

PERFECT TUNING

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Universal Gauge

AEM Infinity, Series2 or EMS-4



User Manual v1.4

For gauge hardware revision 4 and up, software version 48

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Warning

All parts are sold for OFF ROAD RACE-ONLY ground-vehicle use only.

Keep your eyes on the road when using this product.

Race parts are inherently dangerous and may cause injury or damage if improperly modified or altered before use. Perfect Tuning will not be held liable for and will not pay you for any injuries or damage caused by misuse, modification, redesign, or alternation of any of our products. Perfect Tuning will not be held in any way responsible for any incidental or consequential damages including direct or indirect labour, towing, lodging, garage, repair, medical, or legal expense in any way attributable to the use of any item in our catalogue or to the delay or inconvenience caused by the necessity of replacing or repairing any such item.

The gauge is not waterproof or water resistant. Avoid putting water over it, on the screen and on the LEDs.

If you're not sure how to install and connect the gauge after reading this user manual, contact a competent shop to do the installation.

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

Introduction

Thank you for your purchase. 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.

The Perfect Tuning Universal Gauge is a good alternative to expensive race dashes or bigger displays. It's a way more than a simple gauge with the possibility to connect up to 3 sensors directly to the gauge and by having the possibility to display values from an aftermarket ECU at the same time!

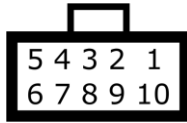
The alarm module is a very nice feature that allows the user to monitor what he wants and never miss an abnormal condition.

Please note that the gauge will fit in a 52 mm pod but keep in mind that the overall dimensions are 69 mm so it might not fit well in a multiple gauge pod where all the gauges are very near each other.

Follow us on Facebook or subscribe to our YouTube channel to be aware of all the software upgrades including all the latest features and newest products.

1 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.

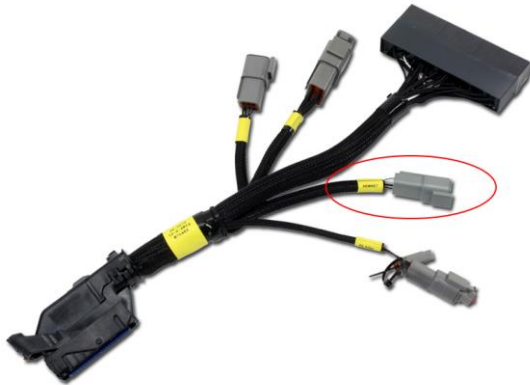


View when looking at the gauge.

Pin	Color	Function
1	Red	12v (+). Always install the gauge on a fused supply (3A)
2	Black	Vehicle Ground (-)
3	White	0-5v analog input 1 (optional)
4	Yellow	0-5v analog input 2 (optional)
5	Brown	CAN bus H
6	Purple	CAN bus L
7	Orange	0-5v analog input 3 (optional)
8	Gray	Digital input (not available)
9	Blue	5v output (optional)
10	Green	Digital output. Connected to the ground when output is enabled.

1.1 Connection on an AEMNet connector

The AEMNet connector is present on most of the Infinity plug and play harnesses like this.



The connector used is a Deutsch 4-pin connector

- Deutsch DTM04-4P (Receptacle connector, present in the harness)
- Deutsch 1060-20-0222 (Pins, present in the harness)
- Deutsch DTM06-4S (Plug connector, where the gauge is connected)
- Deutsch 1062-20-0222 (Pins where the gauge is connected)

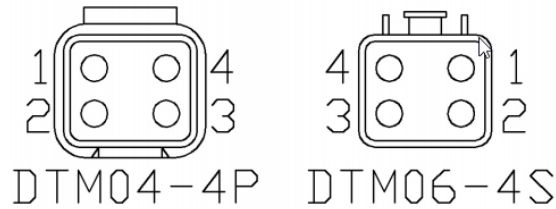


Figure 1: AEMnet connectors, wire entry view

AEMnet Connector		Series 2 EMS Connector
Pin 1	White	CAN1H
Pin 2	Green	CAN1L
Pin 3	Red	AEMnet Power (switched 12 volts)
Pin 4	Black	AEMnet Ground

Table 1: AEMnet connector pinout

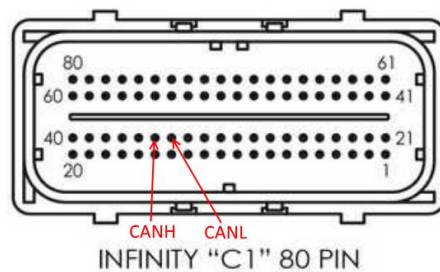
*** Always double-check that the CANH and CANL wires are connected to the right pin in the connector if the communication is not working ***

