Dakota Digital

SGI-5 rev. A
UNIVERSAL SIGNAL INTERFACE UNIT

This unit can recalibrate a speedometer signal or convert a speed signal from one type to another type. The different functions it can perform are as follows:

1. Recalibrate a high speed (64,000ppm – 250,000ppm) signal for an OEM speedometer or engine/transmission computer. **Do not use this unit to adjust a signal going to an anti-lock braking system.**
2. Recalibrate a low speed (8000ppm – 4000ppm) signal for an OEM or aftermarket speedometer or fuel injection computer.
3. Convert a high-speed signal found on newer GM transmissions down to a low speed signal to run a speedometer, cruise control, or fuel injection computer.
4. Convert an 8000ppm signal from an aftermarket signal generator to a 4000ppm or 2000ppm to run an OEM cruise control or fuel injection computer.
5. Convert a 16000ppm signal from a VDO Hall Effect signal generator to an 8000ppm, 4000ppm, or 2000ppm to run a cruise control or fuel injection computer.
6. Convert a 4000ppm signal from an OEM transmission speed sensor or ECM output to an 8000ppm signal for an aftermarket speedometer.
7. Convert a signal from a flywheel gear-tooth sensor to an ignition tachometer signal (diesel tachometer application).

Setup tips:

- If, without the interface, your speedometer reads much too fast, then you will most likely need to use application 3.
- If, without the interface, your speedometer reads about ½ what it should, then you will most likely need to use application 6.
- If your speedometer reads, but is just off, you will probably need application 1 or 2.

Each of the different applications will be described in detail in the following sections. Here is a general overview of the unit functions.

The unit has 10 switches on it for setting the calibration and signal type.

Switch #	OFF	ON
1	OUT3/4/5 set for high speed in	OUT3/4/5 set for low speed in
2	Slower output	Faster output
3-10	Calibration setting (see calibration table)	

The unit has 5 different outputs for speed signals. Some of the outputs are AC (a voltage output that goes above and below ground) and some are open collector (a switch that closes to ground). The output functions are as follows:

SW #1	Sig In	OUT1	OUT2	OUT3	OUT4	OUT5
OFF	64k-256k	128k AC	128k oc	8000 AC	4000 oc	2000 oc
ON	4k-16k	8000 AC	8000 oc	4000 AC	4000 oc	2000 oc

Connect the PWR terminal to 12V accessory, GND terminal to ground.

APPLICATION #1

Recalibrate a high speed (64,000ppm – 250,000ppm) signal for an OEM speedometer or engine/transmission computer. **Do not use this unit to adjust a signal going to an anti-lock braking system.** Anti-lock braking systems may not operate correctly or behave erratically due to the signal processing done to recalibrate the speed signal.

These speed sensors have a two-pin connector that plugs into the transmission or transfer case. One of the wires will be a ground and the other will be the signal wire. The wires will usually go up under the dash and into the speedometer, vehicle speed buffer, or engine/transmission computer. The signal wire will need to be cut so the SGI-5 can recalibrate it. The sensor side of the wire will go to the SIG IN terminal. The speedometer or buffer side will go to the OUT1 terminal. If the speedometer does not operate correctly after installation of the SGI-5 you may need to switch to OUT2 instead of OUT1. Connect the PWR terminal to a 12-volt accessory wire and connect the GND terminal to a good ground location.

Begin with the switches as follows and then determine how far off the calibration is.

