# **Dual Axis Caster/Camber Gauge**

## Instructions



### Using the Dynamic Caster/Camber Gauge

Note: This is a dynamic caster & camber gauge. It does not measure static caster. To measure static caster, you will need to sweep the wheels using a traditional gauge. (You may use this gauge to measure the static caster angle off of the spindle, if you have a reference point on your spindle that is parallel with the king pin.)

#### **Camber**

Camber is measured on the "Y" axis of the gauge, bottom line of the display. DO NOT USE THE + or – SYMBOL AS AN INDICATOR FOR POSITIVE or NEGATIVE CAMBER. Always use the bubble level on the right hand side of the screen. If the bubble is at the top of the circle (closest to the car), you have positive camber. If the bubble is at the bottom of the circle (closest to you), you have negative camber.

#### Caster

Caster is measured on the "X" axis of the gauge, top line of the display.

DO NOT USE THE + or – SYMBOL AS AN INDICATOR FOR POSITIVE or

NEGATIVE CASTER. Always use the bubble level on the right hand side of the screen.

Right Front: If the bubble is at the top *right* hand side of the circle, you have positive caster. If the bubble is at the top *left* hand side of the circle, you have negative caster.

Left Front: If the bubble is at the top *left* hand side of the circle, you have positive caster. If the bubble is at the top *right* hand side of the circle, you have negative caster.

(Remember, if the gauge is tilted toward the driver, you have positive caster. If the gauge is tilted away from the driver, you have negative caster.)

#### **Tilt**

The Tilt reading is the diagonal angle from corner to corner of the gauge.

### Using the Dynamic Caster/Camber Gauge

The benefit of this dual axis gauge is to quickly measure both caster and camber simultaneously while motioning the suspension. Instantly read camber and caster changes at any point during suspension travel. The gauge works by being connected to the spindle pin. As the spindle pin rotates with caster change, the gauge rotates with it.

#### **Procedure:**

- 1. Place the gauge on to the axle alignment fixture shaft or thread directly onto the spindle.
- 2. Rotate the gauge to the known caster setting. Example: If you have 2 degrees positive caster, rotate the gauge toward the driver until the top line reads 2 degrees.
- 3. Motion the chassis.
- 4. Read the caster on the top line. Remember to check the bubble to determine positive or negative.
- 5. Read the camber on the bottom line. Remember to check the bubble to determine positive or negative.

## Understanding the Function Buttons

Zero Function: If pressed, the current reading on the LCD screen is zeroed and display a  $\Delta$  (delta). This is not a calibration function. The zeroing function can be used to see camber and caster change during suspension travel. Ex: Once the gauge is mounted to the spindle, and it shows that you have  $-3^{\circ}$  of camber in the Right Front, you can hit the zero function which will then display zero on the screen. Once the screen is showing  $0^{\circ}$  of camber, you can motion the car and the gauge will give you the total camber gain/loss.

\*\*Typically we do not use this function to read total gain in camber/caster\*\*

\*\*\*Be careful not to have the gauge zeroed by accident. If you see the  $\Delta$  (delta) symbol, press the zero button to turn it off.

Hold Function: Once this button has been pressed, it freezes the reading on the screen. The indicator for this function [o] will begin to blink. Simply hit "HOLD" again to unfreeze the reading on the screen.

This button also serves as mode function. If the [o] is displayed at the top of the screen then the gauge is in Degree mode. If the [mm] is displayed at the top of the screen then the gauge is in mm/M. This is the height of one end for a 1M long plate.

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# Calibration

Press and hold the SET button on the gauge. This will bring you to a display screen that reads:

- Factory Set
- Calibration
- Buzzer
- Power
- Back

\*\*Use the HOLD button to navigate/scroll down the screen to reach Calibration. Then select calibration using the SET button.

 Lay the gauge down flat and press SET. You should hear a beeping noise; once the noise has ended rotate the gauge 180°.



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• Once the gauge is rotated 180° press SET.





• Now, stand the gauge upright and press SET.



Rotate the gauge 180° and press SET



Lay the gauge down on its side and press SET



• Final step, rotate the gauge 180° and press SET. Once you have done this last step, the gauge has been fully calibrated and ready for use.