On the DTM06-4S where the gauge is connected, the colors must be like this:

Gauge connector	
Pin 1	Brown wire from small black cable
Pin 2	Blue wire from small black cable
Pin 3	Red wire of big black cable
Pin 4	Brown wire of big black cable

1.2 Locating AEMNet pins

Connector Views Infinity-6/8h



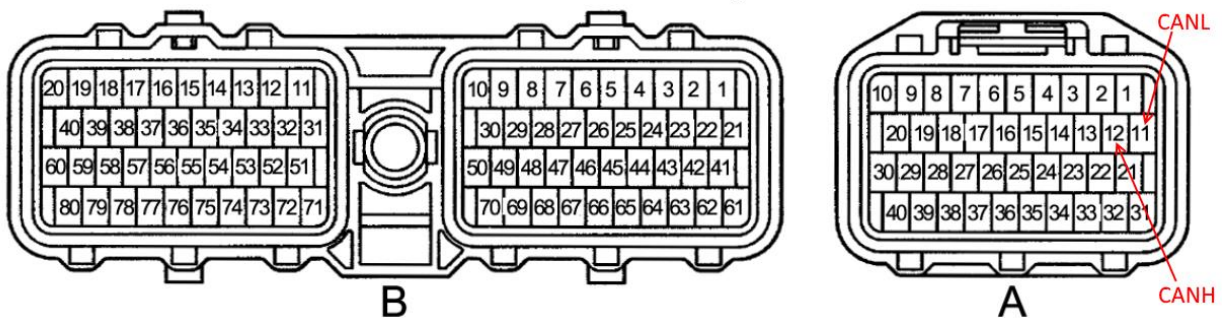
SERIES 2 EMS

When connecting to a Series 2 EMS, an AEMnet branch will have to be added to the factory harness. AEM has several AEMnet to Series 2 EMS adapters available. See Table 1 below for a list of the part numbers and corresponding Series 2 EMS units.

AEM Series 2 EMS	AEMnet Adapter P/N	CAN1L Pin Location	CAN1H Pin Location
30-6030	30-3430	C22	C21
30-6040	30-3431	A22	C2
30-6050	30-3432	D14	D10
30-6051	30-3432	D14	D10
30-6052	30-3432	D14	D10
30-6053	30-3432	D14	D10
30-6060	30-3432	C28	C29
30-6100	30-3433	11A	12A
30-6101	30-3433	11A	12A
30-6300	30-3434	75	13
30-6310	30-3431	77	87
30-6311	30-3431	57/77	67/87
30-6320	30-3435	33	13
30-6600	30-3436	42	12
30-6601	30-3436	42	12
30-6610	30-3437	12	69
30-6611	30-3437	12	69
30-6620	30-3437	57	40
30-6820	30-3438	B29	B28
30-6821	30-3438	B29	B28

TABLE 1. EMS Adapter P/N & Pin Locations

Example of connections on the 30-6100 Series 2 EMS



2 Menus and buttons

There are two buttons to navigate through the different menus of the gauge and edit basic settings.

Press left to move to the left or to go up and press the right button to move to the right or go down.

Press both buttons to select or enter. It's not possible to go back. If you entered a menu by error, press both buttons until you're back to the previous screen or power off the gauge.

2.1 Real-Time Display Screens

Almost the real time screens are configurable. First, validate that "Screen designer" is enabled in the Settings menu. Then where a value is displayed, press both buttons to open the screen designer. A rectangle will appear around the value that is selected. Press both buttons to edit this value and a list of inputs will appear. Select the desired value with left and right button and press both to select the value.

2.2 Settings

This section will describe each configuration screen.

2.2.1 Screen Brightness

Use this menu to change the screen brightness intensity.

2.2.2 LED Brightness

Use this menu to enable or disable automatic light adjustment. It's possible to specify the led intensity during day and night. Depending on the LEDs intensity, light can be reflected into the light sensor. If you have this issue, it's suggested to disable the automatic dimming of the LEDs.

2.2.3 Units

This screen is used to select the displayed units for different values on the screen. Do not mix up pressure and MAP. Units are different.

