

Instructions String Wheel-aligner - Toe Adjustment

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Wheel alignment is very important - and an undesired Toe setting can impact a vehicles performance/lap times significantly.

The **WHITELINE** String Aligner is ideal for performing final Toe adjustments - either at the track - or in your garage. The kit is universal and will work with most vehicles.

• Start by confirming vehicle is on flat, level ground, sitting at ride height. For best results, place the tyres on turn-tables. Refer image below.



Tip: If turn-tables are not available, use something slippery, such as plastic shopping bag, or cardboard (WD40 can be applied to inside of plastic bag).

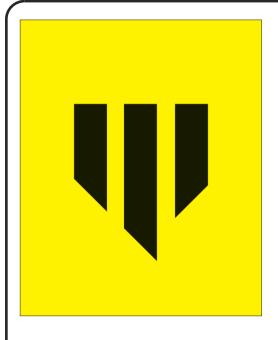
Refer RH image.

Vehicles is on flat level ground while on turn tables front and rear

(all 4 turn tables are of the same height)



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Protective foam

· Lift Bonnet and boot lid.

Proceed to construct items and roughly position /hang as per RH and below images.

 Note the black centre section is completely adjustable with many holes and threaded hand-tightened retainers - to suit many vehicles.

Medium length vertical rods

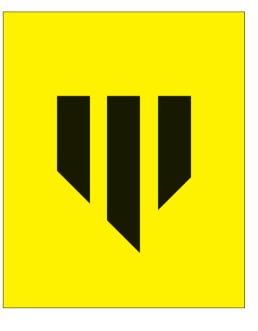
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Black plastic retainers





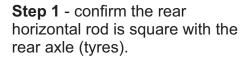




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• Before any measurements are noted, both horizontal rods need to be square with the car.



 Take a measurement from back of rear tyres (or rims) to the rear horizontal rod.

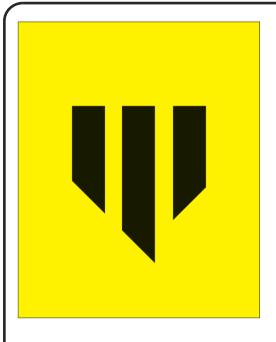
Slide the bars slightly until LH and RH values are equal.





 Refer image - left and above, with arrows near rear tyres.

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- **Next** confirm the front horizontal rod is square with the rear rod.
- Use a tape measure, to measure distance between front and rear rods from both LH ans RH sides
- Next confirm the height of both front and rear horizontal rods are same - note vertical arrow in RH image



• **Next** - place the supplied string in the 3rd groove from the centre - on both sides (if possible).

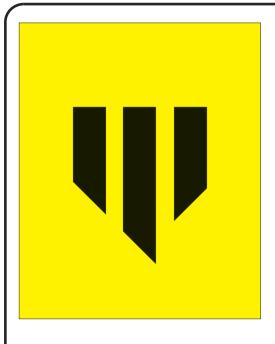


 Now measure from centre-line of wheel/hub to the string line (both sides)

Refer LH image

- Confirm value for LH and RH sides are of equal value on that axle
- The lower horizontal rod can be slide left to right to fine tune.

NOTE - the value for front and rear wheels can vary due to staggered rims.



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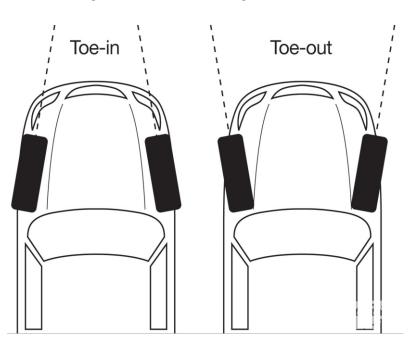
 Note - prior to any adjustment, WHITELINE recommends locking the steering wheel in the "straight ahead' position. Suggest using a rope or strap and tie to front seat.

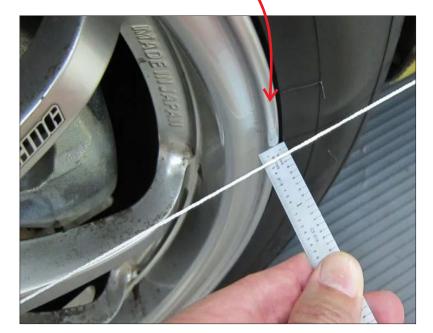
IMPORTANT - now is best time to go back and re-check all distances and heights before measuring the Toe value.

 Lastly, before measurements are taken, understand the Toe value you set out to achieve.

Refer RH image displaying "toe Inverse toe Out"

 Refer below image - a steel ruler will perform well with accurate results.
 Simply measure front of rim AND rear of rim - on a horizontal plane. Measure both LH and RH rim.





 Simply add both LH and RH sides value (both front values) - followed by both rear values.

Minus the smaller value from the larger value to understand the cars total Toe setting.

- A higher front value = Toe in
 A higher rear value = Toe out
- Turn the vehicles tie-rods or turnbuckles to fine tune.

Note - camber values may change very slightly after a toe change. Toe settings should always be the last adjustment during a wheel alignment.