#### **Pandora**

Alarmtrade thanks you for choosing Pandora service and security system **Pandora 3970** - is a premium-class telemetric service and security system, designed for B, C, M, S or J class cars (European classification). It was developed and produced in Europe, in a cozy industrial city of Kaluga in the west of Russia, on a privately owned "Experimental Engineering Factory".

With **Pandora 3970** your car will have numerous new features for both security and service. Elegant and advanced technical design and unique ergonomic interaction algorithms that are used in Pandora 5000, allows enhancing your car with fantastic set of intuitive and useful functions. Your car's control and monitoring options at your fingertips.

#### Exclusive features of Pandora 3970:

- Online service p-on.ru allows monitoring, controlling, and adjusting paramters of your car using any computer or smartphone with internet connection.
- SOS emergency button on the remote, and automatic notification system will be of help in any situation that threatens your personal security. It is not just the car we aim to protect.
  - Interior microphone that can be accessed from your phone.
  - Infinite event history with coordinates, precice times and full information about car's condition.
- Mobile app Pandora info to control your security system via smartphoneand access online service p-on.ru is avaliable for iOS (iTunes store) and Android (Google play).
- Wide range of automatic engine start options: by weekdays, by engine or inerior temperature, by battery voltage to keep it charged, etc.

Our website: www.alarmtrade.ru Support email: support@alarmtrade.ru

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**General information** 

**& Pandora** 

#### **System features**

#### Main LCD remote

- Dialog encryption of commands.
- Arming and disarming security system using separate buttons.
- Controls status of 15 independent security zones.
- Vibrating alert.
- 16 sound notifications
- · Automatic LED lighting of the LCD.
- Vibration confirmation of the button press.
- AAA battery (1,5 B), up to 6 month of continuous operation.
- · Battery level indicator.
- Current time indication, alarm clock.
- •Time synchronizes with the base unit for exact time stamp in the event history.
- Engine and interior temperature, voltage indication.
- Prompt remote access to the settings of shock, motion, tilt and supplementary sensors.
- 1800 meters range within sight.
- View last 48 hours of the event history with time stamps.
- Automatic control of covering zone and notifications.

#### Base unit

- · Dialog encryption of commands.
- Individual 128-bit encryption key that can be changed by the user.
- Voice interface for controlling the system using a phone.
- · Individual disarming PIN code.
- Event history stored in the base unit with date, time and coordinates.
- RC blockage relay (2,4 GHz, frequency, up to 3 units can be connected).
- Built-in integral accelerometer for determining motion and shocks with adaptive processing algorithm and sensitivity controls via the remote.
- External dualband GSM 900/1800 MHz aerial.
- · Built-in 2.4 GHz aerial.
- · Monitoring of on-board voltage.
- Distinct sensors for the front hood and the trunk.
- Advanced process of sensor data reading, eliminating false alarm possibilities.
- Precision measurement of interior and engine temperature, displayed on the remote.

- Seguential unlocking of the doors.
- · Arming when the engine is running.
- Automatic arming.
- Registers delay for interior lighting when arming.
- Hands-free mode for arming/disarming without using a remote.
- Software updates via built-in mini-USB socket.

#### RF module

«CALL» button for calling the driver.

#### Immobilizer tag

- Dialog encryption of commands.
- Arm/disarm button.
- Individual 128-bit encryption key that can be changed by the user.
- · Built-in LED indicator.
- · CR 2032 battery.

#### Car security zones

- Car doors perimeter (separately for every door)
- front hood limit switches
- trunk limit switches
- ignition trigger brake pedal button
- triggering of the shock sensor (warning level)
- triggering of the shock sensor (alarm level)
- triggering of the motion sensor
- triggering of the two-level supplementary sensor (warning level)\*
- triggering of the two-level supplementary sensor (alarm level)\*
- critically low on-board voltage
- marker lights left on notification when arming\*\*.

<sup>\*-</sup> Volume sensor is not a part of Pandora DXL 397O service-security system set configuration

<sup>\*\* -</sup> Availability of this function depends on car model

#### **Pandora**

#### System set

1.	Base unit1
2.	RF module and cable1
3.	Main control remote with LCD
4.	Additional remote (three-button)1
5.	Immobilizer tags2
6.	Leather case for immobilizer tags1
7.	RR-100 blockage radio relay1
8.	Main cable1
9.	Supplementary cable1
10.	Cable with VALET button and three-colored light indicator
11.	Relay automatic launch module1
12.	Mini-USB cable1
13.	Microphone1
14.	Limit switch2
15.	Limit switch wire2
16.	Tapping screw Ø4,2x135
17.	Plastic tie 120 - 150 mm
18.	Grounding contact
19.	User manual1
20.	Installation manual (connection scheme)1
21.	Plastic card with individual secret code1
22.	Packaging1

Manufacturer reserves the right to change configuration and construction of the product to improve its technological and operational parameters without notification.

2

**Control remotes** 

**& Pandora** 

Two-way remote is the main mean of control over the system.

For easily distinguishable notifications the remote uses 16 ringtones. Each ringtone matches particular event.

Remote has flashing LED indicators for additional information. Occasional green flashes mean that there is a connection and there were no alarm events, red flashes mean that either an alarm even happened, there is no connection to the base unit, or the system is not armed.



The remote is fully operational when shipped. To switch the remote on press and hold button **F III** for 3 seconds. «**REMOTE ON**» ringtone will play. Pressing and holding this button again for 3 seconds will cause the remote to switch off.



CAUTION! ALL CONTROL COMMANDS ARE TRANSMITTED VIA RADIO CHANNEL, FOR MAXIMUM EFFECTIVENESS AND RANGE IT IS RECOMMENDED NOT TO SHIELD AERIAL AREA (SEE PICTURE) WITH FINGERS WHEN USING A REMOTE.

