

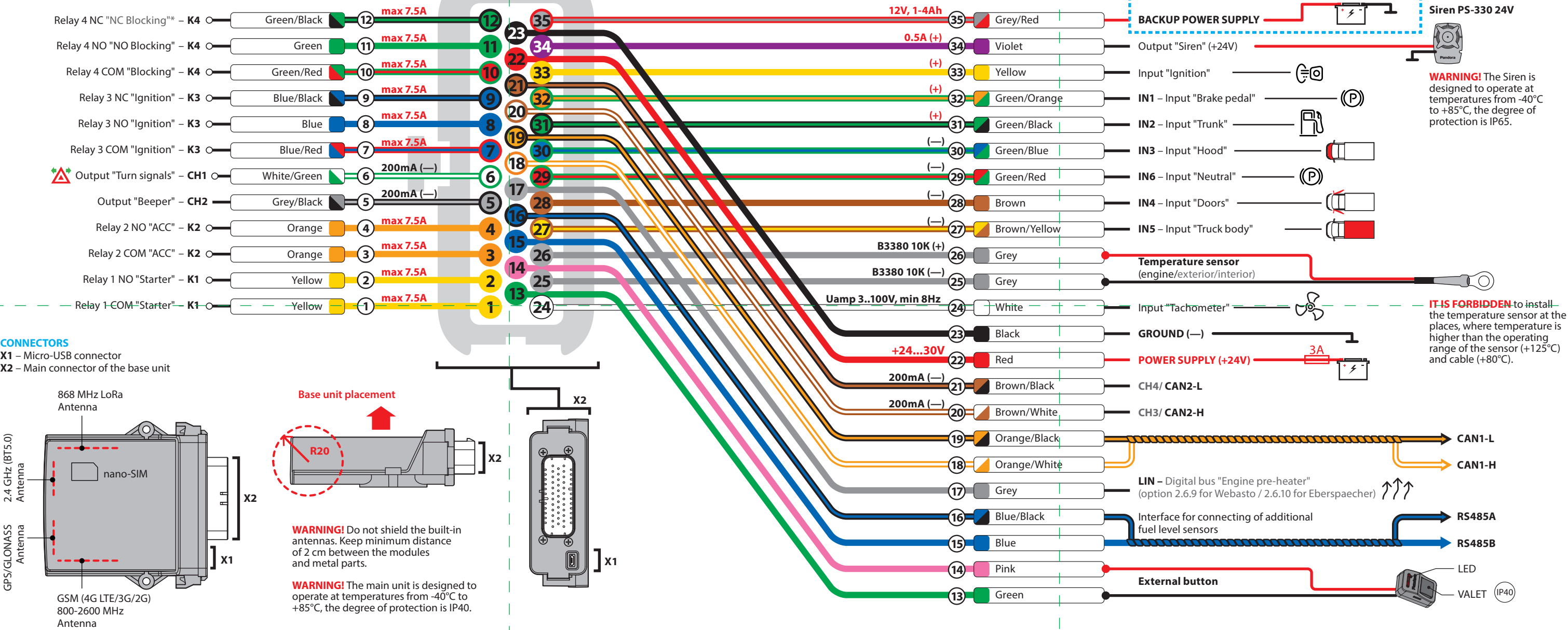
Pandora
TRUCK DXL 5200L v2
WIRING DIAGRAM

WARNING! Before starting the installation of the system: check installation recommendations on loader.pandorainfo.com, Pandra Specialist App, Pandora Alarm Studio; update firmware of the base unit; choose the vehicle model code, if the CAN-bus will be connected.
WARNING! The installation locations of the base unit and system elements must meet their temperature, dust- and moisture-protection characteristics (IP40 – interior, IP54 and higher – interior, engine compartment).

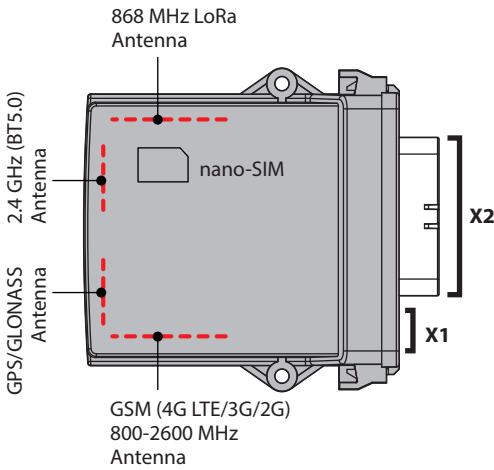
WARNING! All power circuits of additional devices that are not powered through the base unit of the system should have their own fuses.
WARNING! The system is a maintenance-free device. In case of failure you must immediately contact your local supplier.
WARNING! All additional devices included in the system set are paired with the base unit. The maximum number of paired Bluetooth devices must not exceed 14.

