

## PRODUCT DESCRIPTION

SKYBRAKE DD2+ is a high security level vehicle protection system with an anti-theft function for both parked and moving vehicles. A vehicle equipped with this immobilizer can only be used if the personal transceiver (PT) is within range, either inside the vehicle or no further than 2 m away. If the engine is switched on without the PT, the engine will operate as shown below:

Engine operation	Anti-theft function	Motion detector
1) 50 seconds (programmable from 35 to 65 sec)	Switched off	Switched off
2) Until the car begins moving	Switched off	Switched on
3) 50 seconds (programmable from 35 to 65 sec)	Switched on	Switched off
4) Until the car begins moving	Switched on	Switched on

After which it will be immediately immobilized and the system will warn the driver by buzzer signals and flashing of the status LED (if installed).

Depending on DD2+ settings, after switching on the ignition the device will warn the driver of the presence of the PT by a buzzer and LED signals:

Sound signal and light diode confirmation	Anti-theft function	Motion detector
1) one time short ( 0.1 sec),	Switched off	Switched off
2) one time long (0.3 sec)	Switched off	Switched on
3) silence	Switched on	Switched off
4) two times	Switched on	Switched on

## USING THE PRODUCT

If you wish to drive, the PT of the SKYBRAKE DD2+ immobilizer must be located inside the vehicle.

If the SKYBRAKE DD2+ is equipped with motion detector, the system allows you to start the engine without the PT, but at each attempt to drive, the engine will be immobilized. After the engine's immobilization, the system allows you to start the engi-

ne again by turning off and on the ignition, but at each attempt to drive, the engine will be immobilized again. If the engine is started without the PT more than 8 times, the system becomes immobilized until the PT is within range or the personal emergency disabling code (PIN code) is used.

### If SKYBRAKE DD2+ is equipped with motion detector, before driving the vehicle, wait for the signals confirming the presence of the PT!

If the SKYBRAKE DD2+ is not equipped with motion detector or the motion detector is turned off, the system allows you to start the engine without the PT, but after 50 seconds the engine will be immobilized. Driving the vehicle is not possible until the PT is within range or the personal emergency disabling code (PIN code) is used.

### SKYBRAKE DD2+ warns the driver of the non-presence of the PT in the receiving range in the following order:

**1. Activation:** The time during which the vehicle ignition is turned on and the system is waiting for a signal from the PT, there are no sound or light indications, and the vehicle's engine is not immobilized. Activation time is 18 seconds.

**2. Warning:** The warning signals consists of two parts:  
**a)** Initial warning signals. The time during which, the system warns the vehicle's driver about the non-presence of the PT within receiving range. Long sound signals are emitted; the vehicle engine is not immobilized. The length of the initial warning signals is 1 minute.

**b)** Final warning signals. The time during which, the system warns the vehicle's driver about the non-presence of the PT within receiving range. Brief and regular light and sound signals are emitted; the vehicle engine is not immobilized. The length

of the final warning signals is variable (the factory setting is 32 seconds).

**3. Panic:** The time during which the system warns the vehicle's driver about the non-presence of the PT within receiving range. Uninterrupted series (5 signals) of sound and light signals are emitted, the vehicle engine is immobilized.

If while you are driving warning signals start emitting inside the vehicle, immediately stop by the side of the road in line with road safety rules and switch off the ignition. Make sure that the PT is within range. Turn on the ignition and wait for the signals confirming that the PT has been located. If warning signals indicate that the PT is out of range, immediately contact the system installer or manufacturer.

If SKYBRAKE DD2+ is equipped with motion detector and panic mode is activated while the vehicle is in motion, vehicle's engine will only be immobilized when the vehicle's speed will be 0 km/h; remains the same at least 10 seconds and motion begins again. If system is not equipped with motion detector and panic mode is activated, the engine will be immobilized immediately as panic mode starts.

When the SKYBRAKE DD2+ immobilizer has blocked the engine you will hear a series of uninterrupted signals.

### Anti-theft function.

The anti-theft function will automatically proceed when the PT is taken out of range with the ignition switched on. For the first 50 seconds, the system will continue to wait for a signal from the PT. Then the driver will be warned (warning algorithm) – activation, warning and panic. If the motion detector(if equipped) is turned on, the engine will be immobilized when vehicle's speed becomes to 0 km/h and as soon as motion starts again. If the motion detector is turned off, the engine will be blocked as

soon as panic starts. Driving will not be possible until the PT is within range of the system or the personal emergency disabling code (PIN) is used.

