

# I4-technology LLC

Ultrasonic repeller "Dog STOP"

User manual INTK.433523.003 RE



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The User Manual includes key features, operating instructions (intended use, maintenance, repair, storage and transportation) of ultrasonic repeller "Dog STOP" (hereinafter - device).

The device is designed for effective protection against stray dogs' attacks. Device effectiveness is achieved by application of the ultrasonic impulses of unique pattern.

The number of stray dogs is constantly increasing. Nobody is safe from a meeting with an aggressive pack of dogs. Sometimes dogs do not allow you to pass by and, unfortunately, stone or stick does not happen to be in your hand at the same moment. The device will help you in such a difficult and dangerous situation.

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.

#### 1. DEVICE DESCRIPTION AND OPERATION.

## 1.1. Device application.

1.1.1. It is a portable device designed to deter aggressive dogs by high frequency sound signals.

The device was developed on the basis of the proven model "Dog STOP Flash +". The purpose of creation the new model was to reduce the cost while maintaining high performance and operating range. In order to achieve that we reduced some features and capabilities of the basic model. In particular, the following changes were done:

- 1) Operating range was slightly reduced: maximum up to 18-20 meters, effective up to 8-10 m.
- 2) Expelling is performed only with the help of ultrasonic signals.

The older model has triple expelling effect: ultrasound + flash lights + unique pattern of ultrasonic signals

- 3) Absence of high brightness LEDs, and as the result absence of light torch function.
- 4) Absence of unique pattern of ultrasonic signals.

Efficiency of the model of "Flash +" is determined not only by the power of the ultrasonic signal, but also by unique pattern of ultrasonic signals that effectively deter the most aggressive animals.

5) Absence of automatic mode.

In model "Flash +", to start using the device you have to press the power button and just hold it. The optimal waveform is formed automatically, thanks to availability of unique algorithm of ultrasonic signals. Such feature is a unique one! "Flash +" is the only repeller on the market that can operate in automatic mode.

In order to reach the maximum efficiency of expelling of this device you have to constantly press and release the power button. In this regard, "Flash +" model is much more convenient and practical because in any emergency (e.g. attack of dogs) you don't need to constantly press the power button.

6) Modification of digital monitoring system of battery charge - three levels instead of four.

In this device there is no orange LED that is in "Flash +" model. Such modification made indicator system a bit easier, but its informative content remains at the same high level. The device will warn you when the battery should be replaced. You will never stay without protection because the batteries are "suddenly" run out.

#### **Our recommendations:**

"Dog STOP Flash +" is the most effective, "long-range" and easy to use device. Recommended for anyone who wants to have the highest level of protection from aggressive animals at maximum possible distance.

"Dog STOP" is an economy version of repeller with reduced functionality and less good effective range and operation efficiency. We recommend this device for those who, along with access to reliable and effective protection from aggressive dogs, wants to save money.

In addition to self-protection purpose, the device can be used to protect your pet from stray dogs and also for dog training.

## 1.1.2. Device operating instructions:

- surrounding air temperature, <sup>o</sup>C ...... from 40 to + 55;
- 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.

1.2.2. Dimensions, mm.	110x57x35
1.2.3. Weight, including batteries, kg	0.1
1.2.4. DC supply voltage (3 batteries AAA), V	
1.2.5. Maximum current consumption by the device, mA	250 mAh
1.2.6. Effective (maximum) distance, m	
1.2.7. Sound pressure level at 1 m distance from the device, dB	119-120±1.2

## 1.3. Device components

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

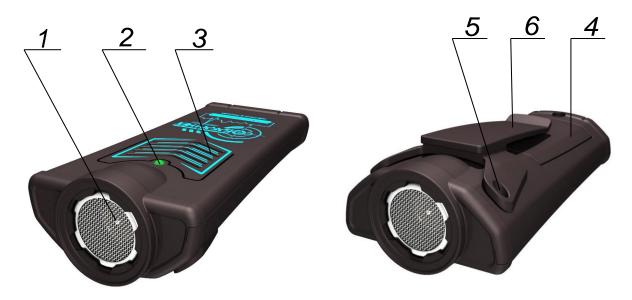
Table 1

N₂	Description	Quantity	Comment
1	Ultrasonic repeller "Dog STOP" TS 6329-004-64062607-2012	1	
2	Batteries type AAA	3	Installed in the device
3	Belt clip	1	
4	Self-tapping crews of fastening clip	2	

5	Individual package	1	
6	User Manual INTK.433523.003 RE	1	
8	Quality checklist	1	

## 1.4. Structure and functioning

1.4.1. Location of repeller's main parts is shown in Figure 2.



- 1 ultrasound transducer
- 2 LED indicator for battery power and display
- 3 power button
- 4 battery cover
- 5 self-tapping screws for case fixing
- 6 belt clip

Figure 2. – Parts assembly

- 1.4.2 The housing is constructed of high impact ABS plastic.
- 1.4.3 Belt clip (item 6 on Figure 2) is designed for user convenience. It can be installed on the belt with the help of two self-tapping screws of extended length that are supplied in the package. Scheme of clip installation is shown on Figure 3.



Figure 3 – Scheme of clip installation

- 1.4.4 The device runs under command of microcontroller with embedded software.
- 1.4.5. Device transducer (item 1 on Figure 2) emits special high frequency sound waves with the sound pressure reaching 120 dB at 1 m distance from the transducer. Ultrasonic waves generated by the device produce a depressing effect on aggressive dogs, causing them to feel panic with an overwhelming desire to leave the repeller coverage zone as quickly as possible.
- 1.4.6. The device is powered by 3 batteries type AAA which are placed in battery compartment. There is an installation scheme inside the battery compartment that shows the right way to install the batteries.

