



EDV 908 402 002  
(ENG)

# Assembly instructions



**ADR / ACC – radar calibrating device**  
**V.A.S 6041 / V.A.S 6190**

# EC–Manufactures confirmation

## Safety notes

## Assembly

## Set up

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ADR / ACC – radar calibrating device V.A.S 6041 / V.A.S 6190

**EDV 908 402 002**

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## EG-Herstellererklärung



EG-Manufacturers confirmation / EG-Déclaration du fabricant

EG-Dichiarazione fabbricante / EG-Declaración del fabricante

**Hiermit erklären wir, daß die nachfolgend bezeichnete Maschine/Ausrüstung aufgrund Ihrer Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der betreffenden EG-Richtlinie(n) entspricht. Bei einer nicht mit uns abgestimmten Änderung der Maschine/Ausrüstung verliert diese Erklärung ihre Gültigkeit.**

We hereby declare, that the following described machine/equipment as a result of its conception and construction in all our distributed versions, meets the relevant fundamental health and safety requirements of the respective EC guidelines. This declaration will lose validity if changes to the machine/equipment are made without our consent.

**Nous déclarons par la présente que les machines et équipements décrits ci-après, sont conçus et construits pour l'ensemble de la production, au regard des règles fondamentales du cahier des charges européen. Cette déclaration perd sa validité si des changements sont opérés sur ces machines ou équipements sans notre consentement.**

Con la presente dichiariamo che la seguente macchina/attrezzatura e il risultato della sua concezione e costruzione in tutte le sue versioni distribuite. E conforme ai fondamentali criteri di sicurezza e salute delle rispettive normative CEE. Questa dichiarazione perderà validità se la macchina/attrezzatura subirà modifiche senza il nostro consenso.

**Por la presente, declaramos que la máquina/equipo descrito a continuación, como resultado de su concepción y construcción, en todas las versiones que distribuimos, cumple con las normas de salud y seguridad descritas en la guía de la CE. Esta declaración perderá validez si se realizan cambios en el equipo/máquina sin nuestro consentimiento.**

Pelo presente declaramos que o equipamento/máquina abaixo descrito foi concebido e construído em todas as versões disponíveis, de acordo com as normas de segurança exigidas da CE. Esta declaração perderá toda a validade se o equipamento/máquina forem alterados.

**Hiermede verklaren wij dat de navolgende machine/apparatuur beantwoordt aan de EG-richtlijnen inzake eisen voor veiligheid en gezondheid zowel op grond van constructie en samenstelling als op grond van de door ons in het gelodigheid indien zonder overleg met ons wijzigingen in de machine/apparatuur worden aangebracht.**

Vi härmed intygar att följande maskin/utrustning överensstämmer med var ritning och konstruktion i alla vara distribuerade typer, möter alla de krav på hälso- och säkerhetskrav i enligt med EC-Riktlinjer. Denna deklARATION gäller ej om maskinen/utrustningen ändras utan var vetskap.

**Bezeichnung der Maschine/Ausrüstung:** Machine/Equipment description: Description de la machine/équipement: Descrizione macchina/attrezzatura: Descripción máquina/equipo: Descrição maquina/equipamento: Aanduiding van de machine/aparatuur: Maskin/utrustning Beskrivning:

**ADR/ACC-Justagevorrichtung/** ADR-ACC calibration device/ ADR-ACC dispositif de réglage/ ADR-ACC dispositivo di regolazione/ADR-ACC aparato de calibrado/ ADR-ACC dispositivo de aduste/ ADR-ACC-Kalibratietoestel/ ADR-ACC-Kalibrerings verktyg

**Typ: V.A.S 6041 / V.A.S 6190**

**Hersteller-Nr.:** Production No.: No. de série: Produzione No.: Producción No.: Número série: Fabrikaatnr.: Tillverkningsnummer:

**Fab.Nr.:** .....

**Gemäß den Bestimmungen der EG Richtlinien:**

- EG-Niederspannungsrichtlinie (73/23/EWG) i.d.F. 93/68/EWG
- EG Richtlinie Elektromagnetische-Verträglichkeit (89/336/EWG) i.d.F. 93/68/EWG

