



PANDORA-ON COM

WWW.PANDORA-ON.COM PERSONAL MONITORING & MOBILE APPS CONTROL FROM ALL INTERNET DEVICES. Control and monitor your vehicle through your own online personal login portal, www.PANDORA-ON.COM use any device with internet connection (PC, smartphone or tablets) to get even more features and control. You will be able to generate reports, assign system control to other users, create notification rules, manage vehicle fleets, activate Geo Fences and much more!



OWNER PERSONAL SAFETY in the unfortunate event that you are involved in a vehicle accident

or in an emergency you press the SOS button, your Pandora alarm system will instantly send important notification to your saved group of emergency telephone numbers (programmed on installation by your dealer) The system will also transmit your exact vehicle location and coordinates. The accident will be stored as an event in the on-line event history for your future record

MOBILE APPLICATIONS

Pandora Online and Pandora Pro - applications are designed to work via Internet and Bluetooth connection with security and telemetry systems Pandora and PanDECT, beacons and telemetry modules. Pandora BT - the application is designed to work via Bluetooth connection with security and telemetry systems Pandora and PanDECT.

PanDECT BT - the application is designed to work via Bluetoothconnection with the latest generation immobilizers. Pandora NAV BT - the application is designed to work via Bluetoothconnection with autonomous beacons.

Pandora Charger - the application is designed to work through a Bluetooth connection with a Pandora Charger charger.

ACTIVE SECURITY

ACTIVE

IALOGUE COD

USB

When arming in active security mode, the Online service will constantly monitor connection as well as coordinates to your vehicle. In the case where vehicle is towed or the connection is lost/blocked. the owner will be instantly notified.

DYNAMIC DIALOG CODE Using new AES coding algorithm and dynamic dialogue service information, guarantees the ability to protect your car against electronically hacking into you car and our

BUILT IN USB INTERFACE

systems.

• A built-in micro-USB port allows system configuration and firmware updates using the Pandora Alarm Studio application for Windows. The system receives power supply form the USB port, which means you can configure a system without connections to vehicle power supply.

ENGINE START STOP

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INTELEGENT REMOTE ENGINE START

When installed, all Pandora systems have the ability to remote start your vehicles engine. The systems performs important safety checks before safely starting the vehicle. Available for both Automatic and manual transmission vehicles. Monitor engine parameters and vehicle state during remote start procedure. Startengine by time(E.G 8am every morning Mon-Fri) voltage and even temperature settings. Inbuilt Turbo timer and ignition support functions allow for integration on turbocharged engines, keeping the system fully armed at all times. control important CANBUS controlled vehicle settings such as heated seats, AC or heating. *Only available for certain

vehicles.

Es th HEATER

you drive.

ENGINE PREHEATER CONTROL

If the vehicle is fitted with a factory preheater or engine heater, this could be control from your Pandora system. Use the modern and effective way to heat your car before

*Ask your dealer for full vehicle coverage list

Pandora service-security systems features



ENERGY EFFICIENCY Pandora security systems work on both NFW and

new dialogue **24**GHz security code

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(3D)

old vehicles. The power consumption meets the requirements of all car manufacturers for supplementary after market equipment.



NFW RADIO PATH 868MHz A modern multi-channel jamproof narrow-band radio path provides reliable MULTICHANNEL communication with the ӋҘӋӥ҉ systems, with constant RADIO ACCESS control and instant notifications of alarm events in any condition of

radio noise.



BUILT-IN BACKUP BATTERY Built-in battery allows

extend operating time if the system is disconnected from its power source. The system will notify the owner in the case of an unauthorized power disconnection.

MULTIFUNCTIONAL 2.4 GHZ RADIO INTERFACE This interface allows for wireless connection with the immobiliser, tags and blocking relays. This increases the chance of anti-theft and anti-hijack defense for your vehicle. Additional 2.4GHZ devices support GPS/GLONASS receivers NAV engine compartment module RHM blocking radio relay RR, wireless door sensors DMS and wireless programmer RMP allows the user the ability to change settings and update software on their system completely secure and wireless.

BLUFTOOTH 5.0 INTERFACE

The new Bluetooth Low Energy protocol improves the 2.4GHz radio interface to provide a stable communication in any urban noise condition. It also increases radio coverage and provides the ability to apply new adjustable algorithms for precise radio tags detection. It will also supports additional Bluetooth devices GPS/GLONASS receiver NAV BT engine compartment module RHM BT blocking radio relay BTR as well as wireless door sensor DMS BT.

BUILT-IN SHOCK/TILT/MOTION SENSOR Integrated 3D Accelerometer and elaborate algorithms allows the system to control shock/ tilt/motion Security zones and engine blocking on movement. New high sensitive and reliable accelerometer provides smart protection and false alarm prevention.

GSM

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GSM | 2xSIM | 4G/3G/2G | LBS INTERFACE

An integrated GSM interface communication and control range from radio relay distance, to anywhere in the world through mobile phone network coverage. Receive instant voice and text notifications for any

new alarm events occurring

with your vehicle. You can comfortably control your vehicle from anywhere in the world. 4G/3G/2G -interface allows you to control your car by mobile applications and on-line service. LBS allows the systems to detect coordinates by GSM base stations.

GLONASS **GPS**

GPS/GLONASS POSITIONING

Promptly locate your vehicles position, keeps alarm time and date synchronized and allows event history to save important coordinates. Movements and tracking function are also available. Tracking function can access detailed report on mileage, travel time, average and

maximum speed, with journey

traveled displayed on the map.

IMMOBILIZER BYPASS

CAN

MULTISYSTEM DIGITAL INTERFACE CAN I IMMO-KEY Multi system high-speed CAN interface allows easy install of all Pandora system on vehicles equiped with CANBUS network. This includes digital buses and 3XCAN interfaces. LIN interface is

also used to read status information from vehicle digital bus or to control parts such as engine pre-heaters (Webasto Thermotop Evo and Eberspacher Hydronic/Hydronic2). Digital IMMO-KEY port is a special interface that allows the system to bypass certain factory immobiliser on select vehicles.

BUILT IN ORIGINAL IMMOBILISER BYPASS This allows the Pandora system to bypass most factory immobiliser system fitted to most modern cars. This makes it possible to install remote engine start without leaving a spare key inside the vehicle.

