



BA-DETECT

INVESTIGATION SYSTEMS



USER MANUAL | CODE: PBNMSK

www.ba-detect.com

The device is designed to protect conversation areas from eavesdropping devices and protects against Digital, Analog or Laser microphones.

Device blocks wireless microphones, tape recorders, wired microphones and most of professional digital tape recorders including tape recorders installed in mobile phones (smart phones). Ultrasonic inaudible noise signal * as well as acoustic speech-like noise signal ** are used in jamming the eavesdropping devices. The device has two additional vertical UV-transducers and a jack to connect external ultrasonic speaker.

* Ultrasonic pressure level of the operating device at a distance of 1 meter or less may exceed the maximum safety level of emission for people according to Sanitary Regulations and Norms 2.2.4/2.1.8.582-96 that may cause damage to your health!

**The manufacturer cannot guarantee that if you use only one ultrasonic signal (or insufficient level of acoustic speech-like signal volume) all tape recorders and recording devices will be jammed.

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

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



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Microphones, Audio Bugs/Recorders Defeater - Microphone Suppression kit - MSK with five UV- transducers on the side, two UV- transducers on the top and an acoustic silencer & 1 External Ultrasonic Speaker with 4 additional UV-Transducers.

The User Manual includes key features, operating instructions (intended use, maintenance, repair, storage and transportation) Microphones, bugs and tape recorders Defeater - MSK with seven UV-transducers and an acoustic silencer (hereinafter - device).

CONTENTS

1. DEVICE DESCRIPTION & OPERATION	4
1.1. Device application	4
1.2. Technical specifications	5
1.3. Device components	5
1.4. Structure and functioning	6
2. INTENDED USE	7
2.1. Operating restrictions	7
2.2. Device usage	7
2.3. Practical recommendations	9
3. MAINTENANCE	9
4. PACKAGING, STORAGE & TRANSPORTATION	10
5. ACCEPTANCE CERTIFICATE	10
6. MANUFACTURER WARRANTY	11

1.1 DEVICE APPLICATION

1.1.1 It is a portable device designed to protect conversation areas from eavesdropping.

1.1.2. Device operating instructions:

Surrounding air temperature	from 5 °C up to 55 °C
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

1.2.2. Device characteristics:

Dimensions	170mm x 95mm x 31mm
Weight, including batteries	0,3 kg
Internal source of power supply	12 V
External source of power supply	15 V
Current consumption	0,35 A
Effective (maximum) range of jamming the eavesdropping devices	7 m
Effective (optimal) range of jamming the eavesdropping devices	2 m
Sound pressure level at 1 m distance from the device	120 dB
Installed batteries capacity	1200 mAh

1.2.3. Ultrasonic speaker characteristics:

Dimensions	95 mm x 55 mm x 23 mm
Weight	0,08 kg
External source of power supply	12 V
Current consumption	0,25 A
Sound pressure level at 1 m distance from the device	120 dB

1.3. DEVICE COMPONENTS

1.3.1. Device components and supplied package are shown in **Table 1**:

NO.	DESCRIPTION	QUANTITY
1	Microphone Suppression Kit with seven UV- transducers and an acoustic silencer & 1 External Ultrasonic Speaker	1
2	External power supply source (battery charger) from single-phase AC 50 Hz, 220 V	2
3	Individual packaging	1
4	User Manual	1
5	Quantity control list 1	1

TABLE 1

1.4. STRUCTURE & FUNCTIONING

1.4.1. The housing is constructed of high impact ABS plastic. Location of the device's main parts is shown in **Figure 2** below:

