

# Innovative and reliable: Professional electronic control unit diagnosis from Bosch



## **ECU diagnosis**

### from Bosch

► ESI[tronic] - Workshop software for comprehensive know-how ► KTS 670 - Multimedia-compatible mobile testing system ► KTS 570 - Convenient wireless solution with best-in-class measuring technology for all ECU diagnosis requirements ▶ KTS 540 - Wireless add-on for FSA, BEA, standard PCs or laptops ▶ KTS 530 - Entry level access to comprehensive ECU diagnosis ▶ KTS 515 - Entry level access to onboard diagnostics (OBD) ► KTS 800 Truck - Complete mobile solution for truck, bus, and trailer diagnostics ► KTS Truck - Radio module for comprehensive truck, bus, and trailer diagnostics ▶ KTS 340 - Mobile all-round solution for complete vehicle diagnostics ► KTS 200 - Entry level access to mobile ECU diagnosis



### **ECU reprogramming according to Euro 5 standard**

In the future these technical model approval requirements will apply all over the EU. Accordingly the Euro 5 standard requires automobile manufacturers to make technical repair information available through their online portals and to permit reprogrammining of ECUs. Only testers that are already Euro 5-compatible can be used. This only includes devices in which a "Passthru Interface"\* is already integrated. Bosch offers several models for this purpose. If required, the testers can install the latest software version from the online portal of the manufacturer in the control unit of the vehicle. The vehicle manufacturer charges fees for downloading information and reprogramming.

<sup>\*</sup>The Pass-Thru standard defines a communications driver that is used to reprogram control units.

## **Professional test equipment**

### for modern vehicle electronics



The KTS series from Bosch: 20 years of success in workshop-compatible test equipment for ECU diagnosis

The digital revolution in the automotive industry has not bypassed the workshop. Increasingly more complicated vehicle components and their networking to systems are turning vehicles into "mobile computers". This results in professional repairs and maintenance requiring qualified diagnosis.

## Continued success in service: With powerful ECU diagnosis from Bosch

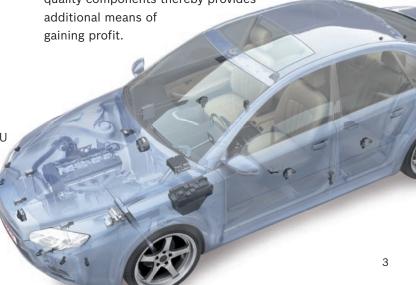
The increasing amount of electronics in vehicles makes ECU diagnosis standard practice in the workshop. This also applies to simple maintenance work on modern cars, or resetting the service interval display. With its 22 years of experience, the KTS series from Bosch is the test equipment with the highest, and continuously growing, market coverage. Regular updates of the diagnosis data in the integrated ESI[tronic] software from Bosch ensure that the workshop always has up-to-date information at its disposal. It currently covers around 80 different types of electronic system from more than 150 vehicle manufacturers. Reliability per subscription: Bosch provides the workshop with around 350 new ECU diagnosis programs per quarter.

The KTS series guarantees transparency in ECU diagnosis. Awards regularly underscore the high acceptance in the global market.

## New possibilities for turnover with modern diesel technology

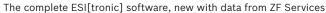
A good example is the triumphant progress of the diesel engine: High pressure systems, such as common rail or unit injectors from Bosch make vehicle diagnosis essential. The KTS series, in combination with the specially designed ESI[tronic] software, provide you with optimal opportunities to check these systems in the vehicle.

As an extension of the testing opportunities, professional test parameters, such as basic settings, volume comparison, compression test, idling speed comparison and adaptation functions are available. These enable trouble-shooting and repairs to carried out in shorter time and profitably. Not only with Bosch systems, but also for systems of other manufacturers! The renewal of high quality components thereby provides



## **ESI[tronic]-Software:** The basis of information for diagnosis, technology, repair and service





### ESI[tronic] - perfectly geared for diagnosis, technology, maintenance and service

It is only with professional diagnostics and information systems that a workshop will be able in future to offer all services for innovative vehicles. ESI[tronic] is perfectly tuned to the Bosch test equipment, which permits introduction to ECU diagnosis if a workshop PC is available. The large number of software modules can be adapted to the specific workshop requirements. They are activated individually depending on requirements. Updates for the subscription data mean that the information is always at the latest stage of development.

### ESI[tronic]-A: Access to the full range of Bosch automotive equipment

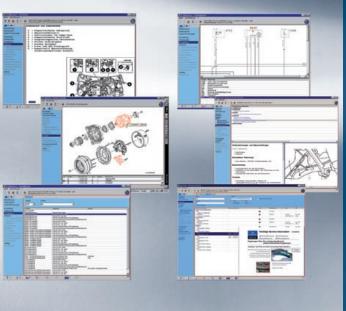
Additional benefit through comparison of Bosch codes with order numbers of vehicle manufacturers.

### New supplementary service for ESI[tronic] customers

Parts catalog and installation instructions from ZF Services integrated in Bosch workshop software ESI[tronic].

### **ESI[tronic]-C: Modular system for ECU diagnosis** and SIS troubleshooting instructions

Professional software for ECU diagnosis via CAS[plus] linked with troubleshooting instructions (SIS) for repairing engine management systems (gasoline and diesel), car brake, safety and convenience systems.



ESI[tronic] software with guided troubleshooting for rapid and simple diagnosis



### SD (ECU diagnosis software)

Links Bosch test equipment or the workshop PC with information from the control unit



### SIS (Service Information System)

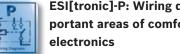
SIS troubleshooting instructions can be used on any standard PC



### ESI[tronic]-M: Mechanical work procedures and functions throughout the vehicle

Technical data for gasoline and diesel vehicles, e.g. wheel settings, maintenance schedules,

data and information on changing toothed belts.



### ESI[tronic]-P: Wiring diagrams for all important areas of comfort and convenience

Most comprehensive selection of vehicle convenience wiring diagrams, covering all manufacturers, under a single user interface.



As an ideal supplement to SIS instructions, TSB opens up rapid access to well-known

vehicle faults and offers assignment according to symptom and system group (ABS, airbag, engine, etc.). This is combined with a clear description of causes, supplemented by tested repair tips with visual support.

## Simple, timesaving and efficient vehicle diagnosis with CAS[plus]



CAS[plus] creates connection for practical diagnosis

Bosch download server: Software updates for KTS 340 and KTS 200

#### CAS[plus] simply speeds up diagnosis

The actual values from the ECU diagnosis are automatically compared with the target values in the SIS fault finding instructions, color-coded and logged in line with customer needs. Without changing over, all additional information for fault rectification and the measured URI values of the multimeter function are immediately available.

### All ESI[tronic] information on DVD

This software on DVD is activated individually depending on the workshop requirements – e.g. the ESI[tronic]-C for modern vehicle repair including ECU diagnosis. The ESI[tronic] subscription provides regular updates to insure your information is always up to date.

### KTS 340 and KTS 200 updates - now online

In addition to the KTS 200, the software updates can also be downloaded and installed manually or automatically from the Bosch download server for the KTS 340.

### KTS 670, KTS 570/540 wireless, KTS 530, KTS 340 and KTS 200: Diagnostic professionals – powered by ESI[tronic]

Bosch's new KTS diagnosis equipment, together with the ESI[tronic] software presents the perfect combination of hardware and software for efficient faultanalysis on the vehicle and professional repairs.



Easy connection of the KTS tester with ESI[tronic] software and operation at the vehicle is particularly simple and fast.