1	2	3	4	5	6	7	8	9	10
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON

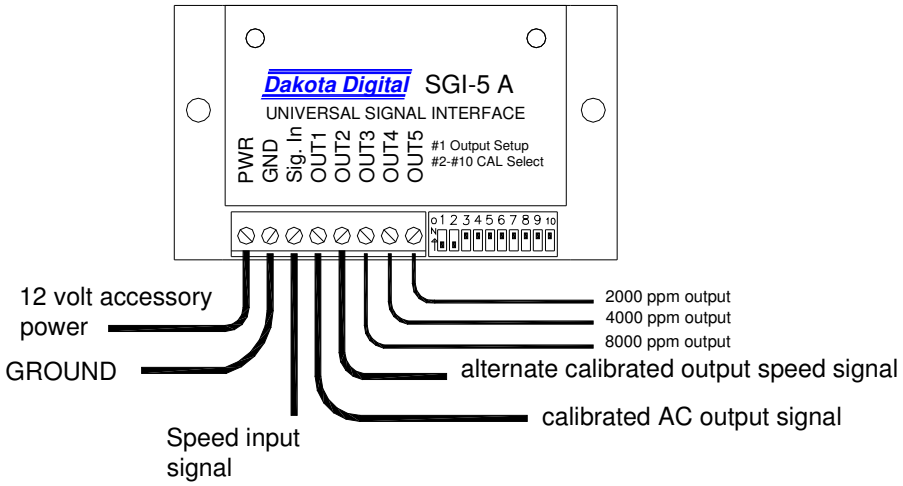
You can determine how far the speedometer is off by having it checked with radar or following another vehicle going at a set speed. Once you know how far it is off at a certain speed, use the following equation and then look up the switch setting in the table.

$$\frac{\text{Actual speed}}{\text{speedometer reading}} = \text{Cal ratio}$$

Switches #2 - #10 set the calibration adjustment. As an example, if you are following a vehicle going at 55 mph and your speedometer shows 60 mph, then:

$$\frac{55}{60} = 0.917$$

from the table: 2 3 4 5 6 7 8 9 10 = OFF-ON-ON-ON-ON-OFF-OFF-ON-ON



APPLICATION #2

Recalibrate a low speed (8000ppm – 4000ppm) signal for an OEM or aftermarket speedometer or fuel injection computer.

Either two wire or three wire sensors can be recalibrated with this unit. Two wire sensors will typically have one wire as a ground and the other as the signal. Three wire sensors will have an additional power wire. You must first determine which wire is the signal. The signal wire will need to be cut so the SGI-5 can recalibrate it. The sensor side of the wire will go to the SIG IN terminal. The speedometer or computer side will go to the OUT1 terminal. If the speedometer does not operate correctly after installation of the SGI-5 you may need to switch to OUT2 instead of OUT1. Connect the PWR terminal to a 12-volt accessory wire and connect the GND terminal to a good ground location.

Begin with the switches as follows and then determine how far of the calibration is.

1	2	3	4	5	6	7	8	9	10
ON	OFF	ON	ON	ON	ON	ON	ON	ON	ON

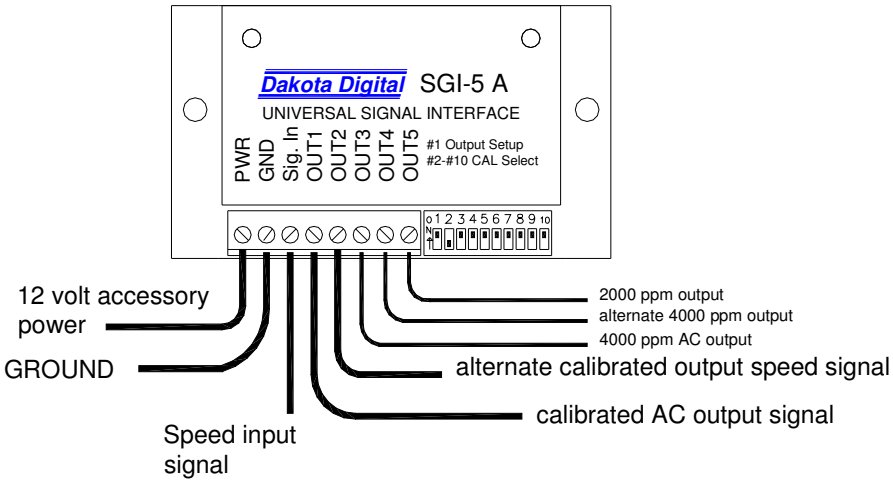
You can determine how far the speedometer is off by having it checked with radar or following another vehicle going at a set speed. Once you know how far it is off at a certain speed, use the following equation and then look up the switch setting in the table.

$$\frac{\text{Actual speed}}{\text{speedometer reading}} = \text{Cal ratio}$$

Switches #2 - #10 set the calibration adjustment. As an example, if you are following a vehicle going at 55 mph and your speedometer shows 60 mph, then:

$$\frac{55}{60} = 0.917$$

from the table: 2 3 4 5 6 7 8 9 10 OFF-ON-ON-ON-ON-OFF-OFF-ON-ON



APPLICATION #3

Convert a high-speed signal found on newer GM transmissions down to a low speed signal to run a speedometer, cruise control, or fuel injection computer.

