

USER GUIDE



**PRIZRAK SS**




IMMOBILIZER

PROTECTION FROM PROFESSIONAL CARJACKING



Make sure the protective films  
located on the plastic card are intact

Check with your installer and mark below which button has been assigned in your vehicle as the "Programming button". The most frequently used buttons are:

- |                          |   |   |                          |  |   |
|--------------------------|---|---|--------------------------|--|---|
| <input type="checkbox"/> |  | On the driver's door – the front right power window control button (pull up). | <input type="checkbox"/> |  | "Cancel" button of the "Cruise control" system. |
| <input type="checkbox"/> |  | «Volume down» button of the steering wheel.                                   | Other _____              |  |   |

## Brief introduction

Thank you for intrusting your vehicle's security to the cutting edge covert anti-theft system Prizrak.

We tried to develop an immobilizer system with simple, convenient control algorithms and trouble-free in day-by day use: it is required to enter an individual PIN code by pressing on one or several vehicle's original buttons prior to driving to authenticate a vehicle's user that (depends on a selected authentication method). Bluetooth technologies implemented in the immobilizer allow to use your smartphone as a regular tag for authentication. This user's guide contains more detailed information on the system's functionality. Please refer to it as a circumstance arises.

While using the immobilizer system we recommend you to obey the following rule: never tell anybody your secret PIN code combination and never hand the tags to unauthorized persons. You should activate a special mode allowing to temporary disable the immobilizer system, e.g. when leaving your vehicle at a workshop to have it serviced, at a car wash station and etc. – this mode is called «Service/valet mode».

**Enhance your vehicle protection, pages 35,36,37**



## Basic definitions

**Authentication** – is a procedure of identification of an authorized vehicle user. The authentication is performed via detecting a tag and/or by entering a secret PIN-code combination.

**Tag (Slim tag)** – is an electronic key allowing to authenticate an authorized vehicle driver. It is advisable to carry a tag separately from the vehicle's factory key. It is much safer to keep it together with the vehicle's documents.

**Smartphone tag** – is a mobile device (smartphone) with the installed app Prizrak-ID. It may be used for authentication along with tags.

**PIN code** – is a secret pressings combination on one or more OEM vehicle's interior buttons which is required for confirmation of authenticity of an authorized vehicle driver (authentication).

**Programming button** – this is one of the vehicle's interior buttons that is used for navigation through the system settings. It is assigned by a specialist while installing the immobilizer (page 2). It is also used to enable/disable the «Service/valet» mode and to enter PUK code.

**Immobilizer (PINtoDrive®)** – the feature was designed for vehicle theft prevention from a parking area. The immobilizer feature prevents a vehicle from being driven away if an authentication procedure is not complete.

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# Preliminary introduction

The covert vehicle security system Prizrak (hereinafter-immobilizer) is designed for protecting a vehicle from theft while it is parked and from carjacking while being operated on the road. The immobilizer should only be installed at a certified service center in accordance with the technical manual which may be found at [www.tecel.ru/en/](http://www.tecel.ru/en/).

## The main advantages of the immobilizer.

- The immobilizer system is fully compatible with vehicle electronics (supports vehicle CAN bus factory protocols).
- Possibility to use a smartphone as a tag for authentication.
- Flexibly customizable authentication: tag and/or PIN code;
- Entering PIN code using the original vehicle buttons. PINtoDrive®: no PIN - no drive.
- Optional features: automatic windows closure and etc.

This technical guide is universal for Prizrak-5S/BT, Prizrak-5S/BT/Slim, Prizrak-5S/BT/2Slim. The differences between the immobilizer modifications are described on page 39.

## Immobilizer (PINtoDrive®)

Immobilizer – the feature is designed to protect vehicles from theft while parked. The immobilizer feature automatically enters the «Guard» mode if the ignition has been switched off for more than 3 sec. You don't have to take some other actions in order to make it active. Once activated, the «Guard mode» should be switched off by completing an authentication procedure (page 14) and only after that you may start driving, otherwise the vehicle will be immobilized.

PINtoDrive® feature requires entering a secret PIN code combination using the original vehicle buttons every time prior to driving. To enable this feature it is required to set one of the following authentication methods: «PIN code», «Tag or PIN code», or «Tag and PIN code» (page 15). If a PIN code combination hasn't been entered before driving - the vehicle will be immobilized.

**PINtoDrive®: no PIN – no drive.**

It is possible to disable the Immobilizer (PINtoDrive®) feature by changing the appropriate setting if desired (page 25). After disabling this feature you won't have to perform authentication every time prior to driving, but the anti-theft level of the Immobilizer system will be greatly decreased.

