



Car Alarm System Saturn M5

USER'S GUIDE

CAPABILITIES

- dynamic code
- optional alarm signals*
- optional signals for arming/disarming*
- four buttons remote transmitter
- double hopping code *
- built-in immobilizer *
- relays for central locking control with +/- (0.7/3.5 sec.)*
- long lock *
- double unlock*
- locking on ignition turning on*
- additional channel for window roll-up control or pager control *
- two security modes
- repeated self-activation*
- passive arming*
- locking during passive arming*
- two inputs buttons with negative start up
- input buttons with positive start up
- electronic shock sensor with two modes of performance
- reminder for door opening (the system is in arm mode)
- service ("valet") button
- intelligent shock sensor
- intelligent current sensor*
- ignition cut-off (normal opened relay)
- long indicator lights*
- LED with "memory"
- self test
- indicator light indication
- "Panic" button

* **programmable functions**



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1. Remote control.

The remote control have 4 buttons:

- button N1- with this button the alarm systems is being turn ON or OFF
- button N2 - depending on the mode of the system the button works as:
 - "PANIC" button
 - second code for exiting alarm mode
 - starts special guarding mode
 - deblocks the immobilizer when engine "started"
- button N3 – turns on the extra channel when heeled down
- button N4 – silent turning on

2. Arm mode.

When the system is in arm mode your car is protected by: ignition cut-off and by the strong sound produced by the magneto-dynamic siren and the flashing blinkers for 30 sec. in one or in combination of the following situations:

- car blow (shock sensor)
- door or hood opening - buttons' protected
- switching on a unit(consumer) with over 5W power
- attempt for ignition switching on

30-sec. alarming cycle can be stopped before time expire by button N2 of the remote control. In this case stops only the siren, but the system stays in arm mode waiting for one of the above mentioned actions(button N1 stops the "alarm" mode and disarms the system).

The car alarm system "**SATURN M5**" is unique with its two security modes, conventionally called: **night** and **special**.

- **Night security mode.** Starting the Night security mode is produced by a single click on button N1. As a sign of acceptance the system produces a low sound (or strong short signal if there is programmed such)by the siren and the blinkers flash. In this security mode if there is a weak strike, the shock sensor activates the siren for short, and if the blow is stronger- the siren is activated for 30sec. **In this security** mode the activation of the second zone of the shock sensor activates the siren for 30 sec.-it sounds for 0.7sec. with pause of 0.7sec. If during signalization caused by the shock sensor, a door is opened or the ignition is turned on with "+ 12V"(ACC), the siren continue to signal without a break.

- **Special security mode.** Starting the Special security mode is produced by consequent clicks on buttons N1 and N2 as follows: press button N1 and after hearing a chirp(or short strong signal) of confirmation press button N2. To confirm the system produces a short chirp and a long beep by the siren and the blinkers flash . In this security mode the system doesn't accept signals coming from the shock and current sensor. Such security mode is recommended if a baby, puppy or an old man stays in car and is reasonable the car to be under security guard.

The two security modes are just conventionally divided and the choice of rate depends only of the user's wish and the situation. If one of the mentioned modes is started the central locking control is switched on-in disarmed mode the car is unlocked.



In order to avoid unnecessary arming if buttons breakdown or activation of the shock sensor, the system has additional functions. In case of continuous starting of button (hood and door) the system alarms 4 times and then discards the buttons. After buttons reconnection (door and hood closure), buttons' inactivation stops. In case of 4 times activation of the shock sensor for 30sec.each , the system automatically turns it off- only the warning zone is active.

3. System disarming mode

- Disarming by remote control transmitter

The system disarms by pressing N1-the system produces one long chirp (or short strong signal) by the siren and the blinkers flash. Then press N2 - the system produces a chirp by the siren and the blinkers flash, the system disarms and unlocking is activated. The term between pressing button N1 and then N2 must not prolong more than 5seconds, on the contrary- the system alarms for unaccepted second code. If the function double code is not chosen the disarming is made by pressing of N1. **For more convenience during the self-test mode the disarming is always by button N1 of RCT.**

- Emergency disarming

In case of defects or losing of remote control transmitter the system can be disarmed as follows: While the system alarms, turn the ignition on and press the valet(service) button.

