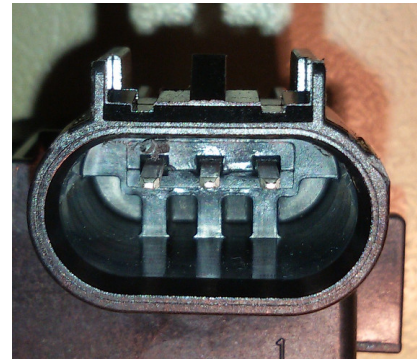
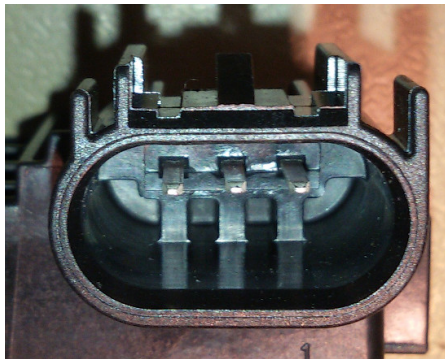
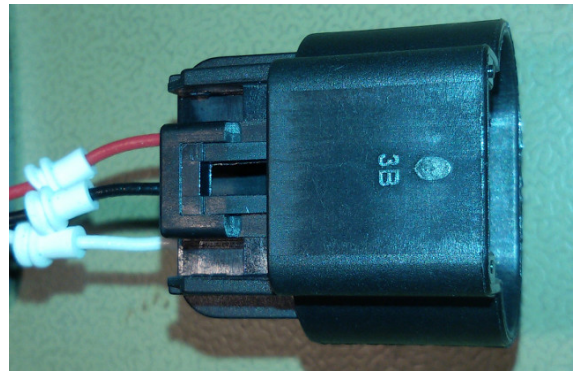
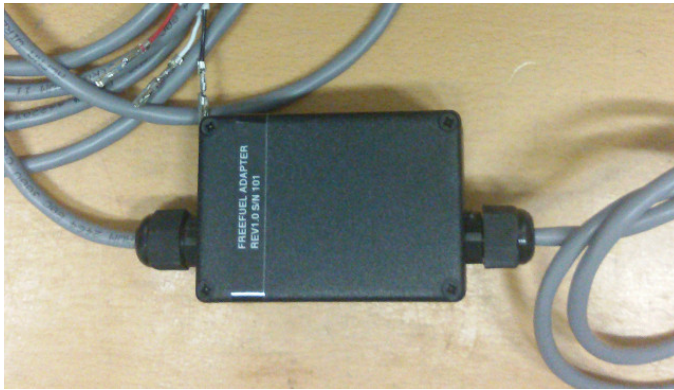


Freefuel Adapter installation instructions



Adapter must be installed in dry location, typically inside the car, close to the ECU.

Pins for sensor connector are pre-installed. Connector is not installed to allow easier routing of the cable through the firewall. Please check the markings (VCC, GND, VOUT) on your sensor so verify correct order of the pins. Incorrect installation can damage the sensor. Push pins to the connector in the order shown in the picture until they lock in place. Push white seals inside the connector housing. Push two purple locking pieces in place.

Connect adapter to your +12V ECU power, ECU ground and ECU voltage input pin.

Wire colors

Red	+12V ECU power
Black	ECU ground
Green	voltage from adapter to ECU
White	signal from sensor to adapter

Modify your sensor as shown in the pictures, cut the two extra guides carefully with a Dremel, sharp knife or similar tool.

Freefuel Adapter specifications

Cable lengths	> 2 m to sensor, > 0.5 m to ECU
Operating voltage	10-16 V recommended, 6-30 V absolute maximum
Reaction time	< 150 ms
Time from 0 to 90% output	< 50 ms
Time from 100% to 10% output	< 50 ms
Output resolution	20 mV (equals to 0.36% step in ethanol content)
Output voltage \leq 5% ethanol	0.30 V \pm 0.05 V
Output voltage \geq 85% ethanol	4.70 V \pm 0.05 V
Output voltage 5% - 85% ethanol	0.30 V – 4.70 V linear
Output voltage no sensor	0 V \pm 0.10 V
Output voltage sensor error	5.00 V \pm 0.10 V
Automotive hazard protection	Reverse polarity, load dump, transients