#### 2. INTENDED USE.

## 2.1. Operating restrictions.

- 2.1.1. This product is designed to protect you from aggressive dogs! Only in this case the maximum efficiency of the device could be reached! It also can function as a dog-training device.
- 2.1.2. Do not cover or block the ultrasonic transducer that is located behind the grid. Damage of the transducer may cause improper operation of the device or render it unusable.
- 2.1.3. Do not hold the running device in close proximity to person's ears this may cause headaches and temporary hearing loss.
  - 2.1.4. Do not put your hand or clothing on ultrasonic transducer while it's operating in expelling mode
  - 2.1.5. The device is ineffective against the deaf animals.
  - 2.1.6. Children should not use the device without parental supervision.
  - 2.1.7. Do not test the device on dogs that behave friendly. This could provoke them.
- 2.1.8. Do not test the device on dogs in closed, small spaces (elevator cabs, pantries, etc.) Dog may react inappropriately.
  - 2.1.9. Do not test the device on dogs that are guarding their territory.
  - 2.1.10. Do not test the device on your own pets. This could provoke them.

#### 2.2. Device usage.

WARNING! Before first use of the device, make sure that the batteries have sufficient charge. All you need is to press switch on button. Battery charge LED should be green!

2.2.1. Expelling mode.

Point the device at an aggressive dog. Press and hold the power button (item 3 in Figure 2). The device will begin to emit ultrasonic sound waves. Next step, begin to quickly press and release the power button, so you will form your own algorithm of ultrasound, increasing the effectiveness of expelling. Wait 1-5 seconds before you see the effect although in most cases, the device operates immediately

The device emits a directed ultrasonic sound. Therefore, the effectiveness could be reduced if the device is directed at an angle to the dog. Change slightly the angle of the device in order to find the most efficient zone that will be mostly unpleasant for the dog.

The maximum impact range of the repeller is 18-20 meters, but the most effective expelling range - 8-10 meters. In this case, the standard behavior of the dog is to back off or run away.

While the device is in operation it is important to monitor the battery charge level\*. If the battery LED indicator (item 2, Figure 2) starts to glow red, replace the batteries with the new ones. To do this, press the latch on the battery cover and open the compartment. Remove dead batteries and install new, keeping polarity as indicated on the inside of the battery compartment. Close the battery compartment. The device is now ready to operate.

\* For the more effective and extended operation of the device it is recommended to use alkaline batteries of the famous manufacturers.

- 2.2.3. Mode indicator and battery charge level LED.
- a) LED (item 2) is green battery charge is sufficient, emission power 100%;
- b) LED (item 2) is red that means that the batteries are almost dead, replace the batteries to save 100% of emission power;
  - c) LED (item 2) does not lit batteries are at full discharge, it is necessary to replace them.

## 2.3. Recommendations for dog attack prevention.

The device is recommended to use only in case of a real threat of an aggressive, stray or guard dog attack.

2.3.1. How to tell if a dog is acting aggressive?

It is not hard to identify such a dog's behavior.

The first sign of aggressive behavior - a dog is showing teeth. Note that the more aggressive a dog is, the more its front teeth are exposed. If a dog is acting aggressive, its hackles is raised. Aggressive behavior is commonly associated with still and sharp look into the eyes of the enemy. In this way a dog is challenging you. If the dog is ready to attack, its front paws are put wider, head is held up, and the muzzle is slightly down.

2.3.2. How not to provoke an aggressive response?

When you cannot run away and the dog just started to expose aggression without attacking, you should try to "neutralize" its aggression. It is important to be still and calm. Take maximum of your self-control. No adrenaline – a dog will sense it and may become excited. Stay calm and try not to pay attention to a dog. Your posture should expose calmness and indifference to a dog. Do not look straight into dogs' eyes. Do not turn in its direction. Do not make any sudden movements. Do not show your fear. Watch the dog only by peripheral vision: show that you are not trying to intrude its territory; you are busy with your own affairs. In this way, a dog will not assume that you are intruding its territory, its place in the pack, its food, etc. Never try to run away otherwise it will provoke a dog attack! Usually, when a dog attacks with barking, it means a minor threat. Most likely, it just wants to scare you, to chase you away from the territory where you stand. Still be on guard because theoretically a dog may be likely to attack.

#### 3. MAINTENANCE.

3.1. Maintenance requires only replacing of batteries (see Section 2.2.1), 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
	Batteries are dead	Replace batteries
When you turn on the device the battery indicator is not lit.	Batteries are not properly installed	Install batteries in accordance with polarity
	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. Product 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**

Ultrasonic repeller "Dog STOP" TS 6329-004-64062607-2012 Serial number
Manufacture date
Manufactured and accepted in accordance with the applicable technical documentation and validated. Quality Department stamp

#### **6 MANUFACTURER WARRANTY**

- 6.1 The manufacturer guarantees that the device is manufactured in accordance to TS 6329-004-64062607-2012 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:
<a href="https://www.i4technology.ru">www.i4technology.ru</a>
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# **Warranty Certificate**

Product:	Ultrasonic repeller "Dog STOP"	
Serial number		
Manufacture date		
Quality Department stamp		
Date of purchase		
Seller's signature and stamp		
I do not have any claim against q	quality of the device, its package and technical state	(Customer's signature)