Pandora would like to thank you for choosing
our autonomous GPS tracker.

Pandora

# FINDER

Web-site: pandorainfo.com

Customer support: support@pandorainfo.com

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# GENERAL INFORMATION

The Pandora Finder tracker is a modern highly effective device that is used to determine the coordinates and track the movement of the monitored object.

Miniature sizes of the tracker allow placing it almost anywhere (in a bag, in a valuable parcel, on the collar of your pet, in a vehicle). A special application and a website provide information about the state, location and movement of the device and make it's usage as easy as possible. Built-in interfaces allow you to locate the tracker using GPS/GLONASS or LBS service, to monitor the environment and object state using the built-in microphone, to manage the unit using SMS commands, to receive coordinates on detecting movement using the built-in accelerometer, to easily configure the tracker via wireless Bluetooth-connection.

Well-thought-out functional and modern components will help you comfortably use our products

## SYSTEM SET

1. Autonomous tracker ..... 1
2. SIM-card ..... 1
3. Fastening kit ..... 1
4. AAA Batteries ..... 3
5. Owner's card ..... 1
6. User manual ..... 1
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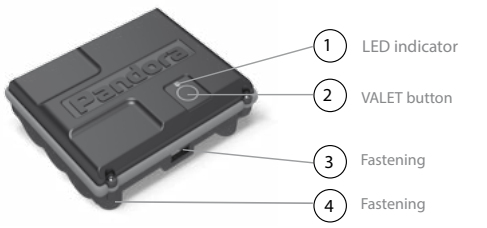
**NOTE! THE MANUFACTURER RESERVES THE RIGHT TO CHANGE THE SET AND CONSTRUCTION OF THE PRODUCT TO IMPROVE ITS TECHNOLOGICAL AND OPERATIONAL PARAMETERS WITHOUT NOTIFICATION.**

## SPECIFICATION

| PARAMETER | VALUE |
|---|---|
| Tracker operation voltage | 3V-5,5V |
| Current consumption in the Sleep/Transmission mode | <4mA / <100mA |
| Battery/Amount | AAA / 3 pcs. |
| GSM-modem | Telit GE866-QUAD |
| SIM-card type | nano-SIM |
| 2.4 GHz transmission protocol | Bluetooth 4.2 Low Energy |
| GPS/GLONASS module | Telit SE868 |



| | | |
|---|---|---|
| Accelerometer | Kionix KX022-1020 | |
| Microphone | STMicroelectronics MP33AB01H | |
| Operation temperature range (depends on the batteries) | - 40 C° | + 85 C° |
| Dimensions | 54x46x17.7 mm | |




1 **The LED indicator** is an s an information red light indicator. It displays the current state or mode of the device.

2 **The VALET button** is used to activate the tracker and to change settings of the device.

3 **Side fastenings** are used to fix the tracker using clips.

4 **Magnetic fastenings** are using to fix the tracker on a metal surface.

## TRACKER MODES

- Transportation mode. This mode will have been active since the moment of manufacture of the device. The tracker will exit this mode after configuring the owner's phone number or the additional phone number. If all phone number are deleted from the tracker memory, the device will activate the transportation mode again.

**NOTE! The main owner's phone number can be deleted only by the Pandora NAV BT app.**

- Autonomous beacon mode. This mode is the main and it will be automatically activated after any phone number is added in the device memory. The device is in sleep mode the most of the time in this mode. The tracker «wakes up» (switch on GSM/GPS interfaces) for a short time with a preset periodicity in order to inform the owner about its location and state.
- Tracking mode. The owner forcibly turns on this mode to track the device location in real time and to activate the "Listening" function. In this mode, the tracker determines the current coordinates with a certain periodicity and sends them to the server to form the track of the object. This mode is configured using the internet service or/ and SMS.

**WARNING! IF YOU ACTIVATE TRACKNIG MODE AT THE MOMENT WHEN THE TRACKER IS IN SLEEP MODE. IT WILL BE ACTIVATED WHEN THE DEVICE WAKES UP THE NEXT TIME.**



## TRACKER FUNCTIONS

• **Movement control function.** This function is activated by a user to detect movement of the tracker.

• **Listening function.** This function switches on the built-in microphone to perform audio control of the environment.

This function can be activated by an SMS command or a phone call.:

- Call the tracker from the phone number that is programmed to the tracker memory when the device is in the "Tracking" mode. The built-in microphone will be switched on when the tracker accepts the call;

- When the device is in the "Autonomous beacon" or "Tracking" mode, send the following SMS command: XXXX*007* (see the "CONTROL BY SMS COMMANDS" section) to the tracker from a the phone number that is programmed to the tracker memory. When the tracker wakes up, it will call the sender phone number and switch on the microphone.