2.2.4 Input Configuration

Configure the three 0-5v analog inputs by selecting which input to configure, then select the sensor. For advanced or custom configuration, see the Wi-Fi section.

2.2.5 Wi-Fi hotspot

Advanced configuration of the gauge is made over the configuration web page. Press both buttons to enable the Wi-Fi hotspot. This will create a Wi-Fi network named PerfectTuning-XXXX (where XXXX will vary on every gauge). The hotspot is not password protected and this is why it cannot be left always active. Leaving this screen will disable the hotspot. Once connected to the PerfectTuning-XXXX hotspot, open a web navigator (Google Chrome is recommended) and navigate to the address 192.168.0.1. This will bring the configuration webpage. See the Wi-Fi section for more information.

2.2.6 Safe Mode

Safe mode is for firmware upgrade recovery in case of problems. Safe mode can also be accessed by pressing both buttons while powering the gauge.

2.2.7 Edit text color

Change the text color in the menus and in few real-time display values.

2.2.8 Disable / Enable screen designer

The screen designer is used to select which value is displayed in the real time screens. To prevent editing these values, disable the screen designer.

2.2.9 Select boot mode

There are eleven different boot sequences that are available to execute when the gauge is powered up.

The number 11 is no boot sequence.

2.2.10 General Info

This menu display general gauge information like hardware version, software version and serial number that can be useful for support.

2.2.11 AEM Map Sensor

This setting is only used with AEM Serie2 (v2) or EMS-4. This setting is used to convert ECU load into kPa or PSI units. To select the appropriate sensor, click on both buttons and 3 choices will appear: List, Setup 0 and Setup 100. If you have a standard map sensor, select List and then select your sensor in the list:

- AEM 3.5 bar
- AEM 1 bar
- AEM 2 bar
- AEM 5 bar
- Honda
- Toyota
- Omni 3 bar
- Omni 4 bar
- Omni 7 bar
- Subaru STI

If the sensor used is not in the list, then configure the reading in kPa at 0v with the Set 0v option and the reading a full scale (5v) with Set max.

2.2.12 Select ECU Model

This option will enable or disable features based on your ECU model. Select between Infinity or Series2/EMS-4.

2.2.13 Factory Reset

Reset all settings to factory default.

3 CAN Bus

The gauge can display values coming from the aftermarket ECU.

3.1 CAN bus resistor

On the back of the gauge, in the hole there is a jumper for the 120 ohms end of bus resistor. To disconnect the 120 ohms resistor, remove the jumper. Unless there is more than 1 device connected to the CAN bus, leave the jumper installed.

3.2 Display values from ECU over CAN bus

3.2.1 With the AEM Infinity

No configuration is required with the AEM Infinity!

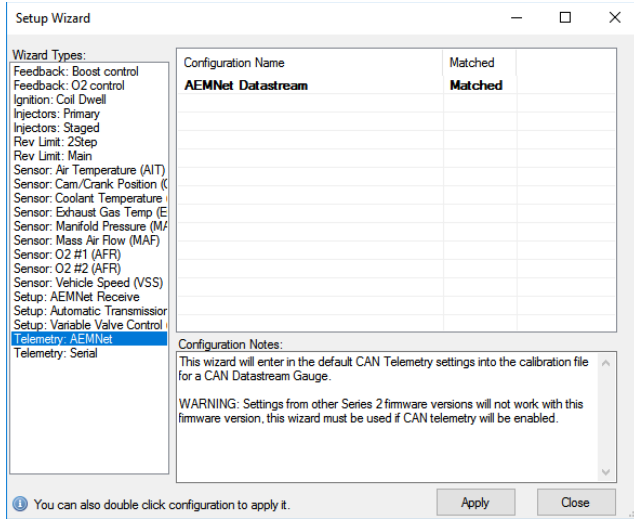
Here are the values that can be displayed with the Infinity on version 20 of the gauge. Keep in mind that all the values might not be available or might display 0 depending on what is connected to your Infinity ECU.