### PC/laptop connectivity

- ▶ Radio connection with KTS 570/540 wireless
- ► USB connection with KTS 570, KTS 540, KTS 530

#### Connection to the diagnosis socket

OBD diagnostics cable (directly or via adapter concept "Easy Connect" or via the Uni 4 adapter and the existing adapter concept)

Multimeter and oscilloscope connection via measuring cable

1 Bluetooth USB adapter 2 Measurement cables, 2-core 3 Exchange adapter integrated in housing (KTS 570/540/530))

## **KTS 670** for efficient diagnosis and complex measurements



Mobile diagnostics with the KTS 670

More and more workshops are using the KTS series from Bosch to make diagnosis of complex vehicle systems efficient. A decision that pays off and provides a head start in competence and dependable service business.

### Modular concept

- ► The KTS 670 is portable thanks to a lithium-ion rechargeable battery, e.g. for use during road tests
- ► Keeping the KTS 670 in the charging station insures the rechargeable battery is constantly charged
- ► The KTS 670 is ideal for use in the workshop when mounted on the trolley

## Full range of equipment for complicated measurements

- ► The KTS 670 comes with a convenient 2-channel oscilloscope. Advantage: The mechanic can view and evaluate, for example, both lambda sensors on one screen.
- ► Better signal evaluation thanks to a far higher scan rate, increased image refresh rate and higher-resolution x-deflection

KTS 670: Core element of a professional diagnostic system

- ▶ 2-channel multimeter with higher input resistance for simplified troubleshooting and 2-channel execution of voltage, resistance, and current measurements
- ▶ In ECU diagnosis, parallel to each test step, the signals of the diagnosis cable such as K and L line, CAN, and J1850 can be tested using the diagnostics oscilloscope
- ► The high-performance module (KTS 570) from the KTS program is integrated in the housing; OBD exchange adapter (controlled by ESI[tronic])
- Simple adaptations to future protocol changes by replacing the new internal OBD exchange adapter and by means of a new vehicle adapter connection concept (Easy Connect)

### Workshop-compatible equipment for everyday use

- ► Effective protection against impact and water splashes
- ► High mobility by means of practical carrying handle and power supply from vehicle battery or rechargeable batteries during road testing

## **KTS 670:** Top model with full set of equipment and features





KTS 670: Modular from handheld to trolley

- ► Together with ESI[tronic], the KTS 670 is the professional diagnostic system for vehicles in your workshop and during road tests
- ► Screen with ideal resolution for a brilliant display, even where light conditions are poor (high brightness and large angle of view, and a touchscreen)
- ► Switch on and off and call up a virtual keyboard via a touch-sensitive key
- ► Universal application for passenger cars and commercial vehicles by means of universal OBD connector, for 14 V and 28 V vehicle electrical systems
- ► Simulation mode can be adjusted individually

### Convincing advantages for the workshop

- ► New adapter concept "Easy Connect" is supported by the KTS 670
- ► Automatic recognition of the control unit and reading of faultmessages
- ► All newer passenger car and commercial vehicle models can be tested – even with CAN protocols outside of the OBD CAN standard
- ► Guided test and repair instructions from the workshop software ESI[tronic]

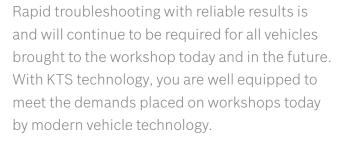
Technical Data	KTS 670
PC board	Operating system Windows XP, 1 GB main memory, 80 GB hard drive capacity
Display	12,1" TFT color display with touchscreen, industrial standard, resulting in outstanding, brilliance and wide angle view; resolution SVGA 800 x 600 dpi
Equipment	Multimedia, built-in speaker and headset connection, installed LAN network card (10/100 Mbit), PCMCIA standard connection enables WLAN connection
Status indicator	Via 4 LEDs: On/Off, mains operation, battery charge status, hard-drive access
Operation	Touchscreen, 2 touch-sensitive keys; On/Off button, special menu key (backlighting control, virtual keyboard, etc)
Lithium-ion battery	Service life depending upon charge status and application approx. 1 to 2 hours
Housing	Stable plastic housing, integrated impact Protection
Operating temperature	0 to 40 °C
Weight	approx. 4 kg
Connections	OBD diagnostics cable, adapter concept "Easy Connect", Uni 4 adapter and existing adapter concept, Multimeter: Channel 1: Socket yellow (+), blue (-), channel 2: Red (+) and black (ground), 2 x USB 2.0, LAN connection, port jacks for contacts for stationary charger, PS/2 for pointing device or keyboard, VGA for external monitor, PCMCIA 2 x type 2 or 1 x type 3, micro-in, line-out, headset
Dimensions	400 x 300 x 125 mm (W x H x D)

## KTS 570/540/530:

## Safe, convenient and quick



KTS 570 wireless: Top-of-the-range model of the new series and workshop all-rounder



#### The easier way to test complex electronics

- ► Intelligent and with a secure future due to internal OBD-exchange adapter
- ► Software-controlled by ESI[tronic]
- ► Simple connection of the KTS series to vehicles
- ► Clear communication via multiplexer and cable adapter recognition: K and L line, SAE and CAN can be connected to all possible terminals on the OBD connector
- ► Intelligent adapter cable guarantees for the future:
  - Reliable control of the multiplexer
  - Automatic ECU search function



KTS 540 wireless: Mobile workshop deployment for fast workflows

- ► OBD-exchange adapter integrated in device, for simple replacement later with an updated version
- Simple fastening and releasing by means of a module mounting bracket
- ► Visual and acoustic status identification/monitoring of the wireless connection
- ► Simulation mode can be adjusted individually via DDC/ demonstration possible without vehicle
- ▶ Resistance measurement with enhanced ranges
- ► Continuity tester for locating faults
- ▶ Diode measurement for testing in components
- ▶ Voltage measurement with enhanced measurement functions
- ► Current measurement with additional adaptation option of FSA current clamps
- ► Universal application for passenger cars and commercial vehicles by means of universal OBD connector, for 14 V and 28 V vehicle electrical systems





The KTS series from Bosch: KTS 570/540/530

Secure future through integrated exchange adapter

Radio communications technology: Flexible at the vehicle

## KTS 570 / 540 wireless and KTS 530:

## Diagnostics experts for the latest technology



Data exchange	hy radio	· From KT9	: 570/5 <u>4</u> 0	wireless to PC
Data Cachange	by radio.		, 0, 0, 0 40	WIII CICSS to I C

Technical Data	
Equipment	KTS 570: 2-channel multimeter and oscilloscope KTS 540, 530: 1-channel multimeter
Weight	approx 500 g
Connections	OBD diagnostics cable, USB, mains adapter, operation display
Wireless connection	Bluetooth

### Mobile communications connection fully in view

- ► During installation and operation, the status of the wireless connection is constantly indicated in the task bar on the screen
- ▶ If the wireless connection is lost, an acoustic signal sounds



Communication No communication Connection ok ... not ok

## KTS 570 / 540 wireless: Convenient and mobile thanks to wireless Bluetooth data transfer

- ▶ Bluetooth Standard Class 1 with a range of up to 100 m
- ▶ Bluetooth USB adapter from Bosch included in scope of delivery for convenient and simple initial installation
- ► Control and activation of the installation by means of the integral DDC (Diagnostics Device Configuration) software
- ► Automatic KTS module search
- ▶ Wireless connection test by the integrated transducer
- ▶ Test program for testing the wireless connection

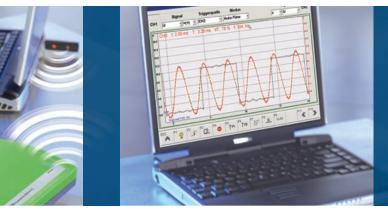
### KTS 530 without radio module, otherwise same functions as KTS 540

### Simplified adapter concept "Easy Connect"

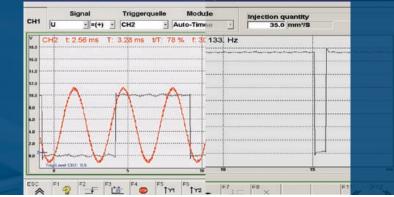
For reliable recognition of manufacturer-specific diagnostic connections, Bosch now introduces the new simplified adapter concept "Easy Connect". Now, all that needs to be done for reliable control unit diagnostics is to join the manufacturer-specific adapter cable and the OBD diagnostics cable to make a direct connection.

