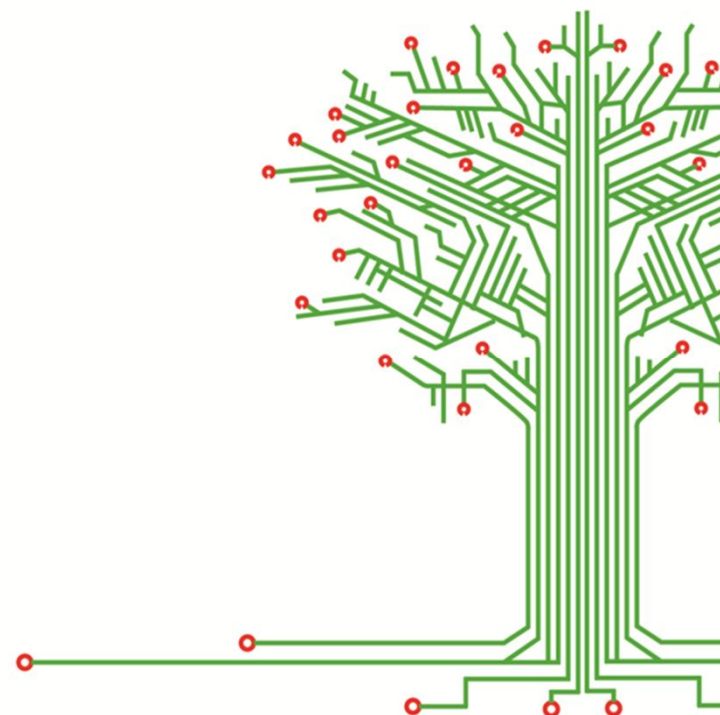




ALTERNATIVE FUEL ELECTRONICS

Fuel Pressure Emulators Technical Manual Installer Version



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5.1. 628126000 – Wiring diagram

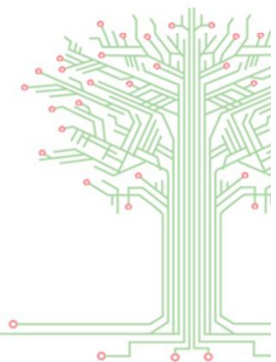
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1. Intro

The petrol pressure emulators are devices that must be used only on the cars that have the petrol pressure sensor and when they work on gas don't discharge the petrol in the rail and they memorize also an error in the OBD.

These devices trick the original petrol Ecu because when the car works on gas it shows an emulated value different to the original one and the car doesn't memorize any error.

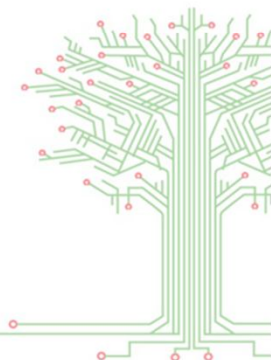
They emulate when the car works on gas.

How can you understand on which car do you need to use them?

- If you switch the car on gas after few minutes memorize the error.
- If you use the OBD tester is possible to see the fuel pressure.
- If the car is present in the KitTap's list.

We have different kind of fuel pressure emulators:

- AEB431
- AEB394
- 628127000
- 628126000
- 628454000

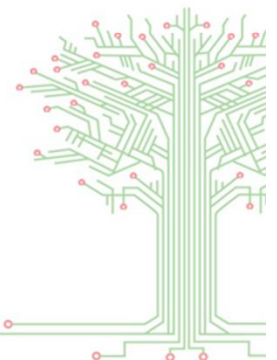


2. AEB431

The AEB431 is a fuel pressure emulator that works only on one model of Volvo.