Value	Description
RPM	Engine rotation speed
IAT	Intake temperature (C or F)
Coolant	Coolant temperature (C or F)
MAP (kpa)	Manifold air pressure in KPA
MAP (PSI)	Manifold air pressure in PSI
AFR1	Air/fuel ratio 1 (Lambda or AFR)
AFR2	Air/fuel ratio 1 (Lambda or AFR)
AFRT	Air/fuel ratio target (Lambda or AFR)
TPS	Throttle position
Gear	Transmission gear
V. Speed	Vehicle speed (kph or mph)
Ign. Adv.	Ignition advance
Batt V.	Battery voltage at the ECU. Different than Batt which is voltage at the gauge.
Fuel eco.	Fuel economy in GPM or l/100 km.
Knock	Knock indicator
Baro	Barometer reading
Boost Duty	Boost control duty cycle
FP	Fuel Pressure (kPa, Bar or PSI)
OILP	Oil Pressure (kPa, Bar or PSI)
FLEX	Ethanol Content %
Gear	Calculated gear
ERRE	Engine protect error flag
ERRL	Engine lean protect flag
ERRB	Engine boost protect flag
ERRO	Engine oil pressure protect flag
ERRC	Engine coolant temperature protect flag
MAF	Mass air flow
Baro	Barometer pressure (kpa)
OILT	Oil temperature (C or F)
TRAN	Transmission temperature (C or F)
BSTT	Boost target (kPa or PSI)
DLWS	Wheel speed (driven wheel left)
DRWS	Wheel speed (driven wheel right)
NLWS	Wheel speed (undriven wheel left)
NRWS	Wheel speed (undriven wheel right)
KNK1-8	Knock retard per cylinder

3.2.2 With an AEM Serie 2 (v2) or EMS-4

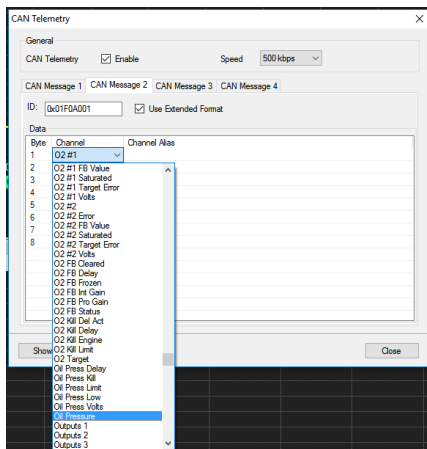
The gauge is tested with AEM Series2 firmware 01v24 and 02v02.

The telemetry must be enabled. To do that, connect to your ecu with AEMTuner and go to Wizards, Telemetry: AEMNet. Double click on AEMNet Datastream so the matched indicator will be displayed, then click apply.



To display Oil pressure or Fuel pressure, the 02v02 firmware is required. Follow this guide to configure your ECU: <http://ameelectronics.com/?q=forum/aemtuner-how-setup-minimum-oil-and-fuel-pressure>

Then, go to Tools, Configure Telemetry, CAN Telemetry. In the CAN Message 2 tab, Select byte 1 channel (default is ADCR11) and change it to Oil Pressure by double clicking on it:



Here are the values that can be displayed with the AEM Serie2 (v2) or EMS-4 on version 20 of the gauge.

Value	Description
RPM	Engine rotation speed
IAT	Intake temperature (C or F)
Coolant	Coolant temperature (C or F)

MAP (kpa)	Manifold air pressure in KPA
MAP (PSI)	Manifold air pressure in PSI
AFR1	Air/fuel ratio 1 (Lambda or AFR)
AFR2	Air/fuel ratio 1 (Lambda or AFR)
AFRT	Air/fuel ratio target (Lambda or AFR)
VSS	Vehicle speed
TPS	Throttle position
Gear	Transmission gear
Ign. Adv.	Ignition advance
Batt V.	Voltage battery at the ECU. Different than Batt which is voltage at the gauge.
ADCR11	ADCR11 analog input value 0-5v
ADCR13	ADCR11 analog input value 0-5v
ADCR14	ADCR11 analog input value 0-5v
ADCR17	ADCR11 analog input value 0-5v
ADCR18	ADCR11 analog input value 0-5v
ADCR15	ADCR11 analog input value 0-5v
ADCR16	ADCR11 analog input value 0-5v
ADCR08	ADCR11 analog input value 0-5v

4 WiFi

4.1 How to connect and access the gauge configuration webpage

The gauge can be configured with any recent smartphone, tablet or laptop that is able to browse a webpage. Only one connection at the same time is supported.

First, go to **“Settings”** on the gauge, and enable the **“Wi-Fi hotspot”**.

Connect to the PerfectTuning-XXXX WiFi hotspot on your device.


Open the browser used to navigate the internet and type 192.168.0.1

Google Chrome web browser is recommended and only one connection is supported.

The home web page will appear.

