INCREASING THE AREA UNDER THE CURVE

TWISTED TUNING STEALTH ETHANOL SENSOR KIT INSTALLATION

We are proud to present our Stealth ethanol content sensor kit for the 2020 Toyota Supra/Z4 equipped with the B58. We strive to give you the best possible products on the market for these cars.

Our Kit features an OEM looking installation with our EXCLUSIVE 5/16" and 3/8" fuel line quick connects. This makes installation a breeze and blends in perfectly with the OEM fuel System No loose or extra unnecessary hoses like other offerings on the market.

Our Kit is Based around the Zeitronix AWARD Winning ECA-2 (CANBUS) ethanol module. This gives the following capabilities:

- CAN Bus communication for easy connection and logging through other CAN Bus devices.
-Two 0-5 V analog outputs: Ethanol % and Fuel Temperature
-Error indication in event of signal absence from Flex Fuel Sensor
-Very flexible CAN Bus setup for easy connection and logging through other CAN Bus devices.
-Choice of Zeitronix Dual output gauge which displays both Celsius and Fahrenheit. Dual E % and Fuel Temperature Gauge in choices of RED digits or Bluetooth or both.
-Flow Through Flex Fuel Sensor and connecting harness 8 ft (2.4m) are included.

WHAT COMES IN THE KIT:

-Zeitronix ECA-2 CanBus Unit
-Zeitronix Dual Output Gauge w/ Red Digits (E-content/Fuel Temp)
-Twisted Tuning Exclusive 5/16" to 3/8" Fuel Line Quick Connects
-Authentic and Tested Ethanol Sensor
-8ft Ethanol Sensor Harness
-Wire harness for the gauge and ECA-2 module
All Products Made in the USA.

FUTURE DEVELOPMENT

PHASE 1: base release allowing visual display of Ethanol content and fuel temperature via low profile mounted gauge and OEM installation quality.
PHASE 2: all of Phase 1 features plus Factory ECU integration allowing high speed datalogging and monitoring via OBD2 port with ECU data.
PHASE 3: Phase 1&2 plus full factory ECU flex fuel integration allowing automatic and dynamic tune adjustments of load, boost, fuel and timing without reflashing. Set it and forget OEM style flex fuel solution.

Flex fuel Sensor Technical Specification:

Measuring range:	0…100% Alcohol (ethanol) in fuel mixtures
Sensor Accuracy:	5% of the mixture ratio
Output characteristic:	Linear, Frequency, Duty Cycle
Operating temperature:	Environment -40°C… +125°C, Fuel -40°C… +90°C
Maximum fuel pressure:	10 bar, (145 psi)
Maximum pressure drop:	0.1 bar, (1.45 psi)
Maximum flow:	200 l/h
Supply voltage:	6…18 Volts DC
Sensor Temperature error:	< 1.5%
Response time:	< 250 ms after power on at any temperature
Design:	Suitable for the installation in motor vehicles, independent of position. Housing is waterproof.

TOOLS NEEDED:

- 11/16” wrench or metric equivalent
- 3/4" wrench or metric equivalent
- Medium Philips Head Screwdriver
- Medium Flat-tip Screwdriver
- Pliers
- Interior Trim Panel Tool (Screwdrivers work)

TIME NEEDED FOR INSTALL:

- 1-3 hours (depending on if installing the gauge

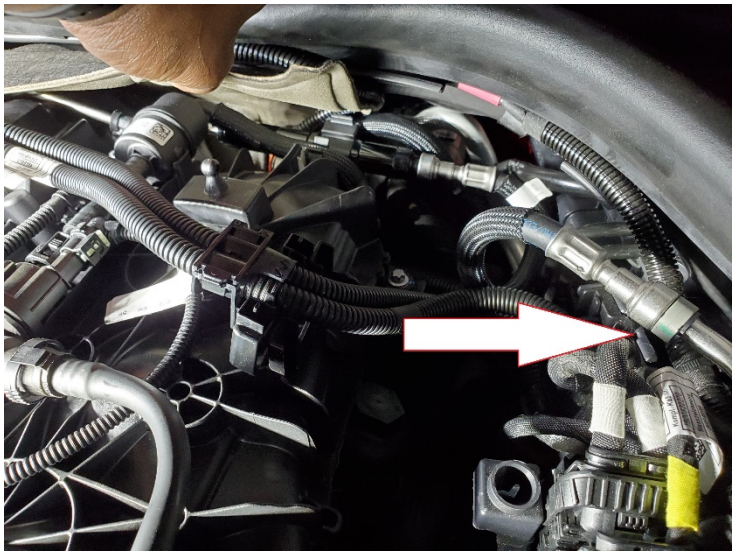
INSTALLATION INSTRUCTIONS:

1. Open Vehicle trunk and disconnect battery

2. Open vehicle hood and remove the plastic engine cover to expose the engine

3. Locate the factory low pressure fuel line to the right (driverside) of the engine and remove the white quick disconnect clip from the quick release hose end.

