

Dakota Digital

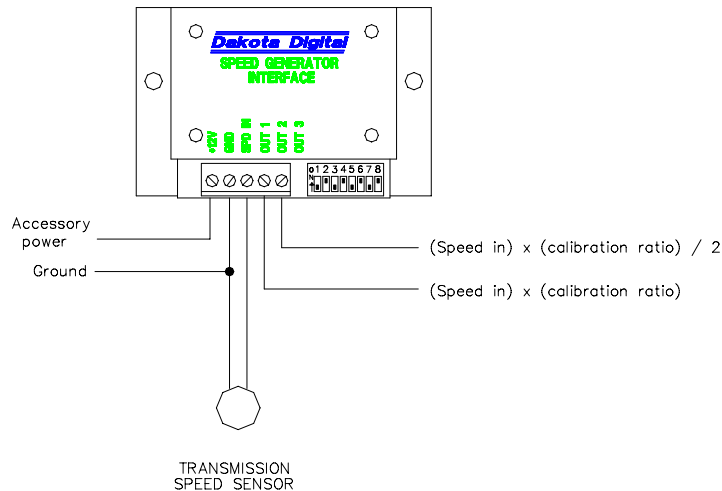
SGI-3 SPEED GENERATOR INTERFACE UNIT

When changing the rear end or tire size of newer vehicles the speedometer is no longer calibrated correctly and your speedometer reading is incorrect. The SGI-3 will allow you to adjust speedometers connected to transmissions without standard speedometer cables. These transmissions have internal pulse generating sending units that have an output of 4000 pulse per mile. This unit will also provide a correctly calibrated 2000 pulse per mile signal which is usually needed to drive aftermarket and stock cruise controls.

The SGI-3 has an adjustable range of correction from x2.00 to x0.502 which is broken into 256 steps. Calibration is set using the 8 DIP programming switches according to the chart on the following page. Wiring instructions are provided below.

The connection is as follows:

+12V	+12 VOLT FUSED CIRCUIT
GND	CHASSIS GROUND
SPD IN	SPEED SIGNAL INPUT
OUT 1	SPEED OUTPUT (SPEED IN x CAL RATIO)
OUT 2	SPEED OUTPUT (SPEED IN x CAL RATIO ÷ 2)
OUT 3	not used



Determining required calibration ratio.

(Actual speed) ÷ (Speedometer reading) = calibration ratio

If you are traveling at 55 mph and your speedometer shows 64 mph your calibration ratio would be $55 \div 64 = 0.8594$.

From chart, 0.8951 is [off-on-off-on-off-on-on-off].