These speed sensors have a two-pin connector on the transmission or transfer case. One of the pins will be a ground and the other will be the signal. The ground pin will go to the GND terminal along with the ground wire. The signal pin will go to the SIG IN terminal. It is best to twist the signal and ground wires from the sensor around each other. This helps eliminate any electrical interference. If nothing else is connected to the speed sensor it does not matter which pin is used as the ground. Connect the PWR terminal to accessory power. The output connections will depend on your particular application. Here are some typical examples:

OUT3, 8000ppm AC: most aftermarket speedometers and cruise controls
OUT4, 4000ppm oc: most TPI computers and some OEM cruise controls
OUT5, 2000ppm oc: most TBI computers and some OEM cruise controls

Begin with the switches as follows and then determine how far off the calibration is. If you are using an adjustable speedometer, then you can skip the SGI-5 calibration and use the speedometer's calibration routine.

1	2	3	4	5	6	7	8	9	10
OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON

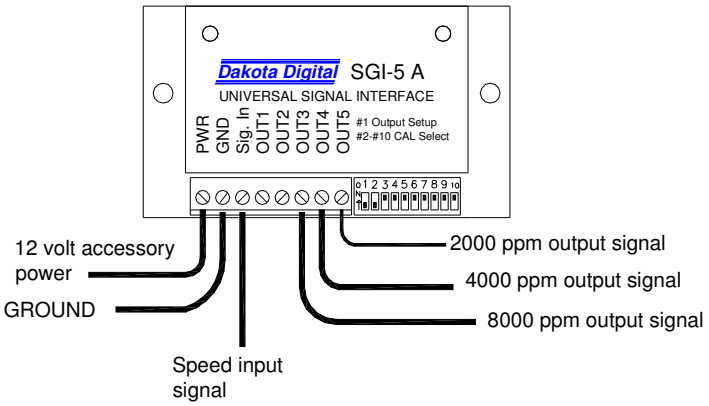
You can determine how far the speedometer is off by having it checked with radar or following another vehicle going at a set speed. Once you know how far it is off at a certain speed, use the following equation and then look up the switch setting in the table.

$$\frac{\text{Actual speed}}{\text{speedometer reading}} = \text{Cal ratio}$$

Switches #2 - #10 set the calibration adjustment. As an example, if you are following a vehicle going at 55 mph and your speedometer shows 60 mph, then:

$$\frac{55}{60} = 0.917$$

from the table: OFF-ON-ON-ON-ON-OFF-OFF-ON-ON



APPLICATION #4

Convert an 8000ppm signal from an aftermarket signal generator to a 4000ppm or 2000ppm to run an OEM cruise control or fuel injection computer.

Either two wire or three wire sensors can be recalibrated with this unit. Two wire sensors will typically have one wire as a ground and the other as the signal. Three wire sensors will have an additional power wire. You must first determine which wire is the signal. The signal wire will be tapped into so the SGI-5 can read it. The sensor signal wire will go to the SIG IN terminal. Connect the PWR terminal to a 12-volt accessory wire and connect the GND terminal to a good ground location. If nothing else is connected to a two wire sensor, then connect one wire to the GND terminal also. The output connections will depend on your particular application. Here are some typical examples:

OUT3, 4000ppm AC: most TPI computers and some OEM cruise controls
OUT4, 4000ppm oc: use this if OUT3 does not provide a good signal
OUT5, 2000ppm oc: most TBI computers and some OEM cruise controls

Begin with the switches as follows. You may not need to change the calibration from this initial setting. If you want to adjust the calibration ratio, see application #2.

1	2	3	4	5	6	7	8	9	10
ON	OFF	ON	ON	ON	ON	ON	ON	ON	ON

APPLICATION #5

Convert a 16000ppm signal from a Hall Effect VDO signal generator to 8000ppm, 4000ppm, or 2000ppm to run a cruise control or fuel injection computer.

