Easy 3D WLAN
CCD kits for ML 1800 and ML TECH+
Wheel alignment with user PC

- Wireless transfer to tablet PC
- Saving space without PC cabinet and fewer cables
- Flexible, mobile and highly accurate

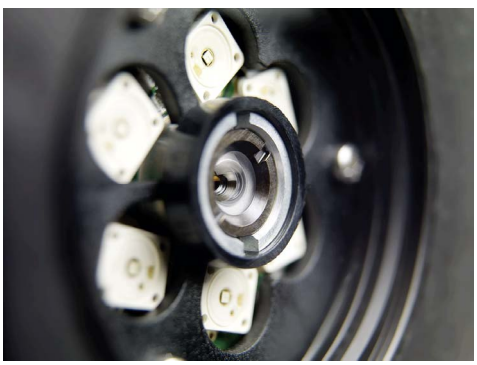
BEISSBARTH

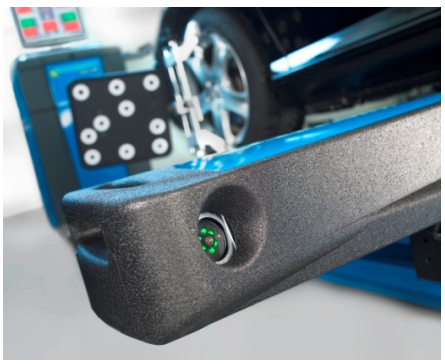
Easy 3D:
Wheel alignment with 3D 12-camera technology

Beissbarth wheel alignment with OEM precision

Precision 3D technology with 12 cameras
Accuracy ± 2 angular minutes

- Absolute accuracy: ± 2 angular minutes
- Repeat accuracy: ± 2 angular minutes
- Reference system with 4 CCD cameras
- Rolling and driving run-out compensation: No need for lifting clear
- Mobile, flexible use of sensor heads, e.g. for platforms and pits
- Robust, sturdy design for practical everyday workshop applications
- Short set-up times: Lightweight targets
- New 13-22" Multi-Fit clamps (optionally up to 28")
- Magnetic holders for quick set-up
- No need for complex calibration

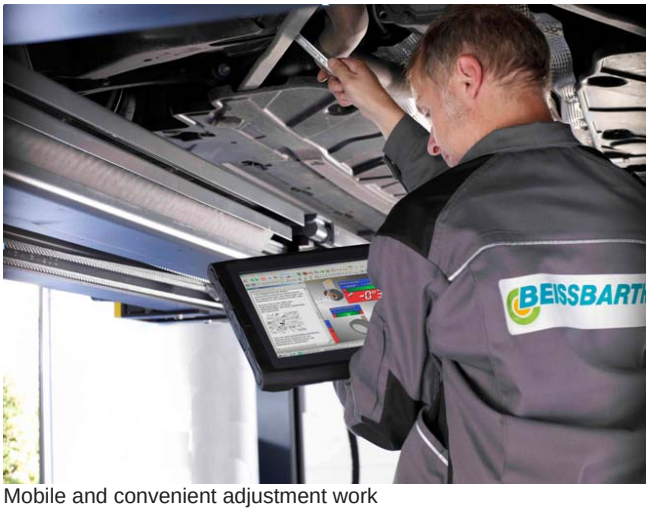




Easy 3D WLAN

Wireless data transfer to computer

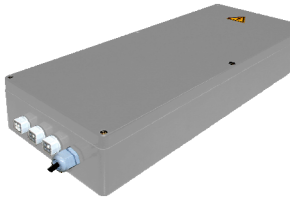
Wireless from computer to WLAN box



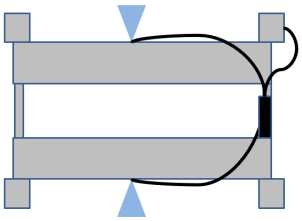
Mobile and convenient adjustment work

WLAN box and Bluetooth communication for Easy 3D

- Wheel alignment from mobile tablet PCs or Notebooks (Windows)
- Full measurement (all values) with user PC hardware ("BYOD")
- One central computer for all measured values and repair data
- No need for PC cabinet (printer etc.), thus saving space
- Fewer cables = quicker to install & fewer obstacles
- Changes in measured value are easier to read when making adjustments under the platform