4. Silent arming

By pressing N4 for 3 sec. before a button for turning On or OFF, the alarm system goes On or OFF without signalling with the siren, just with the blinkers.

5. Self test mode

After choosing one of the two arming modes first the system pass through self- test mode. In this mode the system checks for active input to start the siren. If a button is activated, the system turns on the siren for 0.7 sec. and discards the input for buttons till the button becomes inactive, after that recovers its control. The function of warning by the siren when discarding the buttons can be programmably disabled. If the shock sensor is active in this mode its action is switched off for 30sec.

If during the interval the shock sensor is activated again, its switched off time is increased with another 30sec. In the same way the current sensor is switched off- the car can be left with lights switched on or if the ventilator is on while the ignition is switched off, the current sensor will be inactivated till its switching off.

6. Panic mode

"SATURN M5" increases the personal security of user by the Panic mode. If you have attackers near your car, you can call the attention by switching on siren and blinkers by the remote control transmitter. Simply press button N2 and the siren will be switched on for 30 sec. Disarming before expire period - by pressing N2 again.

7. LED indicator

LED indicates about the system status and the diagnostics.

7.1. System status info:

- LED doesn't light- disarm mode- neutral status



- LED lights continuously- self test mode or ignition is switched on and the immobilizer is not unlocked.
- LED lights with frequency 4 blinks per sec. -special security mode
- LED lights with frequency 1 blink per 1sec. - night security mode
- LED lights on permanently and lights off in short interval - programming mode

7.2. Diagnostics info.

If the system is in arm mode it keeps in memory the reasons for arming, and in disarmed mode reports. In this case the LED blinks in 2 sec. intervals between the blinks. The number of blinks between the intervals gives the reasons:

- two - attempt for ignition switching on
- three - door or hood button switched on
- four - activated by the current sensor
- five - strike on the car (second zone of shock sensor)
- six - unaccepted second code for disarming the system

8. Ignition recovery.

When the system is in disarm mode, switching on the ignition lights on the system's LED in order to remind that turning on the ignition is impossible. To make it possible, press button N2 of the remote transmitter. The LED lights off and the ignition can be switched on. If the ignition switching on is interrupted for more than 30 sec., turning on of ignition is interdicted again. The immobilizer can be unlocked both by the remote transmitter and by the above mentioned way in "**emergency disarming**". During the settings adjustment this function can be discarded and the ignition switching on is activated by key, it makes work with system easy but decreases the number of security options.

9. Adjustment of the shock sensor.

To adjust the both zones of the shock sensor press N1 - you enter the self-test mode, press N2 for entering the special security mode. Press and hold the service button, then press button N1 again for leaving the self-test mode and entering the mode of programming the first shock sensor zone, release the service button. With N1 you increase the sensitivity and with N2 decrease it. The degrees of sensitiveness are 16 and when you reach the end of each corresponding direction the system produces a long tone. You can try the adjustment at any moment. By pressing of both buttons together you go to the second zone. Testing and adjustment you can do in the same way, but the most sensitive degree is equal to first zone. When you adjust the second zone and on a light strike on the car only the first zone is activated, the system produces just one short chirp. If the second zone of the sensor is activated, the system produces a long and short signal. To exit the mode of adjustment of the shock sensor press again the both buttons of the remote control together. At any moment on turning the ignition on by the key switch you leave the programming (adjustment) mode.

10. Programmable functions

To enter the programming mode press at first N1 - you enter self-test mode. Press and hold the service button, then press N1 again - you leave the self-test mode and can start programming the first function. Release the service button.



