

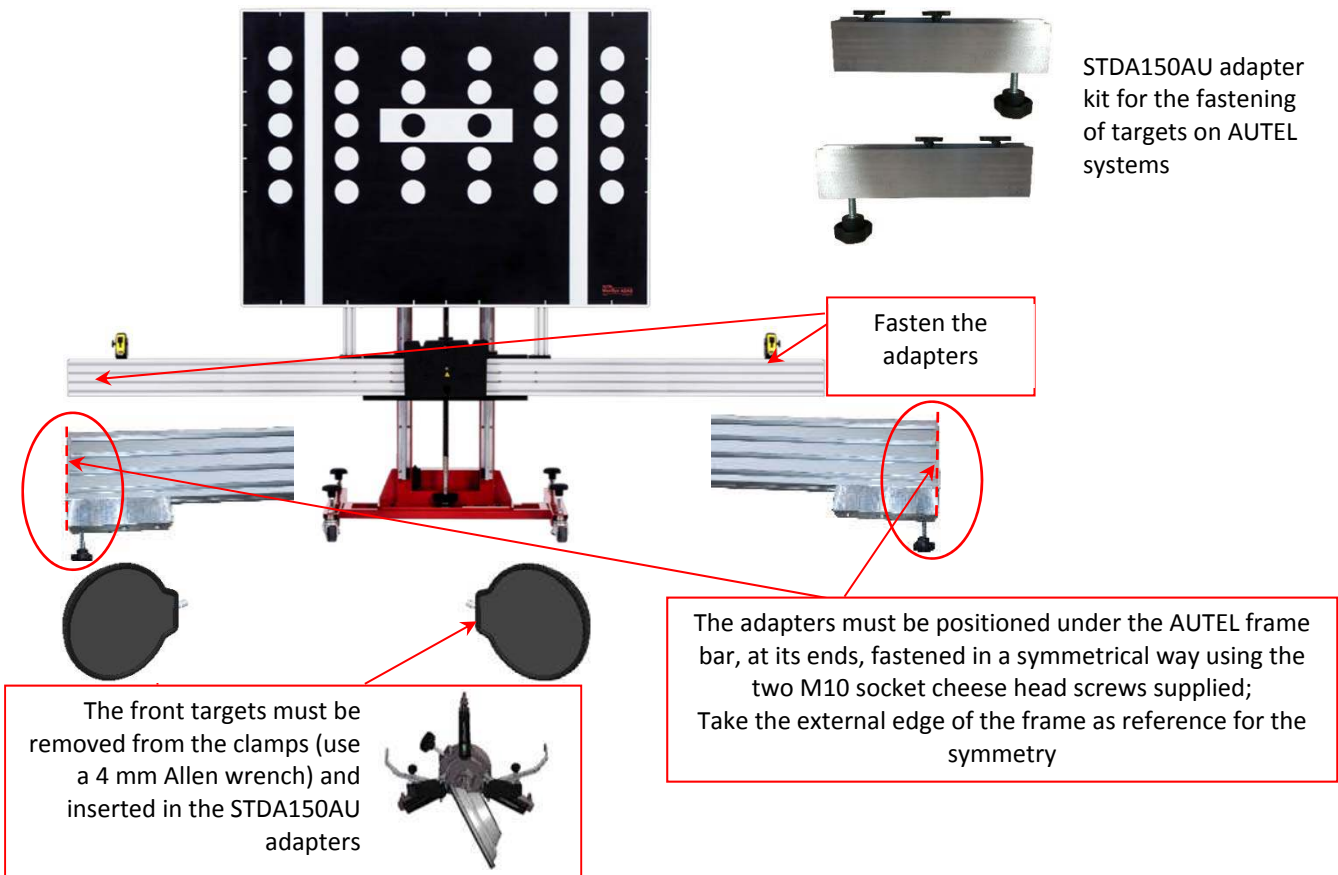
Procedure for the positioning of the ADAS  calibration panel on the MaxiSys ADAS system **AUTEL** with “3D” wheel aligner

**1. Introduction**

The positioning of the calibration kit of the MaxiSys ADAS (Advanced Driver Assistance Systems) system by AUTEL® in front of the vehicle (or behind the vehicle, depending of the device to be calibrated) and its alignment with respect to the vehicle thrust axis, can be carried out with the help of the “3D” wheel alignment system.