#### **Quick access functions of the main control remote**

	System disarmed		Contain annual
	Engine is running	Engine is stopped	System armed
(short press)	Lock doors without arming	Arming with sound confirmation	Search mode - car will flash winkers and sound horn for 5 seconds
(1 sec.)		Arming without sound confirmation	Search mode - car will flash winkers without any sounds for 5 seconds
(2 sec)	Switch on ignition support		
(short press)	Open door locks	Open door locks	Disarming with sound confirmation
(1 sec.)		Open door locks	Disarming without sound confirmation
F III (short press)		Switch on LCD lighting	
<b>F</b>     (1 sec.)		Switch on/off timer channel (CH1) Unlock trunk (CH1)	
<b>F III</b> (2 sec.)		Switch on/off timer channel	
<b>F</b>     (3 sec.)		Switch the remote on/off	
button 4 ( 1 sec.)		Emergency call	
(short press)	PANIC mode		
(short press)	Arming when the engine is running with sound confirmation	Arming in 30 seconds (hands-free mode) with sound notification	
(1 sec.)	Arming when the engine is running without sound confirmation	Arming in 30 seconds (hands-free mode) without sound notification	
button 6 (1 sec.)	Request current car status (CHECK co	ommand)	
button 6 (2 sec.)	Enter event history		
button 6 (3 sec.)	Force connection to the online servi	ce	
button 5 (1 sec.)	Enter setting menu		
button 5 (3 sec.)	Switch engine preheater on		
button 5 (2 sec.)	Switch engine preheater off		

#### **Light indicator functions**

#### Red Alarm indicator.

• Flashes occasionally and sounds short signal once a minute untill any button is pressed, after the end of any alarm notification.

#### Green Lock indicator.

• Flashes occasonally if there is a connection and the system is armed.

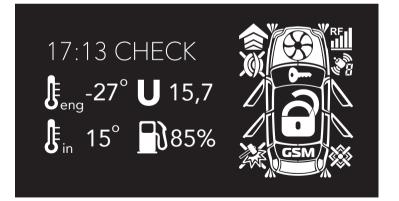
#### Red Unlock indicator.

• Flashes occasonally when the system is armed.

#### Red Send indicator.

• Flashes occasionally when there is no connection.

#### LCD



Flashes if there is no connection to the base unit. Flashes when transmitts or recieves commands. GSM modem. The icon lits if the GSM modem is switched on and the car is in **GSM** the coverage area of the cellular network. The icon fashes if there is no GSM connection. GSM signal level. GPS receiver. The icon lits if the GPS receiver is switched on and recieveing coordinates of the car. The icon fashes if it is not possible to recieve the coordinates of the car. Security mode status (Armed/disarmed). Shock sensor security zone. - 🕏 Warning level of the sensor. 7. - Alarm level of the sensor. - \* Warning level zone monitoring disabled. - Shock sensor monitoring disabled. Trunk security zone. Engine operation icon. 10. Light signalization (using marker lights, winkers). Front hood security zone.

Motion sensor security zone

13.

Silent mode of the system.

- warning signals of the system disabled.
- M all sound signals disabled.
- 14. 0---

Ignition, ignition security zone.

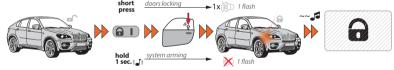
- 15.
- Door security zone. Separate for each door.

16.

Supplementary sensor security zone.

- 🔅 Warning level of the sensor.
- «🖫 Alarm level of the sensor.
- 💥 Warning level zone monitoring disabled.
- Supplementary sensor monitoring disabled.

#### **Arming procedure**



Arming the system allows monitoring of all security zones, locks the doors and blocks the engine.

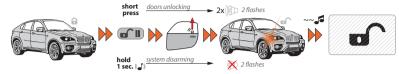
To arm the system when the engine is stopped shortly press button on the remote. The buzzer will sound and the winkers will flash once. The remote will play "Arming" ringtone and security mode status icon (the lock) will change to:

For arming without sound confirmation press (a) for more than 1 second. If when arming doors, hood or trunk were open, the buzzer will sound four short signals instead of one, winkers will flash four times, remote will play "Warning!" ringtone and will show troubled zone. This zone sensor will be disabled at that moment. Sensor will be armed again in 15 seconds after the zone was set right.



1 \* - Arming using a phone. 10\* - arming without sound confirmation.

#### **Disarming procedure**



To disarm the system shortly press lotton on the remote. You will hear two short buzzer sounds and will see two flashes of the winkers. The remote will paly "Disarming" ringtone and security mode status icon will change to:

For disarming without sound confirmation press button for more than 1 second.

If there were new alarming events during the time system was armed, buzzer will sound four times, and winkers will flash four times, the remote will sound «WARNING» ringtone and will indicate zones tringered. Detailed event history can be accessed by using CHECK button.

What arming, two-step mode of unlocking the doors can be programmed. First I press will doors will essent and unlock driver's door while second press will unlock all the other doors.

| O | \* - Disarming using a phone. 00\* - disarming without sound confirmation

#### Unlocking the trunk

To independently unlock the trunk, no mater if the system is armed or not, press **FIII** button and hold it for 1 second.

If the system is armed when this action is performed, the trunk will be disarmed, shock and supplementary sensors of the trunk will be disabled. All the other security zones will remin armed.



If in 15 seconds after using "unlock trunk" command, the trunk was not opened, the system will lock it back, enable sensors and arm trunk security zone. This will be indicated with one flash of the winkers.

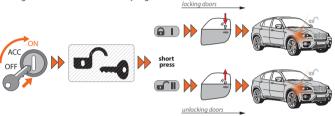
User manual

<sup>1-</sup> In some cars additional connection may be needed

If you have opened the trunk when the system is armed and have not armed it in 3 minutes, the system will give warning message on the remote without triggering the car's buzzer.

#### Locking/unlocking doors when the engine is running

A mode of locking doors at the start of the movement and unlocking when the ignition is switching off is available. In 5 seconds after ignition was switched on, the doors will be locked, and ublock whe nthe ignition will be switched off (programmable).



Locking and unlocking doors when the engine is running can be forced using a remote. To do this shortly press • when the engine is running. Pressing • button will unlock the doors in the same way.