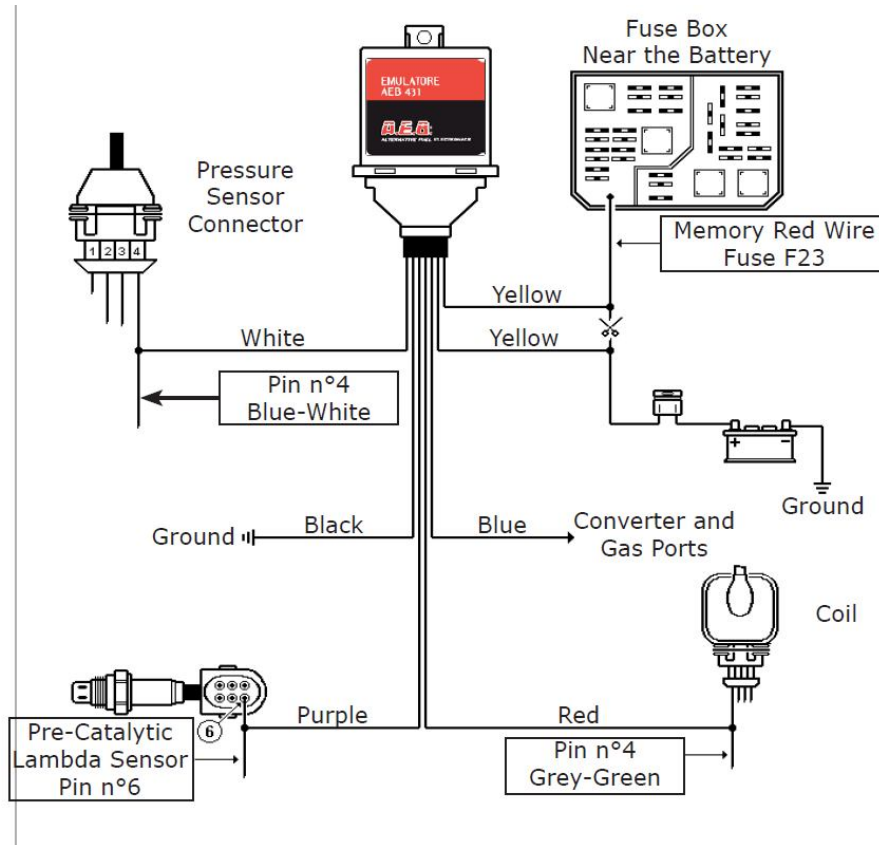
Car list where is possible to install:

- Volvo S40 2.5 cc Turbo (OBD)

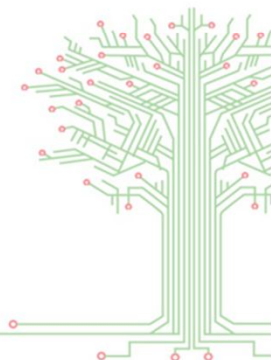


2.1. AEB431 – Wiring diagram

Wiring diagram and principle of operation:



Any Installation Different than the above description must be discuss and allowed by AEB Technical Department



3. AEB394

The AEB394 is a fuel pressure emulator, it's used on Jaguar that haven't a Ecu for commanding the fuel pump in PWM.

Car list where is possible to install:

- Jaguar X-Type 2.5i V6 24v Multipoint '02 - XB (OBD).
- Jaguar X-Type 3.0i V6

Other device that you need to install:

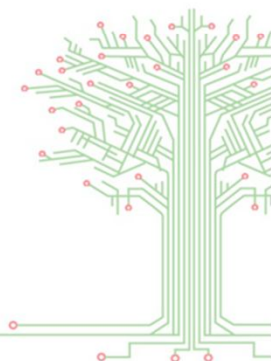
If you use on these cars the AEB394 you must install also another emulator for clearing the petrol Ecu memory, AEB375, AEB426 or AEB428 because if you use only the AEB394 the car doesn't memorize immediately the error in the freeze frame when the car works on gas but only one latent error if we don't clear it, when you restart the engine the car memorizes an error in the DTC and it light the check engine. The error P1000 remains present in the OBD.

How can you understand on which car do you need to use them?

AEB375 if the car clear the latent error if you disconnect the battery.