It is necessary to have **STDA150AU** adapters, two supports with little knob, that must be fastened to the ends of the frame of the AUTEL calibration kit, where the front targets must be fitted.



*The Autel® brands, and the commercial images associated to it, belong to the relevant owners and shall in no way be attributed to the wheel alignment equipment manufacturer.*

## 2. Requirements for the use of the SW

The function for the positioning of the ADAS calibration panel is available starting from SW version 4.4.1, and can be accessed only if activated through special STDA141ADAS token, which must be purchased from the manufacturer, who will make it available on the relevant portal of the DATABASE.

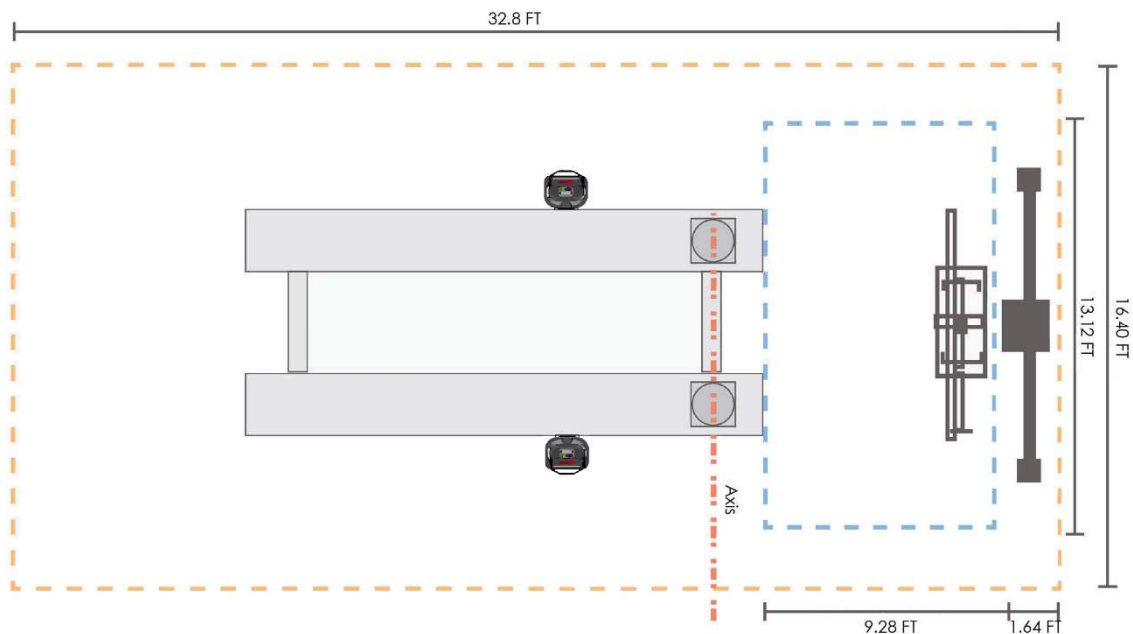
NOTE: All 3D high range models of the “HPR” series are already provided as standard with the special TOKEN that enables the ADAS function.

*Attention! The 3D “HPR” models manufactured before October 2018 were not manufactured with the correct STDA141ADAS token. It is necessary to contact the manufacturer providing the Smart card number and the token will be generated and available for download from the database portal free of charge.*

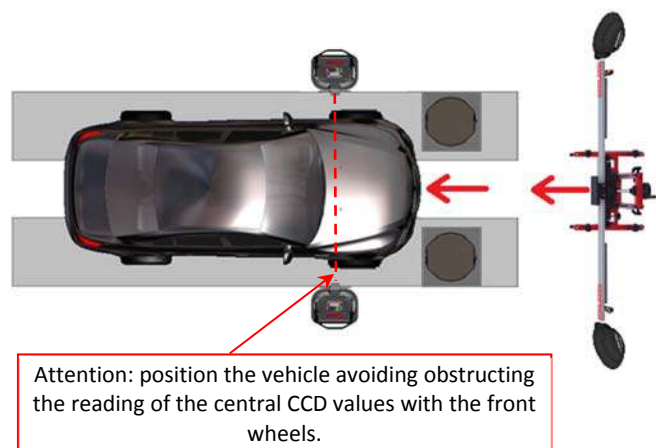
## 3. Preparation for the positioning of the calibration frame with vehicle on lift

The workstation can be the lift that is normally used for wheel alignment with the heads hooked on their supports. See diagram below.

