Pandora would like to thank you for choosing our telemetry security-service microsystem Primo FD

Pandora Primo FD (hereinafter referred to as the System) is a car service-security microsystem built for cars with on-board voltage of 12V. It is a complex engineering solution, which includes unique and modern technological software and hardware solutions.

While developing the Pandora Primo FD we were using the most up-to-date electronics from world's best manufacturers. The Pandora Primo FD is built using high-precision mounting and control machinery, thus we guarantee the highest possible quality, reliability and stable technical characteristics for the whole operation period.

The system has a cryptographically strong authorization code with unique dialog algorithm and individual encryption key on every device. It guarantees protection from electronic hacking for the whole operation period.

The system is built for your convenience: it's ergonomic, reliable, has the highest security and service characteristics, 3 years unconditional warranty and free service and support. We are happy to provide any support we can – feel free to use our online support.

This device has limited external factors resistance. It should not be subjected to water beyond occasional splatter, or operated in temperatures outside -40°C to +85°C range. All system components must be installed only in a car interior. The base unit, remote control and radio tags fulfil with the IP40 category of protection against water.

Our web-site: pandorainfo.com
Customer support: support@pandorainfo.com

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

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GENERAL INFORMATION

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The manufacturer reserves the right to change the system set and construction of the product to improve its technological and operational parameters without a notification.

Read before using

Carefully read this manual before starting installation and using the security-service system. Pay attention to text marked with !

! The security system is a complex technical product. System installation and configuration must be carried out only by a skilled professional.

! Features and system modes, control of the vehicles zones depend on the type of connection and system settings, original vehicle operation logic and trim.

! The system set includes the "Owner's personal card", which contains unique information intended exclusively for the owner of the system.
To safeguard the confidentiality of this information, the owner's card is placed within a protective envelope or its contents are concealed under a protective sticker or coating. We strongly advise that you uphold the integrity of the protective envelope. The security PIN must remain covered with a sticker or protective coating following the completion of the system installation. Should there be any breach of confidentiality, the re-installation of the system shall be conducted at the expense of the individual responsible for the installation.

! When system installation is finished:
• Check the system operation and functions with a specialist.
• We recommend that you mark each working function with a sign ☑ in the "Control the system" section
• Check that the "Installation certificate" and "Warranty card" are filled out. These documents may be required for contacting the customer support.
• Ask an installer to mark the layout of the system components on the diagram. This information may be required for diagnostic/configuring or emergency deactivation of the system.
• We recommend that you change the default value of the PIN-codes of the system. You can write down the changed PIN-codes in the "PIN-codes of the system" section.

PIN-codes of the system

The “Secret PIN-code”
(is written on the “Owner’s personal card”)
The “Service PIN-code”
(default value is 1-1-1-1)
The “Guest PIN-code”
(default value is 1-2-3-4)
The “Immobiliser PIN-code”
(is used for the Validator (pin-to-drive) function)
The “Beach mode PIN-code”
(is used for Beach mode function)

CANNOT BE CHANGED

- - - -
- - - -
- - - -
- - - -

! It is recommended that you will write down the changed or created values of all PIN-codes. Eliminate third-party access to this information.

Owner’s personal card

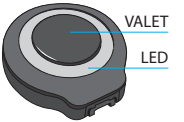
! When opening the envelope or removing the protective sticker or coating, do not use any sharp objects, as this may damage the unique information on the individual card. Unique information cannot be restored or changed, so we strongly recommend that you avoid allowing third parties access to the card, as well as preventing loss or damage to the card.

The Owner’s personal card Individual is a plastic card containing private unique system information.

PIN – (the “Secret PIN-code”) is a 4-digit number. This code can be used to disarm the system and to deactivate immobiliser functions and to activate Service mode. It can be also used to enter programming mode.

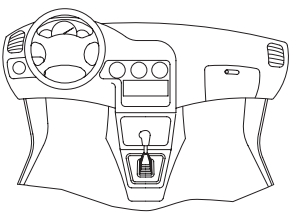
External VALET button

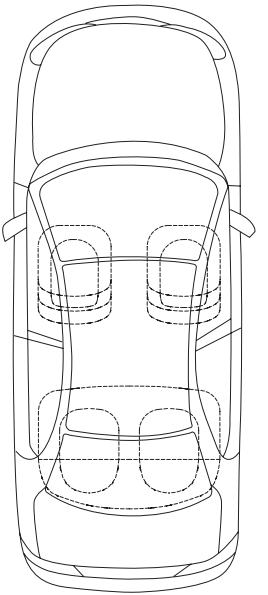
An external VALET button with a two-color status LED indicator is placed inside a vehicle (see the "System modules layout" section).
The button is used for programming the system, arming/disarming, activating/deactivating immobiliser modes.



System modules layout

1. External VALET button (VALET button via CAN)
2. Button for the Immobiliser PIN-code
3. Button for Beach mode PIN-code
4. Circuit being blocked
5. Base unit
6. Beeper
7.
8.





Base unit

Built-in 2.4GHz radio channel, Bluetooth 5.4 protocol (BT 5.4) supports up to 14 additional Bluetooth devices (see "Additional devices"), including a mobile phone.

Built-in 3D accelerometer – is used to detect shock/motion/tilt including 2 separate zones of shock sensor (alarm and warning), the system allows to adjust sensitivity of each zone, to use data from the accelerometer to block the engine and close the central lock on movement.

Temperature sensor - determination of temperature readings by zones: interior, internal sensor of the base unit, engine - external temperature sensor (see "System set"), and environment, digital transport protocol*. System settings allow for the reassignment of sensors to the required zones and the use of temperature readings from external peripheral devices (PS-331BT, RHM-03V); it implements the functions of automatic engine starting and preheating based on temperature readings.