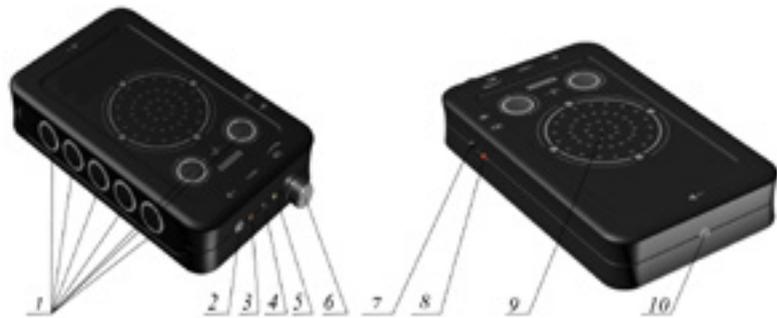


FIGURE 2

1	ultrasonic transducers
2	jack to connect an external acoustic system (audio output)
3	turbo mode indicator
4	button of turbo mode activation
5	power switch ON indicator
6	volume controller of the acoustic speech-like signal with a switch
7	power jack for an external power source (battery charger)
8	power indicator of the external power supply source (battery charger)
9	speaker
10	jack to connect ultrasonic speaker

1.4.2. The device runs under command of micro controller with embedded software.

1.4.3. Device's transducers emit special high frequency sound waves (pattern of the sound is determined by software in accordance with the specially developed algorithm) with the sound pressure reaching 120 dB at 1 m distance from the transducers. Additionally, the speaker produces an acoustic speech-like signal with adjusted volume.

1.4.4. The device is powered by the installed batteries or by the supplied external power source (battery charger).

1.4.5. The installed batteries are charged by the supplied external power source (battery charger).

2.1 OPERATING RESTRICTIONS

2.1.1. Ultrasonic pressure level of the operating device at a distance of 1 meter or less may exceed the maximum safety level of emission for people according to Sanitary Regulations and Norms 2.2.4/2.1.8.582-96 that may cause damage to your health!

2.1.2. Do not hold the running device in close proximity to person's ears - this may cause headaches and temporary hearing loss.

2.1.3. Do not damage the ultrasonic transducers that are located behind the grid by foreign objects. Damage of the transducer may cause improper operation of the device or render it unusable!

2.1.4. Do not cover or block the ultrasonic transducers or holes in housing cover by your hand or piece of clothes while the device is in operation!

2.1.5. Use only the supplied external power source (battery charger) for charging the installed batteries.

2.1.6. Children should not use the device!

2.1.7. Most of the pets (dogs, cats, rodents, etc.) rather painfully react to ultrasonic waves, so please avoid the use of the device in their presence when applicable!

2.1.8. Store the device with fully charged batteries. Monitor the batteries charge level, do not let them be fully discharged! In this way the batteries life will be extended.

2.2. DEVICE USAGE

2.2.1. ON/OFF. In order to switch ON the device, turn the volume controller (item 6) clockwise (in volume increasing direction) until you hear a click. Then power indicator will start to flash (item 5). Speech-like signal appears and accelerates upon further turning of the volume controller. In order to switch OFF the device, turn the volume controller (item 6) counterclockwise (in volume decreasing direction) until you hear a click.

2.2.2. TURBO Mode*. In this mode, the effectiveness of tape recorders jamming is achieved by application of the additional ultrasonic transducer that produces frequency signals. In order to switch ON/OFF the mode press the button (item 3). Yellow flashing indicator (item 3) shows that the device is operating in TURBO Mode.

* NOTE in this mode, ultrasonic signal modulates the audio signal that becomes slightly audible to human hearing, even at zero volume of acoustic speech-like signal. This somewhat complicates the possibility of completely hidden use of the device.

2.2.3 Installed batteries charge indication:

Green LED of the switch indicator (item 5) is lit constantly	device is running normally, the batteries charge is sufficient
LED of the switch indicator (item 5) blinks 1 time per second	device is running, you need to connect an external power supply (battery charger)
LED of the switch indicator (item 5) blinks 2 times per second	batteries charge is critical, the device does not work (ultrasonic and acoustic speech-like signals are not produced), you need to urgently connect an external power source (battery charger)
LED of the switch indicator (item 5) is not lit when the device is switched ON	the batteries are dead, you must charge the batteries

2.2.4. Batteries charging. In order to charge the batteries or to prevent its full discharge because of continuous running of the device, you need to insert the charger plug into the jack (item 7). Then the red LED of the power indicator of the external power supply source (item 8) starts flashing*. The batteries are fully charged after the red LED (item 8) turns off.

