

Calibrating VDO speedometer

If you have determined that your speedometer is reading high or low it is easy to re-calibrate using the following method. I recommend using a GPS unit to determine the correct speed first and note what the speedometer reading shows, this should be done at cruise speed somewhere around 60-70 MPH depending on local laws and conditions. I will use my calibration as an example to show how to do the re-calibration.

After you have determined the actual speed vs. the speedometer readout (mine was reading 70 when the actual speed was 68 with new tires) look at the back of the speedometer and note the position of the 10 switches that are used to set the calibration of the speedometer. **MAKE SURE YOU RECORD THE SWITCH SETTINGS SO YOU MAY RETURN TO ORIGINAL SETTING IF MISTAKE IS MADE!!** Use the VDO PDF as a reference.

Original switch setting:

1	2	3	4	5	6	7	8	9	10	(switches)
off	off	on	off	off	on	off	off	off	off	(setting)
0	0	1	0	0	1	0	0	0	0	= 39548-40100

Using the speed reference of 68 MPH = 39548-40100, I need to calculate what the number would be for a reading of 70 MPH.

$$\frac{68=39548}{70 \quad X} \quad 68X=38548 * 70, \quad X=\frac{38548*70}{68} \quad X=40711$$

Looking up 40711 in the VDO table shows the number falls between 40670-41254, the switch settings should be:

1	2	3	4	5	6	7	8	9	10	(switches)
off	off	on	off	off	off	on	on	on	off	(new setting)
0	0	1	0	0	0	1	1	1	0	= 40670-41254

You can go up or down one set of switch settings if your readout isn't exactly correct and should get it with in +/- 1 MPH.

The above example was from a 1994 Breakaway with new 8R19.5 tires on the rear and 4.1 rear diff ratio. Any other tire diff/combo will result in a different number but the calculation method is the same and will work.

Link to VDO PDF:

<http://www.mwrench.com/barth/Speedometer/VDO%20speedometer.pdf>

Ed
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