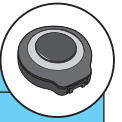
Built-in digital 2xFD-CAN/LIN* – allows the system to read statuses and execute commands via digital buses and work with Webasto Thermo Top Evo and Eberspacher Hydronic 1/2/3.

Keyless bypass of the original immobiliser* – hardware and software algorithms with the special server allow the system to bypass original immobilisers for automatic and remote engine starts.

Built-in USB port – update and configuration of the system using a specific services Pandora Specialist.

* Detailed information about support is available on the website specialist.alarmtrade.ru, in the 'Vehicles' section.Information signals of the system

Information signals of the system



LED INDICATOR SIGNALS	
SIGNALS	DESCRIPTION
THE SYSTEM IS ARMED	
Short red flashes	System is armed (an authorization device is out of its coverage zone)
Short green flashes	System is armed (an authorization device is in the coverage zone)
Fast red flashes	Alarm
THE SYSTEM IS DISARMED	
Lights red	System in delayed arming mode/re-arming/ auto-arming
Lights green (when ignition is on)	System is in Service mode
Synchronized red and green flashes (when the ignition is turned on)	Confirms the number of paired control devices (remotes, Bluetooth remotes)
Green short flash (when switching on the ignition)	Confirms the number of paired radio tags
Red long flash (when switching on the ignition)	Confirms a paired mobile device
WHEN ENTERING THE "SECRET PIN-CODE" OR THE "SERVICE PIN-CODE"	
Synchronized red and green flashes	Confirms a button press
Red short flash	Confirms a digit input PIN-code is incorrect
Red and green flashes	Confirms correct PIN-code

SIREN / LIGHT SIGNALIZATION	
SIGNALS	DESCRIPTION
1x/1x	Arming
2x/2x	Disarming
5x/5x	Car search
30 sec./30 sec.	Alarm, PANIC mode
3x	Remote/automatic engine start procedure indication
3x/1x	Warning level of a sensor is triggered
4x/4x	‘Sensors were triggered’ signal when disarming / Parking light is not turned off notification / ‘Sensors are triggered” signal when arming
25 sec./25 sec.	Engine blocking warning in Anti-Hi-Jack mode

BEEPER SOUND SIGNALS	
SINGNAL	DESCRIPTION
1 sound signal	Activating Service mode
2 sound signals	Deactivating Service mode
1 sound signal	Correct input of the “Immobiliser PIN-code”
3 sound signals/3 times	A battery in a radio tag is discharged (when turning on the ignition)
4 sound signals/4 times	Absence of an authorization device when you switch on ignition
Fast sound signals	Engine blocking warning

SYSTEM FUNCTIONS AND MODES

Security mode

The system confirms arming with **1x**  **sound** and **1x**  **light** signals. When the system is armed, the system monitors security zones with separated warning and alarm level of triggering:

- Warning mode - this mode activates when there is a slight impact on the shock sensor or additional sensor. It is accompanied with **1x** **light** and **3x** **sound** signals;
- Alarm mode - this mode activates when a sensor or one of the security zones is triggered. It is **30 sec.** **light** and **30 sec.** **sound** signals. The alarm signals can be cancelled by an arming or disarming command.

If one of the security zones is triggered the system:

- records this event in its non-volatile memory;
- activates the alarm or warning mode;
- informs an owner by all available means;
- blocks the engine (in accordance with the settings and connections).

If one of the security zones is opened at the moment of arming, the system will produce **4x** **sound** and **4x** **light** warning signals.

If one of the security zones fails, the system will forcibly turn off this zone. If a switch triggers more than 9 times in a row, it will be disabled until the next arming. The shock/tilt/motion sensor is temporarily deactivated (15 sec.) if it has been triggered more than 3 times in a row.

The system confirms disarming with **2x** **sound** and **2x** **light** signals. The system deactivate engine blocking (if the immobiliser function and additional blocking are not used). If there were alarm events during the armed period, the system will produce **4x** **sound** and **4x** **light** warning signals. The system continues to display all zones when it is disarmed, but the information is not saved in the memory.

FOR EMERGENCY DISARMING SEE «CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY».

Security zones

- Interior temperature (status)
- Engine temperature (status)
- Outside temperature (status)*/**
- Voltage of the on-board circuits (status)
- Engine operation control - RPM (status)
- Heater operating control (status)
- Fuel level (status)
- Parking (automatic gearbox) /Handbrake (manual gearbox) status
- "Parking light is not turned off" notification (status)
- Shock sensor (security zone – alarm and warning level)
- Motion sensor (security zone – alarm level)
- Tilt sensor (security zone – alarm level)
- OE alarm system status*, additional sensor** (status, security zone – alarm and warning level)
- Turning ignition on (status, security zone – alarm level)
- Opening doors (status, security zone – alarm level)
- Opening a trunk (status, security zone – alarm level)
- Opening a hood (status, security zone – alarm level)
- Pressing brake (status, security zone – alarm level)

* Option available by digital buses of the vehicle.
(See website specialist.alarmtrade.ru, in the 'Vehicles' section).
** Option (see "Additional devices").

Remote and automatic engine starts (OPTION)

The system allows the remote engine start using the "remote engine start" command from a remote control, mobile application or preconfigured automatic engine start function. Remote start can be used to heat engine and interior, charge battery or to cool the interior with air conditioning.

Remote and automatic starts can only be used when the system is armed. While the system is in remote or automatic start mode, it keeps performing all security functions of all of the security zones excluding a shock sensor and an additional sensor (the system can be configured to not disable the shock sensor during a remote engine start).

To compensate it, the motion sensor sensitivity and responsiveness will be increased. If any security zone will be triggered, the engine will be immediately stopped and alarm mode will be triggered.

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

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

If a car has manual transmission, remote or automatic start will only occur if the program neutral procedure was followed when the car was arming.

