Pandora

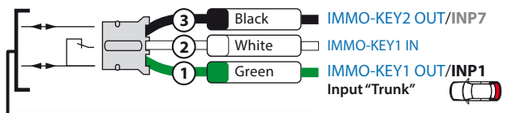
model: **Smart Pro v4**

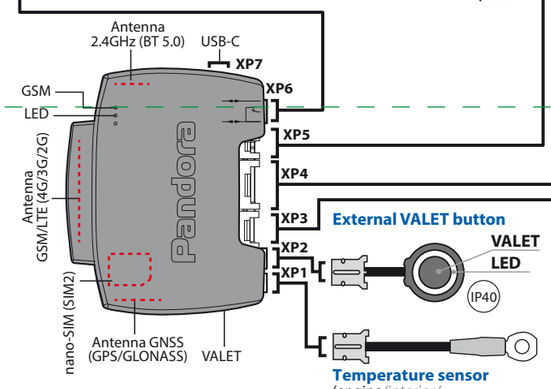
WIRING DIAGRAM

WARNING! Before installation: check the information in Pandora Specialist and on loader.pandorainfo.com; update firmware of the base unit before installation; configure digital buses.
WARNING! Do not shield the built-in antennas when installing the system and additional devices. Keep minimum distance of 20 mm between the modules and metal parts.
WARNING! Disconnect the power supply before installing/replacing a SIM-card.
WARNING! The security system is a maintenance-free device. In case of failure, you must immediately contact local specialized service center.

WARNING! The base unit and system elements must be installed in places with appropriate temperature, moisture and dust protection characteristics.
WARNING! All power circuits of additional devices that are not powered through the base unit of the system should have their own fuses.
IT IS FORBIDEN to install the system on a car with normal voltage other than 12V.
IT IS FORBIDEN to bypass original fuses of a security system in the installation process.
IT IS FORBIDEN to install the security system with damaged output cables.

In order to perform a keyless start using the IMMO-KEY port, it is necessary to free inputs INP1 and INP7 from any assigned logic (factory setting INP1 - input "Trunk").



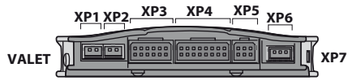


WARNING! The main unit is designed to operate at temperatures from -40°C to +85°C, the degree of protections is IP40.

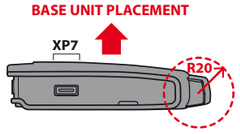
WARNING! Depending on the revision of the base unit, the location of the internal components may differ.

