



Beissbarth Easy 2-Cam

WHEEL ALIGNMENT USING ML 33, 34, 35

3D technology with 2 cameras – wheel alignment

ML 33
Compact version



Space saving
post installation

ML 34
Version with trolley



Simple workshop installation

- Test-equipment in front of the vehicle
- No calibration at the initial installation
- Height adjustable camera beam
- Adjustable working heights
- For wheel alignment lifts and pits
- From small cars to utility vans
- Smart LEDs as adjustment aid



within just 3 minutes



Electronic

ML 35

Version with trolley and autotracking

Autotracking

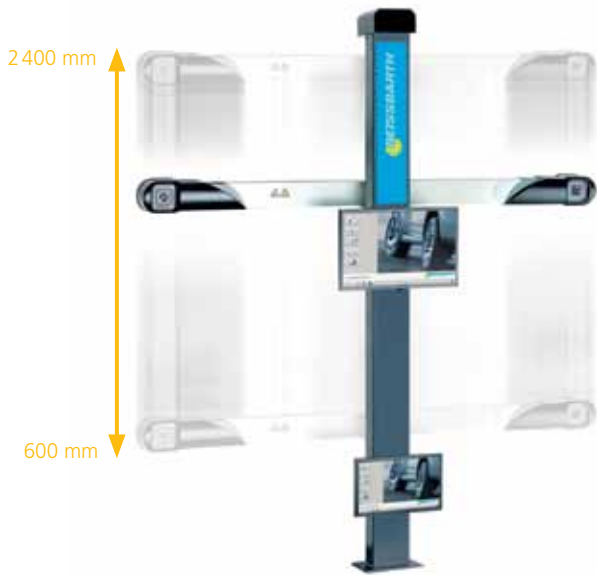
Automatic detection of targets and height adjustment of the camera beam

Increased storage space thanks to separate trolley

Additional control display at the bottom



Precise and quick wheel alignment



Height adjustment of the camera beam:

between 600 and 2400 mm for variable working heights (even on ground level)

ML 33: manually adjustable

ML 34: electronic at the push of a button

ML 35: automatic tracking of the targets

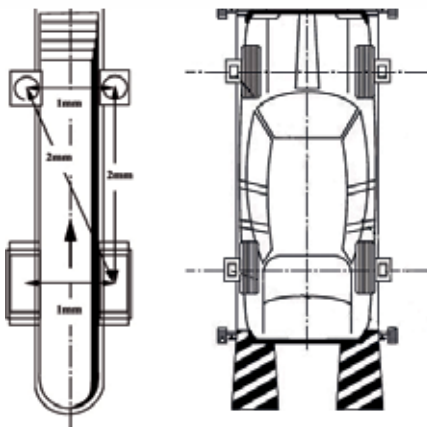


Exchangeable displays:

- Wall mount, post fitting or fixture on the trolley – as preferred
- Adjustment tasks made easy

ML 34, 35 trolley:

- More storage than with ML 33
- Increased mobility
- Data transfer via cable
- For PC and (optional) printer
- Attachment rack for clamps and targets



Pit

Lift

For all professionally levelled wheel alignments bays:

4-post lifts*, scissor lifts, inground lifts, workshop pits

Admissible height deviation	Maximum
Left to right	1 mm
Front to rear	2 mm
Transverse front left to rear right	2 mm

* note the clearances (see back page)

Measurement instructions

via monitor or smart camera LEDs for:

- the alignment of the targets
- runout compensation
- steering lock



Small targets

- Space-saving design
- no mechanical spirit level (virtual alignment)

Easy 2-Cam software



Main menu



Overview of standard measured values

Wheel alignment software

- Dell PC running on Windows 10
- User-friendly, intuitive interface
- Program-controlled measurement routines: standard, quick & random
- Comprehensive Autodata vehicle database with editor
- Camber indication in lifted condition eases the adjustment

Standard measurement parameters

- Total toe (front + rear axle) $\pm 50^\circ$
- Individual toe (front + rear axle) $\pm 25^\circ$
- Camber (front + rear axle) $\pm 15^\circ$
- Setback (front + rear axle) $\pm 9^\circ$
- Thrust line $\pm 9^\circ$
- Caster $\pm 22^\circ$
- Steering axis inclination $\pm 22^\circ$
- Wheelbase 1 800-4 500 mm
- Track width 1 100-1 900 mm

Additional measurement parameters

- Rim diameter
- Side offset
- Axle spacing
- Longitudinal offset
- Difference: axle spacing
- Difference: track width

All measured values at a glance





For large and small wheelbases

Suitable for wheelbases between 1 800 and 4 500 mm.

Comprehensive Autodata vehicle database – with editor

Brand	Year	Model
Audi	2010 - 2015	A8 (PR=2MA/B) 4.2 TDI/ 6.3 FSI Sport
Audi	2003 - 2013	A3 (-12)/Sportback (-13) (PR=UA2) HD
Audi	2003 - 2013	A3 (-12)/Sportback (-13)/Cabrio (PR=UA0/4) std
Audi	2003 - 2010	A8/S8 (PR=2MA/2MB) Sport
Audi	2003 - 2014	A3 quattro (PR=UA3/UB3) Sport
Audi	2003 - 2010	A8 (PR=1BK)
Audi	2004 - 2011	A6 (PR=1BA/B) std
Audi	2004 - 2011	A6 (PR=1BE) Sport
Audi	2004 - 2011	A6/allroad Sport/quattro (PR=1BV)
Audi	2004 - 2011	A6 (PR=1BR) HD
Audi	2005 - 2010	S6 (PR=1BD)
Audi	2005 - 2011	A6/allroad (PR=1BK/Y) A/S
Audi	2006 - 2014	TT (PR=1BA/1BL) std/Sport
Audi	2006 - 2013	S3 (PR=UB5/UA7)
Audi	2006 - 2014	TT quattro (PR=1BV/1BD)
Audi	2006 - 2014	TT (PR=1BQ) Sport
Audi	2006 - 2015	Q7 (PR=1BA) std

Smart LED indicator system on the camera beam –



Alignment of the targets with virtual spirit levels

on a TFT screen or via LED indicators on the camera beam. There is a LED line for each wheel with target (1–4).



