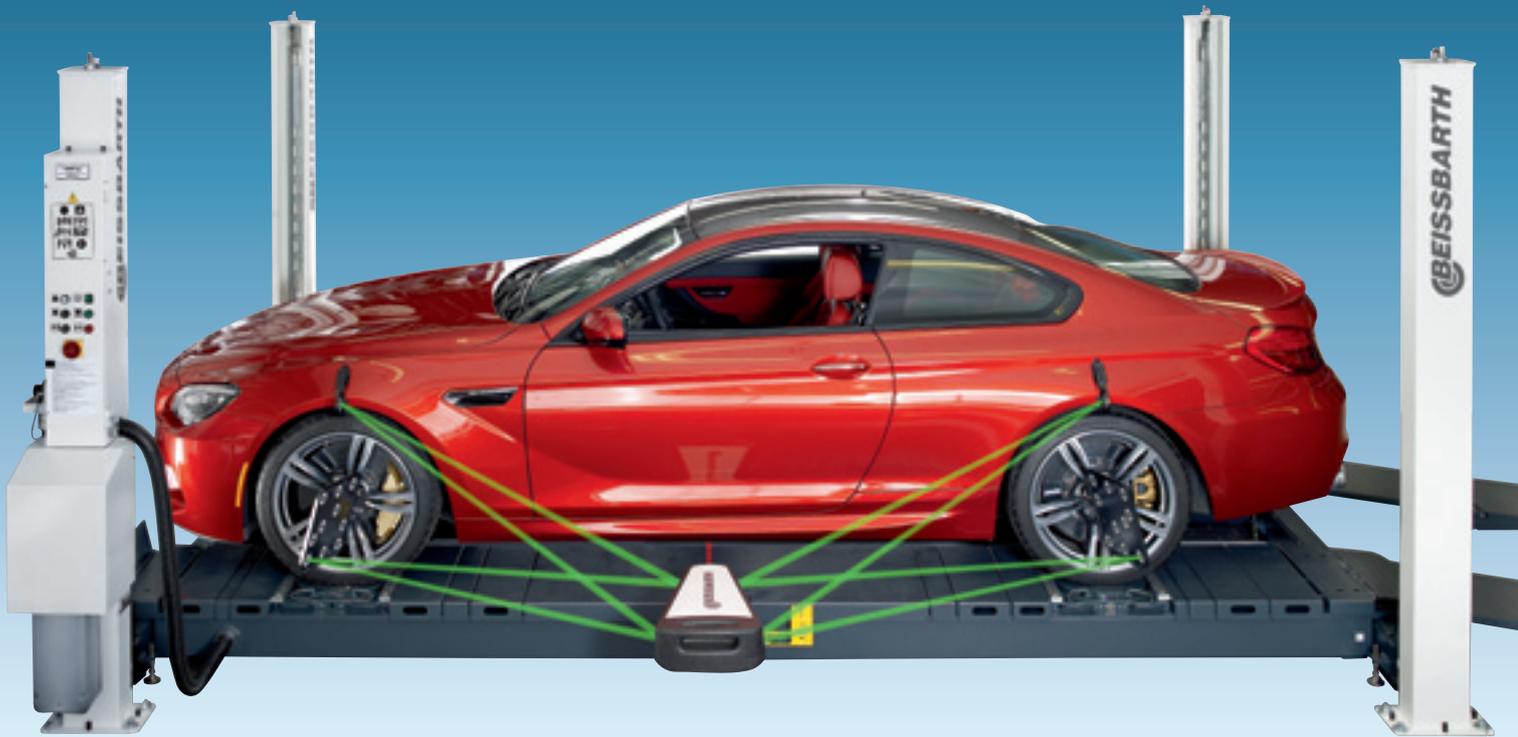


# BMW, MINI, Rolls-Royce

Retail equipment



Recommended Beissbarth and Bosch workshop equipment

- Wheel Alignment and ACC Adjustment
- Vehicle Testing with Brake Testers
- Tyre service: Tyre changing and wheel balancing
- AC Service Units



# Beissbarn – the Munich-based



Beissbarn – the Moosach-based OEM specialist for automotive workshop equipment.

Accurate high-tech test equipment for wheel alignment and DAS adjustment, light and brake testing as well as for tyre service.

Combined as a connected test lane and a practical service advice area.

Decades of close cooperation and recommended by the BMW Group.

A Bosch Group company since 2007.

Worldwide service and consulting thanks to 90 sales partners.



# OEM supplier since 1899.



**Wheel Alignment  
Measurement Bay**



**4 - 11**



**DAS Adjustment**



**12 - 15**



**Vehicle Testing  
Brake Testers**



**16 - 23**



**Tyre Changers**



**24 - 27**



**Wheel Balancers**



**28 - 33**



**AC Service Units**



**34 - 39**



### KDS II Wheel Alignment:

Precision wireless CCD technology.

6 - 7

### KDS 3D Wheel Alignment:

With 3D technology.

High speed, high precision and easy to use.

8 - 9

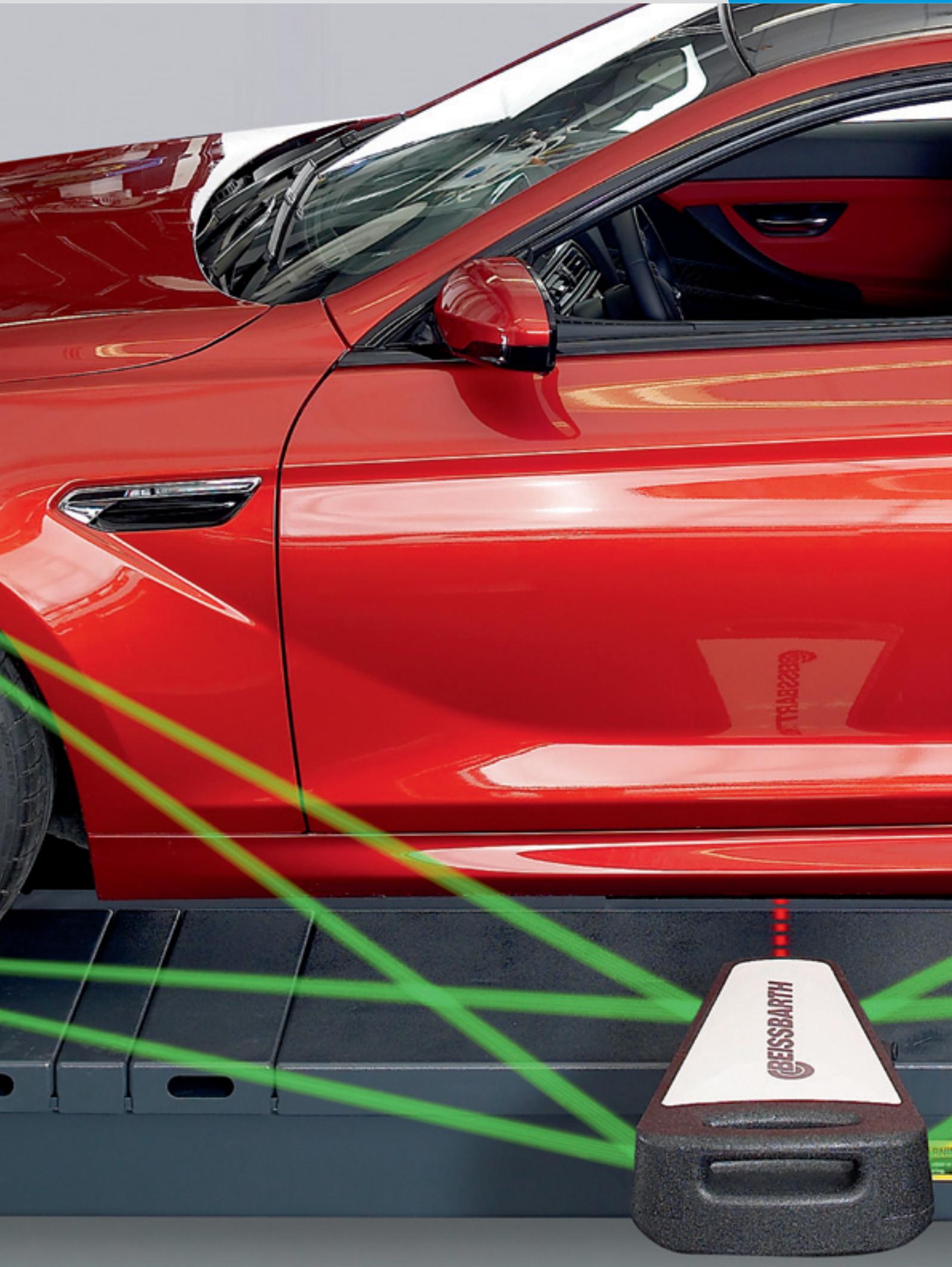
### VLH 4440 4-post lift:

The ideal measurement bay for wheel alignment.

Fully prepared for KDS 3D and KDS II.

10 - 11





# KDS II Wheel Alignment: Precision wireless CCD technology.



**The CCD camera technology developed by Beissbarth** is at the heart of the wheel alignment system. This is the third generation of KDS II featuring precision technology to perfection.

#### Beissbarth sensors:

- Each of the four sensors has two CCD infrared cameras with their own processor
- Complete 360° precision measurement field all around the vehicle
- Permanent system monitoring
- Additional rear axle measurement options such as setback and axle offset
- Heavy-duty batteries guarantee 12 hours of problem-free continuous operation

#### Beissbarth CCD cameras:

- Extended toe measuring range
- Integrated, finely adjusted camber pendulums
- Caster measurement with 20° steering angle

#### Data transfer:

- Wireless transmission: KDS II transfers data from the sensor to the PC without the need for cables (433 MHz or 2.4 GHz)
- With ASA network interface as standard

**Thanks to the BMW quick clamps**, there is no need for wheel run-out compensation as these are fitted to the true running surface of the wheel hub.

- For passenger vehicles with 850 mm max. wheel diameter
- BMW precision aluminium turntable bases with electronic pulse generator** permit measurement of the full steering lock positions as well as implementation of the steering angle routine for determining the toe-out on turns in one-man operation.

- Loadbearing capacity 1,000 kg
- Slide range  $\pm 50$  mm
- Angle of rotation  $-360^\circ$
- Dimensions: 450 x 450 x 50 mm (L x W x H)

#### Choice of three specific measurement routines for BMW:

- Program-driven, quick measurement, random access for checking individual values
- Original BMW measurement protocol
- With tyre check protocol

#### Convenient working:

- Large live measured value display on PC monitor
- Simultaneous display of vehicle specified data
- Animated instructions for other vehicle makes
- Comprehensive database containing specified values for more than 130 different vehicle makes as standard (online update)

## Special Accessories:



BB-Nr.: 1 690 401 018

Mobile accessories trolley:  
For transportation and storage of turntables, wheel clamps, ballast bags etc.