CLONING TECHNOLOGY

A complex algorithm enlarges the list of cars that support remote engine start. The power of CLONE servers and our algorithms create a «virtual copy» of the OEM key. This «virtual key» doesn't use traditional bypass modules which requires you to leave one key inside a car. This will significantly reduce the total cost of the system installation and make this process easier increasing the reliability of the security system.

G Pandora C A R A L A R M S Y S T E M S Car alarm systems

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Pandora car alarms are a NEW level of high tech car security & real time vehicle monitoring. Pandora use a legal 856MHz long range multichannel, automatically switching radio path with an enormous128 bit encryption and up to a kilometer range. All our remotes, immobiliser tags and smartphone apps use the latest AES-128 algorithm dialog encryption with remote recognition to ensure maximum protection from hackers, Key scanning, key/code grabbers and other wireless security threats. This makes all our systems the securest option on the market today to secure your vehicle. Why settle for anything else!

lite

Pandora

The first model in the latest line of telemetric car alarms, presenting the most advanced hardware and software technology platform available in the world today! The most modern LTE-module is responsible for data transfer. It works with all currently developed methods and protocols for packet data transfer (4G / 3G / 2G). This module provides communication wherever there is the slightest possibility of mobile connection. A new multi-system navigation receiver with previously inaccessible properties is integrated in the system unit: even higher reception sensitivity, accuracy and noise immunity of the reception with the possibility of processing up to 10 points (coordinates) per second.

Pandora Elite v2

TELEMETRY SECURITY-SERVICE SYSTEM NEW GENERATION

Base unit Two radio tags BT-760 LCD-remote control D-043 RF-module DXL-470 Relav module RMD-5M Piezo siren PS-332 BT Owner's plastic card with a secret

- Smart remote engine start
- Keyless bypass of a standard immobilizer
- Control over an engine pre-heater
- Digital Radio Channel Protection

4G/LBS/nano-SIM/SIM-chip | GPS/GLONASS 868MHz | 2.4GHz/Bluetooth 5.0 128-bit encryption | 3D accelerometer MIC | Li-Po | micro-USB 3xCAN | 2xLIN | 2xIMMO-KEY



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- Internet service PANDORA-ON.COM
- Mobile applications PANDORA ONLINE | PRO
- Location and movement tracking
- SOS Button | emergency notifications in case of a crash
- Control of connection with the system (remote control | Internet)
- Immobilizer and Anti-Hijack functions
- Digital shock/tilt/motion sensor





PANDORA-ON COM











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CLONING



Professional

The system combines the most advanced software and hardware solutions in the field of car security systems. The base unit of the system contains the maximum number of integrated components. At the same time, it is so small that it can fit in the palm of your hand. The system has a two-way remote control and two radio tags. The Professional allows you to control your car and receive all information about it using the mobile application by an Internet or Bluetooth connection. The system set also includes a relay module for remote aine start

Pandora Professional v2

TELEMETRY SECURITY-SERVICE GSM | GPS | GLONASS SYSTEM

Base unit Main remote control D-670 Two radio tags BT-760 Relay module RMD-5M Piezo siren PS-330 Owner's plastic card with a secret PIN code

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Aktueller Status

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- - Dynamic dialog code

of a crash

- Integrated shock/motion/tilt sensor
- Integrated GPS-receiver
- CLONING technology

- - Energy effectiency

GSM/3G/LBS/2xMicro-SIM | GPS/GLONASS 868MHz | 2.4GHz/Bluetooth 4.2 | 128 Bit encryption 3D accelerometer | MIC | Li-Po | micro-USB 3xCAN | 2xLIN | 2xIMMO-KEY



- Internet service PANDORA-ON.COM Mobile applications PANDORA ONLINE | PRO
- Active security function
- Automatic emergency notifications in case
- Immobilizer and Anti-Hijack functions
- Smart remote engine start
- Control over an engine pre-heater
- Multifunctional radio interface
- **BLUETOOTH 4.2 LOW ENERGY**
- Integrated bypass of an original immobilizer
- Integrated microphone
- Built-in backup battery
- Integrated USB-interface

CAR ALARM SYSTEMS

PANDORA-ON.COM













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Smart Pro-

Pandora Smart Pro is the first model of a new generation of state-of-the-art micro-system from our company with the most advanced 4G modem, which supports all available communication ranges (2G / 3G / 4G) and a full-fledged Bluetooth 5.0 interface. This system is designed to be always in touch with its owner under any conditions, in conditions of poor coverage of the GSM network and even in the absence thereof, through online services, by direct connection via Bluetooth, or using the long-range LoRa (*optional extra) radio path. Designed to give the owner maximum information about his car, to reliably protect him and give peace and comfort.

Pandora Smart Pro V3

CAR SECURITY SYSTEM WITH DIRECT CONNECTION TO TWO DIGITAL BUSES, GSM INTERFACE AND BUILT IN GPS RECEIVER

Base unit Two Immobiliser radio tags BT-770 Blocking relay Personal card with a secret PIN-code

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- Multifunctional BLUETOOTH 5.0 LOW ENERGY radio interface

 - Built-in shock/tilt/motion sensor
- Built-in GSM | GPRS | LBS interface

- Built-in immobiliser bypass
- Built-in USB interface
- Energy Efficiency

GSM/4G/Nano-SIM | GPS/GLONASS | 2.4 GHz/Bluetooth 5.0 | 3D accelerometer | 2xCAN | IMMO-KEY | micro-USB



- Internet service pandora-on.com
- Mobile apps Pandora Online | Pro
- Automatic notifications in case of an accident
- Immobiliser and Anti-Hi-Jack functions
- Intelligent remote engine start *Optional extra Dialog dynamic code
- Built-in GPS/GLONASS receiver
- Multisystem digital interface 2xCAN | IMMO-KEY
- CLONING technology



\$ 5.0

PANDORA-ON.COM











USB





Pandora Smart guarantees the highest level of anti-theft protection and maximum usability including Internet-service and mobile applications.