In rare occasion, it's possible that some device have trouble connecting to the hotspot. Specifying a fixed IP of 192.168.0.2 might help or try rebooting the gauge.

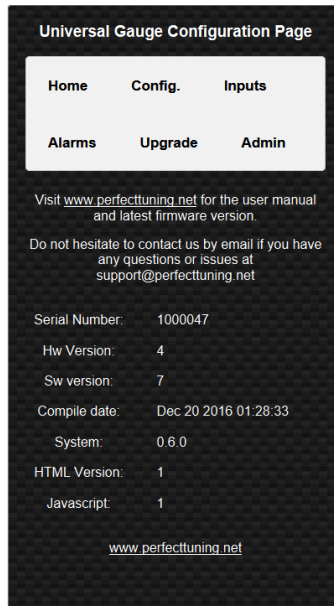
4.2 Help

Click on the question mark logo  in the web pages for more information about each option.

4.3 Web pages

4.3.1 Home

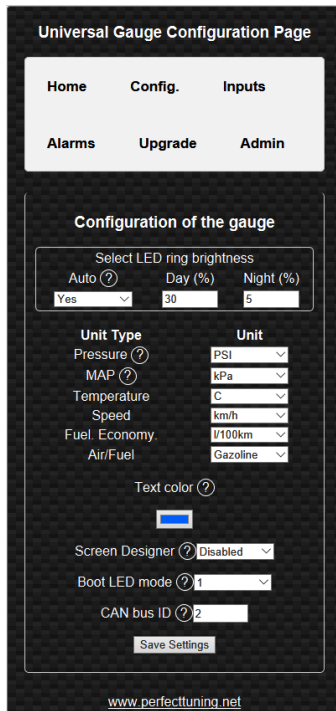
The home page display information related to the gauge like the serial number, software version, hardware version, html version, JavaScript version and system version.



4.3.2 Config.

The configuration page allows changing general settings of the gauge like units, LED ring intensity and more. The color tool is not available on IOS devices like iPhones and iPads. IOS users must enter the text color value in hexadecimal.

Always hit "Save Settings" before going to another page.

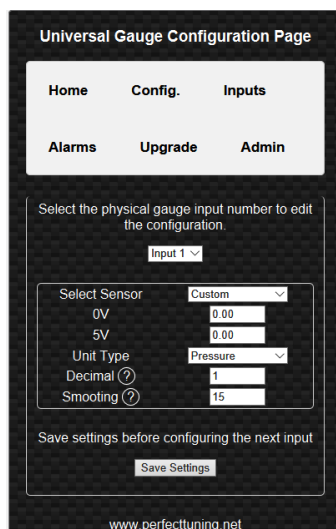


4.3.3 Inputs


The input page allows editing the analog input configuration. It is possible to select between the different supported sensors or enter custom values for a different sensor. Custom thermistor tables are not supported.

Smoothing is important. The default value is 100. 100 mean no smoothing. 15 mean maximum smoothing. Change this setting to smooth or increase response of the analog inputs.

Always hit "Save Settings" before configuring next input.

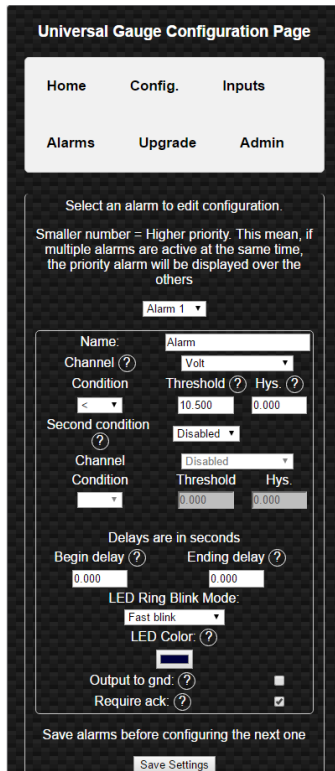


4.3.4 Alarms

This page is used to configure up to 16 alarms on the gauge. Each alarm can contain 2 conditions. Each field is explained by clicking on the question mark logo .

Alarms with a smaller number have higher priority.

Always hit "Save Settings" before configuring next alarm.