BB-Nr.: 1 690 401 002

Calibration device  
Toe and camber adjustment can be checked and calibrated by way of adjustment routine



BB-Nr.: 1 690 501 250

Multi-Quick clamp  
Clamping range: 13"-24"



BMW quick clamp

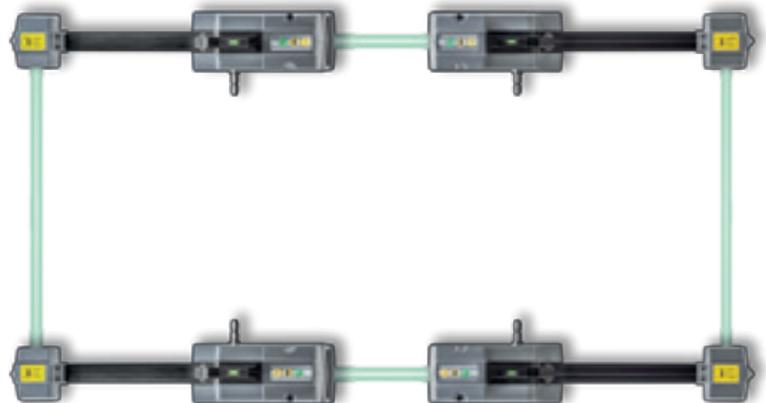
**Scope of Delivery:**

- KDS II (433 MHz) 932 500 047**
- KDS II (2,4 GHz) 932 500 081**

- PC trolley with 19" TFT, with networking capability, keyboard, multi-function colour printer, DVD R/W drive and charging modules for sensors
- BMW program software and specified data licence
- IR remote control
- Sensors with digital CCD camera technology and wireless data transfer with integrated battery set (4x)
- BMW quick clamps (4x)
- Precision aluminium turntable bases (2x) with electronic pulse generator and sensor connecting cable
- Precision aluminium turntable bases (2x) for rear axle
- Protective rubber covers for turntables
- Set of screws for fixing turntables in position on lifting platform
- Steering wheel holder and brake pedal clamp
- Precision spoiler adapter 50 mm with spirit level:



Measurement options	Measurement accuracy	for measured value range
1. Total toe (front axle + rear axle)	± 3'	± 2°
2. Individual toe (front axle + rear axle)	± 2'	± 2°
3. Camber (front axle + rear axle)	± 2'	± 3°
4. Setback (front axle + rear axle)	± 2'	± 2°
5. Thrust line	± 2'	± 2°
6. Caster	± 4'	± 18°
7. Steering axis inclination	± 4'	± 18°
8. Toe-out on turns	± 4'	± 20°
9. Caster correction range	± 4'	± 7°
10. Wheelbase difference	± 3'	± 2°
11. Left/right side offset	± 2'	± 2°
12. Toe width difference	± 3'	± 2°
13. Axle offset (rear axle)	± 3'	± 2°



# KDS 3D Wheel Alignment with 3D technology: High speed, high precision and easy to use.



KDS 3D PC trolley and 3D sensor heads



3D sensor heads and measurement boards in action

### KDS 3D – optimised 3D technology with permanent level measurement.

The KDS 3D sets new standards in terms of professional wheel alignment to BMW Group specifications. Finely adjusted 3D technology with triangulation for each wheel and the use of ride height markers is the key to high measurement and repeat accuracy. The accurate determination of measured values is guaranteed by the Beissbarth stereo camera measurement system and CCD reference cameras in combination with sophisticated software: Toe and camber accurate to  $\pm 2$  angular minutes. Further features:

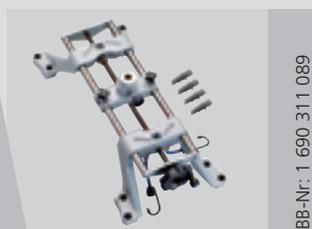
- Integrated reference system: No calibration required
- Impact-resistant, lightweight portable sensors

- No space required in front of or behind the lifting platform
- Passenger vehicles and light trucks with wheelbases between 1,800 and 3,400 mm
- Optional large rear axle measurement boards for wheelbases up to 4,300 mm

### 1 minute set-up time thanks to new magnetic holders for measurement boards:

- Convenient alternative to universal holder
- Quick and easy positioning on wheel bolts
- For magnetic wheel bolts with sufficiently flat surface
- For rims with the following hole circles:  
3-hole rim 98.0 - 112.0 mm dia.  
4-hole rim 98.0 - 130.0 mm dia.  
5-hole rim 98.0 - 139.7 mm dia.

### Special Accessories:



BB-Nr.: 1 690 311 089

4 multi-Fit universal holder



BB-Nr.: 1 690 311 164

4 adapters for Softline rims



BB-Nr.: 1 690 701 032

2 large measurement boards (Rolls-Royce)



BB-Nr.: 1 690 401 018

Mobile accessories trolley for turntables, wheel clamps, ballast bags etc.



### Convenient initial measurement:

- Quick and easy live level measurement with ride height markers attached by way of adhesive pads
- Rolling or driving run-out for calibration at ground level

### Choice of three specific measurement routines for BMW:

- Program-driven, quick measurement, random access for checking individual values
- Original BMW measurement protocol
- Additional tyre check protocol

### Convenient working:

- Automatic specified value adaptation thanks to permanent level measurement
- Stable measured values at any height: The KDS 3D sensors move up with the platform
- Large live measured value display on PC monitor
- Simultaneous display of vehicle target data
- Animated repair instructions also included for non BMW vehicles

### Scope of Delivery:

#### KDS 3D

1 690 700 011

#### KDS 3D WLAN

1 690 700 068

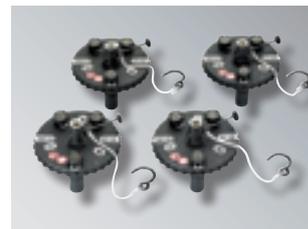
- PC trolley with 19" TFT, keyboard, multi-function colour printer, DVD RW drive
- BMW program software and specified data licence
- 3D sensor heads (2x)
- 3D measurement boards (4x)
- Magnetic holders with short and long magnetic bolts (4x)
- Set of 4 ride height markers
- Set of 2 ride height markers (for MINI/Z3)
- Platform adapters (2 measurement positions)
- Precision aluminium turntable bases (4x) with two alu filling bars each
- Steering wheel holder and brake pedal clamp
- Set of screws for fixing turntables in position on lifting platform
- 3D measurement box (only for WLAN version)

**Note:** Option for installation on 4-post lift:

Order 15 m cable set. Comprehensive database containing specified values for more than 130 different vehicle makes as standard (online update)

Measurement options	Measurement accuracy	for measured value range
1. Total toe (front + rear axle)	± 4'	± 2°
2. Individual toe (front + rear axle)	± 2'	± 2°
3. Camber (front + rear axle)	± 2'	± 3°
4. Setback (front + rear axle)	± 2'	± 2°
5. Thrust line	± 2'	± 2°
6. Caster	± 4'	± 18°
7. Steering axis inclination	± 4'	± 18°
8. Toe-out on turns	± 4'	± 20°
9. Caster correction range	± 4'	± 7°
10. Wheelbase difference	± 3'	± 2°
11. Left/right side offset	± 3'	± 2°
12. Toe width difference	± 3'	± 2°
13. Axle offset (rear axle)	± 3'	± 2°
14. Full steering lock	± 4'	± 43°

### Included in scope of delivery:



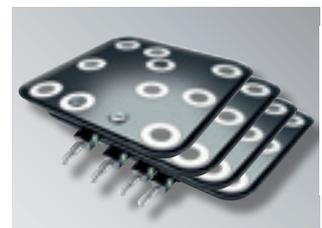
4 magnetic holders



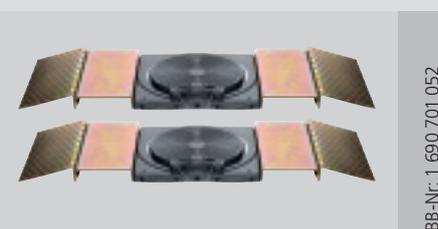
4 ride height markers



2 sensor heads



4 measurement boards



2 extended locating rails for turntables (tt. not incl.)



IR remote control unit



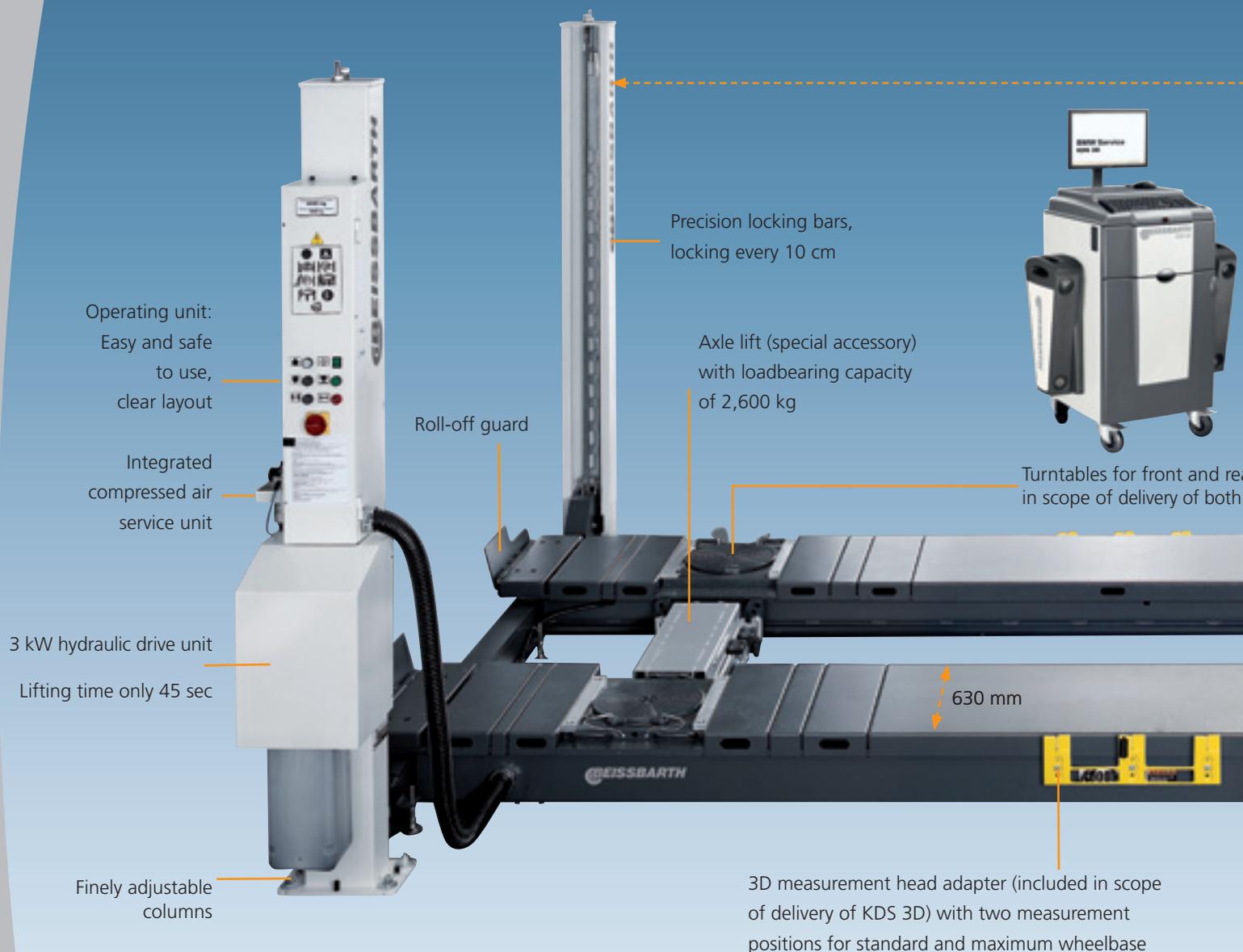
Sets of spare adhesive pads for ride height markers