# Exploitation

## AntiHiJack

Anti HiJack is a feature designed to protect vehicles from carjacking while operated on the road and from theiving while parked.

The vehicle will be immobilized unexpectedly for criminals at a distance set by you. The distance may be adjusted in range from 100 to 1000 meters (page 25). The system starts counting down the travelled distance from after the moment of opening the driver's door while the ignition is on.



The AntiHiJack feature may be adjusted in such a way that a vehicle will only be immobilized at low speed or after it comes to a complete stop. Consult with your installer to find out whether it is possible to implement this operation algorithm for AntiHiJack feature on your vehicle.

### Special operating mode for AntiHiJack-protection against carjacking from a parking lot

A vehicle will be immobilized unexpectedly after travelling a distance set by you if someone attempts to drive it away without authentication. Such a surprizing effect sufficiently increases the anti-theft resistibility and thieves have nothing else to do, but leave the vehicle. To activate the special AntiHiJack mode – disable the Immobilizer feature and leave the AntiHiJack feature ON (page 25).

### Deactivating AntiHiJack feature with a tag

Two-circuit vehicle security requires a tag to be detected and PIN code to be entered to authenticate an authorized owner of the vehicle. For your convenience you may adjust the immobilizer system so it would automatically deactivate the AntiHiJack feature as soon as a registered tag is detected (page 25) and there will be no need to enter a PIN code combination while driving the vehicle allowing you to keep your eyes on the road as the authentication is performed automatically. In case the tag is absent (the battery is discharged or the tag is lost) you can always enter PIN code.



# Exploitation

## Slim tag

Tag – is an electronic key allowing to authenticate an authorized vehicle driver. You must always carry with you the tag while operating a vehicle. The immobilizer system will automatically detect the radio tag before the vehicle motion begins. The confirmation trill sounds after detecting a tag by the system.

Any modification of Prizrak-5S immobilizer may be upgraded with tags (up to 8 tags in total, including no more than 4 smartphone tags). The default settings of Prizrak 5S/BT allow to use a smartphone as a tag for authentication right after pairing a smartphone with the immobilizer system without having to change any settings, even though the Slim tags are not included in the standard immobilizer set.



- One tag can't be registered into several immobilizer systems at the same time.
- You may use your smartphone for authentication as well (page 11).

## Replacing the tag battery

Five short beeps following after authentication mean that the battery inside the radio tag is recommended to be replaced. The battery type is CR-2025. Visit the workshop to have the radio tag battery replaced by an installer or do it yourself.



If the ambient temperature is below zero, batteries may perform worse due to retarding of chemical reactions inside the battery. This may cause difficulties in detecting a Slim tag, especially if it was exposed to low temperature for a long time. To restore the battery performance just warm it up.

# Exploitation

Open here!

Use an edge of a plastic card for opening convenience



Strictly observe the polarity!



3V  
CR 2025



Use only unexpired batteries of high quality!

## Using a smartphone as a tag

The immobilizer system has a feature which allows to use a smartphone\* as a tag. The special mobile app «Prizrak ID» must be installed to start using your smartphone as a tag. The app may be downloaded from the official app store depending on the OS of your smartphone (Android or IOS). The smartphone that is going to be used as a smartphone tag has to be paired with the immobilizer system via the «Prizrak ID» app. You may use your smartphone as the main authentication method or as a backup method, e.g., if a Slim tag is damaged, lost or forgotten somewhere. The authentication process using the smartphone tag is carried out the same way as the authentication using a Slim tag.

The immobilizer has a feature «Authentication only if the smartphone screen is unlocked» that is designed to keep the vehicle protected in case if the smartphone is stolen. If enabled, this feature doesn't allow a smartphone holder to carry out authentication until the smartphone screen is unlocked (e.g., graphical key, fingerprint, Face-ID).



The operating system of a smartphone may cancel activity of some applications (e.g. for energy saving reasons). If the smartphone has quit out of the app or the app has stopped running - simply restart it. This may not be convenient when the AntiHiJack is triggered. It is recommended that you always have a Slim tag with you.

\* A smartphone must support the Bluetooth 4.2 with (BLE) technology. The software version of the smarthone shouldn't be lower than 6.0 for Android and 12 for IOS.

# Exploitation

## Pairing a smartphone with the immobilizer system

A secret Bluetooth code is required in order to pair (register) a smartphone with the immobilizer system. The code is located under the protective film of the plastic card that's supplied with the device.