In conformance with the requirements of the following EC Guidelines:

- EC Low Voltage Guidelines (73/23/EWG) – 93/68/EWG
- EC Guidelines for Electro-Magnetic Compatibility (89/336/EWG) – 93/68/EWG

En concordance avec les exigences des directives CE:

- Directive CE pour la basse tension (73/23/EWG) – 93/68/EWG
- Directive CE pour la compatibilit, electro-magnetique (89/336/EWG) – 93/68/EWG

In conformita con le seguenti normative CE:

- Normativa per bassa tensione (73/23/EWG) - 93/68/EWG
- Normativa ce per compatibilita elettromagnetica (89/336/EWG) – 93/68/EWG

Conforme con los requerimientos de las siguientes Guias de la CE:

- Guia EC para bajo volaje (73/23/EWG) – 93/68/EWG
- Guia EC para compatibilidad electro magn,tica (89/336/EWG) – 93/68/EWG

Em conformidade com os seguintes Regulamentos CE:

- Regulamento CE para a baixa voltagem (73/23/EWG) – 93/68/EWG
- Regulamento CE para compatibilidade electro-magn,tica(89/336/EWG – 93/68/EWG

**Conform de Bepaligen van de EG-Richtlijnen:**

- EG Laagspannings-Richtlijn (73/23/EWG) – 93/68/EWG
- EG Richtlijn elektromagnetische storings gevoeligheid (89/336/EWG) – 93/68/EWG

I enlighet med EC följande väglednings föreskrifter:

- EC lag volts vägledning (73/23/EWG) – 93/68/EWG
- EC vägledning för electro-magnetisk förenlighet med (89/336/EWG) – 93/68/EWG

**Angewandte Normen, insbesondere:** Applied norms, in particular: Application d´une norme: Norme particuliari applicate: Normas aplicadas, en particular: Normas de particulares aplicadas: Toegepaste normen, in het bijzonder: Tillverkad i följande normer:

**EN 292-1; EN 292-2; IEC 825; VBG 93; Lexstat 21cf1040.10(USA)**

**Datum:** Date: Data: Fecha: 02.2002

**Hersteller-Unterschrift:** Signature of the manufacturer: Signature du constructeur: Firma del costruttore: Firma del fabricante: Assinatura do fabricante: Handtekening van de fabrikant: Tillverkares signatur:

R.D.Kelm-Kläger

# Safety notes:

## Instructions to consider when the laser is active:



Laserpointer:

The released laser radiation corresponds to the laser class 2 (<1mW) according to EN 60 825-1. In conformity with the accident prevention regulation VBF 93, in case of casual and short look into the ray, the eyes are protected by the reflex of the eyelid shutting. Therefore you can use the laserpointer with no further safety measure. The product corresponds to 21 cfr 1040.10 (USA).

## Proceedings for the use of the calibration bar:



**CAUTION! WHILE PUTTING THE REGULATION BAR INTO VERTICAL POSITION, MAKE SURE IT DOES NOT TIP OVER!**

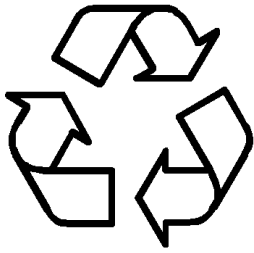


**CAUTION! TIP OVER DANGER! WHEN THE WHEEL ADJUSTMENT DEVICE IS WORKING WITH THE REGULATION BAR IN UPPER POSITION, THE STABILITY OF THE DEVICE IS REDUCED**



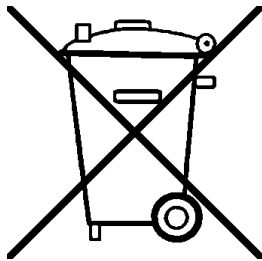


## Observe the indications regarding the batteries/accumulators and the waste material regulations:



Old accumulators and batteries cannot be thrown in a normal trashcan.

