

1.4.3 The device is powered by a battery. Charger plug in is made through a power jack (item 4, see Figure 2). Polarity of power jack is shown in Figure 3.



Figure 3 – Polarity of jack for battery charger.

Note! The battery is designed for lifetime work of the device and does not require any replacement during operation.

2. INTENDED USE

2.1 Operating restrictions

2.1.1 Do not point the working device into yours or someone's eyes.

2.1.2 Before using, the device should be kept at room temperature for two hours after storing in a cold room or transporting in wintertime.

2.2 Device usage

WARNING! It is necessary to charge the battery fully before the first use of the device. The charger is supplied.

2.2.1 Move the power switch (item 1) to ON position. After device is turned on, the LED starts to flash with a certain frequency determined by a control program. At the same time, the green LED will light on the back panel of the device.

2.2.2. You have to observe the potential location of spy cams through the lens (recommendations can be found in § 2.3). In a place where a camera is installed, you will see bright pulsating points. They are the reverse flares of the camera lens (see Figure 4). Upon detection of flaring spot, inspect this place closely and identify the source of the flare.

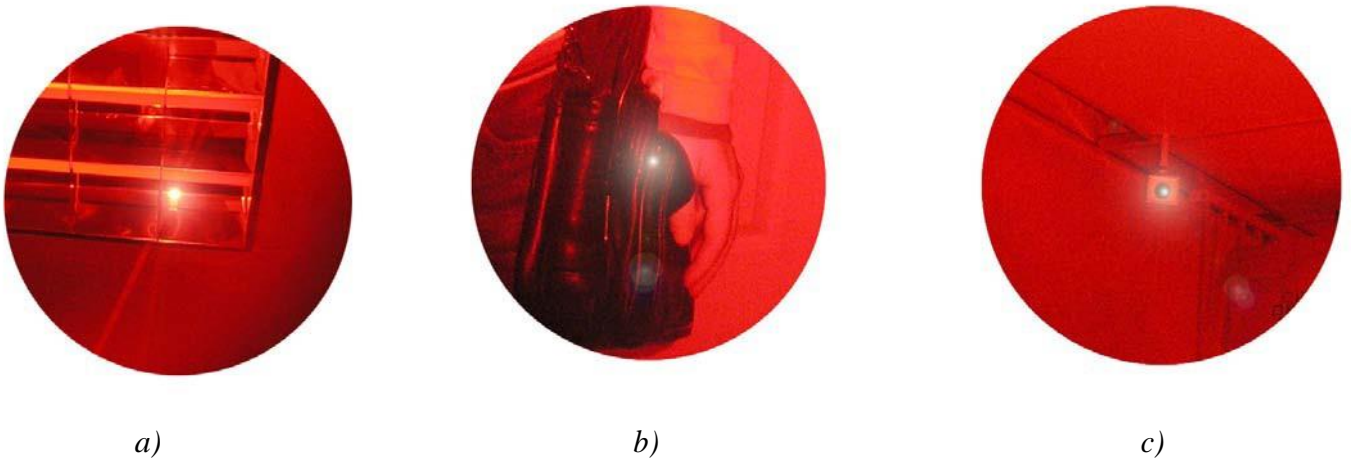


Figure 4 - view of camera flare in device's lens (*a – camera hidden in a lamp; b – camera in a purse; c – CCTV camera in a store*)

2.2.3 Battery charge indication. Battery charging

When the device is turned on, the green LED is flashing on the back panel - the battery charge is sufficient and device is ready to work.

When the device is turned on, the yellow and green LEDs flash alternately - the charge level of the battery is low, you have to charge the batteries.

When the device is turned on, the yellow LED flashes - the battery is dead, you must charge the battery immediately.

A Lithium-Ion (Li-ion) battery is used in the device.

In order to charge the battery you need to insert the charger plug into the jack (item 4) and move the power switch (item 1) to ON position. Then the red LED starts flashing and the charging process begins. The battery is fully charged after the red LED turns off, the device is ready for use.

NOTE: When the battery is almost dead, the red LED starts to flash in 1 ... 3 minutes after the device is put on charge. During the charging process, **do not use** the device.

