

## PRODUCT DESCRIPTION

Skybrake DD5 belongs to the smallest high security level vehicle protection systems. It can be customized for each user's individual needs using individual settings. The system consists of several wireless modules: the Main Module and two Personal Transceivers. The Main Module is installed in a hidden location in the vehicle. Due to the Main Module's compact size, it is difficult to locate, so that criminals cannot remove it and steal the vehicle. There are two Personal Transceivers in each kit. One of them needs to be used while driving, so it is recommended to keep it in your pocket or wallet. The second Personal Transceiver is meant for backup use only in case the first one gets lost or damaged.

## HOW IT WORKS

Each time the ignition is turned on, the Skybrake DD5 Main Module waits for an authorization request from its Personal Transceiver. It is a wireless data exchange procedure by which the Main Module checks the presence of the Personal Transceiver. If authorization fails, driving is not allowed. The system warns the driver by audio signals and the engine is stopped within several seconds or immediately if motion has been detected. If authorization is successful, driving is allowed. The system behaviour in different situations depends on its equipment level and settings and is described in detail later in this manual.

## SKYBRAKE DD5 EQUIPMENT LEVELS

Skybrake DD5 comes in three equipment levels:

Product code	Number of Personal Transceivers in set	Motion detector	Number of Main Modules in set	Security level
520100	2	no	1	good
520200	2	no	2	highest
521100	2	yes	1	high

**520100** – the basic version of Skybrake DD5 system. It includes two Personal Transceivers, one Main Module and an audio warning device and features custom settings.

**520200** – the highest security level offered by Skybrake DD5. This version includes two Personal Transceivers, two Main Modules and an audio warning device and features custom settings. Maximum security is achieved by using two Main Modules as it is double difficult to find and remove them both.

**521100** – a high security level Skybrake DD5 system. It includes two Personal Transceivers, one Main Module with a built-in motion detector and an audio warning device and features custom settings. Due to the motion detector the engine can be started without presence of the Personal Transceiver. The engine will not be stopped while the car is not moved, but will be stopped if movement is detected without Personal Transceiver within range. This option is good for cold winters or hot summers as it allows the driver to leave the car with heating/cooling on without Personal Transceiver within range.

## ADDITIONAL FEATURES

All Skybrake DD5 systems have additional features which are described below.

### EMERGENCY PIN CODE

If the Personal Transceiver is lost or damaged and you need to drive your car, it is possible to disable the Skybrake DD5 system using the emergency PIN code. Please note that the system can be disabled for one drive only, the next time you start the engine you will have to repeat the disabling procedure. Please read the section **"Entering emergency PIN code"** later in this document.

### ANTI-HIJACK FUNCTION

The Anti-HiJack function controls the presence of the Personal Transceiver during the driving time. If the Personal Transceiver gets lost while driving, the system will emit special audio warning signals and the engine will be stopped after 140 seconds. This function is used for stopping the engine in case of hijacking while the engine is running, for example, when stopped at red traffic light. Please note that using the Anti-HiJack function is prohibited in the Russian Federation and the EU.

### LOW BATTERY WARNING

Each Personal Transceiver is supplied with a CR2430 battery which has to be replaced when it gets low. You will be warned about it each time you switch the ignition ON.

## USING SKYBRAKE DD5

### Starting the engine with Personal Transceiver within range

**For products 520100 and 520200.** The system allows to start the engine and drive without any delay.

**For product 521100.** The system allows to start the engine, while driving is only allowed after authorization, otherwise the engine is stopped when the car is set in motion. If authorization is successful, the system emits a double beep after which you can start to drive.

## STARTING THE ENGINE WITHOUT PERSONAL TRANSCEIVER WITHIN RANGE

**For products 520100 and 520200.** If you start the engine without the Personal Transceiver within range (for example, you have forgotten it), after 20 seconds the system will start to emit warning signals and after the next 10 seconds the engine will be stopped. From this moment on you need to use Personal Transceiver or emergency PIN code to start the engine again.

**For product 521100.** You are allowed to start the engine without the Personal Transceiver 8 times. After 8 cycles you need to use the Personal Transceiver or emergency PIN code to start the engine again. Please note that you can only start the engine: if you try to drive the car without the Personal Transceiver, it will be stopped. This function allows you to warm up/cool down the car, but not to drive.