Runout compensation routine

LEDs 1 and 3 indicate the processing progress, 2 and 4 the direction to push in. Left and right indicators are identical.



Notes on the steering lock routine

LEDs 1 and 3 indicate the processing progress, 2 and 4 the direction to steer in. Left and right indicators are identical.





as additional adjustment aid





Scope of delivery and accessories

ML 33, 34, 35 standard scope of delivery

Standard accessories included in scope of delivery

ML 33	Description	Order number
	ML 33 Post with camera beam RAL 5015 (blue) RAL 7040 (grey)	1 692 000 026 1 692 000 149
	Post tray with PC, mouse, keyboard (US) and standard accessories RAL 5015 (blue) RAL 7040 (grey)	1 692 000 027 1 692 000 150

ML 34	Description	Order number
	ML 34 Post with camera beam RAL 5015 (blue) RAL 7040 (grey)	1 692 000 028 1 692 000 151
	Trolley with PC, mouse, keyboard (US) and standard accessories RAL 5015 (blue) RAL 7040 (grey)	1 692 000 029 1 692 000 152




ML 35	Description	Order number
	ML 35 Post with camera beam RAL 5015 (blue) RAL 7040 (grey)	1 692 000 030 1 692 000 153
	Trolley with PC, mouse, keyboard (US), an extra 19" monitor and standard accessories RAL 5015 (blue) RAL 7040 (grey)	1 692 000 031 1 692 000 154

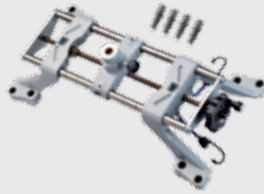
Illustration	Description	Order number
	24" monitor	Upon request
	19" monitor (only for ML 35)	Upon request
	Target: front left	1 692 000 116
	Target: front right	1 692 000 117
	Target: rear left	1 692 000 118
	Target: rear right	1 692 000 119
	Turntable <i>2 pieces already included</i> (1 piece)	1 692 000 122
	Filling bars for turntables (2 pieces)	1 692 000 155
	Universal clamp 13-25" 4 pieces (incl. standard car clamps) already included (1 piece)	1 692 000 134
	Brake lock	1 692 000 120
	Steering lock	1 692 000 121
	Brake chocks (2 pieces)	1 692 000 156

(Optional) special accessories

Printer





Illustration	Description	Order number
	Printer	Upon request

Multi-Fit clamp

Illustration	Description	Order number
	Multi-Fit clamp 13-22" 4 standard claws for Multi-Fit clamps already included	(1 piece) 1 690 311 089 (Set 4 pieces) 1 690 311 112

Claws for the Universal clamp

Illustration	Description	Order number
	Standard claw for Universal clamp for normal steel rims	(1 piece) 1 692 000 135
	Special claw 1 for Universal clamp for standard alloy and alloy softline rims	(1 piece) 1 692 000 138 (16 pieces) 1 692 000 142
	Special claw 2 for Universal clamp for standard alloy rims	(1 piece) 1 692 000 136 (16 pieces) 1 692 000 140
	Special claw 3 for Universal clamp for alloy softline rims	(1 piece) 1 692 000 137 (16 pieces) 1 692 000 141

	Extension to 28" for Multi-Fit clamp	(4 pieces) 1 690 311 113
	Standard claw for Multi-Fit clamp for normal steel rims	(4 pieces) 1 690 311 116
	Special claw for Multi-Fit clamp for standard alloy and alloy softline rims	(4 pieces) 1 690 311 164
	Truck claw for Multi-Fit clamp	(4 pieces) 1 690 311 115

Technical data

Area of application

Rim size	13"-25"
Track width	1 100-1 900 mm
Wheelbase	1 800-4 500 mm
Clearance between post and turntable	1 800-2 400 mm
Clearance between left and right camera	2 240 mm

Power supply

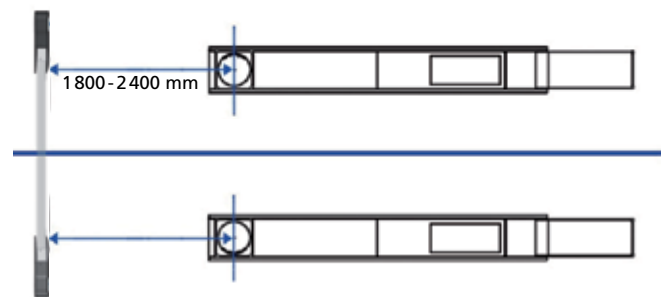
Voltage	120-220 V
Frequency	50/60 Hz
Power	0.72 kW

Dimensions

Post height	2 600 mm
Length of camera beam	2 500 mm
Post weight	47 kg
Weight of camera beam	15 kg

Language versions

German, English, French, Italian, Spanish, Portuguese, Russian, Polish, Hungarian, Bulgarian, Turkish, Arabic, Chinese, Thai, Japanese, Korean.



Clearance between camera beam and centre of the turntable

To note with 4-post lifts:

In order to prevent the lift posts from interfering with the field of view of the camera, the following minimum clearances are to be observed:

Clearance beam/turntable	Minimum clearance
1 800 mm	2 650 mm
2 100 mm	2 700 mm
2 400 mm	2 750 mm

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