### The anti-theft function is prohibited within the territory of the Russian Federation and the EU.

If the ANTI-THEFT FUNCTION is enabled, after you switch on the ignition, the silence or two sound signals will confirm the presence of the PT within range.

Anti-theft function can be enabled/disabled only by certified installer.

### Emergency system disabling

To use the vehicle without a PT you will require a special PIN code consisting of four digits (for example, 3241). The system manufacturer will give you a card with the PIN code.

- Turn on the ignition;
- Wait until the series of warning signals emits inside the vehicle (panic mode);
- Turn off the ignition and prepare to enter the PIN code;
- Turn on the ignition, when the warning signals series emit start counting them, when the number of sound signal series aligns with the first digit of the PIN code (e.g. 3), turn off the ignition (the first digit of the PIN code has been entered);
- Turn on the ignition and continue counting the sound signal series until their number aligns with the second digit of the PIN code – (e.g. 2), then turn off the ignition;
- Turn on the ignition and repeat the above steps with the third (4) and fourth (1) digits of the PIN code;
- When turning on the ignition after entering the last PIN code digit, you will hear a sound signal – the SKYBRAKE DD2+ system is disabled;
- The next time you turn off and turn on the ignition, the vehicle engine will be immobilized and you will have to repeat the PIN code entering procedure;
- If you make a mistake while entering the PIN code, with the ignition turned on wait for a series of 12 sound signals, turn off/turn on the ignition and enter the PIN code again;
- Use of the PT automatically renews the normal operating mode of SKYBRAKE DD2+.

## CHECKING THE PERSONAL TRANSCIVER (PT) AND FUNCTIONING OF THE SYSTEM

The personal transceiver (PT) consists of:



- Top and bottom casing units;
- Element plate;
- 3 V CR2430 battery.

Note the battery polarity and designations on the mounting plate contact clamps!

The PT is assembled in the casing in just one non-tensioned position in order not to damage the element plate. See the figure. The SKYBRAKE DD2+ set includes two personal transceivers (PT) and CR-2430 batteries; however, the batteries are not placed in the PT battery contacts.

**It should be taken into account that the operating time of the PT power unit (battery CR2430) is approximately 12 months. There will be a reminder of the need to replace the battery by a distinctive series of three dual audible signals which will sound inside the vehicle each time after switching on the ignition.**

In case the PT is inside the vehicle but the engine cannot be switched on (it is immobilized), check the condition of the SKYBRAKE DD2+ system by doing the following:

- Switch off the ignition, open the casing of the PT and remove the battery from the element plate;
- Put the battery back in the contact holder in line with the indicated polarity;
- Observe the operation of the LED on the element side of the PT few seconds after putting in the battery. If it is flashing 4 times, this means the battery is in good condition. If the LED doesn't flash, replace the battery with a new one;
- Put the battery (1) in the contact holders (2) in line with the indicated polarity;
- Switch on the ignition and wait for the light to flash again; if it flashes, this means there is normal radio contact between the system and the PT;
- Place the plate in the casing (3) and close it.

## PLEASE NOTE!

If the vehicle is equipped with the engine remote control system, or it is necessary just to warm up the vehicle when the driver is not present, you must take into account the following (only with motion detector):

- The PT must be located out of range, or you must open the casing and remove the battery from the element plate;
- The vehicle must be parked with the parking brake activated and the gear stick must be in parking or neutral position. Now you may start the engine.

Correct use of the SKYBRAKE DD2+ immobilizer will not lead to the failure of the vehicle's systems.

Keep the PT in a separate place from your car keys and cell phone.

In case you leave your car for servicing, leave the PT inside the vehicle, for example in the glove box.

## GUARANTEE PERIOD

The guarantee for the SKYBRAKE DD2+ is 24 months from the date of installation.

The guarantee is valid in the event that the installed system does not work due to the fault of the manufacturer or the materials used.

The guarantee is not valid in the event that the product has suffered mechanical damage, if it has been liquid cleaned, or if it has been incorrectly installed or used.

The guarantee does not apply to the CR2430 power source.