Pandora Smart

CAR SECURITY SYSTEM WITH DIRECT CONNECTION TO TWO DIGITAL BUSES AND GSM INTERFACE

Base unit Two Immobiliser radio tags BT-760 Personal card with a secret PIN-code

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My car

START

ENGINE

Current state

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- Internet service pandora-on.com Mobile apps Pandora Online | Pro PANDORA-ON.COM Automatic notifications in case of an accident Immobiliser and Anti-Hi-Jack functions Intelligent remote engine start *Optional extra 2G Dialog dynamic code • Multifunctional BLUETOOTH 4.2 LOW ENERGY MOBILE APPS radio interface Built-in shock/tilt/motion sensor • Built-in GSM | GPRS | LBS interface Multisystem digital interface 2xCAN | IMMOKEY CLONING technology Built-in immobiliser bypass * Built-in USB interface Energy Efficiency GSM/GPRS/LBS/Micro-SIM 2.4GHz/Bluetooth 4.2 | 128 Bit encryption 3D accelerometer | micro-USB

2xCAN | IMMO-KEY





CLONING

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The Pandora Mini combines the features of a modern security system and Bluetooth 5.0 immobiliser. The Mini is a full security system designed for both new & old vehicles. Securely controlled from you vehicles OEM factory key fob as long as Pandora's proximity tag is close to the vehicle. Tilt - Movement -Shock all monitoring every corner of your vehicle for maximum protection. Connect your smartphone through bluetooth for full alarm adjustment and control as well as important vehicle parameters such as fuel, temperature and battery voltage.

Pandora Mini v3

MICRO CAR SECURITY SYSTEM WITH DIRECT CONNECTION TO TWO DIGITAL BUSES

- Base unit Two Immobiliser radio tags BT-770 Blocking relay Personal card with a secret PIN-code

 - Built-in USB interface
 - Energy Efficiency
 - 2.4 GHz/Bluetooth 5.0







• Mobile app Pandora BT Immobiliser and Anti-Hi-Jack functions Dialog dynamic code Multifunctional BLUETOOTH 5.0 radio interface Built-in shock/tilt/motion sensor Multisystem digital interface 2xCAN

3D accelerometer | 2xCAN | micro-USB





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Modern and perfect two-way car alarm with engine start, increased range and noise immunity of communication with the remote control. The radio path is implemented on the latest generation of integrated transceivers with LoRa modulation in the range of 868 MHz. The system uses the new high-speed Bluetooth 5.0 with even lower consumption and longer range. The system is equipped with an updated ergonomic Pandora D-022 remote control with a large OLED display, rechargeable via a standard micro-USB Li-Po connector battery.

Pandora Light Pro v2

2XCAN CAR SECURITY SYSTEM WITH BYPASS OF ORIGINAL IMMOBILISERS

Base unit Main remote control D-022 Radio tag BT-760 Radio relay BTR-101 Relay module RMD-5M Personal card with a secret PIN-code

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Event history

9 March 2020

16:01 Arming

16:02 Disarming

16:01 Disarming

16:01 Disarming

16:00 Disarming

16:00 Arming

16:00 Disarming

16:00 Arming

- Mobile app Pandora BT Immobiliser and Anti-Hi-Jack functions Intelligent remote engine start *Optional extra Control over engine heater Dialog dynamic code • 868MHz/LoRa | 2.4GHz/Bluetooth 5.0 | 128 Bit radio interface Digital shock/tilt/motion sensor • 3D | micro-USB • 2xCAN | LIN | IMMO-KEY CLONING technology Built-in Immobiliser bypass Built-in USB interface

- Energy Efficiency

868MHz/LoRa | 2.4GHz/Bluetooth 5.0 | 128 Bit encryption | 3D accelerometer micro-USB2xCAN | LIN | IMMO-KEY













Es th HEATER











Pandora Light is a service security system with a two-way radio channel. System features are faces that was previously used only in premium systems: 2xCAN/

Now the system allows implementing more functions via CAN-bus. The system supports the full list of cars for which Pandora has an algorithmic bypass of an original immobilizer.

Pandora Light v2

CAR ALARM SYSTEM WITH A TWO-WAY REMOTE CONTROL

Base unit Main remote control D-011 Relav module RMD-5M

- CLONING technology
- Integrated USB-interface
- Energy efficiency

868MHz | 128 Bit encryption 3D accelerometer | micro-USB 2xCAN | LIN | IMMO-KEY





- Smart remote engine start
- Control over an engine pre-heater
- Dynamic dialog code
- 868 MHz Radio channel
- Integrated shock/tilt/motion sensor
- Digital interface: 2xCAN | LIN | IMMO-KEY
- Integrated bypass of an original immobilizer



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CLONING









Pandora Immo is a new Bluetooth hidden wireless immobiliser that combines a variety of unique features. Allows for simple installation and a high level of usability combined with reliability. An easy to use smartphone application called Pandect BT displays the status of the immobiliser. App allows full adjustment of the immobiliser/radio tag/radio relay/hood lock module settings and maintenance mode. Firmware updates can be performed through wireless connection. It also has the ability to connect too specially designed Pandora under hood module (RH-03) allowing system expansion. Anti-hijack setting protects against car jacking. If the immobiliser tag is removed from the vehicle, engine shut down will be

Pandora Immo

IMMOBILISER WITH BLUETOOTH-INTERFACE

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Transponder ul -22dBm ■ 12,00

848

Off

Transponder

II -40dBm

12.08

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Out of range

Vallet mode on 0



- Immobiliser and Anti-Hi-Jack functions
- Dialog dynamic code
- Multifunctional BLUETOOTH 4.2 LOW ENERGY radio interface
- Built-in shock/tilt/motion sensor
- Full group of contacts of blocking relay (COM, NC, NO)
- Special status output to disable original radio channel when there is no Pandora radio tag in the coverage zone
- Optional hood lock module and radio relay
- Energy Efficiency

2.4 GHz/Bluetooth 4.2 | Dialog code | 128-bit Encryption











IMMOBILISER

Moto alarm systems

Specially designed for motorcycles, Pandora NEW motorbike alarm systems are m in sizes helping with installation hiding places. Systems are housed inside a waterproof casing and offer low power consumption, with smart sleep mode. Ergonomic control modes optimized for ultimate rider durability.



Moto

The modern Pandora Moto system with control using a compact remote control and a set of o o functions designed specifically for motor vehicles. Special power-saving modes will extend the work of the regular battery, the built-in Li-Po battery will ensure the system's operation even when the battery is completely disconnected. A sealed piezo siren is included in the kit of the motor system!.