WARNING! Disconnect the power supply before installing/replacing a SIM-card.
IT IS FORBIDDEN to install the system on a vehicle with normal voltage other than 24V.
IT IS FORBIDDEN to install the system with damaged output cables.
IT IS FORBIDDEN to change or bypass original fuses of a system in the installation process.

*Set "NC Blocking" logic of the output in the settings to use normally connected blocking



CONNECTORS
X1 – Micro-USB connector
X2 – Main connector of the base unit



Base unit placement
WARNING! Do not shield the built-in antennas. Keep minimum distance of 2 cm between the modules and metal parts.
WARNING! The main unit is designed to operate at temperatures from -40°C to +85°C, the degree of protection is IP40.

WARNING! The Siren is designed to operate at temperatures from -40°C to +85°C, the degree of protection is IP65.

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

PAIRING THE ADDITIONAL DEVICES

WARNING! Pairing/deleting/updating of the additional devices is available in the mobile application Pandora Specialist for Android smartphones and tablets.

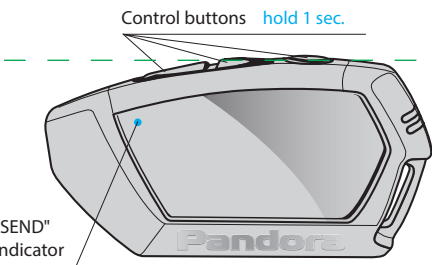
WARNING! Do not shield the built-in antennas when installing additional Bluetooth devices. Keep minimum distance of 2 cm between the modules and metal parts.

*NOTE! The green light of LED - memory cell is empty, system is ready for pairing. The red light of LED - memory cell is busy, delete the paired device by pressing and holding the VALET button for 3 sec.

or until 4 orange flashes of the system's LED and 3 sound signals of the siren/beeper.

№1 Pairing a remote control D-043T

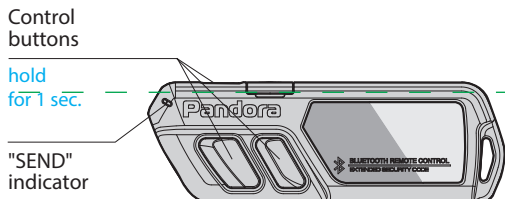
- Pairing of the remote controls (max. 4 pcs.) is made consequentially. The last remote control can be directly paired with the system by Bluetooth. To do this: before pairing the remotes, enable the "BLE-CHANNEL" function in the remote control and delete all devices from the level №10.2.1.
- Enter the programming level №1.
- If the LED is green and the siren/beeper sounded a beep, the system is ready for pairing. If the LED is red, level №10.2.1 is used by another device.
- Press and hold 3 buttons of a remote control (arm/disarm/F) simultaneously for 1 second (until a short beep or red flash of LED), then release the buttons.
- If pairing was successful, the siren/beeper will sound a beep.
- Pair the next remote controls (up to 4) consequentially. Press the VALET button to finish pairing.
- Finish pairing on the level №1: the siren/beeper will sound a beep; the system will enter the programming level №10.2.1 for pairing with the system by Bluetooth.



- Within 15 sec. the system will automatically search and pair a Bluetooth remote control. If Bluetooth remote is not found the system will enter the programming level №0.
- Finish pairing on the level №10.2.1: the remote control will sound 3 beeps, beeper will sound a beep, LED indicator will light red, the system will enter the programming level №0.

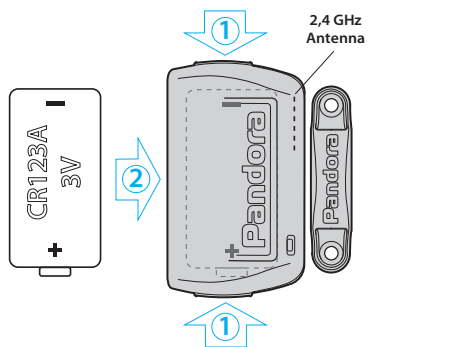
№10.2.1 - 3 Pairing a remote control D-030/D-035

- Enter the programming level №10.2.1...3.
- If the LED is green, the system is ready for pairing*.
- Press and hold 3 buttons of a remote control (arm/disarm/F) simultaneously for 1 second (until a short beep), then release the buttons.
- 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 a door sensor DMS-100BT

- Enter the programming level №10.3.1...4.
- If the LED is green, the system is ready for pairing*.
- Open the plastic case ① of the sensor carefully and insert a battery ② into the sensor.
- 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.



