


Thank you for choosing the

StarLine i95LUX, i95, i95ECO

immobilizer.

We wish you safe and
enjoyable riding!

and let us wish you safe driving!

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Table of available indication types

Event	Label (LED)	Sound alarm	Notes
Engine locking expected		Intermittent audible signals	Stop the vehicle
Label battery low		 3 audible signals	Replace the battery
Normal protection mode			If after pressing the button the LED blinks once, the label is out of coverage Protection functions are off in the service mode
Anti-theft mode			
Service mode			
Label successfully recognized		 1 audible signal	
Label not available. Enter unlock code prompt		 Long audible signal	Only for i95, i95 ECO
Normal mode, label recognition off		1 audible signals per 2 minutes	If the label is lost after pulling out (while in the normal protection mode)
Lock control circuit failure		 2 audible signals	Correct the failure

Technical Characteristics

Parameter	Locking module	Indication module	Label
Frequency range of radio control signals, MHz	2405...2480		
Type of control code	Dialog		
Maximum operating radius of immobilizer components, m	10*		
Power voltage, V	9...16		2.0...3.3
Current consumption when ignition is off, mA	6.6 (i95 LUX, i95) 2.4 (i95 ECO)	—	
Current consumption when ignition is on, mA	6.8**	0.2	—
Permissible switching current via relay contacts, A	10	—	
Permissible switching current at lock control outputs, A	20	—	
Operating temperature range, °C	-40...+125	-40...+85	-20...+70
Battery type	—		CR2025, CR2032
Battery lifetime, months			12
Dimensions, mm	94 × 24 × 13 41 × 28 × 9		53 × 26 × 7

* — depends on the immobilizer components layout

** — when the locking is off

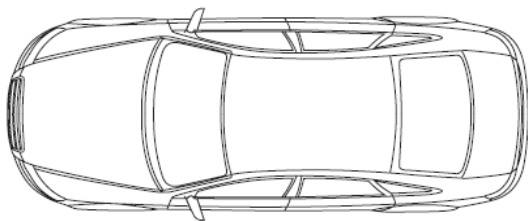
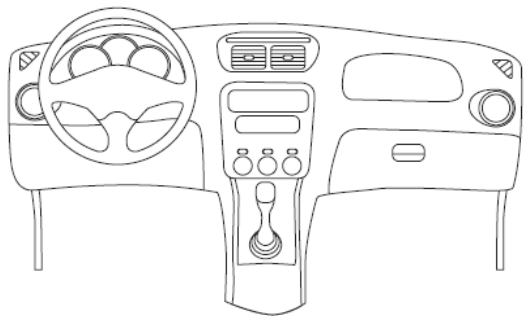
Label operating range may be reduced depending on the installation location of the system components.

Scope of supply

No.	Component	i95 LUX	i95	i95 ECO
1	Installation instruction	✓	✓	✓
2	Operating instruction	✓	✓	✓
3	Plastic card	✓	✓	✓
4	Label with battery, 2 pcs	✓	✓	✓
5	Locking module	✓	✓	✓
6	Indication module	✓	-	-
7	Audible alarm unit	-	✓	✓
	Function	i95 LUX	i95	i95 ECO
	Central lock control (Hands-Free mode)	✓	✓	-
	Label presence output (status output)	✓	✓	-