Pandora Moto

MOTORCYCLE SECURITY SYSTEM WITH A REMOTE ENGINE START FUNCTION AND A BUILT-IN BACK-UP BATTERY

Base unit Main remote control D-010 Blocking relay Piezo-siren PS-330

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Pandora

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- Built-in USB interface Two power-saving modes *Option to add remote engine start



- Intelligent remote engine start Dialog dynamic code New multifunctional 868 MHz radio path Built-in shock/tilt/motion sensor Built-in back-up battery
- 868MHz | 128 Bit encryption 3D accelerometer | micro-USB | IP54







MULTICHANNEL 868%





MOTO ALARM SYSTEMS



Smart Moto

Pandora Smart Moto is a state-of-the-art motorcycle security system specially designed to protect motorcycles. Housed in a waterproof case, the unit features an integrated GPS receiver and GSM/GPRS modem. A Bluetooth module is also integrated into Pandora Smart Moto, allowing full control and set up from your smartphone. With ultra low power consumption, the Smart Moto consumes only a few milliamperes in the full-operation mode, allowing a bike to stand for long periods of time.

Pandora Smart Moto

MOTORCYCLE GSM SECURITY SYSTEM WITH A REMOTE ENGINE START FUNCTION AND A BUILT-IN BACK-UP BATTERY

Base unit Two radio tags BT-760 Blocking relay Piezo-siren PS-330 Personal card with a secret PIN-code

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PANDORA-ON.COM ú ŵ

MOBILE APPS

GLONASS

GPS

 Internet service pandora-on.com Mobile apps Pandora Online | Pro Dialog dynamic code Multifunctional BLUETOOTH 4.2 LOW ENERGY radio interface Built-in shock/tilt/motion sensor • Built-in GSM | GPRS | LBS interface Built-in GPS/GLONASS receiver Built-in USB interface Energy Efficiency

V2

GSM/GPRS/LBS/Micro-SIM | GPS/GLONASS 2.4GHz/Bluetooth 4.2 | 128 Bit encryption 3D accelerometer | Li-Po | micro-USB | IP54









MULTICHANNE



MOTO ALARM SYSTEMS

GPANDORA CARALARM SYSTEMS

Motorhome alarm systems

44

A new telemetric service-security systems for motorhomes and caravans. Systems are built to satisfy the requirements of the recreation vehicles 24/7, even when people are sleeping inside. They have unique door and window sensors, low power consumption, adapted security algorithms, special inputs for a camper specific sensors. We did our best to make your vacation comfortable and safe.



Pandora Camper

Pandora Camper is the first security telemetric system designed specially for recreation vehicles. We have applied our experience and modern technologies, developed unique wireless sensors that can detect any attempt to enter your motorhome through windows, doors, hatches. The system is user friendly and has a large number of comfortable functions for pleasant trips. For a night time we have made a special «Stay Home» mode, what allows you to move free inside, while outside perimeter is reliably protected. With a Pandora Camper Online mobile application your recreation vehicle is always under your control.

Pandora Camper

TELEMETRIC SECURITY AND SERVICE SYSTEMS FOR MOTORHOMES

Base unit Bluetooth remote control D-030 Immobilizer radio tag BT-760 Four Door sensors DMS-100BT Two blocking relays Siren PS-330 Personal card with a service PIN-code

My Camper

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START.

Current state 27 December 20:20

Tovarenska 4201/50



Camper Pro

- accident

- Dialog dynamic code
- ENERGY radio interface

- Built-in immobilizer bypass
- Built-in USB interface

GSM/GPRS/LBS/Micro-SIM | GPS/GLONASS 2.4GHz | Bluetooth 5.0 | 128 Bit encryption 3D accelerometer | micro-USB 2xCAN | IMMO-KEY





PANDORA-ON.COM



Automatic notifications in case of an

 Immobilizer and Anti-Hi-Jack functions Smart remote engine start Control over an engine pre-heater

Multifunctional BLUETOOTH 5.0 LOW

Built-in shock/tilt/motion sensor

• Built-in GSM | GPRS | LBS interface

Built-in GPS/GLONASS receiver

• Ultra low power consumption.











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CAMPER

∂ Pandora

Pandora Camper Pro

For those who need more than the best. Pandora Camper Pro was designed to satisfy the most demanding customers. We have improved the security level by using additional sensors and in-built back-up battery, implementing Active security function, based on a work of a fast and modern 3G modem. Base unit has mo connectors to enlarge service function. Pandora Camper Pro has a modern twoway remote control with high contrast OLED display.

Pandora Camper Pro

TELEMETRIC SECURITY AND SERVICE SYSTEMS FOR MOTORHOMES

- Base unit Radio remote control D-670 Two Immobilizer radio tags BT-760 Six Door sensors DMS-100BT Two blocking relays Two Sirens PS-330 Personal card with a service PIN-code

- Integrated microphone
- Built-in backup battery
- Integrated USB-interface Energy efficiency

GSM/3G/LBS/2xMicro-SIM | GPS/GLONASS 868MHz | 2.4GHz/Bluetooth 5.0 128 Bit encryption | 3D accelerometer MIC | Li-Po | micro-USB 3xCAN | 2xLIN | 2xIMMO-KEY

P12.8v \$13*C C110*C Bo

Event history Event

CSMUE / PROV

Disarming



Internet service PANDORA-ON.COM

- Mobile applications Pandora Camper Online/Pro
- Active security function
- Automatic notifications in case of an accident
- Immobilizer and Anti-Hi-Jack functions
- Smart remote engine start
- Control over an engine pre-heater
- Dynamic dialog code
- New multichannel 868 MHz radio path
- Multifunctional radio interface BLUETOOTH 5.0 LOW ENERGY
- Integrated shock/motion/tilt sensor
- Integrated GSM | 3G | LBS 2xSIM interface
- Integrated GPS-receiver

PANDORA-ON.COM

















CAMPER

e Pandora

Finder

TELEMETRY MODULE

Internet service

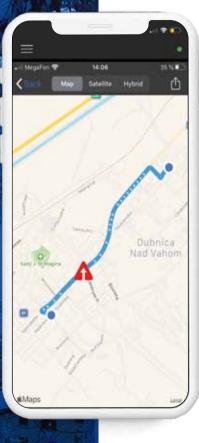
- Mobile applications

- Search mode
- Motion Activation
- Easy BLUETOOTH Setup
- Miniature sizes
- Waterproof housing Magnetic mounts
- Energy efficiency



Finder

The Pandora Finder tracker is a modern highly effective miniature autonomous device that is used to determine the coordinates and track the movement of the monitored object. Support internet service and mobile applications greatly simplifies operation, and timely SMS and Internet notifications will provide the necessary information about the location of the policy operation devices. object and condition devices The miniature size of the tracker allows you to place it practically anywhere (in a bag, valuable cargo or parcel, vehicle).