3D measurement box
- Parallel data transfer to computer via WLAN and Bluetooth
- Data cables to measurement heads
- Cables to PC cabinet no longer required



Installation
- On lifting platform cross member (cable set 5/5m)
- Alternatively on column (7.5/5m)
- At control console for scissor lifts (15/15m)

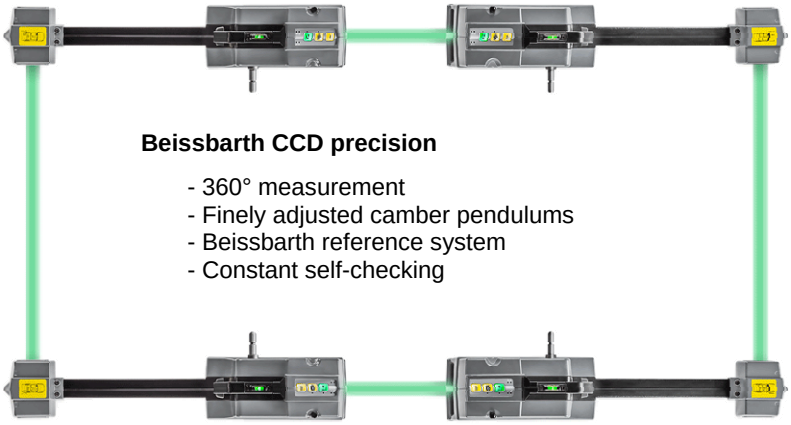
Few parts, low price:
The "Easy 3D WLAN Kit":

Two 3D sensors, 4 targets, 3D WLAN box, USB adapters for WLAN and Bluetooth,
DVD with software and target data:

ML 1800 and ML TECH+

Beissbarth CCD wheel alignment: For better measurement results.

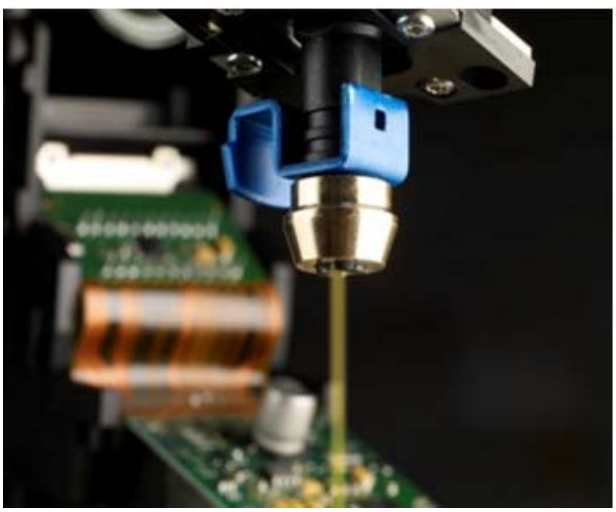
- Digital 20° CCD cameras with advanced sensor technology
- Measurement accuracy of ± 2 angular minutes
- 20° CCD camera technology for simpler caster measurement



Beissbarth CCD precision

- 360° measurement
- Finely adjusted camber pendulums
- Beissbarth reference system
- Constant self-checking

Electronic turntables for maximum steering angle



ML 1800 Kit and ML TECH+ Kit

CCD measurement with tablet PC control

Wireless and Bluetooth data transfer

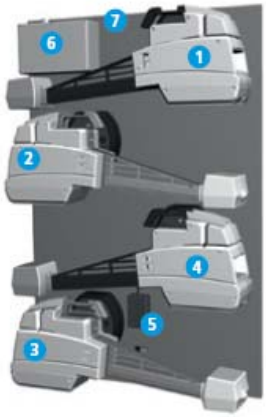
Mobile and flexible working

Wireless data transfer from sensor to CCD measurement box. From measurement box to tablet PC via Bluetooth

Compatible with PCs, Notebooks and tablet PCs (Windows XP or Windows 7). Details below.