### KTS 570 / 540 / 530

- ► Operating system supported: MS Windows XP, Vista Home Premium, Vista Business, Windows 7 32 bit
- ► The USB interface means that the KTS 570, KTS 540 and KTS 530 can be connected to all common laptops/PCs
- ► Mounting bracket included



Oscilloscope measurement parallel to diagnosis



2-channel oscilloscope for optimum troubleshootinge

Component signal and actual value at a glance

## **Data Exchange Platform DXP** for even more economical processes in the workshop



## New! Data Exchange Platform DXP – the efficient workshop software from Bosch

- ► Networking of all diagnostic devices
- ► Fast, simple, reliable data exchange between all PC-based testers in the workshop
- ▶ Direct activation of the ECU diagnosis (KTS) from every DXP-networked test system.
- ► Central storage of identification data and result records and exchange with the Workshop Management System (WMS)

## Once recorded – accessible at any time, and everywhere

DXP from Bosch transfers all vehicle data recorded by a system to all other diagnostic systems integrated in the DXP network. Once identified, input of the license plate number or VIN (vehicle identification number) is sufficient to call up the vehicle data at all workstations.

This saves time. All testers from Bosch, Beissbarth and Sicam have networking-capability.

### The technical requirements

Any modern PC can be used as a server. Bosch recommends the use of a separate preconfigured server. An interface makes connection to many Workshop Management Systems possible.

### Benefits to the workshop

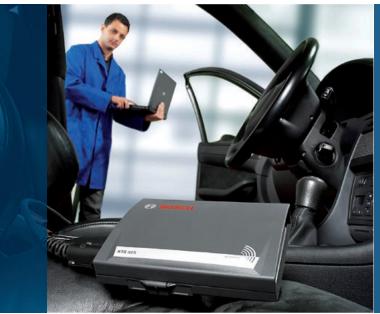
- More efficient due to simplified processes and short setup times
- ► No duplicated work thanks to one-time vehicle identification
- ► Easier subsequent identification saves time
- ► Central access to ECU diagnosis from every test system
- ► Customer-friendly through rapid processing of order data and results
- ► Transparent and service-oriented, standardized test records
- ► A database for the entire vehicle history with all test results

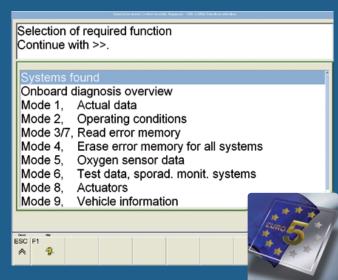
### Minimum requirements for PC or notebook

The software can be inst alled on every PC in the workshop.

- ► Dual Core processor
- ► At least 2 GB main memory
- ► At least 150 GB hard-disk memory

## **KTS 515:** Entry level access to mobile OBD and reprogramming in line with Euro 5





KTS 515 für die On-Board-Diagnose

With OBD (On Board Diagnostics), a Europewide standard for emission values and their correct testing was introduced. Simple, fast and workshop-oriented testing of emission values in accordance with the OBD standard: The KTS 515 is the perfect entry level solution for this task, providing connection to an existing PC or laptop.

## KTS 515: The ideal OBD solution for the diagnosis of exhaustgas-related systems

- ► Reads out OBD modes 1–9 (current range of functions of the OBD standard)
- ▶ Display of standardized P0 codes
- ► Supports all four communication protocols
- ▶ OBD module for retrofitting Bosch exhaust-gas testers
- ► The usual, straightforward operator guidance
- ► Software update option with extension of the OBD standard
- ► Reprogramming of electronic control unit, in accordance with Euro 5
- ► Pass-Thru capability: Complete OBD diagnosis for all vehicle brands
- ► Load reduction on workshop diagnostic devices for control unit reprogramming

General: Only testers that are already Euro 5-compatible can be used for ECU reprogramming. This only includes devices in which a "Pass-Thru Interface" is already integrated. At Bosch, the KTS 670, 570, 540, 530, 515, and 340 can be used for this.



## Malfunction display (MI Malfunction Indicator)

The malfunction indicator is a yellow indicator lamp with the symbol of an engine.

Technical data	KTS 515
Weight	0.33 kg
Printout on	commercial-type printer (via PC)
Connections	OBD diagnostics cable, USB, Bluetooth, power supply unit, operating display
Dimensions	170 x 120 x 35 mm (W x H x D)

### **Equipment supply**

Module, OBD diagnostics cable, PC module connecting cable (USB), USB Bluetooth adapter, software exhaust test OBD with KTS 515 PC program, power supply unit, case.

#### Accessories

► Longer PC connecting cables

- USB 2 m 1 684 465 507 - Adapter cable 5 m 1 684 465 567

For operation of the KTS 515, a PC or notebook with the following features is necessary: CD drive, Win XP, minimum 128 MB main memory, a free USB or serial interface and at least 600 MB hard disk capacity for the software installation.

## KTS 800 Truck: The professional solution for commercial vehicles





Complete system for commercial vehicles

KTS 800 Truck: DCU 130 and KTS Truck Modul

With the KTS 800 Truck and the software package ESI[tronic] for Truck, the commercial vehicle workshop gets the complete solution for the diagnosis of light commercial vehicles, trucks, buses, and trailers.

### Mobile complete system

- ► New! KTS 800 Truck: Diagnostic for immediate use Control Unit (DCU 130) and mobile KTS Truck module
- ► Two lithium-ion batteries enable mobile deployment of the DCU 130 everywhere in the workshop or even during a test drive.

### Mobile work over long periods

- ▶ Inclusion of two identical lithium-ion batteries
- ► One battery is sufficient to continue operation in the workshop
- ▶ If required, the batteries can be replaced without interruption during regular operation (hot swap function).

### Testers in line with workshop needs

- ► Easy handling of the DCU 130 with integrated hand grip on the back of the device
- ► Sturdy housing with 13.3" touchscreen monitor
- ► Recessed USB connection to enable protected connection of a dongle
- ► Conspicuous features of the vehicle can be documented with the integrated camera and the required spare parts can be photographed.

### Modular concept with the Diagnostic Control Unit

► Especially for deployment in the workshop, the sturdy DCU 130 controls all testing and diagnostic systems from Bosch, for example the new FSA 500.



Integrated hand grip

Recessed USB connection

Hot swap function

## KTS Truck: The modular solution for commercial vehicles



**Technical data** 

Lithium-ion battery

Operating temperature 0 to 40 °C

Housing

PC board

KTS Truck module

KTS Truck is the ideal entry-level solution for commercial vehicle workshops that already have a PC.

