

2014 - 2016 Corvette: GM TechLink: Digital Angle Gauge Required for Corvette Rear Wheel Alignment

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As part of a rear wheel alignment on the 2014-2016 Corvette for track events and competitive driving, the rear wheel caster must be set. To measure rear wheel caster, a digital angle gauge and an adapter, which attaches the gauge to the rear knuckles, are required. The gauge must be capable of accurately measuring to 0.1 degree. It must also have a calibration feature and a magnetic base so it will attach to the adapter.

Adjusting rear caster was not part of the alignment process on the 6th generation Corvette. For the C7 Corvette introduced in 2014, the rear caster adjustment allows for the ideal suspension geometry regardless of factory build variation. Rear caster accuracy and symmetry is an important aspect of the ride steer performance. Even small changes in rear steering angle can have a big effect of vehicle handling.

Digital Angle Gauge

The digital angle gauge required to measure the caster angle is available through GM Tools and Equipment but is not an essential tool for the Corvette as there are several suppliers available in the aftermarket.

Tool suppliers that offer the gauge include:

- GM Tools and Equipment; order tool number CH-47960, Digital Angle Gauge, (Fig. 8) directly from gmtoolsandequipment.com
- Wixey WR300; contact support@wixey.com
- iGauging AngleCube; contact info@iGaging.com or call 1-949-366-5708

Fig. 8

Digital Angle Gauge Adapter

The Digital Angle Gauge Adapter, CH-47960-10, is custom-designed to fit the Corvette knuckle. (Fig. 9) It is not available in the aftermarket and was shipped to all authorized Corvette dealerships as part of the essential tool package for Corvette for the 2014 model year.

Fig. 9

Available as Loan Tools (U.S.)

Both the Digital Angle Gauge, CH-47960, and the mounting adapter CH-47960-10, are available through the new GM Loan Tool Program. The Loan Tool Program enables dealerships to request a special tool through the GM Special Tools Website.

Dealerships must access the GM Special Tools website through the GlobalConnect link in order to enable the Loan Tool button on the website. Once ordered through the website, the tools will be sent to the dealership the next business day.

Rear Wheel Alignment

When performing the rear wheel alignment, adjust the camber settings first, followed by the caster and toe settings. Follow the appropriate Service Information procedure for each adjustment, including using the alignment specifications provided.

Before installing the gauge mounting adapter to the knuckle, use a soft nylon bristle brush to clean debris from the adapter holes. Install the digital angle gauge and the gauge mounting adapter as a

unit to the knuckle. (Fig. 10)

Fig. 10

Use an alignment machine to measure rear wheel camber and the digital angle gauge to measure rear wheel caster. Rotate the cam bolts to the required camber and caster settings, maintaining the settings while tightening the cam bolt nuts.

– *Thanks to Jeff Strausser*

Online URL: <https://www.corvetteactioncenter.com/tech/knowledgebase/article.php?id=1281>