

MAHLE



Autodiagnosis

CONNEX, speed-power
in your hands



BrainBee[®]
WORKSHOP SOLUTIONS

Looks great – and is amazing to use.

Our diagnostic tools are always at the heart of the BRAIN BEE product portfolio. Thanks to our many years of experience and ongoing investments in design, usability and regular updates to our databases, our diagnostic tools can cover almost all the needs of professionals.

CONNEX BT CONNEX SMART

Key features:

- Maximum coverage of the market
- In-house software development
- Ongoing software updates to download via web
- Unlimited initial license, optional upgrade licenses
- Wide range of special applications
- Compatible: Windows, Android, iOS (CONNEX SMART)
- Pass-Thru Function (optional)
- Troubleshooting guides (optional)
- Identification of spare parts (optional)
- Automatic identification of the vehicle
- Cyber Security
- E-Scan Function



Product overview

CONNEX BT



CONNEX BT

EOBD connection via Bluetooth

CONNEX SMART



CONNEX SMART

In combination with PC ⁽¹⁾ (Windows) or tablet ⁽²⁾ (Windows/Android/iOS)

EOBD connection via Bluetooth



Made in BRAIN BEE by MAHLE:

CONNEX is based on many years of experience and impressive records in the field of diagnostics.



Maximum speed:

Just switch the CONNEX on – and you're ready to go. The diagnostic process starts in less than seven seconds. It doesn't get any faster than that!



Constant development:

A team of specialists is dedicated to the ongoing development of new systems and models.



NEXUS 3.0:

NEXUS 3.0 is the super-powerful BRAIN BEE operating system for professional use in the workshop. With a impressive 10.1" high performance display.



Always Connected ⁽³⁾:

The tool is always up to date. You are sure to use your CONNEX every day to the maximum of its potential.



Tailor-made for you:

CONNEX offers you several opportunities to improve your business. Numerous additional functions allow you to set up your device according to your needs.

Always Connected ⁽³⁾, always fully updated, always ready for exclusive functionality. Thanks to the WiFi connection, each update is automatically installed on the CONNEX device. In this way, your device offers the best performance. In addition, the WiFi connection allows direct and immediate access to many additional exclusive features, such as:

- Automatic search - VIN search - Adaptive Search
- SKIP 100 – Search by Plate
- BPS Brain Problem Solver
- B.O.B. - Online chat

The BRAIN BEE TICKET is also available. Each report is analysed by BRAIN BEE specialists and has a quick response.

Pass-Thru:

The Pass-Thru function is available thanks to SMART THRU, an operating system approved by major car manufacturers that provide the service, to be used with a PC terminal (Windows). The operation is made even easier thanks to the instructions via NEXUS THRU function.

Your best assistant:

Everything you need, just one click away. You don't know how to run a particular service on a vehicle? It's simple: with CONNEX and its optional functions!

BPS Brain Problem Solver – the intelligent information feature: The TICKET features of the BRAIN BEE scantools have been further enhanced and adapted to suit diagnostic requirements in collaboration with Haynespro, the leading supplier of automotive databases. The BPS feature includes an active licence for your diagnostic tool, and gives you access to the most important information, parameters and datasheets, all continuously updated, throughout the term of the licence.

BPS-Tutor & BPS Tutor Plus

The BPS-Tutor function (optional) is an ideal extension for those who need an even higher performance tool. With it, you will be able to create a guided diagnosis and quickly find a solution to complex problems, based on the fault code read out by the device. The result is immediately available.

BPS-Tutor Plus is the most complete version of the BPS-Tutor, with diagrams, additional drawings, labour time, allowances and solved cases.

The BPS-INFO module is incorporated in all active BRAIN BEE licences free of charge. It contains all the technical data needed for everyday jobs in the workshop, divided into nine categories:

Servicing; Engine; Gearbox; Steering; Drivetrain; Brakes; Interior/exterior equipment; Electronics.

For each of these categories, a diverse range of web-based information is available

- Technical, electrical and diagnostic diagrams
- Configuration data
- Guided instructions and operating procedures
- Repair time
- Fuses and relays

B.O.B. ⁽⁴⁾ – with this exclusive function, we are going further. A virtual assistant (with a team of professionals and experts in vehicle diagnostics) is always at your disposal to answer any questions that arise in real time, through a professional chat.

Automatic Search of the Vehicle:

Ready for fast action! CONNEX immediately recognizes the model of the vehicle which you are working on. You can choose from four different models, entirely in accordance with your habits and preferences:

- COLUMBUS: just enter a keyword and the functions allow you to skip several steps, allowing you to immediately enter a diagnostic session
- By entering the VIN ⁽⁵⁾
- SKIP 100 ⁽⁶⁾ Search by Plate
- Via EOBD socket – the automatic VIN reading from EOBD, through the Adaptive Search function,
- Manual model search, facilitated by actual vehicle photos

⁽¹⁾ Windows

⁽²⁾ Windows, Android, iOS

⁽³⁾ No Internet connection is required for diagnostics, except Cyber Security

⁽⁴⁾ Optional. Available in Italy and France. For other countries, contact your BRAIN BEE dealer.