1 – Sound1	yes
2 – Sound2	no
3 – Sound3	no
4 – Sound4	no
5 – Chirps1	yes
6 - Chirps2	no
7 – Chirps3	no
8 – Long blinkers	no
9 - Repeated self-activation	no
10 -Passive arming	no
11 -Current sensor	yes
12 -Warning for door ignoring	yes
13 - Double code	yes
14 -Disabling the immobilizer	no
15 –Locking time (3.5/0.7сек)	no
16 - Long lock	no
17 - Channel for windows roll-up	no
18 - Pager channel	no
19 - Locking on ignition switching on	no
20 - Locking on passive arming	yes
21 - Double unlocking	no
22 - Disabling the current sensor in Special mode	no

If the function is switched off the LED lights on for a short interval and if it is switched on- the LED lights off for short. Function switching on is done with N1 and its switching off - with N2. A single function can be switched on and off repeatedly, and the next function follows by short turning the ignition key on - the system emits one signal. If you hold the ignition key on for more than 3 sec., the system exit the programming mode. After function #22 or if you stay at one and same function for more than 30 sec, the system also leaves the programming mode by producing 3 signals.

Functions description

1,2,3,4. Different siren sounds. If they are allowed more then one, the systems alarms alternately.If any of sounds are allowed, only sound1 is working.

5,6,7. Tones for arming and disarming

5 - Tones are with variable frequency

6 - Tones are with constant frequency

7 - Signalizing only with blinkers, no tones

If none of these functions are selected, the tones are strong and short - two for switching on, three for switching off, and one for accepted first code for disarming.



8. Long blinkers - if the function is enabled the blinkers lights 12sec. after system disarming, or till a door is opened or the ignition is turned on

9. Repeated self-activation - if the function is enabled the systems arms itself automatically 15sec. after disarming on condition that no door is opened and the ignition is not turned on. This way the system can't be disarmed by chance.

10. Passive arming- after closing the last door of the car the system produces a warning and arms in 15 seconds

11. Disables and enables the current sensor

12. Warning for discarding the doors -if the fuction is disabled the doors are ignored without any warning.

13. Double code - if the function is disabled the system can be disarmed only with button N1;

14. Disabling the immobilizer - if the function is enabled, the ignition will be automatically restored when you turn the ignition key on and if the system is disarmed;

15. Locking and unlocking impuls term - if it is "yes", the term is 3.5sec. for pneumatic locking.

16. Long lock - if it is "yes", the locking impulse term is 24 sec. as if it does not work while **lock on ignition turning on** is enabled. **Also ff the function is enabled** the shock and current sensors are switched off for 30sec. after test time expiring.

17. Additional channel for windows roll-up control. If the function is allowed, the additional channel will supplies GND during test period (20 sec.). During the rest of time the channel can be activated by pressing button N3 - you can roll-up electric car windows manually and automatically. **If the function is enabled** the shock and current sensors are switched off for 30sec. after test time expiring.

18. Pager channel - if the function is enabled and the channel is activated, when the system alarms, without warning - it is used for activation of additional devices - pager or GSM module. The activation by pressing button N3 proceeds in the same way - the device can be tested without alarming. If function #17 is enabled, both functions #17 and #18 work together - the additional channel will be activated in the test time and by the siren - that's why if it is necessary to use one of #17 or #18 functions.

19. Locking on turning the ignition on - in activation of this function the system gives a locking impulse on turning the ignition on and gives unlocking impulse on turning the ignition off.

20. Locking on passive arming - if the function is disabled the system will not give a locking impulse on passive arming (func=#10)but locks the car on arming by the remote control transmitter or by fuction #9. This function avoids the locking of your keys inside the car, but decreases the reliability.

21. Double unlocking - this function allows generating two impulses when unlocking. It is used in cars in which the first impuls unlocks only the drivers' door, and the second all others.

22. Disabling the current sensor in Special mode - when this function is allowed the currens sensor does not work in special mode - it is used when the car has problems with the electrical installation or the battery, which are leading to a fake produce of the current sensor. Due to that the client can turn on the alarm of the car in special mode without running the risk of fake produces.

11. Additional channel

The pressing of button N3 activates the additional channel for the term of buttons'pressing, and supplies GNDI(up to 0.5A). If the system is in armed mode both shock and the current sensor are ignored (inactivated) for 30sec. The channel can be activated also by functions #17 and #18.