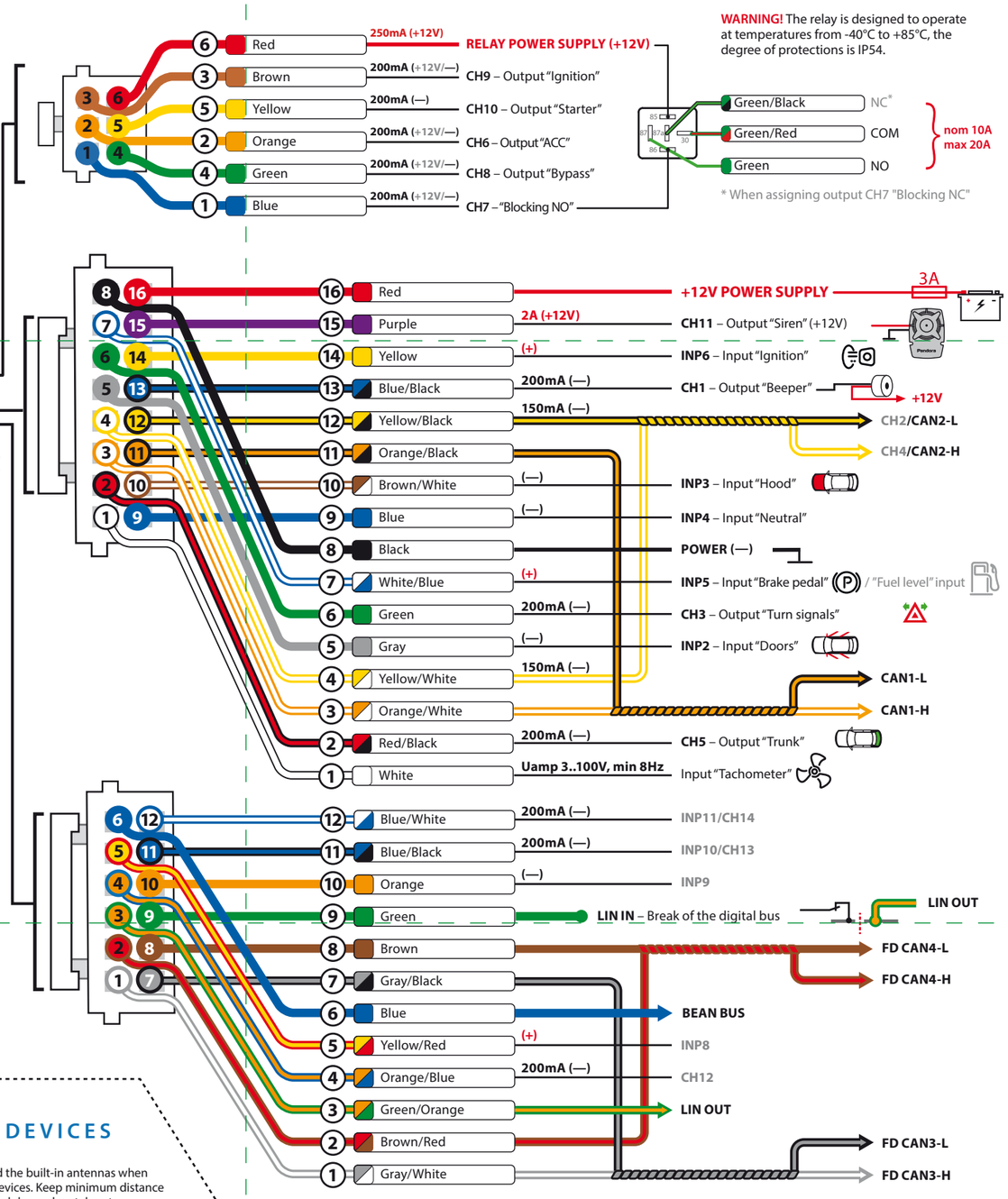
IT'S FORBIDDEN to install the temperature sensor at the place where temperature is higher than the operating range of the sensor (+125°C) and cable (+80°C).

WARNING! Do not shield the built-in antenna (Keep minimum distance of 20 mm from metal parts).



BASE UNIT PLACEMENT





PROGRAMMING TABLE

Function	VALET button		
	Level	Delete	Update
№0 – Entering a level	P2		
№2 – Changing the Service PIN-code	P3		
№3 – Recording the idle speed (rpm)	P4	H4	
№4 – Reset to the factory settings	H1→P1→P1	H3	H5
№10.1.1 – Pairing a BT-785 / BT-780 / BT-770 / BT-765 / BT-760(V)	H1→P1→P2	H3	H5
№10.1.2 – Pairing a BT-785 / BT-780 / BT-770 / BT-765 / BT-760(V)	H1→P1→P3	H3	H5
№10.1.3 – Pairing a BT-785 / BT-780 / BT-770 / BT-765 / BT-760(V)	H1→P2→P1	H3	H5*
№10.2.1 - Pairing a Watch2 / R-500BT* / R-468BT*	H1→P2→P2	H3	H5*
№10.2.2 - Pairing a Watch2 / R-500BT* / R-468BT*	H1→P2→P3	H3	H5*
№10.2.3 - Pairing a Watch2 / R-500BT* / R-468BT*	H1→P3→P1	H3	H5
№10.3.1 – Pairing a DMS-105BT / DMS-101BT / DMS-100BT ... №10.3.4 – Pairing a DMS-105BT / DMS-101BT / DMS-100BT	H1→P3→P4	H3	H5
№10.4.1 – Pairing a BTR-101V / BTR-101	H1→P4→P1	H3	H5
№10.4.2 – Pairing a BTR-101V / BTR-101	H1→P4→P2	H3	H5
№10.7 – Pairing a DI-04BT / BT-02 / BT-01	H1→P7	H3	H5
№10.8 – Pairing a Eye Pro (telemetry module)	H1→P8	H3	
№10.9 – Pairing a NAV-035BT (GPS-receiver)	H1→P9	H3	H5
№10.10 – Updating Bluetooth modem	H1→P10		
№10.11 – Pairing a RFM-470 (RF module)	H1→P11	H3	H5
№10.17.1 – Pairing a PIR-100BTM / PIR-100BT ... №10.17.4 – Pairing a PIR-100BTM / PIR-100BT	H1→P17→P1	H3	H5
№10.18.1 – Pairing a RHM-03V / PS-331BT / PS-332BT	H1→P18→P1	H3	H5
№10.18.2 – Pairing a RHM-03V / PS-331BT / PS-332BT	H1→P18→P2	H3	H5
№11 – Programming and configuring an "Immobiliser PIN-code"	H1•P1		
№13 – Emergency deactivating/activating Code immobiliser function (pin-to-drive)	H1•P3		
№15 – Emergency deactivating/activating authorization devices (Immobiliser, Anti-Hi-Jack)	H1•P5		
№17 – Programming bypass of an original Immobiliser	H1•P7		
№18 - Programming a "Beach mode PIN-code"	H1•P8		
№50 – Pairing a mobile phone	H5		
№100 – Exit the programming menu	H10		