AN EXAMPLE OF THE PROGRAM NEUTRAL PROCEDURE

1. When the engine is running, fixate the car with the handbrake and put gear lever to the neutral position. Program neutral procedure will be switched on automatically (by default system settings).
2. Turn the key in the ignition lock to the OFF position (the engine should still be running) and take it out of the lock (skip this step for cars with a Start/Stop button).
3. Leave the car, close the doors.
4. Arm the system - the engine will be stopped. Now the system is ready to perform remote and automatic engine start.

Automatic starts

The system allows configuring automatic engine start and stop conditions. Automatic starts can be configured using mobile application. The following conditions can be specified for automatic engine starts: schedule, time period, engine temperature, voltage. The engine will be stopped automatically after specified time or when the engine temperature reaches a specified value. The engine can be also stopped by a user command.

! Automatic engine starts and stops by temperature are available only if engine temperature data is available in digital buses of the car, or if an external engine temperature sensor is connected.

Remote and automatic engine starts are not available if the hood is open.

After a series of three unsuccessful attempts of automatic start, all following automatic starts will be cancelled until disarming/arming (this does not affect on remote engine start).

Slave mode

This mode allows arming and disarming using original vehicle control – an original key, button/sensor of a keyless access entry system.

This mode is disabled by default - configuration of the system should be made by a qualified technician. It is recommended to activate the "Prohibit disarming when a tag is absent" to increase security features of the SLAVE mode. If this mode is activated, it will be possible to disarm the system only when an authorization device is in the coverage zone or using the "Immobiliser PIN-code" (see "Code Immobiliser" (pin-to-drive) function).

Owner authorization devices and modes

Authorization devices
Authorization devices are Bluetooth devices paired with the system (radio tags, Bluetooth remotes, mobile phone with the app). The devices are used to recognize an owner in the radio coverage zone of the base unit to arm/disarm the system (Hands-free mode) and to implement Immobiliser or Anti-Hi-Jack functions.

To use a smartphone, remote control, watch, bracelet as an authorization device, you need to make additional system settings - configuration of the system should be made by a qualified technician. Install the beeper if you use authorization devices.

Hands-free mode
This mode is used for automatic arming/disarming when an owner with an authorization device is distancing or approaching a vehicle.

This mode is disabled by default. The configuration should be made by a qualified technician.

Immobiliser mode
This mode is used to recognize an owner using authorization devices when the system is disarmed.
When turning on the ignition, the base unit performs a search for authorization devices in the radio coverage zone. If there is no any authorization device in

the radio coverage zone, the system will block the engine. Engine blocking will occur immediately or at the time a motion sensor detects movement, it depends on the system settings. When an authorization device appears in the coverage zone, the system will exit blocking mode and will continue to work in normal mode.

! This mode is enabled by default. Its operation depends on the method of connection and system configuration.
For emergency disarming see «CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY».

ANTI-HI-JACK-1/2 modes

The Anti-Hi-Jack modes help to prevent aggressive seizure of a vehicle in case of disappearance of authorization devices from the radio coverage zone when system is disarmed.

ANTI-HI-JACK-1 mode – The base unit checks if an authorization device is in the radio coverage zone each time when ignition is on and a door is opened/closed.

ANTI-HI-JACK-2 mode – The base unit constantly checks if an authorization device is in the radio coverage zone when ignition is on.

If the system cannot detect an authorization device, the base unit will perform a delayed engine blocking. The siren will play the 'Engine blocking warning' ringtone before blocking. The engine will be blocked immediately or at the time the car starts moving, it depends on the system settings. When an authorization device appears in the coverage zone, the system will exit blocking mode and will continue to work in normal mode.

! This mode is disabled by default - configuration of the system should be made by a qualified technician.For emergency disarming see «CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY».

Code Immobiliser (pin-to-drive) function

This function allows to use the pre-programmed «Immobiliser PIN-code» to disable the engine blocking, Service mode, disarming the security system. The code must be entered using factory vehicle controls (buttons/lever/pedal) and/or additionally installed elements.

In case of emergency, it is possible to disable Code immobiliser by methods, described in «Control over the system in case of emergency».

AN EXAMPLE OF USING THE FUNCTION

- Turn on the ignition to disable engine blocking or Service mode, turning on the ignition is not required if you want to disarm the system or control time channels.
- Enter the «Immobiliser PIN-code», code can consist max of 4 digits from 1 to 9:

- Press the pre-programmed button/lever/pedal the number of times equals to the first digit.
- Pauses between presses should not exceed 1 second. More than 1 second pause will be interpreted as the start of the next digit input.

- The system will confirm the correct input by a sound signal of the beeper and will activate a programmed action.

! This mode is disabled by default – configuration of the system should be made by a qualified technician.
For emergency disarming see «CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY»

Beach mode

This mode allows to use the pre-programmed «Beach mode PIN-code» for system arming/disarming. The code must be entered using factory vehicle controls (buttons/sensors) or additionally installed element.

AN EXAMPLE OF USING BEACH MODE

- Press the factory or additionally installed element until the single light flash, thereafter start to enter «Beach mode PIN-code».
- Enter the «Beach mode PIN-code», code can consist max of 4 digits from 1 to 9:

- Press the control element the number of times equals to the first digit.
- Pauses between presses should not exceed 1 second.
- More than 1 second pause will be interpreted as the start of the next digit input.

- After the correct input the system will confirm arming/disarming by the sound and light signals.

THIS MODE IS DISABLED BY DEFAULT – CONFIGURATION OF THE SYSTEM SHOULD BE MADE BY A QUALIFIED TECHNICIAN.
FOR EMERGENCY DISARMING SEE «CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY»

Checking the number of paired devices

The number of recorded control devices can be checked by the number of flashes of the indicator
on the external VALET button or on the base unit.
When the ignition is switched on each time in disarmed mode:

- Synchronized red and green flashes confirm the number of paired control devices (remote, remote tag, watches, band;
- The green short flash will indicate the number of radio tags;
- The red long flash will indicate a paired mobile device.