### Optimized and mobile diagnostics solution

- ► KTS Truck module for light commercial vehicles, trucks, trailers, and buses
- ► Can be connected to DCU 130, PC or laptop
- ▶ Integrated Bluetooth connection with large range, up to 100 m
- ▶ Bluetooth USB adapter included in equipment supply
- ▶ Sturdy housing

### **KTS Truck**

- ▶ The following operating systems are supported: MS Windows XP, Windows Vista and Windows 7
- ▶ The USB interface means KTS Truck can be connected to all common laptops/PCs

	memory, 250 GB hard disk capacity
Display	13.3" WXGA color display with resistive 5-wire touchscreen, resolution 1280 x 800 dpi
Equipment	Multimedia, integrated camera min. 2 megapixels, Bluetooth class 1 and 2, WLAN 802.11 a/b/g/n. Ethernet 10/100 Mbit
Status indicator	Via 4 LEDs: On/Off, hard-drive access, WLAN, Bluetooth
Interfaces	2 USB 2.0 1 USB 2.0 integrated as recessed

1 RJ45 10/100 Mbit

1 connection for headset

2 lithium-ion batteries 14.4 V, 32 Wh.

Batteries with charge status indicator

Sturdy housing, IP 54 (IP 65 at front)

1 MIC IN

Intel Merom 1.06 GHz DualCore processor, Operating system Windows 7 2 GB main

**DCU 130** 

	Dimensions	355 x 262 x 42 mm (W x H x D without handle)	
AB U	SB		BOSCH

Integrated digital camera

Status LED display

**USB Bluetooth** 

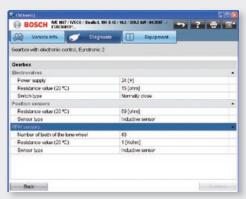
## **ESI[tronic] for Truck:** All information and functions for commercial vehicles



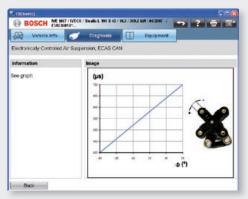
Vehicle information



ECU diagnosis



Technical data (test values)



System information



### **Everything at one stop**

Alongside control unit diagnosis, the ESI[tronic] for Truck software also contains technical information such as wiring diagrams, service instructions as well as system information. Also available are Bosch spare parts catalogs, including the catalog data of the Bosch cooperation partner ZF Services, also with service information and installation instructions for products of the Sachs, Lemförder, Boge, and ZF Parts brands. ESI[tronic] for Truck provides all the necessary information for the execution of reliable diagnosis, complete maintenance, and efficient repair. The software package features high market coverage for light commercial vehicles, trucks, trailers, and buses common on the European market.

#### **Vehicle information**

Alongside control unit diagnosis, the ESI[tronic] for Truck software also contains technical information such as wiring diagrams, service and repair instructions. Basic information regarding commercial vehicles that is also included in the software such as model series, power output, engine designation as well as axle configuration forms the basis for a sound diagnosis in the commercial vehicle workshop.



### **Diagnosis**

Important functions for the commercial vehicle workshop are included: Reading and deleting faultcodes, selecting actual values, activating actuators, resetting service intervals, and adjusting components.

### **Technical data**

ESI[tronic] for Truck provides comprehensive support in troubleshooting: through test values and system information with specified, output voltage, characteristic curves, etc.

### Wiring diagrams

The intuitive operation with dynamic component description makes operation simple and fast.

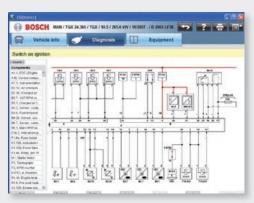
### Maintenance

The semi-annual and annual inspections with additional control items can be called up at any time.

### **Spare parts catalog**

Always accessible: the complete spare parts catalog from Bosch and ZF Services

- ▶ Manual and automatic transmissions
- ► Suspension
- ► Steering
- ► Clutch



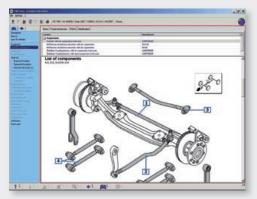
Wiring diagrams



Maintenance



Spare parts catalog



Installation instructions

## **KTS 340:** Easy to use. Hard to beat.



KTS 340: Compact, complete, mobile - the new diagnostics tester from Bosch

### A tester for all purposes

Many workshops want a multifunctional tester. The KTS 340 fulfills this desire. All "tools" necessary for trouble-shooting are available in the tester. It is ideally suitable for independent workshops and fast fitters, or as a secondary device for mobile use.

#### ESI[tronic] software makes it easy

The KTS 340 can be operated easily thanks to the clearly arranged and structured software. This starts with the standardized, optimized vehicle identification. The workshop easily manages all types of information for trouble shooting: Whether from the system overview direct to diagnosis and troubleshooting, from troubleshooting and the maintenance schedule direct to diagnosis, or from diagnosis direct to component repair.

### Information and measuring technology

The new KTS 340 provides all necessary information and the measuring technology for ECU diagnosis, guided troubleshooting, repair, maintenance and service.

#### Workshop-compatible for modern systems

The tester is tailored to repairs with ECU diagnosis software, fault-finding instructions, maintenance information and integrated multimeters. And everything is guided by new, practical menu navigation tuned to work sequences in the workshop.

### High benefits for the workshop

- ► Test professional with full range: ECU diagnosis, troubleshooting, repair and maintenance
- ▶ New intuitive operating concept covering all information
- ► Fast and easy to operate via the touchscreen with a standardized screen concept
- ► Can be switched over immediately: From control unit diagnosis to troubleshooting (component repair) and vice versa
- ► Ideal in service speeds up the work steps that make money for the workshop
- ► Easy to handle, mobile everywhere in the workshop and can be used in or on the vehicle

#### Modern test equipment

- ➤ 2-channel multimeter: CAS[plus] also makes the multimeter function available directly on the trouble-shooting interface: Resistance, current and voltage values with automatic target-actual comparison. The measured values can also be displayed as curves
- Can perform all workshop tasks: Integrated measuring technology and integrated WLAN (in preparation)
- ▶ Mobile power supply through rechargeable batteries

### **Modern test equipment:**

## Robust, light and fast





Comprehensive basic equipment supplied with a sturdy case

Energy supply guaranteed: The new variable charging tray

### Adapter: Equipped for the future

- ► The current adapter is integrated in the housing. Fast updating is possible at any time following changes to vehicle interfaces
- ► Future-proof: Integrated OBD adapter.

### Wireless and mobile

About WLAN (in preparation), e.g. protocols and maintenance plans can be printed out wirelessly via PC.

Technical Data	K15 340
PC board	Operating system Linux, 8 GB SD Card
Display	8.4" TFT color display with touchscreen
Resolution	SVGA 800 x 600 dpi
Equipment	2-channel multimeter and WLAN integrated
Status indicator	Via 2 LEDs: On/Off, mains operation, battery charge status
Battery	Service life depending on charge status and application approx. 1 to 2 hours,, 8 x AA cells, rechargeable
Housing	Stable plastic housing, integrated impact protection
Operating temperature	0 to 40 °C
Weight	approx. 2 kg
Dimensions	290 x 214 x 67 mm (W x H x D)

### All-in-one solution for diagnosis, troubleshooting, repair and maintenance



### Good management of vehicle information

Higher-order information, such as details on the vehicle, which systems are installed, or where the diagnostics socket is located in the vehicle



### Use of ECU diagnosis

Direct access to the ECU diagnosis: Tester functions "Read fault memory", " Delete fault memory", actual values, setpoint values and actuator test



### All functions quickly under control

SIS/CAS[plus] offers vehicle- and systemspecific information on the selected vehicle system



#### Maintenance

Here you will find a clearly arranged and systematic presentation of all information required for maintenance



### **TSB Technical Service Information**

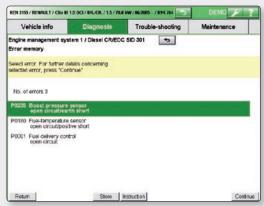
Ideal supplement to SIS instructions for rapid access to well-known vehicle faults and offers assignment according to symptom and system group (ABS, airbag, engine, etc.)