Moreover, it is possible to control central lock using button on the immobilizer tag or by phone with 1\* and 0\* commands.

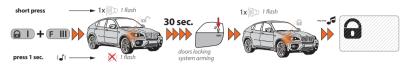
#### Car search function



To easily find your car on a massive parking, shortly press (a) when the car is armed. The system will sound the buzzer and flash winkers five times in a row.

To search for car withour sound confirmation, hold button for more than 1 second.

#### **Delayed arming (Hands-free mode)**



If when leaving the car you cannot arm it using a remote (you have your hands full), you can use **«DELAYED ARMING»**.

To activate this mode, shortly press **(a)** and **(F)** III) simultaneously. Buzzer will sound and winkers will flash once, indicating that the mode is triggered. Remote LCD will display **(AUTO)** icon, and red indicator will lit red. In 30 seconds the door will lock and the system will arm. This will be indicated with one buzzer sound and one flash of the winkers.

To activate this mode without sound confirmation press and hold both 1 and 1 fill for more than one second. To cancel delayed arming when it is triggered, simply press 1 fill

#### **PANIC** mode



If you or your car are in dange and you want to draw attention to your car, you could use **\*PANIC MODE\***, In this mode the buzzer will sound and winkers will flash repeatedly. To trigger **\*PANIC MODE\***, press (1) and (1) simultaneously. To switch it off press either (1) or (1).

#### **CHECK mode, monitoring car parameters**

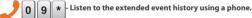


To recieve information about engine and interior temperature and on-board voltage, press button 6 and hold it for 1 second. To exit this mode shortly press F otherwise it will be exited automatically in 10 seconds.

#### **Event history**



To access event history in the system's memory, press and hold button 6 for 2 second. Nagivate last 48 events using button 6 (forward) and button 4 (back). Events are displayed by showing time of the evend and flashing corresponding indicators. To exit this mode, press button F, otherwise the mode will be exited in 60 seconds.



#### Remote and automatic engine start

The system allows for remote engine start usinf remote **«REMOTE ENGINE START»** command or automatic engine start using preconfigured **«AUTOMATIC ENGINE START»** function. Remote launch can be used to heat engine and interior, charge battery or to cool the inerior with air conditioning.

Remote and automatic start can only be used when the system is armed.

If the car has manual transmission, automatic launch will only occur if **«PROGRAMMED NEUTRAL»** function was enabled when the car was arming.

Remote and automatic engine start on automatic transmission cars will only occur, if transmission selector lever was left in a "P" position.

When using remote and automatic engine start functions, make sure that the car is secured with handbreak or some other means of fixating the car on a parking position.

While system is in remote and automatic start mode, it keeps performing all security functions save for shock sensor, which will be disabled. To compensate, motion sensor sensitivity, responsiveness and range will be increased. If any security zone will be triggered, the engine will be immediately stoped and alarm mode will be entered. Herewith all engine blockages will be activated.

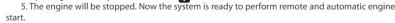
#### Programmable neutral procedure





If you are planning to use remote and automatic engine start on a car with manual transmission, than before arming you will need to perform following actions:

- 1. When the engine is running, fixate the car with the handbreak.
- 2. Turn the key in the ignition lock to the OFF position (while you are doing it the engine should be running) and take it out of the lock.
  - 3. Leave the car, close the door.
- 4. Press 1 button to arm the car and lock the doors. On LCD remote the engine operation icon will be spinning and security mode status icon will lit.



#### Remote engine start

If the system is prepared to remote system start, to execute it press and hold for 3 seconds. Sound signal will confirm the command, LCD will show crossed out shock sensor icon and flashing

engine operation icon - signifiying preparation to the engine start. In a few seconds the engine will be started, the remote will play **«ENGINE START»** and show spinning engine operation icon

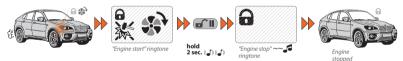
Engine operation duration depends on heating time or temperature for engine stop.



Remote engine start using a phone.

If the engine was started using remote or automatic start (via timer of clock) 123\*
phone menu command will extend its operation period by 10 minutes.

To remotely stop the engine while it performs heating, press and hold for 2 or more seconds. The engine will be immediately stopped and it will be confirmed by remote playing **«ENGINE STOP»** ringtone and engine operation icon fading .



The remote will give notification 1 minute before designated engine stop: ᢏ icon will flash and мелодия «ENGINE STOP IN 1 MINUTE» rington will play every 10 seconds.

If the engine was started using remote or automatic start, remote engine start command will exter period by 10 minutes. This procedure can be repeated multiple times.



#### **System settings**

Main system settings and parameters can be adjusted via LCD remote.

To enter settings menu, press and hold for 1 second button 5. LCD will display **Main Menu** and a list of available functions.

To navigate the list use short presses of buttons 4 and 6, to enter submenu shortly press button 5.

To go back to the higher level menu, select the top line of the list and shortly press button 5.

To exit any level of the menu without saving parameters shortly press F button.

To save current settings, use buttons 4 and 6 to select SAVE line in the list and press button 5 shortly to confirm.

#### Main settings menu

After holding button 5 for 1 second, the LCD remote's display will show the list of available functions:

#### Button 5 (1 sec.) >>>>>



- 1. AUTOSTART automatic engine start settings
- 2. **HEATER** engine preheater controls
- 3. **SENSORS** settings of the sensors
- 4. TRACKING switching tracking on/off (available for Pandora 5000)
- 5. SIREN siren (buzzer) signal options
- 6. **HANDS FREE** Hands Free mode settings
- 7. CHANNELS setting of the time channels
- 8. GPS RECEIVER switching on/off GPS/GLONASS receiver
- 9. **GSM MODEM** switching on/off GSM modem
- 10. VALET MODE switching on/off maintenance/valet mode
- 11. **SETTINGS** settings of the remote

#### **Automatic engine start settings**

The system allows setting mods of automatic engine starts and stops. Synchronized real-time clock in the remote and the base unit and other autonomous systems allow using many mods of automatic engine start regardless of whether the remote is in range.

