

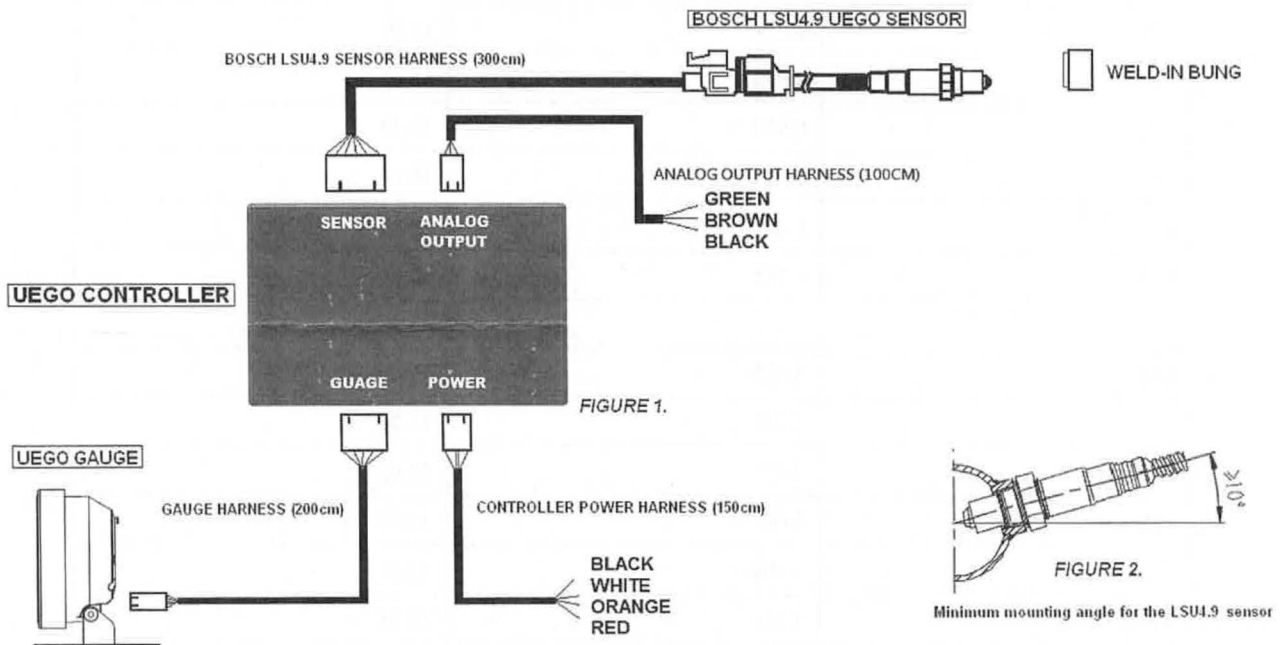
# 52mm SUPREME SERIES

## ANALOG WIDEBAND AIR/FUEL RATIO GAUGE

(WITH OUTPUT SIGNAL)

### UEGO CONTROLLER INSTALLATION INSTRUCTIONS:

- RED - 12v (+) CONSTANT POWER
- WHITE - 12V (+) IGNITION POWER
- BLACK - ENGINE GROUND (-)
- ORANGE - CONNECT TO +12v HEADLIGHTS SWITCH.



A WELD-IN M18 X 1.5 BUNG IS SUPPLIED FOR SENSOR INSTALLATION. MOUNT THE O<sub>2</sub> SENSOR IN THE EXHAUST SYSTEM AT LEAST 18 INCHES DOWNSTREAM FROM THE EXHAUST PORT. IF YOU ANTICIPATE HIGH EGT'S (OVER 1450 °F), RUN A TURBOCHARGER, RUN AT HIGH RPM FOR EXTENDED PERIODS OF TIME OR PLAN ON RUNNING LEADED RACE FUEL THEN YOU MUST MOUNT THE SENSOR AT LEAST 36 INCHES OR MORE DOWNSTREAM OF THE EXHAUST PORT AS ALL OF THESE CAN CAUSE THE SENSOR TO OVERHEAT. ON TURBOCHARGED ENGINES THE UEGO SENSOR MUST BE INSTALLED AFTER THE TURBO CHARGER, IF NOT, THE PRESSURE DIFFERENTIAL WILL GREATLY AFFECT THE ACCURACY OF THE UNIT. FOR ACCURATE READINGS, THE SENSOR MUST BE MOUNTED BEFORE CATALYTIC CONVERTERS AND/OR AUXILIARY AIR PUMPS. TO PREVENT COLLECTION OF LIQUIDS BETWEEN THE SENSOR HOUSING AND SENSOR ELEMENT DURNING THE COLD START PHASE, THE INSTALLATION ANGLE SHOULD BE INCLINED AT LEAST 10° FROM HORIZONTAL WITH THE ELECTRICAL CONNECTION UPWARDS, SEE ABOVE (FIGURE 2)

**1. CALIBRATION MODE:**

PRESS THE BUTTON ON UEGO CONTROLLER FOR 3 SECONDS TO CALIBRATE THE CONTROLLER. WHEN THE NEEDLE LIGHT IS FLASHING, THE CONTROLLER IS CALIBRATING.

**2. SENSOR ERROR DIAGNOSIS:**

WHEN THE FACEPLATE BACKLIGHT AND THE NEEDLE LIGHT ARE FLASHING SIMULTANEOUSLY, IT IS A SIGN OF A SENSOR ERROR. PLEASE CHECK IF THE SENSOR IS DISCONNECTED OR DEFECTIVE.