Cable set (2x)

# VLH 4440 4-post lift: The ideal measurement

## Fully prepared for KDS 3D and KDS II.



### 4-post lift with electrohydraulic drive with load-bearing capacity up to 4,000 kg for elevated installation in accordance with BMW Group specifications:

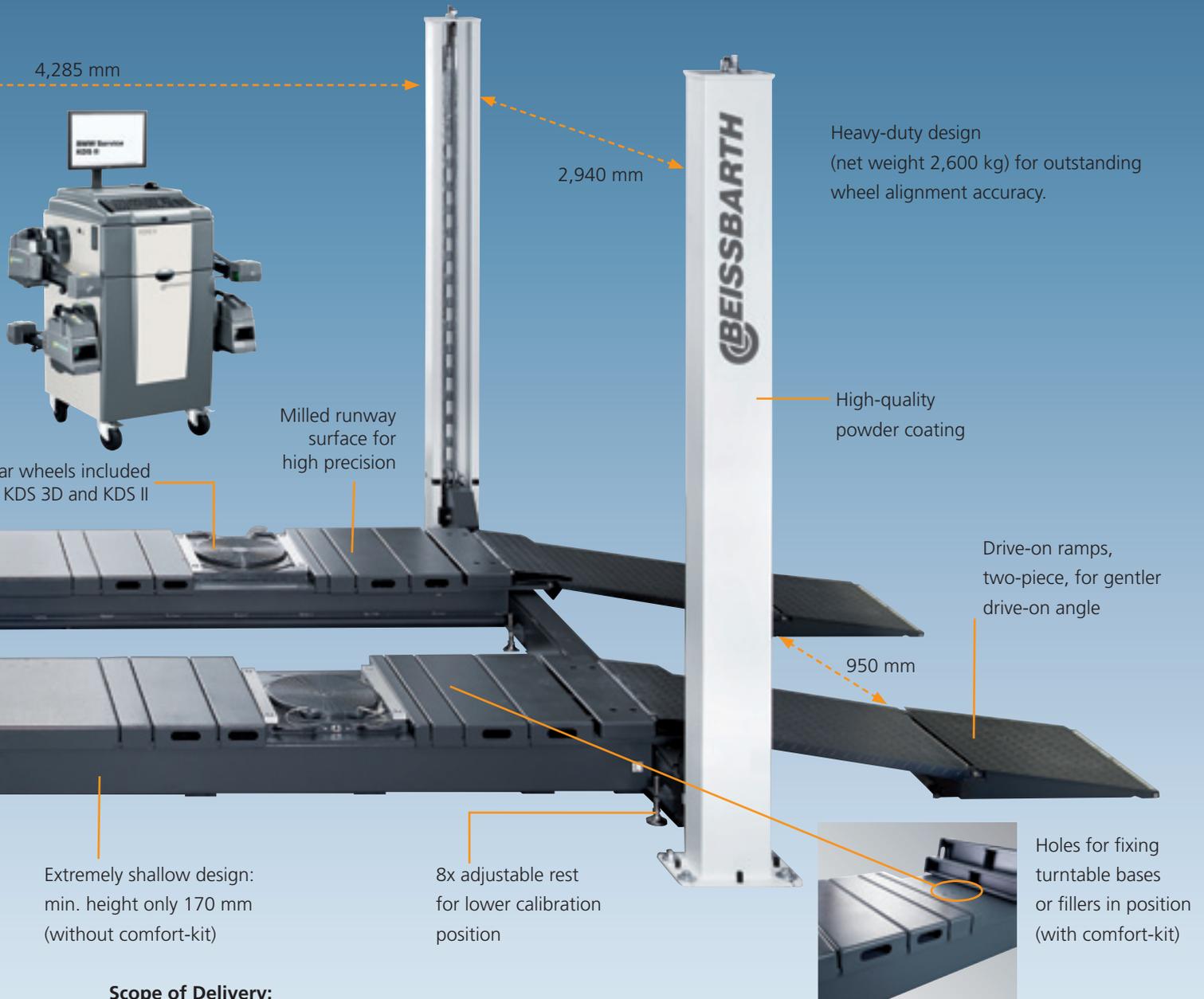
- Heavy-duty design (net weight 2,600 kg) for guaranteed stability and outstanding accuracy
- Extra-wide cross member for 3 m column spacing
- Locking mechanism for wheel alignment as standard
- Fine adjustment of runways with respect to cross member
- Runway geometry specially designed for BMW and MINI
- Specific drilling pattern in runways for mounting fillers or pinning turntables

### Technical Data:

4-post lift with electrohydraulic drive, recommended by BMW

Dimensions	6,351 x 3,623 x 2,324 mm
Power supply	3 x 230 V / 50 Hz, E+N / 16 A
Loadbearing capacity	4,000 kg
Max. lifting height	1,920 mm
Lifting time	45 s
Runway length	4,700 mm
Longitudinal column spacing (floor plate-floor plate)	4,285 mm
Runway width	630 mm
Clear width	2,940 mm
Distance between runways	950 mm

# bay for wheel alignment.



## Scope of Delivery:

- 4-post lift
- Operating unit for machine control
- Adapter for KDS 3D sensor head
- Drilling pattern in runways
- Drive-on ramps, long, two-piece (2x)
- Roll-off guards (2x)
- Test log book

## VLH 4440

Comfort-kit VLH 4440  
(Please order separately )

1 692 841 409

1 692 871 101

## Special Accessories:

Lighting kit	1 692 871 102
Axle lift	1 692 871 103

## The VLH 4440 „comfort-kit“

**Guarantees the level of precision and efficiency required by BMW for wheel alignment with KDS 3D**

- Flat runways with integrated turntables for front and rear wheels

**Configuration for 2,000 - 3,600 mm wheelbases possible**

- Fillers of different lengths for flexible use

**Convenient drive-on - maximum safety and no noise nuisance**

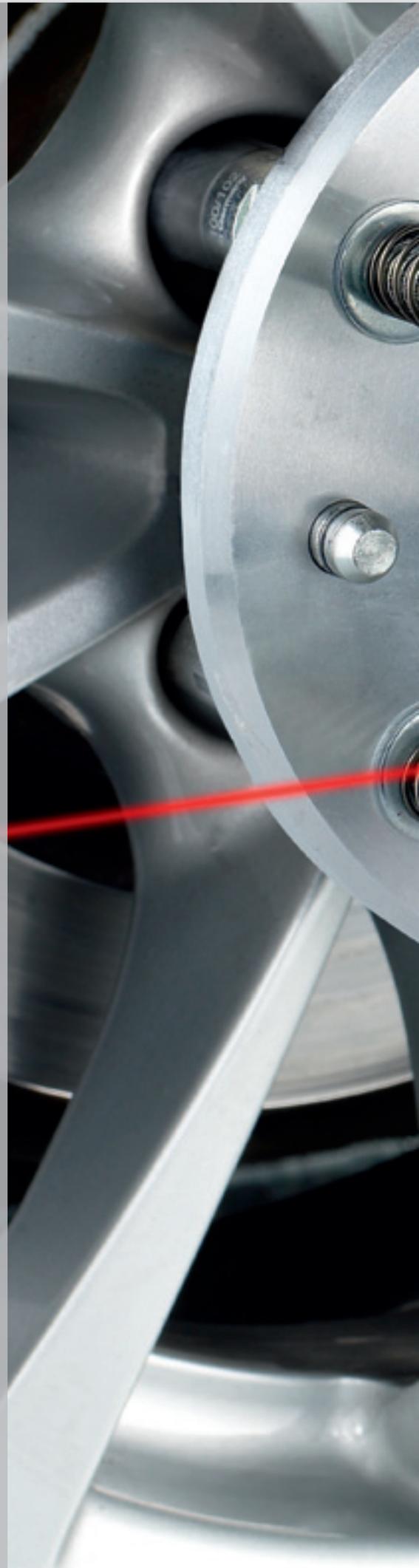
- Fillers with integrated grip
- Fillers pinned to runway and with additional groove on one side

