



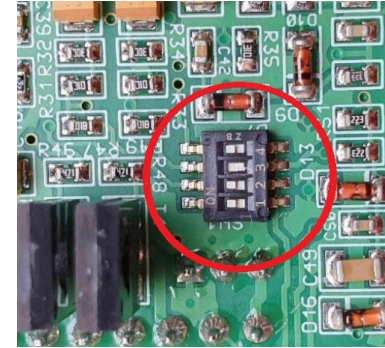
EMS3 - SENDER SETUP

STEP 1

Before beginning installation, with no power to unit, setup the DIP SWITCH POSITION on the unit.





STEP 2

Then, when first powered up, in the Menu, input the SENDER TYPE as per the sender type you are using below.



*Resistive type senders
– DIP switch ON*

*Voltage type senders
– DIP switch OFF*

| CHANNEL # | WIRE COLOUR | MEASURING | SENDER TYPE | SENDER PICTURE | DIP SWITCH POSITION | SENDER TYPE |
|-----------|-------------|----------------|-------------|---|---------------------|--------------|
| 1 | Green | Coolant Temp | RESISTIVE |  | ON | VDO 150 |
| 2 | Yellow | Oil Temp | RESISTIVE |  | ON | LM335 |
| 3 | Grey | Oil Pressure | VOLTAGE |  | OFF | SENDO / MPS7 |
| 4 | Blue | Boost Pressure | VOLTAGE |  | OFF | SENDO / MPS2 |

Any of the four channels can measure resistive or voltage based senders



MADMAN - MPSx Pressure Sender check

STEP 1

With a Multimeter, at the sender pigtail wire:

Between BLACK and RED Wire

Check for +12V between BLACK and RED Wire



STEP 2

With a Multimeter, at the sender pigtail wire:

Between BLUE and BLACK Wire

Check Voltages:

At idle

>0V but <0.5V, typically 0.3V

With revs/driving

0.5V = 0 Bar

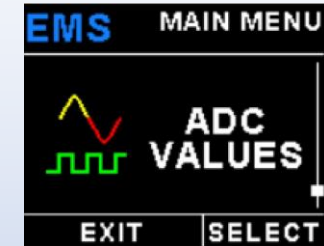
4.5V = Max pressure

On bench with no pressure

If > 0.5V --- sender faulty

STEP 3

In the EMS3 Menu, ADC Values:



Check pressure Channel values (typically Channel 3 & 4)

Ignition ON

ADC = +/- 300

Revs/driving

ADC = 500 to 4500



EGT Probe Maximum Temperatures

For diesel engines/mechanical injection:

Pre-Turbo:

720 °C

For diesel engines/electronic injection:

Pre-Turbo:

650-680 °C



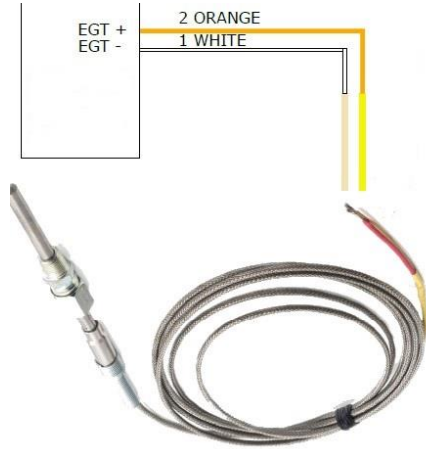
Setup the Madman EMS3 max value for EGT warning as per above temperatures





EGT Probe

Determining bad connection or bad probe



With the wiring harness connected to the EMS3, take the EGT + and - wires (orange & white) and perform the above tests.



Open circuit

→ Should display "CHECK SENDER" on the EMS3

Short circuit

→ Should read the ambient temperature

Connected to probe

→ Should read the actual probe temperature