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Title :	Release-Notes			

Product :	XETK-S4.2			
Title :	Release Notes			
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Created:	Name M. Higgins	Department NE/EHE3	Signature M. Higgins	Date 2016-12-20
Released:	Name T. Collins	Department NE/EHE3	Signature T. Collins	Date 2016-12-20

Changes

Revision	Description	Date	Name	Signature
01	C012 initial hardware version [chapter 5] HSP 9.8.0 initial firmware version [chapter 6]	2012-11-19	Higgins	Higgins
02	μ C Support added TC1798ED/PD [chapter2] HSP 9.9.2 & Drivers and Tool 3.8.1 [chapter3]	2013-01-14	Sole	Sole
03	HSP 10.0.0 & Drivers and Tool 3.9.0 [chapter3]	2013-03-26	Muni	Muni
04	μ C Support added TC1797ED [chapter2] HSP 10.2.0 & Drivers and Tool 3.11.0 [chapter6]	2013-09-25	Mai	Mai
05	Enable Calibration Wakeup HSP 10.5.0 [chapter3] [chapter6]	2014-06-19	Higgins	Higgins
06	HSP10.9.0 [chapter3] [chapter6] . Header fix	2015-06-04	Higgins/TRC	Higgins
07	HSP10.10.0 [chapter3] [chapter5] [chapter6]	2015-09-29	M. Higgins	M. Higgins
08	HSP11.1.0 [chapter3] [chapter6]	2016-06-28	M. Higgins	M. Higgins
09	HSP11.3.0 [chapter3] [chapter6]	2016-12-20	M. Higgins	M. Higgins

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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

Recommended system requirements on a PC running ETK Drivers And Tools, HSP or Inca:

- 2 GHz Pentium-PC or equivalent, equipped with
 - 1 GB RAM (basic hardware), depending on the use cases 2GB RAM are advantageous
 - Hard disk with minimum 10 GB free disk space
 - DVD-ROM for installation
 - XGA-Graphic card with XGA-screen and resolution of at least 1024 x 768 with 16 bit colors, DirectX 7
 - Fast Ethernet adapter 100BaseT
 - with full duplex capability
 - configured as component TCP/IP only
 - separate to e.g. company network
 - WINDOWS® XP (SP3 or higher), WINDOWS® VISTA (SP1 or higher) or WINDOWS® 7

1.3 Restrictions

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

1.4 Miscellaneous

To ensure the highest data throughput from the XETK device up to the PC system no other PC software should be run via this Ethernet adapter.

2 Version Syntax and Tool-Chain Information

2.1 Version-Syntax of the XETK-S4.2

The XETK-S4.2 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)

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

The XETK-S4.2 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)

aaa	Major Release (0...255)
bbb	Minor Release (0...255)
cccc	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
CPLD	aaa.bbb.ccccc

2.2 Version information of the tool-chain components

To use this XETK 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 putting the XETK into operation 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

Microcontroller	HSP	INCA	ETK Drivers and Tools
TC1728-ED	V10.2.0	V7.0.0 HF18 / V7.1.2	V3.11.0
TC1782-ED	V10.2.0	V7.0.0 HF18 / V7.1.2	V3.11.0
TC1793-ED	V10.0.0	V7.0.0 HF18	V3.9.0
TC1797-ED	V10.2.0	V7.0.0 HF18 / V7.1.2	V3.11.0
TC1798-ED	V10.0.0	V7.0.0 HF18	V3.9.0
TC1798	V10.0.0	V7.0.0 HF18	V3.9.0

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 HSP V11.3.0

Feature	Description
Correction of TFS# 473444	Update to remove spikes in measurement data after reset when using timer-triggered rasters. Timer triggered rasters now start after the startup handshake.

3.1.2 In HSP V11.1.0

Feature	Description
Correction of TFS# 493482	Update to ensure proper timestamps in measure file in some use cases.
Correction of TFS# 520698	Update to support MCE measurements when ECU is power cycled while running MCE measurements.
Correction of TFS# 525723	Update to support SOURCE_ID for Hooked Based Bypass (HBB).

3.1.3 In HSP V10.10.0

Feature	Description
3 rd Party Tool Enhancements	Firmware Updates <ul style="list-style-type: none"> - #473621: Dynamic Emulation commands added for 3rd Party Tools
Correction of TFS# 491102	Correction for sporadic flashing preparation when using HSP10.9.x. Please use HSP10.8.x and older or HSP10.10.x and newer to avoid issues flashing.
ZBT RAM update	HDC Update <ul style="list-style-type: none"> - #437811: Update timing for new system RAM. Once a device contains HSP10.10 or higher, the user will no longer be able to downgrade the XETK with HSP 10.9.x or lower.