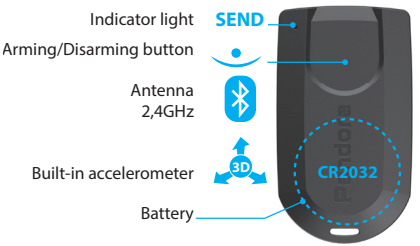
The number of registered devices can also be checked by counting the number of siren signals that can be activated by removing and reinserting the battery terminal (if the vehicle has this capability).

IMMOBILISER RADIO TAG

A radio tag is a device used to control a vehicle/system on a distance of a Bluetooth connection. Control using a radio tag can be carried out in the following ways:

Remotely - with the control button (see «Radio tag button assignments»).

Automatically - when approaching or moving away from the system in Immobiliser, anti-theft, and hands-free modes (see the description «Owner authorization devices and modes»).



FOR CORRECT OPERATION, IT IS NOT RECOMMENDED TO PLACE THE RADIO TAG NEAR THE METAL OBJECTS, MAGNETIC AND ELECTRONIC DEVICES (CREDIT CARDS, PHONES, KEYS, REMOTES, ETC.). DO NOT EXPOSE THE RADIO TAG WITH HIGH TEMPERATURES, MOISTURE, OR STRONG IMPACTS. IT IS RECOMMENDED TO PLACE THE RADIO TAG ON THE BELT IN AN INDIVIDUAL CASE OR IN THE FRONT POCKET OF CLOTHING.

Radio tag battery installation/replacement

Radio tag battery installation/replacement. The tag uses a CR2032 battery with a nominal voltage of 3V. The battery must be replaced if there is no light indication when pressing the radio tag button or if warning notifications are received from the system.

- Turn the battery compartment cover in the direction indicated by the arrow (Fig. 1).

- Remove the cover and take out the faulty battery using the niche marked with the arrow (Fig. 2).
- Observing the polarity, install a new battery (Fig. 2).
- When a good battery is installed, the SEND indicator light will flash three times in red.
- Replace and turn the cover in the direction indicated by the arrow (Fig. 3).

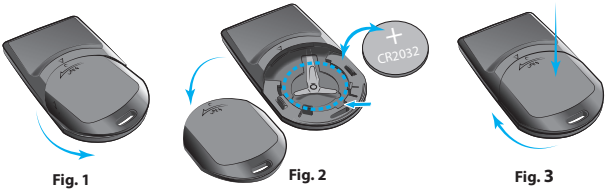


Fig. 1 Fig. 2 Fig. 3

Radio Tag Firmware update

- Open the mobile application «Pandora Specialist» (Android / IOS) -> log in -> go to the section
- «Advanced mounting» or «Quick installation». Press and hold the button of the radio tag until the 10th flash of the **SEND** indicator, then release the button.
- Establish a connection with the radio tag via the application and select one of the download options: 'Download firmware' (downloads the current software from the server) or 'File manager' (downloads previously downloaded software).
- Having selected the necessary option, start the download. The current version of the software is available on the website https://pandorainfo.com (section "support").

The current version of the software is available on the website https://pandorainfo.com (section "support").

Radio tag button assignments

PRESS	DESCRIPTION
 - short press (when ignition is off)	System arming/disarming
 - press and hold for 1 sec. (when engine is running)	Activation of «Ignition hold on» mode
 - press and hold for 3 sec. (when ignition is on)	Activating/deactivating Service mode
 - press and hold for 3 sec. (when ignition is on)	Pairing a tag with the base unit
 - press and hold for 10 sec.	Firmware update

Purpose of radio tag signals

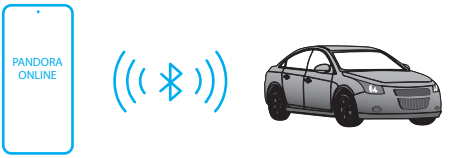
SIGNALS SEND – RED	DESCRIPTION
One red flash	Confirmation of button press Confirmation of arming mode Low battery level (during battery installation)
Two red flashes	Confirmation of arming mode disarming
Three red flashes	High battery level (during battery installation)
Not lit Continuously lit red	Battery is discharged (during battery installation, when pressing the button)

PANDORA ONLINE MOBILE APP

Pandora Online is a special mobile application for smartphones and tablets based on iOS and Android operating systems (hereinafter referred to as smartphone). The application is designed to operate the system when the smartphone is within the range of Bluetooth connection.

To operate the mobile application with the system it is necessary to perform the actions described below:

- install the application;
- write the smartphone to the system memory.



The **Pandora Online** mobile app is available for downloading from the corresponding app store:

App Store for iOS devices;

Google Play for Android devices.

Download on the App Store

GET IT ON Google Play

THE MANUFACTURER RESERVES THE RIGHT TO MAKE CHANGES TO THE DESIGN AND FUNCTIONALITY OF THE MOBILE APPLICATION WITHOUT NOTICE TO THE CONSUMER.

THE MOBILE APP COMPATIBILITY INFORMATION CAN BE FOUND IN THE APP SHOP.

To operate the system, use the buttons located in the control panel by pressing and holding the desired button until the scale is fully loaded (more than 2 seconds). A short press on the three-dot button gives access to additional buttons.

ASSIGNMENT OF THE CONTROL PANEL BUTTONS IS AVAILABLE IN THE APPLICATION SETTINGS – MENU "CONTROL BUTTONS".

Writing a mobile device to the system memory

When approaching the vehicle a mobile phone with the mobile application Pandora Online installed can work with the system via a Bluetooth connection. This type of connection allows you to control the system, receive status information and use your mobile phone as an authorization device. After installing the mobile application pair your mobile device with the system.

! The system supports Bluetooth connectionn only with one mobile device.