Batteries and accumulators:



do not throw into fire

protect from water condensation

do not open, do not short electric contacts

do not use accumulators if the equipment cabinet or the electric contacts are damaged (to order spare part, see spare part list).

## Consider environmental protection specifications



In the case of all work, which is carried out on and with the machine, the legal duties for waste avoidance and proper utilization/disposal are to be adhered to!

In particular, in the case of installation, repair and maintenance work, water-endangering materials, such as:

lubrication grease and oil

hydraulic oils

coolants

solvent-containing cleaning fluids

are not to be allowed to contaminate the ground or penetrate into the sewage system!

These materials must be contained, transported, col-

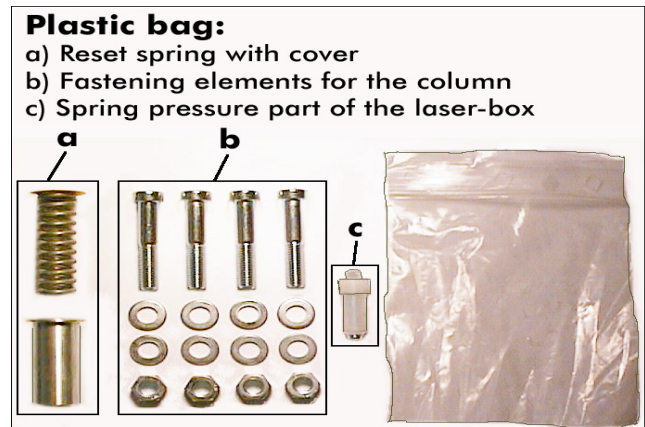
lected and disposed of in suitable receptacles!

# Assembly:

## a) Version-ADR

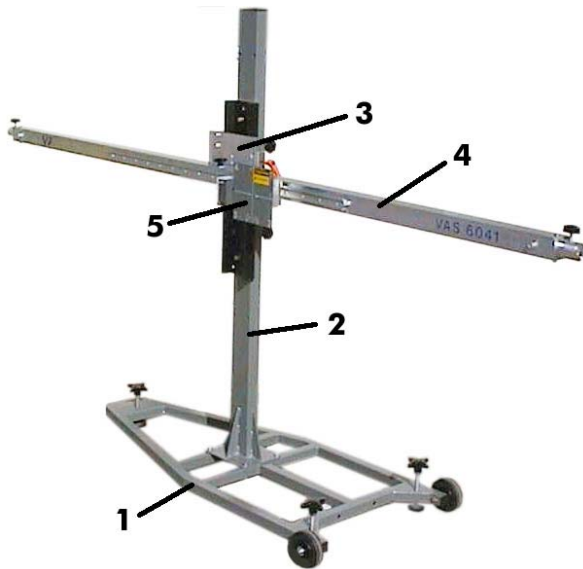
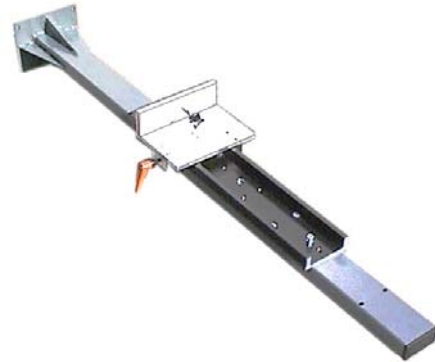
Fasten the two plastic wheels, which are originally attached on the front end, on the side ends of the support (Pos.1). (Picture 1)

Screw the complete column with vertical sledge (Pos 2 ± 3) on the centre of the sup-



sledge (Pos.2+3) on the centre of the support by means of the fastening elements b) in the enclosed plastic bag. (Picture 2)