Control by the VALET button (see the "Level №0 Entering a level" section)

P – press X times	H – hold for X sec.	→ – 1 sec. pause	• – without a pause

№50 Mobile application Pandora Specialist (Android/iOS)

Pandora Specialist – a mobile application for configuring the system using a smartphone or tablet on the Android or iOS operating platform.

Download on the App Store | GET IT ON Google Play

• Download/install the Pandora Specialist mobile application on your smartphone or tablet by scanning the QR code or going to the App Store for iOS devices, Google Play for Android devices.
• Start the application.
• Log in with a personal account.
• Connect your mobile device to the system via Bluetooth wireless connection or USB-OTG adapter (connection via adapter is only available for Android devices).

Bluetooth connection
• Enter the programming level №50 (press and hold the VALET button until 5 beeps of a siren/beeper).
• If the system is ready for recording the LED will light green.
• Open the Pandora Specialist app, go to the «Quick Installation» or «Advanced Mounting» menu.
• In the Bluetooth device search window, pair a mobile device with the found system.
• If the pairing was successful the LED will light red, the siren/beeper will beep once, the system will enter to programming level №0.

WARNING! After the settings were made delete the mobile device from the system memory by entering programming level №50.

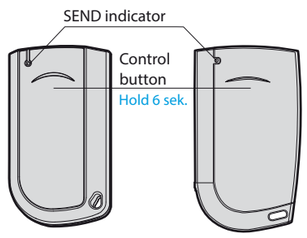
USB-OTG adapter (Android only)
Open the Pandora Specialist app for Android devices-> Connect the USB-OTG adapter to your smartphone or tablet, connect the USB cable to the system, connect the USB-OTG adapter to the USB cable -> Enter the «Service PIN» using the «VALET» button.

EXAMPLES OF PAIRING ADDITIONAL DEVICES

WARNING! All functions (pairing, removing, updating additional devices) are available in Pandora Specialist app.
WARNING! All additional devices included in the system set are paired with the system. The maximum number of paired Bluetooth devices must not exceed 14.

WARNING! Do not shield the built-in antennas when installing the additional devices. Keep minimum distance of 20 mm between the modules and metal parts.
***WARNING!** See the "Level №10 – Manage Bluetooth devices" section.

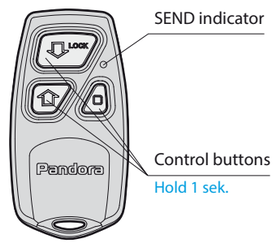
№10.1.1-3 Pairing radio tag BT-785 / BT-780 / BT-770 / BT-765 / BT-760(V)



• Enter the programing level №10.1.1…3.
• If the LED is green, the system is ready for pairing*.
• Press the control button on a tag and hold it for 6 seconds (6 flashes of the tag status indicator), release the button after the 6 flash of SEND.
• If pairing was successful, the LED will light red and the siren/beeper will sound a beep. The system will enter the programming level №0.

№10.2.1-3 Pairing a remote control R-500BT / R-468BT

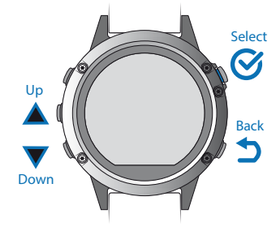
(not included with the system)



• Enter the programming level №10.2.1…3.
• If the LED is green, the system is ready for pairing*.
• Press three control buttons on a remote control for 1 second or until 1 red flash of SEND.
• If pairing was successful, the LED will light red and the siren/beeper will sound a beep. The system will enter the programming level №0.