To enter automatic engine start settings menu select **AUTOSTART** option in the main menu using buttons 4 and 6, and select it with button 5 short press. Following functions will be displayed:



- 1. ENABLE switching on/off automatic engine start
- 2. TIMER time settings for automatic engine start
- **3. START TEMP** temperature settings for automatic engine start
- 4. WORK TIME max engine work time settings for automatic engine start
- 5. PERIODICALLY settings of periodical engine starts
- 6. STOP TEMP engine stop temperature settings

#### Time settings for automatic engine start

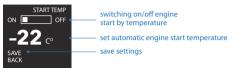
To set time for automatic engine start, select **TIMER** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: Main Menu >>AUTOSTART>>TIMER

#### Temperature settings for automatic engine start

To set temperature for automatic engine start, select **START TEMP** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: Main Menu >> AUTOSTART >> START TEMP

#### Max engine work time settings for automatic engine start

To set max engine work time for automatic engine start, select **WORK TIME** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.Autostart>> WORK TIME

#### **Settings of periodical engine starts**

To configure periodical engine starts, select **PERIODICALLY** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.AUTOSTART>> PERIODICALLY

#### **Engine stop temperature settings**

To set engine stop temperature, select **STOP TEMP** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.AUTOSTART>> STOP TEMP

#### **Engine preheater controls**

To configure engine preheater, select **HEATER** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>2. HEATER

#### **Settings of the sensors**

The system allows setting sensor sensitivity via the remote.

To enter sensor settings menu select **SENSORS** option in the main menu using buttons 4 and 6, and select it with button 5 short press. Following functions will be displayed:



- 1.SHOCK- shock sensor settings
- 2. MOTION motion sensor settings
- 3. TILT tilt sensor settings
- 4. EXTENSION supplementary sensor settings

#### **Shock sensor settings**

The system allows full control over built-in shock sensor. To configure shock sensor settings, select **SHOCK** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.SENSORS>> SHOCK

#### **Shock sensor settings. Operation mode controls**

To disable warning zone or disable shock sensor completely select **CONTROL** option in the **SHOCK** menu using navigation buttons (4 and 6) and confirm it with button 5 short press.

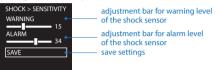


Full path to this settings menu: MainMenu>>1.SENSORS>>1.SHOCK>> 1.CONTROL

#### **Shock sensor settings. Sensitivity settings**

To adjust shock sensor sensitivity select **SENSITIVITY** option in the **SHOCK** menu using navigation buttons (4 and 6) and confirm it with button 5 short press.

To enter and exit adjustment bar use button 5, adjust parameters on the bars using buttons 4 (lower sensitivity) and 6 (raise sensitivity). Sensitivity can be adjusted between 0 (lowest sensitivity) and 50 (highest sensitivity).

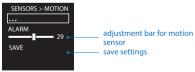


Full path to this settings menu: MainMenu>>1.SENSORS>>1.SHOCK>> 2.SENSITIVITY

#### **Motion sensor settings**

To adjust built-in motion sensor sensitivity select **MOTION** option in the **SENSORS** menu using navigation buttons (4 and 6) and confirm it with button 5 short press.

To enter and exit adjustment bar use button 5, adjust parameters on the bars using buttons 4 (lower sensitivity) and 6 (raise sensitivity). Sensitivity can be adjusted between 0 (disable motion sensor) and 50 (highest sensitivity).

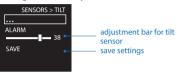


Full path to this settings menu: MainMenu>>1.SENSORS>>2.MOTION

#### Tilt sensor settings

To adjust built-in tilt sensor sensitivity select **TILT** option in the **SENSORS** menu using navigation buttons (4 and 6) and confirm it with button 5 short press.

To enter and exit adjustment bar use button 5, adjust parameters on the bars using buttons 4 (lower sensitivity) and 6 (raise sensitivity). Sensitivity can be adjusted between 0 (disable tilt sensor) and 50 (highest sensitivity).



Full path to this settings menu: MainMenu>>1.SENSORS>>3.TILT

#### **Supplementary sensor settings**

The system allows full control over supplementary sensor. To configure shock sensor settings, select **EXTENSION** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.SENSORS>> 4.EXTENSION

#### **Supplementary sensor settings. Operation mode controls**

To disable warning zone or disable supplementary sensor completely select **CONTROL** option in the **EXTENTION** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>1.SENSORS>>4. EXTENSION.>> 1.CONTROL

#### Supplementary sensor settings. Sensitivity settings

To adjust supplementary sensor sensitivity select **SENSITIVITY** option in the **EXTENSION** menu using navigation buttons (4 and 6) and confirm it with button 5 short press.

To enter and exit adjustment bar use button 5, adjust parameters on the bars using buttons 4 (lower sensitivity) and 6 (raise sensitivity). Sensitivity can be adjusted between 0 (lowest sensitivity) and 50 (highest sensitivity).



Full path to this settings menu: MainMenu>>1.SENSORS>>4.EXTENSION>> 2.SENSITIVITY



#### Siren (buzzer) signal options

To configure buzzer sounds, select  ${\bf SIREN}$  menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>5.SIREN

#### **Hands Free mode settings**

The system allows for Hands Free arming and disarming. When the owner with 2.4Hz radio tag is in range, the system will disarm, and arm again when the owner moves further away from the car.

To select one of Hands Free mods, select **HANDS FREE** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>6. HANDS FREE

#### Setting of the time channels

The system allows switching on timer channels via remote. Timer channels should be programmed separately using timer channel table in DXL Loader or Pandora Alarm Studio specialist software.