Dir+ 1

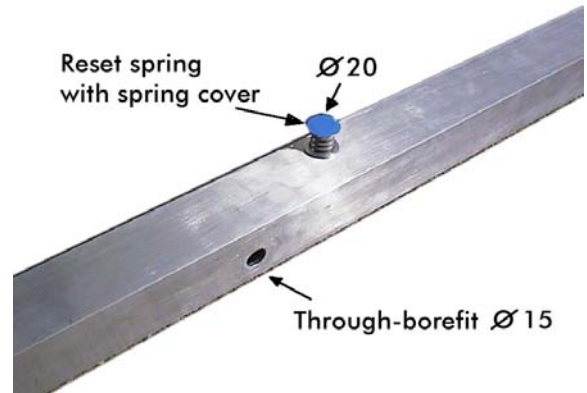


Pict 2

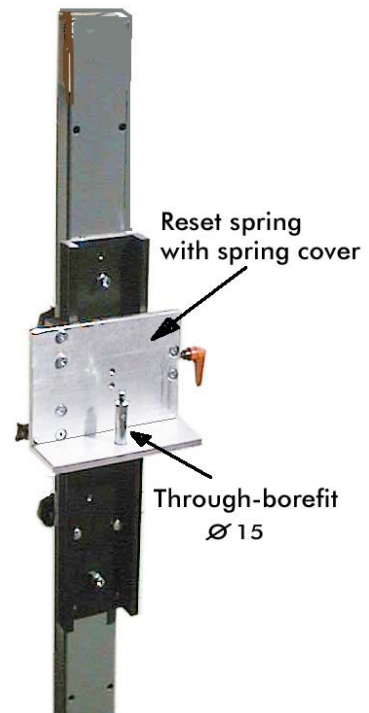


Put the spring cover with the reset spring in the  $\varnothing 20$  bore of the calibration bar. (Picture 3)

Diag 2



Diag 1



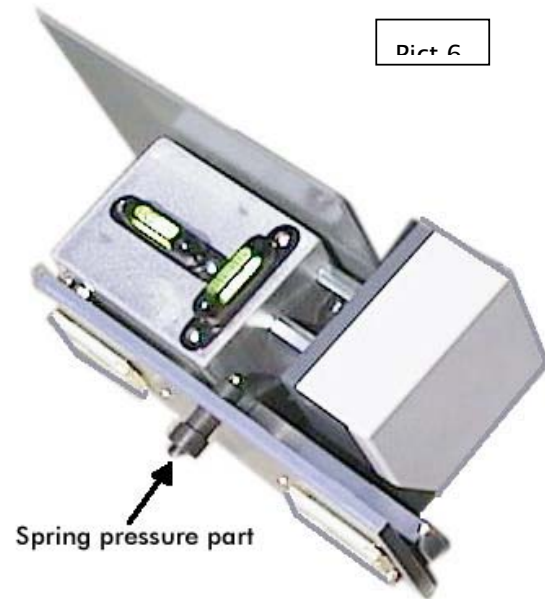
Put the through-borefit of the calibration bar onto the pin of the back plate and fasten it by means of the fastening nut.

During this operation, the coloured protective foil on the reset spring (under tensioning) must point at the back plate. (Picture 4+5 - a)

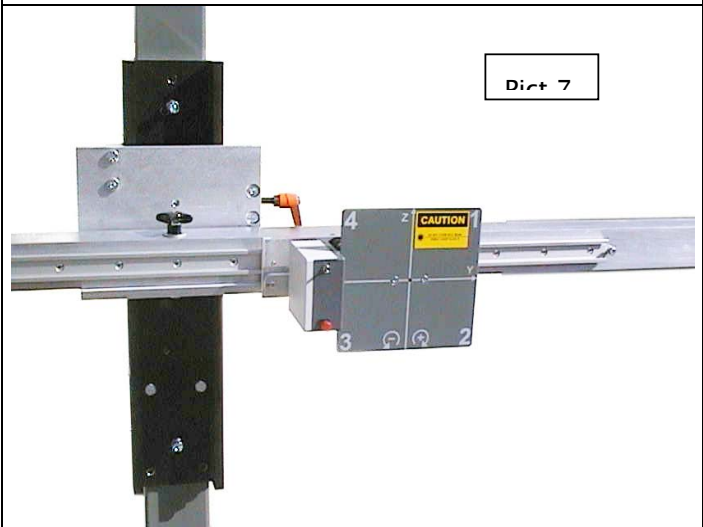
Dist 5



Put the spring pressure part c) in the  $\varnothing$  10 bore on the back side of the laser box.