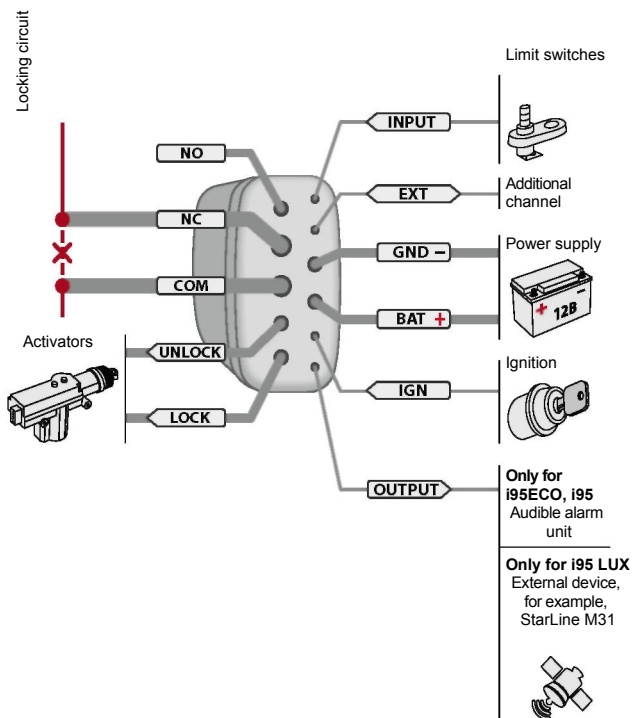
Installation sheet



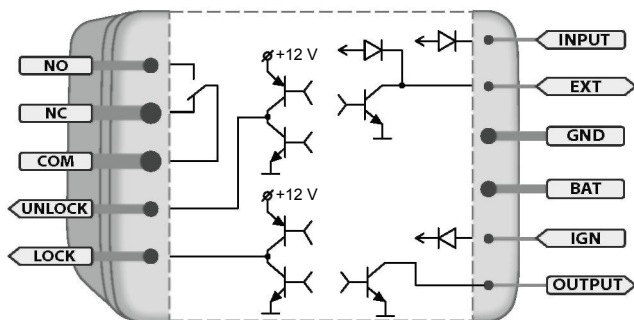
Date of installation: _____

Service code: _____

Installation diagram



External terminals diagram



Identification of external terminals

All wires of the locking module have white marking.

Marking	Explanation
GND	Earth (-)
BAT	Power supply (+)
IGN	Ignition
NO	Normally open relay contact
NC	Normally closed relay contact
COM	Common relay contact
UNLOCK	Opens door lock (or hood)
LOCK	Closes door lock (or hood)
INPUT	Limit switch input for doors (or hood)
OUTPUT	i95, i95 ECO —audible alarm unit i95 LUX — status output
EXT	Universal channel

General requirements for installation

- StarLine immobilizer i95 LUX, i95, i95 ECO is intended for installation in vehicles and motor transport with onboard power voltage 12 V.
- Before installing the immobilizer make sure that the car electrical circuits are operable, and also that there is no indication of failures of the car standard equipment on the dashboard (“Check engine”, “Airbag” etc.).
- Installation of the immobilizer is performed according to the installation diagram (page 8).
- Wires shall be laid as far as possible from the sources of electrical interferences: ignition coils, high-voltage wires, etc. Take care that the wires are not touching the moving parts of the vehicle construction: pedals, steering rod, etc.



Before the start of installation please refer to the working principle and functional capabilities of the immobilizer, which are described in the Installation instruction.



After immobilizer installation, fill in the Installation sheet contained in the Installation instruction.

Recommendations for location

Locking module is located securely in the places which are not available for inspection without a partial dismantling of body, engine or compartment elements. Locking module can be located both in the passenger compartment and in engine compartment (under the hood) with precautions related to permissible temperature, aggressiveness of environment and humidity.

To avoid interferences in radio link operation, it is recommended to install the module as far as possible from metal parts of the vehicle, or to provide a clearance of several centimeters from solid metal surfaces.

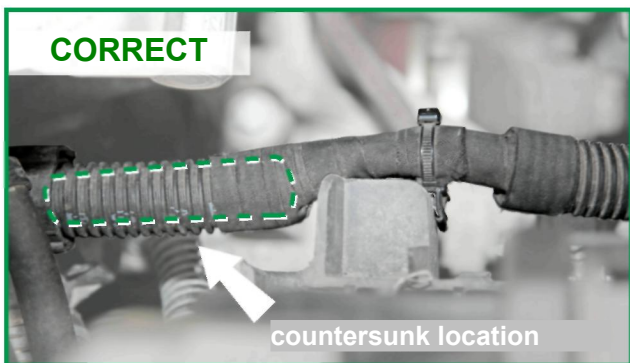
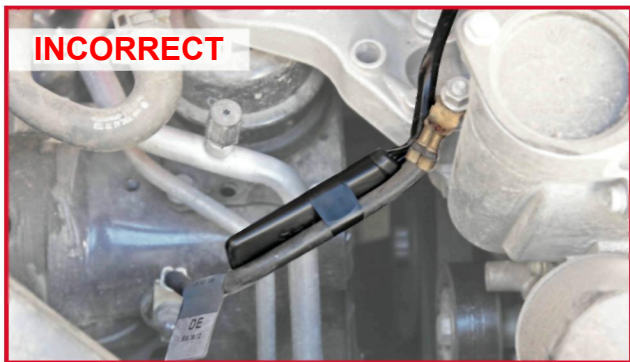
In the conditions of screening, it is necessary to perform a proximity check for radio link functioning. For normal functioning of the immobilizer it is enough to provide a stable signal receipt between the locking module and the label located on the driver's seat.



