

APSX WIDEBAND



NEW! APSX D2 Air-Fuel Ratio Gauge
Anti-Glare Lens & Better Look

APSX D2 DIGITAL WIDEBAND O2 AIR FUEL RATIO (AFR) CONTROLLER GAUGE

Quick Start Guide

Whenever you need additional support,

Please visit WIDE-BAND.com/help.asp

1 Fuel Type	
1 Lambda	L 1
2 E85	E 1
3 Gasoline	A 1
4 Diesel	d 1
5 Methanol	n 1

PUSH->

	APSX	Gasoline	Diesel	E85	Lambda	Methanol
MIN	73.5	7.35	7.25	4.88	0.50	3.23
LOW	90	9.00	8.88	5.98	0.61	3.96
STOICH	147	14.70	14.50	9.77	1.00	6.47
HIGH	190	19.00	18.74	12.62	1.29	8.36
MAX	220.5	22.05	21.75	14.65	1.50	9.70

APSX WIDEBAND

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Black: Ground (-)
Red: 12V (+)
Green: Digital Output
Orange: NB (Narrow Band)
White: Analog (0-5V Output)



Comes with: D2 52mm gauge assembly, pre-assembled output and oxygen sensor cables with connectors and Bosch LSU4.2 (part# 17014) and weld-in BUNG. D2 assembly includes anti-glare lens, black bezel, black or white GASOLINE faceplate and five optional color LED display.

FEATURES

- 1 - Less wiring and simple installation - no D1 controller required
- 2 - Five bright LED color options (Red / Green / Orange / Blue / White)
- 3 - Configurable four types of fuel (E85, Diesel, Gasoline, Methanol) and lambda display (Faceplates are sold as accessories)
- 4 - Sweeping LED "needle" indicator from rich (green) then normal (orange) to lean (red)
- 5 - Fail safe connector
- 6 - Two ANTI-GLARE faceplates (black or white) options (Comes with only one selected color)
- 7 - Multiple outputs for digital (to PC), analog (to data logger / EMS), narrowband for simulation and extra switch options

WIRING

APSX D2 has a 4ft wiring (5 cables / green-white-red-brown- black) as shown in picture above.

RED power wire goes to 12V source in your vehicle. **BLACK** wire goes to a grounded source such as battery ground (-) post. **GREEN** digital output is 9600 8N1 serial that can be connected to your PC to monitor readings. It can draw up to 3A momentarily. Normally suggested to use 5A fused system. After the startup, it will use less than 1A average.

If you want to connect other devices such as data loggers or AFR gauges, you can use **WHITE** analog wire for 0-5V output. **ORANGE** narrowband cable is for simulated NB.

The O2 sensor harness (8ft) should be routed in a way so that there would not be any contact with the exhaust piping and other extreme heat sources to prevent damage to the wiring.

GUIDELINE FOR THE LOCATION OF THE OXYGEN SENSOR

Weld the bung at least 24" downstream of exhaust port outlet or 24" after the turbocharger. It should always be before the Catalytic Converter. Also it should be before the X or H pipe if there is. Bung should be welded on the upper section which is located between 10AM or 2AM clock positions.

Please check your vehicle for exhaust leaks, camshaft overlap and open exhausts because those would cause false lean readings. Not following these directions may result in premature failure of the sensor.

OUTPUTS

1 - Analog 0-5V linear output for engine management systems (EMS) and data loggers (MegaSquirt)

Lower and upper limits are 9 AFR and 19 AFR (0V = 9 AFR, 5V = 19 AFR)

Analog output is MegaSquirt compatible.

2 - Digital output is 9600 8N1 serial that can be connected to your PC

3 - Simulated NB output

Both EFI and carbureted applications are ok.

* The low and high limits for analog and simulated NB (NarrowBand) can be modified using the setup procedure.

PROGRAMMING

Depending on when you release the button on D2 after holding, you can modify different settings. Pushing and holding 3 seconds will start continuous cycle of 6 menu items.

1 - Set the fuel type (1-Lambda [L], 2-E85 [E], 3-Gasoline [A], 4-Diesel [d], 5-Methanol [n]). (YOUTUBE VIDEO: <https://youtu.be/DmFX3wgtOpA>)

2 - Set NB lower limit

3 - Set NB upper limit

4 - Set Analog lower limit (Range 7-25 AFR/Default is 9 AFR = 0V)

5 - Set Analog upper limit (Range 15-25AFR/Default is 19AFR = 5V)

6 - Calibration (Calibration range we have seen among the LSU4.2 sensors 70-130)

CALIBRATION - Pre-Calibrated Plug&Play

YOUTUBE VIDEO: <https://youtu.be/p-gKXABFD9E>

The O2 sensor should be exposed to free air for the first time calibration, if needed. Hold the button back of D2, you will see display unit counting from 1 to 6.

Hold the button until you see 6 and release it to complete the calibration. This should take less than 60 seconds.

Once it calibrated, display reads 19.0 at gasoline settings. You can now connect the O2 Sensor onto the exhaust pipe. **For the factory settings**, disconnect power, hold the switch while turning the power on and wait for 3 blinks. You should re-calibrate after this action.

A 0: Power ON / A 1: Sensor ON / 14.7 AFR or Stoich: Cruising or on Neutral gear / 19 AFR or Max range: On gear and gas pedal is not pushed

FOR MOREHELP: www.WIDE-BAND.com/knowledgebase