⁽⁵⁾ Optional. Also available KBA (German Motor Transport Authority) in Germany

⁽⁶⁾ Available in England, France, Ireland, Italy, Netherlands, Portugal, Spain. For other countries, please contact your BRAIN BEE dealer.

NEXUS 3.0

In-house developed software for CONNEX diagnostics. A powerful operating system, up to ten times faster than other vehicle diagnostic devices. You'll be ready to go in less than seven seconds!

User friendly interface design:

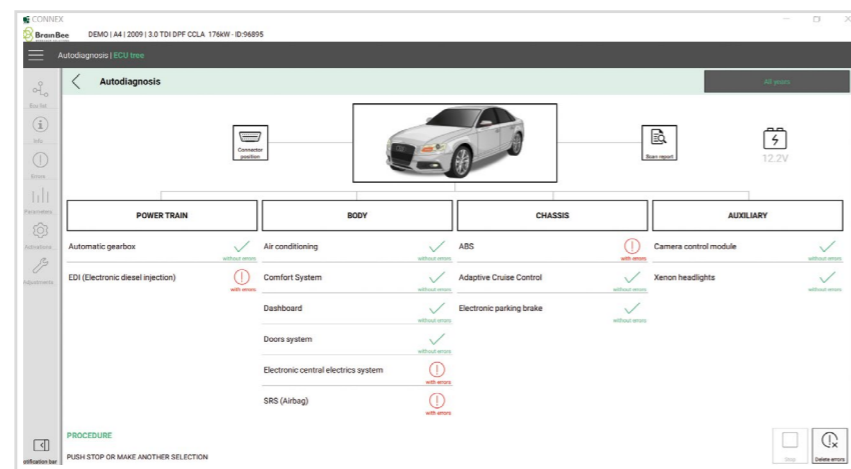
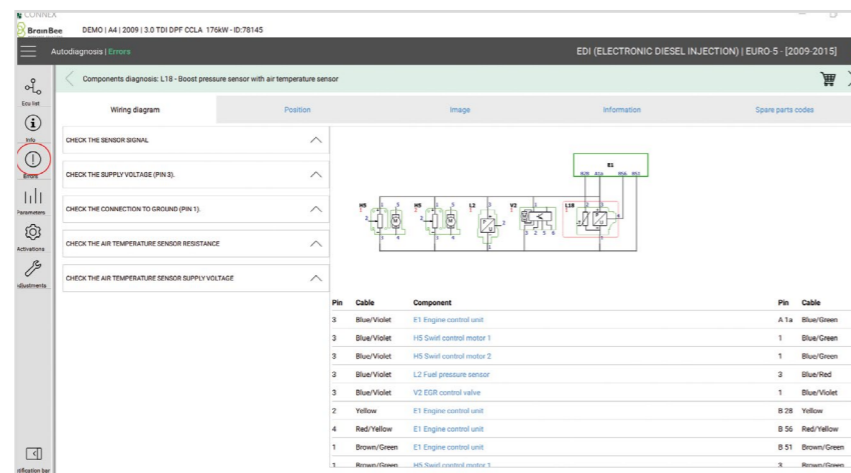
The graphical interface gives you immediate and quick access to all the information you need for your professional work. The diagnostic tool enters the vehicle's system and allows you to see immediately what actions are required for its maintenance.

Developed thinking about everyday use:

We ensure that our user interface is suitable for daily work by continuously improving CONNEX software.

Powerful information functions:

Thanks to the CONNEX BPS-Info/Tutor /Tutor Plus functions, you will always know how to proceed on every activity, even if you are facing a completely new process. And if you still have doubts, you can turn to B.O.B.(4), our invaluable on-line help, who will come to your aid.



Tailored to your work

Quickly on target:

The selection of functional areas or specific control units allows the diagnostic professional to establish a direct connection to the control unit and then to speed up the diagnostic.

Cyber Security, a topic not to be underestimated:

In a market where vehicles are increasingly equipped with computer-based interconnections that optimize their operation and enhance the driving experience, the protection of the data exchanged is a topic of increasing importance for all car makers. Starting from FCA, MERCEDES and Renault, all vehicle manufacturers are activating to improve the cybersecurity of these interchanges, implementing protection systems that are different but commonly called "Cyber Security".

However, protecting data in this case means disabling all unauthorised access. This also involves access to systems that are daily subject to diagnosis and repair in every multi-brand workshop.

The result of this protection action has a strong impact on the work of the professional, such as the need to manage agreements with each manufacturer.