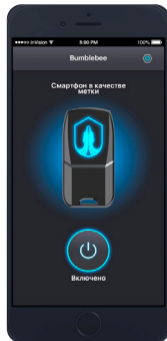
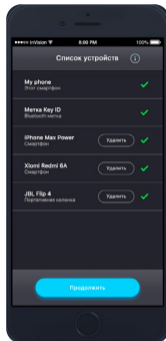
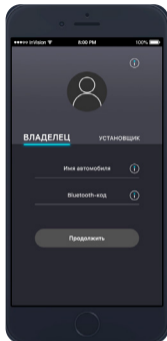
An installer specialist is not allowed to erase the protective layer of the Bluetooth code, however it is possible to test the immobilizer performance after the installation using a temporary code – the code to register a smartphone as the smartphone tag. The temporary code is valid until the vehicle travels 10 km after installing the Immobilizer system. The “Prizrak ID” app will remind the car owner to delete a smartphone that was registered with the temporary code.

## Pairing (registration) sequence

Download and install the mobile app “Prizrak ID” on your smartphone. All further actions have to be performed inside the car:

1. Complete the authentication (see page 23).
2. Run the mobile app «Prizrak ID».
3. Enter a vehicle name (any name).
4. Enter the Bluetooth code located on the plastic card and tap the button “Continue”.

# Exploitation



5. The list of all Slim tags and smartphones paired with the Immobilizer system will be displayed on the screen (e.g. with temporary access). You can delete all the smartphone tags you are not planning to use in the future and tap the button «Continue» after that.
6. The slim-tag logo in your smartphone screen means that the smartphone has been paired successfully.

# Exploitation

## Authentication

The authentication is a special procedure that must be performed every time the ignition is switched ON or the engine is started prior to driving. The authentication consists in entering a PIN code combination by a vehicle user and/or detecting a tag by the Immobilizer system. After completing the authentication successfully, the system emits the confirmation sound (trill). You may use your smartphone instead of a Slim tag for authentication.

You may select one of 4 authentication methods that is the most preferable for you ( refer to the Table 1). Changing the authentication method can be made in a special programming menu. Changing the authentication method also requires entering the PUK code (page 21 of this manual). The actions sequence to select an authentication method is described in the chapter «Adjustments» (page 25).

During the installation, a professional installer is able to adjust an authentication method that is the most suitable for you, so you don't need to tell him the secret PUK code, but if you have already traveled 10 km after installing the immobilizer system, it will not be possible to change the authentication method until the PUK code is entered.

More than that, the immobilizer system will be emitting a long warning beep after every authentication if the vehicle has already travelled 10 km and if the authentication method «Tag or PIN code» is set up. To disable the long warning beep you must enter PIN code to confirm that you are familiar with it and will be able to enter it if necessary (see page 19 of this manual). After entering the secret PIN code combination, the long warning beep right after every authentication will not sound any more.

# Exploitation

Table 1 – Authentication methods

Authentication methods	Authentication procedure description	
<b>Tag</b> (factory value for Prizrak-5S/BT/Slim and Prizrak-5S/BT/2Slim)	A tag must be in range	Wait for confirmatory trill
<b>PIN code*</b>	Enter PIN code	
<b>Tag or PIN code</b> (factory values for Prizrak 5S/BT)	A tag must be in range If a tag is absent – you may enter PIN code	
<b>Tag and PIN code</b> (two-circuit protection)	Tag must be in range and PIN code must be entered	There must be two confirmatory trills

\* The authentication method "PIN code" is useful in case if it is necessary to exclude the possibility of using the tags (e.g. when they are stolen or lost) until new tags are purchased and registered (page 19).

# Exploitation

## Additional beeps following after authentication

Some additional sounds following after authentication mean that it is required to take particular actions.

Table 2 – Additional beeps following after authentication

Sounds	The beep reason	Recommended actions
Long	The default PIN code hasn't been changed	Change the default PIN code (page 33)
	Valet/service mode was activated	Deactivate the Valet/service mode
	The authentication method was changed for "Tag or PIN code"	Enter PIN code (to confirm that the authentication method was changed under your will)
Five short	It is required to replace the tag battery	Replace the tag battery for a new one (page 9)



## Quickly engaging maximum security

Two-circuit security mode increases the anti-theft possibilities of the immobilizer system in case if a tag is stolen or lost.

Engage the second security circuit when leaving your vehicle in a potentially dangerous place (e.g. at the hypermarket parking lot), thus the authentication method "Tag or PIN code" will change to "Tag and PIN code" just only for one armed cycle. This method provides maximum anti-theft protection as after the "Maximum security in dangerous places" is engaged you will have to enter PIN code and wait until a tag is acknowledged prior to driving.

