

GAGE RAGE

I have a '73 Duster 340 that I've owned for less than a year. When I got it, the temperature and fuel gauges were burned out, I paid some good bucks for NOS ones. Today, while driving, both gauges pinned for a minute or two, now they read zero. Please tell me they aren't burned out again...?

—**Herman Hoffman, Springfield, IL**

Herm—

Yes, they are toast. The points temporarily stuck closed on the regulator (called a "limiter" by Chrysler) applying full charging system voltage, approx. 13.5 volts, to the gauges, which are supposed to run on



The factory calls the 5-volt instrument regulator a "limiter" (it's not). But it does supply the reference voltage for the gauges. The most common style is the PCB plug-in one shown here. Some cars, notably those with no PCB, use a different case and terminals, some have it built into a gauge. In all cases the function is identical.



We devised a cheap solid-state replacement for the stock electromechanical regulator a decade ago, but the latest one from Real Time Engineering (bottom) is much better. (Photo: G. Garner)

5 volts. Or, it temporarily lost the ground circuit, which has the same effect—fried gauges (and sometimes the fuel sender, too).

You can plug in a new stock regulator, check the ground circuit, and all will be fine for a while (after you change the gauges again!) A few years back, we published a way to use a solid-state 5V regulator, which has worked OK, with a few drawbacks: (1) it gets pretty hot, and (2) the gauges take longer to come up to the correct reading (this is because the stock electromechanical regulator applies full B+ for a few seconds which gets the gauges, which are thermal, warmed up quickly).

Now there's a much better way. Real Time Engineering (www.rt-eng.com) has introduced a true custom-designed solid-state regulator, which solves virtual all operational problems as well as providing 100% rock-solid protection for the gauges, even in an open-ground condition! They make this gizmo in both the popular plug-in-the-PCB style (which you need) as well as the E-body hard wired style. I have swapped the entire MA fleet to them (except the Green Brick, which now has self-regulating AutoMeter gauges). How's that for an endorsement?