Alignment System

AS-10

Version 06/2003

With your ANDYTEC AS-10 system you have got an alignment gauge that allows perfect measuring within minimum time – provided right handling.

You can determine the exact toe-in or toe-out value for each wheel. For this it is not necessary to place the car on an absolutely flat or even floor. The AS-10 is conceived for use also in the pitlane or uneven paddock without loss of accuracy.

Important is just a fairly precise pre-adjustment, which takes about ten minutes once per car. Please read this manual for that.

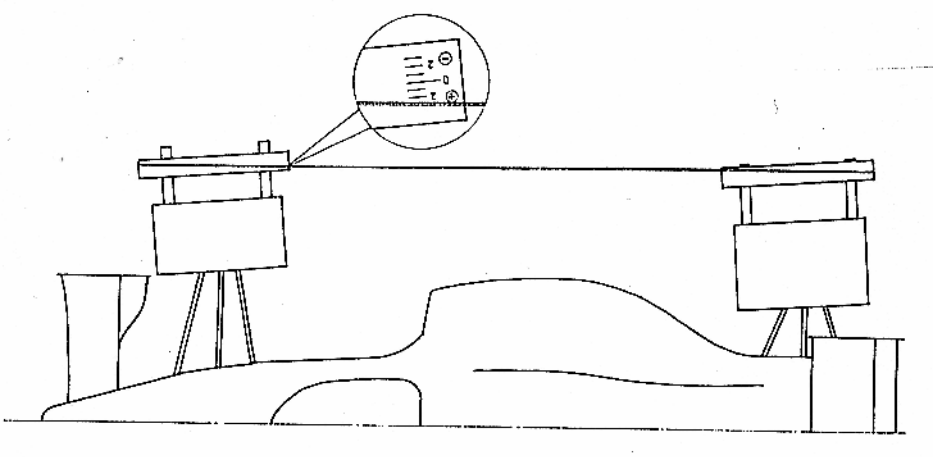
The AS-10 is constructed for hard employment. There are no parts that can excessively wear or corrode. We preferred to design the parts simple and sturdy and to use best materials, rather than to include sophisticated technical features.

Nevertheless we suggest to store it in the ANDYTEC transportation box or other suitable containers.

In case there should occur problems with damaged parts, please contact your dealer or us.

Measuring Principle

The toe angle is the angle between wheel and the car's longitudinal axis. The AS-10 simulates this with a parallel string.
A measuring bar that lies parallel to the wheel under that string accordingly exactly forms the toe angle.
When toe-in or toe-out are determined in millimetres that value is the difference of wheel rim to longitudinal axis. It can be read on the AS-10 rulers.
For this purpose the bar ends and therefore the string have to be set parallel to the longitudinal axis first.
Is the car wider in the rear, the rulers have to be further out on the wheels or further in on the rear wheels.



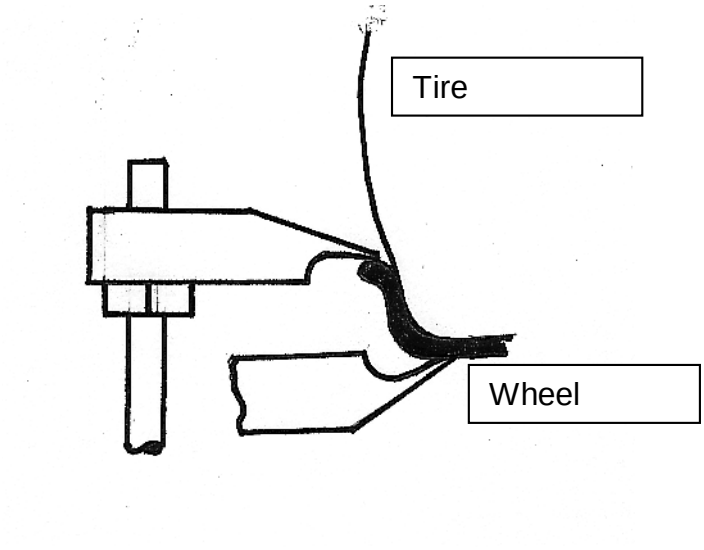
Attachment

1. Attaching the adaptors

The AS-10 is fixed to your car's wheels with either universal or custom-made adaptors.
Thereby it does not matter if the adaptors are sitting exactly centrical – as long as the rulers' ends are closely lying at the wheels' rims.
For that, open the black Allen screws at the ruler carriers and set them to wheel diameter.

