## **Warranty obligations**

Manufacturer guarantees correct operation of the service-security system if exploitation, installation, storage and transportation conditions described in this manual were met.

The system should only be used according to installation scheme and user manuals. The system is meant to be installed by the professional car electronics installers. We recognize that outside Russia the system can be installed by amateurs – those installations are still a subject of limited warranty. The installer should fill in installation certificate that is included in this manual. Parts malfunctioning during warranty period on the fault of the manufacturer should be repaired or replaced by the installation center of the manufacturer or by certified service center. List of certified service centers outside Russia can be found on pandorainfo.com

The user loses the right for warranty services in the following cases:

- · when warranty period expires;
- if exploitation, installation, storage or transportation conditions were not met;
- if there is mechanical damage of the external parts of the system after it is sold. This includes: fire damage, consequential damage in case of car accident, aggressive liquids and water seeping damage, damage caused by improper use;
- if the damage was caused with incorrect settings and parameter adjustment;

Warranty period is 3 years since the moment of purchase, but no more than 3,5 (three and a half) years since the moment of production.

This warranty does not include batteries of the remotes, as they have their own service life time. Maintenances and repairs of the system with expired warranty period are carried out at the expense of the user on a separate contract between the user and the installer/service center.

Date of purchase	 	
-		
Packager		

pandorainfo.com Customer support: support@pandorainfo.com

The quality management system of the manufacturer is certied in accordance with IATF 16949: 2016, ISO 9001:2015

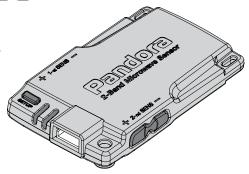
(stamp)

Product is in conformity with Electromagnetic Compatibility
Directive EMC 2004/108/EC
and R&TTE Directive 1999/5/EC

Pandora VS-23d

Two-band microwave sensor

- Smart processing of information with reliable protection from false triggering
- Non-volatile memory of set triggerig levels
- Sensitivity adjusting within a wide range
- Energy efficiency



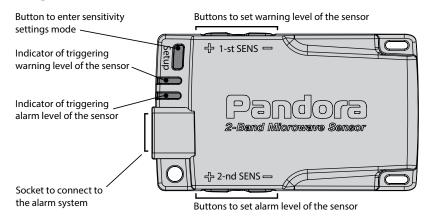
### Microwave sensor Pandora VS-23d

This sensor is intended for additional security of car perimeter. It connects to a car service-security system, triggers when coming to the armed car and penetrating to the car interior.

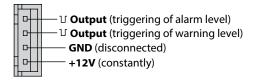
Pandora VS-23d is a compact size digital microwave sensor, herewith it is high-tech and energy efficient with extended dynamic range.

Sensor VS-23d is designed to be installed on passenger and off-road cars, minivans, as well as on cars with low-capacity batteries, toned and armored windows, a lot of anti-theft and musical equipment, with voltage of on-board power supply 12V.

# **Assigment of buttons**

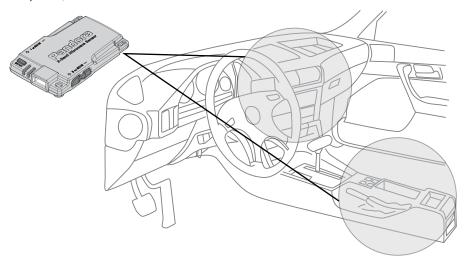


# Socket to connect to the alarm system

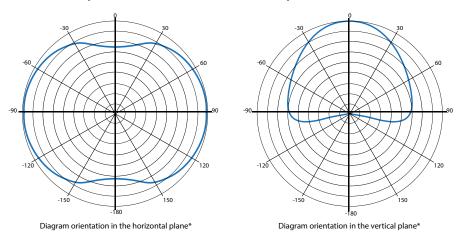


## **Mounting instruction**

Microwave sensor should be installed inside of the car interior in places that provide uniform sensitivity across the interior space (generally, between front seats of a car, under torpedo, less in the lamp cover).



When selecting the place to install the sensor, pay attention that nearby metal objects and elements of the car body reduce the sensor sensitivity and change the diagram orientation. The sensor can be connected to the system base unit with the cable that is in the system set.



# **Adjusting sensor sensitivity**

Sensitivity of microwave sensor VS-23d zones (warning/alarm) should be set sequentially (in any order). Sensitivity of sensor alarm triggering zone cannot be more than sensitivity of warning zone.

#### 1. Entering settings mode

- Press and hold SETUP button for 2 seconds.
- LED indicators flashes red and green in rotation.

### 2. Adjusting warning level

- Press + button of 1-st SENS to increase or button of 1-st SENS to decrease sensitivity. Hold the button for prompt sensitivity setting.
- LED indicator displays the current sensitivity value. Frequency of indicator flashing equals sensitivity: when maximum sensitivity LED indicator lights almost continuously, when minimum sensitivity it flashes occasionally.
- The sensor proceeds to the mode of displaying active zones in 3 seconds that is indicated with single flash of two LED indicators simultaneously.

### 3. Adjusting alarm level

- Press + button of 2-st SENS to increase or button of 2-st SENS to decrease sensitivity. Hold the button for prompt sensitivity setting.
- LED indicator displays the current sensitivity value. Frequency of indicator flashing equals sensitivity: when maximum sensitivity LED indicator lights almost continuously, when minimum sensitivity it flashes occasionally.
- The sensor proceeds to the mode of displaying active zones in 3 seconds that is indicated with single flash of two LED indicators simultaneously.

#### 4. Exit and save settings

- To save sensitivity value and exit settings mode, press and hold SETUP button for 2 seconds.
- LED indicators flashes red and green 3 times simultaneously.

If some buttons were not pressed for 1 minute, this mode will be exited automatically.

## **Specifications**

Supply voltage range	916V
Current consumption when arming	no more than 1,8 mA
Output circuits type	open drain n-chanel MOSFET
Output signals duration:	
warning	no less than 0,5 sec.
alarm	no less than 0,5 sec.
Dimensions	71,5x42x11,5 mm
Operating temperature range	40°C +85°C

## System set

Microwave sensor VS-23d	1
Interface cable	1
User installation manual	1

<sup>\*</sup> diagram orientation of the sensor is approximate, in real conditions sensitivity depends on the vehicle and the sensor mounting location