To remotely switch on one of the timer channels, select corresponding line (channel number) in the **CHANNELS** list menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>7.CHANNELS>>CH1-CH10

#### Switching on/off GPS/GLONASS receiver

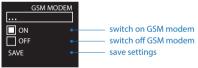
To control GPS/GLONASS receiver, select **GPS RECEIVER** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>8.GPS RECEIVER

#### Switching on/off GSM modem

To control GSM modem, select **GSM MODEM** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>9. GSM MODEM

#### Maintenance/valet mode

It is recommended to put system into maintenance mode (valet mode) before handing it to the car service or valet parking. When this mode is switched on, security system stops interfering with built-in electronics and disables all functions to ease maintenance or parking. Moreover, you will not have to leave the remote to the valet or the mechanic. Disabling valet mode is not possible without using the remote. This feature is implemented to prevent recording additional remotes during maintenance without the owner knowing.

To enable Valet mode when the engine is stopped and immobilizer tag is within range, select **VALET MODE** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Lit green status indicator on the remote when the engine is stopped will signify active valet mode. Valet mode can only be disabled when the engine is stopped.

Full path to this settings menu: MainMenu>>10.VALET MODE.

#### **Settings of the remote**

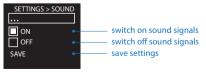
To enter remote's settings, select **SETTINGS** menu using navigation buttons (4 and 6) and confirm it with button 5 short press. Available functions will be displayed:

- 1. SOUND sound signal settings
- 2. VIBRO vibration settings
- 3. BACKLIGHT LCD backlight brightness settings

Full path to this settings menu: MainMenu>>11.SETTINGS

#### Sound signal settings of the remote

To enter remote's sound signal settings, select **SOUND** option in the **SETTINGS** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>11.SETTINGS>>1.SOUND

#### Vibration settings of the remote

To enter remote's vibration settings, select  ${\bf VIBRO}$  option in the  ${\bf SETTINGS}$  menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



Full path to this settings menu: MainMenu>>11.SETTINGS>>2.VIBRO

#### LCD backlight brightness settings of the remote

To enter remote's LCD backlight brightness settings, select **BACKLIGHT** option in the **SETTINGS** menu using navigation buttons (4 and 6) and confirm it with button 5 short press:



To enter and exit adjustment bar use button 5, adjust parameters on the bars using buttons 4 (lower brightness) and 6 (raise brightness). Brightness can be adjusted between 0 (disable backlight) and 50 (highest brightness).

Full path to this settings menu: MainMenu>>11.SETTINGS>>3.BACKLIGHT

#### **Checking the number of recorded remotes**

Number of recorded remotes and radio tags can be checked every time the ignition is switched on when disarmed. Number of orange and green LED flashes will indicate number of remotes and tags recorded correspondingly.

Number of recorded remotes and radio tags can also be checked by taking off and putting back

on battery terminal. The system will sound a set of signals, corresponding to the number of recorded remotes.

#### Replacing a battery in the remote

If high quality batteries are used, service-security system remote can function up to 6 month without needing a replacement. Battery needs to be replaced, if the remote is not turning on or the icon has only one bar left and starts flashing. To replace the battery:



- move battery cover in the direction shown;
- take the battery out and place a new AAA battery on its place taking notice of the polarity:
- the remote is ready for use (switch it on by pressing and holding F III) for 3 seconds).

It is recommended to have a spare AAA battery in the car.

3

# Owner's personal security, immobilizer and SOS button

**@Pandora** 

Pandora DXL 3970 security system is an efficient measure of antitheft security and is able to prevent hijacking. The system is supplied with 2 immobilizer radio tags. To increase security 1 to 3 radio relays can be installed on the car. Immobilizer functions can be switched on and off via a phone or using Pandora DXL Loader on a computer. Pandora DXL loader can be downloaded from www.manuals. alarmtrade.ru or www.alarmtrade.com

This system uses hardware + program algorithm of determining whether the owner is moving towards or from the car, increasing precision of the HandsFree function. Immobilizer mods can be set via the remote.

#### Immobilizer mode

The system has functions that can contribute towards owner's personal safety. The remote has SOS button to call for help in an emergency. In case of car accident, the system will automatically send notifications to owner's close ones. All personal security notifications are supplemented with car current coordinates and web links to online map services. The system uses flexible Anti HiJack algorithms.

When ignition is being switched on, Pandora's base unit performs a search for immobilizer tags in radio zone. If no tags were detected, LCD remote will play "no tag found" ringtone. If when the ignition is switched on no radio tags were detected, the system will lock the engine with all radio relays that were programmed into the system. Engine lock will only occur when radio relay motion sensor detects movement of the car. If additional blockages were installed, they will lock doors immediately, before the car starts moving.

#### Anti-Hi-Jack mode

AntiHiJack mode helps to prevent aggressive seizure of the car using delayed engine blockage on door opening. Every time when the engine is running on opening/closing a door, immobilizer requests response from a remote using unique algorithm. After a door was opened while the engine is running and the car is moving, and if the system cannot detect a radio tag, the engine will be stopped after 60 seconds (general safety requirement). 30 seconds after detecting movement, engine blockage warning ringtone will play for the remaining 30 seconds.

If engine blockage is done via radio relay, when warning signals will end, or new attempts to start the engine will commence, immobilizer will only allow it to start when the car is not moving, and will block it again if will start movement. Immobilizer will be activated in 2 seconds after the ignition is switched on. If the car starts moving, the immobilizer will block the engine for 15 seconds.

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#### **Emergency immobilizer shutdown**

To disable immobilizer in case of emergency, enter programming level 15 (look at "Emergency control over system, entering PIN code") LED indicator will be lit green. Enter first digit of the secret code using VALET button (press the button a number of times equal to the desired digit, pauses between presses should not exceed 1 second). The system will confirm with red flash of the indicator. Similarly enter second, third and fourth digits. After entering correct PIN the system will confirm with two sound signals and red LED will become lit.

To activate immobilizer functions and AntiHiJack, enter programming level 15. Led indicator should be lit red. Press VALET button once, the indicator will lit green and the system will sound one signal.

#### Replacing immobilizer tag battery

After receiving a text message on the main owner's phone number, saying that immobilizer tag battery is low, battery should be replaced soon. Battery type is CR2032.

Carefully open the cover of the tag's battery compartment. Extract discharged battery and insert a new one keeping in mind the correct polarity. Replacing a battery will not cause a loss of tag code information, as authorization data is stored in the nonvolatile memory of the MCU.