Universal adaptors

Set the hooks on the threaded rod in order to clamp them into the wheel rim. You can also turn the hooks around for clamping to the wheel's inside.
The adaptor will sit quite loose – no problem, it will be fixed by the measuring rulers toching the wheel rim.



Special adaptors

If you have ordered custom-made adaptors for your car, they will come with a special manual.

2. Attaching the measuring frames

The frames are marked. An arrow shows the driving direction, a line shows the wheel position.

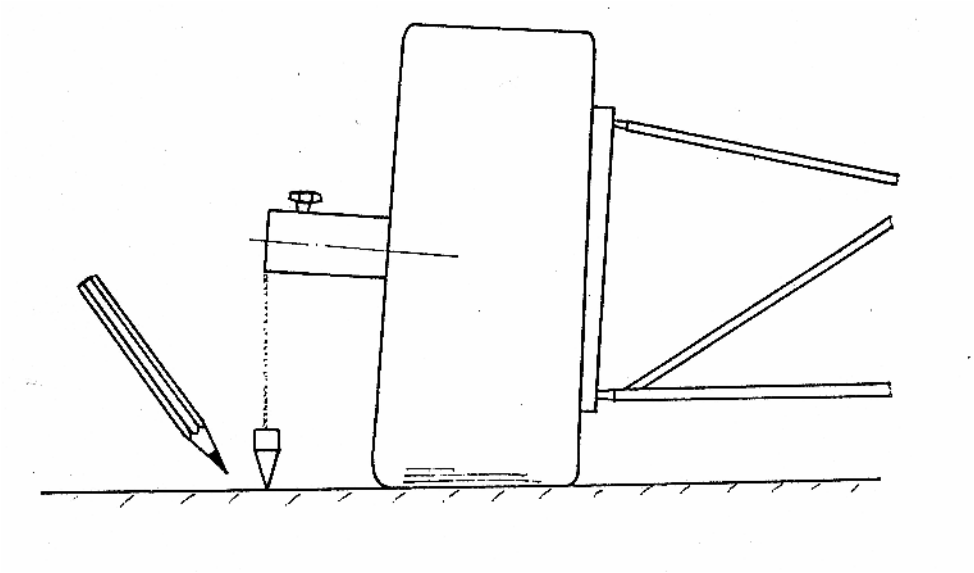
Plug the frames into the adaptors and slightly fix them with the adaptor's knurled screw.
Loosen the M6 Allen screw on the ruler mounting blocks and set them to wheel diameter. Now you can put the rulers underneath the knurled screws. Do not fix the screws as the rulers have yet to be adjusted.
Pull out the string, place it through the slot at the rear frame's end screw, pull it to the front frame, through the slotted screw there, down to the center triangle and hang it into the little screw there. Tension the string and fix its reel.

Presetting

Pre-setting has to done once for any new car and should be checked after bigger geometrical changes of the chassis or after accidents.

The principle:
A mathematical example: The front axle is 1600mm wide, the rear axle 1700mm. So the front frames have to be 50mm further off the rims than the rear ones. Accordingly set the rear rulers to "25mm" and the front ones to "75mm".

The easiest solution if no geomry data is available: Mount the adaptors, plumb to the ground and make a mark for each wheel. Then measure the distances and determine the axle width difference.



Notice:
It is absolutely sufficient to obtain a tolerance of +/- 2mm. The resulting measuring mistake will still be hardly readable.

Measurement

Turn the steering to straight position, attach the frames and put on the string.
Read the string's difference to the frame's marking groove on the ruler scale. This value now means toe-in or toe-out in millimetres.

Limitation of liability

With the ANDYTEC AS-10 you are owning an instrument thats precision is only depending on how you handle it. As a result, ANDYTEC can in no way guarantee for the exactness of the measuring results.
Therefore we accept no liability for the unlikely case of damage of tires, cars, persons etc.
With employment of the AS-10 the user is accepting this limitation of liability.

For damages on the instrument itself that are result of production faults we give a warranty of 24 months.

ANDYTEC - Löschner & Winkel GBR
Prielerstr.13
85232 Lauterbach
Tel +49-8135-993808
Fax +49-8135-993809
info@andytec.de

www.andytec.de