I. ENTER THE PROGRAMMING MODE

Use the VALET button to enter the «Service PIN-code» (default value is 1-1-1-1). See the detailed description of the procedure in the «Control over the system in case of emergency» section.

II. ENTER THE «PAIRING A MOBILE PHONE» PROGRAMMING LEVEL

After entering programming mode, press and hold the VALET button for 5 seconds (until the fifth signal of the siren/beeper). The system will enter the «Pairing a mobile phone» programming level. The LED indicator will light green, the system is ready for pairing.

! The previously paired device will be erased from the system memory after entering the level.

III. PAIR A MOBILE DEVICE

Enable the Bluetooth connection in the mobile device, enter the app settings, click «Bluetooth control», click «Not defined». In the search box, establish a connection with the detected system. The red and green flashes of the «LED» indicator light and a single siren sound will confirm the pairing.

! If there is no automatic pairing, enable the «PIN request for phone pairing» item in the «Radio tag and mobile device functions» settings and make the pairing procedure again. A mobile device will request a PIN-code (Default value is 0-0-1-1-1-1 where 4 last digits are the «Service PIN-code». This setting should be made by a qualified technician.

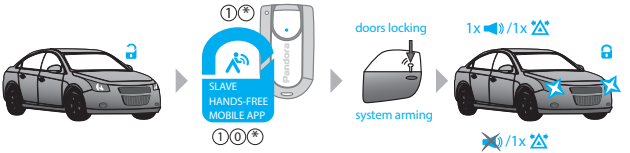
IV. EXIT PROGRAMMING MODE

Turn on the ignition and then turn off to exit programming mode.

CONTROL OVER THE SYSTEM

Arming

To arm the system when the ignition is off, use one of the methods described below. The system will confirm the command with 1x short sound signal and 1x flash of light signalization.



Radio tag
A radio tag must be in the Bluetooth coverage area. Shortly press the control button on the tag.

Slave mode
Shortly press the "Lock" button on an original remote control of a vehicle or use the sensor/button on the door handle (for cars with an intelligent access system).

Mobile application Pandora Online
Open the mobile application. When the system is online (there is Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded.

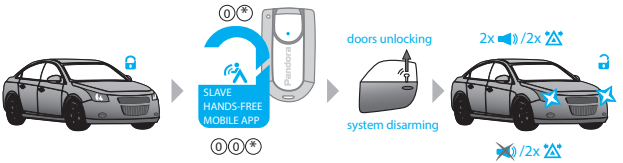
Hands-free mode
Move with an authorization device away from your vehicle.

VALET button
Press and hold the VALET button for 3 seconds. The system will be armed in 30 seconds. The LED indicator is lighting red during the countdown.

THERE IS AN OPTION IN THE SYSTEM SETTINGS THAT ALLOWS TO ARM THE SYSTEM WITH DISABLED SENSORS (SHOCK/TILT/MOTION AND ADDITIONAL SENSORS). THE CONFIGURATION SHOULD BE MADE BY A QUALIFIED TECHNICIAN.

Disarming

To disarm the system, use one of the methods described below. The system will confirm the command with 2 short sound signals 2x and 2 flashes of turn indicators 2x.



Radio tag
A radio tag must be in the Bluetooth coverage area. Shortly press the control button on the tag.

Slave mode
Shortly press the "Unlock" button on an original remote control of a vehicle or use the sensor/button on the door handle (for cars with an intelligent access system).

Mobile application Pandora Online
Open the mobile application. When the system is online (there is Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded.

Hands-free mode
Move towards the vehicle with an authorization device.

VALET button
Enter the "Secret PIN-code" (see the "Control over the system in case of emergency" section).

Unlocking the trunk

The system allows the trunk to be unlocked, regardless of whether the system is armed. If the system is armed when this action is performed, the trunk will be disarmed, and shock and supplementary sensors will be disabled. All other security zones will remain armed. If the trunk was not opened in 15 seconds after using «unlock trunk» command, the system will lock it again, enable sensors and arm trunk security zone. This will be indicated with 1 flash of turn signals 1x.
Use any of the following ways to unlock the trunk lock.

Slave mode
Shortly press the open trunk button on a factory remote control or use a sensor/button on a trunk door (for cars with an intelligent access system).

Mobile application Pandora Online
Open the mobile application. When the system is online (there is an Internet or Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded.

The assignment of the control panel buttons is available in the application settings – the "Control buttons" menu.

Locking/unlocking doors when ignition is on

The system allows you to lock and unlock doors when ignition is on. To do this, use one of the methods described below.

Radio tag
A radio tag must be in the Bluetooth coverage area. Shortly press the control button on the tag.

Automatic modes
There are automatic lock modes that will lock the doors:
- on switching on the ignition - the doors will be locked automatically 5 seconds after the ignition was switched on;
- at the car movement - the system will detect car moving or change of

parking brake position and perform doors locking (if speed status missing in a digital CAN-bus locking will be performed by motion sensor)

- on switching off the ignition - doors will be automatically unlocked when the ignition is switched off.

THIS MODE IS DISABLED BY DEFAULT. THE CONFIGURATION SHOULD BE MADE BY A QUALIFIED TECHNICIAN.

PANIC mode

If your vehicle or you are in danger and you want to draw attention to your vehicle, you can use PANIC mode. In this mode the siren will sound and turn signals will flash repeatedly for 30 seconds.

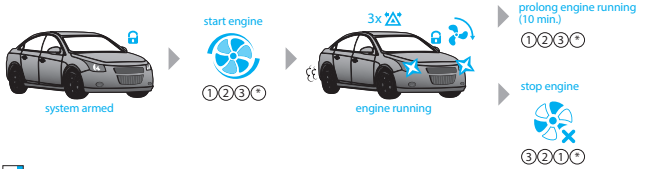
Mobile application Pandora Online

Open the mobile application. When the system is online (Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded.

To switch this function off press and hold the button on the control panel until the scale is fully loaded.

