



PE Wideband O2 Bluetooth Controller Kit User Guide

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PE Wideband O2 Bluetooth Controller Kit



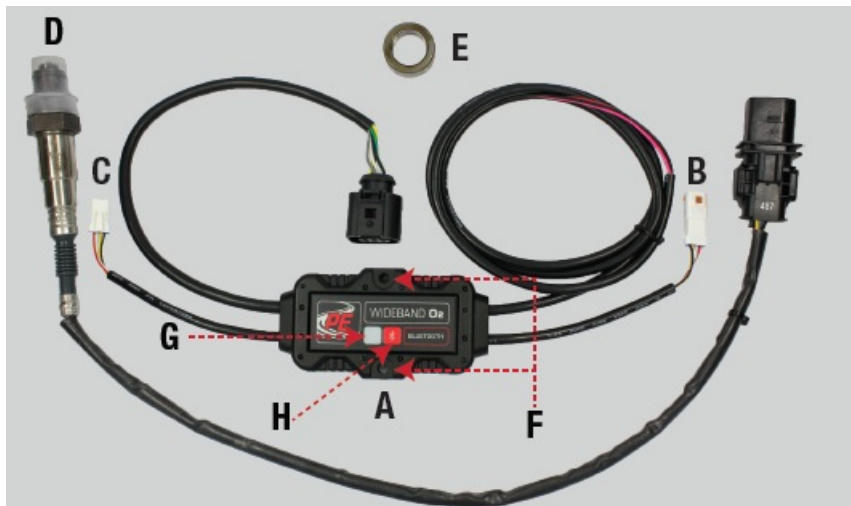
WARNING

The PE Wideband O2 is intended for off-road use only. This device is NOT waterproof. The sensor will get hot when powered and MUST be connected to the powered O2 module when installed in a running engine. Failure to do so will damage the sensor. Fuels containing lead or 2-stroke oil will degrade the sensor. The PE-Wideband controller must be installed a minimum of 3 feet away from any ignition system components. Performance Electronics, LTD assumes no responsibility for any damage that results from incorrect installation or misuse of this product. It is up to the end user to verify the correct setup and determine the suitability for his or her specific application.

WARNING:

Cancer And Reproductive Harm – www.P65warnings.ca.gov

Part Identification



- O2 Conditioning Module
- CAN Input Pigtail
- CAN Output Pigtail
- Bosch LSU 4.9 Sensor
- Mild Steel Weld In Bung
- Mounting Holes




- LED Status Indicator
- Bluetooth Pairing Button

Calibration Points

$\text{Lambda} = 0.14 \times \text{Vout} = .58$

Lambda at 0.0 (V)	0.58 λ
Lambda at 0.5 (V)	0.65 λ
Lambda at 4.5 (V)	1.21 λ
Lambda at 5.0 (V)	1.28 λ

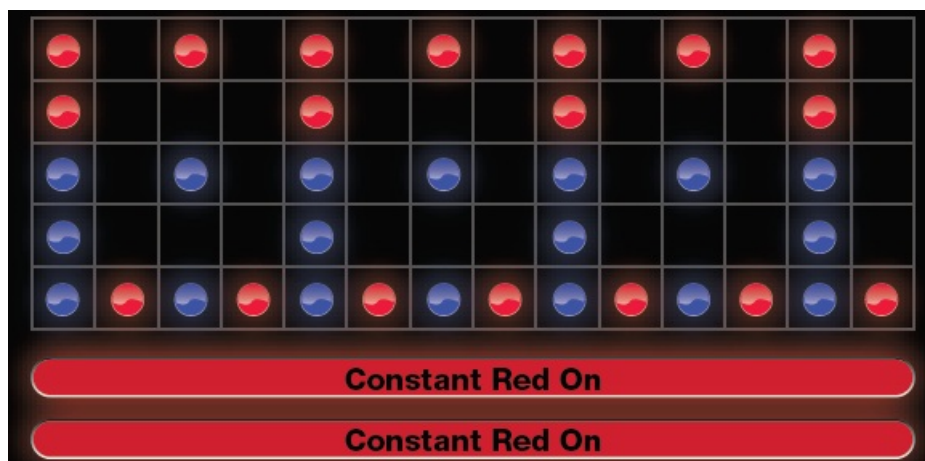
Wiring the Conditioning Module

Wire Color	Wired Connection
 Red (20ga)	Switched +12V
 Black (20ga)	Ground
 Pink (20ga)	0-5V Output (optional)

Pairing the O2 Module to a Smart Device

- Download the PE Wideband O2 app from the iOS App Store or Google Play Store. Search for 'PE Wideband' or scan QR code below.
- Power the conditioning module by applying switched +12V to the red wire.
- Look for the indicator light to blink red rapidly, indicating the module has power and the sensor is heating.
- Once the LED status indicator slows to a once-per-second blink pattern, open the app and select NEXT. You should see the available sensor module Lambda in the list.
- Press and hold the Bluetooth pairing button on the module until the indicator light turns blue, then release.
- While the indicator light is flashing blue, select Lambda in the list.
- Once communication is established, the LED indicator will blink blue once per second indicating the module is paired with the mobile device. The app will now redirect to the main display screen.


LED Blink Pattern





MODULE STATUS AND ERRORS

Sensor Heating	'Heating'	During the first 20 seconds of operation, the sensor must heat up to function.
Normal Operation	—None—	Normal operation with no errors. No active Bluetooth communication.
Bluetooth Pairing	—None—	Module is ready to pair to a mobile device. This is initiated by holding the pair button.
Bluetooth Active	—None—	Normal operation with no errors and active Bluetooth communication.
Device Identify	—None—	Rapid color sequence to identify the connected device. Initiated from the app.

Documents / Resources

	PE Wideband O2 Bluetooth Controller Kit [pdf] User Guide Wideband O2, Bluetooth Controller Kit, Wideband O2 Bluetooth Controller Kit
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References

-  [SaaS | | ; ,APP ,SCRM , !](#)
-  [Performance Electronics | Where Fire Meets Fuel](#)
-  [P65warnings.ca.gov](#)