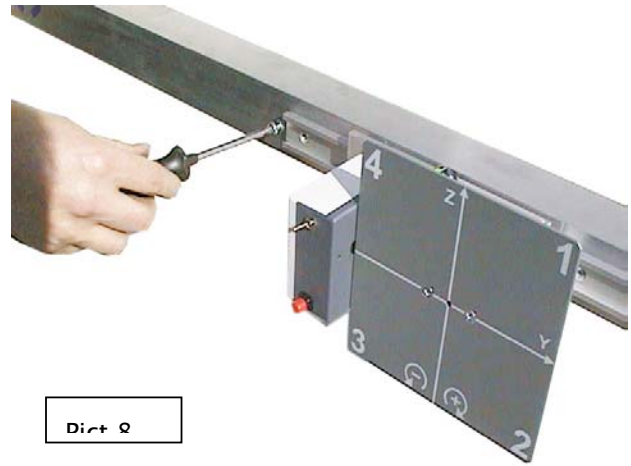
Remove the stop screw from one end of the guide beam on the calibration bar.





Introduce the laser box (under tensioning of the spring pressure part) with both slides into the guide beam.

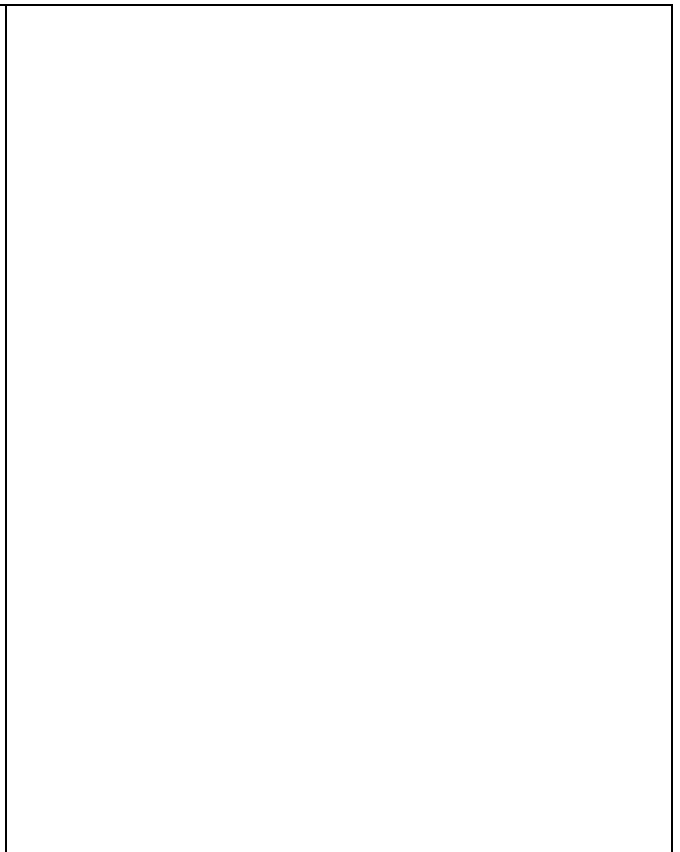
Fasten again the stop screw.



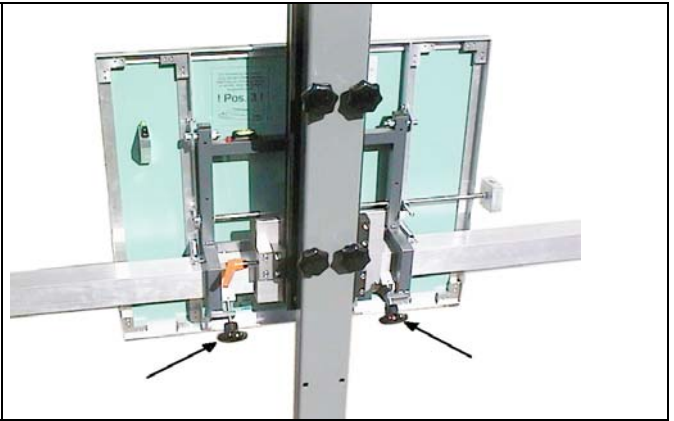
b) Version-ACC:



Like in the version a) ADR, put together support, column and calibration bar (Picture 1 to 5).



