

# RENAULT WHEEL ALIGNMENT

INCLUDING STATIC LPOS & FLS CALIBRATION



Powered by



**JOSAM®**

# BAD WHEEL ALIGNMENT WILL RUIN YOUR CUSTOMER'S ECONOMY!

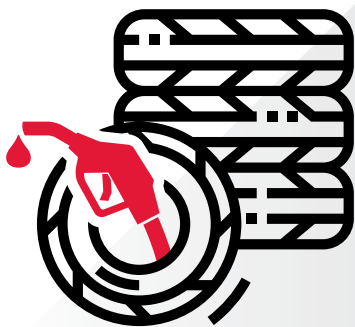
A properly aligned vehicle can reduce fuel consumption costs by up to 5%. Bad wheel alignment also increases tire wear. A wheel alignment diagnosis gives you the opportunity to plan ahead. With the help of the wheel angle measurements from a diagnosis, necessary adjustments can be made and you can avoid unnecessarily high fuel consumption and tire wear costs.

## CALCULATION EXAMPLE 1

Fuel cost reduction: 3%  
Mileage/year: 200 000 km  
Fuel price: 1.1 EUR/litre  
Fuel consumption: 4 litres/10 km  
Total cost reduction/year:  
 $0.03 \times 200\,000 \times 1.1 \times 0.4 = 2\,640 \text{ EUR}$

## CALCULATION EXAMPLE 2

Premature tire change, 2 tires/year  
Tire cost: 350 EUR/tire  
Cost reduction/year:  
 $350 \times 2 = 700 \text{ EUR}$



Estimated  
fuel/tire cost  
reduction per year:  
3 340 EUR\*

\* Cost for wheel alignment not included in the calculation

Source, fuel cost reduction:  
Survey performed during 2013 on 500 vehicles from 12 different companies  
by the research institute TNO, Holland



# WHAT HAPPENS WHEN THE WHEELS ARE MISALIGNED?



✓ **BAD STEERING CAPABILITY  
AND DRIVING DISCOMFORT**

✓ **MECHANICAL WEAR**

✓ **INCREASED AIR RESISTANCE**

✓ **INCREASED TRACKING  
SENSITIVITY**

✓ **INCREASED FUEL  
CONSUMPTION**

✓ **TRAFFIC HAZARDOUS  
VEHICLE**

✓ **INCREASED TIRE WEAR**

# RENAULT WHEEL ALIGNMENT

This compact wheel alignment system enables truck and bus workshops, as well as tire service centers, to offer wheel alignment services quickly and accurately.

With our patented camera technology with the chassis center line of the vehicle as reference, the following wheel angles can be measured:

- Toe, steering box position, camber, out of square, parallelism and axle offset
- Caster, KPI, Toe Out On Turns and max turn

Enabled by the unique rolling method, toe and camber measurements may be taken while the vehicle is in driving position. No lifting of the axles with run-out compensation is required, alternatively the system can also be operated with standard run-out procedure.

Wireless technology is used for transmitting data between measuring units and the computer. The computer software guides the user through the measuring process and prints out measurement reports of values, before and after alignment.



## HEAVY VEHICLE ALIGNMENT WITH CAMERA TECHNOLOGY

### Technical information

Description	Specification
<b>Measuring range</b>	
Toe	±40 mm/m
Camber	±6°
Caster	±20°
KPI	±20°
Max. turn	65°
<b>Measuring accuracy</b>	
Toe	±0.2 mm/m (for each camera)
Camber	±3 min (for each camera)
Operational time	14 h
Charging time	3 h
Computer requirements	See latest updated information on <a href="http://www.josam.se">www.josam.se</a>





Measuring with frame gauges mounted on chassis



Measuring with bus and van kit / multi-roll



Photo credit: Groupe Renault

## MEASURING CASTER, KPI AND TURN ANGLES

This measurement is based on a single continuous movement of the wheels, from a straight ahead position to maximum left, via maximum right and back to the starting position.

During this procedure the built-in gyroscope and inclinometer are constantly transmitting data to the computer, which calculates the caster, KPI and turn angles in different wheel positions. The entire process can be carried out in a matter of minutes.

