

SQUARE WAVE TO SINE WAVE CONVERTER

QUICK INSTALLATION REFERENCE

REVISION 1 October 23, 2002



NOTE: For much more **detailed descriptions** of this installation & advanced trouble shooting techniques refer to the full **SpeedChangerã or TachChanger Installation Manual(s)** included or located on line at www.terf.com. If **after reading** this information you still have questions or concerns then contact us. We will be glad to help.

1. Determine **where in the system** SpeedChanger© or TachChanger© is to make the electronic ratio modification.
2. See the back of this sheet for the **basic addition** of the SQUARE WAVE TO SINE WAVE CONVERTER.
3. Determine a convenient & **suitable location to mount** the SpeedChanger© or TachChanger© and SQUARE WAVE TO SINE WAVE CONVERTER that corresponds to the system components to be modified.
4. Try to keep the wiring reasonably short to **prevent problems**. **Solder all wiring** connections to prevent problems in this frequency based signal system. Thoroughly insulate all connections with electrical tape or shrink tube.
5. **Install** the SpeedChanger© or TachChanger© as indicated by their respective installation manuals.
6. Attach the SpeedChanger© or TachChanger© and SQUARE WAVE TO SINE WAVE CONVERTER **Black Negative Wires** to a Negative Power Source or "Ground" that is Close To the system components to be modified.
7. Cut the **Vehicle Speed Signal Wire(s)** in the appropriate location(s) to achieve the desired system configuration based upon the diagrams on the back of this sheet and the SpeedChanger© or TachChanger© installation manual(s).
8. Connect the wire generated by cutting the Vehicle Speed Signal Wire from the speed signal sensor side to the SpeedChanger© or TachChanger© **Orange Signal In Wire**.
9. Connect the other wire generated by cutting the Vehicle Speed Signal Wire (supplying signal to the Speedometer or other components) to one **Green Signal Out Wire** from the SQUARE WAVE TO SINE WAVE CONVERTER. It should not matter which Green Wire, as they are symmetrical. If the system does not work try reversing the Green Wires.
10. Connect the **other Green Wire** to the OPPOSITE Vehicle Speed Sensor Wire or Ground (labeled "sensor wire 2" on the back of this sheet).
11. Connect the **White Signal Output Wire** from SpeedChanger© or TachChanger© to the White Signal Input Wire of the SQUARE WAVE TO SINE WAVE CONVERTER. These wires connect to nothing else.
12. **Return to and complete the remaining steps** of the SpeedChanger© or TachChanger© installation.
13. If any problems occur or more detail is required **refer to the SpeedChangerã or TachChangerã Installation Manual indexed by topic** to aid in detailed and variation of installations, as well as detailed debugging.

Note the first section in the Installation Manual for important safety issues!!