Carefully close the cover of the tag's battery compartment. All elements of construction should be rigidly locked in places. If it is so, the tag can be operated as usually.

#### Immobilizer code using original car controls

Code immobilizer – a function that allows disarming and controlling timer channels using original car controls (button, lever or pedal). To enter immobilizer code, programmed button (lever, pedal) should be pressed a number of times equal the digit of the code. Pauses between presses should not exceed 1 second. Pauses more than 1 second will be interpreted as the start of next digit input (can be a max of 4 digits 1 to 9).

After entering a correct immobilizer code, depending on the settings, either will lift the engine blockage, or activate a programmed timer channel.

#### Panic (sos) button



In case your life or health are threatened, press button 4 for 1 second and the system will automatically make voice call and send text notification with car's coordinates to all programmed emergency numbers. Pandora DXL 3970 will send messages with car's coordinates (GPS/GLONASS receiver required)

During emergency voice call, person called can access car's interior microphone.

Thus the car establishes an owner's personal security zone around itself in the range of 433MHz radio channel.

#### **Automatic emergency notifications**

If a car with Pandora DXL 3970 telemetric system gets into car accident, automatic notifications will be sent in form of text messages and voice calls with the car's coordinates.

All emergency events are recorded on a personal page in www.p-on.ru online service, displaying date, time and coordinates (NAV-03 GPS/GLONASS module required).

4

## Pandora and a cell phone

**@Pandora** 

#### **Setting up emergency notification phone numbers**

Emergency phone numbers can be set in the system settings using Pandora DLX Loader. If you will not program emergency phone numbers, voice call and text messages will be sent to the owner's additional numbers.

#### **Cell phone notifications**

If any of security zones were triggered the system will immediately notify the owner by all available means: it will send alarm notification to the remote, will call and text owner's mobile phone, and will save information about the event in online service www.p- on.ru.

#### Security zones triggered notifications

- Left/right, front/rear door security zone triggered;
- Trunk security zone triggered;
- Front hood security zone triggered;
- Brake pedal security zone triggered;
- Ignition security zone triggered;
- Warning level of the shock sensor security zone triggered;
- Shock sensor security zone triggered;
- Warning level of the supplementary sensor security zone triggered;
- Supplementary sensor security zone triggered;
- Motion sensor security zone triggered;
- Tilt sensor security zone triggered;
- Voltage outage security zone triggered.

#### Receiving voice information via phone

Call the system and listen to the status report.

- 1. System security status: armed/disarmed
- 2. If the alarm was triggered, the system will communicate the cause, number of events, time and date (in case events occurred more than 24 hours away).
  - 3. Temperature sensors readings.
  - 4. On-board voltage (to the nearest tenth of a volt).
  - 5. GSM connection signal level.

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- 6. Notification if the remote engine start is programmed, and on what conditions (temperature, time, periodic start).
  - 7. Current time and date.
  - 8. Allows control command input.
  - 9. Voice help in navigating control commands.

#### Control over system via phone

Call the system's phone number. When it answers, enter command code.

#	Return to previous menu/state	3 2 1 *	Stop the engine
*	Repeat the last message	500*	Request current coordinates
1 *	Arming	1 5 6 *	Switch on engine preheater
0 *	Disarming	651*	Switch off engine preheater
10*	Silent arming	4 5 6 *	Switch on additional channel
00*	Silent disarming	6 5 4 *	Switch off additional channel
9 *	Help	789*	Enable automatic engine start
09*	Event history	987*	Disable automatic engine start
007*	Switch on interior microphone	666*	Enable engine blockage
100*	Request GSM account balance	999*	Disable engine blockage
123*	Start the engine/prolong heating	2 5 8 *	System information



ATTENTION! IF THE CALL IS NOT MADE FROM THE OWNER'S NUMBER, GUEST PIN CODE SHOULD BE ENTERED. FACTORY SET GUEST PIN CODE IS 1-2-3-4.

AFTER THE SYSTEM IS INSTALLED, PLEASE CHANGE FACTORY SET PIN.

#### Voice help

The system has voice help menu. During voice call to the system, press 9\*("star") and listen to the information about system control commands. To end session hang up the phone.

#### Repeating the last message

To repeat any message press "STAR" during a voice call to the system.

#### Arming/disarming

- 1. Call the system's number and wait for answer.
- 2. Dial 1\* to arm the system or 0\* to disarm it. For silent arming dial 10\*, for silent disarming 00\*.

3. The system will confirm: "Arming/disarming".

To end session hang up the phone.

#### **Event history**

- 1. Call the system's number and wait for answer.
- 2. Dial **09**\*
- 3. Listen to the information about the latest event registered by the system.

To navigate event history press **4** (listen to the previous/earlier event), or **6** (listen to the next/later event).

To end session hang up the phone.

#### Switching on interior microphone

- 1. Call the system's number and wait for answer.
- 2. Dial 007\*
- 3. The system will confirm execution and will switch interior microphone on.

To increase volume press 2, to decrease volume press 8.

To end session hang up the phone.

#### Request GSM account balance

- 1. Call the system's number and wait for answer.
- 2. Dial **100**\*
- 3. The system will confirm: "Balance information sent via text message" and will send text message with account balance information to your phone.

To end session hang up the phone.

#### Request current coordinates

- 1. Call the system's number and wait for answer.
- 2. Dial 500\*

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3. The system will confirm: "Current coordinate sent via text message" and will send text message with coordinates and a web link to a map to your phone.

To end session hang up the phone.

#### Switching on/off additional channel

Pandora system can control additional timer channel:

- 1. Call the system's number and wait for answer.
- 2. Dial 456\* to switch the channel on or 654\* to switch it off.
- 3. The system will confirm execution.

To end session hang up the phone.

#### Switching on/off engine preheater

Pandora system has additional control channel for engine preheater control:

- 1. Call the system's number and wait for answer.
- 2. Dial 156\* to switch the channel on or 651\* to switch it off.
- 3. The system will confirm execution.