№10.2.1-3 Pairing a Watch2

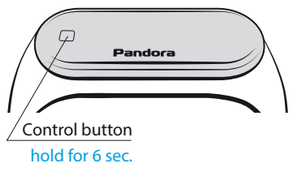
(not included with the system)



• Enter the programming level №10.2.1...3;
• If the LED is green, the system is ready for pairing*;
• Go to the MENU -> Settings -> Bluetooth -> Car -> Pair in the Watch2 menu and wait for pairing;
• If pairing was successful, the LED will be red, the siren/beeper will sound a beep. The system will enter the programming level №0.

№10.2.1-3 Pairing a Band

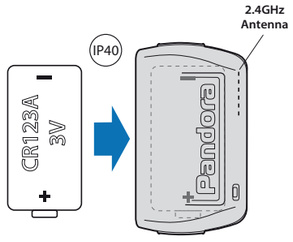
(not included with the system)



• Enter the programming level №10.2.1...3;
• If the LED is green, the system is ready for pairing*;
• Press and hold the control button on a Band for 6 sec. (the countdown will be displayed on a screen);
• If pairing was successful, the LED will be red, the siren/beeper will sound a beep. The system will enter the programming level №0.

№10.3.1-4 Pairing door sensor DMS-105BT / DMS-101BT / DMS-100BT

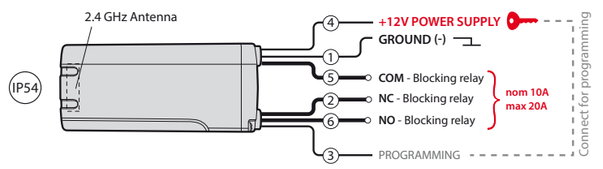
(not included with the system)



• Enter the programing level №10.3.1…4.
• If the LED is green, the system is ready for pairing*.
• Insert a battery into the sensor.
• If pairing was successful, the LED will light red and epy siren/beeper will sound a beep. The system will enter the programming level №0.

№10.4.1-2 Pairing a radio BTR-101V / BTR-101

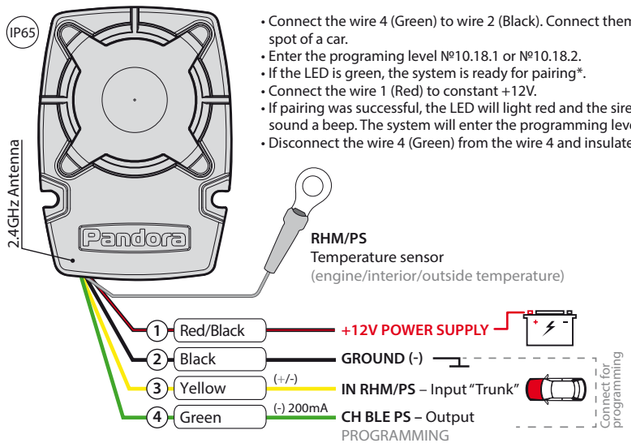
(not included with the system)



• Connect the wire 1 (GROUND) to a grounded spot of a car.
• Enter the programing level №10.4.1 or №10.4.2.
• If the LED is green, the system is ready for pairing*.
• Connect the wire 3 (PROGRAMMING) to wire 4 (+12V POWER SUPPLY). Connect them to +12V.
• If pairing was successful, the LED will light red and the siren/beeper will sound a beep. The system will enter the programming level №0.
• Disconnect the wire 3 (PROGRAMMING) from the wire 4 and insulate all unused wires. Connect the wire 4 to the ignition (+12V when ignition is on).

№10.18.1-2 Pairing a siren PS-331BT

(not included with the system)



• Connect the wire 4 (Green) to wire 2 (Black). Connect them to a grounded spot of a car.
• Enter the programing level №10.18.1 or №10.18.2.
• If the LED is green, the system is ready for pairing*.
• Connect the wire 1 (Red) to constant +12V.
• If pairing was successful, the LED will light red and the siren/beeper will sound a beep. The system will enter the programming level №0.
• Disconnect the wire 4 (Green) from the wire 4 and insulate all unused wires.