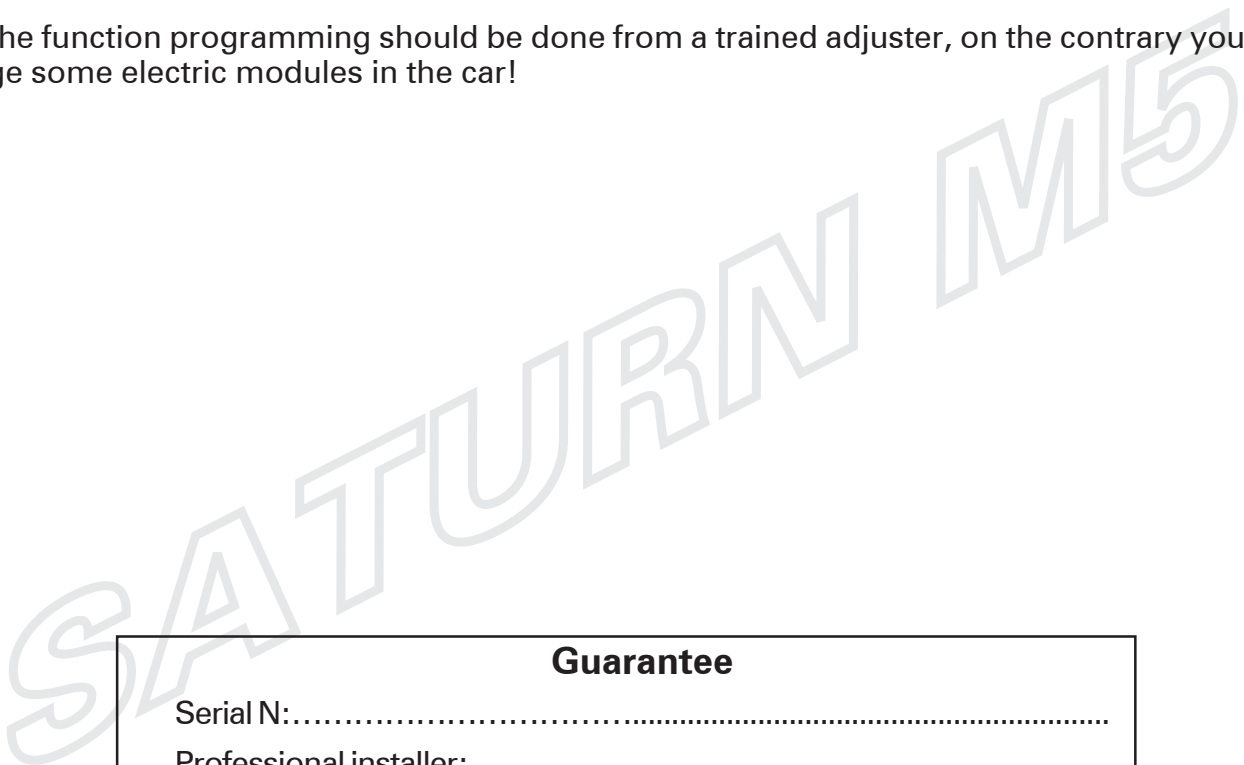


12. Learning mode of a new remote transmitter

Press and hold the service (VALET) button. The car ignition should be switched on and off 4 times, the system produces a signal and enters the learning mode, release the service button. Then press twice a button of the remote control transmitter that should be 'learned', in that way you have learned it, the system produces a signal for disarming. If you want to erase all remote control transmitters , on entering the learning mode don't release the service button- after 10seconds the system emits one signal and all remote control transmitters are erased - the system stays in mode of learning of a new remote control transmitter.

Note:

- 1). When washing the car motor you risk to wet the siren. In such cases the guarantee of the alarm system is not valid.
- 2). If the transmission range of the remote control transmitter is **too low**, battery change is recommended.
- 3).The function programming should be done from a trained adjuster, on the contrary you risk to damage some electric modules in the car!



Guarantee

Serial N:.....

Professional installer:.....

Signature:.....

Car producer:.....

Owner:.....

Date of installation:.....

Guarantee clauses:

The guarantee consists of free repairs of all production defects, appeared in the guarantee term. Only authorised installers may repair the system.

The guarantee clauses don't include damages, caused by bad observing of the specifications. In this case the repair is under payment (not free of charge).