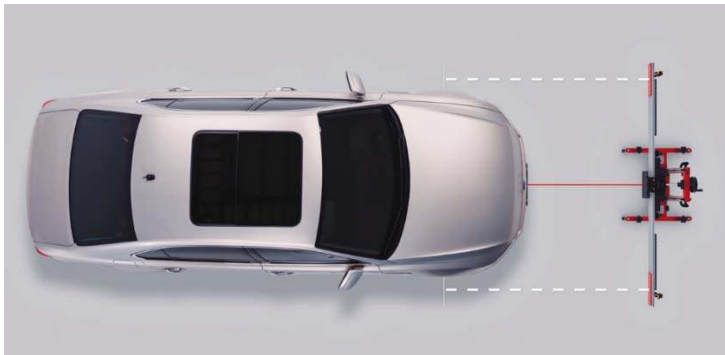
In general, the calibration frame should be placed in front of the vehicle



In this condition, the vehicle can be placed on the lift in a more backward position compared to the standard use with the wheel alignment equipment (front wheels on plates), so that the calibration frame can be brought closer, thus facilitating the reading of the front targets; always take into consideration that the maximum distance to obtain valid measurements between the head centre and the targets is maximum 3100 mm.



## 4. Preparation for the positioning of the calibration frame with vehicle on the ground



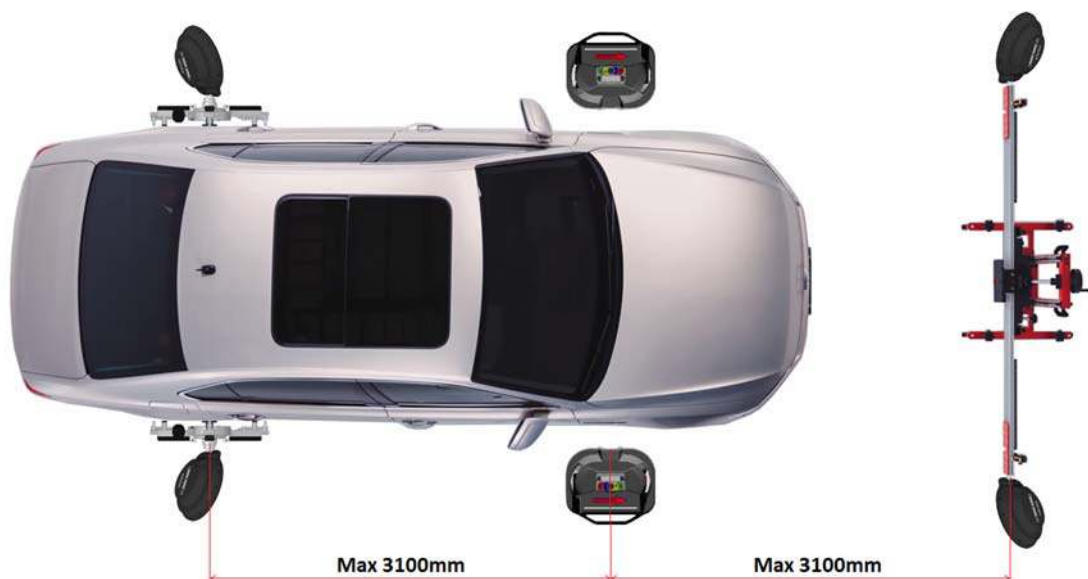
To facilitate the positioning on the ground of the measuring heads, the optional STDA3D/QC supports are required.

Attention: the positioning distance of the calibration panel varies according to the radar or camera of the vehicle model to be calibrated (see indications on “MaxiSys” AUTEL® tablet).

The measuring heads should then be positioned so as to limit the excessive distance between the targets and the cameras, trying, where possible, to centre them with respect to the longitudinal axis.

It must be taken into consideration that the maximum distance to obtain valid measurements between the head centre and the targets is maximum 3100 mm. See diagram below.