To end session hang up the phone.

#### Enabling/disabling automatic engine start

Pandora system has function of promptly disabling automatic engine start:

- 1. Call the system's number and wait for answer.
- 2. Dial **987**\* to disable all automatic engine starts or **789**\* to enable all automatic engine starts.
- 3. The system will confirm execution.

To end session hang up the phone.

#### Blocking/unlocking the engine

You can lock car's engine using any phone. The engine will remain blocked until phone command "UNLOCK ENGINE" will be sent. This blockage cannot be disabled using a remote.

- 1. Call the system's number and wait for answer.
- 2. Dial 666\* to enable engine blockage or 999\* to disable engine blockage (after dialing 999\* you will need to enter individual PIN-code that is located on the owner's plastic card).

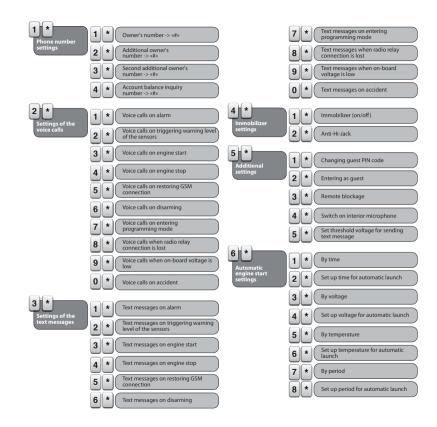
#### Online service p-on.ru connection command.

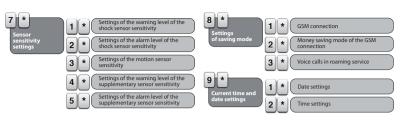
The system allows alternative way to connect to p-on.ru online service:

- 1. Call the system's number and wait for answer.
- 2. Dial **753**\* to connect to the online service.
- 3. The system will confirm execution and connect to the online service.

#### **Changing settings via phone**

To enter programming mode, call the system's number, wait for answer, then press and hold button on LCD remote. The system will switch into settings programming mode. Using voice help, program main settings.





5

Online information service www.p-on.ru and mobile apps

**a** Pandora

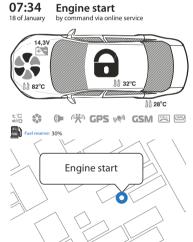
#### **System login**

To access your individual page in information service www.p-on.ru use login/password from under protective level of the owner's plastic card.

#### **Event history**

Event history holds more than 100 different types of events that can happen to the system. Event history in online service starts with system's production and is available to the owner at any time from any device with the internet connection (Pandora 3970 has limited number of events in history). Every event is saved with date, time, coordinates (GPS/GLONASS module NAV-03 is required) and status of all control zones and sensors at the moment the event have occurred.

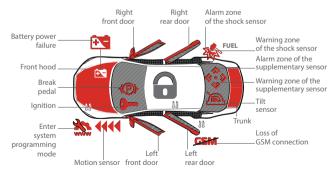




#### **System status information**



#### **Security and warning zones**



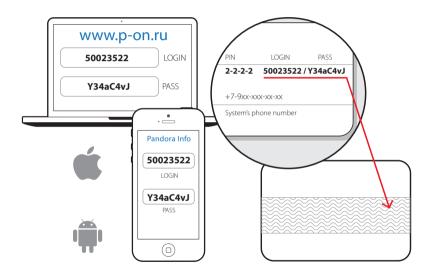


**Important information** 

**a**Pandora

#### **Smartphone apps**

To ease access to the online service a mobile app "Pandora info" have been developed. This app is free and available through your device's app store (iTunes/app store for Apple, Google store for Android).



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#### Control over system in case of emergency, entering individual pin code

In case you cannot disarm the system using a remote, phone or online service, owner's individual PIN code can be used. Individual PIN code is written on the owner's plastic card under protective layer. Erase theprotective layer and use VALET button to input the PIN code.

1. Using VALET button, input the first digit of the code (press the button a number of times, equal to the first digit; pauses between presses should not exceed 1 seconds).

The system will confirm with red LED indicator flash.

- 2. Similarly input second, third and fourth digit. Every input will be confirmed with red LED flash.
- 3. The system will confirm correst PIN with red and green flashes of LED indicator.

If the input was incorrect, it will be indicated with long red flash. New input can be attempted after 5 seconds.

4. If the system was armed, after entering the correct PIN code it will be disarmed.

If the system is disarmed and the engine is stopped, after entering PIN the system will enter programming mode.



ATTENTION! MAKE SURE THAT PROTECTIVE LAYER ON THE OWNER'S PLASTIC CARD IS INTACT AFTER THE INSTALLATION OF THE SYSTEM. PLASTIC CARD HOLDS INDIVIDUAL PIN CODE AND ONLINE SERVICE ACCESS INFORMATION.

For emergency arming when the engine is stopped, press and hold VALET button for 3 seconds. The system will confirm with buzzer signal and will be armed in 30 seconds.

While there is a countdown, the LED will be lit red.

#### Any problem can be solved

Problem	Solution
When pressing button 1 on the LCD remote all icons lit, when pressing button 2 the numeric indicator will lit.	The remote is switched off, it needs to be switched on. Press and hold button 3 (F) for 3 seconds.
LCD remote have stopped playing ringtones.	Low battery power. Please, replace the battery (page 33).
Cannot disarm the system using a remote.	Use additional remote or disarm using a phone command (0*). Contact the car service that was installing the system.
LCD remote is vibrating constantly.	Low battery power. Please, replace the battery (page 33).
One minute after the ignition was switched off, "signal lost" ringtone plays and LED indicator starts flashing red.	The system reminds you that it is disarmed. Please, arm the system.
The alarm constantly goes off by the sensor data.	The sensitivity is too high. Lower sensor sensitivity (page 26).
System does not send text notifications.	1. Text message service center number is incorrect.     The system determines it automatically. However, it should be changed if changing mobile operator of the system.     Contact the car service that was installing the system.     2. Text messaging is blocked by the mobile operator. Contact your system's mobile operator.