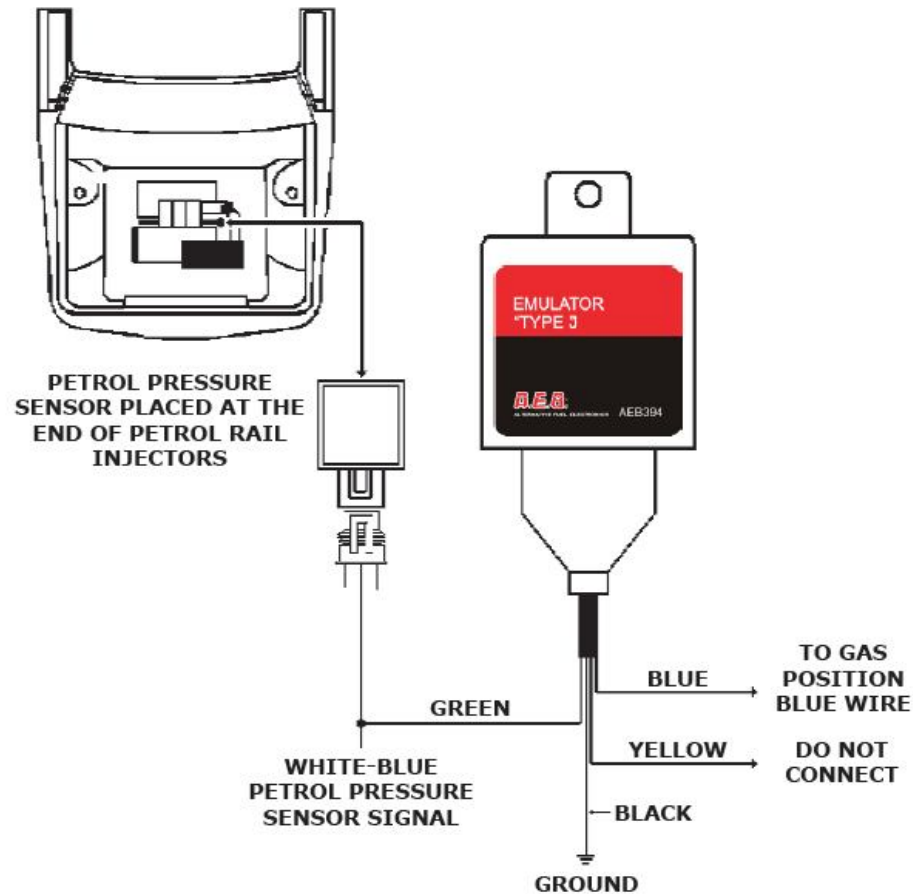
AEB426-prog 18 if It as OBD connection 1-2-3

AEB428-prog 18 if it as OBD connection 6-7-8-9

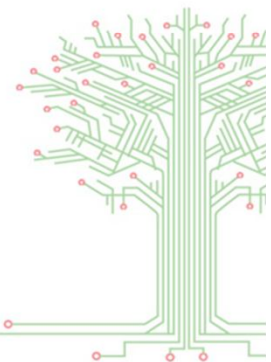


3.1. AEB394 – Wiring diagram

Wiring diagram and principle of operation:



Any Installation Different than the above description must be discuss and allowed by AEB Technical Department

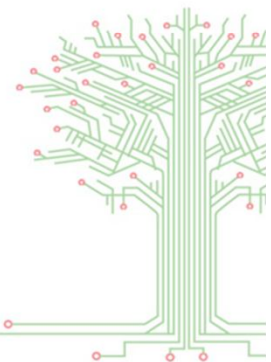


4. 628127000

The 628127000 is a fuel pressure emulator, it's used on the car that has the fuel pressure sensor on the rail and it haven't a Ecu for commanding the fuel pump in PWM.