The Hall Effect sensor will have three wires. The white wire is the signal. The signal wire will be tapped into so the SGI-5 can read it. The sensor signal wire will go to the SIG IN terminal. Connect the PWR terminal to a 12-volt accessory wire and connect the GND terminal to a good ground location. The output connections will depend on your particular application. Here are some typical examples:

OUT1, 8000ppm AC: most aftermarket cruise controls
OUT3, 4000ppm AC: most TPI computers and some OEM cruise controls
OUT4, 4000ppm oc: use this if OUT3 does not provide a good signal
OUT5, 2000ppm oc: most TBI computers and some OEM cruise controls

Set the switches as follows.

1	2	3	4	5	6	7	8	9	10
ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON

APPLICATION #6

Convert a 4000ppm signal from an OEM transmission speed sensor or ECM output to an 8000ppm signal for an aftermarket speedometer.

The speed sensors have a two-pin connector on the transmission or transfer case. One of the pins will be a ground and the other will be the signal. The ground pin will go the GND terminal along with the ground wire. The signal pin will go to the SIG IN terminal. It is best to twist the signal and ground wires from the sensor around each other. This helps eliminate any electrical interference. If nothing else is connected to the speed sensor it does not matter which pin is used as the ground. If you are picking up a signal coming out of the ECM there will be only one wire to the SIG IN. Connect the PWR terminal to accessory power and the GND terminal to ground. Connect OUT1 to your aftermarket electric speedometer.

Set the switches as follows. Any calibration adjustment should be done at the speedometer.

1	2	3	4	5	6	7	8	9	10
ON	ON	OFF	ON	ON	ON	ON	ON	ON	ON

APPLICATION #7

Convert a signal from a flywheel gear-tooth sensor to an ignition tachometer signal (diesel tachometer application).

For using a standard 4-6-8 cylinder tachometer on a diesel engine, the SGI-5 can convert a flywheel sensor signal into an 8-cylinder gas ignition signal. Calibration is accomplished by counting the number of teeth on the flywheel or using another tachometer as a reference. The number of teeth are listed in the calibration table under the heading “tach”. When switch #2 is ON, the tooth count is divided by 4. This will cover from 32 to 127 teeth. An inductive, gear-tooth sensor such as VDO part
#340 020 should be mounted so the teeth pass by the end of the sensor. The GND terminal on the SGI-5 should be connected to a good ground as well as to one of the terminals on the gear-tooth sensor. The SIG IN terminal will connect to the other terminal. Connect the PWR terminal to 12V accessory power. OUT4 will provide the signal to the tachometer. Set the programming switches as follows:

1	2	3	4	5	6	7	8	9	10
OFF	OFF	See calibration table							

If your tachometer does not show any reading after installing the SGI-5, use a voltmeter to check the voltage at OUT4 with it connected to the tachometer and the engine running. Once you have done this, contact a Dakota Digital technical service representative for assistance.

An "N" switch value represents an ON position. A "F" switch value represents an OFF position.

Cal Hi represents switch #2 ON. Cal Lo represents switch #2 OFF. Tach column is with switch #2 OFF.

