

Universal Gauge for ECUMaster

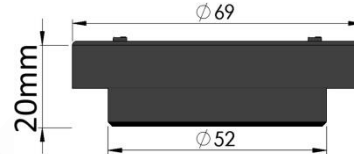
Thank you for your order!

The customer satisfaction at Perfect Tuning is our biggest priority. If you have any questions, suggestions or issues do not hesitate to contact us at support@perfecttuning.net or on Facebook.

User manual and latest firmware version is available on the product page at <http://perfecttuning.net>

Package includes:

- Perfect Tuning Universal Gauge
- 5 ft cable
- Mounting bracket with 2x 4-40 screws



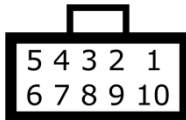
WARNING

Do not use longer screws than provided in the two rear mounting holes. Using too long screws can touch the circuit board inside and damage the gauge.

Opening the gauge will void the warranty.

Wiring

Always disconnect the vehicle battery when installing the gauge. Do not leave any wires not isolated. Always solder or crimp the wires and protect with heat shrink. Refer to the user manual to connect the sensors.



View of the connector when looking at the back of the gauge.

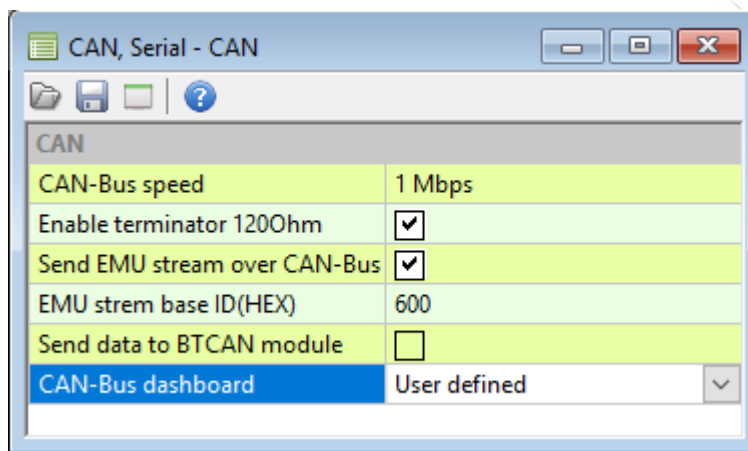
Pin	Color	Function
1	Red	12v switched (+). Always install the gauge on a fused supply (3A)
2	Black	Vehicle Ground (-)
3	White	0-5v analog input 1
4	Yellow	0-5v analog input 2
5	Brown	CAN bus H (EMU black: Black connector pin 12)
6	Purple	CAN bus L (EMU Black: Black connector pin 25).
7	Orange	0-5v analog input 3
8	Gray	Digital input
9	Blue	5v output
10	Green	Digital output output a ground when output is enabled.

EMUBlack users: A custom stream is required to display AFR Target, Boost Target, Injector duty cycle and knock levels. Check the back of this document for more info.

EMU Black: How to display AFR Target, Boost Target, Injector duty cycle and knock levels with the user defined CAN bus stream

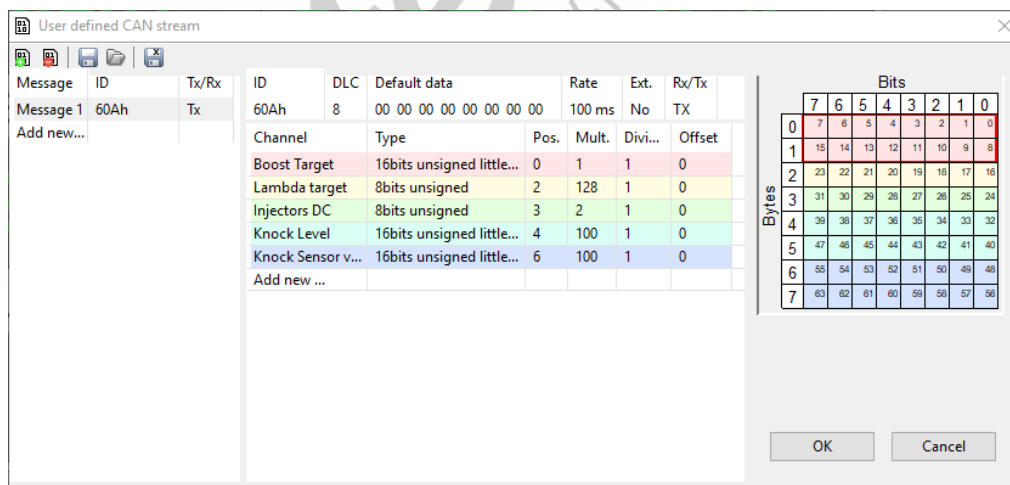
This configuration is available on EMU Black **only**.

1. Open the CAN menu under CAN, Serial
2. Set CAN-Bus speed to 1 mbps
3. Check Enable termination 120 Ohms
4. Check Send EMU Stream over CAN-bus
5. Set EMU Stream base ID (HEX) to 600
6. Select User defined for the CAN-Bus dashboard.



Then go to Tools menu, User defined CAN Stream.

Click on the small folder button to Open a saved CAN-bus stream, Select "PerfectTuningCustomEMUStream.canstr" (available on perfecttuning.net) and press OK.



Knock sensor value = 0-5v readings from knock sensor.

Knock level = Knock sensor value minus engine noise.