

 <p>AUTO CARE ★ USA ★ AUTOMOTIVE EQUIPMENT</p>	<p style="text-align: center;">Auto Care USA a division of Northwest Equipment Manufacturing, Inc. 122 East Reserve Dr. • Kalispell, MT 59901 USA • Office: 406-755-0805 • Fax: 406-755-0813 nwEquipmentSales.com</p>	 <p>Northwest Equipment Mfg. Inc.</p>
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Alignment Procedure

(See the complete instructions for selecting and preparing the alignment area.)

Drive the car forward to the edge of the rectangles you have painted on the floor. With the turntable locking pins in place, firmly wedge the tapered edge of a turntable under the front of each tire. Slowly drive the vehicle forward until it is centered on the turntables. (The car should not be backed into checking position as inaccurate readings may result.) Apply the brakes gently to prevent the turntables from sliding. If sliding occurs, use a piece of rubber mat under each turntable. (Level the plates to compensate for the mat.)

Next, hold the brakes with a brake pedal depressor. This is important, as any rolling of the wheel on the turntable will cause an inaccurate caster and kingpin inclination reading. Raise the back end of the car and place a rear wheel platform with slip plate under the center of each rear wheel. Lower the jack and you are ready to take your readings.

1. Remove the locking pins from the turntables. Grasp the center of the front bumper and bounce the front end up and down vigorously. Let the car settle back slowly and equally from the top of the final bounce. Make certain that both of the turntable pointers read 0° on the dial. If necessary, loosen the dial plate screws and adjust the dials to 0°.

2. Using a suitable tool remove both wheel disks and dust caps. Wipe off the machined end of the flange. Your magnetic gauge will rest on this surface. It is machined to a close tolerance and is the only machined surface on the outside of the wheel.

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Place the magnetic gauge in position. Rotate the gauge back and forth several times to provide a good seating. The gauge should now be firmly seated and no rocking motion should be evident.

It is suggested that a *chart* be made and all of the readings listed before making any corrections. (SEE page 4 for a blank chart. It is suggested you make copies of the blank chart before marking the readings.)

The front end should be checked in the following order, starting with the left wheel: Note, left and right directions refer to someone sitting in the driver's seat.

A. With the wheels straight ahead and the kingpin inclination bubble centered on 0°, you can now take the Camber reading directly from the center of the bubble on the Camber scale on the left side of the gauge. Write down the reading for the left wheel, indicating positive or negative.

B. Caster, Kingpin Inclination and Toe-Out on Turns are read at the same time. With both turntable pointers indicating 0°, turn the front of the left wheel to the right to the specified turning angle on the turntable dial. Go to the right front wheel and read the turntable dial. The amount indicated on the turntable dial is the toe-out on turns reading for the turning angle for the opposite wheel. Write down reading.

C. Go back to the left wheel. Rotate the gauge until the center of the kingpin inclination bubble reads 0 degrees and adjust the knob on the underside of the gauge until the center of the Caster bubble reads 0 degrees. Then turn the front of the wheel out to the specified turning angle. The center of the bubble at the top of the gauge will now indicate the correct kingpin inclination and the center of the bubble on

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the caster scale on the right side of the gauge will indicate the amount of caster and whether negative or positive. Write down the readings. Repeat the same operation at the right wheel and write down the readings.

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	LEFT WHEEL	RIGHT WHEEL	DESIRED READING
CAMBER			
CASTER			
KINGPIN			
TOE-OUT ON TURNS			
TOE-IN			