- SMS management
- Determination of GPS and LBS coordinates
- Autonomous beacon function
- SMS and Internet notifications
- Removable 3xAAA batteries















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TRACKER

O Pandora

Eye PRO | NAV-X

These telemetry modules designed to expand the service functions of Pandora systems with Bluetooth interface. The integrated interfaces adds the following control and monitoring functions to the systems: control over a system using a phone, voice and SMS notifications; functions of the Internet service PANDORA-ON. COM and the mobile applications Pandora Pro and Pandora Online, storing events history on a remote server; receiving current coordinates by a phone request; current location and tracking of a vehicle, automatic date and time synchronization; protected Bluetooth 4.2 Low Energy interface provides a reliable communication between the module and a system base unit. Independent power supply will notify an owner if the power supply of a system or a vehicle is disconnected.

Pandora Eye PRO



- Mobile apps
 - GPS coordinates detection
- Tracking mode
- GSM voice interface
- SMS and internet notifcations
- Back-up battery
- Wireless Bluetooth connection with a base unit







Pandora NAV-X



- Internet service
- Mobile apps: Pandora Online | Pro
- GPS or LBS coordinates detection
- Tracking mode
- Automatic date and time synchronization
- Voice and SMS notifications
- Notification on shutting
- off the system
- Miniature sizes





TRACKER



Watch2

The new model of Smart-watches from Pandora has a modern design and a titanium case, as well as a state-of-the-art filling, which, as far as possible, will be equal to the world leaders in the mobile electronics market. And of course, this watch, having all the functions inherent in modern smart watches connected to smartphones, is designed to conveniently control the modes of security-service and telemetry systems Pandora with a Bluetooth interface. Especially they will be convenient for motorcycle owners or owners of cars that lead an active lifestyle. Pandora Watch2 combine the functions of a convenient and informative remote control car alarm and sports watch. This watch has a decent battery life, while remaining constantly in touch with the car. A striking difference between our watches is the presence of our own operating system, which our engineers wrote. The rejection of standard operating systems such as Android, of course, has a good effect on energy efficiency and security, because Pandora Watch2 controls the car's security system. The product is fully developed and manufactured in Russia. Not only electronic filling, but also all metal and plastic parts of the case are made on our equipment in Kaluga, ensuring maximum quality control of each component responsible for their reliability.

Pandora Watch2

SMART WATCHES FOR SECURITY SYSTEMS





14:42 arming

13:52 disarming

Pandora

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start

watch

- Comfortable management and display of transport status is achieved using the new Bluetooth 5.0 protocol supporting simultaneous operation of the watch with a security system and a mobile application.
- Detailed display of the state of the car / motorcycle on a color display (1.34", 320x300) Remote control of the security mode and engine
- Automatic control of security mode, immobilizer and Anti-Hi-Jack
- Access to the history of events directly from the
- Display notifications coming to the smartphone (calls, SMS, Push, F-mail)
- Special interfaces for cars and motorcycles Automatic time synchronization through a security system or built-in GPS / GLONASS
- receiver
- Sound and vibration notification
- Sport modes (stopwatch / pedometer / timer)
- Impact material
- Waterproof micro-USB connector
- Degree of protection ip67











G Pandora

Service devices

High-quality tools and the most advanced multifunctional equipment will provide a convenient installation of security systems and additiona

a Pandora

Sec.

Wer CHARGER

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The Power Charger is designed to charge or recover most accumulator batteries that are used in cars and in everyday life. The charger can be used as a stabilized power supply The charger has a Bluetooth 4.2 interface that allow pairing it with an Android smartphone. You can manage and configure all parameters of the charger using our mobile application. There is an advanced settings menu for professional configuration. All configurations are stored in the history. ALL LA BALLA







Pandora CHARGER

BATTERY CHARGER

THREE CHARGER OPERATING MODES for battery charge type of rechargeable batteries: liquid, helium, AGM, MF rechargeable battery capacity: 6-100 Ah battery voltage: 10-15V types of charge: ordinary, asymmetric pulse current operating modes: precharge, charge, charge maintenance Booster stabilized power supply output voltage (fixed): 12.8V maximum current (limited): 25A BAT.TEST training mode with an estimate of the residual capacity Battery provides for pre-charge, discharge, final charge The remaining battery capacity is estimated.

maximum discharge current 5A

INNOVATIVE FORM CLAMP

To connect to the battery the device is equipped with a 2.2 meter long charging and measuring cable, reliable and convenient clips (crocodile type), specially designed and developed by our engineers.









ACCESSORIES



Mounting kit Pandora PRO

The Pandora Pro kit is designed to simplify the work of auto electricians and security technicians. The kit includes: tools for removing the plastic parts of the interior and a miltipurpose car tester Pandora ALT-205. Pandora ALT-205 design and circuitry are produced to exclude a risk of damage to the car electrics when diagnosing and searching for the required signal circuits. Ergonomic body of the device allows to easily find needed signals in actual auto electrician working conditions, during installation of service-security systems and additional devices.

Pandora PRO

MULTIPURPOSE CAR TESTER

Pandora ALT-205 probe tester - voltage measurement and indication with an accuracy of 0.5%, indication of maximum and minimum values, determination of the frequency and period of oscillation of pulse signals, recognition of digital buses up to 500kB / s, load simulation of 50 Ohms and 1k Ohms, sound and light indication.

- Measuring of constant voltage up to 30V
- Indication of maximum and minimum values. frequency and oscillation period, pulse signals.
- Recognition of digital bus transmission lines up to 500 kB/s
- · Switching resistance 500m and 1k0m, sound and light indication

13.67 V

Pandora

- Switching area illumination
- LCD display with illumination
- AAA battery voltage

vout

Micro-USB socket to update the firmware



CAN DETECT mode This mode is used to detect most digital CAN and LIN-buses

- CAN-bus high level **CAN**
- CAN-bus low level **CAN**^{Lo}
 - Serial LIN-bus 🖌 LIN
- Signal is not detected **NONE**
- Digital bus of unique format
- WAIT the device is preparing for 4 JJJ WAITJJ digital buses detection
- READY the device is ready for digital 4 JTTREADY buses detection