For this reason, CONNEX introduces the Cyber Security functions: a service that centralizes and facilitates the management of workshop skills by the manufacturers of the protected brand, allowing authorized access directly through CONNEX, without wasting time and effectiveness.

A service that is constantly evolving, as in the spirit of CONNEX

diagnosis: check coverage and news through the publication TOPNEWS.

FORD Specialist:

The Ford Group is one of the car manufacturers that use extended protocols to protect their diagnostic data. This makes it difficult for workshops to use multi-brand diagnostics.

Therefore, the goal of BRAIN BEE is to offer workshops the opportunity to repair Ford vehicles using BRAIN BEE diagnostic tools. We did this with our special function: Ford Specialist.

Intelligent Fault Scanning Function:

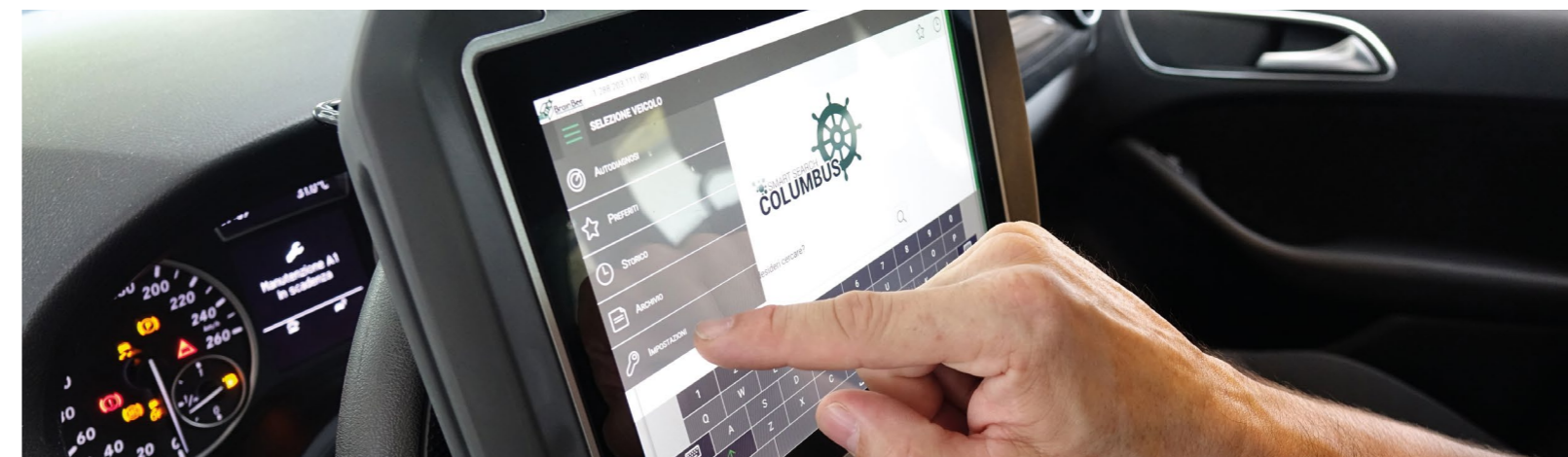
The wide-ranging links between different control units via CAN bus systems make it difficult to locate faults quickly. The BRAIN BEE device knows these links, scans possible control units one after the other, and indicates faults that have occurred based on the system.

START&STOP Function:

Today, nearly all new vehicles come with a start/ stop system. By activating the special START&STOP, additional functions are now available for diagnosing these systems.

E-Scan Function:

This is the function dedicated to the electric and hybrid world. A dedicated section that allows you to retrieve all the vital parameters of electrically driven vehicles, such as the health of the battery pack, with the possibility of printing a very detailed report.



⁽⁴⁾ Optional. Available in Italy and France. For other countries, contact your BRAIN BEE dealer.

Technical data

Autodiagnosis	CONNEX BT	CONNEX SMART
Communication protocol	ISO 14230 (ISO 9141-2) ISO 11519 – J1850 PWM ISO 11519 – J1850 VPW ISO 11898-2 – High-speed CAN bus ISO 11898-3 – Low-speed CAN bus SAE J2411 – Single-wire CAN bus	ISO 14230 (ISO 9141-2) ISO 11519 – J1850 PWM ISO 11519 – J1850 VPW ISO 11898-2 – High-speed CAN bus ISO 11898-3 – Low-speed CAN bus SAE J2411 – Single-wire CAN bus
Sae J2534 Pass-Thru	SMART-Thru (optional)	SMART-Thru (optional)
Wireless connection	Terminal: Bluetooth 4.1 WIFI 802.11 B/G/N dual-band antenna with beamforming technology VCI (CONNEX BT) Bluetooth 4.1 with 100 m range in open space	Bluetooth 4.1 with 100 m range in open space
Display	Touch TFT LCD 10.1", resolution 1.200 x 800	
Audio	2 W loudspeaker	
Battery	Built-in, rechargeable 7.4 V, 2,200 mAh lithium-ion battery, battery life: 3.5 hours	
Operating temperature	0 ÷ 50 °C	0 ÷ 50 °C
Power	25 W max.	6 W max.
Dimensions (L x H x P)	317 x 217 x 50 mm (terminal) 120 x 48 x 25 mm (VCI)	120 x 48 x 25 mm
Weight	1,500 g (terminal) 90 g (VCI)	90 g