#3	#4	#5	#6	#7	#8	#9	#10	Cal Hi	Cal Lo	tach	#3	#4	#5	#6	#7	#8	#9	#10	Cal Hi	Cal Lo	tach	#3	#4	#5	#6	#7	#8	#9	#10	Cal Hi	Cal Lo	tach	#3	#4	#5	#6	#7	#8	#9	#10	Cal Hi	Cal Lo	tach
N	N	N	N	N	N	N	N	4.000	1.000	128	N	F	N	N	N	N	N	N	2.667	0.667	192	F	N	N	N	N	N	N	N	2.000	0.500	256	F	F	N	N	N	N	N	N	1.333	0.333	384
N	N	N	N	N	N	N	F	3.969	0.992	129	N	F	N	N	N	N	N	F	2.653	0.663	193	F	N	N	N	N	N	N	F	1.984	0.496	258	F	F	N	N	N	N	N	F	1.326	0.332	386
N	N	N	N	N	N	F	N	3.938	0.985	130	N	F	N	N	N	N	F	N	2.639	0.660	194	F	N	N	N	N	N	F	N	1.969	0.492	260	F	F	N	N	N	N	F	N	1.320	0.330	388
N	N	N	N	N	N	F	F	3.908	0.977	131	N	F	N	N	N	N	F	F	2.626	0.656	195	F	N	N	N	N	N	F	F	1.954	0.489	262	F	F	N	N	N	N	F	F	1.313	0.328	390
N	N	N	N	N	F	N	N	3.879	0.970	132	N	F	N	N	N	F	N	N	2.612	0.653	196	F	N	N	N	N	F	N	N	1.939	0.485	264	F	F	N	N	N	F	N	N	1.306	0.327	392
N	N	N	N	N	F	N	F	3.850	0.962	133	N	F	N	N	N	F	N	F	2.599	0.650	197	F	N	N	N	N	F	N	F	1.925	0.481	266	F	F	N	N	N	F	N	F	1.299	0.325	394
N	N	N	N	N	F	F	N	3.821	0.955	134	N	F	N	N	N	F	F	N	2.586	0.646	198	F	N	N	N	N	F	F	N	1.910	0.478	268	F	F	N	N	N	F	F	N	1.293	0.323	396
N	N	N	N	N	F	F	F	3.793	0.948	135	N	F	N	N	N	F	F	F	2.573	0.643	199	F	N	N	N	N	F	F	F	1.896	0.474	270	F	F	N	N	N	F	F	F	1.286	0.322	398
N	N	N	N	F	N	N	N	3.765	0.941	136	N	F	N	N	F	N	N	N	2.560	0.640	200	F	N	N	N	F	N	N	N	1.882	0.471	272	F	F	N	N	F	N	N	N	1.280	0.320	400
N	N	N	N	F	N	N	F	3.737	0.934	137	N	F	N	N	F	N	N	F	2.547	0.637	201	F	N	N	N	F	N	N	F	1.869	0.467	274	F	F	N	N	F	N	N	F	1.274	0.318	402
N	N	N	N	F	N	F	N	3.710	0.928	138	N	F	N	N	F	N	F	N	2.535	0.634	202	F	N	N	N	F	N	F	N	1.855	0.464	276	F	F	N	N	F	N	F	N	1.267	0.317	404
N	N	N	N	F	N	F	F	3.683	0.921	139	N	F	N	N	F	N	F	F	2.522	0.631	203	F	N	N	N	F	N	F	F	1.842	0.460	278	F	F	N	N	F	N	F	F	1.261	0.315	406
N	N	N	N	F	F	N	N	3.657	0.914	140	N	F	N	N	F	F	N	N	2.510	0.627	204	F	N	N	N	F	F	N	N	1.829	0.457	280	F	F	N	N	F	F	N	N	1.255	0.314	408
N	N	N	N	F	F	N	F	3.631	0.908	141	N	F	N	N	F	F	N	F	2.498	0.624	205	F	N	N	N	F	F	N	F	1.816	0.454	282	F	F	N	N	F	F	N	F	1.249	0.312	410
N	N	N	N	F	F	F	N	3.606	0.901	142	N	F	N	N	F	F	F	N	2.485	0.621	206	F	N	N	N	F	F	F	N	1.803	0.451	284	F	F	N	N	F	F	F	N	1.243	0.311	412
N	N	N	N	F	F	F	F	3.580	0.895	143	N	F	N	N	F	F	F	F	2.473	0.618	207	F	N	N	N	F	F	F	F	1.790	0.448	286	F	F	N	N	F	F	F	F	1.237	0.309	414
N	N	N	F	N	N	N	N	3.556	0.889	144	N	F	N	F	N	N	N	N	2.462	0.615	208	F	N	N	F	N	N	N	N	1.778	0.444	288	F	F	N	F	N	N	N	N	1.231	0.308	416
N	N	N	F	N	N	N	F	3.531	0.883	145	N	F	N	F	N	N	N	F	2.450	0.612	209	F	N	N	F	N	N	N	F	1.766	0.441	290	F	F	N	F	N	N	N	F	1.225	0.306	418
N	N	N	F	N	N	F	N	3.507	0.877	146	N	F	N	F	N	N	F	N	2.438	0.610	210	F	N	N	F	N	N	F	N	1.753	0.438	292	F	F	N	F	N	N	F	N	1.219	0.305	420
N	N	N	F	N	N	F	F	3.483	0.871	147	N	F	N	F	N	N	F	F	2.427	0.607	211	F	N	N	F	N	N	F	F	1.741	0.435	294	F	F	N	F	N	N	F	F	1.213	0.303	422
