



CAUTION: CAREFULLY READ INSTRUCTIONS BEFORE PROCEEDING

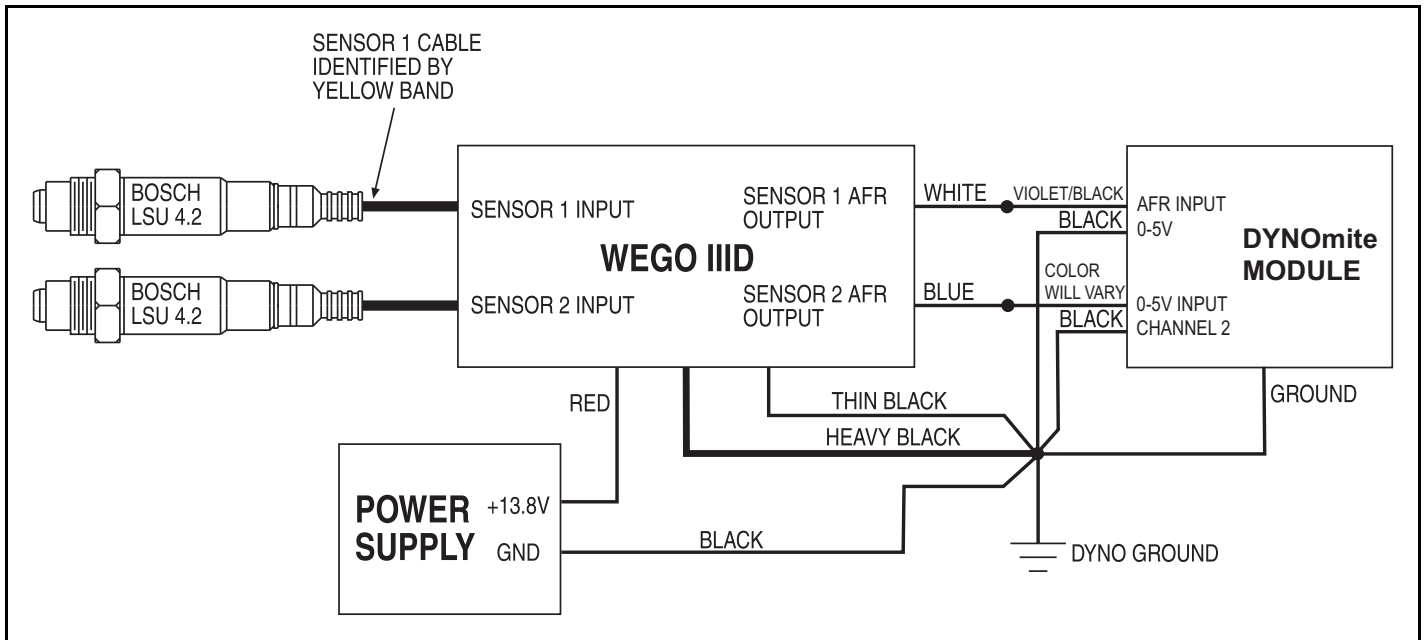
OVERVIEW

The WEGO IIID can be interfaced to a Land & Sea DYNomite dyno by means of the DYNomite data acquisition module. Correctly scaled air/fuel ratio data for two channels can then be displayed and charted along with other dyno data in the Land & Sea, DYNOMAX Pro software. The kit includes a WEGO IIID dual channel wide-band exhaust gas oxygen sensor interface, two Bosch LSU 4.2 wide-band sensors, two custom length sensor extension cables, and power supply.

REQUIRED PARTS AND CABLE ROUTING

The dyno system must be equipped with the DYNomite Pro data acquisition module. You will require two of the seven available 0-5 volt channels. The WEGO IIID unit can be mounted on the dyno console using screw hardware or Velcro material (not supplied). Choose a mounting location that will allow access to the calibration trimpots and status LEDs. The power supply should be located on the floor in a dry area. The WEGO IIID has three foot sensor cables. Before ordering, carefully measure the required length of the sensor extension cables, allowing several feet slack. Route the sensor extension cables away from sources of AC electrical noise and exhaust heat.

Figure 1 – WEGO IIID Hookup to DYNomite Module



DYNO HOOKUP

Refer to Figure 1. Connect the sensor extension cables and Bosch sensors. Channel 1 is color coded with a yellow band. Connect the WEGO IIID to the power supply. Connect the power supply to 120 VAC

power. Note that the power supply has a universal 100-240 VAC input. For overseas use, you will have to supply an appropriate power cord. The power supply should be connected to a switched AC outlet. To avoid sensor damage from exhaust deposits, power must be

turned on whenever the sensors are exposed to exhaust gases.

You can use this same hookup for any WEGO series unit (for single channel units, only one channel is connected). One 0-5 volt channel is required for each sensor. Each connection to the DYNomite harness will only require the signal and ground wires. You will not use the orange (5 volt) or red/white (8 volt) wire for the connection. The ground wire from the DYNomite harness should be connected to the same common ground point used for the external power supply. Refer to the DYNomite documentation for channel color codes.

