

Hidden Camera Detector

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This manual introduces you to structure, rules of operation (functioning, maintenance, reparation, storage and transportation) of hidden camera detector «Bughunter TM dVideo» (hereinafter - the device).

Hidden recording video devices can be installed in saunas, hotels, restaurants, locker rooms, sports clubs, tanning salons, offices and shops fitting rooms, hostels and rented accommodation, as well as in many other places.

The device will help to protect you against unwelcome intrusion into your privacy.

Before using your device, please read this user's guide.

Following the rules, restrictions and guidelines will prolong the device life and will help to use it most effectively.

Violation of storage and exploitation rules will lead to premature termination of the manufacturer's warranty.

Attention! After storing the product in a cold place or winter transportation the device should be kept at room temperature for two hours before you turn it on.

1. Device description and operation

1.1. Device purpose

1.1.1 The device is a portable gadget designed to search for hidden (camouflaged in various interior objects) camcorders whether they are turned ON or OFF. The device can detect not only wired cameras, but also radio-cameras (wireless), which, using its own radio transmitter can send information up to hundreds of meters.

1.1.2 Operational environment:

- Ambient temperature..... - 40 to + 55;
- Relative humidity at 25 ° C,% 98;
- Atmospheric pressure of 66.6 kPa to 106.6 kPa (500 mmHg to 800 mmHg).

1.2 Specifications

1.2.1 Device appearance can be seen on Picture 1



Picture 1 – appearance of the device

1.2.2 Overall dimensions, mm, not more than 92 x 58 x 24

1.2.3 Product Weight with batteries, kg, not more than 0.09

1.2.4 Power supply from built-in accumulators

1.2.5 Possible work from an external power supply 5 V (supplied).

1.2.6 Maximum consumption current, mA, not more than..... 350

1.2.7 Operating time on battery power (no charge), hours, not less than 2

1.2.8 Maximum detection range of camcorders, mup to 5-20

1.2.9 Charging the batteries, hours, not more than 8

1.3. Device parts

1.3.1. Device parts and package contents can be seen in Table 1.

Table 1

№	Item	Quantity	Note
1	Hidden camera detector «Bughunter™ dVideo» INTK. 201219.001	1	
2	External power supply (<i>network adapter</i>)	1	
3	Individual package	1	
4	Operating manual INTK. 201219.001 RE	1	

1.3.2. Main parts location is shown on Picture 2.



Picture 2 – main parts location

The device consists of a shockproof ABS plastic with located therein:

- Lens;
- LED emitter (8 LEDs around the lens);
- Charging and operation modes indicator (5 green LEDs on the rear panel);
- External power supply/ net adapter socket;
- Display;
- ON/OFF button, mode switch button;
- Additional nearby zone LEDs (4 green LEDs on the front panel).

1.4. Components and Functioning

1.4.1 Functioning principle of the device is to reverse the flare effect. The device emits light and registers the back coming radiation (including the reflected glare from the lenses of hidden cameras). As the brightness of the camera lens reflected ray is several times higher than the reflection from other objects, it is easy to determine camera location.

1.4.2 The product is based on a microcontroller with preinstalled software.

1.4.3 Device power supply is realized using the battery or the supplied external power source (AC adapter) with an output voltage DC 5V C. The external power supply is connected through the socket (see Picture 2). The polarity of the socket is shown on Picture 3



Picture 3 – socket polarity for external power supply connection

Note: the battery is developed for the entire device life and does not require replacement during the operation.

2. Intended use

2.1 Operating limitations

2.1.1 It is prohibited to direct the device to your own or another person's eye.

2.1.2 When storing the product in cold place or winter transportation the device should be kept at room temperature for two hours.

2.2 Use of Products

WARNING! Before the first use, please, charge full battery with the network adapter supplied.

2.2.1 To get a successful result, be aware, that the detection of hidden cameras depends on the frequency of generated flares:

Switch modes (frequency of flashes) by briefly pressing the button, located on the rear panel of the product. It is recommended to select a frequency, at which the glare of flares is most noticeable.

Current flashing mode is displayed by one of the LEDs located next to "ON / OFF" button on the rear panel of the device.

2.2.2 Batteries must have sufficient charge for operation of the device. If SOC reaches its minimum level while functioning, the LEDs on the rear panel flashes for a short time and the product turns off. To continue, you can connect an external power source (*AC adapter*), which comes supplied with the device.