Remote engine start

If the system is ready for remote engine start, use one of the methods described below to start the engine, the system will confirm the command with 3x light signalization.



Starting with the standard remote control

To remotely start or stop the engine, press the 'Close' button of the original remote control three times within 5 seconds.

The function does not require additional configuration, information about support of this functionality 'Starting with the OEM key' is available at specialist.alarmtrade.ru, section «Vehicles».

Mobile application Pandora Online

- To start the engine, open the mobile application. When the system is online (Bluetooth connection) press and hold the START ENGINE button on the control panel until the scale is fully loaded. In a few seconds the engine will be started, it will be confirmed with the spinning pictogram.
  If you send an engine start extension command (press and hold the + **10 min** pictogram) during remote or automatic engine start, the engine running time will be extended by 10 minutes. This procedure can be repeated multiple times.
- To stop the engine remotely, press and hold the button.

Engine preheater

Use one of the methods described below for remote start of the engine preheater.

Remote control

To turn the pre-heater on or off, press button and hold it for 1 second.

Mobile application Pandora Online

Open the mobile application. When the system is online (Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded. If the control of the preheater operation function is implemented, the icon will be displayed for the entire duration of the preheater operation.

To change buttons layout or add new buttons on the control panel, go to "Settings" -> "Control buttons" menu of the application.

Automatic operation of the preheater

The settings of the mobile application and the Internet service allow the system to control the pre-heater automatically according to pre-set parameters. Control is performed before remote and automatic engine start (except for

voltage start), according to the following parameters: operating time, switching on when the engine sensor temperature drops, switching off when the engine sensor temperature is exceeded.

The preheater switching on and off by temperature is only possible when the engine temperature sensor is connected.
Special settings of the system can use engine preheater as additional heater for the engine and interior when outside temperature is low (less +50C). The configuration should be made by a qualified technician, the engine temperature sensor must be connected.

Service mode

It is recommended to switch the system to the maintenance mode when you take the vehicle to a workshop, to avoid difficulties during maintenance. When you switch to this mode, the system stops the operation of security functions, automatic and remote starts.

- **To activate Service mode, disarm the system, turn on the ignition, an authorization device (radio tag, remotes, watches, band) must be in the Bluetooth coverage zone, enter the «Immobiliser PIN-code» (if the «Code immobiliser» function is used) and use one of the methods described below. Confirmation of the executed command will be a constant green glow of the indicator on the external button when the ignition is on and a long sound notification from the "Beeper" indicator when the mode is turned on.**
- **To deactivate Service mode, use one of the methods below without any additional conditions (ignition, authorization devices, system modes). Confirmation of the executed command will be the extinguishing of the green glow of the indicator on the external button when the ignition is on and two long sound signals from the "Beeper" indicator when the mode is turned off.**

The system can automatically deactivate Service mode when vehicle starts driving (speed increases) and the owner authorization device (radio tag, Bluetooth remote control, watches or mobile device) is in the radio coverage zone.
This function does not require additional configurations. See detailed information about "Speed" function on the website specialist.alarmtrade.ru, in the 'Vehicles' section.

Radio tag

To activate/deactivate Service mode, press and hold the button on a radio tag for 3 seconds.

Mobile application Pandora Online

To activate/deactivate Service mode, open the mobile application. When the system is online (there is Bluetooth connection), press and hold the button on the control panel until the scale is fully loaded.

> To change buttons layout or add new buttons on the control panel, go to "Settings" -> "Control buttons" menu

Code immobiliser

- To activate Service mode, enter the "Immobiliser PIN-code" and press the Code immobiliser button 10 times within 20 seconds.
- To deactivate Service mode, turn on the ignition and enter the "Immobiliser PIN-code".

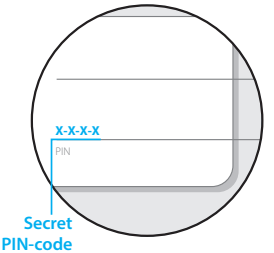
CONTROL OF THE SYSTEM IN CASE OF EMERGENCY

! Before using emergency system control, check the system and vehicle control devices: check a battery, turn on a device in accordance with its manual (if required).

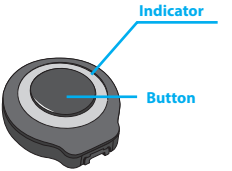
If all devices are working, try to make a primary vehicle diagnosis: check the vehicle original control device, vehicle battery charge level, gearbox selector position, check information on the dashboard.

The system has emergency ways to deactivate security and Anti-Hi-Jack functions (using the VALET button and the «Secret PIN-code») in case of loss or failure of control devices or in case of discharge of a battery (when you cannot replace it or charge).

- «Secret PIN-code» and phone number are located on the Owner's personal card



- The external Valet button and the external antenna are located inside the car, see section "System modules layout".



! FOR EMERGENCY CONTROL OVER THE SYSTEM, PLEASE REFER TO THE PROCEDURE FOR ENTERING THE PIN-CODE WITH THE EXTERNAL BUTTON

- **Enter the first digit •** Press the button the number of times equal to the first digit. Pauses between presses should not exceed 1 second. Each pressing will be confirmed with a green LED indicator flash. Wait for more than 1 second, one red flash of the LED indicator and one short sound signal of the Beeper will confirm the input of the first digit. Then you can enter the next digit.

- **Enter the second digit •** Press the button the number of times equal to the second digit. Pauses between presses should not exceed 1 second. Each pressing will be confirmed with a green LED indicator flash. Wait for more than 1 second, one red flash of the LED indicator and one short sound signal of the Beeper will confirm the input of the second digit. Then you can enter the next digit.

- **Enter the third digit •** Press the button the number of times equal to the third digit. Pauses between presses should not exceed 1 second. Each pressing will be confirmed with a green LED indicator flash. Wait for more than 1 second, one red flash of the LED indicator and one short sound signal of the Beeper will confirm the input of the third digit. Then you can enter the next digit.