This mode is engaged quickly without having to use the programming menus:

1. Switch the ignition to the "ON" position, wait until a tag is detected.
2. Thereafter within 20 sec:
  - open and close the driver's door;
  - enter PIN code, wait until the confirmatory trill sounds;
  - switch OFF the ignition;
  - the immobilizer will emit two confirmatory trills to confirm that the authentication method «Tag and PIN code» has been engaged.

The feature «Disable vehicle unlocking with original remote key in dangerous places until a tag is detected» will activate automatically (if it was properly configured during the installation). after engaging the «Maximum security in dangerous places» by following the steps described above.

# Exploitation

## Vehicle's CDL unlocking blockage if a tag is not in range

Ask your installation technician to activate this feature if desired.

The feature allows to block access inside the vehicle if the OEM remote key has been stolen and makes the immobilizer system capable to resist an intellectual hacking (relay attacks, code grabbers).

The immobilizer constantly searches for a tag in range of the vehicle if the feature is properly adjusted.

You have to approach to the car with a tag and send the unlocking command from the factory remote or the keyless entry system – and the vehicle's doors will immediately unlock.

The tag should be detected by the Immobilizer system before attempting to unlock the vehicle's doors with the OEM remote or the keyless access system otherwise the doors will not unlock.

The tag search may operate in two modes: tag search may be performed every time when unlocking the vehicle or only for one time (one armed cycle) – if only the «Maximum security in dangerous places» has been engaged (page 17).

It is always possible to unlock the car with the mechanical key or use your smartphone instead of a Slim tag (a smartphone must be paired with the immobilizer beforehand) if the tag is lost or damaged (page 11).

# Exploitation

## PIN code

PIN code is a secret pressings combination on one or more OEM vehicle's interior buttons. Please refer to the Integrator files for the list of factory buttons that can be used for PIN code entry in a particular vehicle, PIN code must be entered prior to driving when the ignition is ON or the engine is started.

PIN code is a one-, two-, three- or four-digit number. Each digit may consist of figures from 1 to 9.

PIN code may be easily changed as many times as needed either by an installer technician during the installation or by an end user of the Immobilizer system at any time (page 33).

In order to ensure the proper secrecy level-the factory-set (default) PIN code must be changed.

If it hasn't been changed then every time the factory-set PIN code is entered, the immobilizer emits a long warning beep to remind the Immobilizer user about necessity to change the default PIN code.



The default (factory) PIN code «2» is entered with the programming button (page 4).

PIN code entry sequence:






1. Switch the ignition ON or start up the engine.
2. Enter PIN code (page 20).
3. The confirmatory trill will sound to confirm the PIN code correctness.



The existing PIN code will reset to defaults in case if an existing authentication method is changed for the authentication method «Tag» (page 14).

# Exploitation

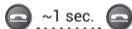
## PIN code examples

Buttons , , , ,  are shown as an example. Consult with your installation technician to find out the list of available buttons for your vehicle.

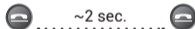
Enter PIN code. While entering one of the PIN digits, keep in mind that pressings duration and pauses between figures within one digit must not exceed 1 second. Pauses between digits have to be approximately 2 seconds.

### Entering PIN code with one button

One-digit PIN code «2»:



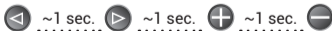
Two-digit PIN code «11»:



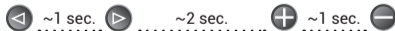
### Entering PIN code with multiple buttons

Obey the buttons pressing sequence while entering a PIN code.

One-digit PIN code «4»:



Two-digit PIN code «22»:



# Exploitation

## PUK code

It is required to enter PUK code:

- To change a current authentication method (page 14) for a desired one (PUK code required if the vehicle has already travelled 10 km after the immobilizer installation).
- In case if PIN code combination is forgotten or a tag is lost or damaged.
- To disable automatic deactivation of service mode.

PUK code is a 4 digit number located under the protective layer of the plastic card that is included in the immobilizer kit. PUK code disables all anti-theft features of the Immobilizer system no matter what authentication method is set.

PUK code is entered with a programming button (page 4) keeping the two (2) second pause between the PUK code digits. (page 4).

PUK code entry sequence:

1. Switch ON the ignition or start up the engine;
2. Enter PUK code;
3. Wait for the confirmatory trill.

If you made a mistake while entering the PUK code, take a break for more than 3 seconds and enter the PUK code again.

If you are intended to temporarily disable the immobilizer (to activate service/valet mode) – press the programming button 6 times within 10 seconds after entering the PUK code.