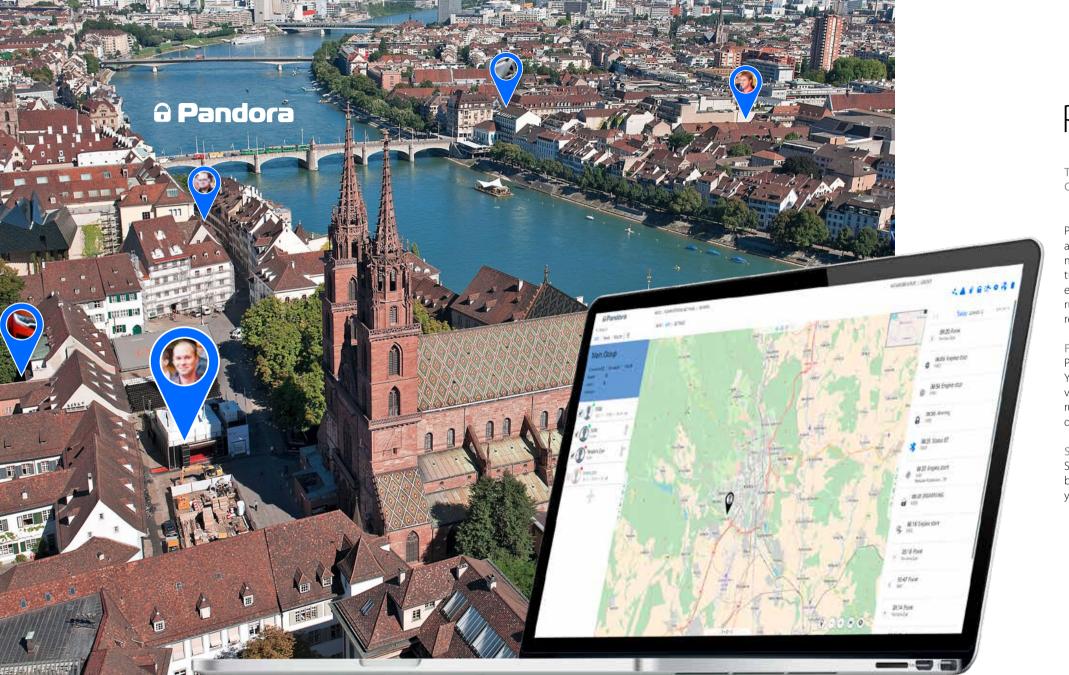
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ACCESSORIES



SOFTWARE

Pandora services and applications allow for efficient set up and control of your alarm systems, for both the installer and the end user. The applications allow you to control and fine tune your Pandora system. As well aspeceiving instant notifications (e-mail, PUSH) via Internet and Bluetooth connection, for all alarm events that have occurred. Full fleet management functionality also available through a desktop or laptop.



Pandora - on.com

THE MOST MODERN SERVICE FOR CAR CONTROL AND FLEET MANAGEMENT

PANDORA-ON.COM allows you to control and monitor your car state and parameters. The secure online service, stores all events received and monitors the current state of the car in real time. Full access to vehicle tracking of your and the ability to arm/disarm the system, control remote engine start and engine preheater, generate reports and create your own rules for notifications. These functions are constantly expanding, with regular firmware updates!

FLEET MANAGEMENT

PANDORA-ON.COM allows real-time control of passenger vehicle/truck/van fleet. You can control the mileage and fuel consumption. Collect running hours for each vehicle or for a group of vehicles. This service allows you to flexibly adjust multiple rules: speed limits, geofences, etc. The service can generate more than 10 types of different reports for each vehicle or for a group of vehicles.

SHARP MANEUVERS DETECTION your vehicle.

Security service systems can detect 4 new events: sudden acceleration, sudden braking, sharp left turn, sharp right turn. To help detect aggressiveness driving of

+16:21 OBILE APPLICATIONS

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PANDORA PRO | PANDORA ONLINE ALL INFORMATION ABOUT YOUR CAR IS IN YOUR SMARTPHONE

PANDORA ONLINE | PANDORA PRO

FOR GSM SYSTEMS / DEVICES

Management and control of a car or fleet from any points of the world through Internet connection, displaying the tracking of the Tracking car, displaying the most complete history of events from an absolutely secure Internet server, quick remote configuration of security systems, notification settings, changing the visualization of the application and displayed transport. Mobile applications for security systems in smart watches Apple Watch, Android Wear, Samsung Gear S2 / S3 will provide the most necessary functions: status display and driving, notification display. Additionally, for security systems equipped with a Bluetooth interface, control and monitoring of vehicles without an Internet connection is available, using the phone as a radio tag, flexible settings for the Hands-Free mode, managing the maintenance mode, displaying the status of radio tags and radio relays.



PANDORA BT

FOR BLUETOOTH SYSTEMS

Management and control over the distance of a Bluetooth connection, storing the history of events in the phone's memory, using the phone as a radio tag, advanced settings necessary for installing the system, updating the software of the base unit and Bluetooth peripherals, displaying the status of radio tags and radio relays.

PANDORA NAV BT

FOR BLUETOOTH-BEACONS

Management and control at a distance Bluetooth-connection. Quick setting, diagnostics and software updates.

PANDORA CHARGER

FOR CHARGER

Management and control at a distance of Bluetooth-connection. Management of charge modes, setting modes, saving history in the phone's memory, software update.

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SOFTWARE PRODUCTS

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PANDORA ALARM STUDIO

CONFIGURING SYSTEMS USING A COMPUTER

Alarm Studio is special software used to install Pandora security systems. It includes an informational software and diagnostic tool for installing, configuring, updating the main software. Connection with the installed security system unit is carried out via a standard USB cable connected to a personal computer, which allows for early configuration without connecting to vehicle circuits.

- Allows you to download installation cards and download the latest software.
- Quick setup "Setup Wizard" in most cases, to configure the settings correctly, it is enough to answer only 10 simple questions.
- Professional setup contains advanced settings, complemented by detailed explanations.
- Establishes an Internet connection with a special Pandora CLONE server when implementing a keyless bypass of a standard immobilizer.