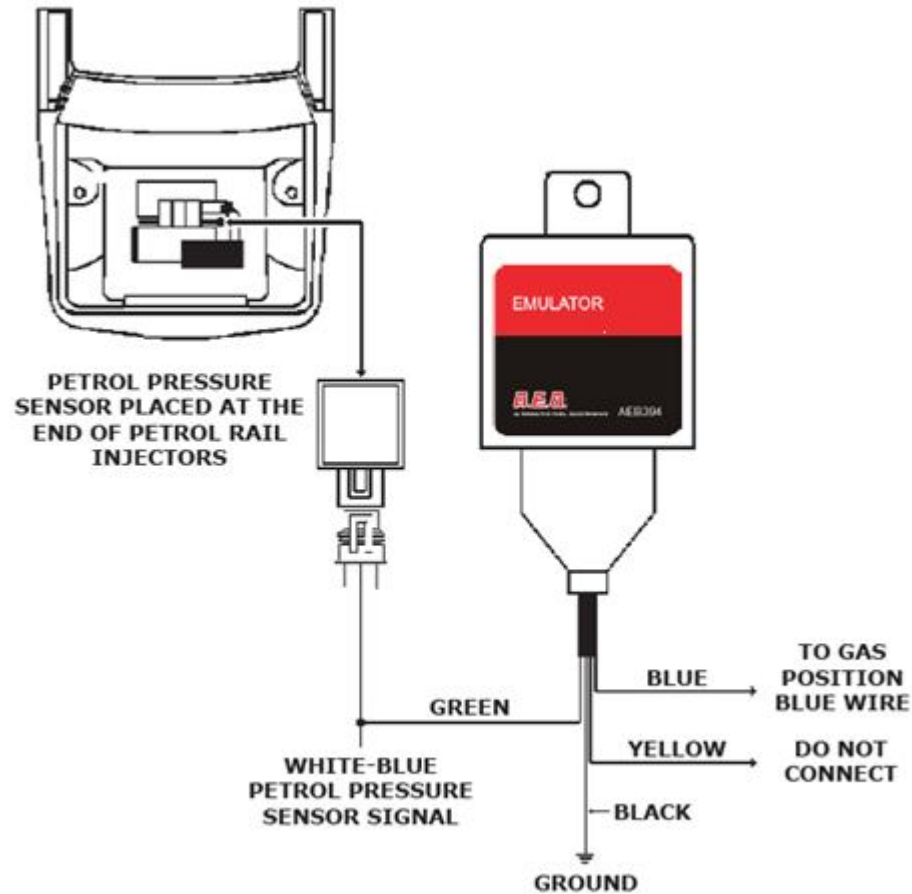
Car list where is possible to install:

- Ford engine with big capacity
- GM or American engine
- Jaguar engine instead of the AEB394 (If you use this device on this kind of cars you have also to use AEB375, AEB426 or AEB428)

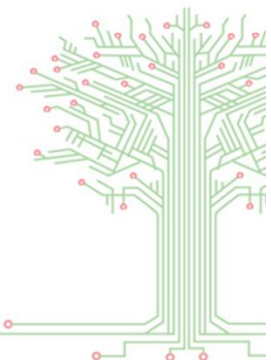


4.1. 628127000 – Wiring diagram

Wiring diagram and principle of operation:



Any Installation Different than the above description must be discuss and allowed by AEB Technical Department



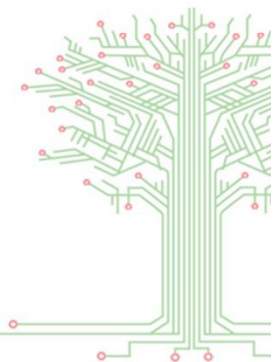
5. 628126000

The 628126000 is a fuel pressure emulator that you have to use in the car that it has the fuel pressure sensor in the rail and a petrol Ecu that command the pump with a PWM.

This emulator is not reprogrammable.