2.2.4 The device does not requires any special skills and it is easy to use. It allows you to detect a camera lens at 18 meters distance. Detection range depends room's illumination.

2.2.5 In order to turn off the device, move the power switch (item 1) to OFF position.

2.3. Spy cameras search recommendations

The basic rule to detect spy cameras is that the search should be performed in a place where people could probably place a spy camera. The most likely places for camera installation are those from where the working spaces, resting places (chairs, sofas, etc.) and doorways can be easily observed. The camera can be installed in a hollow space of a suspended ceiling, in premise's corners, ventilation shaft, furniture elements (wardrobe, mezzanine, etc.), comfort items or audio-video equipment, etc.

You must consider that there may be several cameras. Detection of one or two video cameras do not allow you to consider that the room is completely cleared. To be completely sure of your safety, it is necessary to check all the places from where a latent recording can be performed.

To determine what flare you see - spy camera lens or simply a reflection on a smooth surface (e.g., glass or mirror) – you can move aside slightly and continue to observe the same area with the working device. In this case a simple flare disappears, shifts or significantly changes its intensity. However, the bright point of the camera lens remains in the same place and there is a slight change in flare intensity until you stay in a sweep of a camera.

Still you need to remember about the optimal working distance which is not more than 18 meters and that the camera can be detected only being in its sweep. Consequently, for more certainty it is recommended to observe the most suspicious places from different angles.

3 MAINTENANCE

3.1 Maintenance requires only charging of the battery as well as cleaning the surface of the device.

3.2 Current repair. Troubleshooting

Typical problems and possible solutions are specified in Table 2.

Table 2

Problem	Possible reasons	Possible solution
Device is not turning ON	Battery is dead	To charge the battery
	Device is defective	Take the device to service center

4 PACKAGING, STORAGE AND TRANSPORTATION

Each device is packed in individual package according to the supply package as indicated in Table 1. Device moving in the package is not allowed.

Packed devices are placed into shipping containers - a corrugated fiberboard box (State Standard 22637).

Packaged devices can be transported by vehicle or railway in covered trucks or containers, by air in pressurized compartments.

During transportation packed packages should be protected from precipitation and direct sunrays.

Transportation conditions:

- Surrounding air temperature: from -50 up to 50 °C
- Relative humidity up to 95 % at 25 °C
- Atmospheric pressure from 84 up to 107 kPa (630 - 800 mmHg)
- Shock acceleration peak value is up to 147 m/s² (15 g), with a duration of shock acceleration 10 ... 15 ms

The requirements on warning signs must be strictly obeyed when loading and transportation

5 ACCEPTANCE CERTIFICATE

Spy cameras detector "Bughunter TM dVideo – economy" INTK. 201219.003 RE

Serial number _____

Manufacture date _____

Manufactured and accepted in accordance with the applicable technical documentation and validated.

Quality Department stamp _____

6 MANUFACTURER WARRANTY

The manufacturer guarantees that the device is manufactured in accordance to INTK. 201219.002 provided the operation, storage and transportation conditions are observed. Conditions are specified in the operational documentation.

6.2 Effective device duration period — not less than 5 years

6.3 Manufacturer warranty - 12 months from the date of purchase.

6.4 If the device fails during the warranty period, the supplier (manufacturer or companies providing maintenance services) should replace or repair it at its own expense.

6.5 Customer loses the right to obtain warranty service in the following cases:

- After warranty term expiration
- Violation of the operation, transportation and storage instructions
- Mechanical damages causing device failure after the purchase
- Manufacturer sealing is broken

6.6 Repair and maintenance of devices with an expired warranty period is covered at the customer's expense



Manufacturer's technical support:

www.i4technology.ru

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Questions concerning the exchange after-sales service should be applied to the distributor that completed a sale. Distributor contacts are specified in its warranty card.



Warranty Certificate

Product: Spy cameras detector "Bughunter TM DVIDEO NANO"

Serial number _____

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Manufacture date _____

		●		
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Quality Department stamp _____

Date of purchase _____

Seller's signature and stamp _____

I do not have any claim against quality of the device, its package and technical state _____
(Customer's signature)