If the Hands-Free mode is used (page 32), it is necessary to determine a proximity threshold depending on the desired proximity for door lock control (page 34).

It is allowed to install the locking module in the standard wiring harness of the vehicle for secure location of the module. The harness should be stationary related to the vehicle body.

It is necessary to fix the module rigidly in order to prevent false activation of motion sensors.



Connection of immobilizer

Connection of power supply

GND wire of the locking module should be connected to the vehicle body or to the conductor which is firmly attached to the body.

During the installation, this wire is connected in the first turn.

During the installation, it is necessary to consider the following connection property: the module should receive power supply through the **BAT** output, and this power supply must in no event be interrupted. Failure to comply this requirement can result in immobilizer malfunctions — for example, in the unauthorized activation of the anti-theft function which can lead to sudden changes in engine operation. In the **IGN** wire there should be potential of +12 V during the ignition start and engine operation.



When connecting the BAT wire, it is necessary to remember that maximum current consumption can reach 30 A (in the moment of sending a pulse for lock control).

Connection to the locking circuit

Wires **NO**, **NC** and **COM** are connected to the locking circuit.

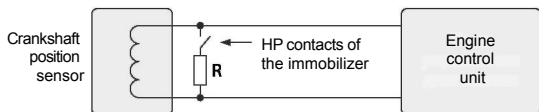
To perform locking functions, you can use both normally closed (**COM** and **NC**) and normally open (**COM** and **NO**) contacts.



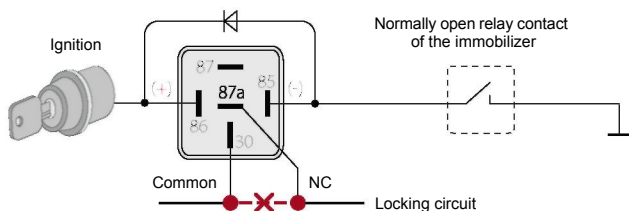
Relay actuation is performed only in the moment of engine locking. Ignition switch off does not lead to relay actuation.

Switching current must not be more than 10 A for the long time period and more than 20 A for the duration up to 1 minute (at circuit switching)

without inductive component in the load). Dimensions of the locking module allow to install it in close vicinity to the place of locking. During the circuit installation, it is necessary to monitor the length and the section of wires used in switching since switching current can be substantial. If current in the locking circuit is higher than 10 A, it is necessary to use an additional external relay.



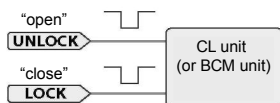
Example of HP contacts use for blocking



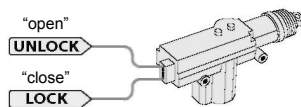
Connection of external block relay

Connection of lock control outputs

UNLOCK and **LOCK** outputs are intended to control the hood lock or central door lock. Outputs are constructed according to the main circuit (maximum output current 20 A), that's why additional power supply modules are not needed to control the locks. At the same time, the control of central door lock can be performed both through two-wire drives of the locking system and through the direct connection to the central locking system with negative control.



Control of the central door lock



Hood lock control

Before connecting the power outputs of the lock, it is necessary to select a corresponding control diagram (page 32).

Method of lock control		Output	“Open” pulse	“Close” pulse
Hood control (Hands-Free mode is off)	Two-wire drives of locking system	UNLOCK	+	-
		LOCK	-	+
Door control (Hands-Free mode is on) <i>(only for i95 LUX, i95)</i>	Central locking system with negative control	UNLOCK	-	disconnection
		LOCK	disconnection	-
	Two-wire drives of locking system	UNLOCK	+	-
		LOCK	-	+

INPUT wire should be connected to the corresponding limit switch; this will allow the system to monitor the door and hood status. If the door and the hood are open, the lock closing is not performed. When the door (hood) is open, the wire should have earth (-).



