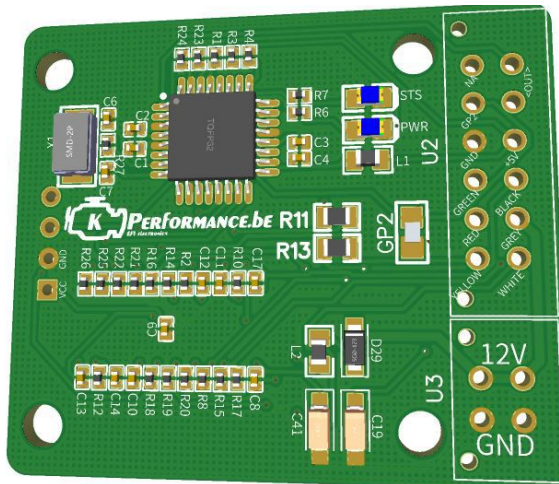




Tiny Wideband R2 User manual

Latest info can be downloaded at

www.Kperformance.be



Warning

- Do not connect or disconnect the Lambda Sensor while powered, only do so when unpowered.
- The Lambda Sensor gets very hot during normal operation, be careful when handling it.
- It takes roughly 30 seconds to 2 minutes to warm up the sensor. Once the sensor is warmed up an engine start could create condensation in the sensor, this may cause thermal shock and damage the sensor. It is best to power off a power source that is “live” when the engine starts.

Package Contents

Tiny Wideband should include the following Items:

- 1x circuit board with soldered surface mount components
- 2x MicroMolex connectors
- 16x MicroMolex receptacles
- 1x 3d printed case and cap
- 1x OLED screen(optional)

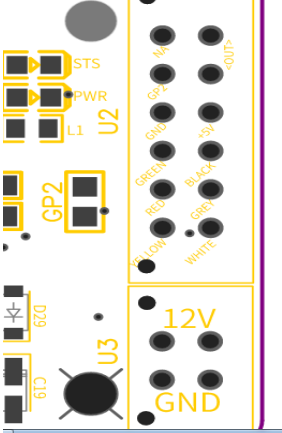
Electrical connections

U2	Color	Function
YELLOW	YELLOW	LSU YELLOW
WHITE	WHITE	LSU WHITE
GREY	GREY	LSU GREY
RED	RED	LSU RED
BLACK	BLACK	LSU BLACK
GREEN	GREEN	LSU GREEN
GND		GROUND
+5V		EXTRA +5V SUPPLY MAX 400mA
GP2		EXTERNAL GROUND ACTIVATING
NA		/
<OUT>		ANALOG OUTPUTS

(4.2 can also be connected with 2 small resistor changes R11+R13)

Compatible with the KdFi PnP lambda Cables

U3		Function
12V	2X	INPUT VOLTAGE 8-18V
GND	2X	GROUND
GP2		START SOLDER BRIDGE



Sensor Exhaust Installation

- The Lambda Sensor should be installed between the 10 o'clock and the 2 o'clock position, less than 60 degrees from vertical, this will allow gravity to remove water condensation from the sensor.
- For all Oxygen sensor installations the sensor must be installed before the catalytic converter.
- Avoid running the sensor to hot!

O-LED Display(Optional)

1.3 and 0.96 I2C are supported without software changes.

Double check VCC&GND pins on aftermarket OLED-screens!

Low budget/quality screens can cause freeze and hang up of Tiny Wideband Controller!

Initial stand-by screen will show:

- Icon Sensor connection
- Icon GP2 ground status (GP2 not grounded= NO START)
- Icon Battery voltage

After succesfull start, the screen will show:

- Temperature value
- Lambda value

Starting and operating

Linear output settings:

0V= AFR 20

5V= AFR 10

Starting of the controller can be done by grounding GP2 (solder bridge on PCB) or external start grounding on molex connector, with customer requirements setting.

le:start lambda controller after 30sec of engine start.

No grounding will result in a standby lambda controller! Blinking LED.

PCB Layout

For easy integration we'll share the layout so the controllers can be integrated in to own projects.