* It may possibly take 20-40 seconds for the external power supply source indicator to start flashing at the critically low batteries charge level.

2.2.5. Device supports connection of an additional ultrasonic speaker. Ultrasonic speaker is an external acoustic device, intended to create a more “dense” ultrasonic interference where the conversation is happening. Ultrasonic speaker is connected to a 220V network through power adapter bundled with it and connects to the device by cable of mini-jack type.

To turn on ultrasonic speaker please do the following:

1. Connect ultrasonic speaker to a 220V network via power adapter.
2. Connect ultrasonic speaker to the device via cable to a jack (item 10).
3. Turn on the device (2.2.1 and 2.2.2. and **Figure 3**).



FIGURE 3

2.3. PRACTICAL RECOMMENDATIONS

2.3.1. The device should be placed so that the transducers be directed towards possible location of eavesdropping devices (tape recorders, microphone, “bugs” etc.), for example, toward the new visitors or clients. The optimal distance from the transducers to microphone of the eavesdropping device is up to 2 meters. Then switch ON the device and adjust the volume of the acoustic speech-like signal so that you can still hear the person you are talking to. You should hold conversation in a low voice but so that you hear well each other without repeating every word. Use TURBO mode for more effective jamming of the microphones.

2.3.2. Do not switch on the acoustic speech-like signal when you want the device to be hidden. Note that this is somewhat reduces the effectiveness of the device (the manufacturer cannot guarantee that if you use only one ultrasonic signal the device will jam all tape recorders).

2.3.3. It is recommended to connect the device to external speakers (e.g. computer) and ultrasonic speaker through the special jack in order to more effectively expose the acoustic speech-like signal in a large room. This will protect the large conversation area from eavesdropping as well as to prevent from eavesdropping by external directed microphones (such as laser).

3. MAINTENANCE

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

3.2. Current repair. Troubleshooting. Typical problems and possible solutions are specified below:

PROBLEM	POSSIBLE REASONS	POSSIBLE SOLUTION
When you turn on the device the battery indicator (item 5) is not lit	Battery is discharged	Recharge the battery
	Device is defective	Take the device to service center

TABLE 2

4. PACKAGING, STORAGE & 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 sun rays.

Transportation conditions:

Surrounding air temperature	from -50 °C up to 50 °C
Relative air humidity at 25 °C	up to 95%
Atmospheric pressure	from 84 kPa up to 107 kPa from 630 mmHg up to 800 mmHg
Shock acceleration peak value	up to 147 m/s ² (15 g)
Duration of shock acceleration	10 ... 15 ms

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

5. ACCEPTANCE CERTIFICATE

Microphones, bugs and tape recorders jammer “MSK” with seven UV- transducers and acoustic silencer. & 1 Additional Ultra Sonic Speaker.

Serial number: _____

Manufacture date: _____

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



Quality Department Stamp

6. MANUFACTURER WARRANTY

Code: PBNMSK

6.1. **BA Detect in partnership with Sititek Manufacturing, Russia** - Produce Innovative Security Solutions designed to protect Users from Information leakage. Sititek perform rigorous testing of all devices prior to goods leaving production zone and prior to departure from the factory.

6.2. The manufacturer guarantees that the product conforms to the applied requirements under the operating, storage and transportation conditions specified in the operational documentation.

6.3. Effective device duration period — not less than 3 years

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

6.5. 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.

6.6. 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.

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

Manufacturer has the right to amend and change device characteristics to improve its consumer properties.

Manufacturer's technical support: www.ba-detect.com

Questions concerning the exchange after-sales service should be applied to the distributor that completed a sale.

Distributors contacts are listed in the warranty certificate.

www.ba-detect.com

WARRANTY CERTIFICATE

Product: Microphones, bugs and tape recorders jammer “MSK” with seven UV-transducers and acoustic silencer.

Serial number: _____

Manufacture date: _____

Date of purchase: _____

Seller's signature: _____



Quality Department Stamp



Seller's Stamp

I do not have any claim against quality of the device, its package and technical state.

Customer signature



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