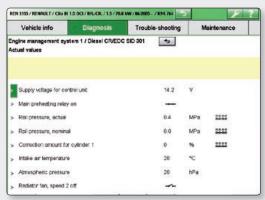
### Precise and fast measuring technology

Comprehensive multimeter capabilities for resistance measurement, diode measurement, voltage measurement and current measurement

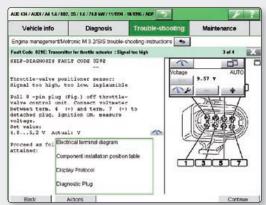
## Achieve your goal faster: ECU diagnosis SD and troubleshooting instructions SIS



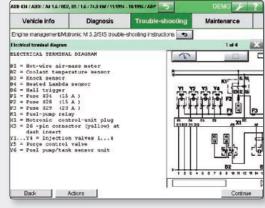
New flexibility: Can jump at any time from ECU diagnosis to troubleshooting or component repair



Clearly arranged information presentation: Up to 8 actual values can be displayed at the same time



"Networked" troubleshooting: Troubleshooting instructions with detailed fault description can be called up



All important information readily available: E.g. wiring diagrams



Selection of the possibly defective vehicle system

### ECU diagnosis: More than simply fault codes

After "Read out fault memory", the software already links the fault codes to the fault-finding instructions (component repair).

### **Troubleshooting made easy**

SIS troubleshooting instructions show the way to successful repair. Further information is also available, such as hydraulic, pneumatic and electric connection diagrams.

## CAS[plus] links the troubleshooting instructions to diagnostics

ESI[tronic] with CAS[plus] guides the mechanic through all test steps and always provides the information and diagnostics functions necessary for repair. Actual values supplied by the diagnostics are compared with the setpoint values from the instructions.

### When, what and where:

### Vehicle information and maintenance M



#### **Vehicle information:**

### All important information quickly available

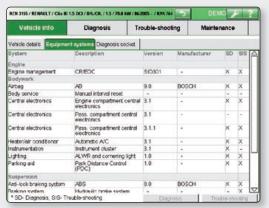
All higher-order information on the vehicle, such as details, installed systems and the position of the diagnostics socket **New:** The simple switch from the equipment system directly to diagnostics and troubleshooting.

### Maintenance: Well organized according to a schedule

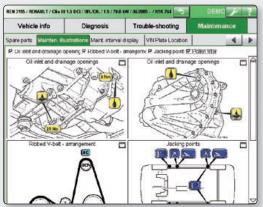
The central starting point for maintenance is the maintenance schedule, which also permits direct access to diagnostics and test values. All information necessary for performing maintenance is available, e.g. maintenance illustrations, toothed belt information, tire pressures, etc.

### **TSB Technical Service Information**

As an ideal supplement to the SIS instructions, TSB permits rapid access to well-known vehicle faults. This is combined with a clear description of causes, supplemented by tested repair tips with visual support.



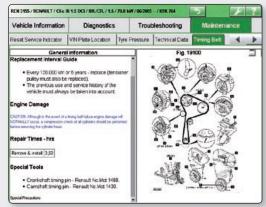
Vehicle information: All higher-order information on the vehicle: Details, systems and diagnostics socket



Maintenance illustrations: All information at a glance



Comparable at all times: All test values can be displayed at the interface



All information on toothed belt change

## **KTS 200:** Perfectly suited to the workshop



The workshop pro KTS 200: Compact, fast and tough

## KTS 200 from Bosch: The right testing device for every workshop

Today's daily workshop operation is impossible without an efficient and easily handled testing device. The KTS 200 is light, robust and compact and, at the same time, provides complete ECU diagnosis. Its strength lies in fast and reliable testing of modern vehicle technology.

**Particularly practical:** The KTS 200 can be connected directly at the vehicle. This facilitates and accelerates the vehicle receiving inspection. This type of mobility alone makes it an ideal secondary device for every workshop. For workshops with tight work processes, in particular, such as immediate service, oil service, light service, tire services, etc., it proves to be perfect test equipment.

### Powered by ESI[tronic]-Software

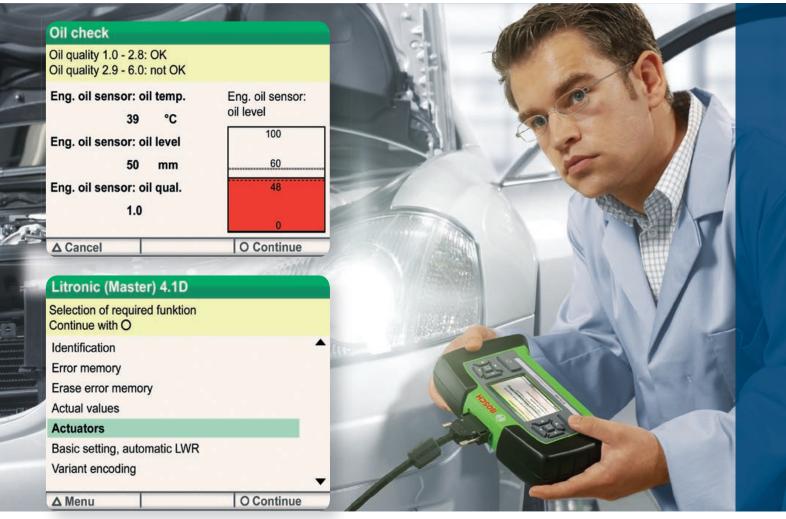
The KTS 200 is supplied with the preinstalled, specially further developed ESI[tronic] software. This makes operation of the KTS 200 particularly simple and fast. Key functions are displayed on the screen. For each of the service package, all essential information about the control units and special functions, e.g. engine/brake systems, are available.

### Perfectly tailored to your service profile

For systematic service and cost-effective repair, whether in tire service or mechanical operation, every workshop needs important information from the vehicle's control units.

## **Comprehensive software packages**

## for individual workshop requirements



Precise adjustment of the automatic headlamp leveling control

Without ECU diagnosis, the modern workshop would come to a standstill.

### **Professional package**

The ideal package for allrounders with the complete scope and range of ECU diagnosis. Including the daily activities relevant to the workshop:

- ► Service interval reset
- ► Oil change
- ► Tire change
- ► Headlight service
- ► Air conditioning service
- ▶ Brake service
- ▶ Initializing sensors after chassis examination
- ► Installation of accessories (trailer hitch, radio, navigation systems, luggage racks, etc.)