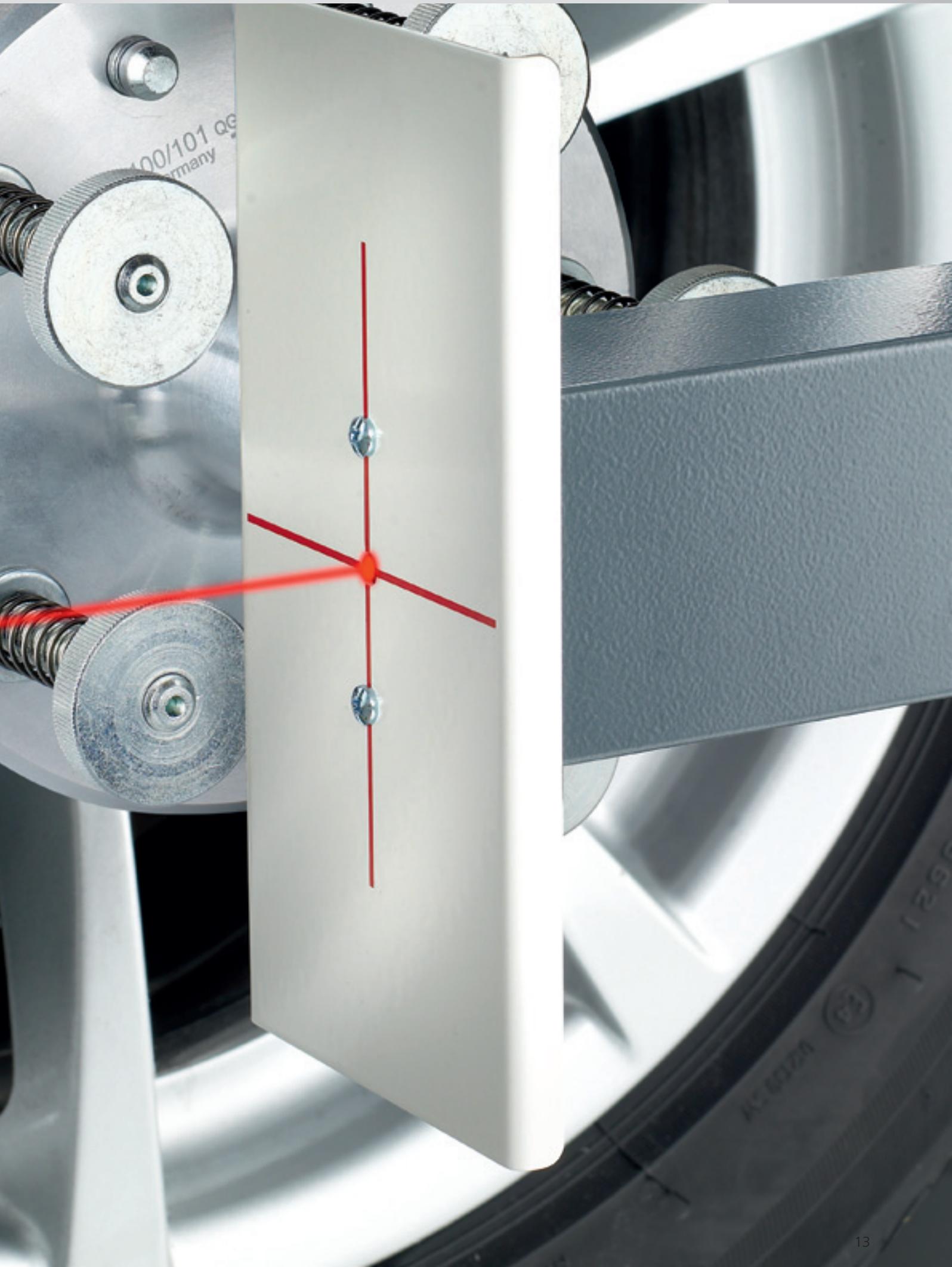


## DAS Adjustment:

Active Cruise Control (ACC) Adjustment System.

14 - 15





# ACC 100: Active Cruise Control (ACC) Adjustment System



## The ACC 100 from Bosch can be used to adjust ACC sensors.

Active Cruise Control sensor adjustment is performed with the aid of precision laser technology.

This involves the adjuster measuring the exact position of the sensor with respect to the drive axis. On the side of the vehicle, the wheel laser and mirror are precisely aligned with the drive axis by way of the slotted diaphragm. The calibration mirror can then be exactly centred with the thrust line on the basis of the angular positions.

### Tools additionally required:

Refer to BMW repair instructions.

### Scope of Delivery:

#### Adjustment system

0 684 300 100

- Incl.:
- Mirror, complete
  - Wheel laser (with batteries)
  - Slotted diaphragm
  - Bracket for rail adjustment

### Special Accessories:

Ground rail

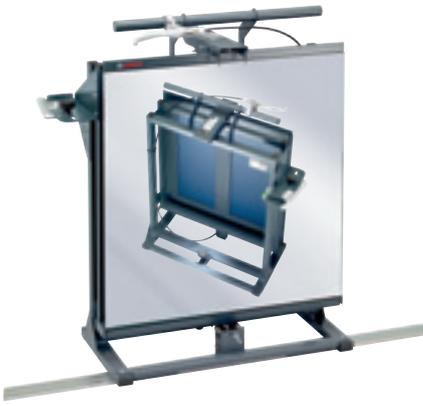
1 682 31 9 031

### Technical Data:

Wheel laser	Laser class 2
Rough adjuster laser	Laser class 2
Wavelength	650 nm + 10 nm
Radiation	0.5 mW - 1 mW
Spot size	Ø 3 mm
Temperature range	-10 °C bis +40 °C
Power supply	3 V - 6 V



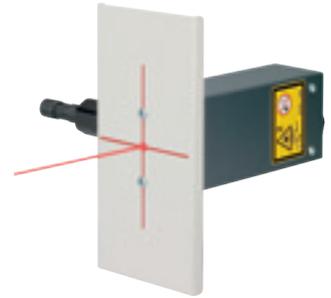
Laser safety regulations must be observed.



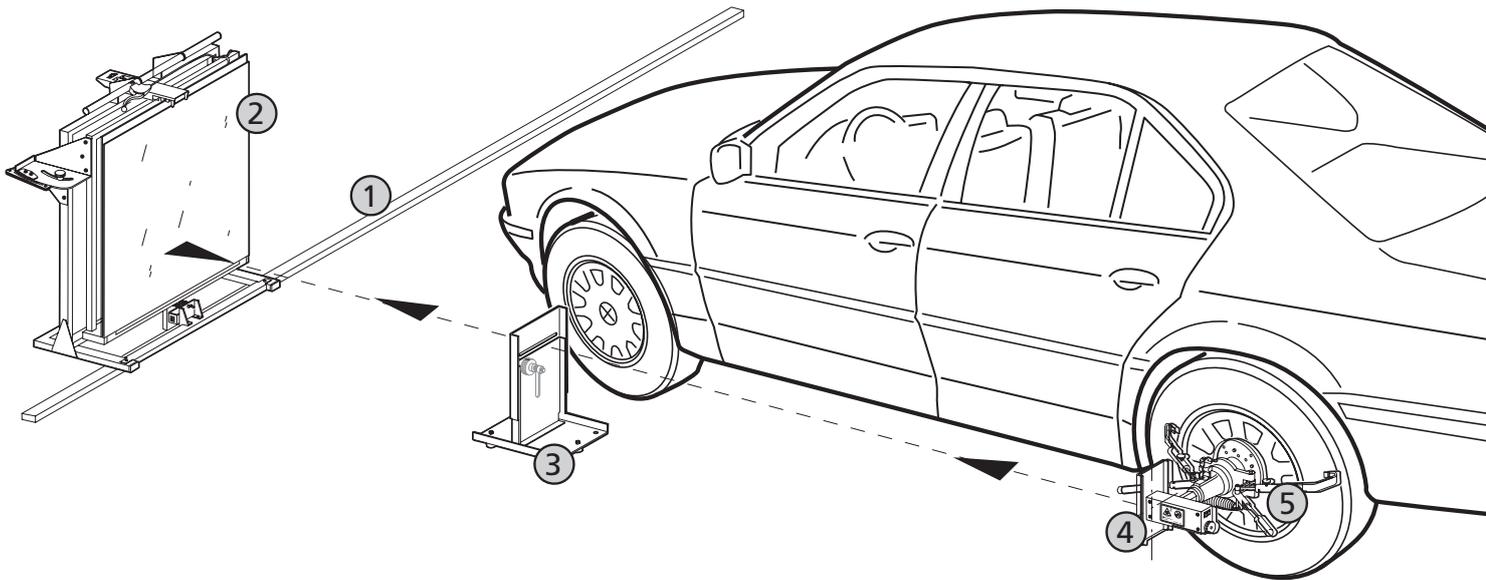
② Mirror, complete:  
Fine adjustment of  
ACC sensor by  
determination of drive axis



③ Slotted diaphragm:  
Vertical mirror alignment



④ Wheel laser:  
Horizontal mirror alignment





### **BD 620 PC:**

Brake tester with PC visualisation.

17 - 18

### **SAT 690 / 695:**

Extension of test lane  
to include axle damping tester.

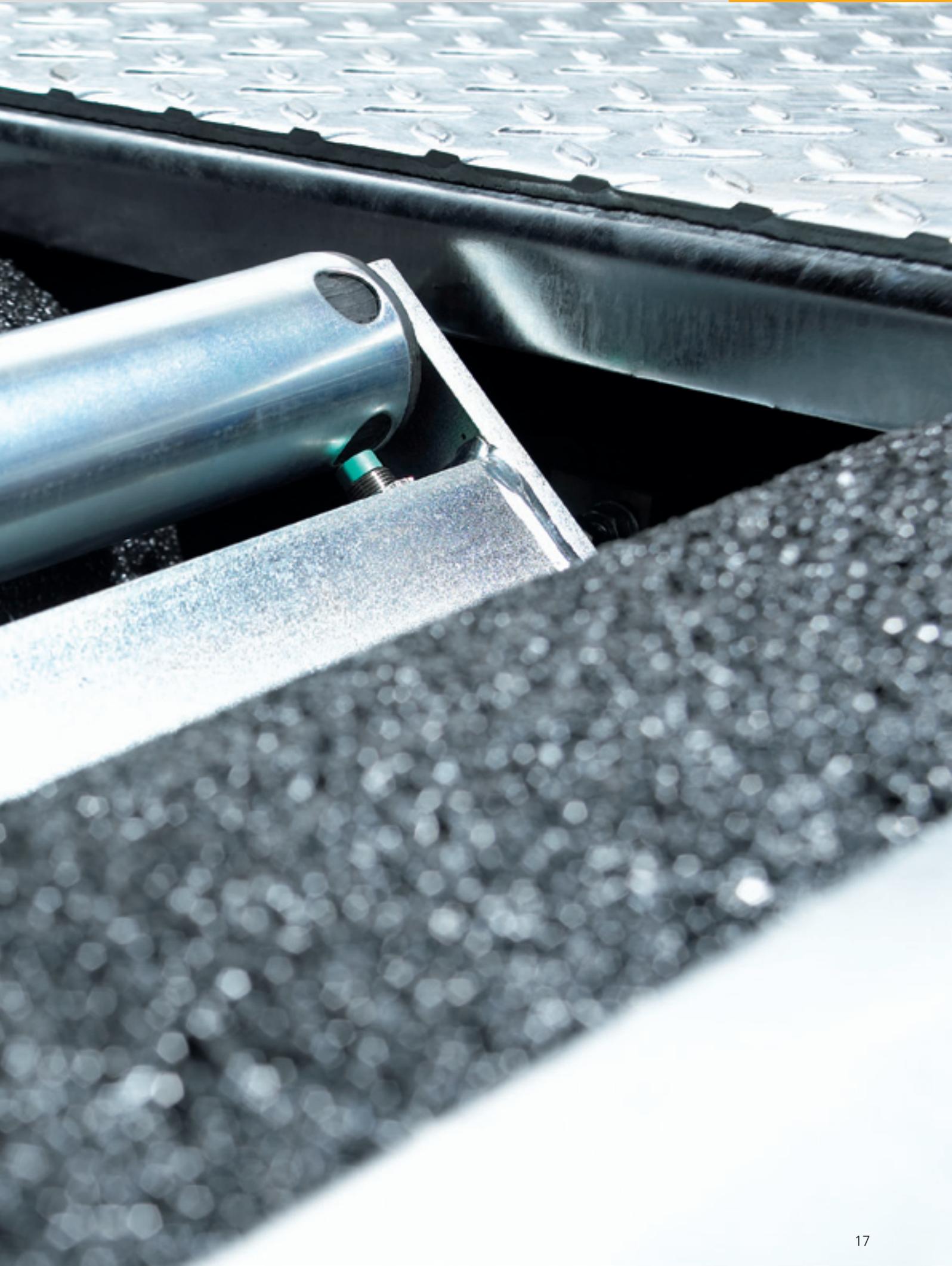
19 - 20

### **BD 620:**

Brake tester with analogue display.

