We would like to thank you for choosing
the motoimmobilizer

StarLine V66

and wish you many pleasant
and safe drives!

Content

General description

Please read this instruction paying special attention to the sections marked **ATTENTION!**

The **StarLine V66** motoimmobilizer is intended for motor vehicle theft protection by engine blocking and alerting of the nearby people of security zone violation by sound and light signals.

The motorcycle owner is authorized by wireless exchange between the tag and the main unit via the Bluetooth Smart (BLE) protocol using an algorithm protecting against data interception at the moment of device registration. Authorization can be performed using the tag, included in the delivery set, or a smartphone supporting the BLE protocol and registered in the system using the StarLine application.

> **i** The list of smartphones, supporting the use as a tag, is available on the website www.starline.ru

Advantages of StarLine V66:

- the small dimensions of the main unit allow installing it in a place hard to reach for malefactors;

- the sealed housing protects against the aggressive ambient impact;

- the magnetic contact ensures reliable protection of the trunk;

- the minimum power consumption in the security mode allows for very long saving of the storage battery charge (up to 100 days);

- automatic identification of the motor vehicle owner at tag or smartphone detection in the visibility area;

- convenient user setting of system operation parameters using the owner's smartphone;

- reliable operation in radio interference conditions thanks to the frequency hopping spread spectrum method;

- protection against smart tampering.

The immobilizer delivery set includes a plastic card containing the following data:

- **Service code.** It is intended for setting and programming of immobilizer parameters. The service code is provided in the open form.

- **Code of emergency security deactivation.** Allows for driving the motorcycle in case of battery discharge or tag loss. The code of security deactivation is hidden below a scratch strip.

ATTENTION! Do not tell the code of security deactivation to anybody! Remember that a malefactor, knowing the code, may deactivate the immobilizer's protective functions. If you have grounds to think that the code of security deactivation became known to third parties, change it as soon as possible.

You should carry along the plastic card or note down the code of security deactivation in an accessible place (for instance, in the mobile phone)

Operation description

For owner authorization, you should always carry along the tag (smartphone), because the immobilizer has two-level authorization: by presence of the tag (smartphone) and by a programmed event.

ATTENTION! Presence of the tag (smartphone) does not deactivate the system security by itself, and the engine will be blocked in case of attempt at starting.

If the tag is absent or the battery has discharged, security deactivation is performed using the code of security deactivation given on the owner's card (see section "Emergency security deactivation").

Security functions:

- owner authorization by presence of the tag (smartphone) and a programmed event;
- sound and light alarm signals at protective zone violation;
- engine blocking against ignition switch-on;
- monitoring of supply voltage loss;
- personal code of security deactivation for emergency security deactivation.

Service functions:

- telematic setting using a personal computer;
- registration of new devices (for instance, tag or smartphone);
- adjustable parameters of immobilizer operation;
- possibility of connection of an external GSM-device;
- immobilizer control via the StarLine application on the smartphone;
- service mode for motorcycle handover for maintenance;
- possibility of temporary switch-off of the shock sensor in the security mode;
- indication of the current operation mode on the tag.

Operation modes

The **StarLine V66** motoimmobilizer has the following structure of operation modes:

Security modes	Security on
	Security on without shock sensor
	Security off
Additional modes	Service
	Telematic setting and software update
	Parameter programming
	Device registration

Security modes ensure motor vehicle protection against theft.

Additional modes are intended for immobilizer setting, deactivation of security functions for motorcycle handover for maintenance and registration of new components of the security system.

The main differences between the modes are given in the table.