   NOTE: careful releasing the hose and some fuel pressure may still be in the line. We recommend covering the connection with a rag while removing to shield the spray.



4. Follow the hose to the other side and remove the second grayish/white clip from the quick release hose end that's attached to the stainless steel hard HPFP feed line.

5. Take the 11/16" wrench and ¾" wrench and install the Twisted Tuning quick connect fittings to the ethanol sensor like pictured here:

6. Remove the vacuum canister from the top of the valve cover to free up some space to work. The canister is shown here with the big arrow. Pinch the connector show by the small arrow lift the canister up and toward the rear of the vehicle to remove.

7. Once you have the quick connect fittings installed onto the sensor, plug in the harness to the sensor, then install the assembly to the HPFP hard feed line as pictured here:

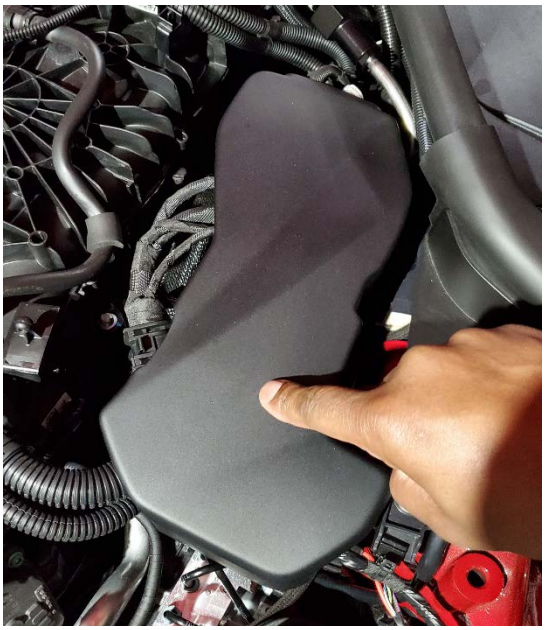
8. Reconnect the factory low pressure fuel line to the sensor and low-pressure hard line. Re-install the vacuum canister. Re-install the grayish/white plastic clip to the fuel line closest to the strut tower. And use the supplied Black clip for securing the sensor side quick disconnect.

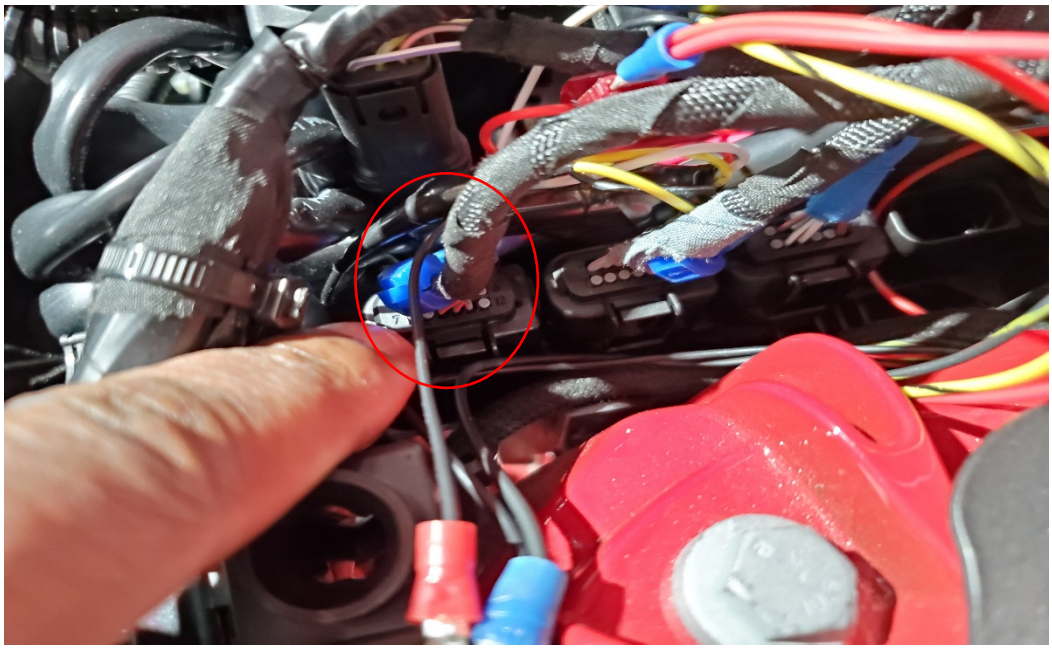
9. Route the sensor electrical harness to the brake booster/master cylinder compartment on the driverside.