Insert the mirror carrier with its angle brackets concentrically at the calibration bar and attach it by means of the plastic screws and clamps.



# Set up:

## a) Version-ADR

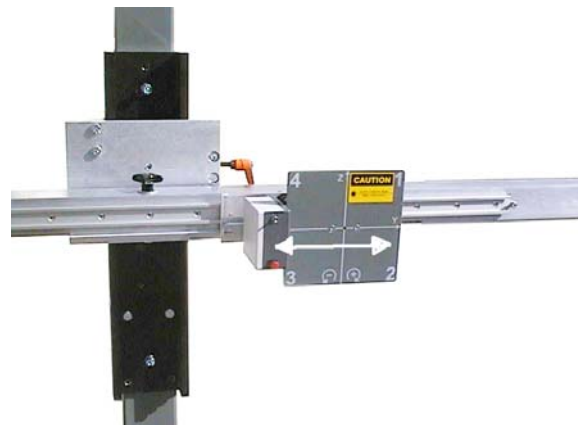
1. Place the calibration device about 1,20m – 1,50m right-angled and on centre (as far as possible) in front of the vehicle.



2. Place the spirit levels of the laser-box in central position by means of the three levelling screws of the calibration device.



3. Guide the laser ray in central position into the mirror of the distance radar of the vehicle by adjusting the vertical sledge in regards to height and moving the laserbox vertically.



Before adjusting the calibration bar in regards to height, take off the sensors of the wheel alignment system from the ADR-calibration device.

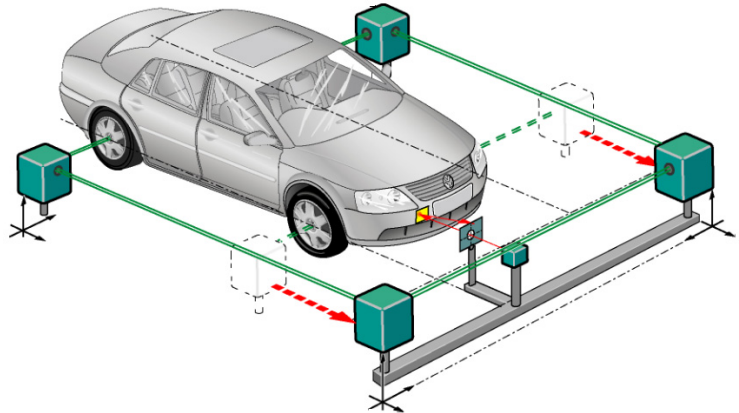


In order to preadjust the height of the calibration bar, place the complete unit “vertical sledge with calibration bar” in the desired position by means of 4 fastening nuts.

(Two persons are necessary in order to carry out safely this operation!)

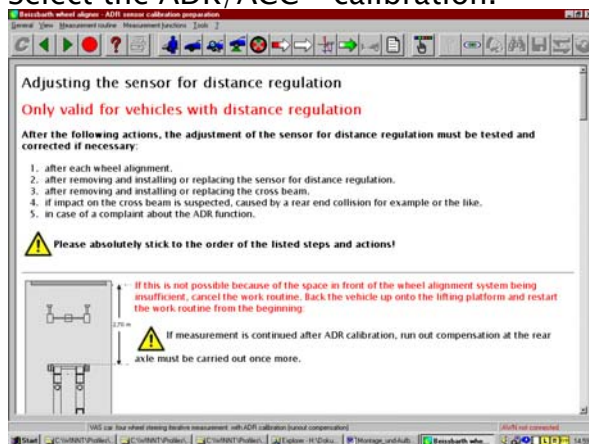
In order to adjust the height of the calibration bar, unscrew the clamping screw of the vertical sledge while holding the calibration bar.