4.3.5 Upgrade

1. Download the latest firmware upgrade file suited for your gauge (please verify your serial number) and select model required at <http://perfecttuning.net> under the support tab.
2. The firmware upgrade can be done with a smartphone, laptop or a tablet running Windows, Android or IOS.
3. Power up the gauge, go to settings, Wifi hotspot and enable it by pressing both buttons.
4. On your laptop or smartphone and connect to the new wifi hotspot named PerfectTuning-XXXX.
5. Firefox browser is not supported. Use Google Chrome to do the firmware upgrade. On IOS devices, this is tricky because the IOS devices cannot store a .bin file easily; the user must save the firmware file to iCloud first. And then select the file from there in Safari.
6. Open your browser and navigate to <http://192.168.0.1>
7. Click on the Upgrade tab.

*** WARNING *** for all the gauges running firmware version under 22, contact us to get a firmware upgrade file. The files on the website won't work with your gauge ***

8. Click on browse to select the ptugxxxxxxxxx.bin file suited for your gauge.
9. Click on "Begin upgrade". The upgrade should take less than 30 seconds.
10. Accept the pop-up and don't do anything else. Wait until an other message appears and check the gauge for any messages or a gauge reboot.
11. After the reboot, on the gauge, go to settings, general info and validate that the "sw version" is the same as the file you used for the upgrade. If not, try again.

For all the gauges that are running the software version under 44, an upgrade of the HTML files is required too.

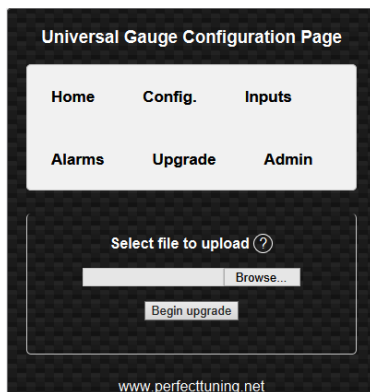
After upgrading to the latest version, enable wifi and navigate to the web page. Then instead of upgrading the bin file, select the file named rescueUpgrade.html. Do not send it if you're not on firmware 45 or over. When it's done. go to 192.168.0.1/rescueUpgrade.html. If the page load, then send select, index.html and press begin upgrade again.

IT IS VERY IMPORTANT TO FOLLOW ALL THE STEPS IN ORDER TO DO YOUR FIRMWARE UPGRADE CORRECTLY. NOT FOLLOWING THE STEPS HERE CAN BRICK YOUR GAUGE.

Optional: This page can also be used to change the boot logo image.

There is no support regarding changing the boot image and if there is any problem related to this, this won't be covered under the warranty.

Create a .bmp file with 24 bits color depth in paint with a dimension of 160x128 pixels. Name this file boot.bmp and use the upgrade tab to upload the file to the gauge.



4.3.6 Admin

The admin page is used to do a factory reset of the gauge.

The WiFi credentials section is for support and advanced users only. These settings are not related to the Wi-Fi hotspot SSID and password so do not try to change this.

5 Alarms

The alarms are not configurable directly on the gauge. See the Wi-Fi section of the user manual to understand how to connect to the web interface of the gauge and configure the alarms.

An alarm can be ignored by pressing any button. Pressing both buttons when an alarm is active will disable the alarm until next reboot.

Alarms are only displayed when the real time screens are active. The alarms won't be generated if the gauge is in the settings menu.

In each alarm configuration, it's possible to set a custom name.

Then select on which channel this alarm will be set. Select a condition (< Smaller, > Bigger, = Equal), a threshold value and a hysteresis value.

Second condition is use to make combination of condition to generate an alarm. The condition "AND" (condition 1 AND condition 2 must be active for the alarm to be generated) or "Or" (condition 1 or condition 2 must be active to generate the alarm) can be selected.

A begin and ending delay can be specified in seconds.

Select the LED ring mode (fast blink, slow blink, solid, off) and LED ring color.

The output to ground check box can be used to ground the digital output when the alarm is active.

Require Ack is used to leave the alarm active as long as the user doesn't acknowledge the alarm by pressing a button on the gauge.

Eg: Channel is MAP (PSI). Condition is bigger, threshold is set to 20 and hysteresis is set to 1. Begin delay is set to 1 and end delay is set to 0.

When the MAP value will go over 20 psi for at least 1 second the alarm will be generated. Because there is a hysteresis value set to 1. The value must go under 19 psi for 0 seconds for the alarm to end. When the alarm is active, the LED ring will blink in red quickly. As soon as the value is under 19 psi, the gauge will display the previous real time screen.

Universal Gauge Configuration Page

Home Config. Inputs

Alarms Upgrade Admin

Select an alarm to edit configuration.