## STATIC LPOS & FLS CALIBRATION

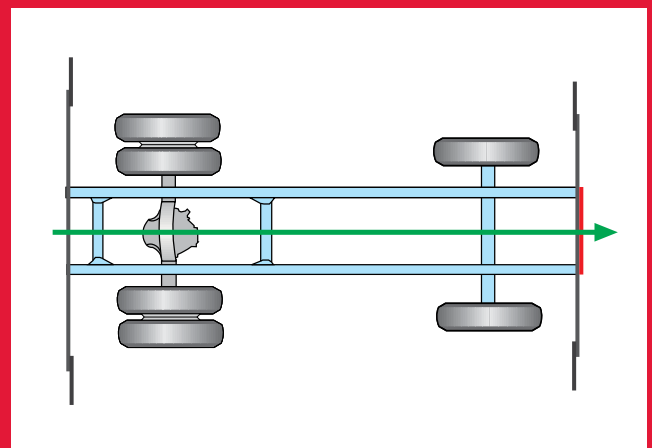
To calibrate the ADAS (LPOS & FLS) without having to drive the vehicle has many advantages:

- Only one operator is required.
- Safer, as the truck remains in the workshop.
- Avoiding traffic jams and bad road conditions.
- Supports OEM requirements on correct wheel alignment before calibration.
- Simple positioning for calibrating with Tech Tool.

## MEASUREMENT PRINCIPLE AND SCALABILITY

The Volvo Group wheel alignment system uses the centerline principle to determine the position of axles and individual wheels in relation to the centerline of the vehicle.

The system is designed to measure wheel angles on commercial vehicles such as trucks, trailers, buses and light commercial vehicles.