Parameter	Security modes		
	security on	security on without shock sensor	security off
Indication on the tag	🟢	🔴	according to the selected security mode
Entry in the mode	tag+clutch* (brake)	tag+clutch* (brake)	tag+clutch* (brake)
Exit from the mode	tag+clutch* (brake)	tag+clutch* (brake)	tag+clutch* (brake)
Blocking and alarm activation	possible	possible	–

Parameter	Service	Telematic setting	Parameter programming	Device registration
Indication on the tag	🟡	—	—	—
Entry in the mode	tag	PC	clutch* (brake) + ignition	clutch* (brake) + ignition
Exit from the mode	tag	PC	ignition	ignition
Blocking and alarm activation	—	—	—	—

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Security modes

The immobilizer monitors the following security zones in the security modes:

- motorcycle movement (movement sensor and tilt sensor);
- reaction to shocks and jerks (two-level shock sensor);
- motorcycle trunk state (magnetic contact);
- ignition (monitoring of ignition switch-on input);
- engine start (built-in blocking relay);
- supply voltage loss.

The **"Security on"** —mode – it is the main security mode in which the immobilizer monitors all security zones. If a zone is violated, the immobilizer alerts the nearby people by sound and light alarm (page 15).

The shock sensor warning level is disabled in the mode **"Security on without shock sensor"** This mode is convenient to use if false activation of the shock sensor must be prevented. For instance, during temporary parking near tram lines.
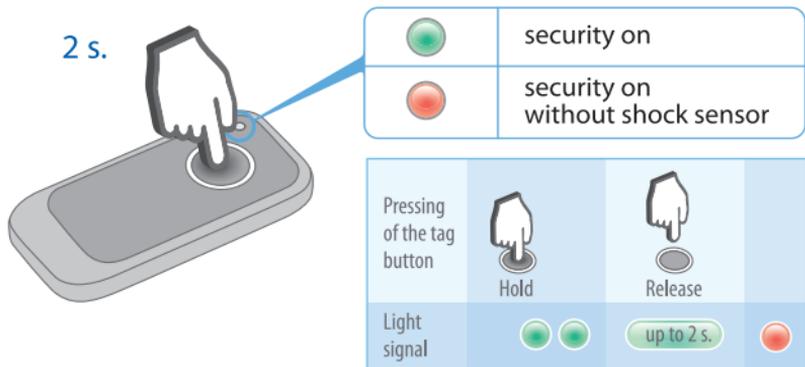
In the security modes, the immobilizer blocks the engine during ignition switch-on. Blocking will be accompanied with continuous sound and light alarm.

In the **"Security off"** mode monitoring of security zones is disabled.

Security mode switchover

The "Security on" and "Security on without shock sensor" modes are switched over by holding the tag button for 2 seconds.

The current operation mode is displayed by the flashing LED of the tag at a short pressing on the button (the "Security on" mode – green, "Security on without shock sensor" mode – red).

🟢	security on	
🔴	security on without shock sensor	

Pressing of the tag button	Hold	Release
Light signal	🟢🟢	up to 2 s. 🔴

Security activation

Security activation and deactivation are possible by several methods:

- Pressing on the clutch* (brake) handle with ignition switched-off in the tag presence;
- Short pressing on the tag button near the motorcycle with ignition off;
- From the mobile application with ignition off.

The system will confirm successful security activation by a single sound signal. If 4 sound signals are heard, the trunk is open. Close the trunk and check presence of a single confirmation signal.

Successful security deactivation will be confirmed by two sound signals. Three sound signals mean that one or several security zones were violated while security mode operation.

Security activation without tag

In tag absence, security can be activated by the following method:
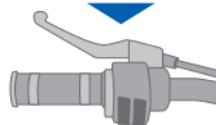
1) Switch on the ignition.

Off

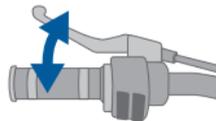2) Hold the clutch* (brake) handle for 5 seconds.

Hold for 5 s.

3) A flash of light signals will follow. Release the clutch handle.

4) Press the motorcycle clutch shortly once.

Press shortly once

5) Switch ignition on and off. The immobilizer will set to the security mode.