• **Tracker functions with the VALET button**

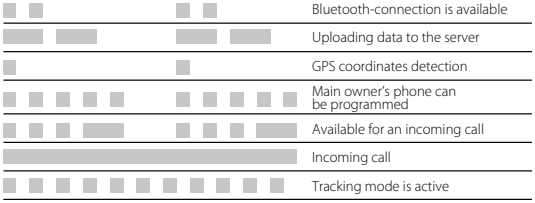
Tracker activation. This function sequentially switches on the tracker interfaces in order to change its parameters and settings.

Removing a mobile device. This function removes the previously paired mobile device from the tracker memory (removing Bluetooth connection).

## Firmware update via Bluetooth connection

| Function | VALET button | LED indicator |
|---|---|---|
| Tracker activation | Hold for 3 seconds | 3 short flashes |
| Removing a mobile device | Hold for 6 seconds | 6 short flashes |
| Firmware update | Hold for 10 seconds or more | 9 short flashes + following smooth flicker |

• LED indication

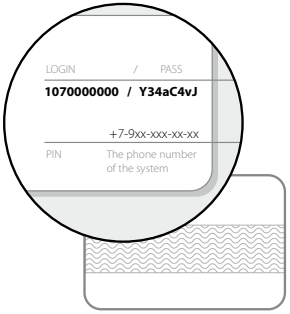



# OWNER'S CARD

The owner's plastic card contains private information under the protective layer.

**WARNING! CAREFULLY ERASE THE PROTECTIVE LAYER, DO NOT USE SHARP OBJECTS TO AVOID DAMAGING OF THE HIDDEN INFORMATION UNDER THE LAYER. THE HIDDEN INFORMATION UNDER THE PROTECTIVE LAYER IS INTENDED ONLY FOR THE DEVICE OWNER. THE OWNER'S PERSONAL CARD AND THE HIDDEN INFORMATION CANNOT BE RESTORED.**

• **LOGIN** is a 10-digit number used to add the device to the internet service.
• **PASS (Password)**. This information is used to add the device to the internet service. The pass contains 8 characters and can consist of digits, lower and upper case letters.
• **System phone number** – phone number of the SIM-card that is included in the system set. The SIM-card can be changed by a user or by a dealer.
• **PIN** – not used



# GETTING STARTED

**WARNING! THE ONWER SHOULD MONITOR THE STATUS AND ACCOUNT BALANCE OF THE SIM-CARD INSTALLED IN THE DEVICE. IF THE SIM-CARD IS LOCKED OR DEFECTIFE, THE FUNCTIONALITY OF THE TRACKER WILL BE UNAVAILABLE.**

### STEP 1 – Create and account and add your tracker

In order to use our online services pandora-on.com and mobile apps Pandora Online (Android), Pandora Pro (iOS), it is required to create an account and add your device to your account. Follow the "Registration" procedure" on pandora-on.com or in mobile apps Pandora Online or Pandora Pro to create an account. The data created at the registration stage (login – your email address, password – your own password) is used to login to the account. An email with the confirmation link will be sent to your e-mail address after the registration procedure is completed. The registration of the account will be completed after you follow the provided link.

**WARNING! IF YOU HAVEN'T RECEIVED THE CONFIRAMTION E-MAIL, CHECK THE SPAM FOLDER OR FOLLOW THE "FORGOT PASSSWORD" PROCEDURE ON THE MAIN PAGE OF PANDORA-ON.COM**

Web-service: pandora-on.com
The mobile apps can be downloaded from the appropriate app store:
App Store (iOS) – Pandora Pro;
Google Play (Android) - Pandora Online.



**WARNING! MINIMUM REQUIREMENTS FOR MOBILE DEVICES: ANDROID V4.4; IOS V10.**

### STEP 2 – Add the tracker to your account.

Login to the web-service pandora-on.com or mobile app Pandora Online/Pandora Pro with the specified data (email address and your own password). Proceed to the "Add a device/Add a system" window and enter the LOGIN and PASS written on the Owner's card and add the device. You will get access to the tracker status and settings after adding the device to your account

### STEP 3 – Prepare the device for operation

Carefully disassemble the device and install batteries keeping in mind the correct polarity. Assemble the tracker keeping the original layout of the parts. The tracker is in the "Transportation" mode at the moment of the shipment.

**WARNING! WE RECOMMEND THAT YOU UPDATE FIRMWARE OF THE TRACKER BEFORE THE NEXT STEPS.**

### STEP 4 – Set the owner's phone number

Owner' phone number is a phone number that is set by a user. The device will exit the "Transportation" mode and enter the "Autonomous beacon" mode after this phone number is programmed (see the "TRACKER MODES" section).