CAUTION! *In case of direct connection of immobilizer control outputs to the central door lock control unit, it is **necessary** to select the central locking system with negative control as a control diagram. Failure to observe this rule can lead to outage of the equipment.*

After the connection, it is necessary to check the work of unlock and lock algorithm of the central lock with the immobilizer and the car key. Rarely, there may be incorrect operation of the central lock which is connected with the properties of vehicle's standard circuits — use an additional external relay with dry contacts to provide connection to the central lock outputs.

In case of a failure in the lock control circuit (for example, wire short circuit or overheat) while sending a pulse to open or close a lock, you can hear 2 short audible signals. In this case it is necessary to recover this failure before the start of operation.

Connection of “status” output (i95 LUX)

“Status” OUTPUT allows to use immobilizer along with external devices (alarm, monitoring system, etc.) in order to track vehicle owner presence. The output works in the following way:

- it has high impedance state (disconnection) if the label is located at a distance or not present (label signal level is lower than the specified proximity threshold (page 32))
- Earth (-), if the label is located near the vehicle (label signal level is higher than the specified proximity threshold (page 32))

Connection of audible alarm unit (i95, i95 ECO)

OUTPUT wire is attached to the “-” output of the audible alarm unit, and the “+” output is attached to the **BAT** wire of the locking module (circuit “+12 V”). Parallel to the audible alarm unit, it is allowed to connect a LED (via a resistor with resistance of 1...2 kOhm).

The audible alarm unit is located in such a way that its signals can be heard well from the driver’s seat.



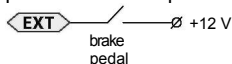
CAUTION! *Do not locate the audible alarm unit close to the locking module, this can lead to actuation of the motion start sensor during the sending of audible signals.*

Connection of universal channel

EXT universal channel can be connected to one of the following inputs (outputs):

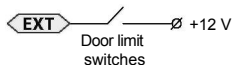
- **Positive input of the brake pedal**

Used to perform the brake pedal polling (page 32) prior the start of performing of locking algorithm in the anti-theft mode. Pressing the brake pedal is determined by occurring of +12 V potential at the input.



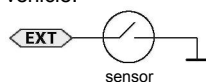
- **Positive input of limit switch**

It is intended to determine the status of doors or hood. It is used in vehicles with potential of +12 V at the limit switch when doors or hood is open.



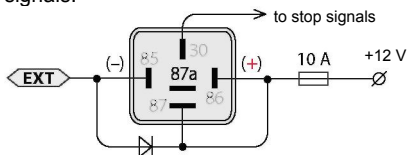
- **Negative input of touch sensor (i95 LUX, i95)**

Connected to hand touch sensor (installed separately). In the Hands-Free mode in the presence of a label in locking module coverage area, opening of the central door lock is performed only by the sensor signal. Close doors pulse will be sent at the prolonged effect on the touch sensor (for more than 3 seconds) or when the label is moved away from the vehicle.



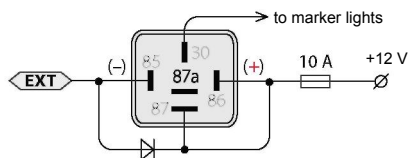
- **Output to stop signals**

Low current (400 mA) negative input Used to warn surrounding persons about the expected stop of the vehicle prior to start the engine locking algorithm. Alarm signals are duplicated in the compartment by the blinking of vehicle stop signals.



- **Output to marker lights**

Low current (400 mA) negative input Intended for light indication of automated opening or closing of the doors. At the moment of sending of the “close doors” pulse, one signal is sent to the marker lights. Simultaneously with the “open doors” pulse, two signals are sent to the marker lights.

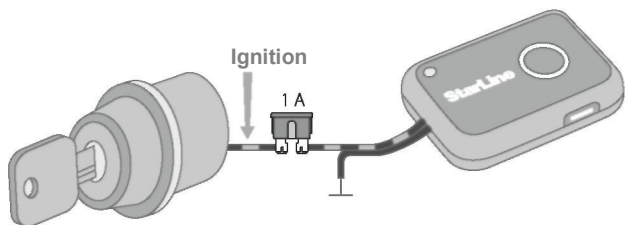


- **“Status” output**

Operating algorithm of the output is completely conforms the description provided in the article “Connection of status output”. For the i95 ECO immobilizer status output operates only when ignition is on.