On

Off

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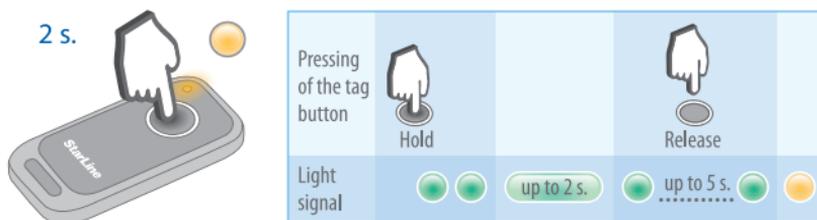## Simultaneous work with several tags (smartphones)

For convenient motoimmobilizer operation it is possible to set different modes on tags (smartphones). If several tags (smartphones) with different set modes are simultaneously present in the visibility area, the mode with the highest priority will be active:

- high priority – service mode;
- medium priority – mode "Security on without shock sensor";
- low priority – mode "Security on".

If several tags (smartphones) are present in the visibility zone and the mode is switched over by one of these devices, all the other tags (smartphones) will set to this mode.

Additional modes

Service mode is intended for temporary deactivation of security functions, for instance, during maintenance. This mode is switched on by holding the tag button for 5 seconds and will be confirmed by yellow indication of the tag LED. In the service mode, transition to the other additional modes is prohibited. Exit from the service mode is performed by holding the tag button for 5 seconds.

Mode "Telematic setting and software update" is intended for convenient setting and update of the immobilizer software by means of a computer. For this use the "StarLine Master" application.

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* Programmed by the installation specialist during mounting

"Parameter programming" mode is intended for setting of immobilizer parameters by means of the tag. Transition to the "Parameter programming" mode is performed only from the mode "Security off".

"Device registration" mode is used for adding new devices (for instance, tag, smartphone). Switchover to the "Device registration" mode is possible only from the "Security off" mode.

Check of communication between tag and main unit

Do as follows to check stable communication between the tag and main unit:

1. Press the tag button shortly.

2. Make sure the tag has the indication with the color corresponding to the current operation mode: 2 times – stable communication, once – absence of tag communication with the main unit.

Motoimmobilizer light and sound indication

Event	Tag	Siren sound signals	Motorcycle light signals
"Security on" mode	🟢		
Mode "Security on without shock sensor"	🔴		
Service mode	🟡		
Security activation		1 – with trunk closed 4 – with trunk opened	1 – with trunk closed 4 – with trunk opened
Security deactivation		2 – without security zone violations 3 – security zones violated	2 – without security zone violations 3 – security zones violated
Incorrect entry of the security deactivation code		4	4
Entry in "Parameter programming" mode		5	5
Discharge of the tag battery (at security deactivation)		6	6
Entry in "Device registration" mode		7	7
Activation of shock sensor warning level		3	6
Activation of shock sensor alarm level		30 seconds	35 seconds
Activation of tilt or movement sensor		30 seconds	35 секунд
Trunk opening		30 seconds	35 секунд
Power loss		30 seconds	35 секунд
Ignition switch-on		in 30 second periods	непрерывно

ATTENTION! If a tag or smartphone is present in the coverage range, the shock, tilt and movement sensors are switched off, is absent – switched on.

ATTENTION! After security activation the maximum number of alarm activations is limited to 8 repetitions.

Change of the security deactivation code

Do as follows to change the code of security deactivation:

1. Set the immobilizer to the "Parameter programming" mode;
2. Enter the current code of security deactivation, then a new code 2 times.

1) Entry in the "Parameter programming" mode

1) Set the immobilizer to the "Security off" mode.

2) Press and hold the motorcycle clutch* (brake) handle for 5 seconds.

Hold for 5 s.

3) The marker lights will light up for 3 seconds. During this time, release the clutch (brake) handle.

4) Press the clutch* (brake) handle shortly 5 times.

Press shortly 5 times

5) 5) Switch on the ignition. Check presence of 5 sound signals. The tag LED will light up green.

On

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* Programmed by the installation specialist during mounting

2) Change of the security deactivation code

1) 1) Make sure the tag LED is illuminated green. Press the tag button shortly while the LED is illuminated. A short green flash will follow. The LED color will change to red.