**NOTE! After the owner's phone is programmed and then each time when the tracker wackes up, it will search for GPS**

**COORDINATES. WE RECCOMNED TO LOCATE THE TRACKER IN PLACES THAT ARE FINE FOR THE SATELITE SIGNAL AT THESE MOMENTS. OTHERWISE, IT WILL BE DIFICULT TO DETERMINE TRACKER LOCATION.**

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There are three ways to set the owner's phone number:

- Log in to pandora-on.com with the previously registered account. Go to the "SETTINGS" – "NOTIFICATIONS" menu. Enter the owner's phone number in the "Main number" field in the following format: +xxxxxxxxxxxx. Save the settings after entering the number.
- Activate the tracker by pressing and holding the VALET button for 3 seconds (3 short flashes of the LED). Release the button after the third flash. The tracker will receive the settings from the Internet-service within 10 minutes.
- Activate the tracker by pressing and holding the VALET button for 3 seconds (3 short flashes of the LED). Release the button after the third flash. The tracker will enter the settings mode. After that, it will be available for a call within two minutes. Make a call from the owner's number to the phone number of the device at the given time. The system will automatically remember the number of the incoming call as the owner's number and will end the call.
- This setting is available after a mobile phone is paired with the tracker (see the PANDORA NAV BT MOBILE APPLICATION section). Make a Bluetooth connection with the tracker via the mobile application PANDORA NAV BT. Enter your phone number in the following format +xxxxxxxxxxxx in the "Notification number 1" field in the "Settings –Phone" menu. Disconnect the Bluetooth connection after the settings are complete.
- 

After you program any phone number, the tracker is ready to work (default settings is 1 "waking up" per 12 hour).

**WARNING! IF A PHONE NUMBER HAS NOT BEEN PROGRAMMED OR ALL PHONE NUMBER HAS BEEN DELETED FROM THE DEVICE MEMORY, THEN THE TRACKER WILL GO TO "TRANSPORTAITION MODE"**

STEP 5 – Additional settings

To change default settings of the tracker, use the Pandora NAV BT app (see the "PANDORA NAV BT APPLICATION" section) or online service pandora-on.com.

An example of changing settings using the pandora-on.com:

– go to the "SETTINGS" menu

– go to the "CONNECTION" submenu;

– Set time when the tracker will wake up by the "Frequency" and "Activation time" settings;

– Save the changed settings.

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**NOTE! THIS SETTING IS ALSO AVAILABLE IN THE MOBILE APPS.**

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SMS notification settings:

- go the "SETTINGS" menu;

- go the "NOTIFICATIONS" submenu;
- you can add additional phone numbers for SMS notifications and access to the "Listening" function if needed;
- in the "Activation" column, set a notification sign opposite the main or additional phone number;
- Save the changed settings.

**NOTE! This setting is also available in the mobile apps**

PUSH and E-mail notification settings:
- go the "ADMINISTRATIVE SETTINGS" menu;
- go the "RULES" submenu;
- use the "ADD RULE" button to create two rules;
- select the "Event group" rule, Select the "Point" event, select your device in the right column and save the settings;
- select the "Low balance" rule, enter a minimum balance value to send a notification, select your device in the right column and save the settings;
- go back to the "RULES" submenu, assign email notifications in the "E-mail" column and push notifications to mobile devices with the installed app(Pandora Online/Pro) in the "PUSH" column.

**NOTE! You can create up to 3 rules under a single account. Login to the mobile app (Pandora Online/Pro) to see your phone in the "PUSH" column. To block (delete) a mobile device from your account go to the profile settings (click on the User name on the main page).**



When you finish configuring the tracker, activate the tracker by holding the VALET button for 3 seconds (3 flashes of the LED), the tracker will be activated and will confirm the new settings.

## PANDORA NAV BT APP

Pandora NAV BT application is a tool for setting up and updating firmware of the tracker. The connection between the application and the tracker is established only with the mobile device that was previously added to the system memory via a special coded Bluetooth Low Energy protocol (see the "Pairing/removing a mobile device" section).

You can download free Pandora NAV BT application for your mobile device in the application store (Google Play).

**WARNING! TO USE THE MOBILE APPLICATION WITH THE TRACKER, YOUR DEVICE SHOUD HAVE ANDROID 4.4 OR HIGER AND BLUETOOTH 4.0 MODULE; IOS V10."**

### Pairing/removing a mobile device

• To pair a mobile phone with the tracker:

- Turn on the Bluetooth on your phone and run the Pandora NAV BT app;
- Press and hold the VALET button for 3 seconds (3 flashes of the LED), release the button after the third flash – the tracker will activate the Bluetooth connection;
- Select the found device in the «Search» menu of the application, enter the pairing PIN-code 0-0-0-0-0-0, the devices will be paired after confirming the PIN-code entry.