**3. ORIGINAL MANUFACTURE SETTING MODE:**

PRESS THE BUTTON ON UEGO CONTROLLER FOR 8 SECONDS TO OPERATE THE ORIGINAL MANUFACTURE SETTING OF THE CONTROLLER. THE NEEDLE LIGHT WILL FLASH FIRST. THEN THE FACEPLATE BACKLIGHT AND NEEDLE LIGHT WILL BE OFF SIMULTANEOUSLY. AFTER THEY ARE ALL OFF, THE ORIGINAL MANUFACTURE SETTING IS PROGRAMMED.

**4. SENSOR WARM UP:**

THE UEGO SENSOR NEEDS TO WARM UP FOR 30 SECOND EVERY TIME BEFORE USING THE GAUGE OR AFTER OPERATING THE SETTINGS. WHEN UEGO SENSOR IS WARMING UP, THE TWO COLORS OF FACEPLATE LED WILL BE FLASHING ALTERNATELY.

**5. ANALOG OUTPUT WIRE HARNESS INSTRUCTION:**

BLACK – ENGINE GROUND

BROWN – WIDE BAND ANALOG OUTPUT 0-5V (0V → 10AFR, 5V → 20AFR)

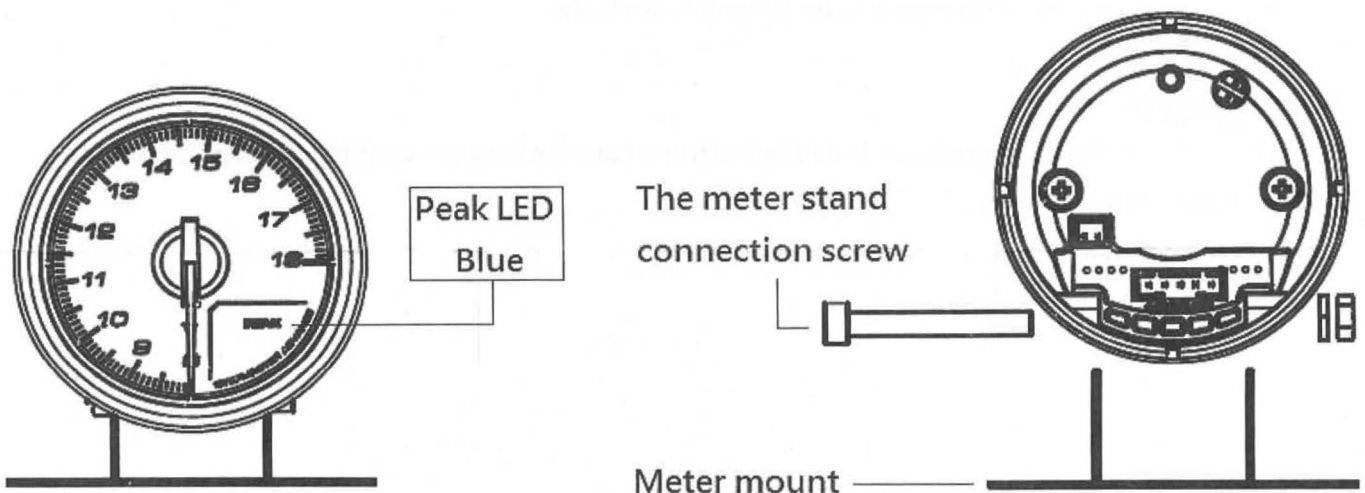
GREEN – NARROW BAND ANALOG OUTPUT 0-1V (0V → 20AFR, 1V → 10AFR)

**6. ABOUT BOSCH LSU 4.9 WIDEBAND O2 SENSOR, PLEASE READ CAREFULLY:**

IMPORTANT INSTRUCTION OF WIDEBAND AIR/FUEL RATIO GAUGE.

WE ENSURE THAT ALL WIDEBAND GAUGES (EXCLUDE SENSOR, SENSOR WIRE, BOLT & WELD IN BUNG) WILL COME WITH A ONE YEAR WARRANTY FROM THE PURCHASE DATE IF THE GAUGE FAILS DURNING OPERATION.

- A.) THIS GAUGE IS SOLD FOR RACING USE ONLY AND THERE IS NO WARRANTY ATTACHED OR IMPLIED ON THE BOSCH 4.9 SENSOR. ALL SALES AND PURCHASES ARE MADE ON THIS BASIS.
- B.) WE & BOSCH ARE FREE FROM RESPONSIBILITY OR LIABILITY IN THE EVENT OF A MALFUNCTION OF THE BOSCH 4.9 SENSOR.



# Linearity Scale

VOLT	LAMBDA	GASOLINE AFR
0.00	0.683	10.00
0.16	0.705	10.32
0.31	0.725	10.62
0.47	0.747	10.94
0.62	0.768	11.24
0.78	0.790	11.56
0.94	0.811	11.8
1.09	0.832	12.18
1.25	0.854	12.50
1.40	0.874	12.80
1.56	0.896	13.12
1.72	0.918	13.44
1.87	0.939	13.74
2.03	0.960	14.06
2.18	0.981	14.36
2.34	1.003	14.68
2.50	1.025	15.00
2.65	1.045	15.30
2.81	1.067	15.62
2.96	1.087	15.92
3.12	1.109	16.24
3.28	1.130	16.54
3.43	1.152	16.86
3.59	1.173	17.18
3.74	1.194	17.48
3.90	1.216	17.80
4.06	1.236	18.10
4.21	1.258	18.42
4.37	1.280	18.74
4.52	1.301	19.04
4.68	1.322	19.36
4.84	1.343	19.66
4.99	1.356	19.98