PROGRAMMING THE SYSTEM

System settings and parameters can be configured using the Pandora Specialist software. Some functions can be configured only by the programming menu of the system. It is required to put the system to programming mode to get access to the settings

Entering/Exiting programming mode

You can enter the programming mode only if the base unit is powered form a USB cable or the main power supply is connected, the ignition is off, the system is disarmed and Service mode is off. To enter programming mode, enter the "Service PIN-code" (default value is 1-1-1-1) using an external VALET button or the VALET button located on the base unit.

WARNING! When authorization devices (remotes, tags, etc.) are not paired with the system, you can enter programming menu by a single press of a VALET button without entering the "Service PIN-code".

NOTE! See the detailed description of PIN-code entering procedure in the "CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY" section of the user manual. If you don't have the "Service PIN-code", you can enter programming mode using the "Secret PIN-code" written on the "Owner's personal card".

WARNING! It is forbidden to damage the protective layer of the «Owner's personal card» - the information under the protective layer of the card is intended only for the owner of the system. When the owner complains about the erased protective layer, the system is reinstalled at the expense of the installer.

The system stops to execute commands when it is in programming mode. Therefore, exit programming mode after changing settings and parameters of the system.
To exit programming mode, use one of the following methods:
• Press and hold the VALET button for more than 10 seconds;
• Turn on and then turn off the ignition when a USB cable is disconnected and the main power supply of the system is connected;
• Disconnect the power supply (main and USB power supply).
The system will reboot programmatically (all changes will be saved) after exiting programming mode. All ways to exit programming mode are accompanied by sound signals of the siren and light signals of the LED indicator. The light signals indicate the number of paired control devices.

NOTE! See the "Checking the number of recorded remote controls/radio tags/mobile device" section of the user manual for detailed description.

PANDORA SPECIALIST (WINDOWS/MAC)

To configure the system using a Windows (x64) or MacOS based computer a special software Pandora Specialist is provided.
• Download the Pandora Specialist software (the current version of the program is available at specialist.alarmtrade.ru, download section - «Desktop Version»).
• Install and run the program.
• Log in with a personal account.
• Connect the system and personal computer with a USB cable.
• Enter the «Service PIN code» (factory code value is 1-1-1-1).

NOTE! It is recommended to update firmware of the base unit before installing and programming the system.

NOTE! If boot mode has been interrupted for some reason and the status indicator lights red, you need to load firmware using quick boot mode (without entering the PIN-code). Open the Pandora Specialist (Android, Windows, Mac), de-energize and disconnect the system, press and hold VALET button located on the base unit, release the button immediately after connecting the system and a computer via USB cable, the system will enter boot mode.

PROGRAMMING TABLE

NOTE! The programming table is printed on the side of this manual where the wiring diagram is shown.

Level №0 Entering a level

After entering programming mode, the system waits for level input – "Level №0 Entering a level". Enter a desired level using the VALET button (see the programming table) to change settings or parameters.
• To enter a level ("Level №1…№18"), press (**P**) the VALET button the number of times equals to the desired level number (**1…18**), pauses between presses should not exceed 1 second. The system will confirm correct input with red **LED** flashes and short sound signals of the siren/beeper and proceed to the desired level.
To enter a sublevel or a cell of sublevel make a pause for more than 1 second ➔, then press (**P**) the VALET button the number of times equals to the desired sublevel or cell number: "Level №10 ➔ (1sec.) "Sublevel 1…18" ➔ (1sec.) "Cell of sublevel **1…4**".

• For quick access to the higher level, press and hold (**H**) the VALET button. The siren will sound tone beeps (up to 10). These sounds mean the sequence number of a two-digit level number (the first signal – level №10, the fifth signal – level №50, the tenth signal – level №100). Release the VALET button immediately after the desired number of signals. To enter an intermediate level (Level №11…№18), press the VALET button the number of times equals to the second digit (**1…8**) of the desired level number immediately (•) after releasing the button. The system will confirm correct input with red **LED** flashes and short sound signals of the siren/beeper and proceed to the desired level.

Level №2 – Changing the Service PIN-code

NOTE! Prepare a new value of the "Service PIN-code", it should consist of 4 digits (from 1 to 9). Write down or remember the new PIN-code.