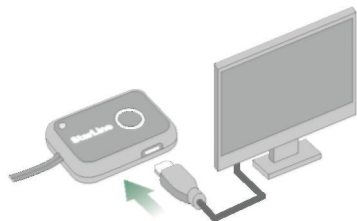


Connection of indication module



- 1) Attach indication module to the selected surface using double-sided adhesive tape included in the scope of delivery.
- 2) Make sure that the ignition is on.
- 3) Connect black wire of the locking module to the “earth” of the vehicle.
- 4) Connect black wire with a gray stripe with the standard wire which has voltage +12 V only when ignition is on. The voltage should not be interrupted when the starter is on.

Telematic setup of immobilizer



To quickly and conveniently setup parameters of the immobilizer on your computer, download special application “StarLine Wizard” from the www.starline.ru web-site.

Parameter programing with the use of label

Programing mode is intended for the immobilizer parameters setup.



Switching to the programing mode demands service code to be entered.



Switching to the programing mode from the service mode is impossible (yellow indication).

For **i95 LUX** immobilizer, entering the **programming mode** is performed using the indication module. For **i95, i95 ECO** immobilizer it is done with the use of ignition key.



CAUTION! When system is switched to the programming mode with the use of service code, the option for changing unlock code will be unavailable.

Entering programming mode with the use of service code for i95 LUX immobilizer

- 1) **Turn the ignition on.** Press the indication module button and hold it for over 3 seconds, until the LED blinks off. Release the button.



- 2) Yellow flashed will follow, accompanied by audible signals. Count the number of flashes equal to the first digit of the service code and briefly press indication module button. Entering of the first digit is complete.



- 3) Enter the rest digits of the service code following the procedure similar to article 2.









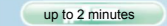










- 4) If the service code **is entered correctly**, you will hear 5 short signals and the system will switch into the programming mode. After a few seconds the label LED will start blinking in green (1 blink = 3 sec), expecting parameter input.



If the service code **is entered incorrectly**, you will hear 2 short signals. If the code is entered incorrectly for 5 times during 30 minutes, reentering procedure will be blocked for 15 minutes. Inhibit for enter will be taken off upon label appearance.

Switching to the programing mode.

Example of service code entering — 9567.

Pressing module button		  > 3 sec 					
Light signal	 up to 2 minutes		 9 times	 5 times	 6 times	 7 times	 5 times
Audible signal			 9 times	 5 times	 6 times	 7 times	 5 times



The immobilizer will stay in the programing mode while the ignition remains on.

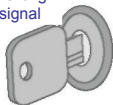
Entering to the programming mode with the use of service code for i95, i95 ECO immobilizer.

- 1) Remove all labels from the immobilizer coverage area (or remove batteries from them).
- 2) **Turn the ignition on.** Wait for the audible signal to start and turn the ignition off.

During the long audible signal



Off



- 3) **Turn the ignition on** — a series of audible signals will follow. Count the number of signals which equals to **the first digit of the service code** and turn the ignition on.

Number of audible signals equals to the digit of the code



Off



- 4) Enter the rest digits of the service code following the procedure similar to article 3.

- 5) **Turn the ignition on.** If the service code is **entered correctly**, you will hear 5 short signals and the system will switch into the programming mode.



5 times





























If the service code is **entered incorrectly**, you will hear 1 long signal. If the code is entered incorrectly for 5 times during 30 minutes, reentering procedure will be blocked for 15 minutes. Inhibit for enter will be taken off upon label appearance.

- 6) Insert the battery into the label. After a few seconds the label LED will start blinking in green (1 blink = 3 sec), expecting parameter input.



Switching to the programing mode.

Example of service code entering — 9567.

	On 	Off 	On 	Off 	On 	Off 	On 	Off 	On 	Off 	On 
Ignition											
Audible signal	after 20 sec.	 10 sec.	 9 times	 5 times	 6 times	 7 times	 5 times				



The immobilizer will stay in the programing mode while the ignition remains on.

Parameter programing table

During immobilizer programing you can use the provided below reference table. The number in the **Parameter** graph complies with the number of label button pressings when the green LED is on, and the number in the **Value** graph coincides with the number of pressings when the red LED is on.

Example of entering the parameters from the programing table.