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**NOTE! To re-pair the mobile device with the tracker, it is required to remove the Bluetooth connection from the mobile phone and from the tracker.**

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• To remove a mobile device from the tracker memory:
- Press and hold the VALET button for 6 seconds (until a 6 flash of the LED), release the button after the 6th flash – the tracker will remove the previously paired device;
- Then the tracker will activate pairing mode for 1 minute.

### Using the app

Being in the Bluetooth radio coverage zone, Press and hold the VALET button for 3 seconds (3 flashes of the LED), run the PANDORA NAV BT application. The application will automatically detect the system and make a connection. The main menu will be opened after making the connection.



## FIRMWARE UPDATE

In order to update the tracker firmware, press and hold the VALET button form more than 10 seconds until smooth flicker appears.. Run the PANDORA NAV BT, go to «Search device» and select the found device.

You can select one of the update options

• internet - you can upload the latest firmware from the internet server.;

• File manager (Only for Android)- you can upload the firmware from the phone's memory. (the firmware is available on pandorainfo.com).

## CONTROL USING SMS COMMANDS

The tracker can receive and execute SMS commands. The tracker receives SMS messages when it wakes up. To protect the tracker against unauthorized messages each command must contain the Service PIN-code - XXXX (factory default value is 1-1-1-1).

**WARNING! WE RECOMMEND THAT YOU CHANGE THE DEFAULT VALUE OF THE SERVICE PIN-CODE**

**XXXX*PIN*YYYY* - Changing the "Service PIN-code".** This command can be executed only from the phone number that has been previously programmed in the tracker memory
XXXX – current PIN-code (default value is 1-1-1-1)
YYYY – new PIN-code.

The tracker will answer - "PIN-code changed" after the command execution.

**XXXX*666* -** Switching on the "Tracking mode". The tracker will activate the "Tracking mode" for a previously specified period or until a command to switch it off would be received.
The tracker will answer - "Settings changed" after the command execution.

**XXXX*999* - Switching off the "Tracking mode".**

**XXXX*ALARM*YYY*** - Setting periodicity of communication.
**YYY** – hours value from 001 to 168.
The tracker will answer - "Settings changed" after the command execution.

**XXXX*500* - Request current location.**

**XXXX*100* - Request balance of the SIM-card.**

**XXXX*007* - Switching on the "Listening" function.**

**WARNING! MOST MOBILE PROVIDERS STORE UNDELIVERE MESSAGES NO MORE THAN 24 HOURS.**



## REPLACING OR RECHARGING THE BATTARIES

When replacing or recharging the batteries, it is necessary to carefully perform the following sequence of actions:

- Open the cover of the device;
- Replace the batteries;
- Insert the batteries keeping in mind the correct polarity.
- Close the cover;
- Activate the tracker in an open area with fine GPS signal.

**WARNING! IT IS PROHIBITED TO RECHARGE THE BATTERIES THAT ARE INCLUDED IN THE SYSTEM SET. IT IS RECOMMENDED TO USE LITHIUM (LI-FES2) BATARIES ESPECIALY AT LOW TEMPERATURES. ALKALINE BATARIES ARE ALSO ALLOWED; DO NOT USE REGULAR ZINC-CARBON BATTERIES.**

## TRACKER INSTALLATION

The following conditions must be considered when installing the tracker:

- Good conditions for signals of the GPS/GLONASS receiver, GSM modem, 2.4GHz radio interface (BLE4.2);
- Good conditions for the built-in microphone operation;
- The module must be rigidly fixed in order to avoid damage and movement while driving;
- The device must be installed in places where there are no any liquids, condensate and high temperature;
- The module should be installed the front side up (the side with the Pandora sign, the VALET button and the LED).

## WARRANTY OBLIGATIONS

The manufacturer guarantees correct operation of the device if exploitation, installation, storage and transportation conditions described in this manual were met.

The device should only be used according to the 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.

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

- when the warranty period expires;
- if exploitation, installation, storage or transportation conditions
- were not met;
- if there is mechanical damage of the external parts of the device 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;
- if there is no properly filled warranty card and installation certificate.

**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, 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 separate contracts between the user and the installer/service center

# ACCEPTANCE CERTIFICATE

The **Pandora Finder** device is in conformity with Electromagnetic compatibility Directive EMC 2004/108/EC and R&TTE Directive 1999/5/EC.

Serial number_____

Date of production «_____»_____20_____y.

Responsible person's signature _____(stamp)

Packeger _____Signature_____
(personal stamp)

# WARRANTY CARD

## Model Pandora Finder

Serial number_____

Date of purchase «_____»_____20_____y.

Seller's stamp

Seller's signature _____