Technical data	KTS 200
Computer	Embedded System
Display	3.5" color LCD display ¼ VGA with 320 x 240 pixels
Operation	Keyboard with 5 selection keys duplicated for left/right operation, 2 function keys
Housing	Plastic housing with rubber coating
Weight	600 g
Connections	OBD diagnostics cable, USB, supply voltage
Dimensions	220 x 140 x 40 mm (W x H x D)

## **KTS functions**

## at a glance

			V.	V.	W/	V	V.		
KTS functions	KTS 800 Truck	KTS 670	KTS 570	KTS 540	KTS 530	KTS 515	KTS Truck	KTS 340	KTS 200
Diagnostics programs, passenger cars - ISO systems for EU vehicles - ISO 9141-2, K/L lines, blink code - SAE systems for American and Japanese vehicles - SAE J 1850 VPW (Ford) corresponds to ISO 11 519-4 - SAE J 1850 PWM (GM,) corresponds to ISO 11 519-4 - OBD CAN protocols - CAN ISO 11898 ISO 15765-4 OBD - High-speed - High-speed, middle-speed,	-	V	V	V	V	-	V	V	V
Low-speed and single-wire CAN									
Diagnostics programs for commercial vehicles - SAE J 1939	~	-	-	-	-	-	~	-	-
Mobile communications connection to the PC	~	-	~	~	~	~	~	~	-
- Bluetooth	~	-	~	~	~	~	~	-	-
- WLAN	~	-	-	-	-	_	-	~	-
USB interface	~	~	~	~	~	~	~	~	~
AWN capability	~	~	~	~	~	_	-	-	-
Integration into company-internal networks	~	~	-	-	-	_	-	-	-
Measuring techniques Accuracy: 1% of measured value Voltage: Min. resolution 0.1 mV; max. measurement range 200 V Resistance: Min. resolution 100 mOhm; max. measurement range 1mOhm Current: Min. resolution 0.1 mA; max. measurement range 1000 A (special accessory)	-			V		V	_	-	-
- 1-channel multimeter	-	-	-	~	~	-	-	-	-
- 2-channel multimeter	-	~	<b>~</b>	-	-	-	-	~	-
- 2-channel oscilloscope Input resistance: 1 mOhm Trigger: Various sources Memory: 50 signal curve each with 2 channels Channel 1: No voltage Channel 2: No voltage 1-channel operation: 10 megasamples/sec 2-channel operation: 2x5 megasamples/sec	-	•	•	-	-	_	-	-	-
Display	13.3"	12.1"	-	_	-	_	-	8.4"	3.5"
Operation	~	~	-	-	-	-	-	~	~
- Touchscreen	V	~	-	-	-	_	-	~	-
- Buttons	~	~	-	-	-	-	-	~	~
OBD-exchange adapter, controlled by software ESI[tronic]									
- Interchangeable	-	~	~	~	~	~	-	~	-
- Multiplex system	-	~	~	~	~	~	-	~	<b>✓</b>

Model	Order number	Model	Order number	Model	Order number
KTS 800 Truck	0 684 400 800	KTS 540	0 684 400 540	KTS Truck	0 684 400 512
KTS 670	0 684 400 670	KTS 530	0 684 400 530	KTS 340	0 684 400 340
KTS 570	0 684 400 570	KTS 515	0 684 400 515	KTS 200	0 684 400 200

## **KTS functions**

## at a glance

			V	V		V	V		
	KTS 800 <sup>1</sup>	KTS 670 <sup>1</sup>	KTS 570 <sup>1</sup>	KTS 540 <sup>1</sup>	KTS 530 <sup>1</sup>	KTS 515 <sup>1</sup>	KTS Truck <sup>1</sup>	KTS 340 <sup>1</sup>	KTS 200 <sup>1</sup>
	Truck								
KTS functions									
Connection option									
- DVD drive	~	~	-	_	_	-	_	-	-
- Keyboard/mouse	~	~	-	-	_	-	-	-	-
- Printer connection	~	~	-	_	-	-	-	~	-
Equipment in line with workshop needs									
- Effective impact protection	~	~	-	_	_	-	-	~	V
- Splash protected	~	V	V	V	~	~	V	V	V
- Functional temperature range 0 to 40 °C	~	V	<b>V</b>	V	~	~	~	~	V
Power supply									
- Via vehicle battery (diagnostic plug)	_	~	V	~	V	~	_	~	V
- Via internal battery	~	V	_	_	_	_	_	V	_
- Via cigarette lighter	V	V	V	V	V	V	V	V	V
- Via mains adapter	V	V	V	V	V	V	-	V	V
Adapter concept "Easy Connect"	_	~	V	~	V	_	_	_	V
Possible ESI[tronic] information									
- Catalog and parts information	~	~	V	~	~	_	V	_	_
- Order processing and calculation	~	~	_	_	_	_	_	_	_
- Diagnostics and repair at the vehicle	V	~	· ·	~	~	_	V	~	_
- Diagnostics and repair at the product	· ·	V	· ·	<i>V</i>	~	_	_	_	_
- Diagnostics	· ·	~	V	<i>V</i>	~	_	~	~	~
- OBD diagnostics	<b>√</b> 3	~	· ·	<i>V</i>	~	~	<b>√</b> 3	~	~
Equipment supply	-		<u> </u>	-	<u> </u>	-	-		•
Mains adapter (15 V/1 A)	_	_	V	~	~		_	_	V
Mains adapter (15 V/4 A)	_	~	_	_	_	_	_	~	_
Mains adapter (20 V/3.5 A)	V	_	_	_	_	_	_	_	_
Mains connection cable	<i>V</i>	~	V	~	· ·	~	_	~	V
OBD exchange adapter, interchangeable	-	~	V	<i>V</i>	· ·	_		V	_
OBD diagnosis cable 1.5 m	<b>v</b> 2	_	<i>V</i>	~	_		<b>v</b> 2	_	~
OBD diagnosis cable 3.0 m		~	_	_	· ·	_	·	V	_
Uni-4 adapter	_	<i>V</i>	V	V	· ·	_	_	V	_
Universal adapter set	V			_	_	_	<i>V</i>	_	_
Measurement cable, 2-wire (red, black) 3 m	_	V	V	_	_	_	_	_	_
Measurement cable, 2-wire (blue, yellow) 3 m	_		~	_	_	_	_	_	_
Measurement cable, blue/yellow	_	_	_	V	V	_	_	V	_
Measurement cable, black	_	V	V	~	~	_	_	~	_
Test probe, red	_	2x	2x	~	~	_	_	2x	_
Connection terminal, black		∠^ ✓		~		_	_		_
DVD drive	- V	~	_	_	_	_		_	
USB connecting line 1 m	~	<i>V</i>		_		- V	- V		- V
USB connecting line 1 m	_	_	- V	- V	- V	-	-	- V	-
	.,						.,		_
Bluetooth USB adapter	<i>V</i>		<i>V</i>	<i>V</i>	_	<i>V</i>	<i>'</i>		_
Touchpen	V	V	-	-	-	-	-	V	-
Carrying case	V	V	<i>V</i>	V	<i>V</i>	<i>V</i>	<i>'</i>	V	<i>V</i>
Mounting (KTS 530/540/570)	_	-	<i>V</i>	<i>V</i>	<i>V</i>	-	_	-	_
8x battery AA cells for KTS 340	-	-	-				_	<b>✓</b>	_

### Scope of delivery

### of the KTS series



Scope of delivery KTS 670

## KTS 670: The complete diagnostics device for the workshop and on test drives

- ► Mobile test system
- ▶ Optimized interplay of hardware and software
- ▶ Short access times for rapid diagnoses
- ▶ Brilliant, bright display with large read-off angle
- ► User friendly in every way
- ► Improved measuring technology of the KTS 570 integrated
- Optimized measuring technology for complex troubleshooting
- ► Adapter concept "Easy Connect", can be connected directly
- ► ESI[tronic] info type A, C and M preinstalled



Accessory kit included with the KTS 570

## KTS 570: The convenient wireless solution with top measuring technology for even more diagnosis

The control unit diagnostics device with 2-channel measuring technology for multimeter/oscilloscope

- ► Complete ECU diagnosis
- ► 2-channel oscilloscopefs
- ▶ 2-channel multimeter
- ▶ Diagnostics oscilloscope
- ► Other ESI[tronic] info types possible
- Adapter concept "Easy Connect", can be connected directly