Make use of existing hardware, such as the DCU 130 from Beissbarth - for everyday wear and tear in the workshop

Measured values constantly to hand even when working under a vehicle



Tidy storage: Installation instructions contain space-saving ideas

The low-cost introduction to wheel alignment with the CCD kit:

4 CCD sensors with charging adapter (for hanging up and charging), USB adapter for Bluetooth, DVD with software and specified data and the CCD measurement box:

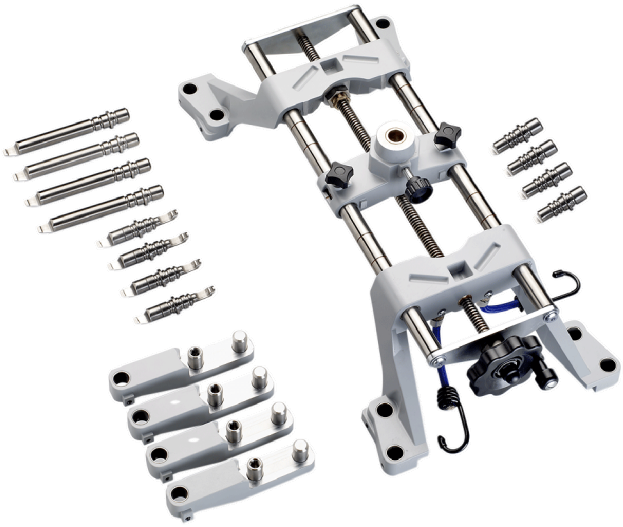
Wheel alignment with CCD and 3D from Beissbarth

Measured values	Precision	Measuring range	Total range
1. Total toe (front axle + rear axle)	± 4‘	± 6°	± 18°
2. Individual toe (front axle + rear axle)	± 2‘	± 3°	± 9°
3. Camber (front axle + rear axle)	± 2‘	± 5°	± 10°
4. Setback (front axle + rear axle)	± 2‘	± 2°	± 9°
5. Geometrical driving axis	± 2‘	± 2°	± 9°
6. Caster	± 4‘	± 18°	± 22°
7. Steering axis inclination	± 4‘	± 18°	± 22°
8. Toe-out on turns	± 4‘	± 20°	± 20°
9. Caster correction range (front axle)	± 4‘	± 7°	± 10°
10. Max. steering angle (front axle + rear axle) [2) 3)]	± 4‘	± 50°	± 60°
11. Setback (rear axle) [1)]	± 2‘	± 2°	± 2°
12. Wheelbase difference	± 2‘	± 2°	± 2°
13. Side offset left/right	± 2‘	± 2°	± 9°
14. Track width difference	± 3‘	± 2°	± 18°
15. Axle offset	± 3‘	± 2°	± 9°

[1)] Not for CCD 6cam wheel alignment units
[2)] For CCD wheel alignment units: only in combination with electronic turntables;
[3)] For 3D 8cam wheel alignment units: not possible for all vehicles

Multi-Fit clamp

- For quick and easy attachment of sensors or targets to wheels
- Four precision jaws for all standard rims
- Torque limiter guards against rim damage
- Clamping width 13" to 22"



Optional extras:

- Multi-Fit extensions 28"
- Multi-Fit jaws for trucks
- Multi-Fit special jaws (RFT, Softline)

Magnetic holder

- Direct attachment to wheel bolts in a matter of seconds
- Ideal for all magnetic bolts with sufficiently flat surface
- Central adjuster for adaptation to different hole circles
- Included as standard with Easy 3D WLAN "Excellence" version

Optional: Special adapters for Softline rims

Versions / scope of delivery

	3D 12-Camera					CCD	
	Easy 3D WLAN					**ML 1800**	**ML Tech+**
	Kit	**Standard**	**Excellence**	**OEM** Excellence	**Upgrade**	**Kit**	**Kit**
	Blue RAL 5015 1.690.700.052	**Blue** RAL 5015 1.690.700.053	**Blue** RAL 5015 1.690.700.054	**Grey** RAL 7014 1.690.700.055	1.690.700.063	1.690.310.056	1.690.310.049
Cabinet with PC, scanner printer		in	in	in			
Monitor		19"	27"	27"			
Sensors	2x 3D	2x 3D	2x 3D	2x 3D	O	4 CCD	4 CCD
CCD sensors	4	4	4	4	O	8	8
CCD run-out compensation encoder							in
3D stereo cameras	8	8	8	8	O		
Measurement box CCD wireless/Bluetooth						in	in
Measurement box 3D wireless/Bluetooth	in	in	in	in	in		
Bluetooth USB stick	in	in	in	in	in	in	in
WLAN USB stick	in	in	in	in	in		
Cable set CCD (spare)						in	in
Cable set 3D (15 m)	O	in	in	in	O		
Charging stations for CCD sensors						in	in
3D targets	4	4	4	4	O		
Magnetic holders	O	O	in	in	O		
Multi-Fit clamps (incl. jaws)	O	in	in	in	O	O	O
Multi-Fit special jaws	O	in	in	in	O	O	O
Turntable Alu (mechanical)	O	in	in	in	O	O	O
Plastic filler (for DA)	O	in	in	in	O	O	O
Lift adapter (under-floor/elevated)	O	in	in	in	O		
Software	in	in	in	in	in	in	in
Target data	in	in	in	in	O	in	in
Brake clamp	O	in	in	in	O	O	O
Steering wheel lock	O	in	in	in	O	O	O
Trolley cover	O	O	in	in	O	O	O