*Note: Some vehicle models may require greater distances, therefore they cannot be calibrated with this system.*

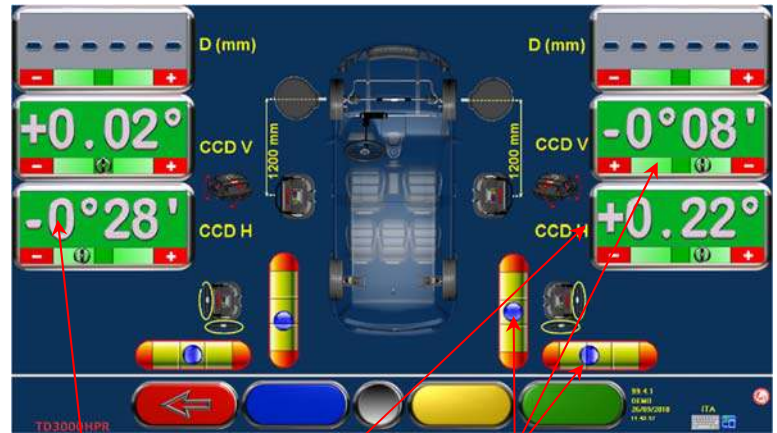


## 4.1 Adjustment of the measuring head positioning with vehicle on the ground.

After positioning the heads on the ground, before the actual measurement, it is necessary to adjust their position trying to reduce the horizontal CCD angles as much as possible, and check their levelling.



Press the key combination Alt+C from the initial Logo page to display the page for the adjustment indicated on the side.

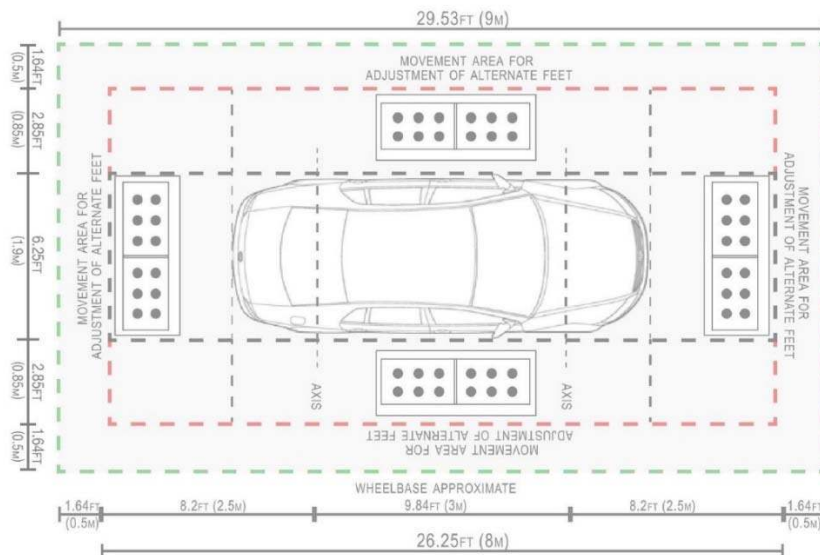


Move the heads forward or backward or rotate them slowly so as to reduce the H CCD values ( $\pm 1^\circ$  is enough  $\rightarrow$  the value is highlighted in green)

Check that also the V CCD values are within the tolerance range ( $\pm 1^\circ$ ) and that the electronic spirit levels are complied with (they should fall within the green area)

## 5. Working area

The maximum working area for the calibration of all ADAS sensors is of **9m x 4.6m** (minimum area 8m x 3.6m), as recommended by the manufacturer of the AUTEL device. The surface must be perfectly **flat and horizontal** (no slope).



### General preliminary conditions:

- No object in the calibration area
- Vehicle wheel aligner in good working order
- Vehicle parked with straight wheels
- Vehicle rear axle aligned
- Vehicle fluid levels in order and tank full
- Vehicle with pneumatic suspensions, deactivate the automatic levelling (activate "jack mode")
- No load or person on board
- Doors closed and external lights off
- Windows and camera lenses clean
- Calibration area well illuminated, but with no lights that are too strong or badly oriented (to avoid glares on the cameras)



## 6. Procedure for calibration frame alignment


In the software page of the initial logo, press the key combination ALT

+ F3 .

The page shown on the side appears.