21 - 22





## BD 620 PC: Brake tester with PC visualisation.



### Passenger vehicle brake tester – with PC

- **Automatic operator prompting – no remote control, no keyboard commands**
- **Reference database, vehicle history and guide values**
- **Print-out of vehicle faults with graphical presentation**
- **Flexible line lengths for easy installation in dialog reception areas (even with suspension tester)**
- Up to 4t axle load and track widths of 800 - 2,200 mm
- BNet device bus connects master switch box to roller set and PC trolley
- Control and power electronics integrated into roller set
- Strain gauge measurement system for maximum precision
- Galvanised roller set: Suitable for outdoor installation
- Super automatic mode with test sequence for service and parking brake systems
- Electromagnetic brake for gentle drive-off
- Brake rollers with plastic/corundum coating: Long service life and firm tyre grip
- Rear test roller elevated by 25 mm: Ideal test conditions  
Robust slip roller unit also suitable for drive-through installation

The Beissbarth BD 620 PC is approved for official routine vehicle testing in Germany and certified in accordance with the technical guidelines for brake testers (10/2011):

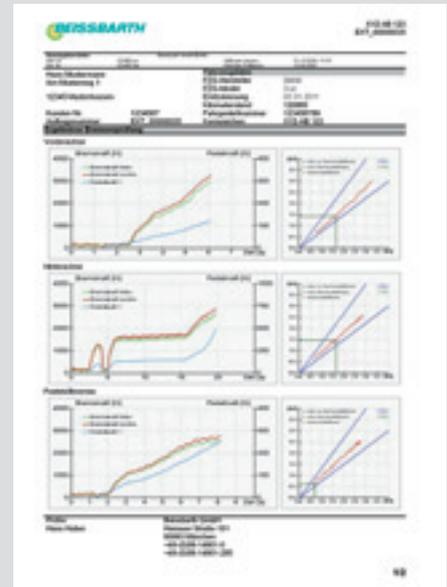
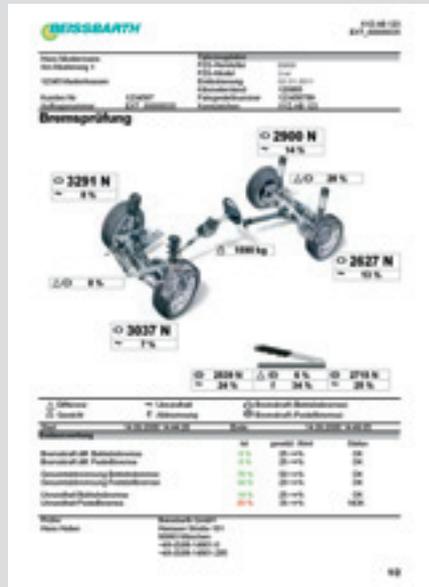
- ASA livestream interface (LAN) for linking test systems of official test authorities
- Test speed 5.2 km/h compatible with the latest braking systems
- Blockage safety feature combined with robust slip roller unit and extra sensors for brake roller speed
- Prepared for reference braking force value procedure with corresponding database

Recommendations for all European countries.

Linking to Dealer Management systems by way of optional BNet and ASA network interface.

### Special Accessories:

Roller cover plates (swivel type)	1 691 601 011
Roller cover plates (clip-in type)	1 691 601 010
Pit edge protection	1 691 602 000
BNet licence key #3 (ASA network)	1 691 708 006



Scope of Delivery:

Technical Data:

Operator console	Roller set modules with 2 x 3.7 kW drive power, 205 mm roller dia., master switch box + inst.materials	Connection data	Test speed	Max. braking force	Axle load weigher
1 691 701 019 BD 620 PC BMW PC cabinet (complete) with <ul style="list-style-type: none"> <li>• Power PC with WIN XP</li> <li>• 19" TFT</li> <li>• Colour printer</li> <li>• IR receiver</li> <li>• IR remote control unit</li> <li>• BNet/USB interface</li> <li>• BNet software</li> </ul>	1 691 600 451	BD 620 kit with ASA livestream	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN optional
	1 691 600 452	BD 620 kit with ASA livestream	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN ✓
	1 691 600 421	BD 620 kit	3x220 V / 60 Hz	2,7 km/h	2x 7.5 kN optional
	1 691 600 422	BD 620 kit	3x220 V / 60 Hz	2.7 km/h	2x 7.5 kN ✓
	1 691 600 403	BD 620 kit	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN optional
	1 691 600 423	BD 620 kit Steel rollers for spiked tyres	3x400 V / 50 Hz	2.7 km/h	2x 7.5 kN optional

Special Accessories:



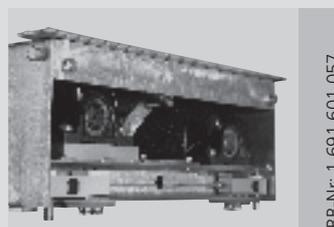
BB-Nr.: 1 691 601 020

Pedal force sensor



BB-Nr.: 1 691 602 115

Installation box for roller set



BB-Nr.: 1 691 601 057

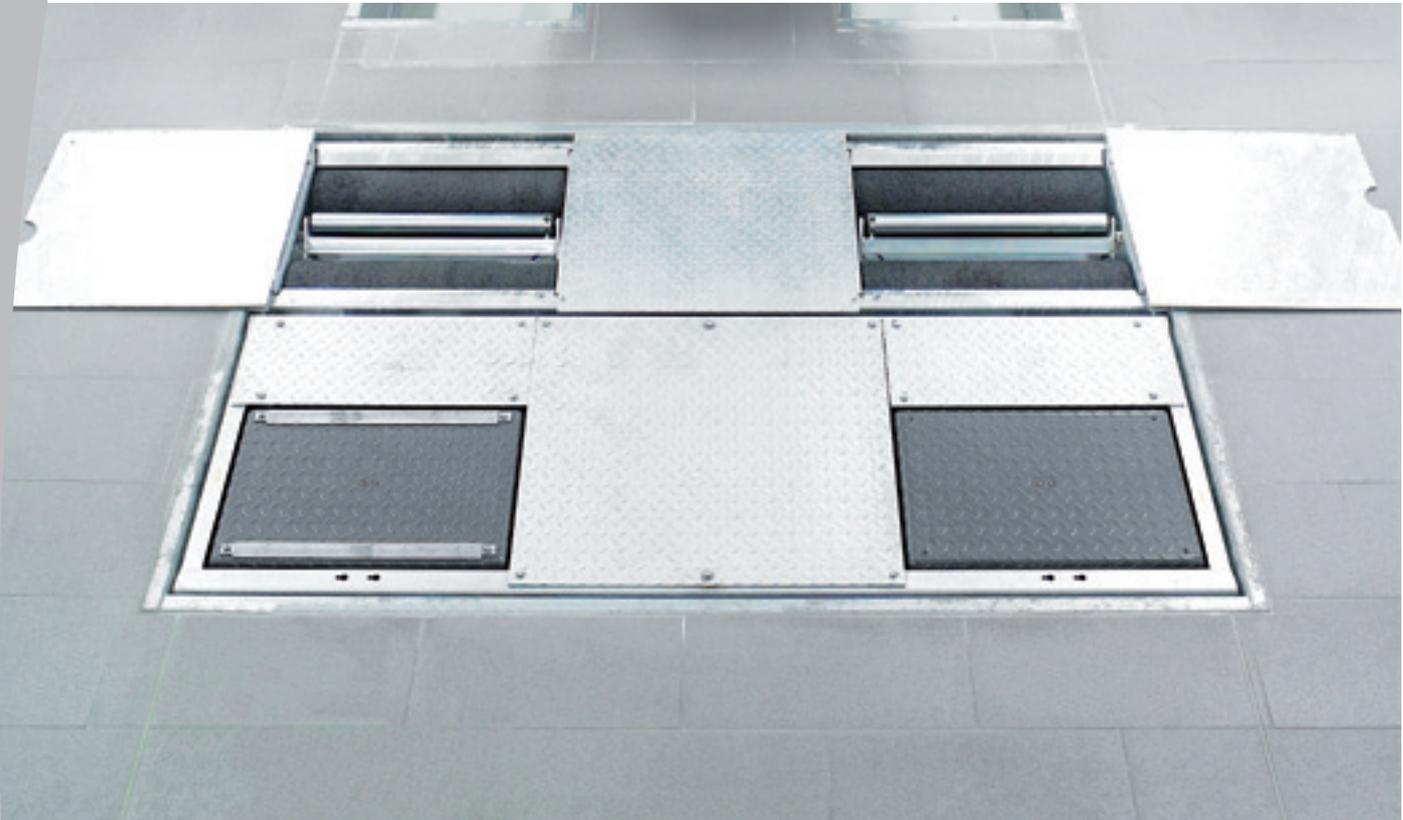
4-point weigher as supplementary equipment set, for automatic calculation of axle weight and total deceleration



BB-Nr.: 1 691 602 000

Pit edge protection

# SAT 690 / 695: Extension of test lane to include axle damping



## Theta axle damping testers based on the Boge principle (damping factor)

- Indirect shock absorber testing based on the Theta principle with high repeatability
- Limit value display for qualification of damping components and corresponding replacement recommendation
- Linking of tester to BD 620 PC by way of BNet device bus
- Automatic determination of axle and vehicle weight, adoption of weight for calculation of deceleration on brake tester
- Print-out with clear graphical representation of any vehicle faults

- Reference database with vehicle history and generally applicable guide values
- SAT 695 with additional noise detection diagnosis module for determination of body and interior noise. Advantage: No need for road tests

Theta axle damping testers from Beissbarth operate on the resonance principle. This involves analysing the energy levels in the entire vibrating system (wheels, axle and body) during application of the resonant frequency. The Lehr's damping ratio („D“) is determined by way of physical evaluation. This measurement principle is considered to be extremely accurate in workshop practice, as confirmed by comprehensive studies and reference tests.