N	N	N	F	N	F	N	N	3.459	0.865	148	N	F	N	F	N	F	N	N	2.415	0.604	212	F	N	N	F	N	F	N	N	1.730	0.432	296	F	F	N	F	N	F	N	N	1.208	0.302	424
N	N	N	F	N	F	N	F	3.436	0.859	149	N	F	N	F	N	F	N	F	2.404	0.601	213	F	N	N	F	N	F	N	F	1.718	0.430	298	F	F	N	F	N	F	N	F	1.202	0.300	426
N	N	N	F	N	F	F	N	3.413	0.853	150	N	F	N	F	N	F	F	N	2.393	0.598	214	F	N	N	F	N	F	F	N	1.707	0.427	300	F	F	N	F	N	F	F	N	1.196	0.299	428
N	N	N	F	N	F	F	F	3.391	0.848	151	N	F	N	F	N	F	F	F	2.381	0.595	215	F	N	N	F	N	F	F	F	1.695	0.424	302	F	F	N	F	N	F	F	F	1.191	0.298	430
N	N	N	F	F	N	N	N	3.368	0.842	152	N	F	N	F	F	N	N	N	2.370	0.593	216	F	N	N	F	F	N	N	N	1.684	0.421	304	F	F	N	F	F	N	N	N	1.185	0.296	432
N	N	N	F	N	N	F	N	3.346	0.837	153	N	F	N	F	N	N	F	N	2.359	0.590	217	F	N	N	F	F	N	N	F	1.673	0.418	306	F	F	N	F	F	N	N	F	1.180	0.295	434
N	N	N	F	F	N	F	N	3.325	0.831	154	N	F	N	F	F	N	F	N	2.349	0.587	218	F	N	N	F	F	N	F	N	1.662	0.416	308	F	F	N	F	F	N	F	N	1.174	0.294	436
N	N	N	F	F	N	F	F	3.303	0.826	155	N	F	N	F	F	N	F	F	2.338	0.584	219	F	N	N	F	F	N	F	F	1.652	0.413	310	F	F	N	F	F	N	F	F	1.169	0.292	438
N	N	N	F	F	F	N	N	3.282	0.821	156	N	F	N	F	F	F	N	N	2.327	0.582	220	F	N	N	F	F	F	N	N	1.641	0.410	312	F	F	N	F	F	F	N	N	1.164	0.291	440
N	N	N	F	F	F	N	F	3.261	0.815	157	N	F	N	F	F	F	N	F	2.317	0.579	221	F	N	N	F	F	F	N	F	1.631	0.408	314	F	F	N	F	F	F	N	F	1.158	0.290	442
N	N	N	F	F	F	F	N	3.241	0.810	158	N	F	N	F	F	F	F	N	2.306	0.577	222	F	N	N	F	F	F	F	N	1.620	0.405	316	F	F	N	F	F	F	F	N	1.153	0.288	444
N	N	N	F	F	F	F	F	3.220	0.805	159	N	F	N	F	F	F	F	F	2.296	0.574	223	F	N	N	F	F	F	F	F	1.610	0.403	318	F	F	N	F	F	F	F	F	1.148	0.287	446
N	N	F	N	N	N	N	N	3.200	0.800	160	N	F	N	N	N	N	N	N	2.286	0.571	224	F	N	F	N	N	N	N	N	1.600	0.400	320	F	F	F	N	N	N	N	N	1.143	0.286	448
N	N	F	N	N	N	N	F	3.180	0.795	161	N	F	F	N	N	N	N	F	2.276	0.569	225	F	N	F	N	N	N	N	F	1.590	0.398	322	F	F	F	N	N	N	N	F	1.138	0.284	450
N	N	F	N	N	N	F	N	3.160	0.790	162	N	F	F	N	N	N	F	N	2.265	0.566	226	F	N	F	N	N	N	F	N	1.580	0.395	324	F	F	F	N	N	N	F	N	1.133	0.283	452
N	N	F	N	N	N	F	F	3.141	0.785	163	N	F	F	N	N	N	F	F	2.256	0.564	227	F	N	F	N	N	N	F	F	1.571	0.393	326	F	F	F	N	N	N	F	F	1.128	0.282	454
N	N	F	N	N	F	N	N	3.122	0.780	164	N	F	F	N	N	F	N	N	2.246	0.561	228	F	N	F	N	N	F	N	N	1.561	0.390	328	F	F	F	N	N	F	N	N	1.123	0.281	456
N	N	F	N	N	F	N	F	3.103	0.776	165	N	F	F	N	N	F	N	F	2.236	0.559	229	F	N	F	N	N	F	N	F	1.552	0.388	330	F	F	F	N	N	F	N	F	1.118	0.279	458
N	N	F	N	N	F	F	N	3.084	0.771	166	N	F	F	N	N	F	F	N	2.226	0.557	230	F	N	F	N	N	F	F	N	1.542	0.386	332	F	F	F	N	N	F	F	N	1.113	0.278	460
N	N	F	N	N	F	F	F	3.066	0.766	167	N	F	F	N	N	F	F	F	2.216	0.554	231	F	N	F	N	N	F	F	F	1.533	0.383	334	F	F	F	N	N	F	F	F	1.108	0.277	462
N	N	F	N	F	N	N	N	3.048	0.762	168	N	F	F	N	F	N	N	N	2.207	0.552	232	F	N	F	N	F	N	N	N	1.524	0.381	336	F	F	F	N	F	N	N	N	1.103	0.276	464
N	N	F	N	F	N	N	F	3.030	0.757	169	N	F	F	N	F	N	N	F	2.197	0.549	233	F	N	F	N	F	N	N	F	1.515	0.379	338	F	F	F	N	F	N	N	F	1.099	0.275	466