# Exploitation

## Service/Valet mode

The mode is designed to cover up the presence of the Immobilizer system in a vehicle.

Turning on the service mode allows to conceal the fact that a vehicle is equipped with an anti-theft system. When activated, the service mode temporarily disables all anti-theft and comfort features of the system (e.g. automatic windows closure, Immobilizer, AntiHiJack, control of an additional electro-mechanical hood lock, and etc.). The service mode allows the user of the immobilizer system leaving a vehicle in a service centre, at a dealership centre for maintenance, at a car wash station and etc., without notifying anybody that an immobilizer system is fitted to the vehicle. There is no need to tell anybody a secret PIN code combination or hand over a unique tag . The immobilizer reminds the driver to disable the «Service/ valet mode» by emitting a long beep every time after authentication. While in service mode, the Immobilizer system can't be detected by a diagnostic equipment.

The immobilizer alerts about the enabled «Service/ valet mode» by emitting a long beep after each authentication.

In order to enable or disable the valet mode:

1. Switch ON the ignition.
2. Complete an authentication procedure.
3. No later than in 10 seconds, press the programming button 6 times.
4. Wait for the confirmation:
  - the mode has been enabled – 1 short beep and one confirmatory trill will follow;
  - the mode has been disabled – 2 short beeps and one confirmatory trill will follow.

## Service/valet mode automatic deactivation

This feature will automatically turn off the service mode after the vehicle travels the distance of 10 kilometers since it's been activated. The system will automatically deactivate the service mode and activate all anti-theft features, keeping the vehicle safe. Thanks to this feature you don't have to worry that your vehicle remains unprotected in case you forget to turn off the service mode.

You may disable the «Service/valet mode automatic deactivation» if desired in two ways:

- by changing the corresponding setting of the immobilizer (page 21). The «Service/valet mode automatic deactivation» will not occur until that setting is changed back to «ON».
- by entering PUK code for authentication before activating the service mode:
  1. Switch ON the ignition.
  2. Enter the PUK code.
  3. No later than in the next 10 seconds press the programming button 6 times (page 4).

The «Service mode» will not self-disable until you disable it yourself, regardless of distance you travel after enabling it.

# Exploitation

## Supplementary features

The immobilizer allows to implement additional features that increase comfort and security level of a vehicle.

### Automatic windows closure

The system can be programmed to automatically roll up the vehicle's windows after arming (visit the Integrator to make sure the function is available for a specific vehicle).

### Electromechanical hood lock control

You can improve your system's anti-thief resistance by installing an additional electro-mechanical hood lock and programming the immobilizer to latch the hood when arming the vehicle, and unlatch it just only after a vehicle owner is authenticated.

### Automatic door lock/unlock

If a vehicle doesn't have such functions like latching the vehicle's doors when it reaches a certain speed after driving off and unlatching the doors right after turning off the ignition, the immobilizer system allows to implement these functions on the vehicle. The functions aren't available for some vehicles (visit the web data-base Integrator for details).



# Adjustments

The Table 3 contains settings which you may customize yourself.

Table 3 – User settings

Nº	Description	Default settings	Number of beeps	
1	Immobilizer (protection against carjacking from a parking lot)	ON	1 – ON	2 – OFF
2	AntiHiJack (Protection against hijacking while operating a vehicle)			
3	Travel distance before AntiHiJack triggers	1	Range from 1 to 10: 1-100 m;... 10-1000 m	
4	Sonic confirmation of authentication and tag detection when disarming	ON	1 – ON	2 – OFF
5	«Service/Valet» mode automatic deactivation			
6	Auto door locking			
7	Auto door unlocking	OFF		
8	Windows, side mirrors, sunroof automatic closure («Comfort»)	4	Range from 1 to 5	
9	Authentication method (PUK code required)	3/1*	Range from 1 to 4	
10	New tag registration	–	Range from 1 to 8	
11	Tags detection quality test	Allows to determine the best zones for tag detection		
12	AntiHiJack feature automatic deactivation with a tag	OFF	1 – вкл.	2 – OFF
13	Deleting smartphone tags from memory	–	Range from 1 to 4	

\* For Prizrak 5S/BT – “3”. For Prizrak 5S/BT/Slim and Prizrak 5S/BT/2 Slim – “1”.

# Adjustments

## Annotation to the Table №3

*Option №1. «Immobilizer».* Disable this feature if you don't think your car might be stolen from a parking lot.

*Option №2. «AntiHiJack».* Disable this feature if you don't think that somebody will hijack your car while you are driving it.