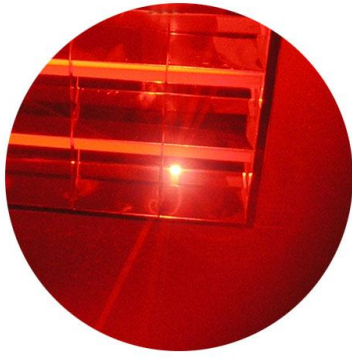
2.2.3 The external power supply (AC adapter) is also used as a charger. On the first stage charging is realized by moderate current (*fast running light on the indicator and functioning modes*), on the second - current decreases (*slowly running light*). When charge controller reaches full battery charge, the device automatically stops charging process.

2.2.4 Although the device uses in Ni-MH batteries, which have no memory effect and can be stored discharged, to increase their service life it is recommended charging the batteries for one cycle after they are fully discharged.

2.2.5 The device is easy to use and does not require special skills. The device makes possible detecting any camera lens **at 20 meters distance**. Detection range depends on the ambient light.

2.2.6 Turning ON the device is made by a button in the middle of the rear panel by pressing and holding it for at least 2 seconds. After the device is turned ON, LEDs located around the lens begin to flash. Then, by briefly pressing power button select the frequency of LED emitter flashes. It is recommended to choose the lowest flash frequency in a darkened room and highest in a light one.

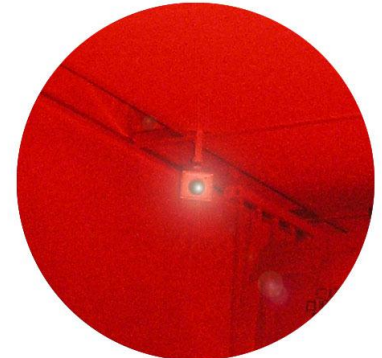
Once selected the frequency, find hidden cameras looking through the lens (instructions can be found in Section 2.3). You'll see bright flares where a hidden camera is located - it's a back glare from the camera lens (see Pic. 4). If you see a glaring spot, examine this place closely and determine the flare source



a)



b)



c)

Picture 4 – camera flare blink in lens of the *device* (a) *hidden in lamp camera*, b) *hidden in purse camera* c) *video surveillance shop camera*)

2.2.8 Turn off the product by pressing and holding the button on the rear panel, not less than 2 seconds.

2.3. Tips to detect hidden cameras

The basic rule in detecting of hidden cameras is that the detection should be done in a place that could possibly interest a person, who installed it there. The most likely locations of camera installation are those places, which could be well seen, employee’s desks, recreational facilities (chairs, sofas, etc.), doorways. The camera can be installed in the corners ceiling cavity, ventilating shaft, piece of furniture (wardrobe, mezzanine, etc.), domestic items, audio-video equipment, etc.

Be aware that cameras can be different. Finding one or two cameras does not mean that the room is completely cleared. To be absolutely sure in your safety, it is necessary to check all the places, from where hidden recording could be realized.

To define what glare type you see - hidden camera lens or simply smooth surface reflection (such as glass or mirrors) - can be checked by moving to the side and observing the same area with the device. In case of a simple blink, it will disappear or lose its intensity, while the camera lens reflection will remain at the same place and will not change flashing intensity while you remain in the device visual field.

Be aware that the optimal operating distance is less than 20 meters, and that the camera can be detected only being in its visual field. Therefore, for the most efficient monitoring it is recommended to test the most suspicious places from different angles.

3. Maintenance

3.1 Maintenance consists in charging batteries, as well as keeping the outside device surface clean.

3.2 Reparation. Possible troubleshooting.

Typical troubleshooting and fixing methods are provided in Table 2

Table 2

Troubleshooting description	Possible reason	Fixing methods
Turning On the device the LED on the rear panel flash ones and the device turns OFF.	Low battery power	Charge the batteries
	The device is defective	Send device to be repaired

4. Package, storing and transportation certificates

In accordance to package contents in Table 1, each device is packed into the individual corrugated cardboard box.

Moving of the item in the package is not in allowed.

Packed products are fit into the shipping container - a box made of corrugated cardboard GOST 22637.

Packaged goods can be delivered by road or by rail in boxcars or containers, also in pressurized module by air.

During transportation, the items must be protected from direct precipitations and solar radiation.

Terms of transportation:

- Ambient temperature from -50 to 50 °C;
- Relative humidity up to 95% at 25 °C;
- Atmospheric pressure from 84 to 107 kPa (630 to 800 mm Hg. Art.)
- Peak shock acceleration up to 147 m/s² (15 g) during shock acceleration duration of 10-15 ms.

The requirements of warning labels should be strictly complied when loading and delivering.

5. Test certificate

Hidden Camera Detector «Bughunter TM dVideo» INTK. 201219.001

Serial number _____

Date of manufacture _____

Manufactured and adopted in accordance with current technical documentation and was found tried-and-true.