SQUARE WAVE TO SINE WAVE CONVERTER

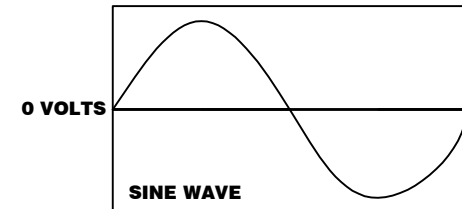
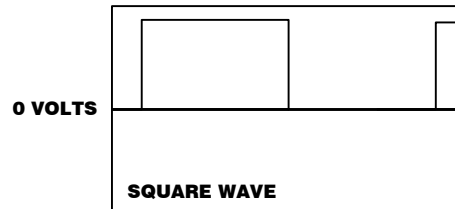
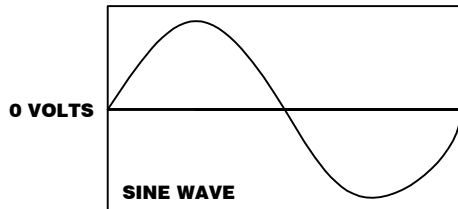
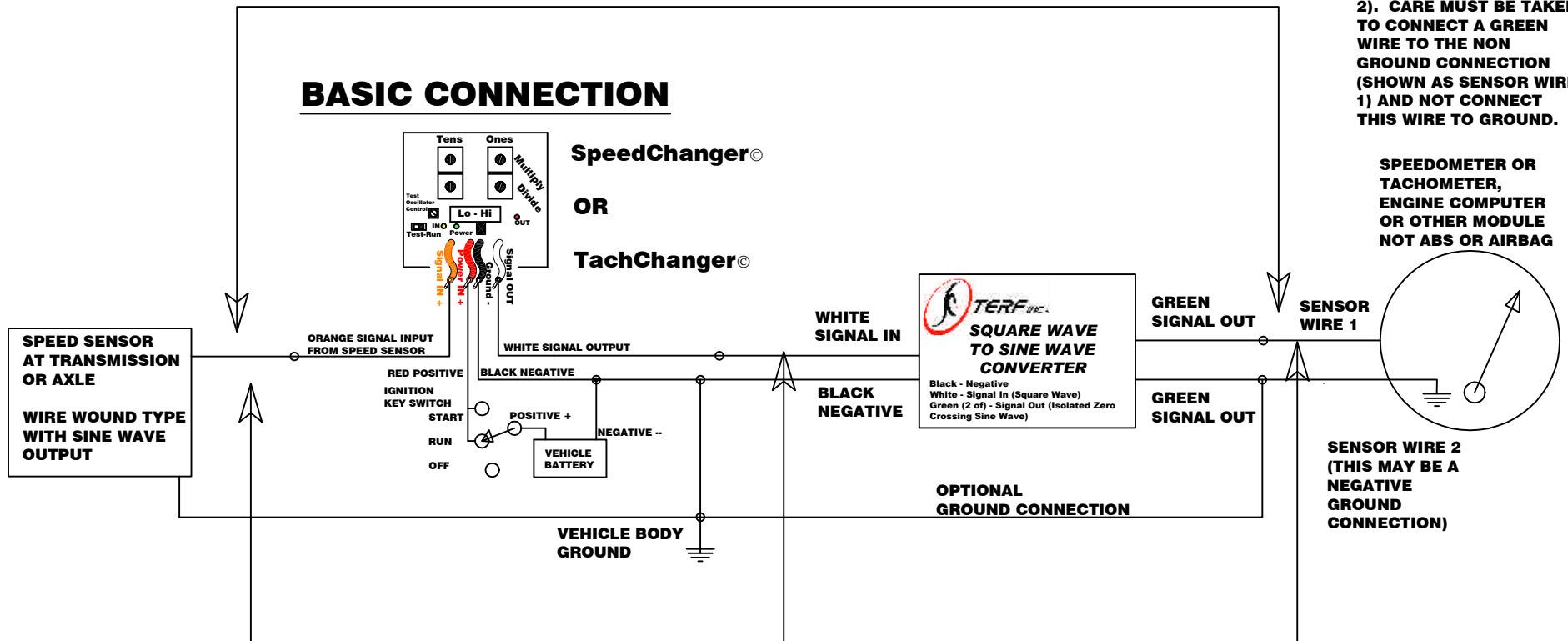
INSTALLATION SYSTEM REFERENCE

REVISION 1
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NOTE: ONE OF THE 2 SENSOR WIRES MAY BE CONNECTED TO GROUND INSIDE THE SPEEDOMETER, ENGINE COMPUTER OR OTHER MODULE (SHOWN AS SENSOR WIRE 2). CARE MUST BE TAKEN TO CONNECT A GREEN WIRE TO THE NON GROUND CONNECTION (SHOWN AS SENSOR WIRE 1) AND NOT CONNECT THIS WIRE TO GROUND.

ORIGINAL SIGNAL CONNECTION

BASIC CONNECTION



THE GREEN WIRES PROVIDE AN ELECTRICALLY ISOLATED ZERO CROSSING SINE WAVE FROM +/- ~10 VOLTS TO +/- ~80 VOLTS, SUFFICIENT TO SIMULATE MAGNETIC SINE WAVE GENERATED SIGNALS. THE POLARITY OF THE GREEN WIRES IS SYMMETRICAL & UNIMPORTANT. ONE GREEN WIRE MAY NEED TO BE CONNECTED TO THE SPEEDOMETER OR COMPUTER GROUND TO COMPLETE THE CIRCUIT.