Smaller number = Higher priority. This mean, if multiple alarms are active at the same time, the priority alarm will be displayed over the others

Alarm 1 ▾

Name: Alarm

Channel: Volt ▾

Condition: ▾ Threshold: 10.500 Hys: 0.000

Second condition: Disabled ▾

Channel: Disabled ▾

Condition: ▾ Threshold: 0.000 Hys: 0.000

Delays are in seconds

Begin delay: 0.000 Ending delay: 0.000

LED Ring Blink Mode: Fast blink ▾

LED Color:

Output to gnd:

Require ack:

Save alarms before configuring the next one

Save Settings

6 Accessories and Sensors

6.1 Perfect Tuning Wideband controller:



Wires color of the Perfect Tuning wideband controller.

Color	Function
Red	12v with 5A fuse.
White	Power ground. Connect to the same ground of the gauge.
Black	Sensor ground. Connect to the same ground of the gauge.
Green	0-5v linear output connected to any analog inputs of the gauge.
Orange	Narrowband output is unused

Blue	Led output for the heater is unused.
------	--------------------------------------

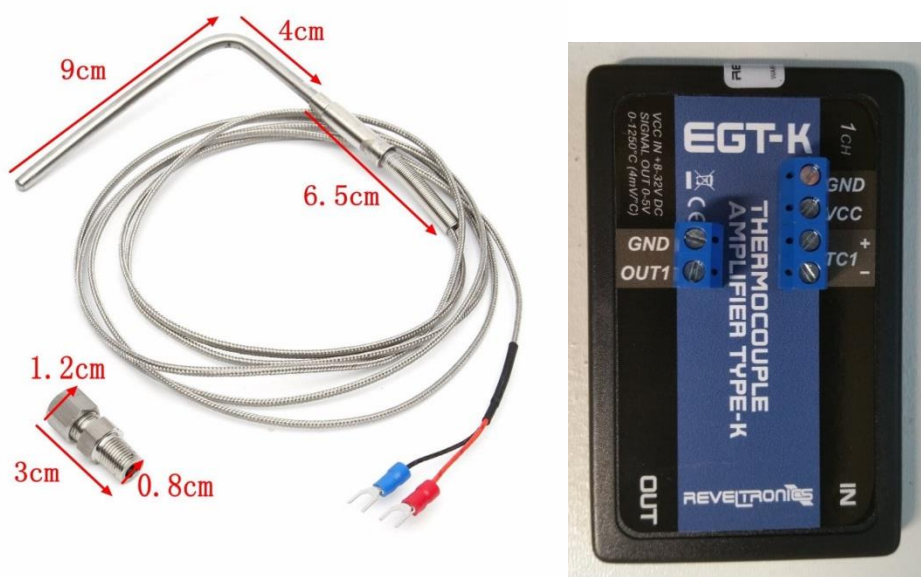
6.1.1 Calibration procedure

When the wideband sensor is selected in the Inputs configuration menu, a reboot will be required for calibration. This will work only with the Perfect Tuning wideband controller. To cancel this calibration, press both buttons during the calibration sequence.

6.2 EGT

Power the EGT-K controller VCC pin to 12v and GND to ground. Connect the OUT1 to any analog input of the gauge (white, yellow or pink wire) and the output GND to the black wire of the gauge.

Connect the EGT probe black wire to the TC1- pin and red wire to TC1+.



6.3 Oil pressure sensor

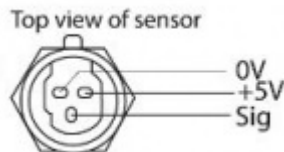
The oil pressure sensor is compatible with oil, fuel, water or air pressure.

Accuracy: within 1.5% of reading (full scale).

Thread: 1/8"-27 NPT.

Wiring connector: water sealed quick disconnect. Mating connector and wire harness (pigtail) are included.

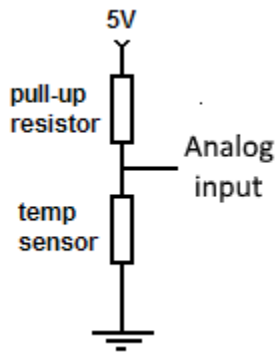
Red	5v (blue wire of the gauge)
Black	Ground (black wire of the gauge)
Blue	Signal (white, yellow or pink wire of the gauge).



6.4 Oil, coolant and air temperature sensor

Thermistors must be connected with a 1k provided pull up resistor to 5v and grounded at the same place where the gauge is grounded.