Car list where is possible to install:

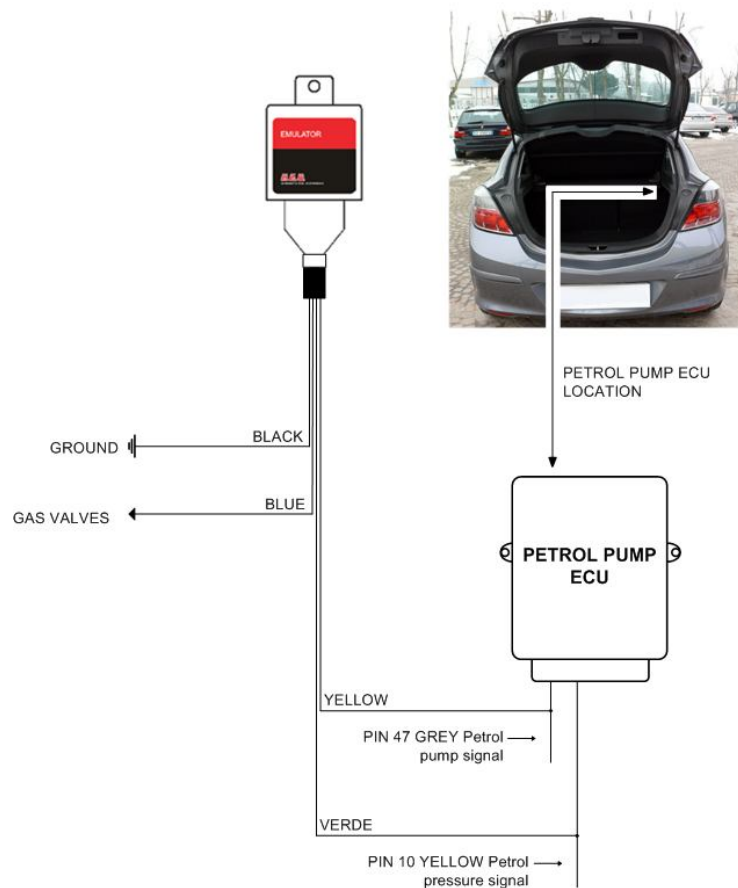
- Chevrolet Captiva 2.4cc 123 Kw engine code LE5 MY2011
- Opel Astra 1.4cc 103 Kw engine code A14NET MY2010
- Opel Astra 1.6cc 85 Kw engine code A16XER MY2010
- Opel Antara 2.4cc 123 Kw engine code LE5 MY2011



5.1. 628126000 – Wiring diagram

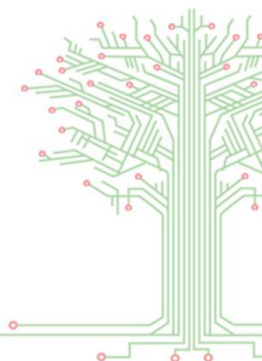
Wiring diagram and principle of operation:

628126000 Opel Astra 1.6
A16XER



Any Installation Different than the above description must be discuss and allowed by AEB Technical Department

AEB

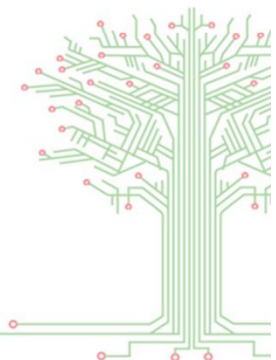


6. 628454000

The 628454000 is a fuel pressure emulator, it's be used on the car with the fuel pressure sensor and a Ecu that command the fuel pump with a PWM and with the KitTap or KitStap is possible to reprogram it for adapt it for the car in the list.