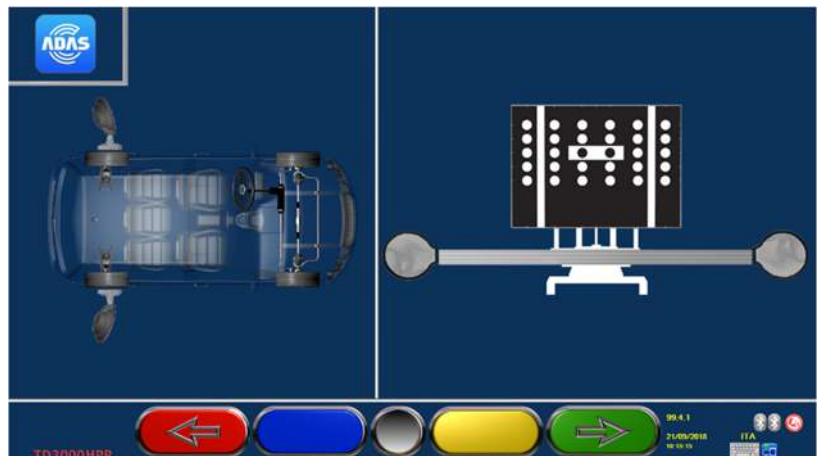
Based on the calibration kit and according to the radar or camera of the vehicle model to be calibrated, it is possible to position the panel in front or behind the vehicle.



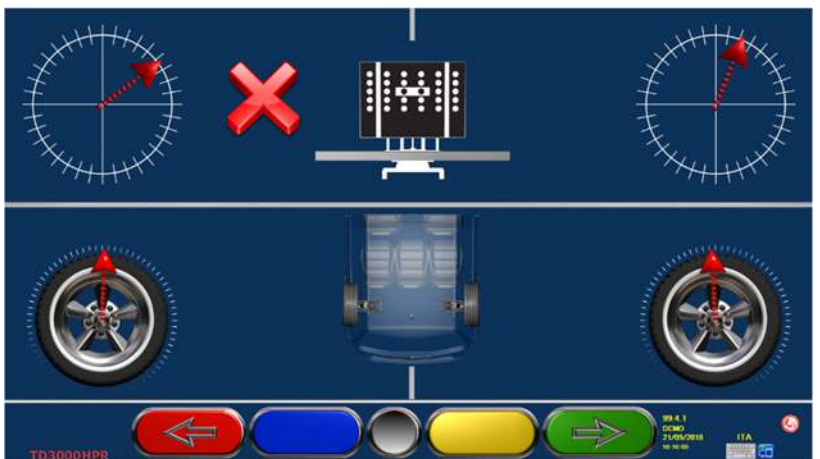
Select the type of positioning, in front or behind, with the F2 key  and confirm with F4.

### 6.1 Procedure for the alignment of the panel IN FRONT of the vehicle

Fit the targets on the rear wheels. Remove the targets from the front clamps and fit them on the STDA150AU adapters on the ends of the calibration frame, complying with the right and left side. Press F4 to continue.



The software shows the target camber. If necessary, rotate them until the red crosses will disappear. When all targets are cambered correctly, move to the next step with F4, or wait for the program automatic progression.



Shift and rotate the structure of the panel to align it to the thrust axis of the vehicle, following the indications on the screen.



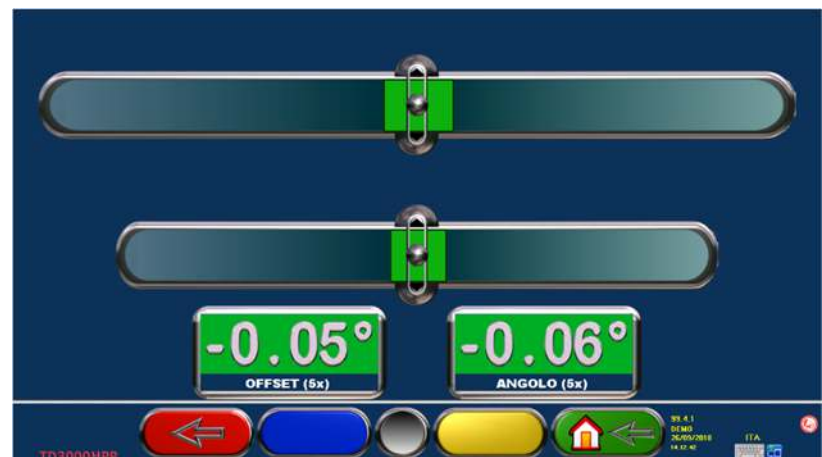
Shifting indication



Rotation indication



Once the operation is completed (the cursors of both adjustments are in the middle and the values are highlighted in green), clamp the frame and press F4 to terminate the procedure and go back to the program home page.



