

SOWA ATS02

More than security...



*Dear customer,
Allow us to introduce our new and unique electronic anti-theft device for your vehicle – ATS 02. During its development, the creators used their many years of experience with BMW vehicle electronics. The device is based on the latest technologies in field of ARM microcontrollers, mobile communication, software, data protection and cryptography. ATS02 includes a lot of functions, which are very different to other immobilizers on the market. Please read the below bulletin in order to familiarize yourself with all of the device functions and methods of control.*

We wish you driving pleasure without worrying about the safety of your vehicle and many happy miles.

Auto SOWA, s.r.o.



Brief system description

Immobilizer ATS 02 (**A**dvanced **T**hiefproofing **S**ystem) was developed especially for BMW vehicles in terms of increasing theft protection and control comfort. It is a second generation of the system based on its successful predecessor ATS01. The uniqueness of the system lies not only in its modern hardware, but also in unique software implemented in the vehicle, in which the ATS02 blends and integrates perfectly.

The immobilizer is directly integrated in the vehicle electrical system and for its control, only the standard BMW control elements are used. ATS02 also contains a telematic platform with a GPS/GLONASS positioning module and GSM/GPRS/Bluetooth communication, so it is possible to control all its functions via a smartphone (Android or iOS). The software of each immobilizer is secured by a unique 128 bit asymmetric key, which provides the highest level of data protection. During the development phase, a so-called redundancy function was taken into account – in case of break or interruption in the primary protection circuits all blocking functions are at least doubled, while the secondary (or tertiary) protection then provides the same level of security as the primary. Due to this feature, unauthorised starting of the vehicle is practically impossible.

A further safety feature of ATS02 is an additional engine start protection via 2-digit PIN code selectable via multifunction steering wheel. This function prevents starting of the car also in case of abuse of Comfort Access system. If necessary, the ATS02 automatically activates the original BMW alarm (if fitted in the vehicle).

The gateway to the safety of your vehicle is a personal **PIN code**, that you will receive after installation of the immobilizer. Keep the code in safe and secure place as it is the only possibility to enable your blocked vehicle. The PIN code can not be read again – in the case of loss, the only possibility is to generate a new PIN code by an authorised service technician (if a telematic version is fitted, you can check your PIN also via mobile application).

The development team have also considered the future. The ATS02 software is continually evolving and the device has been designed so that its software can be updated remotely or via OBD socket. Individual settings according customer needs are also possible. A standard feature of the ATS02 is the full OBD diagnosis with the possibility to read the history of alarms, the use of keys, fault memory, etc.

The immobilizer SOWA ATS02 can be installed in the following BMW vehicles:

Series 1/2 - E81, E82, E87, E88, F20, F21, F22, F23, F45, F46, F52, F87

Series 3/4 - E90, E91, E92, E93, F30, F31, F32, F33, F34, F35,
F36, F80, F82, F83, G20

Series 5/6 - E60, E61, E63, E64, F06, F07, F10, F11, F12, F13, F18, G3x

Series X1 - E84, F48

Series X5/6 - E70, E71, F15, F16, F85, F86, G05, G07 (X7)

Series Z4 - E89, G29

Series X3/4 - F25, F26, G01, G02

Series 7 - F01, F02, G11, G12



Features overview – ATS02

1. Arming / disarming exclusively via original remote control or door handle*
2. Checking all doors, trunk lid and bonnet*
3. Recognition of authorised BMW key during engine start
4. Checking the disconnection of vehicle battery
5. Checking the tilt and vibrations of the parked vehicle
6. Service mode, service PIN
7. Disabling the OBD communication (except service mode)
8. More possibilities to disable engine start / gear selection switch
9. Blocking the communication on CAN bus in case of tampering
10. Emergency warning function – activation of the horn*
11. Enabling the blocked vehicle using personal PIN code (entered via iDrive or smartphone)
12. Additional engine start protection via 2-digit PIN code selectable via multifunction steering wheel
13. Full remote control via smartphone (Android, iOS)
 - Activation / deactivation of immobilizer & service mode
 - Activation / deactivation of additional start protection
 - Locking / unlocking the car
 - Activation of warning lights & horn
 - Activation of independent ventilation / heating
 - Indication of vehicle position on the map, fuel quantity, door / lock status and battery voltage
 - Indication of CBS indicators (engine oil, brakes, brake fluid, vehicle check) and mileage
 - Indication of tire pressure
14. Diagnosis, programming & encoding via OBD socket
15. Additional diagnosis function for driver for quick fault / alarm type determination
16. Fail-Safe mode

* - Depends on model and vehicle equipment

Advantages:

- No need for additional control elements
- Additional remote control via smartphone
- Disabling engine start using primary, secondary or tertiary protection
- Exporting of CBS data for further processing
- The only device on the market which can read key ID data from CAS / BDC control unit
- Store its own vehicle key data and compare it during each start with CAS/BDC key data
- Monitoring complete CAN communication. In case of bypassing OBD plug by direct CAN connection, blocking all CAS/BDC authorisation telegrams thus preventing software manipulation of key data
- High level of data protection in internal flash memory (each device has unique 128 bit encryption key)
- Full programmability of user data and operational software via OBD
- Protects vehicle electronic system against manipulation – monitoring ECU serial numbers. Disabling vehicle if serial numbers do not match or ECU was disconnected.
- Disabling OBD communication (except service mode).
- Full compatibility with vehicle electronic system, low current consumption in sleep mode.
- Information about position and status of the vehicle, fuel quantity and battery voltage via smartphone
- Fail-safe mode in case of fault
- Device diagnosis via OBD connection
- Additional diagnostic function – displaying fault & alarm codes on vehicle display (Kombi, CID)

The immobilizer SOWA ATS02 is the successor of ATS01, which is accepted as an approved antitheft device by insurance companies Allianz - Slovenská poisťovňa and Kooperativa poisťovňa, Vienna Insurance Group.

If you are interested or wish to learn more about our security system, please visit our webpage www.autosowa.sk. Furthermore, we could be happy to provide you with more information by calling us on +421 903 753360, or email us at info@autosowa.sk