Press shortly

2) Press the tag button the number of times corresponding to the first digit of the current security deactivation code.

Press X times

X – the first digit of the code of security deactivation

3) Check presence of red sound signals corresponding to the number of pressings.

X times

4) Repeat items 2-3 to enter the remaining digits of the current security deactivation code.

5) If the code is entered correctly, the sound signal will be issued and the LED color will change to yellow. If incorrectly – 4 signals. In case of incorrect code entry – repeat items 1-4.

6) Press the tag button the number of times corresponding to the first digit of the new security deactivation code.

Press
Y times

Y – the first digit of the new security deactivation code

7) Check presence of red sound signals corresponding to the number of pressings.

Y times

8) Enter the other digits of the new security deactivation code similarly to items 6-7.

9) Check presence of 2 sound signals.

10) Enter the new code again, repeating the actions of items 6-8.

11) The immobilizer will confirm the successful recording of the new code by 2 sound signals. If 4 sound signals are heard, repeat the actions starting from item 1.

Device registration

Use the "Device registration" mode for registration of new components.

To prevent unauthorized adding of new components, entry in the "Device registration" mode is possible only from the "Security off" mode.

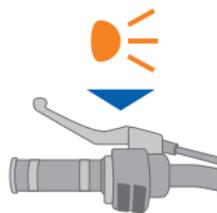All the components should be registered in one cycle. In total, up to three devices can be registered in the system.

Entry in the "Device registration" mode

1) Press the clutch* (brake) handle and hold it for 5 seconds.

Hold for 5 s.

2) The marker lights will light up for 3 seconds. During this time, release the clutch (brake) handle.

3) Press the clutch* (brake) handle 7 times.

Press shortly 7 times

4) Switch on ignition and monitor presence of 7 light and sound confirmation signals.

On

7 times   7 times

Exit from the "Device registration" mode is performed by ignition switch-off.

Tag registration

Switch over the immobilizer to the "Device registration" mode and do as follows:

1) Remove the batteries from the tag.

2) Press and hold the tag button and install the battery. The tag LED will light up red.

3) Release the button and check presence of a series of red flashes for 10 seconds.

4) Successful registration will be confirmed by a green flash on the tag and 2 sound signals of the siren.

5) 5) Repeat items 1-3 for the remaining tags.

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Smartphone registration

The smartphone is registered in the system using the StarLine mobile application.

⚠️ As you exit from the mode, sound signals will follow, corresponding to the number of registered tags and smartphones.

Discharge of the tag battery

6 sound signals at the time of security deactivation mean that the tag battery is discharged. Replace the tag battery.

Emergency security deactivation

If the tag was lost or the tag battery is discharged, the alarm will be activated at ignition switch-on and the motorcycle engine will be blocked.

To deactivate immobilizer security, enter the code of security deactivation given on the plastic card, by means of the clutch* (brake).

Do as follows for security deactivation:

1) Switch on the ignition. The alarm is activated and the engine is blocked.

On

2) Switch off the ignition.

Off

3) Press the clutch* (brake) handle the number of times corresponding to the first digit of the security deactivation code.

Press shortly
X times

X − the first digit
of the security
deactivation code

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4) Switch on the ignition.

On

5) Repeat items 2-4 to enter the remaining digits of the security deactivation code.

6) If the security deactivation code is entered correctly, 3 sound signals will follow and the system security will be deactivated. If the security deactivation code is entered incorrectly, the system will issue 4 light signals at ignition switch-on.

⚠️ If the security deactivation code is entered incorrectly 5 times, entry of the security deactivation code will be blocked for 15 minutes. The immobilizer will notify about the exceeded number of code entry tries by 4 light signals at each ignition switch-off.

Example of entry of the security deactivation code 5342.

	On	Off		On	Off		On	Off		On	Off		On	
Ignition	⊘	Alarm ▯		⊘	▯		⊘	▯		⊘	▯		⊘	3 times ♪♪♪
Press the clutch* (brake) handle			5 times			3 times			4 times			2 times		🔓