Clamping of the rotation frame



The frame alignment procedure in front of the vehicle is over, from here on follow the indications provided by AUTEL for the calibration of ADAS devices

## 6.2 Procedure for the alignment of the panel BEHIND the vehicle

The rear alignment procedure requires an additional step to adjust the positions of all vehicle wheels. Fit the targets on the clamps and position them on all four wheels. Press F4 to continue.



The software shows the target camber. If necessary, rotate them until the red crosses will disappear. When all targets are cambered correctly, move to the next step with F4, or wait for the program automatic progression.



In the following phase, the software will record the required information for the alignment. Wait for a few seconds until "STOP" appears

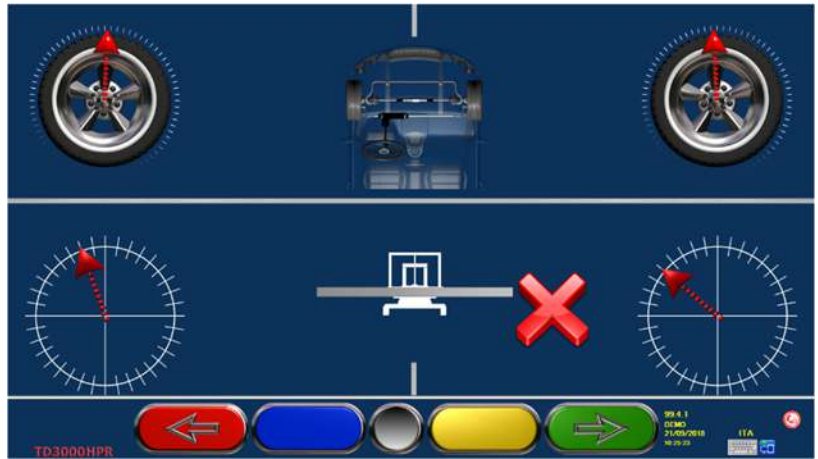


Remove the targets from the clamps on the rear wheels and fit them on the STDA150AU adapters on the ends of the calibration frame, complying with the right and left side. Press F4 to continue





The software shows the target camber. If necessary, rotate them until the red crosses will disappear. When all targets are cambered correctly, move to the next step with F4, or wait for the program automatic progression.



Shift and rotate the structure of the panel to align it to the thrust axis of the vehicle, following the indications on the screen.

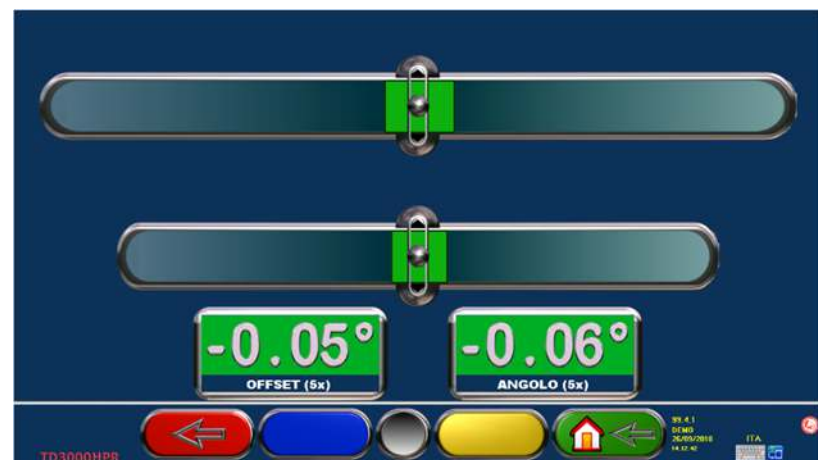


Shifting indication



Rotation indication

Once the operation is completed (the cursors of both adjustments are in the middle and the values are highlighted in green), clamp the frame and press F4 to terminate the procedure and go back to the program home page.



Clamping of the rotation frame

The frame alignment procedure behind the vehicle is over, from here on follow the indications provided by AUTEL for the calibration of ADAS devices.