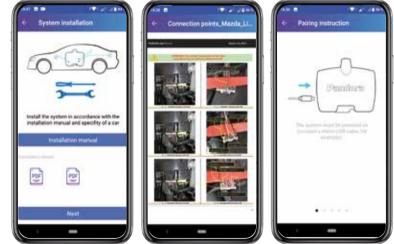
SOFTWARE PRODUCTS

PANDORA SPECIALIST

CONFIGURING SYSTEMS USING A SMARTPHONE AND TABLET

Pandora Specialist is a new application for the smartphones. With a user friendly interface and powerful functionality it significantly simplifies installation process. Just choose the car model and follow the instructions, Pandora Specialist will gently guide you through the process and will make the system test in the end. A large number of a new features available only in the App:

- Bluetooth or USB-OTG connection with a smartphone
- Step-by-step installation using detailed schemes and ready presets
- Personal and Advanced settings
- Simple wire logic assignment by color
- Easy pairing and guick update of the Bluetooth accessories
- Step-by-step immobilizer bypass learning procedure
- Automatic connection with "Pandora CLONE" server
- System and status check
- Automatic check and update of the system software
- Actual news and updates





SOFTWARE PRODUCTS

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•		DH Disable timer chann
A Shock sensor		D 11 Preheater
Alars Isal		() C) Panic mode
Sehultivity	60 %	🕞 🖘 Open trunk
- Continue and	100	D CE Light path
	•	🔹 🖸 Status
Sensitivity	# 08	D X Service mode
		🗇 🖽 Start/stop
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444 Motion sensor		Taguer left
Sensitivity	65%	

BRADE

Bottom righ

Mobile application Pandora Camper Online (iOS and Android) combines your vehicle, telemetry system, smartphone and smart watches into one platform. You can configure and control your camper or caravan with the multifunctional Pandora application and Internetservice pandora-on.com.

- location, battery state.
- Smart filters are available.
- of events.
- Push-notifications

Pandora Camper Online

• Monitoring the current state of your camper: statuses of all security zones and sensors (even trunk doors, windows and sunroofs), engine temperature, interior temperature, outside temperature (depends on connection), current Motor Home

- Remote configuration of the system: sensors sensitivity
- adjusting, additional heater operation parameters. Setting of alarm, service and emergency notifications.
- Selection of different types of notifications for different types

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CARALARM SYSTEMS

Accessories

A wide range of Pandora accessories and upgrades are available to expand and upgrade your Pandora system. Add additional security and services accessories to create the ultimate security package, taylored for you. Pandora accessories stands out due to their high build quality, ergonomics, intelligent algorithms, and energy efficiency.



- Operating voltage 5-15V
- Waterproof case

- Additional output channel
- Engine temperature sensor
- Sound pressure 122 dB Operating voltage 5-15V
- Waterproof case

 Sound pressure 122 dB • Operating voltage 5-15V Waterproof case

synchronization when transmitting signals at 868MHz with LoRa modulation. High location on a windshield will ensure better radio availability.

algorithm for protection against false alarm.

The sensor sensitivity can be adjusted remotely when it is connected to Pandora systems. Moreover, the sensitivity can be adjusted by the buttons located on the sensor if you connect it to any other alarm system.

6-

RMD-5M

RELAY MODULE FOR REMOTE ENGINE START

RMD-5M is a relay module designed to implement automatic and remote engine starts with Pandora car alarm systems. The module has small case that is convenient to place anywhere in a car. RMD-5M provides a possibility to connect to power lines of a car (up to 20A).

Bypass module for BMW

111111

BYPASS MODULE

The BMW Bypass module is designed to control engine starts of BMW/MINI cars with a START/STOP button and a slot for an original key. The module is installed with Pandora systems and controlled by an IMMO-KEY port. The module has a "pin-to-pin" connection with original connectors of the cars. The module can be used with BMW E-class and MINI cars with the CAS3 control access system.

DI-02 | 03

IMMOBILISER BYPASS MODULE

Modules DI-02 | DI-03 are designed to temporary switch most types of original transponder Immobiliser of modern cars (RFID-system) to provide system operation of automatic and remote engine start. Two antennas are included in the set, which allows the modules to work with the most modern transponder Immobilisers. DI-03 is controlled only by a special code channel and has a 3.3V power supply for cars with Start/Stop button, Keyless and Smart Entry systems.

* DI-04 BT

BLUETOOTH IMMOBILISER BYPASS MODULE

The module is designed for using in cars for which we have not implement bypass of original Immobilisers yet. In fact, this is a Bluetooth extension module of six additional multifunctional time channels. One of these channels is a 3.3V stabilizer for power supply of an original remote control. These channels can be used to simulate pressing of original remote control buttons, Start/Stop buttons and break digital diagnostic buses. DI-04 BT is controlled via Bluetooth connection, it has small sizes and its power consumption is 1.5mA. All these features make the module the most convenient to use in the most complicated cars.

*

- Control over a siren

- Built-in blocking relay
- Separate supply for power and control circuits



RHM-03 | 03 BT

RADIO HOOD MODULE

- Integrated 2.4 GHz radio channel
- Monitoring the state of a hood limit switch
- Analog input for an engine RPM signal
- Control over the electromechanical hood lock
- Integrated accelerometer

65

* BT-01

MINIATURE BLOCKING RADIO RELAY

BT-01 is a miniature electromechanical relay designed to work with Pandora alarm systems. All control commands are programmed by the security system settings and transmitted over the radio using a protected Bluetooth protocol. The built-in relay has double full set of contacts, which operate synchronously.

neic

BTR-101

*

MINIATURE BLOCKING RADIO RELAY

The blocking radio relays is an electronic device controlled by 2.4 GHz interface of Pandora Immobilisers and security systems without wires. Small sizes of the relays allow placing it in the original wiring of a car. Blocking can be performed on unauthorized movement or on command from Pandora system. Blocking radio relays has an integrated accelerometer that allows to perform blocking on unauthorized movement. This feature make it possible to implement automatic and remote engine start and make the search of the relay more difficult for a robber.

* DMS-100 BT

WIRELESS DOOR SENSOR

Wireless door sensor DMS-100 is designed for the remote detection of shock and rotation, temperature, opening of the door that is located at a considerable distance from the base unit of car service-security system.

The following zones can be controlled with this sensor: sunroof, coffer cover, trunk, trailer, case cover for carrying some valuables and so on.

Sensor's operation is based on using of 3-coordinate accelerometer that allows detecting rotations, shocks and door motions, and on using a magnetic pair (hall sensor) for reliable detection of door opening/closing. DMS-100 BT is compatible with Bluetooth systems and has an integrated temperature sensor.



* NAV-035 BT

GPS/GLONASS RECEIVER

Pandora NAV-035 BT are high-sensitivity GPS/GLONASS receivers that designed to be used with Pandora service-security systems.

Pandora NAV receivers have small sizes, low power consumption, high sensitivity, reduced time of coordinate determination and reliable tracking under conditions of a week or shaded GPS/GLONASS signal. The models differ in 2.4 GHz protocols.