N	N	F	N	F	N	F	N	3.012	0.753	170	N	F	F	N	F	N	F	N	2.188	0.547	234	F	N	F	N	F	N	F	N	1.506	0.376	340	F	F	F	N	F	N	F	N	1.094	0.274	468
N	N	F	N	F	N	F	F	2.994	0.749	171	N	F	F	N	F	N	F	F	2.179	0.545	235	F	N	F	N	F	N	F	F	1.497	0.374	342	F	F	F	N	F	N	F	F	1.089	0.272	470
N	N	F	N	F	F	N	N	2.977	0.744	172	N	F	F	N	F	F	N	N	2.169	0.542	236	F	N	F	N	F	F	N	N	1.488	0.372	344	F	F	F	N	F	F	N	N	1.085	0.271	472
N	N	F	N	F	F	N	F	2.960	0.740	173	N	F	F	N	F	F	N	F	2.160	0.540	237	F	N	F	N	F	F	N	F	1.480	0.370	346	F	F	F	N	F	F	N	F	1.080	0.270	474
N	N	F	N	F	F	F	N	2.943	0.736	174	N	F	F	N	F	F	F	N	2.151	0.538	238	F	N	F	N	F	F	F	N	1.471	0.368	348	F	F	F	N	F	F	F	N	1.076	0.269	476
N	N	F	N	F	F	F	F	2.926	0.731	175	N	F	F	N	F	F	F	F	2.142	0.536	239	F	N	F	N	F	F	F	F	1.463	0.366	350	F	F	F	N	F	F	F	F	1.071	0.268	478
N	N	F	F	N	N	N	N	2.909	0.727	176	N	F	F	F	N	N	N	N	2.133	0.533	240	F	N	F	F	N	N	N	N	1.455	0.364	352	F	F	F	F	N	N	N	N	1.067	0.267	480
N	N	F	F	N	N	N	F	2.893	0.723	177	N	F	F	F	N	N	N	F	2.124	0.531	241	F	N	F	F	N	N	N	F	1.446	0.362	354	F	F	F	F	N	N	N	F	1.062	0.266	482
N	N	F	F	N	N	F	N	2.876	0.719	178	N	F	F	F	N	N	F	N	2.116	0.529	242	F	N	F	F	N	N	F	N	1.438	0.360	356	F	F	F	F	N	N	F	N	1.058	0.264	484
N	N	F	F	N	N	F	F	2.860	0.715	179	N	F	F	F	N	N	F	F	2.107	0.527	243	F	N	F	F	N	N	F	F	1.430	0.358	358	F	F	F	F	N	N	F	F	1.053	0.263	486
N	N	F	F	N	F	N	N	2.844	0.711	180	N	F	F	F	N	F	N	N	2.098	0.525	244	F	N	F	F	N	F	N	N	1.422	0.356	360	F	F	F	F	N	F	N	N	1.049	0.262	488
N	N	F	F	N	F	N	F	2.829	0.707	181	N	F	F	F	N	F	N	F	2.090	0.522	245	F	N	F	F	N	F	N	F	1.414	0.354	362	F	F	F	F	N	F	N	F	1.045	0.261	490
N	N	F	F	N	F	F	N	2.813	0.703	182	N	F	F	F	N	F	F	N	2.081	0.520	246	F	N	F	F	N	F	F	N	1.407	0.352	364	F	F	F	F	N	F	F	N	1.041	0.260	492
N	N	F	F	N	F	F	F	2.798	0.699	183	N	F	F	F	N	F	F	F	2.073	0.518	247	F	N	F	F	N	F	F	F	1.399	0.350	366	F	F	F	F	N	F	F	F	1.036	0.259	494
N	N	F	F	F	N	N	N	2.783	0.696	184	N	F	F	F	F	N	N	N	2.065	0.516	248	F	N	F	F	F	N	N	N	1.391	0.348	368	F	F	F	F	F	N	N	N	1.032	0.258	496
N	N	F	F	F	N	N	F	2.768	0.692	185	N	F	F	F	F	N	N	F	2.056	0.514	249	F	N	F	F	F	N	N	F	1.384	0.346	370	F	F	F	F	F	N	N	F	1.028	0.257	498
N	N	F	F	F	N	F	N	2.753	0.688	186	N	F	F	F	F	N	F	N	2.048	0.512	250	F	N	F	F	F	N	F	N	1.376	0.344	372	F	F	F	F	F	N	F	N	1.024	0.256	500
N	N	F	F	F	N	F	F	2.738	0.684	187	N	F	F	F	F	N	F	F	2.040	0.510	251	F	N	F	F	F	N	F	F	1.369	0.342	374	F	F	F	F	F	N	F	F	1.020	0.255	502
N	N	F	F	F	N	N	N	2.723	0.681	188	N	F	F	F	F	N	N	N	2.032	0.508	252	F	N	F	F	F	N	N	N	1.362	0.340	376	F	F	F	F	F	N	N	N	1.016	0.254	504
N	N	F	F	F	F	N	F	2.709	0.677	189	N	F	F	F	F	F	N	F	2.024	0.506	253	F	N	F	F	F	F	N	F	1.354	0.339	378	F	F	F	F	F	F	N	F	1.012	0.253	506
N	N	F	F	F	F	F	N	2.695	0.674	190	N	F	F	F	F	F	F	N	2.016	0.504	254	F	N	F	F	F	F	F	N	1.347	0.337	380	F	F	F	F	F	F	F	N	1.008	0.252	508
N	N	F	F	F	F	F	F	2.681	0.670	191	N	F	F	F	F	F	F	F	2.008	0.502	255	F	N	F	F	F	F	F	F	1.340	0.335	382	F	F	F	F	F	F	F	F	1.004	0.251	510