Car list where is possible to install:

- Cadillac Escalade 6.2cc 301 Kw engine code L9H MY2011
- Chevrolet Captiva 2.4cc 123 Kw engine code LE5 MY2011
- Ford Kuga 2.5cc 147 Kw engine code HYDB MY2009
- Jaguar XF 4.2cc 306 Kw V8 engine code 1G MY2008
- Jaguar XJ 3.0cc 175 Kw V6 engine code VB MY2003
- Hummer H2 6.2cc 293 Kw engine code L92 MY2008
- Mercedes Classe E 6.3cc 430 Kw V8 AMG
- Opel Astra 1.4cc 103 Kw engine code A14NET MY2010
- Opel Astra 1.6cc 85 Kw engine code A16XER MY2010
- Opel Antara 2.4cc 123 Kw engine code LE5 MY2011
- Volvo XC90 4.4cc 232 Kw V8 engine code B8444S MY2005
- Volvo XC60 3.0cc 224 Kw V6 MY2010





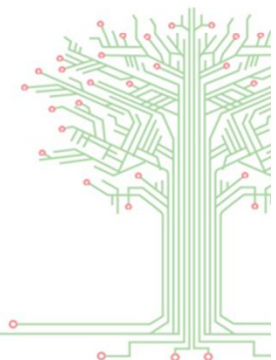
Principle of operation:

This emulator change the emulation of the fuel pressure sensor in according with the opening time of the pump (duty cycle)

It has two different emulations:

- Emulation by resistance
- Emulation by voltage

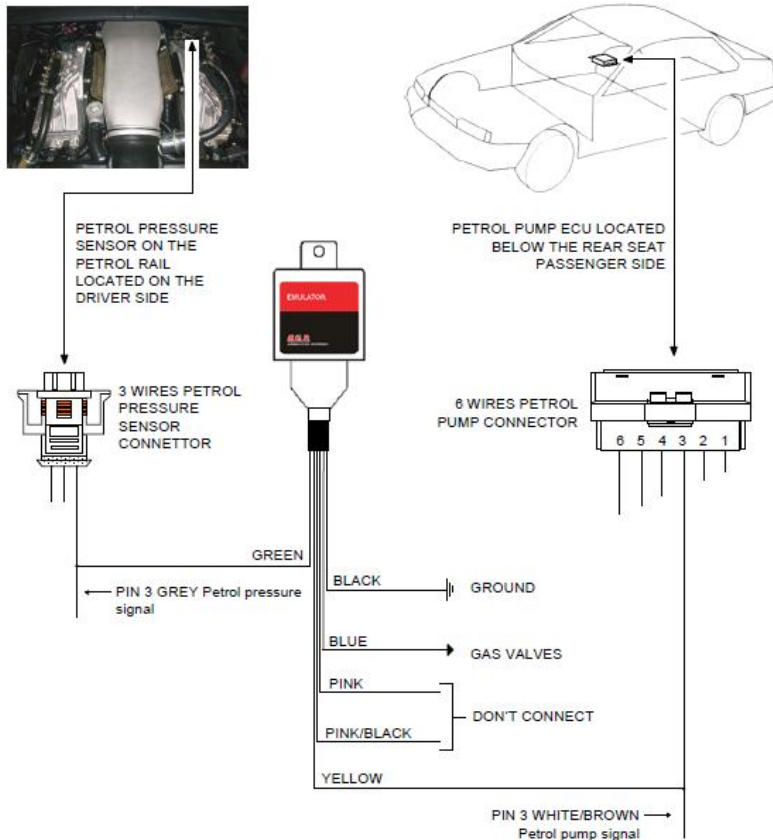
Our target is to have all the emulation in voltage because we are more precise and it's more repeatable because we are not linked with the fuel pressure sensor signal.



6.1. 628454000 – Wiring diagram of emulation by resistance

Wiring diagram and principle of operation:

628454000 FOR JAGUAR XF 4.2
V8

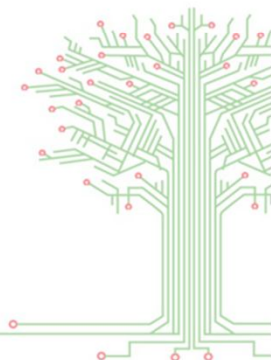


Emulation by resistance:

With this kind of emulation the device works like the 628126000 but we can change the resistance by the software in according to the duty cycle.