To set the low sensitivity level for the motion start sensor, switch the immobilizer into the parameter programing mode (page 21). Then, perform the following actions:

- 1) Make sure that label LED shows three-second blinking in green.

Blinking
for 3 sec.



- 2) Press label button 9 times at a run when LED is on. When the LED lights off, 9 short green flashes will follow (corresponding to the number of pressings). The LED will change its color to red.

Press
9 times



9 flashes
follow



Color will
change



- 3) Press label button for three times when LED lights in red. When the LED lights off, a series of red flashes will follow, and their number will be equal to the number of button pressings.



Pressings:
1 — high level of
sensitivity
2 — medium level of
sensitivity
3 — low level of
sensitivity

- 4) Successful setting of the high sensitivity level for the motion start sensor will be confirmed by three audible signals.

Parameter	Value	Description	Note
1	Changing the unlock code (see Operating instruction)		Allows to change the 4-digit unlock code needed to switch the system into the emergency unlock mode
	1...9, 1...9, 1...9, 1...9	Entering new unlock code	
2	Option for label coverage test (page 31)		Includes an option for label coverage test
	1	Turning the option on	
3	Not used		
4	On-the-go locking (page 32)		Allows to block the engine at the beginning of motion.
	1	On (by default)	
	2	Switched off	
5	Hands-Free mode (page 32)		Allows you to switch between automated control of the central door lock and the hood lock. *Only for i95 LUX, i95 immobilizer
	1*	Switched off, hood lock control by label presence. Two-wire drives of locking system	
	2	Switched off, hood lock control by ignition status. Two-wire drives of locking system (by default)	
	3*	Switched on, door lock control. Central locking system with negative control	
	4*	Switched on, door lock control. Two-wire drives of locking system	
	5	Lock control is switched off	
6	Door lock control (page 32)		Allows you to choose additional options to control door locks (used only in combination with the Hands-Free mode). See the detailed description in "Door lock control" section. Operating instruction. *Only for i95 LUX, i95 immobilizer
	1	Without additional options (by default)	
	2*	Open only	
	3*	Additional close at the beginning of motion, open upon ignition is turned off.	
7	Label proximity threshold for lock control (page 34)		Allows you to adjust actuation distance for lock control
	1	Short distance	
	2	Medium distance (by default)	
	3	Long distance	

Parameter	Value	Description	Note
8		Connection of universal channel (page 34)	Determines the operating algorithm for the universal channel depending on the selected connection method. *Only for i95 LUX, i95 immobilizer. **For i95 ECO immobilizer, the status output operates only when the ignition is on.
	1	Brake pedal	
	2	Limit switch	
	3*	Hand touch sensor	
	4	Stop signals	
	5	Marker lights	
	6**	Status output (by default)	
9		Sensitivity of the motion start sensor (page 36)	Allows you to adjust the sensitivity of actuation for the motion start sensor.
	1	High level	
	2	Medium level (by default)	
	3	Low level	
10		Locking delay after the motion start (page 36)	Allows you to select the required delay duration prior to locking start after the beginning of motion (if the label after the ignition switching on is not present)
	1	not present (by default)	
	2	5 seconds	
	3	10 seconds	
11		Delay prior the locking start in the anti-theft mode (page 37)	Allows you to select the required delay duration after the label is moved away (in conditions of motion) prior the beginning of the locking in the anti-theft mode
	1	40 seconds (by default)	
	2	60 seconds	
	3	120 seconds	
12		intermittent locking algorithm (page 37)	Permits and prohibits engine fault simulation when the locking is performed
	1	Switched on	
	2	Switched off (by default)	
13		Common audible indication (page 38)	Permits and prohibits all audible signals except confirmation signals in additional modes
	1	On (by default)	
	2	Switched off	
14*		Common light indication (page 38)	Permits and prohibits light indication for label detection and warning about the expected locking. *Only for i95 LUX immobilizer
	1	On (by default)	
	2	Switched off	
15		Label detection signal (page 38)	Permits and prohibits the label detection signal after the ignition is on.
	1	Switched on (by default)	
	2	Switched off	

Parameter	Value	Description	Note
16	Label loss signal in the normal mode (page 38)		Permits and prohibits signals when the label is lost in the normal mode
	1	Switched on (by default)	
	2	Switched off	
17	Reset to the factory settings (page 38)		of the programming table parameters
	1	Return to the default settings	
18	Delay prior the start of operation of the motion sensor (after the engine start) (page 37)		Determines the required delay after the remote engine start
	1	5 seconds (by default)	
	2	30 seconds	
	3	60 seconds	