4. Put two sensors in the supports on the rear wheels of the vehicle and two sensors in the calibration bar. Set the spirit levels of the sensors in central position and tighten by means of fastening nuts in order to avoid twisting.

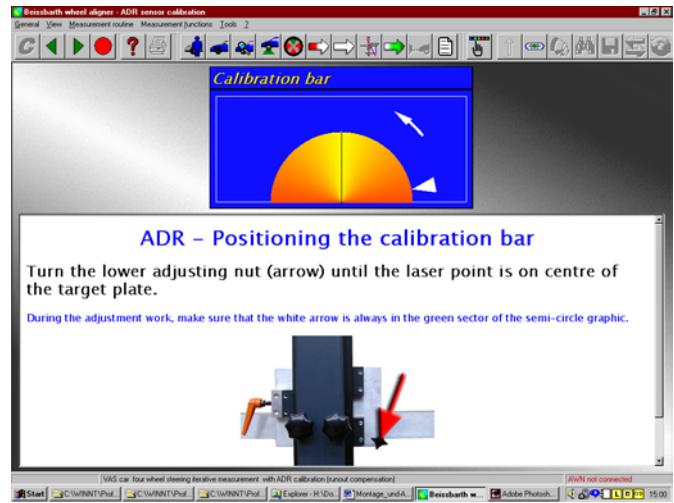
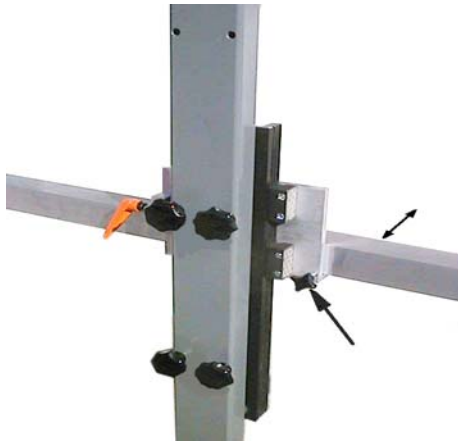


5. Turn on the device. Calibration can be called by clicking the menu "Measurement routine", sub-menu "ADR sensor calibration" or the screen button "ADR sensor calibration" (only for vehicles with ADR/ACC-equipment).

Select the ADR/ACC - calibration.



6. Guide the white marker into the green sector of the semi circle by turning the plastic screw on the right side of the support angle of the calibration bar. The background of the semi circle graphic turns from blue to green.



***NOTE:***

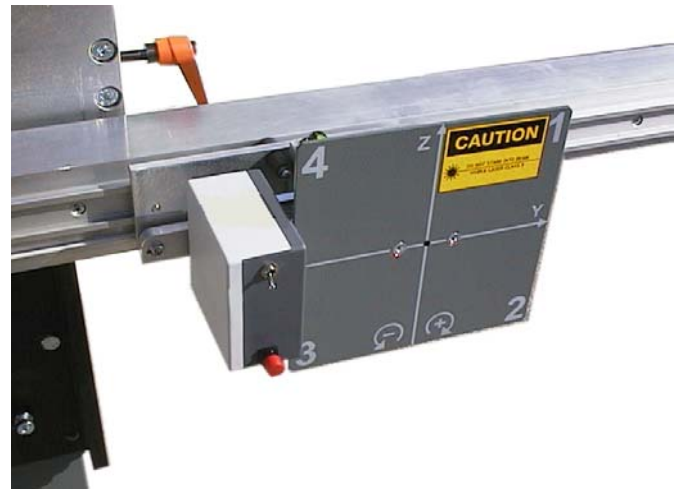
Check a) the correct direction of the laser ray (centre of ADR-mirror) b) the spirit levels of the laserbox and of the sensors c) and the positioning of the calibration bar in dependence to one another.

If necessary, repeat the setting operations!

7. The ADR-calibration device is now right-angled to the “Geometrical-axle” of the vehicle.

Carry out the ADR calibration following the indications of the manufacturer.