Resistor is connected to the blue wire of the gauge (5v output) and the other side is connected to any input (white, yellow or pink wire). Thermistor is connected to the same analog input and the other pin to the black wire of the gauge. The polarity of the resistor and thermistor is not important.



Configuration:

- Select "Oil temp" if the sensor looks like this



even sensor is

- Select GM CLT if the sensor looks like this:



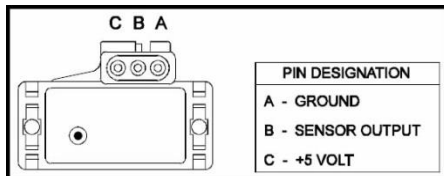
- Select GM IAT if the sensor looks like this:



6.5 Map sensors

6.5.1 GM 3 bar map sensor

The GM 3 bar (29 psi) and 4 bar (44 psi) must be connected this way. The 5v out is available on the blue wire of the gauge. NEVER CONNECT THE MAP SENSOR TO 12v. The ground pin must be connected to the black wire of the gauge. Sensor output can be connected to any of the three analog inputs of the gauge (white, yellow or pink).



6.6 12v Buzzer

A 12v buzzer can be used with the gauge to generate a sound when an alarm occurs. Connect the red wire of the buzzer to the positive 12v of the gauge and connect the black wire of the buzzer to the Output pin of the gauge (green).

Red	Connect to 12v
Black	Connect to gauge output green wire



7 12 Month Limited Warranty

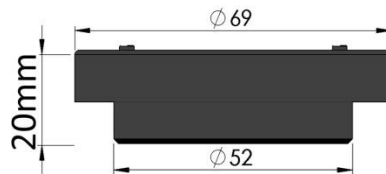
Opening the gauge will void the warranty.

Perfect Tuning warrants to the consumer that all products will be free from defects in material and workmanship for a period of twelve (12) months from the date of the original purchase. Damage cause by water is excluded. Products that fail within this 12-month warranty period will be repaired or replaced at Perfect Tuning's option, when determined by Perfect Tuning that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of the Perfect Tuning part. In no event shall this warranty exceed the original purchase price of the Perfect Tuning part nor shall Perfect Tuning be responsible for special, incidental or consequential damages or cost incurred due to the failure of this product. Warranty claims to Perfect Tuning must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of products and is non-transferable. All implied warranties shall be limited in duration to the said 12-month warranty period. Improper use or installation, accident, abuse, unauthorized repairs or alterations voids this warranty. Perfect Tuning disclaims any liability for consequential damages due to a breach of any written or implied warranty on all products manufactured by Perfect Tuning. Warranty returns will only be accepted by Perfect Tuning when accompanied by a valid Return Merchandise Authorization (RMA) number. Products must be received by Perfect Tuning within 30 days of the date the RMA is issued.

Oxygen sensors are considered wear items and are not covered under warranty. Please note that before Perfect Tuning can issue an RMA for any electronic product, it is first necessary for the installer or end user to contact the us at support@perfecttuning.net to discuss the problem. Under no circumstances should a system be returned or a RMA requested before the above process transpires. Perfect Tuning will not be responsible for electronic products that are installed incorrectly, installed in a non-approved application, misused, or tampered with. Any Perfect Tuning electronics product can be returned for repairs if it is out of the warranty period. There is a minimum charge of \$50.00 for inspection and diagnosis of Perfect Tuning electronic parts. Parts used in the repair of Perfect Tuning electronic components will be extra. Perfect Tuning will provide an estimate of repairs and receive written or electronic authorization before repairs are made to the product

8 Dimensions

The gauge fits in a 52 mm pod but the overall dimension is 69 mm



9 Contact

If you found a bug, have suggestions, issues, or questions, you can contact us at support@perfecttuning.net. We can give remote desktop and phone support. Just contact us by email first.

10 Compatible accessories:

- Wideband controller with Bosch LSU 4.9 sensor.
- Fast response GM intake air temperature sensor (open element IAT)
- GM intake air temperature sensor or coolant temperature sensor (close element).
- Generic oil or coolant temperature sensor (1/8 NPT).
- Exhaust gas temperature sensor. Up to 1250 Celsius with interface board.
- Oil, fuel, air, water pressure sensor in different range from 100 psi to 2500.
- MAP sensors 1, 3 or 4 bar.
- Dash mount gauge holder

Visit <http://perfecttuning.net> for more information or contact us at support@perfecttuning.net.