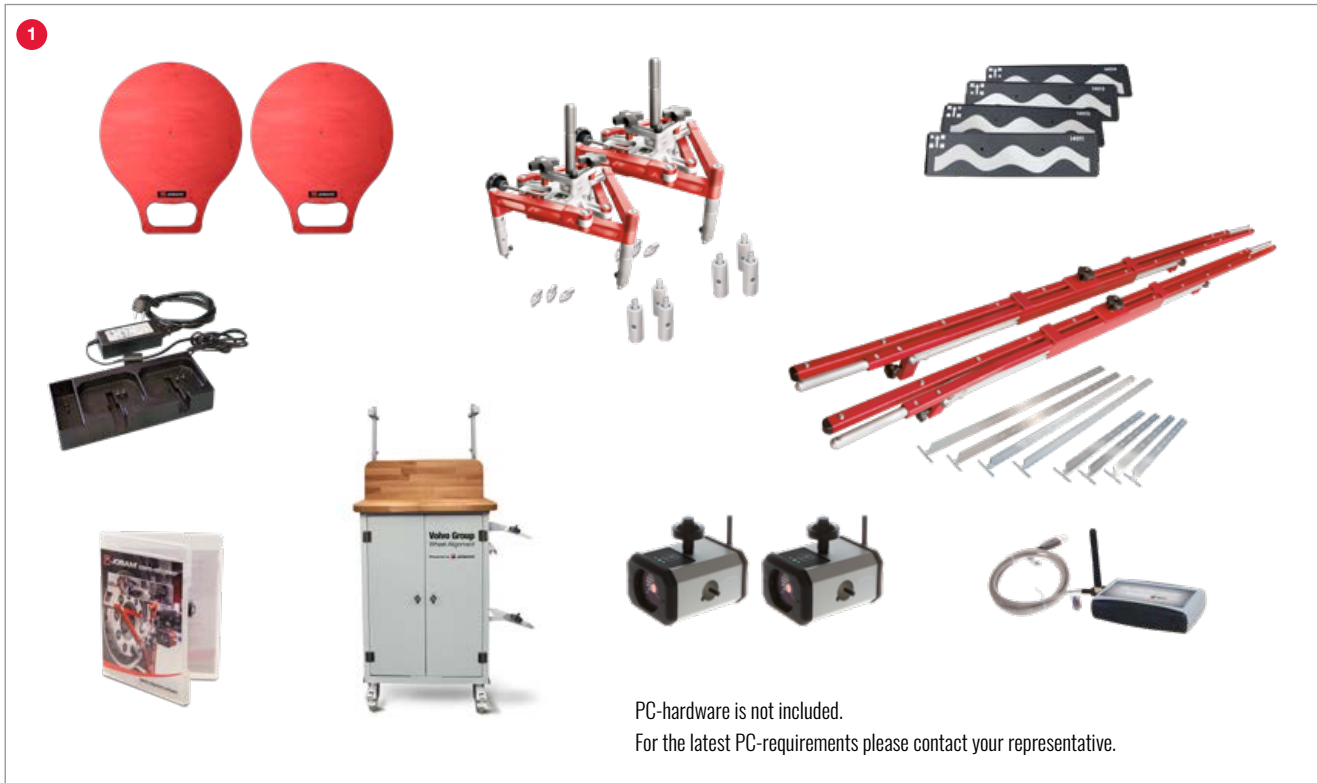




# VOLVO BASIC K/72250

Basic kit for camera electronic wheel alignment (trucks)

Item #	Qty #	Ref nr	Name
1	1	VOLVO BASIC K	Basic set Cam-aligner



## OPTIONS

# CA TRAILER K/72104

Additional kit for trailer and semi-trailer



Item #	Qty #	Ref nr	Name
1	1	CA TRAILER K	Additional kit for trailer and semi-trailer



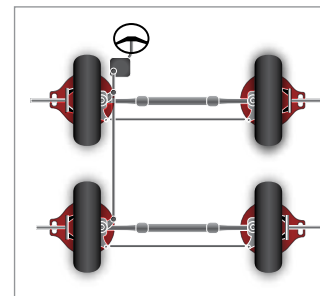
ALTERNATIVE 1

# CA TWIN K/72102

Additional kit for twin steer



Item #	Qty #	Ref nr	Name
1	1	CA TWIN K	Additional kit for twin steer



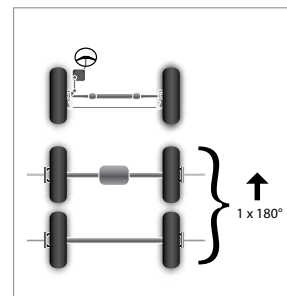
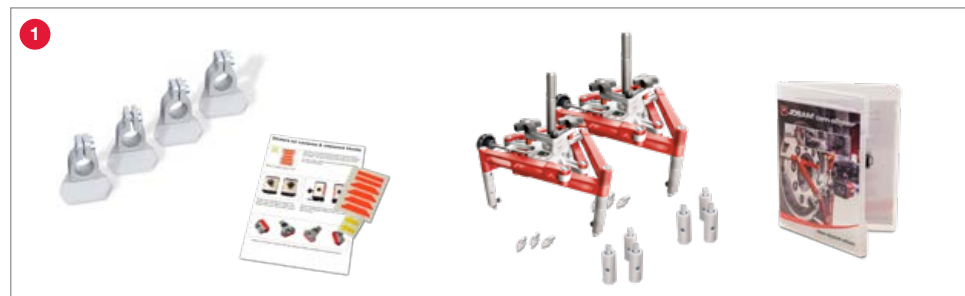
ALTERNATIVE 2

# CA MULTI K/72108

Additional kit for multi axle roll



Item #	Qty #	Ref nr	Name
1	1	CA MULTI K	Additional kit for multi axle roll



# CA ALU K/72103

Additional kit for aluminium rims

Item #	Qty #	Ref nr	Name
1	1	CA ALU K	Additional kit for aluminium rims

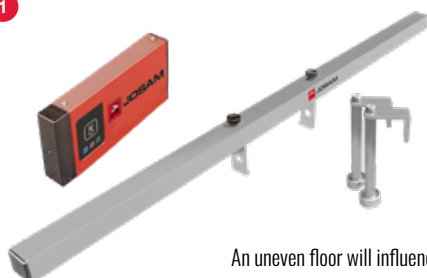


# CA ANGLE K A/75661

## Additional inclinometer kit

Item #	Qty #	Ref nr	Name
1	1	CA ANGLE K A	Additional inclinometer kit

1



An uneven floor will influence measurements of angles like camber, caster and KPI. By use of the inclinometer kit the Cam-aligner system will automatically compensate for all these effects.