Enter the programming level №2.
• Enter the first digit of the code using the VALET button. Press the button the number of times equals to the first digit. Pauses between presses should not exceed 1 second, every pressing will confirm with a red and green LED indicator flashes. Pause for more than 1 second and a red LED indicator flash with a sound from the beeper confirms the input of the first digit. Then you can enter the next digit;
• Enter the other numbers in the same manner. The input of the fourth number will be confirmed by the series of red and green LED indicator flashes and the series of sound signals of the beeper. The system will wait for PIN-code re-entering;
• Enter all four digits again.
- If you correctly enter the "Service PIN-code" twice, the indicator will produce the series of red and green flashes and the beeper will produce the series of sounds, the new PIN-code will be recorded, the system will return to the programming level №0.
- In case of the incorrect code input the indicator will be lit red and the beeper will sound a long beep, the system will not change the code and will return to the programming level №0.

Level №3 – Recording the idle speed (rpm)

NOTE! To timely turn off the starter during automatic or remote engine start and the correct operation of the «Smart Turbo Timer», it is necessary to record the engine idle speed via digital or analog tachometer input.

Enter the programming level №3.
• Turn on the ignition and start the engine. Wait until the stable idle speed will be reached (the engine should be warmed-up, idle speed should match the stable idle speed of the warmed-up engine). The system will confirm the presence of the idle speed status with green flashes of LED indicator.
• Press the VALET button once to save idle speed. Successful recording of the idle speed will be confirmed with the series of red and green flashes of the LED indicator and the series of sound signals of the beeper. The system will exit programming menu and reboot after saving the idle speed.

Level №4 – Reset to the factory settings

NOTE! The procedure recovers the factory settings of the system without deleting previously registered devices (tags, mobile device, relays, etc.) that is stored in the non-volatile memory.

Enter the programming level №4.
• Press and hold the VALET button for more than 4 seconds. Release the button after a fourth sound of the siren/beeper. The system will confirm the resetting to the factory settings with a long red flash of the LED indicator. After that, the system will reset the settings to default and return to the programming level №0.

Level №10 – Manage Bluetooth devices

Level №10.10 Updating Bluetooth modem firmware

ATTENTION! All functions of this level are available in the Pandora Specialist app when using a Bluetooth connection.
For the management of the additional devices go to (Android): «Advanced mounting» -> Bluetooth -> «Pairing/unpairing devices».
For the firmware update of the additional devices go to (Android): «Advanced mounting» -> Bluetooth -> «System devices».
For the firmware update of the main unit go to (Android and iOS): «Advanced mounting» -> Bluetooth -> «Check firmware».

This level is used to pair/remove/update additional devices and to update Bluetooth modem of the system.
Each device is paired at a sublevel. To pair devices of the same type, a sublevel is divided into cells. To enter a sublevel or a cell of sublevel make a pause for more than 1 second (➔), then press (**P**) the VALET button the number of times equals to the desired sublevel or cell number: "Level №10 ➔ (1sec) "Sublevel **1…10**" ➔ (1sec) "Cell of sublevel **1…4**".
• **Pairing/Deleting an additional device**
Each sublevel or cell displays its current state by a color of the LED: green light means the system is ready for pairing, red light means a device has been already paired and it is required to delete it for pairing a new device. To delete a device, press and hold the VALET button for 3 seconds (3 sound signals of siren/beeper). The system will be in pairing mode for 1 minute. After a minute or immediately after pairing a device, the system will automatically enter the programming level №0.

NOTE! Examples of pairing Bluetooth devices are printed on the side of this manual where the wiring diagram is shown.

• **Updating firmware of the built-in Bluetooth modem/Updating firmware of an additional device**
Enter an appropriate sublevel or a cell of the PROGRAMMING TABLE and use the Pandora Specialist app to update firmware.
To update firmware of the built-in Bluetooth modem, enter the "Level № 10"" ➔ "Sublevel 10". To update firmware of an additional device, enter the "Level №10" ➔ "Sublevel" or "Cell" corresponding to an additional device. The LED will light red after entering. Press and hold (**H**) the VALET button for 6 seconds.

Open the Pandora Specialist, go to "Advanced mounting" or "Quick installation" -> Bluetooth screen and select the device and then select one of the update options:
"From archive" (iOS)/"Download firmware" (Android) – It allows you to upload firmware from a server.
"File manager" (Android) – This function is available only for Android devices. It allows you to upload firmware from phone storage.