10. Locate the 12v switched source on Pin 7 of the first plug from the Power distribution module by removing the plastic cover.

11. Using a T-tap connector (22-18ga), tap the green/red wire and route the power wire from the Zeitronix Module to that tap.

12. Route the ground to a good chassis ground of your choice.





NOTE: The Zeitronix module mount location is up to the user. We placed ours in the Master Cylinder compartment on the driverside. Doing this allows you to only need to run one wire through the firewall. And that would be for the ZT gauge. In that event please see below for firewall routing.

FIREWALL ROUTING

1. Make your way to the vehicle cabin on the driverside. Under the dashboard on the firewall located the factory wiring harness pass through grommet.

2. You see the two holes on the big black grommet, using a Philips head screwdriver or drill. Puncture a hole through one of the recessed holes.

3. Figure out where you wish to mount the gauge and complete the routing needed to get to that point. Keep in mind the length of the gauge cable. You can extend the cable with just a phone line joiner and extra phone line.

4. Once all is routed and mounted. And all wiring is connected safely and properly installed, reconnect the battery and ensure the gauge and etc. are functioning.

5. Once verified that all is operational, put all panels and parts back together and you're good to go.

BLUETOOTH FUNCTIONALITY

If you purchased the Bluetooth module with your kit that allows monitoring the ethanol content and fuel temp via our Android app, then ensure the Bluetooth module is installed between the ethanol sensor and main sensor harness. The Bluetooth module is powered by the existing Zeitronix harness, so no extra wiring is needed. The Bluetooth module is all plug and play.

TT Flex Android Mobile App

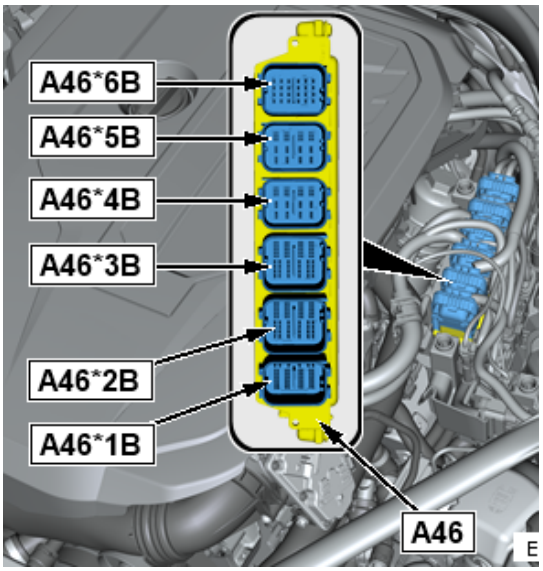
Bluetooth Module Add-On

ECUTEK RACEROM INTEGRATION

With the release of Ecutek's Racerom brings us to Phase 3 of our Stealth Ethanol Kit Development. Full factory ECU flex fuel integration. If you already have your Stealth Kit installed. Then you will only be adding/connecting two more wires which are the CANBUS to send sensor output to the ECU.

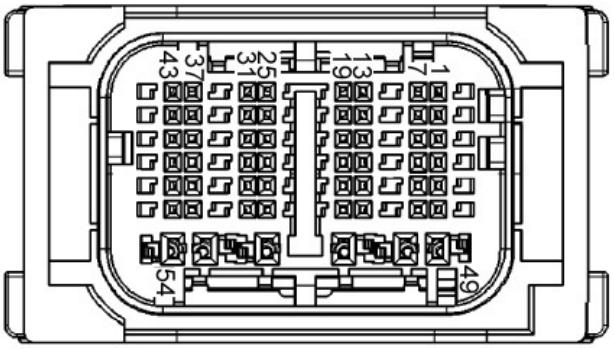
CONNECTION INSTRUCTIONS AND ILLUSTRATIONS

1. Select where you wish to make your CANBUS connection. There are two choices, PTCAN and PTCAN2. The ECA2 can be connected to either BUS. Both buses are located on the same ecu plug named A46*1B. See illustration to the right for plug location on the ECU. (Plug on ECU closest to the front of the vehicle.