## Additional front adapters

Make	JT734 15876	AM1622 10360	AM1854 15167	JT733 15875	JT73305 16355	AM1780 10439	AM1862 15767
Volvo FE	(1 pc*)	2 pcs	—	—	—	—	—
Volvo FH (To 2011)	—	—	—	—	—	2 pcs	—
Volvo FH (From 2012)	—	—	2 pcs	—	—	—	—
Volvo FL	—	—	—	1 pc	(1 pc*)	—	—
Volvo FM (To 2011)	—	—	—	—	—	2 pcs	—
Volvo FM (From 2012)	—	—	2 pcs	—	—	—	—
Volvo FMX	—	—	2 pcs	—	—	—	—
Renault D narrow	1 pc	2 pcs	—	—	—	—	—
Renault D wide/C	—	—	—	1 pc	1 pc	—	—
Renault K	—	—	—	1 pc	—	—	—
Renault Premium Euro 6	—	—	—	—	—	—	2 pcs
Renault T & T-HIGH	—	—	2 pcs	—	—	—	—

\* Only needed when thread is missing





# CA BUS K/72244

Additional kit for buses and vans



Item #	Qty #	Ref nr	Name
1	1	CA BUS K	Additional kit for buses and vans

1

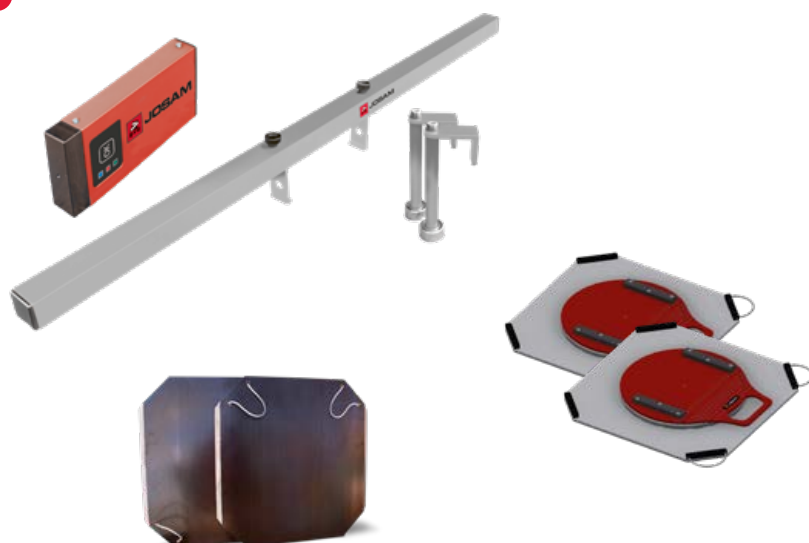


# CA IFS/72245

Additional kit for Individual Front Suspension (IFS)

Item #	Qty #	Ref nr	Name
1	1	CA IFS	Additional kit for Individual Front Suspension (IFS)

1



# 75675

## Upgrade your TruckCam system with new JOSAM software

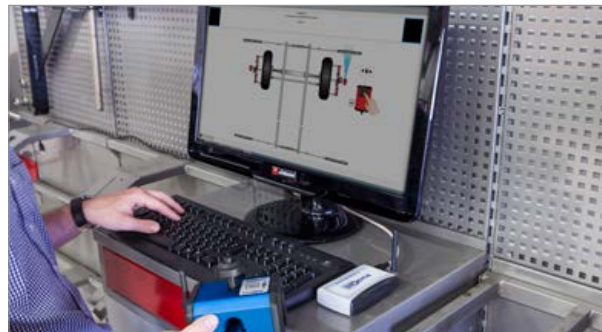
Item #	Qty #	Ref nr	Name
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1	1	75675	Software upgrade
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1



Requires TruckCam camera sensors TC-256 or TC-268.  
Upgrade is mandatory for static LPOS & FLS calibration.