ACCESSORIES

G Pandora C A R A L A R M S Y S T E M S

Technical features

In this section you will find comparison tables of technical features of Pandora systems and information on the compatibility of remote controls and radio tags.



System	Internet server, mobile app	GSM-inteface	RF interface	Digital Interface	Remote engine start	Digital control over engine pre-heater	Built-in immobilizer bypass	Radio tags	Remote control	Positioning	Owner security	Settings over the air
Elite v2	pandora-on.com, Pandora Online, Pandora Pro, Pandora Connect	4G/3G/2G	868.0 MHz, Bluetooth 5.0	3xCAN/2xLIN/ IMMO-KEY	+	CAN/LIN	+	2 up to 3	D-043	LBS, built-in GPS/GLONASS receiver	SOS button (RF-module)	Pandora Specialist
Professional v2	pandora-on.com, Pandora Online, Pandora Pro, Pandora Connect	3G/2G	868.0 MHz, Bluetooth 4.2	3xCAN/2xLIN/ 2xIMMO-KEY	+	CAN/LIN	+	2 up to 3	D-670	LBS, built-in GPS/GLONASS receiver	SOS button (remote control)	Pandora Specialist
Smart Pro v3	pandora-on.com, Pandora Online, Pandora Pro, Pandora Connect	4G/3G/2G	Bluetooth 5.0	2xCAN/ IMMO-KEY	+	CAN/LIN	+	2 up to 3	optional RF-module or bluetooth remotes	LBS, built-in GPS/GLONASS receiver		Pandora Specialist
Smart v2	pandora-on.com, Pandora Online, Pandora Pro, Pandora Connect	2G	Bluetooth 4.2	2xCAN/ IMMO-KEY	+	CAN/LIN	+	2 up to 3	Optional Bluetooth remote D-030	LBS, optional NAV-035 BT GPS/GLONASS-receiver		Pandora Specialist
Mini v3	Pandora BT		Bluetooth 5.0	2xCAN		CAN		2 up to 3	optional RF-module or bluetooth remotes	optional NAV-035 BT GPS/GLONASS-receiver		Pandora Specialist
Light Pro v2	Pandora BT		868.0 MHz, Bluetooth 5.0	2xCAN/LIN/ IMMO-KEY	+	CAN/LIN	+	1 up to 3	D-022	optional NAV-035 BT GPS/GLONASS-receiver		Pandora Specialist

Comparison table of Pandora systems

System	Internet server, mobile app	GSM-inteface	RF interface	Digital Interface	Remote engine start	Digital control over engine pre-heater	Built-in immobilizer bypass	Radio tags	Remote control	Positioning	Owner security	Settings over the air
Light v2			868.0 MHz	2xCAN/LIN/ IMMO-KEY	+	CAN/LIN	+		D-011			Pandora Specialist (usb only)
Moto			868.0 MHz		+				D-010 Moto			
Smart Moto v2	pandora-on.com, Pandora Online, Pandora Pro, Pandora Connect	2G	Bluetooth 4.2					2 up to 3	Optional Bluetooth remote D-030	LBS, built-in GPS/GLONASS receiver		Pandora Specialist
Camper	pandora-on.com, Pandora Camper Online, Pandora Camper Pro	2G	Bluetooth 5.0	2xCAN/IMMO- KEY	+	CAN/LIN	+	2 up to 3	Bluetooth remote D-030	LBS, built-in GPS/GLONASS receiver		Pandora Specialist
Camper Pro	pandora-on.com, Pandora Camper Online, Pandora Camper Pro	3G/2G	868.0 MHz, Bluetooth 5.0	3xCAN/2xLIN/ IMMO-KEY	+	CAN/LIN	+	2 up to 3	D-670 Camper	LBS, built-in GPS/GLONASS receiver		Pandora Specialist

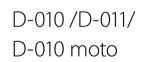


Compatibility of remote controls, radio tags and Pandora systems









TWO-WAY REMOTE CONTROL

New remote control with OLED display Compatibility: D-010 (not used in new systems) D-010 moto: Pandora Moto D-011: Pandora Light

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D-022 | oRa

TWO-WAY REMOTE CONTROL

New remote control with OLED display, three control buttons, protected 868 MHz radio interface, battery and USB port Compatibility: Light Pro

D-030

TWO-WAY REMOTE CONTROL

A new remote control with an OI FD display, three control buttons, SOS button, protected Bluetooth 4.2 interface, integrated battery and USB-port. Compatibility: Pandora Professional, Pandora Elite, Pandora Smart Pro, Pandora Smart, Pandora Mini, Pandora Light Pro, Smart Moto





SET

TWO-WAY REMOTE CONTROL

D-043

A new remote control with an OLED display, three control buttons, a protected 868 MHz radio interface, Bluetooth 4.2 (5.0), a battery and a USB port. Compatibility: Pandora Elite, Pandora Smart Pro (with an additional RF-module), Pandora Mini (with an additional RF-module)

TWO-WAY REMOTE CONTROL

D-670

A new remote control with an OLED display, six control buttons, SOS button, protected 868 MHz radio interface, integrated battery and USB-port. Compatibility: Pandora Professional







ANTI-HIJACK BLUETOOTH TAG WITH A CONTROL BUTTON AND **BUILT-IN ACCELEROMETER**

Compatibility:

Pandora Professional, Pandora Elite, Pandora Smart Pro, Pandora Smart, Pandora Mini, Pandora Light Pro, Smart Moto, Pandora Immo, Pandora Finder

Pandora STEMS AR

bout us

Pandc

wned Russian electronics production company, founded in Kaluga 2004. Our philosophy is a clean business that gainsn advantage over y and hard work. We reinvest profits into improving our facilities and on range. We strive for autonomy and shorter production cycles as alementation of new ideas in design. DO DORY DI LA



Our research and development department consists of the best engineers, programmers and designers Russian education has to offer. Both young and old generations combine traditional Russian security engineering with the latest cutting edge technology and development to draft ingenious electronic designs. Our production department and factory workers then turn these ideas in to reality.

Pandora factory is a huge full-cycle production facility operating on specialised modern European and Japanese machinery ranging from aluminum casting plant to surface-mounting and wave soldering lines. Quality control is performed at every stage to ensure that our products are reliable and ready for use.

We are constantly upgrading our product line to offer the most up-todate solutions on the market. We always use the latest components from the world's leading microelectronics manufacturers.

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