*Option №3. «Travel distance before AntiHiJack will trigger».* The travel distance is set up by 100 meters intervals. For example, if you set up the value 3 then the distance the vehicle will travel before the engine locking triggers is 300 meters.

*Option №4. «Sonic confirmation of authentication and tag detection when disarming».* You may turn off sonic confirmation (trill) that sounds after authentication.

*Option №5. «Service/Valet» mode automatic deactivation.* Allows to turn off automatic service mode deactivation after a vehicle has travelled 10 km with activated service mode.

*Option №6. «Auto door locking».* Turn on this feature if you'd like the automatic power door locks to latch when the vehicle starts moving.

*Option №7. «Auto door unlocking».* Turn on this feature if you'd like the automatic power door locks to unlatch when the ignition is turned off.

*Option №8. «Automatic windows, side mirrors, power sunroof closure («Comfort»)»:*  
1 – Windows closure; 2 – windows and side mirrors closure; 3 – windows and sunroof closure; 4 – windows, sunroof closure, side mirrors folding; 5 – OFF (closure is not performed).

*Option №9. «Authentication method».* You may select one of 4 authentication methods provided (page 15) which most suits your needs. Values range from 1 to 4:

1 – tag; 2 – PIN code; 3 – tag or PIN code; 4 – tag and PIN code.

# Adjustments

*Option №10.* «New tags registration». Allows to register new tags (page 29).

*Option №11.* «Tags detection quality test» (page 30).

*Option №12.* «AntiHiJack feature automatic deactivation with a tag» (page 8).

*Option №13.* «Deleting smartphone tags from the immobilizer memory». This option allows to delete all previously paired smartphones from the immobilizer memory (page 32).

## Customizing the immobilizer settings

1. Switch the vehicle's ignition to the ON position.
2. Complete an authentication procedure. ( page 14).
3. Within 10 sec enter the features programming menu by pressing and releasing the programming button 12 times (page 4). The immobilizer will emit 4 beeps if you've done everything right.
4. Select a desired option within the programming menu by pressing and releasing the programming menu a number of times that corresponds to the desired option number. After that the immobilizer will inform you on the selected option number with a series of beeps. If the option number is a two digit number: tens – a long beep, ones – a short beep, i.e.:
  - indication of the option №10 – one long beep;
  - indication of the option №11 – one long beep, 1 sec pause then one short beep.
5. Press and hold the brake pedal.

## Adjustments



In order to change an existing authentication method for another one, you have to select the programming option №9 «Authentication methods» of the Table 3 and enter PUK code (page 21) with the brake pedal being pressed.

The immobilizer will indicate the current option value and the beeps duration will also change.

6. Press and release the programming button a number of times required to advance from the current option value to a desired one. Keep in mind that after the last option value number goes the first one.
7. Release the brake pedal. Now you may proceed to programming of the next option or exit the programming menu.
8. To program another option, press and release the programming button the number of times needed to advance from the current option to a desired option. E.g. in order to advance from the option №2 «AntiHiJack» to the option №6 «CDL latching when driving OFF», press and release the programming button 4 times.

You may quit the programming process at any moment by turning the ignition OFF, thereupon the confirmatory trill will follow.

The immobilizer system will automatically exit the programming menu if within 60 seconds no action is performed and the brake pedal is not pressed.

# Adjustments

## New tag registration

Register all desired tags within one procedure. The tags that are not taking part in the registration process will be erased from the immobilizer's memory. Use the mobile app "Prizrak ID" in order to register (to pair) a smartphone into the immobilizer system to be able to utilize it as a tag for authentication.



- One immobilizer module allows to register up to 8 tags.
- It is not possible to register one tag into two or more immobilizer modules..
- It is not possible to register a new tag if the existing authentication method is «PIN code».

## Registration sequence

Select one of the tags that will be used for authentication. Disassemble all the other tags and take the batteries out of them beforehand. Take the batteries out of each tag in case if a tag is not required for authentication (e.g. for authentication is used PIN code or PUK code).

1. Perform the authentication procedure (page 14). The immobilizer will emit the confirmatory trill indicating that the authentication is successful.
2. Press and release the programming button 12 times (page 4), the immobilizer will emit 4 short beeps.
3. Press and release the programming button 10 times, the immobilizer will emit a series of 1 long beeps.