Comprehensive basic equipment for KTS 340 supplied

## KTS 340: Mobile all-round solution for comprehensive vehicle diagnosis

Professional tester with complete program:

- ► Mobile test system
- ► All-in-one solution for diagnostics, troubleshooting, repair and maintenance
- ► Customer-friendly operating and control concept
- ► Fault found with only 10 clicks
- ► Adapter concept "Easy Connect", can be connected directly



Accessory kit included with the KTS 200

## KTS 200: Entry level version for comprehensive ECU diagnosis

The proven entry into ECU diagnosis with new menu guidance for simple and rapid diagnoses

- ► Complete ECU diagnosis
- Adapter concept "Easy Connect", can be connected directly

### **Adapter concept**

## "Easy Connect"



BMW 20-pin 1 684 463 631



Daewoo/GM 12-pin 1 684 463 632



Fiat-Gruppe 3-pin 1 684 463 613



Honda 3- and 5-pin 1 684 463 634



Hyundai/Mitsubishi 12-pin 1 684 463 638



Mazda 25-pin 1 684 463 637



KIA 20-pin 1 684 463 636



Nissan 14-pin 1 684 463 639



Peugeot 30-pin (PSA 30) 1 684 465 583



Renault Nfz 12-pin 1 684 465 581



Renault Pkw 12-pin 1 684 465 582



Toyota without Pin 1/9 1 684 463 686



Toyota 17-pin 1 684 463 642



Toyota 23-pin 1 684 463 643



VW/Audi 1 684 463 611



Mercedes Benz 1 684 463 594



Mitsubishi <sup>1</sup> 1 684 463 741

Carrying case with vehicle-specific adaptations for simple, rapid connections with no risk of confusion.

Carrying case for cable set <sup>2</sup>
1 684 011 516/1 684 011 517



### Convincing advantages for the workshop

- ▶ Only one direct connection cable
- ► Automatic recognition of the vehicle-specific connections
- ► Simple, fast and non-interchangable adaptation on vehicle

- ► Check of connection and matching connection cable
- ► Fewer plug connections
- ► Simplified and intelligent multiplexer control
- ▶ Software-controlled communication pin selection

## **KTS** series

## Data and facts

Special accessory	Order number	KTS 800 Truck	KTS 670	KTS 570/530/540	KTS Truck	KTS 340	KTS 200
Tire valve activator	1 687 200 663	-	~	V	-	~	~
Printer PDR 372 <sup>1</sup>	1 687 023 508	<b>✓</b>	~	<b>✓</b>	<b>V</b>	~	~
USB connecting line 1.0 m	1 684 465 491	<b>✓</b>	~	<b>✓</b>	<b>v</b>	~	V
Touchpen KTS 340	1 683 083 007	-	-	-	-	~	-
Touchpen KTS 670 (3 units)	1 683 083 004	-	~	-	_	-	-
Touchpen KTS 800 Truck	1 683 083 008	<b>✓</b>	-	-	_	_	-
Charging tray KTS 340	1 687 023 477	-	-	_	_	~	-
Charging tray KTS 670	1 687 022 898	_	V	_	_	_	-
Battery charging station DCU 130	1 687 335 036	<b>✓</b>		-	_	-	-
Trolley with charging tray	1 688 003 192	-	~	_	_	_	-
Test shunt 0 to 600 mA	1 684 503 103	-	V	<b>✓</b>	_	~	_
AC/DC current clamp 100/600 A	1 687 224 864	_	V	<b>✓</b>	_	~	-
Mounting (KTS 200)	1 681 320 082	-	-	-	-	-	-
Battery for KTS 340 (order 8 units)	1 687 335 031	-	-	-	-	~	~
Battery for DCU 130	1 687 335 037	V	_	_	_	_	_

<sup>&</sup>lt;sup>1</sup> Also order USB connecting line

Special accessories	Order number	KTS 800 Truck	KTS Truck
Adapter cables for trucks			
Adapter cable Volvo	1 684 463 770	<b>✓</b>	<b>V</b>
Adapter cable Iveco (models with year of manufacture before 96) 3 pin	1 684 463 771	<b>✓</b>	V
Adapter cable MB 14 pin	1 684 463 772	<b>✓</b>	V
Adapter cable Scania (models with year of manufacture before 2004)	1 684 463 793	<b>✓</b>	~
Adapter cable Renault VI	1 684 463 773	<b>✓</b>	V
Adapter cable Iveco (models with year of manufacture after 96)	1 684 463 774	<b>✓</b>	V
Adapter cable MAN TG (circular)	1 684 463 775	<b>✓</b>	~
Adapter cable DAF & SCANIA	1 684 463 776	<b>✓</b>	~
Adapter cable MAN Series 2000	1 684 463 777	<b>✓</b>	V
Adapter cables for trailers			
Adapter cable ABS Module	1 687 001 778	<b>✓</b>	<b>V</b>
Adapter cable ABS Module	1 684 463 779	<b>✓</b>	~
Adapter cable Wabco/Knorr Trailer ABS/EBS	1 684 463 780	<b>✓</b>	<b>V</b>
Adapter cable EB+	1 684 463 781	<b>✓</b>	<b>V</b>
Adapter cable ISO 7638	1 684 463 782	<b>✓</b>	~
Adapter cable for buses			
Adapter cable ABS VOLVO Bus	1 684 463 783	<b>✓</b>	~
Adapter cable ECS VOLVO Bus	1 684 463 784	<b>✓</b>	~
Adapter cable ZF	1 684 463 785	<b>✓</b>	~
Adapter cables for light commercial vehicles			
Adapter cable Iveco Daily	1 684 463 786	<b>✓</b>	V
Adapter cable VW LT/T4	1 684 463 787	<b>✓</b>	<b>V</b>
Adapter cable Citroen/Peugeot Boxer	1 684 463 788	<b>✓</b>	<b>V</b>
Adapter cables for US trucks			
Adapter cable US protocol 6 pin	1 684 463 789	<b>✓</b>	<b>V</b>
Adapter cable US protocol 9 pin	1 684 463 790	<b>✓</b>	<b>V</b>
Cable sets			
Cable set for trucks Volvo, Iveco < 96, MB 14 pin, Scania < 2004, Renault, MAN TG circular, MAN Series 2000, DAF & Scania circular and including carrying case)	1 687 001 944	V	V
Cable set for trailers (ABS modal, ABS modular, Wabco/Knorr ABS/ EPS trailer, EB+, ISO 7638)	1 687 001 945	<b>✓</b>	<b>✓</b>
Cable set for buses (ABS Volvo, EPS Volvo, ZF Adapter)	1 687 001 946	<b>✓</b>	<b>V</b>
Cable set for light commercial vehicles (IVECO Daily, VW LT/T4, Citroen/Peugeot Boxer)	1 687 001 947	<b>✓</b>	V

