



CAUTION: CAREFULLY READ INSTRUCTIONS BEFORE PROCEEDING

OVERVIEW

This tech note provides WEGO hookup and setup information for Suzuki® Hayabusa applications. Customers using WEGO II units in Hayabusa applications will require firmware revision 4.0 or higher and WEGO Log software version 6.0 or higher. Older revisions do not support the tach signal debounce feature required to obtain a noise free tach signal in Hayabusa applications. The WEGO firmware revision is reported as part of the firmware ID whenever you upload to the WEGO. If you have an older WEGO II unit, it can be upgraded to the latest firmware revision. Please contact our tech support for details.

WIRING HOOKUP

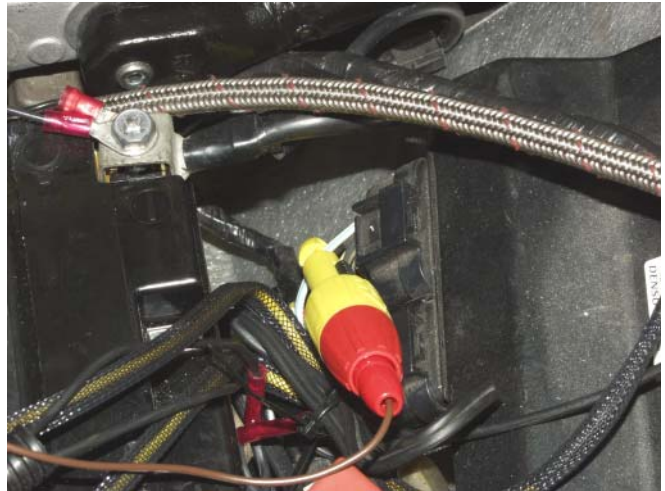
You can install the WEGO unit in a convenient location, such as shown in Figure 1, using Velcro material.

Figure 1 – WEGO Installation



Connect the black ground wire from the WEGO to the battery minus terminal as shown in Figure 2. Connect the brown tach wire from the WEGO to the #1 COIL- wire (blue/white) at the ECM.

Figure 2 – Tach Signal and Ground Hookup



Connect the red wire from the WEGO to a switched +12V power wire (orange/white) near the instrument cluster as shown in Figure 3. Solder this connection (preferred) or use quick disconnect terminals.

Figure 3 – Power Hookup



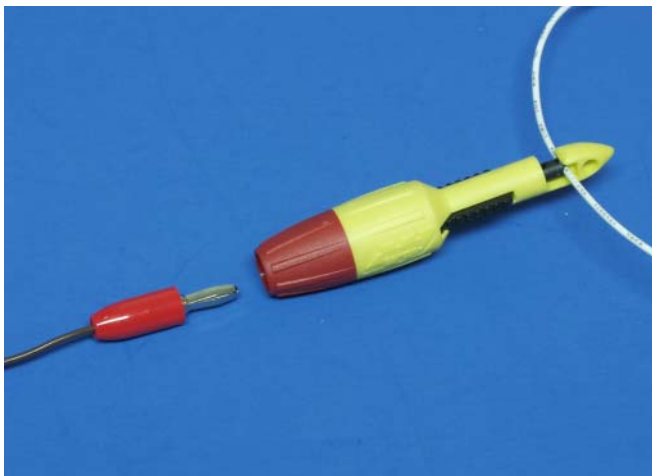
Connect the green analog input wire from the WEGO to the TPS sensor signal wire (yellow) as shown in Figure 4.

Figure 4 – TPS Signal Hookup



Temporary tach and analog signal (TPS) connections can be made with insulation piercing test clips as shown in Figures 2, 4, and 5. Once you use these, you will wonder how you ever got along without them. The best type is the Pomona 6405. These lock onto the wire. A set of the Pomona test clips is available from Newark as their P/N 23C2020. They also sell extended reach versions (refer to the data sheet available on the Diagnostic Tools and Suppliers Tech FAQ on our website at www.daytona-sensors.com). You will need banana plugs to connect the insulation piercing test clips to the WEGO. These are available from Newark as P/N 39F1531 (red) and 39F1532 (black).

Figure 5 – Insulation Piercing Test Clip



The insulation piercing test clips are also very handy for probing signals with a DVM or scopemeter. To use them with a DVM or scopemeter, you will need a set of test leads with banana plugs. These are also available from Newark as P/N 34F850 (36" red) and 34F851 (36" black). The test clips, banana plugs, and test leads together will cost about \$50.00. Newark can be reached at 800-463-9275 or www.newark.com.

SENSOR INSTALLATION

The Bosch LSU 4.2 sensor should be located on the header pipe about 6-8 inches from the head flange. Ideally the sensor tip should face down to avoid accumulation of condensation. When choosing a mounting location, allow several inches clearance for the sensor wire harness. The wire harness must exit straight out from the sensor. Do not loop the harness back onto the sensor body. Figure 6 shows a typical sensor installation on the top Y pipe that allows monitoring two cylinders. An additional weld nut would be installed on the lower Y pipe to allow monitoring the remaining two cylinders. If you mount the sensor further back on the collector, reversion effects will result in an erroneous lean AFR indication even at wide open throttle. Please note that accurate AFR values will not be obtained at idle and part throttle with any open exhaust.

Figure 6 – Bosch Sensor Installation



18 x 1.5 mm weld nuts must be welded onto the header pipes. After welding, run an 18 x 1.5 mm tap through the threads. Failure to clean the threads may result in sensor damage. Do not install the sensor until after the free air calibration procedure described in the WEGO instructions. Always use an anti-seize lubricant such as Permatex 133A on the sensor threads.

WEGO SETUP

Prior to using the WEGO, you must set up the data logging parameters using the WEGO Log software. Use the Edit WEGO Parameters command from the Edit menu. A dialog box will appear as shown in Figure 7. You can set the data logging interval to a reasonable value for your application. For Hayabusa models, set the RPM pulses per revolution to 0.50 and set the RPM debounce to 3.00 msec.

Figure 7 – WEGO Parameters

WEGO Parameters

Data Logging Interval (0.1-1.0 sec)

RPM Pulses/Rev (0.5-12)

RPM Debounce (0.1-9.9 msec)

WEGO III/IV Only

Minimum LED Brightness (5-100%)

Restore Defaults Upload To WEGO OK

Once you have logged data, you can setup the analog input scaling to correctly display percent throttle position as shown in Figure 8. The values shown should be close for most Hayabusa applications. Figure 9 shows sample data logged from a dyno run.

Figure 8 – WEGO Analog Scaling

Analog Input Scaling

	Input Voltage	Scaled Value
Minimum	<input type="text" value="1.0"/>	<input type="text" value="0.0"/>
Maximum	<input type="text" value="4.0"/>	<input type="text" value="100.0"/>
Legend	<input type="text" value="TPS%"/>	

OK Restore Defaults

Figure 9 – Sample Data from Dyno Run

