



Instructions For No. 78290 Digital Caster/Camber Gauge (ver. 2)

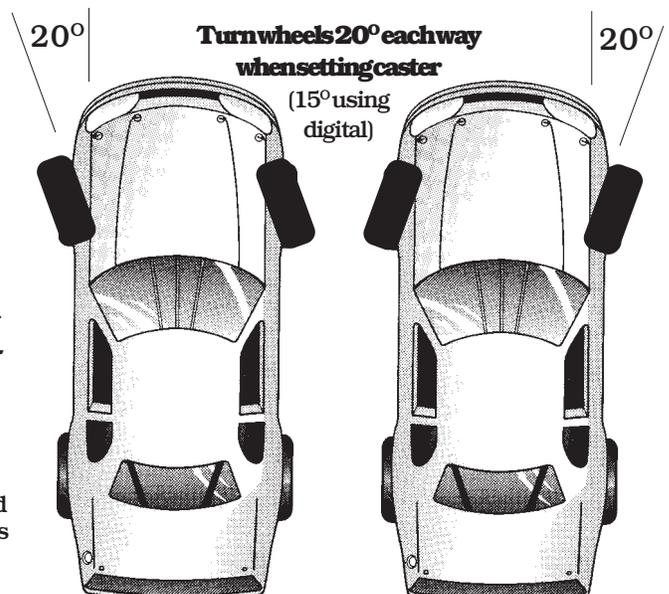
- 1) Find a level place to set up your front end. This unit reads camber very accurately. Unlevel ground will affect that accuracy.
- 2) Attach the gauge to the spindle. Be sure that the surface you attach to is machined square to the spindle and doesn't have any nicks or burrs.
BE SURE WHEELS ARE POINTED STRAIGHT AHEAD WHEN SETTING CAMBER.
- 3) Rotate the gauge until the small vial on the top of the gauge shows level.
- 4) **CAMBER:** Turn on the **AccuLevel™** Digital Readout by pushing "ON/OFF". Camber is read directly on the display to $.1^{\circ}$ ($1/10^{\circ}$). See separate **AccuLevel™** instructions if needed. On the left side of the display a \blacktriangle pointing up indicates negative camber (top of tire in). A \blacktriangledown pointing down indicates positive camber (top of tire out). Race cars usually use negative camber on RF and positive camber on LF.
- 5) **CASTER** is measured with the vial on the top - from 4° negative to 12° positive. First turn the wheels 20° to the right when setting the RF or 20° left when setting LF. Rotate the gauge until it is level.
- 6) Turn the knurled nob in the center until the center castervial reads 0° . Now turn the wheels back past center to 20° the opposite way - for a total of 40° . Rotate the gauge again to level (DON'T turn knurled knob). Read the Caster directly on the vial. Read to the center of the bubble. Each line is $1/2^{\circ}$.
- 7) Adjust the caster and camber as needed. Each time you make a change bounce on the front end to settle the suspension. **NOTE:** Adjusting the caster may have an effect on the camber and vice versa. Tighten bolts & double check all settings.
CASTER NOTE: If you wish to measure caster to $.1^{\circ}$ ($1/10^{\circ}$) on the digital readout please see supplemental instructions. Caster measured with the vial on top is to $1/2^{\circ}$.

See these separate instructions for the **AccuLevel™** on the reverse of this if needed. It can be removed and used for other measurements. Simply slide **AccuLevel™** out (it's held in place with magnets).

Warning:

Do Not leave the gauge in the hot sunlite or store in a place over 120° F. The digital display may not be readable and/or breakage of the vials could occur due to heat expansion.

Once it cools down the digital display should be visible again. Replacements for broken vials can be ordered from any authorized dealer or the factory. Replacement is quick and simple with no loss of accuracy.



Longacre® SETTING DIGITAL CASTER ONLY

OPTIONAL: Setting Caster To $.1^\circ$ ($1/10^\circ$)

- 1) To set **CASTER** more precisely using the **AccuLevel™** digital readout (instead of the vial) first turn the wheels 15° (*this is different than when using vial type gauges*) to the right when setting the RF or 15° left when setting LF. Rotate the gauge until it is level.
- 2) Turn on the **AccuLevel™** and push **ZERO** to zero degrees at that point (shows **00.0°**).
- 3) Turn wheels back to center and continue to 15° in the other direction (a total of 30°). *Again this is different than when using vial type gauges.* The 15° must be done accurately. An error of even 1 or 2° turning will give a noticeable caster error. Consider turnplates for the best accuracy.
- 4) Rotate gauge to level. Read the digital display and **DOUBLE THE NUMBER FOR (TOTAL) CASTER**, accurate to $.1^\circ$. For example display reads $1.8^\circ \times 2 = 3.6^\circ$ caster.

Using 15° rather than 20° wheel turning is sometimes better on race cars. On some front ends it can be difficult to turn the wheels a full 20° , which will cause an error in the caster reading. Gauges are calibrated to use either 15° or 20° turning and cannot be interchanged.

AccuLevel™ can be removed and used for other measurements. Simply slide it out (it's held in place with magnets).

AccuLevel™



Turn on: Push **ON/OFF**. **AccuLevel™** is ready to use. **ABS** will appear on the display if the unit is in Absolute Angle Measurement Mode. If it does not display **ABS** push **ZERO**.

Zero: The **ZERO** button is **ONLY** used to compare one angle to another. Place **AccuLevel™** on an angled surface and push **ZERO**. The display will go to **00.0** and **ABS** will disappear. Move to a different surface to compare angles. **FOR NORMAL USE ABS MUST BE ON DISPLAY.** Push **ZERO** again to go back to Absolute Angle Measurement (**ABS**) Mode.

To hold reading: Push "**HOLD**". The display will show **HOLD** and flash. When **HOLD** stops flashing (approx. 6 sec.) the reading is held on the display. **AccuLevel™** must be held very steady during this 6 seconds. Push "**HOLD**" again to go back to absolute reading.

To CALIBRATE: Place **AccuLevel™** on a reasonably level table top (does not need to be perfectly level). Push **ON/OFF** and hold for 6 seconds and release. Push **ON/OFF** again and **-1-** appears on the display. Push **ZERO**. **-1-** will begin to flash and in a few seconds **-2-** will appear. Turn unit around 180° in the same spot and push **ZERO** again. **-2-** will begin to flash and in a few seconds normal readings will reappear. Calibration is now complete. This takes less than 30 seconds.

DIGITAL CASTER ONLY