3.1.4 In ETK Tools 4.0.6

Feature	Description
Correction of TFS# 483782	A static overlay configuration can be downloaded using the XETK Configuration Tool.

3.1.5 In HSP V10.9.0

Feature	Description
3 rd Party Tool Enhancements	<p>Firmware Updates</p> <ul style="list-style-type: none"> - #456018: add TCP 'ack' to XCP flashing commands - #451988: only turn off Green LED / allow page switch after all statically configured overlay handles are initialized with RP values

3.1.6 In ETK Tools 4.0.4

Feature	Description
3 rd Party Tool Enhancements	<p>A static overlay configuration can be downloaded using the XETK Configuration Tool, with OCT generation.</p> <p>The Flash Programming tab is enabled to allow downloading programming scripts to be used for 3rd Party XCP flashing.</p>

3.1.7 In INCA 7.1.2 & HSP V10.2.0

Feature	Description
New configuration for ETK-S4 to XETK-S4 migration compatibility	<p>Firmware Update in HSP</p> <ul style="list-style-type: none"> - New configuration feature available 'OCONused'. <p>INCA update</p> <ul style="list-style-type: none"> - Generate the OCT used for page switching based on the new configuration feature. <p>XETK Configuration Tool Online Help Text</p> <p><u>Using OCON register for protocol based page switching</u></p> <p>Determines whether the OCON register shall be used for protocol based page switching. The size and content of the Overlay Control Table written by the XETK will change based on the selected usage of the OCON register.</p> <p>When migrating ETK-S4.2 to XETK-S4.2, projects must set the entry in the same way as the existing ETK configuration.</p>

	New projects are recommended to use the OCON register, default value, and consider this in the ECU software which processes the Overlay Control Table written by the XETK.
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3.2 Known issues

Please contact ETAS for further information about known issues listed below.

3.2.1 In ETK Tools 4.0.5

Issue	Description
TFS# 483782	User is unable to download a static overlay properly using the XETK Configuration Tool. The XETK will not receive an OCT setting and page switching will not be possible with the 3 rd Party tool. Solution planned for ETK Tools 4.0.6. Workaround: configure the XETK with ETK Tools 4.0.4.

3.2.2 In HSP 10.9.x

Issue	Description
TFS# 491102	Sporadic flashing preparation when using HSP10.9.x. Please use HSP10.8.x and older or HSP10.10.x and newer to avoid issues flashing.

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4 Product Variants

The XETK-S4.2 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 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 **C012/01** is the first delivered version.

5.3 Current delivery condition

The hardware state **C013/01** will be delivered with all new shipments.

This version includes an updated XETK system RAM. There is no functional difference for the user as compared to the prior delivered version. An update from C012/01 to C013/01 is not necessary.

6 Firmware Modifications

6.1 General remarks to this chapter

The programmable logic code within the XETK-S4.2 is stored onto programmable logic devices (FPGA, CPLD). The first released firmware version is listed underneath. For the version syntax please refer to chapter 2.1.

6.2 First delivered version

FPGA Work	1.0.26
Firmware Work	1.0.3
FPGA Rescue	1.0.26
Firmware Rescue	1.0.3
CPLD	1.0.1

6.3 Firmware delivery condition

The following firmware versions will be programmed into all XETK-S4.2 shipments:

FPGA Work	1.0.35
Firmware Work	1.0.26
FPGA Rescue	1.0.35
Firmware Rescue	1.0.26
CPLD	1.0.1

In case of any problems the above mentioned firmware can be programmed to the XETK by using HSP V11.3.0. 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 - FPGA with a later version by using the HSP Firmware update tool, all XETK - packages will be updated one after another and will last a few minutes.

7 Abbreviations

XETK	Product (emulator test probe) which can directly be connected to the tools PC
INCA	Measurement and Calibration Software of ETAS
ASCET-RP	Rapid Prototyping Software of ETAS
INTECRIO	Rapid Prototyping Software of ETAS
XETK Configuration Tool	Configuration Software, in order to configure a XETK
HSP	H ardware S ervice P 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
firmware	Software for MC hardware; necessary for implementation of new features or bug fixes
Hot-fix	Software bug-fix for a refresh version
tool-chain	MC hardware (e.g. ES690) and software (e.g. INCA)
MC	M easurement & C alibration
RP	R apid P rototyping
CPLD	C omplex P rogrammable L ogic D evice
FPGA	F ield P rogrammable G ate A rray; interface component to the application hardware
PCB	P rinted C ircuit B oard
DPR	Dual Ported RAM; special RAM onto the ETK which allows an access from ECU and application hardware at the same time
/CS	Chip select