№50 Pairing a mobile device with Pandora Specialist App

- Enter the programming level №50 (press and hold VALET button until the fifth beep of the siren/beeper or the fifth orange flash of LED).
- If the LED is green, the system is ready for pairing.
- Open the Pandora Specialist app on the mobile device, go to the "Advanced mounting" -> "Bluetooth", connect with the found device.
- 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. After the settings were made delete the mobile device from the system memory by entering again the programming level №50.

Pandora Specialist application allows to configure the system from a smartphone or a tablet by Bluetooth connection or USB-OTG adapter. Scan the QR-code or go to the Google Play to download the application.

FOR ANDROID V6.1 AND HIGHER.



WARNING! Pandora Specialist application supports fast connection of the system with a mobile device by USB-OTG adapter. Connect the USB-OTG adapter to your mobile device -> connect the USB cable to the system -> connect the USB-OTG adapter with the USB cable -> enter the "Service PIN-code".

PROGRAMMING TABLE

FUNCTION	VALET BUTTON		
№0 – Entering a level	Level	Delete	Update
№1 – Pairing a remote control D043T (up to 4)	P1		
№2 – Programming the Service PIN-code	P2		
№3 – Recording the idle speed (rpm)	P3		
№4 – Reset to the factory settings	P4	H4	
№10.1.1 – Pairing a radio tag BT760 / BT770 / BT780	H1→P1→P1	H3	
№10.1.2 – Pairing a radio tag BT760 / BT770 / BT780	H1→P1→P2	H3	
№10.1.3 – Pairing a radio tag BT760 / BT770 / BT780	H1→P1→P3	H3	
№10.2.1 – Pairing a D030 / D035 / Band / Watch2	H1→P2→P1	H3	
№10.2.2 – Pairing a D030 / D035 / Band / Watch2	H1→P2→P2	H3	
№10.2.3 – Pairing a D030 / D035 / Band / Watch2	H1→P2→P3	H3	
№10.3.1 – Pairing a door sensor DMS100 BT	H1→P3→P1	H3	H5
№10.3.2 – Pairing a door sensor DMS100 BT	H1→P3→P2	H3	H5
№10.3.3 – Pairing a door sensor DMS100 BT	H1→P3→P3	H3	H5
№10.3.4 – Pairing a door sensor DMS100 BT	H1→P3→P4	H3	H5
№11 – Programming the 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 the Beach mode PIN-code	H1•P8		
№50 – Pairing a mobile device	H5		
№100 – Exit the programming menu	H10		
P – press X times H – hold for X sec. → – 1 sec. pause • – without a pause			

PROGRAMMING THE SYSTEM

System settings and parameters can be configured using the Pandora Alarm Studio program and the Pandora Specialist mobile application. 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 from 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.

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 the 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 paired devices” section of the user manual for detailed description.

Enter the programming level №2.

- Enter the first digit of a new “Service PIN-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 an orange LED indicator flash. 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 digits in the same manner. The input of the fourth digit 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 entered 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 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.

- In case of the incorrect code input the LED 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 №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 “Cod immobilizer function” (pin-to-drive), enter the programming level №13. To deactivate/activate authorization devices (mobile phone, radio tags, Bluetooth remote control, watches), 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 level №0. Enter the “Secret PIN-code” that is written on the “Owner’s personal card”. The system will confirm deactivating the function with a

PANDORA ALARM STUDIO

The Pandora Alarm Studio application allows you to change the main settings and parameters of the system, update firmware, download installation manuals, connect to the server to make CLONE procedure.

Working with the Pandora Alarm Studio

A current version of the Pandora Alarm Studio can be downloaded from pandorainfo.com. The Pandora Alarm Studio is provided only to authorized installers of the Pandora systems. Download the Pandora Alarm Studio to a PC with Windows XP/Vista/7/8/10.

- Run the Pandora Alarm Studio;
- Connect the system to the PC via a USB cable;
- Enter the “Service PIN-code” (default value is 1-1-1-1) to put the system into the programming mode;
- The Pandora Alarm Studio will automatically connect to the system and you will be able to configure settings and update firmware. It is recommended to update firmware of the base unit before installing and programming the system:

Enter the programming level №4.

- Press and hold the VALET button for more than 4 seconds. Release the button after the fourth sound signal of the siren/beeper. The system will confirm the resetting to the factory settings with a long red flash of the LED indicator, the system will return to the programming level №0. Press and hold VALET button for more than 10 seconds to reset system to the factory settings and exit the programming mode.

Level №10 - Manage Bluetooth devices / Firmware Update.

WARNING! 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 «Advanced mounting» -> «Pairing/unpairing devices».
- For the firmware update of the additional devices go to «Advanced mounting» -> «System devices».