## Scope of Delivery:

### Theta axle damping tester based on the Boge principle (damping factor)

### Technical data

1 692 106 690	SAT 690	3 x 400 V / 50 Hz
1 692 106 695	SAT 695 With noise detection diagnosis	3 x 400 V / 50 Hz

tester.



### Technical Data:

Testable axle load	2.2 t
Max. driveover load	2.5 t
Drive power	2 x 1.1 kW
Excitation stroke	6.5 mm
Excitation frequency	2 - 10 Hz
Max. plate stroke	ca. 70 mm
Min. track width	800 mm
Max. track width	2,200 mm
Lehr's damping ratio "D" measuring range	0.02 - 0.3
Dimensions (L x W x H)	2,320 x 800 x 280 mm

### Special Accessories:



BB-Nr.: 1 691 602 241

Installation box for test lane



BB-Nr.: 1 691 602 242

Pit edge protection

# BD 620: Brake tester with analogue display.



## Scope of Delivery:

## Technical Data:

Universal analogue display		Roller set modules with 2 x 3.7 kW drive power, 205 mm roller dia., master switch box and installation materials		Connection data	Test speed	Max. braking force	Axle load weigher
1 691 601 170	BD 620 Universal analogue display with <ul style="list-style-type: none"> <li>• 3-coloured evaluation scale</li> <li>• LCD (2x4-digit and 1x5-digit)</li> <li>• Braking force dial with 2 x 8 kN scale</li> <li>• IR receiver</li> <li>• IR remote control unit</li> </ul>	1 691 600 451	BD 620 kit with ASA livestream	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN	optional
		1 691 600 452	BD 620 kit with ASA livestream	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN	✓
		1 691 600 421	BD 620 kit	3x220 V / 60 Hz	2.7 km/h	2x 7.5 kN	optional
		1 691 600 422	BD 620 kit	3x220 V / 60 Hz	2.7 km/h	2x 7.5 kN	✓
		1 691 600 403	BD 620 kit	3x400 V / 50 Hz	5.2 km/h	2x 6.0 kN	optional
		1 691 600 423	BD 620 kit Steel rollers for spiked tyres	3x400 V / 50 Hz	2.7 km/h	2x 7.5 kN	optional

### Passenger vehicle brake tester – with universal analogue display

- **Flexible and efficient for diagnosis and customer information**
- **Extra-flat analogue display with BNet device bus connection for flexible installation**
- **Extremely clear presentation of total deceleration and braking force difference**
- **With multi-coloured scale to indicate vehicle faults**
- No bulky control cabinet required thanks to integration of control and power electronics in roller set
- Up to 4 t axle load and track widths of 800 - 2,200 mm
- Strain gauge measurement system for maximum precision
- Galvanised roller set: Suitable for outdoor installation
- Super automatic mode with test sequence for service and parking brake systems
- Electromagnetic brake for gentle drive-off
- Brake rollers with plastic/corundum coating: Long service life and firm tyre adhesion
- Rear test roller elevated by 25 mm: Ideal test conditions even for tyre sizes of up to 28"
- Robust slip roller unit also suitable for drive-through installation

The Beissbarth BD 620 is approved for official routine vehicle testing in Germany and certified in accordance with the technical guidelines for brake testers (10/2011):

- ASA livestream interface (LAN) for linking test systems of official test authorities
- Test speed 5.2 km/h compatible with the latest braking systems
- Blockage safety feature combined with robust slip roller unit and extra sensors for brake roller speed
- Prepared for reference braking force value procedure with corresponding database

Recommendations for all European countries.  
Linking to Dealer Management systems by way of optional BNet and ASA network interface.

#### Special Accessories:

Wall mount	1 691 601 053
Stand	1 691 601 054
Roller cover plates (swivel type)	1 691 601 011
Roller cover plates (clip-in type)	1 691 601 010
Edge protection	1 691 602 000
4-point weigher supplementary equipment set	1 691 601 057

## Special Accessories:



Installation box for roller set

BB-Nr.: 1 691 602 115



Pedal force sensor

BB-Nr.: 1 691 601 020



Pit edge protection BD 620 roller set

BB-Nr.: 1 691 602 000



BNet printer set. For print-out of measurement results in tabular form on fan-fold paper

BB-Nr.: 1 691 601 026



Printer cabinet for wall mounting

BB-Nr.: 1 691 601 012



USB converter set for connection of BD 620 to existing PCs, BNet software incl. printer software, archiving software and order manager

BB-Nr.: 1 691 601 028



## MS 900:

Tyre changing for all wheels –  
and at the highest level

26 - 27





# MS 900: Effortless & simple tyre changing.

- 30" automatic leverless tyre changer
- Easy and precise locking system
- 2 laser pointers
- Unique tooling system
- Inverter solution
- Completely electromechanic
- Intuitive control panel
- Side lift



## Two laser pointers for wheel set up

- Easy laser-point control
- Two-colour visualization:
  - Green for the wheel diameter
  - Red for the rim width

## Bead pressing arm

- Supports the tyre mounting
- Moves automatically in sleep mode

## Center post clamping system

- Easy and precise locking system
- Color code to highlight the locking stage

## Side lift

- Allows to work always in an ergonomic position without stressing the back
- Improves productivity
- Lifting capacity up to 80 kg

## LED bar and Mirror:

- Light up the operation of the lower bead

## Inflating control box

- Pressure gauge
- Air supply and oiler
- Inflating cable

## Control console

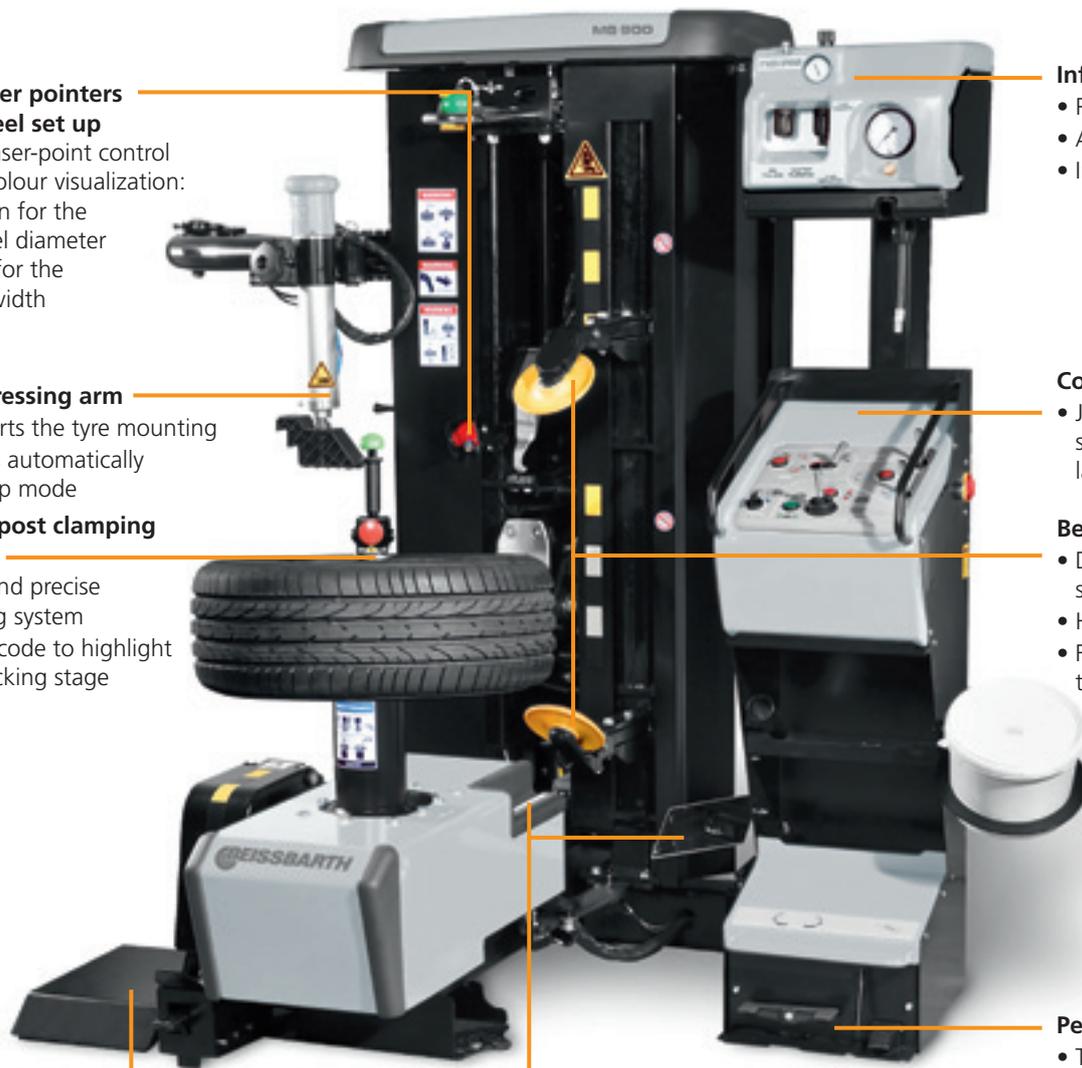
- Joysticks, buttons and switches in an intuitive layout

## Bead Breaker Disks

- Double arm bead breaker system
- Hump shape pre-set
- Folding structure to save the wheel

## Pedals

- To control the rotation (motorinverter) and inflating process
- In a comfort setup



MS 900 is an automatic, leverless 30" tyre changer. Two laser pointers determine the wheel size. MS 900 works electromechanically and is equipped with an inverter solution allowing precise and powerful control of all components.