Problem	Solution
The system cannot be reached when calling from supplementary owner's number.	When calling the system from any number, safe from main owner's number, guest PIN should be entered. Factory preset PIN is "1234". It can be changed in the settings.
The system cannot determine owner's number.	Some mobile providers use different country code prefixes (e.g. +44 or 0 for UK). Please use the correct prefixes that your mobile operator uses when programming the system.
The system cannot reach owner's supplementary number when alarm is triggered.	Owner's main number has voice mail turned on. Disable it for the system not to get stuck.

#### **Useful websites**

**www.alarmtrade.ru** - offcial Alarmtrade website on russian. View car alarm news, new models, access updates. English mirror is www.alarmtrade.com, italian - www.alarmtrade.it

www.manuals.alarmtrade.ru - Pandora and Pandect online manual database.

**www.p-on.ru** - Pandora online information service. Deatiled event history of your car. Convenient way to change setting of the system.

**www.alarmforum.ru** - Online technical message board for Pandora installers and users. Recieve fast expert support from the Pandora community.

**<u>support@alarmtrade.ru</u>** - Offcial Alarmtrade support email.

www.alarmtrade.ru/gas/ - Alarmtrade offcial warranty service centers.

#### **Pandora**

#### **Buzzer sounds and winkers light signals**

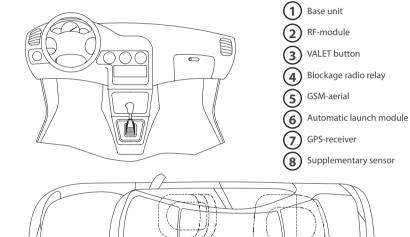
Signal name	Signal description
Alarm mode	Incessant sound and light signals for 30 seconds
Panic mode	Incessant sound and light signals for 30 seconds
Arming	1 sound and 1 light signal
Disarming	2 sounds and 2 light signals
Sensors triggered signal when disarming	4 sounds and 4 light signals
Sensor malfunction signal when arming	4 sounds and 4 light signals
Sensor warning level triggered	3 sounds and 1 light signals
Disabling warning level of the shock sensor	1 sound and 1 light signal
Car search	5 sounds and 5 light signals

#### Meaning of the 3-colored status indicator lights

Indicator status	Meaning
Short red flashes	The system is armed or tag is not in radio range
Lit red	The system is preparing for automatic arming
Lit red	Immobilizer mode on
Orange flash	Confirms VALET button presses
Orange flashes	Confirms a number of recorded remotes (when switching on ignition)
Green flashes	System is armed, tag is in radio range
Lit green	Maintenance (valet) mode ON (when ignition is switched on)
Red and green flashes	PIN code confirmed, immobilizer mode disabled
Faded	The system is disarmed
Frequent red flashes	CAN-bus error

#### System's modules layout

Ask the installer to mark system's modules on the picture provided. This information can be important for diagnostics in case system malfunctions.



#### Installation certificate

l, the undersigned	
	Position, name
	on of the service-security system, described below was als and schemes provided by the manufacturer.
Car specifications:	
Car model	
Туре	
ID number (VIN)	
Registration number	
Security system specifications:	
Model Pandora DXL 3970	
Serial number	
Service center name, full address and ins	staller's stamp
Signature/_	Signator
Work accepted/	Signator/
Date ""	Signator V
Date20_	y

#### **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 and user manuals.

The system should only be installed by the professional installers in service centers. The installer must 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.

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

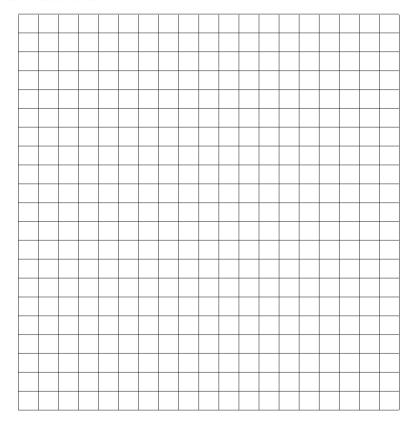
- · when warranty period expires;
- if exploitation, installation, storage or transportation conditions were not met;
- if there is mechanical damage it the external parts of the system after it is sold. This includes: fire damage, consequential damage in case of car accident, aggressive liquids and water seeping damage, damage caused by improper use;
  - if the damage was caused with incorrect settings and parameter adjustment;
  - $\bullet \text{ if system devices are replaced with any devices that are not recommended by the manufacturer; } \\$
  - · if manufacturer sealing is broken;
  - if there is no properly filled warranty card and installation certificate.

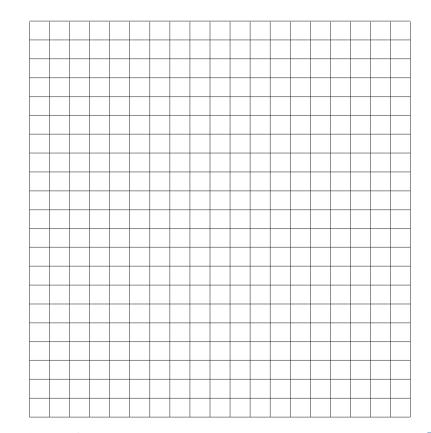
Warranty period is 3 years since the moment of purchase, but no more than 3,5 (three and a half) years since the moment of production.

This warranty does not include batteries of the remotes, as they have their own service life time.

Maintenance and repairs of the system with expired warranty period is carried out at the expense of the user on a separate contracts between the user and the installer/service center.

ATTENTION! It is recommended to demand filling in of installation certificate and warranty card by the installer as these documents may be needed when contacting support.





#### **Acceptance certificate**

Pandora DXL 3970 meets the requirements of technical condition act "TV 4372-006-55684712-2012" and is certified for use.

	Serial number
	Date of production
	Responsible person's signature
	(stamp)
	Packager Signature (personal stamp)
-	Warranty card
	Model Pandora DXL 3970
	Serial number
	Serial number           Date of purchase ""
	Date of purchase "" 20y