O = **O**ption

in = **in**clusive

PC specifications
for Easy 3D WLAN and ML 1800 Kit and ML TECH+ Kit

Operating system **Microsoft Windows**	Windows XP Professional Embedded Windows POS Ready 2009 Windows 7 Professional (64-bit) Windows 7 Ultimate (64-bit) Embedded Windows POS Ready 7 (64-bit)
CPU	Intel (recommended) or AMD Celeron Dual Core (min 2 x 2.4 GHz)
RAM Main memory	Min. 2 GB
Hard disk capacity	64 GB total (required: 15 GB)
Optical drive	DVD (for installation only)
COM port	1 for remote control receiver
USB 2.0 ports	For 3D: **3** (software key, Bluetooth stick, WLAN stick) For CCD: **2** (software key, Bluetooth stick)

Technical data:
Easy 3D WLAN

- Two stereo camera measurement systems with triangulation for each sensor
- Integrated reference system with CCD cameras
- WLAN box and PC wireless data transfer:
  - 3D measurement system: WLAN (5 GHz)
  - Reference system: Bluetooth
- Sensor and WLAN box data transfer:
  - 3D measurement system: PoE-LAN cable
  - Reference system: Data cable

Sensors
Weight 9.4 kg
Colour: Blue (RAL 5015)
Dimensions (L x W x H) 650 x 150 x 370 mm

Measurement box
Power supply 100 - 240 V AC (10A)
Mains frequency 50/60 Hz
Power 0.5 kW
Dimensions (L x W x H) 647 x 250 x 131 mm

Working location
For use on wheel alignment platforms and in pits
Approx. 600 mm clearance per side in addition to runway exterior dimension

PC trolley incl. 19" TFT monitor (optionally 27")
Weight 80 kg
Colour RAL 5015 (blue)
Dimensions (L x W x H) approx. 980 x 800 x 1,600 mm

Vehicle size range
Cars and light trucks
Wheelbases between 1,800 mm and 3,400 mm with standard targets
Up to 4,300 mm with larger targets (optional) on rear axle

Technical data of CCD kits:
ML 1800 Kit / ML TECH+ Kit

- 8 CCD measurement system
- Wireless 433 MHz
- Measurement box with Bluetooth interface

Sensors
Weight 5.8 kg
Colour: Grey / black
Dimensions (L x W x H) 760 x 300 x 200 mm

Measurement box
Power supply 100 - 240 V AC (10A)
Mains frequency 50/60 Hz
Power 0.05 kW
Dimensions (L x W x H) 250 x 160 x 90 mm

Vehicle size range
Cars and light trucks
Wheelbase up to 6,500 mm

Technical data for:
Easy 3D WLAN and CCD kits

Sliding bases
Loadbearing capacity for cars 1,000 kg
Angle of rotation ±10°
Slide range +65 <-> -50 mm
Weight 15 kg
Dimensions (L x W x H) 450 x 450 x 50 mm

Turntables
Loadbearing capacity for cars 1,000 kg
Angle of rotation up to 360°
Slide range ± 50 mm
Weight 14 kg
Dimensions (L x W x H) 450 x 450 x 50 mm

Free space / empty pages? To enable brochure-style printing with front and back page (four pages / one A3 sheet)

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, vehicle target data and marketing material for immediate download:

www.beissbarth.com

Please note: We make every effort to ensure our product information is accurate and up-to-date. We nevertheless reserve the general right to make changes to technical data, colours and equipment at any time. Certain illustrations may contain optional special accessories. For a binding quotation please contact our authorised dealers directly at www.beissbarth.com.

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Version: 20.03.2014

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