Dakota Digital

4510 W. 61ST St. N., Sioux Falls, SD 57107
Phone: (605) 332-6513 FAX: (605) 339-4106

www.dakotadigital.com
dakotasupport@dakotadigital.com

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								A zero switch value represents an ON position. A one switch value represents an OFF position.																		
#	#	#	#	#	#	#	#	cal ratio	#	#	#	#	#	#	#	#	cal ratio	#	#	#	#	#	#	#	cal ratio	
1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8	
0	0	0	0	0	0	0	0	2.0000	0	0	0	0	0	1	0	1.3333	0	0	0	0	0	0	1	1	0.6667	
1	0	0	0	0	0	0	0	1.9845	1	0	0	0	0	0	1	1.3264	1	0	0	0	0	0	1	1	0.6632	
0	1	0	0	0	0	0	0	1.9692	0	1	0	0	0	0	1	1.3196	0	1	0	0	0	0	1	1	0.6598	
1	1	0	0	0	0	0	0	1.9542	1	1	0	0	0	0	1	1.3128	1	1	0	0	0	0	1	1	0.6564	
0	0	1	0	0	0	0	0	1.9394	0	0	1	0	0	0	1	1.3061	0	0	1	0	0	0	1	1	0.6531	
1	0	1	0	0	0	0	0	1.9248	1	0	1	0	0	0	1	1.2995	1	0	1	0	0	0	1	1	0.6497	
0	1	1	0	0	0	0	0	1.9104	0	1	1	0	0	0	1	1.2929	0	1	1	0	0	0	1	1	0.6465	
1	1	1	0	0	0	0	0	1.8963	1	1	1	0	0	0	1	1.2864	1	1	1	0	0	0	1	1	0.6432	
0	0	0	1	0	0	0	0	1.8824	0	0	0	1	0	0	1	1.2800	0	0	0	1	0	0	1	1	0.6400	
1	0	0	1	0	0	0	0	1.8686	1	0	0	1	0	0	1	1.2736	1	0	0	1	0	0	1	1	0.6368	
0	1	0	1	0	0	0	0	1.8551	0	1	0	1	0	0	1	1.2673	0	1	0	1	0	0	1	1	0.6337	
1	1	0	1	0	0	0	0	1.8417	1	1	0	1	0	0	1	1.2611	1	1	0	1	0	0	1	1	0.6305	
0	0	1	1	0	0	0	0	1.8286	0	0	1	1	0	0	1	1.2549	0	0	1	1	0	0	1	1	0.6275	
1	0	1	1	0	0	0	0	1.8156	1	0	1	1	0	0	1	1.2488	1	0	1	1	0	0	1	1	0.6244	
0	1	1	1	0	0	0	0	1.8028	0	1	1	1	0	0	1	1.2427	0	1	1	1	0	0	1	1	0.6214	
1	1	1	1	0	0	0	0	1.7902	1	1	1	1	0	0	1	1.2367	1	1	1	1	0	0	1	1	0.6184	
0	0	0	1	0	0	0	0	1.7778	0	0	0	0	1	0	1	1.2308	0	0	0	0	1	0	1	1	0.6154	
1	0	0	1	0	0	0	0	1.7655	1	0	0	0	1	0	1	1.2249	1	0	0	0	1	0	1	1	0.6124	
0	1	0	0	1	0	0	0	1.7534	0	1	0	0	1	0	1	1.2190	0	1	0	0	1	0	1	1	0.6095	
1	1	0	0	1	0	0	0	1.7415	1	1	0	0	1	0	1	1.2133	1	1	0	0	1	0	1	1	0.6066	
0	0	1	0	1	0	0	0	1.7297	0	0	1	0	1	0	1	1.2075	0	0	1	0	1	0	1	1	0.6038	
1	0	1	0	1	0	0	0	1.7181	1	0	1	0	1	0	1	1.2019	1	0	1	0	1	0	1	1	0.6009	
0	1	1	0	1	0	0	0	1.7067	0	1	1	0	1	0	1	1.1963	0	1	1	0	1	0	1	1	0.5981	
1	1	1	0	1	0	0	0	1.6954	1	1	1	0	1	0	1	1.1907	1	1	1	0	1	0	1	1	0.5953	
0	0	0	1	1	0	0	0	1.6842	0	0	0	1	1	0	1	1.1852	0	0	0	1	1	0	1	1	0.5926	
1	0	0	1	1	0	0	0	1.6732	1	0	0	1	1	0	1	1.1797	1	0	0	1	1	0	1	1	0.5899	
0	1	0	1	1	0	0	0	1.6623	0	1	0	1	1	0	1	1.1743	0	1	0	1	1	0	1	1	0.5872	
1	1	0	1	1	0	0	0	1.6516	1	1	0	1	1	0	1	1.1689	1	1	0	1	1	0	1	1	0.5845	
0	0	1	1	1	0	0	0	1.6410	0	0	1	1	1	0	1	1.1636	0	0	1	1	1	0	1	1	0.5818	
1	0	1	1	1	0	0	0	1.6306	1	0	1	1	1	0	1	1.1584	1	0	1	1	1	0	1	1	0.5792	
0	1	1	1	1	0	0	0	1.6203	0	1	1	1	1	0	1	1.1532	0	1	1	1	1	0	1	1	0.5766	
1	1	1	1	1	0	0	0	1.6101	1	1	1	1	1	0	1	1.1480	1	1	1	1	1	0	1	1	0.5740	
0	0	0	0	1	0	0	0	1.6000	0	0	0	0	1	1	0	1.1429	0	0	0	0	1	0	1	1	0.5714	
1	0	0	0	1	0	0	0	1.5901	1	0	0	0	0	1	1	1.1378	1	0	0	0	0	1	0	1	0.5689	
0	1	0	0	0	1	0	0	1.5802	0	1	0	0	0	1	1	1.1327	0	1	0	0	0	1	0	1	0.5664	
1	1	0	0	0	1	0	0	1.5706	1	1	0	0	0	1	1	1.1278	1	1	0	0	0	1	0	1	0.5639	
0	0	1	0	0	1	0	0	1.5610	0	0	1	0	0	1	1	1.1228	0	0	1	0	0	1	0	1	0.5614	
1	0	1	0	0	1	0	0	1.5515	1	0	1	0	0	1	1	1.1179	1	0	1	0	0	1	0	1	0.5590	
0	1	1	0	0	1	0	0	1.5422	0	1	1	0	0	1	1	1.1130	0	1	1	0	0	1	0	1	0.5565	
1	1	1	0	0	1	0	0	1.5329	1	1	1	0	0	1	1	1.1082	1	1	1	0	0	1	0	1	0.5541	
0	0	0	1	0	1	0	0	1.5238	0	0	0	1	0	1	1	1.1034	0	0	0	1	0	1	0	1	0.5517	
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0	0	1	1	0	1	0	0	1.4884	0	0	1	1	0	1	1	1.0847	0	0	1	1	0	1	0	1	0.5424	
1	0	1	1	0	1	0	0	1.4798	1	0	1	1	0	1	1	1.0802	1	0	1	1	0	1	0	1	0.5401	
0	1	1	1	0	1	0	0	1.4713	0	1	1	1	0	1	1	1.0756	0	1	1	1	0	1	0	1	0.5378	
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0	0	0	0	1	1	0	0	1.4545	0	0	0	0	1	1	1	1.0667	0	0	0	0	1	1	0	1	0.5333	
1	0	0	0	1	1	0	0	1.4463	1	0	0	0	1	1	1	1.0622	1	0	0	0	1	1	0	1	0.5311	
0	1	0	0	1	1	0	0	1.4382	0	1	0	0	1	1	1	1.0579	0	1	0	0	1	1	0	1	0.5289	
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0	0	1	0	1	1	0	0	1.4222	0	0	1	0	1	1	1	1.0492	0	0	1	0	1	1	0	1	0.5246	
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0	0	0	1	1	1	0	0	1.3913	0	0	0	1	1	1	1	1.0323	0	0	0	1	1	1	0	1	0.5161	
1	0	0	1	1	1	0	0	1.3838	1	0	0	1	1	1	1	1.0281	1	0	0	1	1	1	0	1	0.5141	
0	1	0	1	1	1	0	0	1.3763	0	1	0	1	1	1	1	1.0240	0	1	0	1	1	1	0	1	0.5120	
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0	0	1	1	1	1	0	0	1.3617	0	0	1	1	1	1	1	1.0159	0	0	1	1	1	1	0	1	0.5079	
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0	1	1	1	1	1	0	0	1.3474	0	1	1	1	1	1	1	1.0079	0	1	1	1	1	1	0	1	0.5039	
1	1	1	1	1	1	0	0	1.3403	1	1	1	1	1	1	1	1.0039	1	1	1	1	1	1	0	1	0.5020	