Level №11/18 - Programming and configuring an "Immobiliser PIN-code"/"Beach mode PIN-code"

Prepare a new value of the "Immobiliser PIN-code"/"Beach mode PIN-code". Programming is divided into 3 sublevels

• **Selecting buttons**
Enter the level №11 to program "Immobiliser PIN-code" or the level №18 to program "Beach mode PIN-code". The system will wait for buttons pressing. Each pressing will be confirmed with a flash of the LED. The system can determine buttons via analogue inputs «Code Immobiliser 1» and «Code Immobiliser 2» or digital buses of the vehicle (more info in Pandora Specialist and on loader.pandorainfo.com).
You can turn on the ignition (the system will stay in programming mode). Some buttons are active only when ignition is on.
After selecting active buttons, press the VALET button to enter next sublevel.

• **Entering the PIN-code**
Program the deactivation PIN-code using the selected button or buttons on this sublevel. The code can consist of one or more memory cells, each memory cell can store a sequence of pressing each of the selected Immobiliser buttons.
The code is entered by pressing the selected buttons for at least 1 second. Each pressing is confirmed with a flash of the LED. A pause for more than 1 second and the red LED confirms the input for the current memory cell, you can start entering the next memory cell. After entering the code, press the VALET button to enter the next sublevel.

• **Conrimation of the PIN-code input**
Confirm the entered PIN-code on this sublevel. Repeat the procedure described above and press the VALET button. The system will compare two inputs after that.
If you correctly entered the code twice, the indicator will produce the series of red and green flashes and the siren will produce the series of sounds, the new code will be recorded, the system will return to the programming level №0.
In case of the incorrect code input the indicator will be lit red and the siren will sound a long beep, the system will not change the code and will return to the programming level №0.

Level №13/№15 – Emergency deactivating/activating authorization devices/functions

NOTE! See the detailed description in the "CONTROL OVER THE SYSTEM IN CASE OF EMERGENCY" section of the user manual.

To deactivate/activate "Code immobiliser function" (pin-to-drive), enter the programming level №13.
To deactivate/activate authorization devices (mobile phone, radio tags, Bluetooth remote control), enter the programming level №15.

• **Deactivating the function**
The LED indicator will light 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 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 the function with a long red LED flash, two sound signals of the siren and sound signals of the beeper.

• **Activating the function**
The LED indicator will light red and the beeper will emit a long sound signal after entering the programming level. The system will wait for an action. Press the VALET button once to activate the function. The system will confirm activating with a green LED flash and one short sound signal of the siren and beeper.

Level №17 – Programming bypass of an original immobiliser

Bypass learning procedure is performed on this level.

NOTE! See the detailed instruction in the installation manuals for cars.

Level №50 – Pairing a mobile phone

NOTE! See the detailed description in the "MOBILE APPLICATIONS" section of the user manual.

Level №100 – Exit the programming menu

NOTE! See the detailed description in the "MOBILE APPLICATIONS" section of the user manual.
To exit the programming menu, press and hold the VALET button for more than 10 seconds until the tenth sound signal of the Siren/Beeper or until a red flash of the LED. The system will exit programming mode and will reboot programmatically.

VOLTAGE CALIBRATION

To calibrate actual voltage value, use the Pandora Specialist (Android) mobile application:
• Go to the "Advanced mounting" -> "Bluetooth" -> Choose system -> "Advanced settings" -> "Main settings" -> "General settings" -> "Voltage calibration";
• Set the actual voltage value.

FUEL LEVEL CALIBRATION

WARNING! This procedure is available only for analogue connection of the fuel sensor.

Make a connection of the «Fuel level input» to an original fuel sensor. Enable the "Use INP (+) to control fuel level" setting in the "Advanced settings" ->"Inputs and outputs" -> " Fuel level control" .

Set at least two values of the fuel level using mobile application or by phone. For precise determination of the fuel level set all values (max 10).

Pandora Specialist (Android):
• Start the engine;
• Go to "Advanced mounting" -> "Bluetooth" -> Choose system -> "Fuel calibrating" -> "Calibrate fuel";
• Set the actual value of the fuel level sensor.

Mobile phone:
• Start the engine;
• Call the system phone number, wait for the answer, enter the DTMF command 424* "Calibrate fuel level", the system will confirm command (424* - command executed);
• Depending of the actual fuel level enter the DTMF command (see the values in the table), the system will conrm command (XXX* command executed);
• End call.

FUEL LEVEL CALIBRATION TABLE (424*)

DTMF command	Fuel level
0*	0%
10*	10%
20*	20%
25*	25%
30*	30%
40*	40%
50*	50%
60*	60%
70*	70%
80*	80%
90*	90%
100*	100%
88 *	Reset all calibration values

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