## FINISHING DRIVING, LEAVING THE CAR

Switch off the engine. Before leaving the car, please ensure that you have not left the Personal Transceiver in it. Leaving the Personal Transceiver in the car decreases security and enables car theft.

## LEAVING THE CAR WITH ENGINE RUNNING

**For products 520100 and 520200.** The Personal Transceiver's range is approximately 5 meters. If Anti-HiJack function is enabled and you want to leave your car with engine running (for example, for opening a gate), please ensure that the Personal Transceiver isn't left in the car as it enables hijacking. If you move more than 5 meters away from the car, the engine will be stopped after 140 seconds. Please read more about Anti-Hijack function later in this document.

**For product 521100.** Please ensure that the Personal Transceiver isn't left in the car as it enables hijacking. You can leave your car for as long as you like, the engine will continue running until motion is detected.

## LEAVING THE CAR IN A WORKSHOP

If you need to leave your car in a workshop, it is not recommended to give your Personal Transceiver to a third party. We recommend hiding it inside the car, for example, in the glove box. Don't leave the Personal Transceiver inside the car after you get it back from the workshop and always carry it with you.

## ACTIVATING ANTI-HIJACK FUNCTION

If the Anti-HiJack function is enabled, it will become active 20 seconds after the car with the Main Module leaves the Personal Transceiver's range. The Anti-HiJack function consists of several steps:

**Initial warning signals.** Initial audio warning signals inform the driver about the absence of the Personal Transceiver from range. Long audio signals are emitted; the engine will not be stopped at this moment. Please note that the default duration of initial warning signals is 60 seconds, after which the system proceeds to the next step. If you hear the initial warning signals, it is recommended to find an appropriate place and stop the car. Please verify the presence of your Personal Transceiver and, if necessary, replace the battery.

**Final warning signals.** Final audio warning signals inform the driver about the absence of the Personal Transceiver from range. Short warning signals are emitted; the engine will not be stopped yet, however, you will have **only 60 seconds** left (default setting) before the system proceeds to the next step, which is engine disable. If you hear the final warning signals, it is strongly recommended to find an appropriate place and stop the car. Please verify the presence of your Personal Transceiver and, if necessary, replace the battery.

**Engine disable.** This is the last step of Anti-Hijacking, however, it differs for different Skybrake DD5 product types:

**For products 520100 and 520200.** These products are not equipped with a motion detector, so the engine will be disabled as soon as the system proceeds to this step.

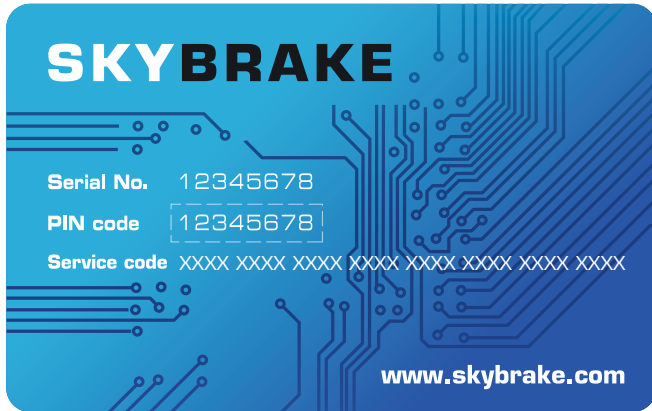
**For product 521100.** This product is equipped with a motion detector, which will allow you to drive the car until you stop it yourself. If you try to start to drive again, the system will disable the engine.

## WARNING!

**It is dangerous to continue driving with the Anti-HiJack function activated as this can lead to unexpected engine disable, causing a road traffic accident.**

## ENTERING EMERGENCY PIN CODE

If the Personal Transceiver is lost or damaged, you can drive your car using the emergency PIN code. You can find your system's PIN code located on the plastic PIN code card as seen on the picture below:



To enter the emergency PIN code, do the following:

1. Turn the ignition ON and then OFF 8 times;
2. Turn the ignition ON and wait until long audio signal series start and then stop sounding;
3. Pay attention to your PIN code's first digit and remember it;
4. Turn the ignition OFF and then ON again. Audio signal series will start again. Count the audio signals and when their number matches your PIN code's first digit, turn the ignition OFF;
5. Pay attention to your PIN code's second digit and then turn the ignition ON. Audio signal series will start again. Count the signals and when their number matches your PIN code's second digit, turn the ignition OFF;
6. Repeat the steps 4 and 5 for the last two digits of the PIN code and turn the ignition OFF;
7. Now, turn the ignition ON and wait for a double beep that confirms that the system is disabled and you can start the engine and drive.