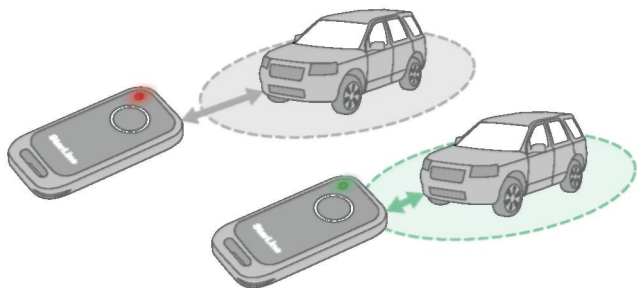
Coverage test

This option allows you to check the stable connection between the label and the locking module.

In the process of stable connection test, every half a second a two-way radio exchange takes place between the label and the locking module, which is shown by the LED flashing. A green flash corresponds to the successful exchange, a red one corresponds to the exchange failure. Duration of the connection check session is 10 minutes. After the expiry of this time period the system automatically returns to the protection mode.

In case if the label loses connection for more than three minutes, it stops blinking until the successful exchange with the locking module.

Stable connection is necessary for safe operation of the immobilizer and does not depend on the specified lock control threshold.



Locking in motion

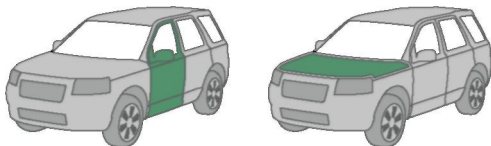
Immobilizer can perform engine locking in the beginning of the motion. This allows using the immobilizer together with systems of remote engine start. If locking in motion is prohibited, the engine will be locked when the ignition is off.

Hands-Free mode setting



Central lock control is available only for i95 LUX, i95 immobilizer

Door lock or hood lock control



Immobilizer includes outputs to control of the central door lock or the hood lock. Using Hands-Free mode allows you to remotely control the central door lock when the label is moved to and away from the vehicle. A detailed description can be found in “Door lock control” section of Operating instructions.



CAUTION! *Control algorithm for the central lock differs from the hood lock control. When setting up the immobilizer you can choose one of these modes.*

In the system there are two methods for the central door lock control. If a pulse for opening and closing of the lock is sent directly to the central lock, it is necessary to use the control diagram of the central locking system with the negative control. In case of connection of the locking module power contacts to the door lock activator, it is necessary to switch the system to the control with two-wire drive of the locking system.



CAUTION! *In case of direct connection of immobilizer control outputs to the central door lock, it is necessary to set the control diagram for the central locking system with negative control. Failure to observe this rule can lead to outage of the equipment.*



In case of a failure in the power supply circuit for activators (for example, wire short circuit or overheat) while trying to send a pulse to open or close a lock, you can hear 2 short audible signals.

Additional door lock control (i95 LUX, i95)

In the system there is an option of additional door lock control in the Hands-Free mode. A detailed description can be found in “Door lock control” section of Operating instructions.

Setting of label proximity threshold

The distance between the label and the locking module at which the “open” pulse is sent, is set up by three-level proximity threshold setting (short, medium, and long distance).



The distance and stable connection are influenced by many factors: presence of interferences, different obstacles, etc. Keep in mind that the actual proximity threshold depends on the label location: if the label is located in the hip pocket or under the dense clothes, it's coverage reduces. Moreover the specified distance is determined by installation method of the locking module in the underhood space: the deeper the device is located, the harder it can be detected, but the actual proximity threshold is lower.

The maximum coverage of the label for the Hands-Free option is in the range of 10 meters.



When installing immobilizer in passenger compartment, it is recommended to set the proximity threshold to short distance value. When installing in the underhood space the set up is done for the medium or long distance.

Setting of universal channel

EXT universal channel can be connected to one of the following inputs (outputs):

- **Positive input of the brake pedal.** In the anti-theft mode, engine locking will start at the pressing the brake pedal, which provides additional safety at the stop. If the brake pedal was not pressed, engine locking will start upon expiry of the double period of time specified during immobilizer parameters programming. Pressing the brake pedal is determined by occurring of +12 V potential at the input.