Setup tips:

- If, without the interface, your speedometer reads much too fast, then you will most likely need to use application 3.
- If, without the interface, your speedometer reads about ½ what it should, then you will most likely need to use application 6.
- If your speedometer reads, but is just off, you will probably need application 1 or 2.

Trouble shooting guide

Problem	Possible Cause	Solution
Speedometer will not work at all.	Wrong output type.	Try switching from an oc to AC output or from an AC to oc output.
	No input signal.	Test for 1-20 volts AC at the signal in terminal with the wheels spinning.
	Grounding interference.	Make sure both the speed sensor and SGI-5 are grounded at the same point.
	No power to SGI-5.	Check the power and ground terminals on the SGI-5. Should be 11-15 V dc.
Speedometer will not read at low speeds	SGI-5 set for wrong input type.	If switch #1 is off, turn it on.
	Speed signal is too low.	Check speed connections for ground problems or shorts. Test the ground connection between SGI-5 and sensor. Check for another device loading down the sensor.
Speedometer will read when the vehicle is sitting still.	Tach wire too close to speed signal wire.	Route the speed signal and tachometer wires away from each other to avoid interference.
	Signal In and OUT wires routed too close.	Route the input and output wires away from each other to avoid feedback.
	Ground interference.	Make sure the speed sensor and SGI-5 are grounded together.

Tech Support

You can contact us with any questions you may have by phone, fax, or email.

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