## Adjustments

4. Press and hold the brake pedal. the immobilizer will indicate the number of already registered tags by series of beeps. The number of emitted beeps within one series indicates the total number of registered tags in the system's memory.
5. Place a battery into one of the tags. Wait for short intermittent beeps signifying that the tag registration procedure has started. After a tag has been successfully registered the immobilizer will indicate the total number of tags programmed into the system's memory by a series of buzzer beeps. Make sure the number of emitted beeps matches the number of all tags registered into the system.
6. Insert the battery into the next tag, wait until the tag is registered, repeat the steps described above if more tags are planned to be registered.
7. Release the brake pedal and turn the vehicle's ignition OFF after the last tag has been registered, the confirmatory trill will follow.

### Tags detection quality test

Perform this procedure when the engine is running. It is recommended to slightly increase and decrease the engine's RPM while testing the tags.

### Testing procedure

1. Complete authentication. The immobilizer will emit the confirmatory trill indicating that the authentication is successful (page 14).
2. Press and release the programming button 12 times (page 4), the immobilizer's buzzer will emit 4 short beeps.

## Adjustments

3. Press and release the programming button 11 times, the buzzer will emit 1 long and 1 short beep to indicate that the option №11 of the programming menu has been successfully selected.
4. Press and release the brake pedal during 10 seconds until a sonic signal is sounded. Release the brake pedal, the immobilizer will turn on the constant tag search mode.
5. Verify the tag detection quality by moving the tag to different places of the vehicle's interior. The confirmatory trill emitted every 3 seconds indicates the reliable tag detection.
6. To exit the option «Tag detection quality test» press the brake pedal or simply turn OFF the ignition.

### Deleting smartphone tags

There are two ways to delete the smartphone tags from the immobilizer memory: either selectively – in the mobile app Prizrak ID (page 12) or all at once – using a special programming menu as described below.

#### Deleting smartphone tags from the immobilizer memory

1. Switch the vehicle's ignition to the ON position. Complete authentication: enter PIN code or wait until a Slim tag is detected.
2. Within 10 seconds enter the programming menu by pressing and releasing the programming button 12 times. The buzzer emits 4 beeps to confirm that your actions are correct.

## Adjustments

3. Press and release the programming button 13 times in order to access the option «Deleting smartphone tags from the immobilizer memory». The buzzer will emit a series of one long and 3 short beeps.
4. Press and hold the brake pedal. The immobilizer will start indicating the number of smartphone tags already registered into the system with a corresponding number of beeps.
5. Still keeping your foot on the brake pedal, press the programming button one time to erase all tags from the system's memory. Wait until the confirmatory trill sounds.
6. Release the brake pedal and switch the ignition to OFF position to finish the programming procedure.

### Changing PIN code

1. Turn the vehicle's ignition on. Complete authentication (page 14).
2. Within 10 seconds after the authentication press and release the programming button 14 times. The immobilizer will emit one short beep to confirm that the «PIN code change» mode has been successfully entered.
3. Set up the new PIN code. Any button of the vehicle that responds by beep when being pressed can be used to set up the new PIN code dial combination. Wait for confirmation: 1 short beep.
4. Repeat the new PIN code. Wait for confirmation:



# Adjustments

- 2 short beeps and confirmatory trill followed after that mean that the PIN code has been changed and the immobilizer exits the programming mode.
- one long warning beep means that the PIN code hasn't changed due to a mistake was made during the new PIN code set-up. Repeat the «PIN code change» procedure, starting from the step №4.

It is possible to exit the programming mode and leave all previous settings unchanged by turning the vehicle's ignition OFF.



- It is not possible to change or set up a new PIN code if the existing authentication method is «tag».
- It is not allowed to set up the PIN code «1» – one push on one button.

## Defining the buttons available for PIN code entry

Complete the actions sequence listed above until the step №3 inclusive. After the step №3 is performed and one short beep is sounded signifying that you have entered the PIN code changing menu, press each vehicle button shortly and only one time. A short beep followed after a button press mean that this button is available for PIN code entry. Switch the vehicle's ignition OFF after all available buttons are checked.

# Adjustments

## Programming example

**Task:** You'd like to change a default setting of the immobilizer. E.g., you'd like to increase the travel distance after AntiHiJack is triggered from 100 meters to 300 meters.

### Implementation:

1. Switch the vehicle's ignition ON.
2. Complete an authentication procedure (page 14).
3. Press the programming button 12 times to get access into the programming menu, The immobilizer will emit 4 beeps.
4. Proceed to the option №3 (Travel distance before AntiHiJack will trigger) according to the Table 3 by pressing and releasing the programming button 3 times. The immobilizer will emit a repeating series of 3 beeps to confirm that the programming option №3 has been selected.
5. Press and hold the brake pedal to get access into the option №3. The immobilizer will indicate the current option value by a repeating series of 1 beep since the default value of this option is «1» which means 100 meters.
6. Press the programming button 2 times in order to change the current option value from 1 to 3 ( $1+2=3$ ). The immobilizer will inform you on the new option value by a repeating series of 3 short beeps (300 meters).
7. Release the brake pedal to exit the programming level of the option value №3. The immobilizer will indicate the current option number by a repeating series of 3 beeps.
8. Exit the programming mode by switching the vehicle's ignition OFF.