This level is used to pair/remove/update additional devices 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

device in the system memory, you should delete the Bluetooth connection on your mobile device, delete the mobile device from the system memory and then pair the mobile device with the system again. Put the system in programming mode by entering the “Service PIN-code” (default value is 1-1-1-1). The system will enter the programming level №0. Press and hold the VALET button for 5 seconds (until the fifth sound signal of the siren/beeper or the fifth orange flash of the LED) to enter the programming level №50. The LED indicator will light green after entering the programming level №50 and the system will enter the mobile device pairing mode. Turn on Bluetooth on your mobile phone and open the mobile application. Go to the search device screen and select the found system. The system will confirm the pairing with the series of green and red flashes of the LED and a sound signal of the siren/beeper. The system will return to the programming level №0.

ATTENTION! If there is no automatic pairing, enable the “PIN request for phone pairing” item in the “Radio tag and mobile device functions” settings in the Pandora Alarm Studio application and make the pairing procedure again. A mobile device will request a PIN-code (Factory pre-set is

- Open the “Update Software” window and select one of the update options (“Load from file” - upload firmware file from a PC folder, “Firmware archive” - upload firmware from a server to “firmwares” folder);
- Select firmware and press the “Update” button to upload firmware to the base unit. It is required to exit programming mode after settings were changed or firmware was updated.

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 Alarm Studio, de-energize and disconnect the system, press and hold VALET button, 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.

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 it’s current state by a colour 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 (4 orange flashes of the LED, or 3 sound signals of the Siren). 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 additional devices are printed on the side of this manual where the wiring diagram is shown.

- **Updating firmware of an additional device**

Firmware update is available in Pandora Specialist and Pandora BT mobile applications when entering the sublevel or the cell, corresponding to the “Programming table”. 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

0-0-1-1-1-1 where the 4 last digits 1-1-1-1 are the “Service PIN-code”, it will be different if you have changed the “Service PIN-code”).

Level №100 - Exit the programming menu

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.

Level №0 Entering a level

Enter the programming mode using the “Service PIN-code” (default value is 1-1-1-1), 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...№17”), press (P) the VALET button the number of times equals to the desired level number (1...17), 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...10” (➡) (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

hold the VALET button for 5 seconds until 6 orange flashes of LED indicator or 5 sound signals of the siren/beeper. Open the Pandora Specialist or Pandora BT app, go to «Search device» screen, select the device and then select one of the update options:

- INTERNET - It allows you to upload firmware from a server.
- FILE MANAGER - This function is available only for Android devices. It allows you to upload firmware from the phone storage.

Level №11/№18 - Programming the «Immobiliser code» / «Beach mode PIN-code»

THE LEVEL IS DIVIDED INTO 3 SUBLEVELS

- **Buttons determination**

To program the «Immobiliser code», enter the programming mode and press the VALET button 11 times to enter level №11, to program «Beach mode PIN-code» enter level №18. After entering the level system will wait for buttons pressing. Each pressing will be confirmed with an orange flash of the LED. You can turn on the ignition (the system will stay in programming mode). Some buttons can be detected via digital bus only when ignition is on. The system can determine buttons via analogue «Code immobiliser»/«Code immobiliser2» inputs INP or via digital protocol of a car (check the «Code immobiliser» options on

level (Level №11...№17), press the VALET button the number of times equals to the second digit (1...7) 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 №1 - Pairing a remote control

Prepare to pair all remote controls in accordance with their manual. Pair all remote controls (one-by-one) during 1 minute. After a minute the system will automatically enter the programming level №0. When pairing new remote controls or re-pairing “old” ones, all previously paired remote controls will be erased from the system memory.

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

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.

loader.pandorainfo.com, Pandora Alarm Studio, Pandora Specialist). After selecting active buttons, press the VALET button to enter the next sublevel (Entering the PIN-code).

- **Entering the PIN-code:**

Program the Immobiliser 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 five selected immobiliser buttons. The code is entered by pressing the selected buttons for at least 1 second. Each pressing is confirmed with an orange 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.

- **Confirmation 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 LED indicator will produce the series of red and green flashes and the beeper will produce the series of sounds, the new code will be recorded, the system will return to the programming level №0.

ANALOGUE 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. Set at least two values of the fuel level using mobile application or by phone.

- **Pandora Specialist application:**

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 confirm command (xxx* command executed), end call.

FUEL LEVEL CALIBRATION TABLE (424*)

DTMF command	Fuel level
00*	0%
10*	10%
20*	20%
25*	25%
30*	30%
40*	40%
50*	50%
60*	60%
70*	70%
75*	75%
80*	80%
90*	90%
100*	100%
888*	Reset all calibration values

VOLTAGE CALIBRATION

To calibrate actual voltage value, use the Pandora Specialist mobile application: Go to the “Advanced mounting” -> “Bluetooth” -> Choose system -> “Advanced settings” -> “Main settings” -> “General settings” -> “Voltage calibration”, set the actual voltage value.