Any Installation Different than the above description must be discuss and allowed by AEB Technical Department

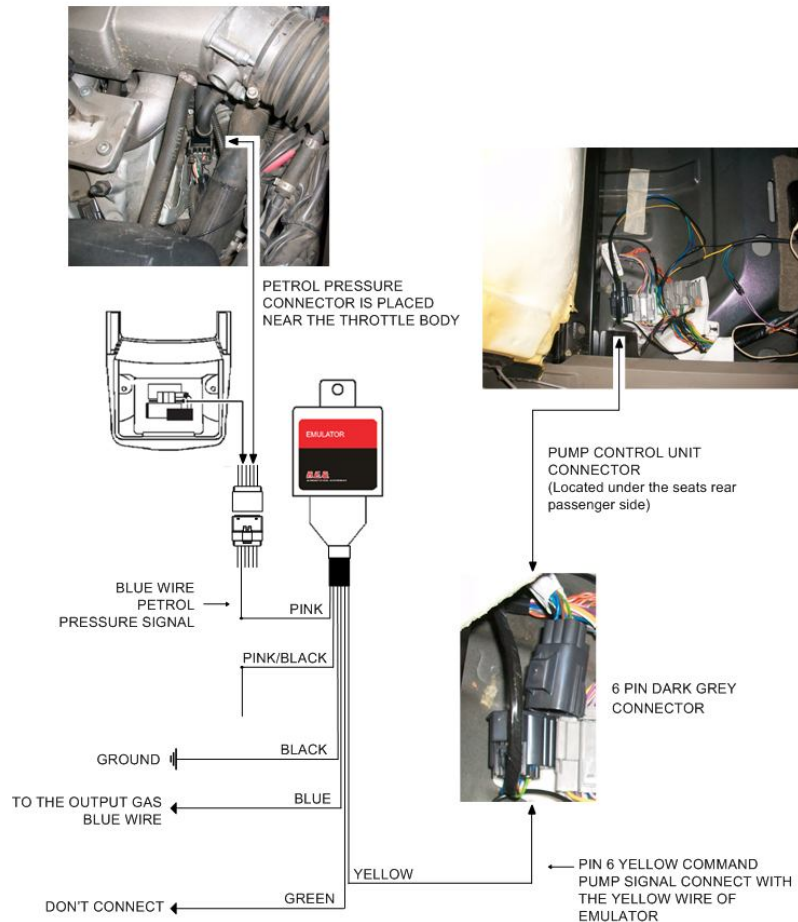
AEB



6.2. 628454000 – Wiring diagram of emulation by voltage

Wiring diagram and principle of operation:

628454000 MODIFIED FOR
VOLVO XC90

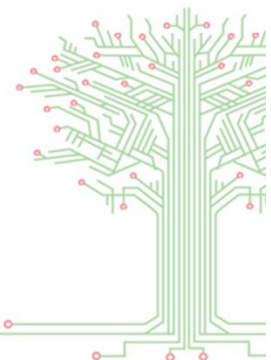


Emulation by voltage:

With this type of emulation we cut the wire of the fuel pressure sensor signal when the car works on gas and we give to the petrol Ecu a signal that change in according to the percentage of the pump duty cycle.

Any Installation Different than the above description must be discuss and allowed by AEB Technical Department

AEB



6.3.1. 628454000 – KitTap – Programming

How install the emulator:

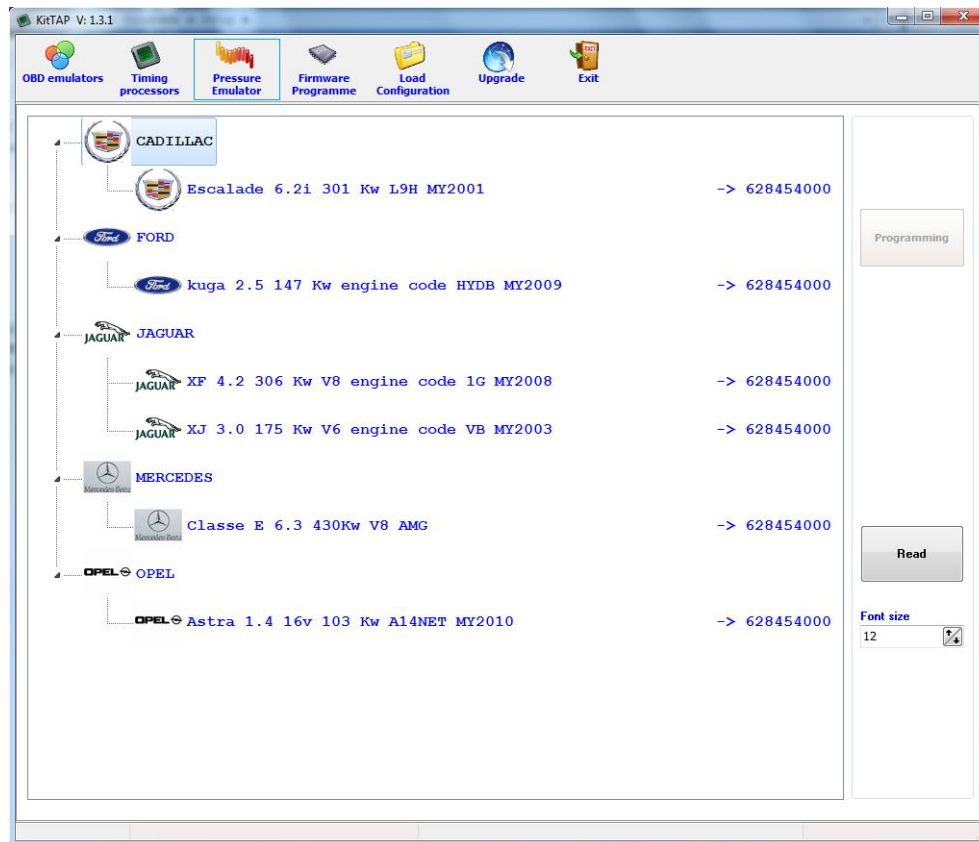


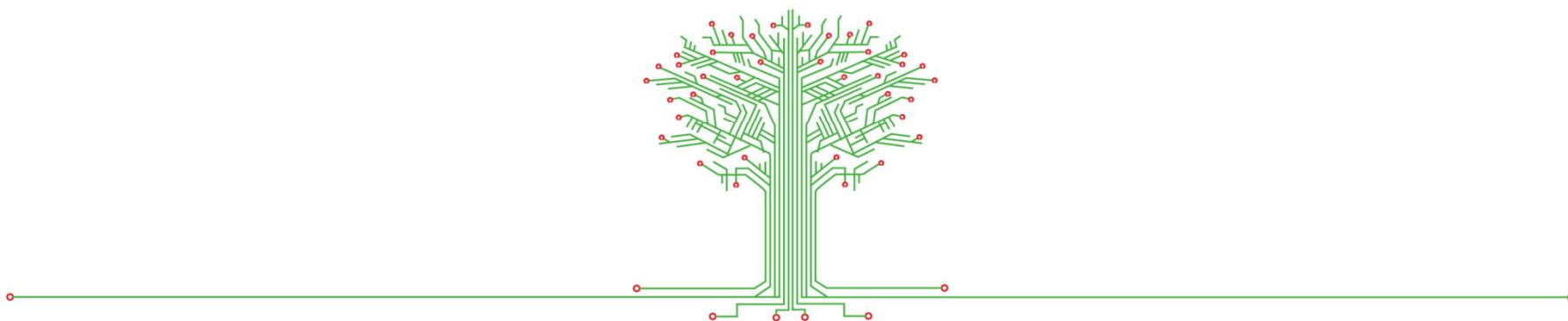
Fig. 1

Open the software KitTap or KitStap on the pc.

Check in the page «Emulatori di pressione» if the car that you have is present in the list.
(See Fig.1)

If is present select it and with the button «Programma» reprogram the emulator.





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