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Product :	BR_XETK-S4.0B			
Title :	Release Notes			
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Created:	Name R. Mai	Department DAP/XPC-Fe1	Signature R. Mai	Date 2023-12-05
Released:	Name K.-H. Nirschl	Department DAP/XPC-Fe3	Signature K.-H. Nirschl	Date 2024-03-08

## Changes

Revision	Description	Date	Name	Signature
01	Initial Version	2022-10-06	Mai	Mai
02	Improvements and bug fixes with HSP13.5.0	2023-06-20	Nirschl	Nirschl
03	Improvements and bug fixes with HSP13.7.0	2023-12-05	Mai	Mai
04	Improvements and bug fixes with HSP14.0.0	2024-03-08	Nirschl	Nirschl

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# 1 General Information

## 1.1 Safety Notice

Calibration activities influence the behavior of the ECU and the systems controlled by the ECU. This may result in unexpected behavior of the vehicle and thus can lead to safety critical situations. Only well trained personnel should be allowed to perform calibration activities.

## 1.2 System Requirements

The following minimum system prerequisites have to be met:

### Required Hardware

- GHz Processor
- GB RAM
- DVD-ROM drive (for installation)
- Network adapter
- Graphics with a resolution of at least 1024x768, 256 MB RAM, 16bit color and DirectX9

### Required Operating System

- Windows® 7 SP1 (32 or 64bit\*) or higher.
- Windows® 8 (32 / 64 bit\*) and Windows® 8.1 (32 / 64 bit\*)
- Windows® 10

\*) INCA uses the 32bit compatibility mode on a 64-bit operating system.

### Required Free Disk Space

- 1 GB (not including the size for user data; absolute min. required, but not recommended)

The following system prerequisites are recommended:

### Recommended Hardware

- GHz Quad-Core Processor or equivalent
- 16 GB RAM
- DVD-ROM drive (for installation)
- Network adapter
- Graphics with a resolution of at least 1280 x 1024, 1GB RAM, 32bit color and DirectX9

### Recommended Operating System

- Windows® 7 SP1 64bit (INCA uses the 32bit compatibility mode on a 64-bit operating system)

### Recommended Free Disk Space

- >10 GB

### Recommendation on Performance

- Investigation on performance showed:
  - More Memory improves execution time of repetitive operations
  - SSD hard disks improve the file access times

## 1.3 Restrictions

WINDOWS® 95b, WINDOWS® NT, WINDOWS® 2000, WINDOWS® 98SE, and WINDOWS® XP are not supported

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## 1.4 Miscellaneous

To ensure the highest data throughput from the BR\_XETK device up to the PC system the following recommendations should be considered:

- Set power save mode to the highest level
- Disable virus scan
- Use network adapter for ETAS application only
- Update network adapter drivers

## 2 Version Syntax and Tool-Chain Information

### 2.1 Version-Syntax of the BR\_XETK-S4.0B

The BR\_XETK-S4.0B hardware version information is located on the product sticker and can be read out of the XETK using the firmware update tool HSP or XETK Configuration Tool.

Hardware State Syntax: **abb/cc**

Description (modification details refer chapter 5)

<b>a</b>	PCB Version (A=V1.0, B=V1.1, C=V1.2, ...)
<b>bb</b>	PCB Hardware State (010, 011, 012, ...)
<b>cc</b>	PCB Population Variant (00, 01, 02, ...)

The BR\_XETK-S4.0B Firmware version information can be read out of the XETK using the firmware update tool HSP or XETK Configuration Tool. It is not printed onto a XETK sticker.

Firmware-Version Syntax: **aaa.bbb.ccccc**

Description (modification details refer chapter 5)

<b>aaa</b>	Major Release (0...255)
<b>bbb</b>	Minor Release (0...255)
<b>cccc</b>	Revision/Patch (0...65535)

Firmware Packages:

HDC Work	aaa.bbb.ccccc
Firmware Work	aaa.bbb.ccccc
HDC Rescue	aaa.bbb.ccccc
Firmware Rescue	aaa.bbb.ccccc

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## 2.2 Version information of the tool-chain components

To get this XETK running with the other components of the tool-chain please make sure that the version mentioned below or a newer one is used. If your software-, firmware- or hardware version is older, please update it.

If you have any problems to get this XETK running please contact our local customer support or sales representative.

Updates or refreshes can be downloaded from the ETAS homepage:

<http://de.etasgroup.com>

<http://en.etasgroup.com>

## 2.3 Software and microcontroller support

<b>Microcontroller</b>	<b>HSP</b>	<b>INCA</b>	<b>ETK Tools</b>	<b>ASCET-RP</b>	<b>INTECRIO</b>
SR6P7x Cut1 28nm	V13.2.0	V7.4.2	V4.3.2	V6.4	V4.6
SR6P6	V13.5.0	V7.4.5	V4.3.5	V6.4	V4.6
SR6P7	V13.5.0	V7.4.6	V4.3.6	V6.4	V4.6

### 3 What's New - Release Notes

This chapter lists the main improvements compared to a previous shipped ETK product. Additionally a detailed list of already known issues can be found here.