# How to improve vehicle security

## Customize your vehicle's protection

### 1 Universal protection for every situation

The default setting for Prizrak 5S/BT.

Authentication method	Immobilizer	AntiHiJack
Tag or PIN code	On	On

The perfect balance between convenience and vehicle's security. A tag and PIN code are interchangeable if the authentication method «PIN code or tag» is programmed. Enjoy using the system authenticating yourself with a tag but you can always enter PIN code in case if the tag is absent. Engage the «Maximum security in dangerous places» to enhance vehicle protection by activating the second security contour «PIN code» just for one time when parking your car in potentially dangerous places (page 17).

### 2 Increased comfort

The default setting for Prizrak 5S/BT/Slim and Prizrak 5S/2Slim.

Authentication method	Immobilizer	AntiHiJack
Tag	On	On

All the features of the integrated immobilizer are engaged. You have to always carry a tag with you. Simply disarm the vehicle with the factory remote and drive, no additional actions required.

# How to improve vehicle security

## 3 Maximum anti-theft protection

Authentication method	Immobilizer	AntiHiJack
Tag and PIN code	On	On

All the security contours are engaged. The immobilizer is able to withstand professional car thieves even in case if tags and the vehicle's OEM key are stolen. PIN-code must be entered prior to driving. It is also recommended to enable the feature «AntiHiJack feature automatic deactivation with a tag».

## 4 Personal safety and confusing effect

Authentication method	Immobilizer	AntiHiJack
Any	Off	On

Set up the travel distance in meters before AntiHiJack will trigger (from 100 to 1000 meters) to protect your vehicle and yourself if you will be hijacked on the road. This will help to distance criminals and avoid meeting with them again.

## 5 I am sure in personal security while driving

Authentication method	Immobilizer	AntiHiJack
Any	On	Off

You may leave only Immobilizer feature ON if you are not afraid of hijacking while operating the vehicle.

# How to improve vehicle security

## Enhance the protection efficiency

### 6 Extra secrecy

Turn off "Audible confirmation after authentication and tag detection when disarming". Set a complicated, multiple button PIN code (the main thing is to remember it).

### 7 Don't tell anybody. Vigilance – is the guarantee of your tranquillity

- Never hand your tag to anybody or show the secret PIN code combination. You should always turn on the "Service/valet" mode before leaving your car at a service station or at a car wash and etc.
- Keep your PIN code combination secret. Change the PIN code immediately if it has become known by an unauthorized person.
- Under any surcomstances shouldn't you hand your tag to unauthorized persons, never keep it inside the vehicle or together with vehicle's keys.
- Reregister a spare radio tag if you loose one of them until you purchase a new one (this will not allow a would-be thief to use the lost radio tag).

## What should I do if

Problem description	Possible reasons	Recommended measures
Tag is lost or malfunction		Complete the authentication by entering the PIN code (page 19), or enter PUK code located on the plastic card (page 21)
The tag can't be detected by the system (no authentication)	The tag battery is discharged. The tag is malfunction	
The system doesn't accept PIN code	You forgot the PIN code combination	Enter PUK code located on the plastic card (page 21)
	PIN code is not used (an authentication method is selected which doesn't require entering PIN code)	
	A wrong PIN code is entered or a mistake is made while entering a PIN-code combination	Enter the correct PIN code without mistakes (page 19)
The system can't detect a smartphone tag	The Bluetooth of the smartphone is off. Prizrak ID app operation is cancelled by the operating system of the smartphone	Launch the app Prizrak ID (page 11)
5 beeps following after authentication	The tag battery is discharged	Replace the tag battery (page 9)
A long beep following after authentication	The main immobilizer settings have been changed	Page 16, Table 2

## Standard set

The main immobilizer module.....			1 pcs.
Slim tag.....	Prizrak 5S/BT	–	n/a
	Prizrak 5S/BT/Slim	–	1 pcs.
	Prizrak 5S/BT/2Slim	–	2 pcs.
Wire harness for connections.....			1 pcs.
Quick reference card .....			1 pcs.
User's guide.....			1 pcs.
Equipment technical passport .....			1 pcs.
Wiring diagram .....			1 pcs.
Packing .....			1 pcs.

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