Configurations

Activations and updates	
Activation e-card	
1010601502EX	ACTIVATION START 12
1010601503EX	ACTIVATION START 36
1010601699EX	NEXUS 3.0
1010601642EX	ACTIVATION START 12 & FCA 12
1010601643EX	ACTIVATION START 36 & FCA 12
1010601660EX	FCA 12 (SGW)
Update e-card	
1010601504EX	UPDATE 12+
1010601505EX	UPDATE 36+
1010601506EX	UPDATE UPTONOW 12+
1010601644EX	UPDATE 12+ & FCA 12
1010601661EX	UPDATE 36+ & FCA 12
1010601645EX	UPDATE UPTONOW 12+ & FCA 12
1010601520EX	WARRANTY EXTENSION 36
Special functions and accessories	
Special functions	
	FUNZIONE BPS INFO Included in standard configuration
	VIN / KBA Included in standard configuration
	TICKET Included in standard configuration
	FORD SPECIALIST Included in standard configuration
	START&STOP Included in standard configuration
	E-SCAN
1010601513EX	FUNZIONE TUTOR 12
1010601515EX	FUNZIONE TUTOR PLUS 12
1010601514EX	FUNZIONE TUTOR 36
1010601695EX	FUNZIONE SKIP 100 Availability varies from one country to another. Please ask your BRAIN BEE Dealer
1010601507EX	FUNZIONE PUK
1010601582EX	FUNZIONE BODY SPECIALIST
Accessories and cables	
1010601524XX	SMART THRU
1010601522XX	ASIAN CAR ADAPTOR CABLE
1010601585XX	CAR CHARGER ADAPTER
1010601526XX	LANDI BRC ADAPTOR CABLE
1010601486XX	MERCEDES SPECIALIST ADAPTOR CABLE
1010601385XX	EURO ADAPTOR CABLE
1010601575XX	CONNEX LINK
1010750038XX	TRO-060 TROLLEY
1010601351XX	TRO-8940 TROLLEY SUPPORT
1010750110XX	TRO-8930 MULTI-SUPPORT



CONNEX Digital ADAS

A revolution in the workshop

CONNEX Digital ADAS BRAIN BEE revolutionary system, is super simple and easy, making maintenance of ADAS systems accessible to all workshops. With the Targetless Digital System (patent), no additional panel is required.

When maintenance is required

The ADAS system shall be calibrated whenever at least one of the systems involved in the network is serviced. Thus even in the case of recurrent operations in multi-brand workshops, such as (among others):

- Windscreen replacement;
- Work on cameras/radar;
- Collisions or microcollisions (parking);
- Vehicle body work (bumpers);
- Alignment of vehicle attitude;
- Tire rim replacement

The CONNEX Digital ADAS solution

The difficulty for the multi-brand workshop is that traditionally it must have numerous panels and specific targets for each sensor and brand to be calibrated, involving particularly high investments and adequate space. In contrast, CONNEX Digital ADAS provides a patented limited number of Target system (TARGETLESS), which minimizes process times.

The entire process has been redefined by the Research and Development department of MAHLE Aftermarket, identifying innovative and unprecedented technical and process solutions compared to what is already on the market. The core of the system remains CONNEX, fast and dynamic and able to receive updates and continuous integration on the working park that progressively adopts one or more ADAS systems.

Why you should choose CONNEX Digital ADAS:

- Targetless technology - it is MAHLE patented Targetless technology, the core element of the system. The versatility of the digital panel allows adapting the screen to any existing or future car makers reference protocol.
- Easy to use - it is so simple to use that you won't waste any time trying to learn or just using it: the system will guide you through all the steps of the calibration procedure.
- Fully automatic - the calibration frame is adjusted automatically, through the electric control, and any movement of the target in relation to the car, is automatic and virtual. The car never moves!
- Keystone system (Patent pending) - Extreme accuracy is guaranteed by the self-adaptive system, which allows the software to evaluate the environmental and physical conditions (floor, distance from vehicle) and adapt the digital target image accordingly.
- Universal coverage - ensuring the largest market coverage is very important to us. The database that is behind the operation of CONNEX Digital ADAS follows the constant development of CONNEX self-diagnosis.



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