#### 3.1 New or Enhanced Functions

##### 3.1.1 In INCA 7.5.0 and HSP 14.0.0

Issue Identifier	Description
#741871	Fix for Distab Resource Distribution by XETK
#743317	XETK disconnection leads to OMD reconfiguration when bypass is active
ETKX-4547	Fix problems with XETK debug log
ETKX-4591	Fix and Improve behavior with multiple XCP connections
ETKX-4389	Improve XCP error message on failures of initializing overlay RAM
ETKX-3797	XETK Watchdog Counter as monitoring variable
ETKX-4053	Support for Semantic Versioning

##### 3.1.2 In INCA 7.4.7 and HSP 13.7.0

Issue Identifier	Description
ETKX-4131	Support CRC32 as checksum algorithm
ETKX-3866	Extension of XCP flash API
ETKX-2844	Support for Distab Resource Distribution by XETK

##### 3.1.3 In INCA 7.4.6 and HSP 13.6.1

Issue Identifier	Description
#741871	Allow the static configuration of rasters to run successfully in case of dynamic allocation of Distab17 when the distabreadvarcount is not defined in configuration

##### 3.1.4 In INCA 7.4.5 and HSP 13.5.0

Issue Identifier	Description
ETKX-3369	Support for SWD with 125MHz (not for SR6X7)
ETKX-3456	Adapt timing to SR6P6 and SR6P7
ETKX-1944	Improve SWD error counters
ETKX-2912	Extend XCP command DBG_GET_VENDOR_INFO
ETKX-2557	Extending implementation of GET_ID command to include EPK, and A2I file name (if supported by ECU)

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#725336	Invalid ECU memory access may occur when reading ECU info pattern
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3.1.5 In INCA 7.4.2 and HSP 13.2.0

Issue Identifier	Description
n/a	Initial version, support of BR_XETK-S4.0B

## 3.2 Known issues

n.a.

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## 4 Product Variants

The BR\_XETK-S4.0B can be purchased in one variant. For details refer to the user guide.

## 5 Hardware Modifications

### 5.1 General remarks to this chapter

Hardware issues or obsolete parts can make it necessary to modify the population of the BR\_XETK. The first released version, available modifications, and current version are listed below. For the version syntax please refer to chapter 2.1.

### 5.2 First delivered version

The hardware state **E011/02** is the first delivered version.

### 5.3 Current delivery condition

The hardware state **E011/02** will be delivered with all new shipments.



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## 6 Firmware Modifications

### 6.1 General remarks to this chapter

The programmable logic code within the BR\_XETK-S4.0B is stored onto programmable logic devices (FPGA, Firmware). The first released version and current version are listed below. For the version syntax please refer to chapter 2.1.

### 6.2 First delivered version

FPGA Work	1.5.49
Firmware Work	1.9.23
FPGA Rescue	1.4.9
Firmware Rescue	1.8.123

### 6.3 Current delivery condition

The following firmware versions will be programmed into all BR\_XETK-S4.0B shipments:

FPGA Work	1.7.8
Firmware Work	1.12.38
FPGA Rescue	1.4.9
Firmware Rescue	1.8.123

In case of any problems the above mentioned components can be programmed to the XETK by using HSP V14.0.0. This HSP version is similar to the currently delivered XETK products. Newer HSP versions could contain bug fixes and / or new features.

**Attention:** For updating the XETK with a later version by using the HSP Firmware update tool, all XETK - packages will be updated one after another and this will last a few minutes. Update of FPGA(rescue) and Firmware(rescue) is **not** done in a failsafe manner.

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## 7 Abbreviations

ASCET-RP	Rapid Prototyping Software of ETAS
BR_XETK	Product (emulator test probe)
firmware	Software running on the BR_XETK hardware; may be updated for new features or bug fixes
FPGA	<b>F</b> ield <b>P</b> rogrammable <b>G</b> ate <b>A</b> rray; interface component to the application hardware
Hot-fix	Software bug-fix for a refresh version
HSP	<b>H</b> ardware <b>S</b> ervice <b>P</b> ack; ETAS product which includes the firmware for the complete ETAS hardware, shipped together with INCA but also available as standalone product, download at ETAS homepage possible
INCA	Measurement and Calibration Software of ETAS
INTECRIO	Rapid Prototyping Software of ETAS
MC	<b>M</b> easurement & <b>C</b> alibration
PCB	<b>P</b> rinted <b>C</b> ircuit <b>B</b> oard
RP	<b>R</b> apid <b>P</b> rototyping
SBB	<b>S</b> ervice <b>B</b> ased <b>B</b> ypass
tool-chain	MC hardware (e.g. ES690) and software (e.g. INCA)
XETK Configuration Tool	Configuration Software, in order to configure a (X)ETK / FETK