**MS 900**

**1 694 201 064**



Two laser pointers determine the wheel size

- Green for the wheel diameter
- Red for the rim width

<b>Technical Data:</b>	
Power supply	1 x 230 V / 50 - 60 Hz
Compressed air connection	8 - 10 bar
Rim diameter	12" - 30"
Max. wheeldiameter	1,200 mm (47")
Rim width	up to 16"
N. turntable speed	2 speed
Speed of rotation	7 - 16 rpm
Bead breaking force	16,406 N

#### Scope of Delivery:

- 1 x MS 900
- 1 x 5-hole universal flange
- 2 x Centre locking protection
- 2 x Cone protection tool locking system
- 2 x Pin protection locking system
- 1 x Bead locking plier
- 3 x Rim protection kit
- 3 x Mounting tools protection
- 1 x Flange reduction
- 1 x Weight scarper
- 1 x Brush
- 1 x Grease pot holder



5-hole universal flange for damage-free clamping

#### Accessories:



Tyre inflator

BB-Nr.: 1 695 108 137



## MT 849 AD / MT 869 ADT / MT 869 ADPT:

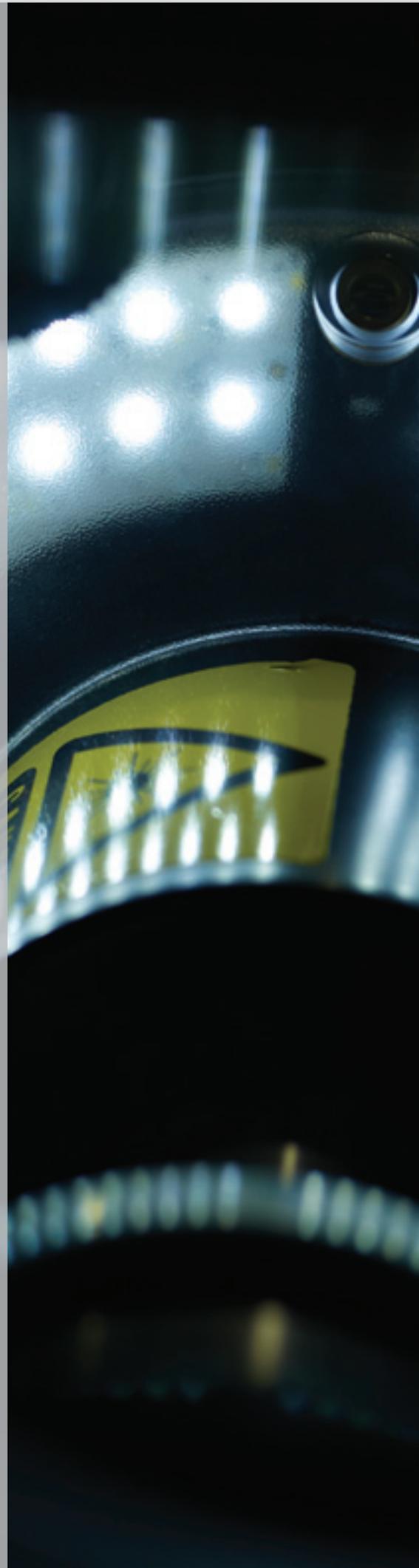
Wheel balancing in 6 seconds.

30 - 31

## MT 826 D:

The entry-level model.

32 - 33



A close-up, low-angle shot of a wheel balancer's LED array. The array is a curved, semi-circular strip of numerous small, bright white LEDs. The lighting is dramatic, with the LEDs being the primary light source, creating a strong glow and casting deep shadows. The background is dark, making the illuminated LEDs stand out. The perspective is from a low angle, looking up at the curve of the LED strip.

Explanatory notes on Beissbarth wheel balancer product names:

Key:

**A** = With Outer **A**rm

**D** = Easyfix® **D**ata Arm

**P** = **P**neumatic Clamping Flange

**T** = **T**FT Screen

# MT 849 AD and 869 ADT / MT 869 ADPT wheel balancers

## Contact-free measurement of the rim width.



MT 849 and MT 869 are quick and robust wheel balancers designed for workshops with a high job volume. The new models allow measurement within 6 seconds and balancing of wheels with a diameter of up to 1,200 mm and a weight of up to 80 kg. For optimised processing, its ergonomic design eases access to the inner side of the wheel. The quick selection of programmes (QSP), the Easyfix® arm for precise weight attachment and contact-free measurement of the rim width make this wheel balancer one of a kind on the market. Thanks to the contact-free measurement of the wheel width, the operator doesn't have to measure the rim width anymore – the device does so automatically!

- Automatic and contact-free measurement of the rim width saves time
- Quick programme selection (QSP) to select the 3 main balancing routines
- Easyfix® data arm for accurate weight positioning
- 3 laser beams for manual weight positioning
- Patented LED light ring for optimum illumination of the inner rim surface
- Measurement within just 6 seconds
- Electronic brake
- USB/printer ports
- Stop-on-Top function: The wheel automatically stops at the unbalance position
- Balancing report can be printed



Easyfix® data arm



Position laser and light ring

# balancers:

## Scope of Delivery:

MT 849 AD	MT 869 ADT	MT 869 ADPT
Digital LED Display	19" TFT screen	19" TFT screen
	Light ring with laser pointer	
BMW-specific balancing flange, centring pin, centring ring:		
2 types of clamping boards with bolts: - Hole circle: 4 x 100 mm - Hole circles: 5 x 120 mm, 5 x 112 mm - 2 centring rings Ø 56.0 / 66,5 or Ø 72.5 / 74.0 mm respectively		
Mechanic	Mechanic	Pneumatic
Centring flange with 3 cones	Centring flange with 3 cones	Centring flange with 4 cones
	Wheel protection	
	Weight pliers	
	Calibration weight	
	CE-certified operating manual	
	Adhesive-weight remover	
	Rim protection	

## Part numbers:

MT 849 AD	MT 869 ADT	MT 869 ADPT
1 694 201 059	1 694 201 060	1 694 201 061



Specific BMW balancing flanges, centring pins, centring rings



Pneumatic centring flange



Mechanic centring flange

### Important

To achieve optimum balancing results it is essential to ensure that wheels are correctly centred when clamped on wheel balancers. This is certain to be the case if use is made of the specific BMW balancing flange, as the wheels are clamped to the wheel balancer by way of the wheel bolt holes in the rim.

### Software languages – MT 869:

Italian, French, English, German, Spanish, Portuguese, Czech, Polish, Hungarian, Slovene, Dutch, Serbian, Finnish, Turkish, Croatian, Swedish, Lithuanian, Russian, Hebrew, Bulgarian, Slovak, Danish, Persian, Japanese, Icelandic, Chinese and Korean.

Technical Data:	MT 849 / MT 869
Power supply	230V 1ph 50/60 Hz
Rim width	1" - 24" / 1" - 15" automatic
Max. wheel width	500 mm
Rim diameter	6" - 40" / 10" - 30" automatic
Max. wheel diameter	1,200 mm
Max. wheel weight	80 kg

### Special Accessory:



#### Wheel lift

**1 695 900 004**

For attachment to the side of the wheel balancer; convenient raising and lowering of platform by way of two foot pedals.

Loadbearing capacity	70 kg
Lifting height	500 mm
Length of platform	700 mm
Width of platform	380 mm
Raising time	~ 6 s
Lowering time	~ 8 s
Compressed air supply	6/8 bar

## MT 826 D: Entry level wheel balancer.



The MT 826 D is an electronic wheel balancer designed for low to medium volume workshops. Thanks to the new extreme versatility and compact size design, the electronic wheel balancer is suitable for working in narrowest environments and with all types of car, motorcycle and lightweight transportation wheels. Supplied with an Easyfit internal electronic measuring arm and a complete software package including all static and dynamic balancing programs.

- New Ergonomic wheel cover shape
- New weight holder
- Up to 820 mm diameter
- Max wheel weight 65 kg
- Small footprint
- Internal electronic measuring arm for rim distance & diameter
- Optional measuring arm for rim width
- Many holders for weights and tools

**MT 826 D**

**1 694 201 049**

### Scope of delivery:

- Digital LED Display
- Wheel protection
- Mechanic centering flange with 3 cones
- Weight plier
- Calibration weight
- Specific BMW balancing flanges, centring pins, centring rings

### Technical data:

Power supply	230V 1ph 50/60 Hz
Rim width	2" - 20" / 1" - 20" automatic
Max. wheel width	420 mm
Rim diameter	8" - 26,5" / 10" - 24" automatic
Max. wheel diameter	820 mm
Max. wheel weight	65 kg



Specific BMW balancing flanges, centring pins, centring rings



Mechanic centering flange

# Accessories for all three wheel balancers.



BB-Nr.: 1695 653 449

Light transport vehicle cone  
(88 – 132 mm)



BB-Nr.: 1695 606 300

Fourth cone  
(Ø 120 – 174 mm)



BB-Nr.: 1695 654 849

Set of light truck cones  
(88 – 174 mm)



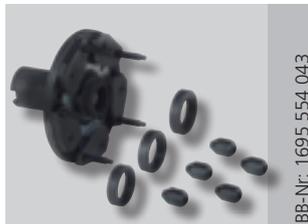
BB-Nr.: 1 695 107 200

Cone spacer



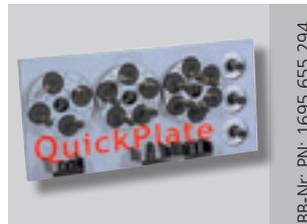
BB-Nr.: 1695 901 667

Kit of Off-Road cones from  
the back incl. pins (40 mm)  
distance ring, polyamide spacer



BB-Nr.: 1695 554 043

3-4-5-hole Flange



BB-Nr.: PN: 1695 655 294

Set of QuickPlates  
(4-, 5-, 6-holes-plates)



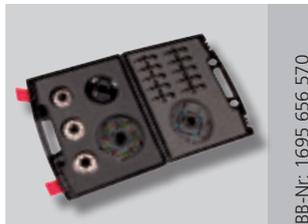
BB-Nr.: 1695 600 598

Electronic rim width measure-  
ment arm (MT 826 D)



BB-Nr.: 1695 656 698

DuoExpert system  
(3 collets in a case,  
54 – 78 mm)



BB-Nr.: 1695 656 570

Kit demo box for passenger  
car



BB-Nr.: 1695 654 039

Basic motorbike wheel  
centring kit (14 mm)



BB-Nr.: 1695 654 060

Monolever wheel centring kit  
+ shaft (19 mm)



## BAC 4100a

Fully-automatic AC service unit for R134a.

Maximum precision – easy operation.

36 - 37

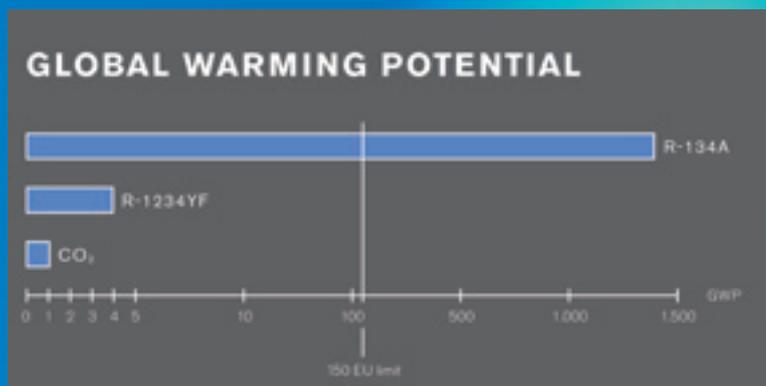
## BAC 5100yf

AC service unit for R1234yf.