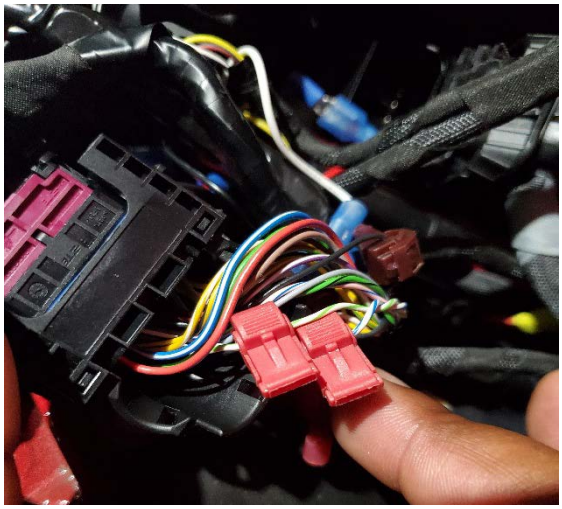


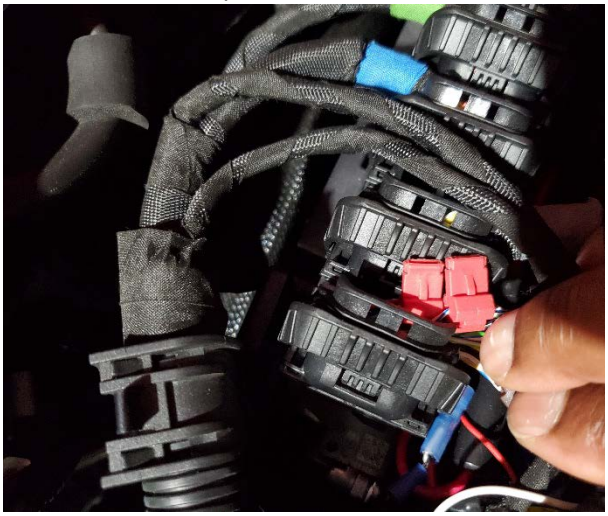
2. Using the supplied quick tap connectors, locate the associated wires for your CANBUS selection using the below illustrations

Stealth Kit Connection (ZT ECA2)		Vehicle ECU Connection (A46*1B)		
			PTCAN	PTCAN2
WIRE:	White/Red CANBUS High (+)	WIRE/PIN:	Yellow/White - 41 (High)	White/Green - 35 (High)
WIRE:	White/Black CANBUS Low (-)	WIRE/PIN:	Yellow/Black - 42 (Lo)	White/Blue - 36 (Lo)



3. Attach quick tap connectors to the two selected CANBUS wires like picture below

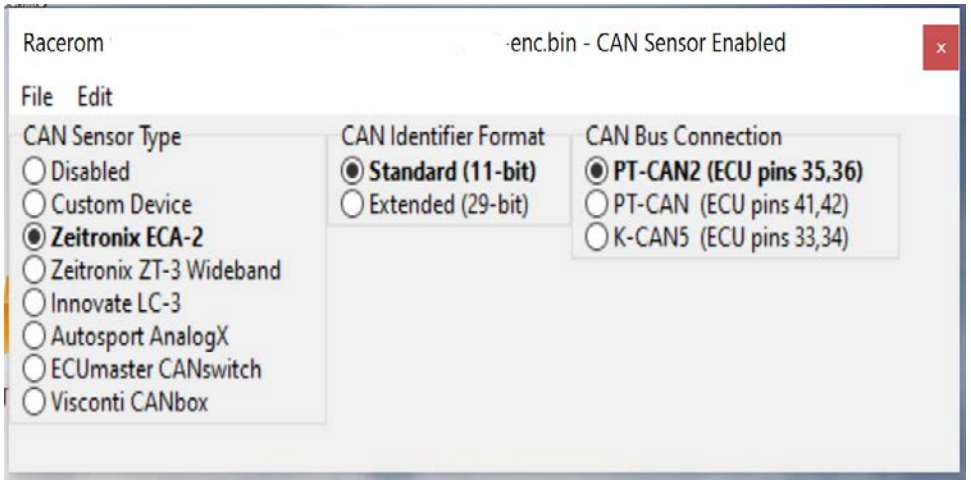




4. Connect ECA2 wire to the CANBUS connectors you just installed.
5. Replace ECU connector cover and you're go to go.

ECUTEK Software Changes:

Inform your tuner of which Bus you made the CANBUS connection so that they can make the proper adjustments to your tune. Self-tuners using Racerom adjust CAN input to PTCAN or PTCAN2 respectively and select Zeitronix ECA.



Thank You for your continued support of Twisted Tuning products and services, and Enjoy!!!

Questions and Concerns, please email us at: justin@twistedtuning.com