- **Positive input of limit switch.** It is intended to determine the status of doors or hood for the vehicles with positive limit switches. If the doors and the hood are open, the potential of +12 V is determined in the limit switch.
- **Negative input of touch sensor (i95 LUX, i95).** In the Hands-Free mode in the presence of a label in locking module coverage area, opening of the central door lock is performed only by the touch sensor signal (provided as an option). Door closing takes place at the prolonged effect to the sensor (for more than 3 seconds) or when the label is moved away.
- **Output to stop signals.** Low current (400 mA) negative input Used to warn surrounding persons about the expected stop of the vehicle prior to start the engine locking algorithm. Alarm signals are duplicated in the compartment by the blinking of vehicle stop signals.
- **Output to marker lights.** Low current (400 mA) negative input Intended for light indication of automated opening or closing of the locks. At the moment of sending of the “close” pulse, one signal is sent to the marker lights. Simultaneously with the “open” pulse, two signals are sent to the marker lights.
- **“Status” output.** It is intended to monitor the presence of the label near the vehicle. Used as a default setting of the channel.

Setting engine locking parameters

Sensitivity of the motion start sensor

The start of locking algorithm operation is determined by the three-level setting for the actuation threshold of the motion start sensor

- **High level** — provides response to the start of motion with the movement for more than 10 meters in 10 seconds; in average, provides actuation at the speed of 5 km/h at the slow acceleration.
- **Medium level** — provides response to the start of motion with the movement for 10 to 20 meters in 10 seconds; in average, provides actuation at the speed more than 10 km/h at the slow acceleration.
- **Low level** — provides response to the start of motion with the movement for more than 20 meters in 10 seconds; in average, provides actuation at the speed more than 30 km/h at the slow acceleration.

Delay prior switching on of the locking after the motion start

A period between the motion start and the switching on of the locking (10 or 5 seconds, and a zero period) is selected on the basis of the amount of time which is required to drive to the traffic area where the violator already will not be able to attempt to switch the immobilizer off. Furthermore, this delay can be used for safe locking of the engine after its start.

Delay prior the switching on of the locking in the anti-theft mode

A period between the motion start and the switching on of the in the anti-theft mode (40, 60 or 120 seconds) is selected on the basis of the amount of time which is required for a violator to leave the place of the crime.

Delay prior the start of operation of the motion sensor (after the engine start)

This setting is recommended in case of severe vibration after the remote engine start. In this case it allows to avoid actuation of the motion start sensor. The specified period (5, 30, and 60 seconds) is counted from the moment of switching the ignition on.

Engine locking algorithm

If to the moment of the vehicle motion start the connection between the label and the locking module was not found, and the urgent unlock procedure was not performed, the system begins locking the engine. During engine locking the option of engine fault simulation is provided: the locking circuit is periodically disconnected and recovered according to the following algorithm

Locking stages	LOCK	Pause	LOCK	Pause	LOCK	Pause	LOCK
Duration, sec	2	2	3	2	5	2	20

If the vehicle begins moving after the locking cycle has finished, the locking turns on for another 20 seconds. If the locking is consequently performed 3 times, the engine is locked until a label is brought within the reception range.

Setting visual and audible alarm

Common audible indication

There is an option for turning off of all audible alarms except confirmation signals in additional modes.

Common light indication

There is an option for turning off of light indication for label detection and for warning about the expected locking.

Label detection signal

The detection of the label by the immobilizer is accompanied by audible and light signals.

Label loss signal in the normal mode

The loss of the label by the immobilizer is accompanied by audible signals. This signal helps to detect label absence, for example, if you have left in the garage.

Reset to the factory settings

When settings are reset, all the parameters of programing table (except the unlock code) change their values to the default values (page 26). However, all registered devices are saved in the system.



CAUTION! Procedure of settings reset does not change the specified value of the unlock code.

New device registration

In order to prevent the unauthorized registration of labels, the unlock code is needed to enter the device registration mode. In order to register new components, the immobilizer needs to be switched to the device registration mode with the use of the unlock code. Registration procedure for new devices is described in the corresponding section of the Operating instruction.



If vehicle owner provided you the unlock code, ask him to change it with a new one after the registration procedure for new devices is complete.

The manufacturer reserves the right to modify its designs or elements without prior notice.

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