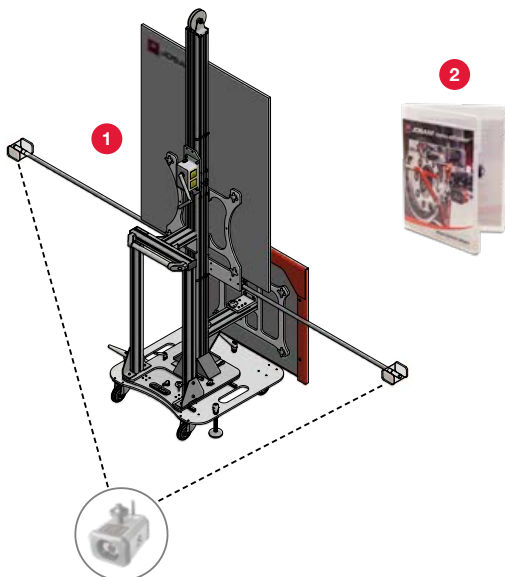
# AM 1874 K/16345

## Static LPOS & FLS calibration for camera based wheel alignment system

Item #	Qty #	Ref nr	Name
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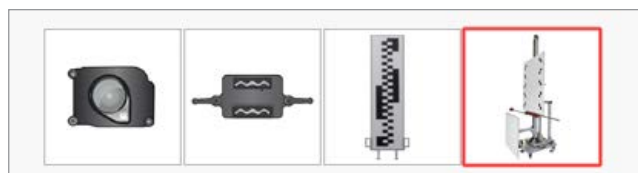
1	1	AM1874	Stand with LPOS & FLS targets
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2	1	CA1109	Software add-on for ACC/LDWS
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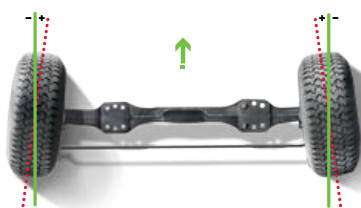
Radar & camera calibration requires the Volvo Group Wheel Alignment system and JOSAM cam-aligner software (version 1.7.4 or higher).

The device also works with the JOSAM i-track II kits 16499 and 16651.





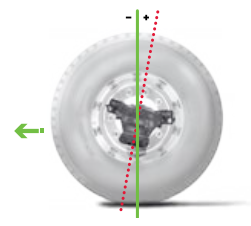
# THE RENAULT WHEEL ALIGNMENT SYSTEMS CAN MEASURE THESE WHEEL ANGLES:



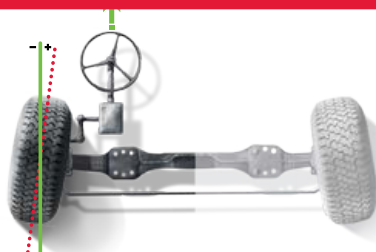
Toe



Camber



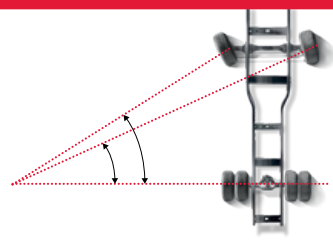
Caster



Steering gear middle position



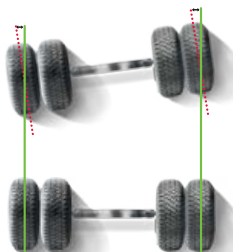
KPI



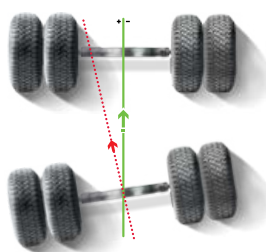
Toe-out on turn



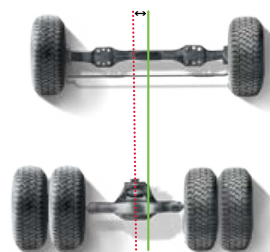
Maximum turn



Parallelism



Out of square



Offset

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