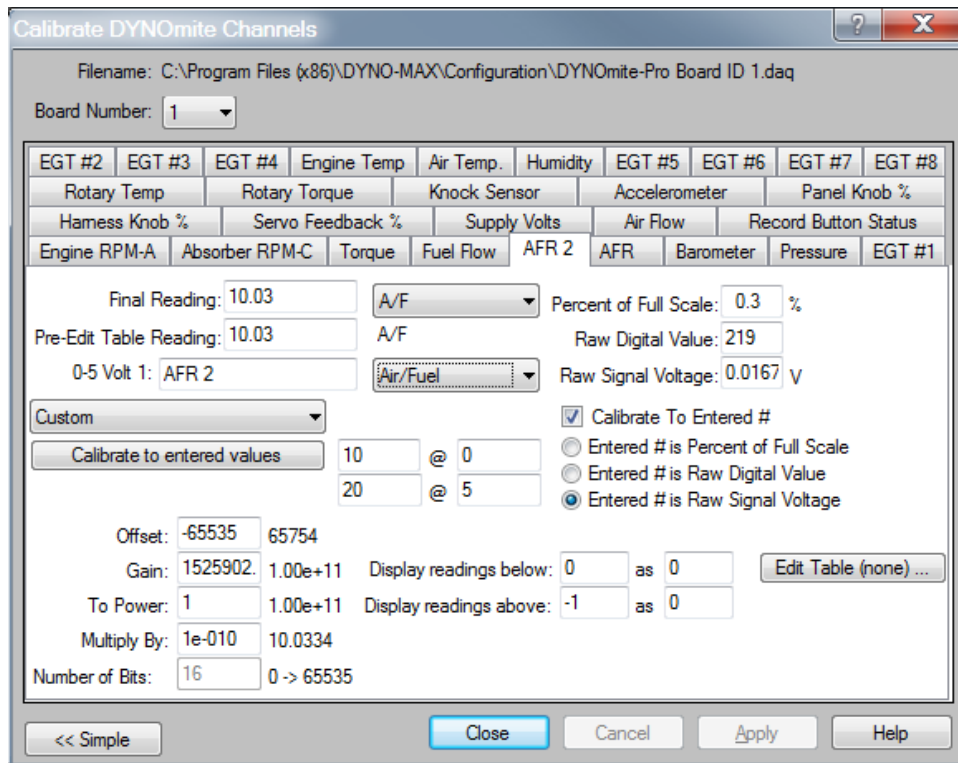
SYSTEM CONFIGURATION

Voltage levels are 0 volt at 10 AFR and 5.0 volt at 20 AFR.

For calibration in DYNO-MAX software, first make sure that you have a new run open and that the DYNomite data acquisition module is communicating with the DYNO-MAX software. Next, access the Electronics – Calibrate DYNomite Channels menu. From this menu you can custom calibrate the two 0-5 volt channels that are connected to the WEGO IID system.

Figure 2 shows entries for sensor 2 calibration. Sensor 2 is connected to the 0-5 Volt 1 channel. The other sensor is connected to the 0-5 Volt 2 channel. For calibration you need to enter the 10 @ 0 and 20 @ 5 entries then select the Calibrate to entered values button. You can optionally change the corresponding tab's name by entering in AFR 2 in the field next to where it says 0-5 Volt 1 and then selecting the Apply button (located at the bottom of the menu). You can also optionally select the appropriate unit system from the drop-down menus (as displayed in Figure 1).

Figure 2 – DYNO-MAX Configuration



SENSOR LIFE AND CALIBRATION

When used in a racing application with leaded gasoline, sensor life will probably be less than 10 hours. Free air calibration should be performed on a regular basis, such as before the start of every test session. If free air calibration fails, the sensor should be replaced. Free air calibration must be performed in an environment free of hydrocarbon vapors.

The WEGO IIID uses standard Bosch LSU 4.2 sensors used on a VW production application (Bosch P/N 0 258 007 057/058 or VW P/N 021 906 262B). The proprietary VW connector is replaced with a smaller Deutsch DT-04-6P available from Ladd Industries. We offer replacement sensors with the Deutsch connector installed. If you plan to terminate your own sensors, use the following color chart:

Terminal	Wire Color
1	Red
2	Black
3	Yellow
4	White
5	Gray
6	Seal

DYNO GROUNDING

Improper grounding will cause serious problems. The dyno frame or chassis must be connected to building electrical ground in accordance with National Electrical Code (NEC) requirements.

Vehicles operated on a chassis dyno will generate considerable electrostatic charge. The vehicle must be grounded to the dyno frame while in operation. You can use a length of 16 AWG wire with one end secured to the dyno frame and the other end equipped with a heavy duty alligator clip that is attached to the vehicle frame or other vehicle ground point. Failure to ground the vehicle will lead to electrostatic discharge (ESD) across the WEGO sensor damaging the sensor and WEGO unit.