- **Enter the fourth digit •** Press the button the number of times equal to the fourth digit. Pauses between presses should not exceed 1 second. Each pressing will be confirmed with a green LED indicator flash. The correct input will be confirmed with the series of green and red flashes of the LED indicator.

Emergency disarming/Beach mode deactivation

If the doors are locked, open the door with the original key. Not paying attention to the siren signals, make sure that the ignition is off and enter the «Secret PIN-code» (see the procedure description above) with the VALET button. If there are no siren sounds or LED flashes, check the battery. It is not possible to enter the «Secret PIN-code», if there is no power supply.

- The system will be disarmed in case of correct PIN-code input. It will be confirmed with the series of green and red flashes of the LED indicator, the series of sound signals of the beeper, 4 beeps of the siren and 4 signals of the light signalization (notification of the security zones triggered). Emergency disarming is equivalent to a normal method of disarming. No additional actions are required for further operation of the system.
- The system will stay in the previous state in case of incorrect input of the PIN-code. It will be indicated with a long red flash of the LED indicator and a short single sound of the beeper. New input can be attempted after 5 seconds.

EMERGENCY ARMING CONTROL IS EQUIVALENT TO THE STANDARD DISARMING OPERATION; THEREFORE, NO ADDITIONAL ACTIONS ARE REQUIRED FOR FURTHER OPERATION AFTER THE CONTROL DEVICES ARE RESTORED TO SERVICEABILITY.

Emergency Control of the Anti-Theft Functions

This section describes two options to deactivate the immobiliser modes:
- Immobiliser and Anti-Hi-jack: Use owner authorization devices (tags, remotes, watches, bands) to block the engine.
- Code Immobiliser: Use standard vehicle controls (buttons, levers, pedals) to enter the immobiliser PIN-code.

OPTION №1 – EMERGENCY DEACTIVATION OF ANTI-THEFT MODES

This option is used for temporarily deactivating the anti-theft modes. Deactivation is achieved by entering the «Secret PIN-code» with the external VALET button when the system is disarmed and the Service mode is disabled.
- To temporarily deactivate the Immobiliser and/or Code Immobiliser (pin-to-drive) functions, turn on the ignition when the system is disarmed and enter the «Secret PIN-code» from the owner's personal card using the VALET button. The Immobiliser and Code Immobiliser functions will be deactivated by the time the ignition is turned off.

OPTION №2 – EMERGENCY CONTROL OF ANTI-THEFT MODES

This method is used for the permanent deactivation of the anti-theft functions. Deactivation and activation are performed by entering the «Secret PIN-code» from the owner's personal card, using the external VALET button while the system is disarmed, the ignition is off, and the Service mode is disabled.

1. Enter the programming mode • By entering the «Secret PIN-code» (from the Owner's personal card) or the «Service PIN-code» (default value is 1-1-1-1).

2. To control the "Code immobiliser", first switch the system to programming mode, and then press the remote button thirteen times in a row (without pauses).

2. To control "Immobiliser / Anti-Hi-Jack", first switch the system to programming mode, and then press the remote button fifteen times in a row (without pauses).

3. To deactivate the function • The LED indicator will be green after entering the programming level. The system will wait 10 seconds for entering the «Secret PIN-code». If the PIN-code is not entered within 10 seconds or the input is incorrect, the system will return to the programming menu. Enter the «Secret PIN-code» that is written on the Owner's personal card. The system will confirm deactivating with a long red LED flash and two sound signals of the Siren. Turn on the ignition and then turn off to exit programming mode. The function will be deactivated.

4. To activate the function • The LED indicator will light red after entering the programming level. The system will wait for action. Press the VALET button once to activate the function. The system will confirm enabling with one short sound signal of the Siren and a green LED light. Turn on the ignition and then turn off to exit programming mode. The function will be activated.

ADDITIONAL DEVICES

Immobiliser radio tag BT-790 | BT-785 | BT-775 | BT-765 is a one-way short-distance communication device designed to control a security system. The tag can be used as an owner authorization device.

CONTROL COMMANDS Arming/Disarming | Service mode

OWNER AUTHORIZATION Immobiliser | Anti-Hi-Jack| Hands-free

Radio interface 2.4GHz (Bluetooth) | Control button | LED indicator | Motion sensor | CR 2032 battery

Bluetooth remote R-500BT | R-468BT is a one-way short-distance communication device designed to control a security system. The remote control can be used as an owner authorization device.

CONTROL COMMANDS

Arming/Disarming | Trunk | Remote engine start | Engine pre-heater

STATUSES Immobiliser | Anti-Hi-Jack | Hands-free

Radio interface 2.4GHz (Bluetooth) | Three control buttons | Sound indicator | LED indicator | CR2032 battery

The DMS-100BT door sensor is a wireless peripheral device designed to monitor the position and movement of a door. The device can be installed on a door leaf, trunk lid, trailer lid, hatch, or garage door.

Radio interface 2.4Gz (BLE 4.2) | Hall sensor | Movement sensor | Battery CR 123A | Protection level IP 40

Blocking radio relay BTR-101V - a wireless device designed to perform blocking engine blocking based or not based on car movement.

Radio interface 2.4GHz (BT5.0) | Built-in blocking relay (NC) | Motion sensor| Degree of Protection: IP54

Radio module RHM-03V - the peripheral device is designed to control and monitor the equipment in the engine compartment:

- Control of Hood lock, siren, engine blocking based or not based on car movement, digital control of engine pre-heaters Webasto Thermo Top Evo and Eberspacher Hydronic 1/2/3;
- Statuses of temperature, engine pre-heater, hood security zone.