### NOTE!

By this procedure the system is disabled only for one cycle. The next time you switch the ignition ON, you must enter the PIN code again, repeating all steps from step 2, or use your Personal Transceiver.

### NOTE!

If you fail while entering your PIN code, you can start the procedure again from step 2.

### NOTE!

If you continue to fail when entering the PIN code, call your system installer and ask for help.

## CHANGING PERSONAL TRANSCIEVER BATTERY

You will be noticed about low battery level by series of 8 audio signals each time after switching the ignition ON. After the system has started to emit low battery warning, you still have several weeks to replace the battery.

To replace the battery:

1. Get a brand new CR2430 battery from an electronic shop;
2. Open the transceiver casing (part 3 in the picture) using a fingernail or coin;
3. Replace the existing battery with the new one. Please observe the right polarity following the "+" indication on the battery surface and on the transceiver's battery plate (part 2 in the picture), otherwise the Personal Transceiver will not work.
4. Close the transceiver casing.

### NOTE!

Please DO NOT dispose of old batteries with your household waste! Contact your local municipal waste management services for proper disposal of old batteries.

## CHECKING PERSONAL TRANSCIEVER AND SYSTEM FUNCTIONING

If you can't start the engine, you can check if this is caused by the Skybrake DD5 system by proceeding as follows:

1. Turn the ignition OFF;
2. Remove the battery from the Personal Transceiver and wait for 10 seconds;
3. Put the battery back (see "Changing Personal Transceiver battery"), paying attention to the battery plate: the red LED should flash once when you place the battery on it.
4. If the LED flashes, go to the next step. Otherwise find a brand new battery and try again starting from step 2.

5. Turn the ignition ON, paying attention to the battery plate – the red LED should flash once again. If this happens, the Skybrake DD5 system works correctly. Please try again to start the engine. If you fail, call your system installer and ask for help.

## CHANGING SKYBRAKE DD5 SETTINGS

It is possible to customize the Skybrake DD5 product by changing some of the system settings. It can only be done using a special service equipment. Please ask your system installer or the local Skybrake dealer.

## FAQ

In this section you will find answers to frequently asked questions.

### 1. I have lost one of my Personal Transceivers, is it possible to order a new one?

If you have lost only one Personal Transceiver and still have the other one, you can ask your system installer or local Skybrake dealer to replace the lost device. If you have lost both Personal Transceivers, you need to replace the whole Skybrake system.

### 2. I have lost my PIN code card, can I order a new one?

No, it is not possible. However, you can ask your system installer for your PIN code, so that you can use it when you need it.

### 3. Is it true that the Skybrake DD5 power consumption is high and the Main Module's battery gets low quickly if the car is not used?

No, it's not true. Skybrake DD5 is connected to the ignition line. When the ignition is turned OFF, Skybrake DD5 remains unpowered, which means zero power consumption. However, there is a lot of different car equipment that consumes power with ignition switched OFF.

### 4. Is it possible to use both Personal Transceivers at the same time?

Yes.

### 5. Is it possible to scan the Personal Transceiver's signals and use the scan to disable the system?

No, because Skybrake DD5 uses dynamic AES 128-bit data coding which is one of the safest data coding algorithms.

### 6. Can WiFi networks and cell phones affect the communication between the Personal Transceiver and the Main Module?

WiFi networks and cell phones (with Bluetooth and Zigbee) are working in the same frequency range as Skybrake DD5. However, there are 125 channels in this range, and if one of them is busy, Skybrake DD5 will switch to another one. So, the answer is "no".

## WARRANTY

The Skybrake DD5 warranty period is 24 months from the date of installation. The warranty is valid if the installed system fails due to manufacturing or material defects.