To do this, the laser ray has to be focused exactly in the centre of the measurement plate.

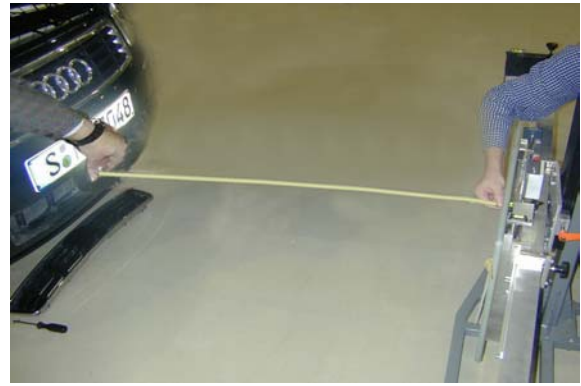


Only valid within the USA:

For the duration of the laser being activated, an acoustic signal is heard!

## b) Version-ACC

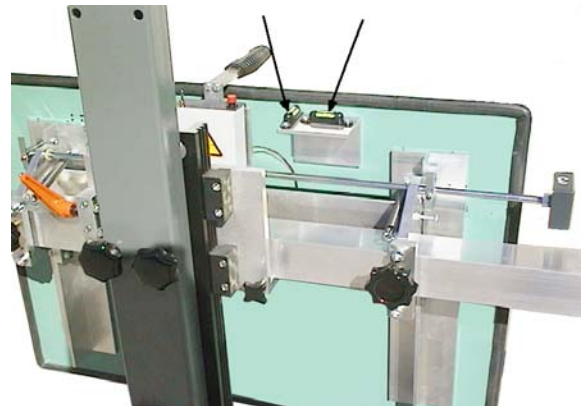
1. Place the calibrating device approximately 1,20m to 1,50m and almost centrally and right-angled in front of the vehicle.



2. Set the mirror to position 2.



3. Set the spirit levels to central position by means of the three levelling screws of the support.



4. Slide the “Rough” calibration mirror over the Radar sensor, and fasten it by means of the springs and elastic fasteners.



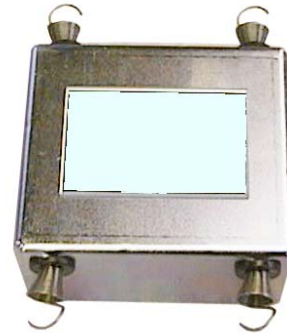
Switch on the Laser diode.  
Adjust the Laser beam onto the “Rough” calibration mirror by, in the Vertical moving the vertical carriage, and Horizontally by moving the complete frame side wards.



***Attention:***

As described in Pos.3.

Check and if necessary set the spirit levels to central position by means of the three leveling screws of the support.

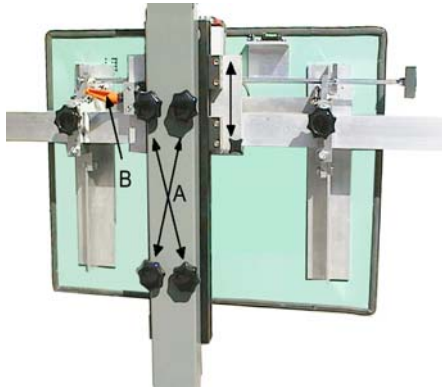




## Safety note:



Before adjusting the calibration bar in regards to height, take off the sensors of the wheel alignment system from the ACC-calibration device.



In order to preadjust the height of the calibration bar, place the complete unit “vertical sledge with calibration bar” in the desired position by means of 4 fastening nuts. (A)

(Two persons are necessary in order to carry out safely this operation!)

In order to adjust the height of the calibration bar, unscrew the clamping screw (B) of the vertical sledge while holding the calibration bar.



Like in Version a) ADR, insert two sensor heads into the holders of the rear wheels and two sensor heads into the calibration bar. Turn on the wheel alignment.

Carry out the procedure as described in set up a) pos.4 to pos.6.