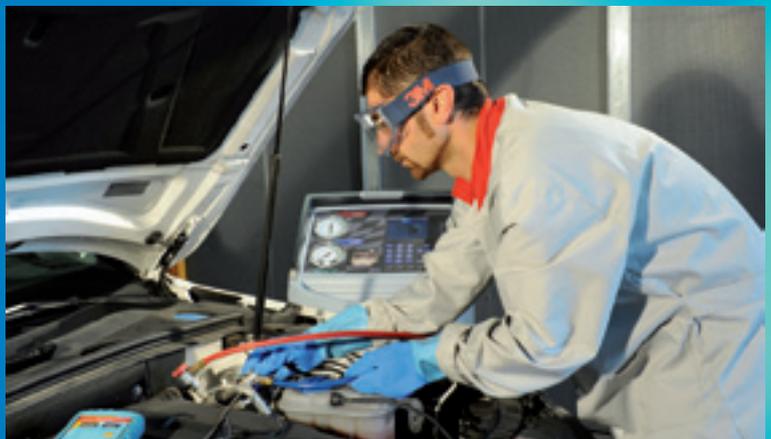
Integrated refrigerant identifier.

38 - 39





New refrigerant R1234yf reduces global warming effect.



# BAC 4100a: Fully-automatic AC service unit

## Maximum precision – easy operation.



**The new fully-automatic Beissbarth AC service unit recovers, recycles and refills R134a refrigerant. Serves standard, hybrid and fully electric vehicle systems.**

#### **Fully-automatic:**

- Recovery function
- Vacuum function
- Leak test
- Air purge function
- Clean oil injection (separate bottles for PAG and POE oil)
- UV dye injection
- Refrigerant charge function

#### **Additionally included:**

- Hose clearing function
- Oil drain function with electronic scale
- Internal air flow control
- Windows Embedded CE
- Flushing function (optional flushing kit)

**As an alternative to fully automatic all steps can be selected individually for a manual controlled sequence.**

#### **Fully-automatic, high-capacity and comfortable:**

The AC service unit manages automatically all maintenance steps including recovering, vacuuming and charging of oil and refrigerant automatically. The 5.7 inch colour display and the large high and low pressure gauges keep the operator up to date during the complete procedure.

- Fully-automatic – no manually operated valves
- Powerful compressor with a capacity of 500 g/min
- Extra large dryer filter cartridge of 700cc
- 21 languages
- Visual and acoustic signals in case of error messages and upon completion

#### **Professional refrigerant management with evaluation of recovery and charge volume:**

- Integrated printer for detailed reports
- Show results via USB, Bluetooth on PC (in preparation)

#### **Deep Recovery Function – total recovery saves costs and protects the environment:**

The intelligent electronic control of refrigerant weight, pressure and temperature guarantees a minimum of refrigerant waste at the service process.

- The unit complies with SAE J2788 Standard
- Maximum accuracy during recovery and flushing is based on +/- 15 gram
- 99% of the refrigerant is evacuated from vehicle and hoses
- Double-stage vacuum pump with delivery volume of 170 l/min

**BAC 4100a**

**SP 00 000 068**

# for R134a.

## Additional Features:

- Integrated flushing program combined with optional flushing kit. The flushing process removes residue of lubricants and other fluids efficiently
- Automatic UV dye injection
- Optional connection to ASA network via LAN gateway (in preparation)

## Quality standard guarantee an unlimited AC service:

- Automatic air purge and cleaning of non condensable gases
- Shock resistant refrigerant scale for precise determining of refrigerant volume, accuracy of  $\pm 5$  g
- Vacuum time programmable

## Automatic Oil Management:

- Two separate lubrication circuits for PAG and POE oil to also service hybrid vehicles
- Three separate operating electronic scales for used and clean oil bottles, as well as UV-dye
- Hermetically closed oil bottles prevent any contamination with moisture and dust

## Technical Data:

Refrigerant	R134a
Display	5.7 inch TFT, 320 x 240 Pixel VAG color display
Alphanumeric keypad with function keys	
Manometers	EN837-1, 100 mm
Manual valves	No
Service hoses	2.50 m
Couplings	SAE J2196
Printer	Yes
USB port	Yes
SD card slot	Yes
Hermetic compressor	3/8 HP
Vacuum pump	170 l/min (50 Hz) 198 l/min (60 Hz)
Internal storage vessel	9.09 kg
Filter for dryer	700 cc
Oil bottles	3 x 250 ml
UV dye bottle	1 x 250 ml
Dimensions	107 x 61 x 76 cm
Weight	107 kg
Voltage supply	230 V, 50/60 Hz



Hermetically closed oil and UV-dye bottles ensure moisture free and clean storage



Operating panel with 5,7 inch color display and integrated printer

## Scope of Delivery:

- Fully-automatic AC service unit for R134a
- High/low pressure hoses (2.5m)
- Quick couplers (SAE J2196)
- 3 oil bottles
- 1 UV dye bottle
- Calibration weight to check oil and refrigerant scale
- Multi language user manual
- Quick start reference
- Thermal paper for printer
- Safety kit: safety goggles and gloves
- Protective dust hood

## Special Accessory:

Flushing kit SP 00 101 175

# BAC 5100yf: AC service unit for R1234yf. Integrated refrigerant identifier.



## Fully automatic service unit:

- Recovery function
- Vacuum function
- Leak test
- Purging of non condensable gases
- Clean oil injection (separate bottles for PAG and POE oil) with electronic scale
- UV dye injection with electronic scale
- Refrigerant charge function

## Additional features:

- Hose clearing function
- Oil purge function with electronic scale
- Internal air flow control
- Software Windows Embedded CE
- Flushing function (optional flushing kit)

**As an alternative to fully automatic all steps can be selected individually for a manual controlled sequence.**

**Safe, climate change friendly, efficient.**

**New standard to service R1234yf.**

## Maximum Safety:

- Certified by TÜV Rheinland
- All hoses and connection elements comply with SAE J2888 and are certified by independent institutions
- Designed to eliminate any inflammation by potential electric sources
- Service couplings with dead space ventilation ensure that no refrigerant will leak

## Easy to use:

- Automatic program flow with visual and acoustic signals in case of error messages and upon completion
- Large 5.7 inch colour display with 21 languages available
- High and low pressure gauges with 100mm diameter easily readable
- Plastic film keyboard
- Automatic UV dye injection
- Automatic oil management with very accurate injection of PAG- and POE-oils by separate lubrication circuits
- Designed for minimum maintenance and maximum serviceability
- Vacuum pump oil and internal filter are easy to replace
- Oil/dye injection bottles are easily accessible and are suspended with magnetic connectors
- Refrigerant level check automatically activates the tank refill program after plugging in the new bottle

## Top Quality:

- Precision rate of  $\pm 15$  gram for filling and recovering functions achieved by integrated pressure and temperature control of refrigerant
- 2 separate lubrication circuits prevent a cross contamination of PAG and POE oil
- Separate injection of UV dye and lubricants
- Hermetically closed oil and UV-dye bottles ensure moisture free and clean storage
- Automatic internal connections and service hose clearing
- Auto-test during start procedure

**BAC 5100yf**

**SP 00 000 000**

**Efficiency in comparison to standard units:**

- Service time can be reduced by 20 minutes thanks to the unique „deep recovery“ function (double-stage vacuum pump with high performance and a delivery volume of 170 l/min)
- 10% more refrigerant recovery from AC system of vehicle
- 80% better recycling minimizing loss of refrigerant
- ASA network connection on Dealer Management System for professional refrigerant management (in preparation)
- Automatic warning system to alert maintenance and filter change

**Reducing environmental impact:**

- Automatic drain of non condensable gases and cleaning of oils
- *Deep recovery function*: at least 95% of refrigerant is recovered from the AC system of vehicle and hoses

<b>Technical Data:</b>	
Refrigerant	R1234yf
Display	5.7 inch TFT, 320 x 240 pixel VAG colour display
Alphanumeric keypad with function keys	
Manometers	EN 837-1, 100 mm
Manual valves	No
Service hoses	2.50 m
Couplings	according to SAE J2888
Printer	Yes
USB port	Yes
SD card slot	Yes
Hermetic compressor	3/8 HP
Vacuum pump	170 l/min (50 Hz) 198 l/min (60 Hz)
Internal storage vessel	9.09 kg
Filter for dryer	700 cc
Oil bottles	3 x 250 ml
UV dye bottle	1 x 250 ml
Dimensions	107 x 61 x 76 cm
Voltage supply	230 V, 50/60 Hz
Weight	107 kg
Certificates	CE, TÜV Rheinland,

**The BAC 5100yf safety package:****Integrated refrigerant identifier**

- Preventing contamination of the service station if vehicle contains unclean refrigerant

**Automatic monitoring of the gas concentration inside the service unit**

- Automatic air ventilation is controlled by electronic flow meter, which checks the unit with known limits to keep the gas concentrations below the inflammable level
- Regular leakage check by performing vacuum and pressure test with automatic power switch off in case of leak

**Safety mode for maintenance**

- Electric functions are automatically switched off
- Automatic leak detection when changing filter and vacuum pump oil

German inspection authority TÜV Rheinland released the unit according to the German automotive industry association and the European Pressure Equipment Directive (PED, 97/23/EC) regarding safety, reliability and efficiency.

**Scope of Delivery:**

- Fully-automatic AC service unit for R1234yf
- Integrated refrigerant identifier
- High/low pressure hoses (2.5m)
- Quick couplers (SAE J2888)
- 3 oil bottles
- 1 UV dye bottle
- Calibration weight to check oil and refrigerant scale
- Multi language user manual
- Quick start reference
- Thermal paper for printer
- Safety: protective goggles and gloves
- Protective dust hood

# Beissbarth Service worldwide



## Service from Beissbarth Munich:

- Immediate telephone support
- Rapid replacement parts deliveries
- Individual maintenance contracts

## Factory customer service:

Beissbarth and certified partner companies provide on-site assistance with installation, instruction, equipment assembly and maintenance – with partners in more than 90 countries around the world.

## Training Centre:

Instruction and training at STC  
of Robert Bosch GmbH, 73207 Plochingen

## Software Centre:

Technical documentation, specified vehicle data  
and marketing material for immediate download:  
[www.beissbarth.com](http://www.beissbarth.com)



Subject to technical modification and changes to scope of delivery.  
Pictures may sometimes show special accessories or similar  
versions. Please contact your Beissbarth dealer for a binding  
up-to-date quotation.

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