

User Manual

United Automotive Electronic Systems Co., Ltd.(UAES)

Base Station

UAES



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1 Product identification

Product designation: BASE2.0

Type designation: BASE

Customer: SGMW

2 General product description

2.1 Main function and properties of the product

BASE station is an anti-theft controller integrated at the end of the coil, it interacts with the Body Control Module (BCM), then the BCM communicates with the Engine Control Module (ECM), to implement the anti-theft function.

UAES points out that the ASIL-classified requirements as per ISO 26262, their implementation and the assumptions made for this purpose are documented in chapter 2.3.

It is the customer's responsibility to validate these documented requirements, their implementation and the assumptions made for this purpose.

The customer must ensure that the UAES scope of delivery complies with the requirements on the functional safety within the overall system.

2.2 Intended use

Provided that BASE2.0 is used within the conditions (environment, application, installation, loads) as described in this USER MANUAL and the corresponding agreed upon documents, UAES ensures that the product complies with the agreed properties. The product is considered fit for the intended use when the product successfully has passed the tests in accordance with the USER MANUAL and agreed upon documents. Agreements beyond this require the written approval by UAES.

It is the responsibility of the customer to ensure the proper application of the product in the overall system/vehicle.

UAES does not assume any responsibility for changes to the environment of the product that deviate from the USER MANUAL and the agreed upon documents.

2.3 Safety and warning notes

A. Functional safety requirements:

This product meets functional safety requirements (ISO 26262). ISO functional safety is an international standard for passenger vehicles, and the purpose is to prevent the potential risk caused by electrical and electronic system function failure. Generally, the requirements of functional safety is defined in DIA (Development Interface Agreement) reached by customers and UAES. If both sides don't sign the agreement, the functional safety definition meets UAES Standard by default.

Functional safety level of Base station is QM;

B. Other safety warnings:

1) Preventing water from flowing into connector, it may cause short circuit between connectors.

2) The installation position of Base station should not be where dust gathers easily. A large amount of dust will affect the working reliability of Base station.

3) The installation position of Base station should be as far as possible from the high temperature place where ambient temperature makes shell itself exceed 85°C. At the same time, we should prevent heat released by surrounding parts from radiating Base station.

4) Installation Position of Base station should be far away from other parts with high electromagnetic and radiofrequency interference.

5) Base station should be installed firmly and reliable, no loosening should be allowed.

6) Base station should keep enough distance from other parts in passenger compartment to protect Base station and its wiring harness and make it easier to assemble during assembling the whole vehicle, in principle, the distance is no less than 10mm.

- 7) Installation position should be way from oil pollution、 damp、 spattering water.
- 8) Fixing of Base station wiring harness should be reliable, do not support wiring harness with Base station.
- 9) Extra mechanical vibration and external force impact should be avoided due to inappropriate installation position, meanwhile, installation position should not be at point of resonance of car body.
- 10) The installation position of Base station shouldn't be near the place where it is likely to contact with accumulator or where acid and alkaline solution oozes easily. It also should be avoided to install Base station in the place vulnerable to corrosion.
- 11) It should be avoided to install Base station in the nearby place where it is likely to contact with accumulator positive terminal and ignition power terminal.

2.4 Labeling of the product

The label of product BASE2.0 contains the items as follow, if customer requires special label contents or format, extra label design request shall be agreed by UAES.



The label contains the following information:

- 03H 00H 006 Made in China
- BASE 20170106 (566) 0001 1785
- Barcode with the number *H0H006AH1060001*
- SGMW 23914380 8310112

2.5 Dimensions and weights

2.6 Power consumption / power output

This product has multiple working modes, actual power capacity depend on applied condition in car body.

2.7 Information on disposal and recycling

Product BASE2.0 meets the ELV requirements. The main content is as follow:

1. Pb, Hg, Cd and [Cr]^(6+) are included in ELV requirements formulated by the EU; PBB and PBDE are required to check in the domestic.

3 System description

3.1 System of Interest (SOI)

BASE station is an anti-theft controller integrated at the end of the coil,it interact data with Body Control Module(BCM),then BCM certificate with Engine Control Module(ECM),to implemente anti-theft function.

3.2 Hardware and software interfaces

UAES is only responsible for the compliance of the product side plug (interface) with the agreed upon customer specification. Since the plug system is used per customer request, UAES is not responsible and does not warrant for the connection assembly, especially not for its electrical function, durability and sealing.

4 Technical data with measured variables and measuring conditions
4.1 Functions, function states (modes of operation), functional characteristics and boundary conditions
The ambient temperature should be from -40 °C to 85 °C; the max humidity is from 80 percent; and the atmospheric pressure is from 86kpa to 106kpa. Under these conditions, the product rated performance is guaranteed.
4.2 Mechanical characteristics
The product's vibration characteristics is shown as follow. Mechanical validation requirement should be defined in DVP of specific customer project.
4.3 Electrical characteristics
BASE2.0 product's electrical and electromagnetic characteristics meet relevant test case, which should be defined in DVP of specific customer project.
4.4 Climate characteristics
<p>Temperature characteristics:</p> <p>1) Scope of working temperature</p> <p>The working and storage temperature is different according to the different installation locations. For BASE 2.0, the working temperature is from -40°C to 85 °C, and the storage temperature is from -40°C to 90°C.</p> <p>2) Temperature endurance</p> <p>Both in the Lower temperature and upper temperature, after 8 hours of storage, Base station can return to normal and performance is not affected.</p> <p>As for the temperature shock, after 5 temperature cycles in the lower temperature or upper temperature for 1 or 2h, performance is not affected. The cycle is 20-30 seconds.</p>
4.5 Chemical characteristics
Dust &Water protection grade of BASE2.0 is IP5K0.
4.6 Acoustic characteristics
NA
4.7 Transport, assembly, start and end of operation, storage
<p>4.8.1 Transport</p> <p>The package of product should meet moisture resistance, vibration resistance, dust protection requirements. It also meet transport, loading and unloading requirements. The unprotected place of black metal parts before packaging should have temporary protection to prevent rust.</p> <p>4.8.2 Installation</p> <p>If the installation position is fixed, if any The change must be confirmed with the UAES engineer. If other materials are used, the customer must ensure that the Base station meets the requirements for vibration, heat dissipation, temperature, and EMC. If there is any deviation, it must be confirmed with the UAES.</p> <p>4.8.3 Storage</p> <p>Generally, the storage period is 2 years (date of warehousing from manufacturer).</p> <p>The storage temperature is from -40°C to 90°C.</p>

Please pay special attention to the safety and warning notes in chapter 2.3.

5 Series-accompanying tests

Item	note
Automated Optical Inspection (AOI)	Detect defects encountered in welding production
Artificial inspection	100% of suspected defects checked out by AOI are manually confirmed and followed up at each AOI station
In-circuit-test (ICT)	Check the opening and short circuit of individual components and circuit networks on-line
Function test (FT)	MTS Function test

6 Testing

6.1 Testing by UAES

Testing information in UAES is recorded in DVP of specific customer project.

6.2 Testing by customer

NA

7 Assessment of products returned from the field

Products are considered good if they fulfill the specifications/test data for 0-mileage and field listed in the USER MANUAL.

8 Appendices and references

NA

FCC Regulations

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.