Radio interface 2.4GHz (BT 5.0) | Built-in relay (NC) | Motion sensor | Hood switch input | External temperature sensor | Outputs: siren, hood lock | Control engine pre-heater (LIN) | Degree of Protection: IP65

PIEZOELECTRIC SIREN PS-331BT - the peripheral device is designed for sound notification and control of the engine compartment:

- controlling communication with the base unit;
- determining temperature and controlling the "Hood" security zone.

Sound Pressure, dBA: 105-118 | Radio interface 2.4GHz (BLE4.2) | Reassigned «Hood» Input | Assignable output | External temperature sensor | Degree of Protection: IP65

WARRANTY OBLIGATIONS

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

The system should only be used according to installation scheme and user manuals.

The system is meant to be installed by the professional car electronics installers. The installer should fill in installation certificate that is included in this manual.

Parts malfunctioning during warranty period on the fault of the manufacturer should be repaired or replaced by the installation center of the manufacturer or by certified service center. List of certified service centers can be found on pandorainfo.com

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

- when warranty period expires;
- if exploitation, installation, storage or transportation conditions were not met;
- if there is mechanical damage of the external parts of the system after it is sold.

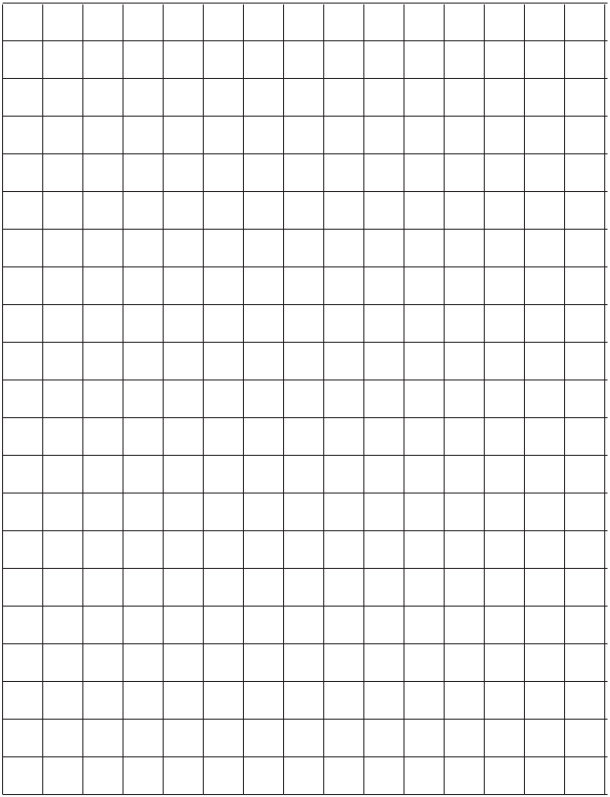
This includes: fire damage, consequential damage in case of car accident, aggressive liquids and water seeping damage, damage caused by improper use;

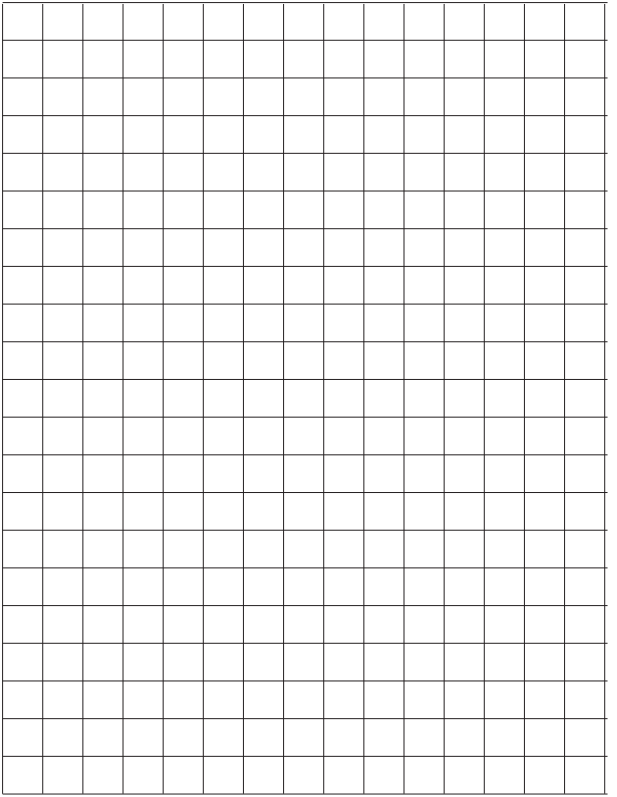
- if the damage was caused with incorrect settings and parameter adjustment;
- if system devices are replaced with any devices that are not recommended by the manufacturer;
- if manufacturer sealing is broken;
- if there is no properly filled warranty card and installation certificate.

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 lifetime.

Maintenances and repairs of the system with expired warranty period are carried out at the expense of the user on a separate contract between the user and the installer/service center.

! We recommend that you ask an installer to fill out the installation certificate and the warranty card. These documents may be required for contacting the customer support.





Installation certificate

I, the undersigned _____
Position, name
_____
professional installer, certify, installation of the service-security system, described below was carried out by me according to manuals and schemes provided by the manufacturer.

Car specifications:

Car model _____

Type _____

ID number (VIN)_____

Registration number_____

Security system specifications:

Model **Pandora Primo FD**

Serial number_____

Service center name, full address and installer's stamp_____

_____

_____

Signature_____/_____/
Signator
Work accepted_____/_____/
Signator

Date "____"_____20___y

Acceptance certificate

Pandora Primo FD is in conformity with Electromagnetic Compatibility Directive EMC 2004/108/EC and R&TTE Directive 1999/5/EC.

Serial number _____

Date of production _____

Responsible person's signature _____

(stamp)

Packager _____
Signature (personal stamp)

Warranty card

Model **Pandora Primo FD**

Serial number _____

Date of purchase «____» _____ 20____year

_____

Seller's (installer's) stamp

Seller's signature _____