## KTS 200 / 340 / 530 / 540 / 570 / 670

## Data and facts

Special accessory	Order number	KTS 200	KTS 340	KTS 670	KTS 530/540/570
Adapter cables "Easy Connect" (new adapter concept)					
Adapter cable BMW 20-pin	1 684 463 631	<b>V</b>	<b>V</b>	V	<b>✓</b>
Adapter cable Daewoo/GM 12-pin	1 684 463 632	<b>V</b>	<b>V</b>	<b>V</b>	<b>✓</b>
Adapter cable Fiat Group 3-pin	1 684 463 613	<b>V</b>	<b>V</b>	<b>V</b>	<b>✓</b>
Adapter cable Honda 3-pin and 5-pin	1 684 463 634	<b>V</b>	<b>V</b>	V	<b>V</b>
Adapter cable Hyundai/Mitsubishi 12-pin	1 684 463 638	<b>V</b>	<b>V</b>	V	<b>V</b>
Adapter cable KIA 20-pin	1 684 463 636	V	~	V	<b>✓</b>
Adapter cable Mazda 25-pin	1 684 463 637	<b>V</b>	<b>V</b>	<b>V</b>	<b>✓</b>
Adapter cable Nissan 14-pin	1 684 463 639	<b>V</b>	<b>V</b>	<b>V</b>	V
Adapter cable Peugeot 30-pin (PSA 30)	1 684 465 583	<b>V</b>	<b>V</b>	<b>V</b>	<b>✓</b>
Adapter cable Renault commercial vehicles 12-pin	1 684 465 581	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>
Adapter cable Renault passenger cars 12-pin	1 684 465 582	V	<b>V</b>	V	<b>V</b>
Adapter cable Scania/DAF commercial vehicles 16-pin	1 684 463 644	V	V	V	V
Adapter cable Suzuki 6-pin	1 684 463 641	· ·	V	V	<i>V</i>
Adapter cable Toyota (Avensis) without pins 1 & 9	1 684 463 686		· ·	V	<i>V</i>
Adapter cable Toyota 17-pin	1 684 463 642		· /	V	<i>V</i>
Adapter cable Toyota 23-pin	1 684 463 643		· ·	· ·	<i>V</i>
Adapter cable VW/Audi	1 684 463 611		· ·	· /	<i>V</i>
Adapter cables (existing adapter concept)	1 004 400 011			•	<u> </u>
Adapter cable Daewoo <sup>1</sup>	1 684 463 489	· ·	<b>V</b>	<b>V</b>	V
Adapter cable Ford <sup>1</sup>	1 684 463 440		<i>V</i>	· ·	<i>V</i>
Adapter cable Ford EEC4 <sup>1</sup>	1 684 463 496		V	~	V
Adapter cable Ford 1 (adaptation PSG-5 pump unit via CAN)	1 684 463 652		V	~	<i>V</i>
Adapter cable MAN 37-pin 1 (EDC, MS 5)		·			<i>V</i>
Adapter cable MAN 12-pin (EDC, MS 6.1, MS 6.4, CR, EDC7C)	1 684 463 498 1 684 463 499	<i>V</i>	<i>V</i>	<i>V</i>	V
Adapter cable Mercedes-Benz 1			<i>V</i>	~	V
Adapter cable Mercedes-Benz (Sprinter, Atego) 1	1 684 447 032	·			<i>V</i>
Adapter cable Opel Multec <sup>1</sup>	1 684 463 494	· · · · · ·	V	<i>V</i>	<i>V</i>
Adapter cable Opel Vauxhall <sup>1</sup>	1 684 463 410	· · · · · ·	V	<i>V</i>	
· · · · · · · · · · · · · · · · · · ·	1 684 463 464	· ·	<b>V</b>	· ·	<i>V</i>
Adapter cable PSA (+/-clip) 1	1 684 460 182	· ·	· ·	· ·	<i>V</i>
Adapter cable PSA 2-pin <sup>1</sup>	1 684 460 181	· ·	· ·	· ·	<i>V</i>
Adapter cable Renault <sup>1</sup>	1 684 463 468	· ·	· ·	· ·	<i>V</i>
Adapter cable Rover <sup>1</sup>	1 684 463 439	<i>'</i>	<i>V</i>	<i>V</i>	<i>V</i>
Adapter cable Scania 16-pin (R 124, R144) 1	1 684 463 497	<i>\</i>	<b>V</b>	<b>V</b>	<b>✓</b>
Adapter cable for power supply 1 (connection to cigarette lighter)	1 684 460 202	<i>\</i>	<b>V</b>	<b>V</b>	<b>✓</b>
Power supply banana connector and power supply socket <sup>2</sup>	1 684 460 231	<i>\</i>	<b>✓</b>	<b>/</b>	<b>✓</b>
Uni-4 adapter	1 684 463 539	· ·	-	_	-
OBD diagnostics cable 1.5 m	1 684 465 555		~	<b>/</b>	-
OBD diagnostics cable 3 m	1 684 465 557	<b>'</b>	-	-	<b>✓</b>
OBD diagnostics cable 5 m	1 684 465 567	<b>✓</b>	<b>V</b>	<b>✓</b>	<b>✓</b>
OBD adapter box with OBD connector	1 684 462 514	<b>/</b>	<b>V</b>	<b>/</b>	<b>✓</b>
Level adaptation 12 V/5 V	1 684 463 495	<b>/</b>	<b>V</b>	<b>/</b>	<b>✓</b>
Test adapter Mercedes-Benz 38-pin <sup>1</sup>	1 684 485 382	<b>'</b>	<b>V</b>	<b>'</b>	<b>✓</b>
Test cable set	1 687 011 208	<b>'</b>	<b>~</b>	<b>'</b>	<b>✓</b>
KTS cable set, consisting of: For MB, Ford EEC4, Opel Vauxhall, Opel Multec, BMW and VW	1 687 001 855	-	~	~	V
KTS cable set, consisting of: Uni line, Uni connector set and adapter cables for MB, Ford EEC4, Opel Vauxhall, Opel Multec, BMW and VW	1 687 001 875	<b>✓</b>	-	_	-
KTS cable set, consisting of: Adapter cable for PSA, Fiat, Lancia, Alfa, Citroen, Peugeot, Renault, BMW	1 687 001 517	<b>✓</b> ¹	<b>✓</b>	~	<b>✓</b>
KTS cable set, consisting of: Adapter cable for VW, Audi, Fiat, BMW, MB, Toyota, Peugeot	1 687 001 516	<b>√</b> 1	~	V	<b>v</b>

<sup>&</sup>lt;sup>1</sup> Only in conjunction with Uni 4 adapter 1 684 463 539 (4-way KTS 200, 340, 530, 540, 570, 670)

### Connection to the vehicle depends on the diagnostics socket

Connection possibilities are the OBD diagnostics cable or OBD diagnostics cable plus

 $<sup>^{2}</sup>$  Nur in Verbindung mit 1 684 460 182 oder 1 684 460 202

<sup>&</sup>quot;Easy Connect" or the OBD diagnostics cable plus Uni 4 adapter with vehicle-specific cable.

## **Bosch:** Your partner for the workshop of the future

For over 120 years, innovations from Bosch have kept vehicles inmotion to ensure that people get from A to B safely and comfortably.

Bosch Automotive Aftermarket offers the trade and workshops a worldwide, unique combination of:

- ► Efficient diagnosis
- ► Modern workshop equipment
- ▶ Quick and reliable delivery service
- ▶ The most extensive range of replacement parts in the market
- ▶ Workshop concept for all requirements
- ► Comprehensive range of training courses
- ► Targeted sales and marketing promotion
- ► Competent Hotline
- ▶ Workshop portal available 24 hours every day
- ► Favorable leasing offers for workshop equipment and software
- ▶ And many other services to guarantee your success

When this is all combined, not only the parts fit into place but also the time schedule, organization and the result.

### Workshop tip:

Geared to the growing proportion of electronics in vehicles, Bosch offers workshops suitable test equipment for all workshop sizes and service concepts.

Diagnostics and parts: you only find both at Bosch.

### Robert Bosch GmbH

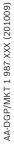
Automotive Aftermarket Business Unit Diagnostics

73201 Plochingen Germany www.bosch-diagnostics.com





Engine system testing FSA and emission analysis BEA



The right to make changes of a technical nature and to alter the range on offer is reserved.

