

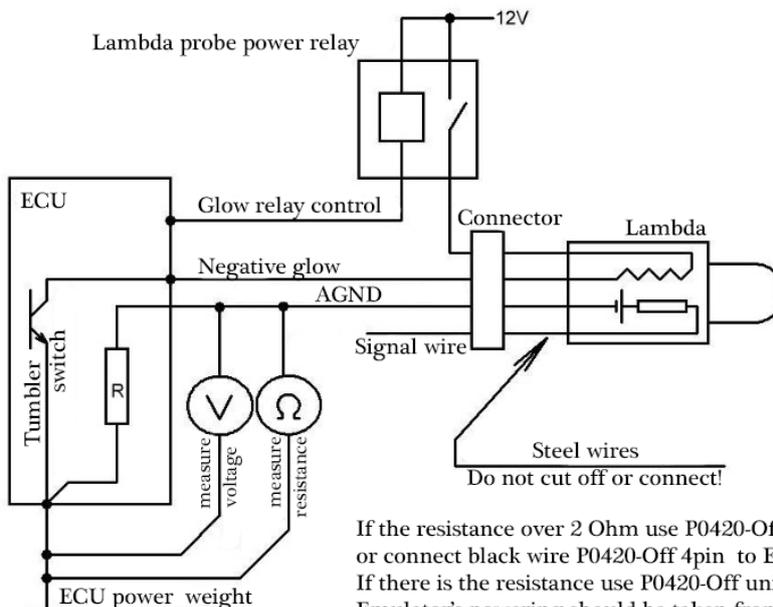
P0420-OFF



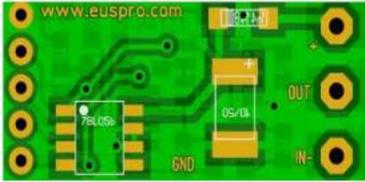
The electronic emulator of the catalyst could be used in case of removing vehicles' catalyst with two lambda probes/sensors (before the catalyst and after it). This module is installed in the open circuit of the second lambda probe. This does not require any reprogramming of the engine control units (ECU/ ECM), the entire system is operating in normal mode, and diagnostic is fully preserved. Microprocessor is the main part of the emulator.

Connection

Po420-OFF	Wires	DENSO 2 LAMBDA	DENSO LAMBDA	BOSH LAMBDA
		Titanium dioxide (TiO ₂) 0 to 5 V	Zirconium Output 0.1 to 0.9 V	Zirconium Output 0.1 to 0.9 V
YELLOW - INPUT BLUE - OUTPUT	CUT OFF SIGNAL WIRE	Black	Blue	Black
WHITE - CONNECT TO AGND	AGND	Yellow	White	Grey
RED - IGNITION	Glow is not used!	White	Black	White
BLACK - TO ECU POWER WEIGHT	Glow is not used!	Red Pink	Black	White

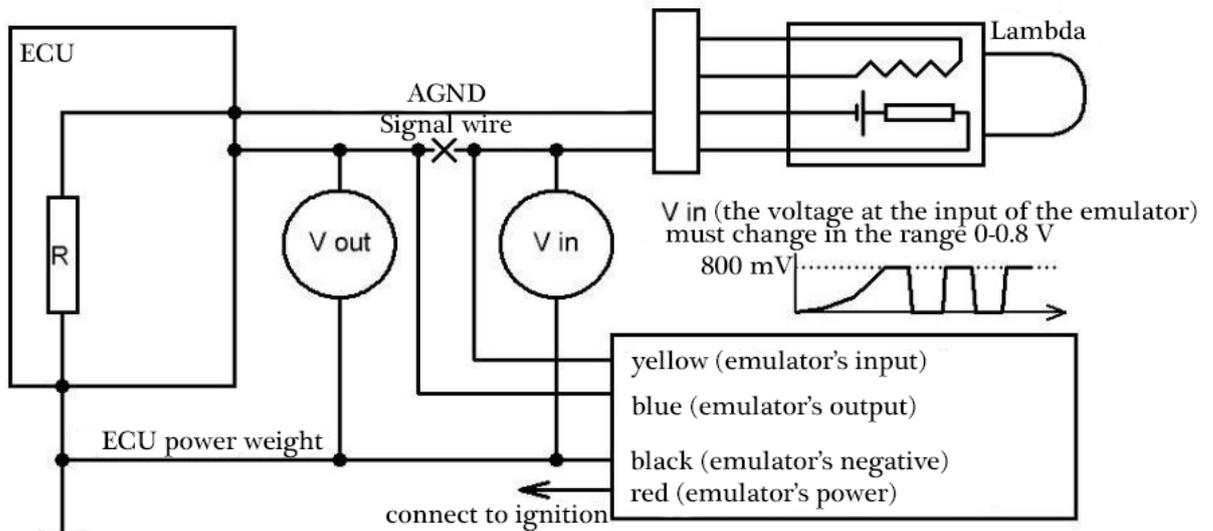
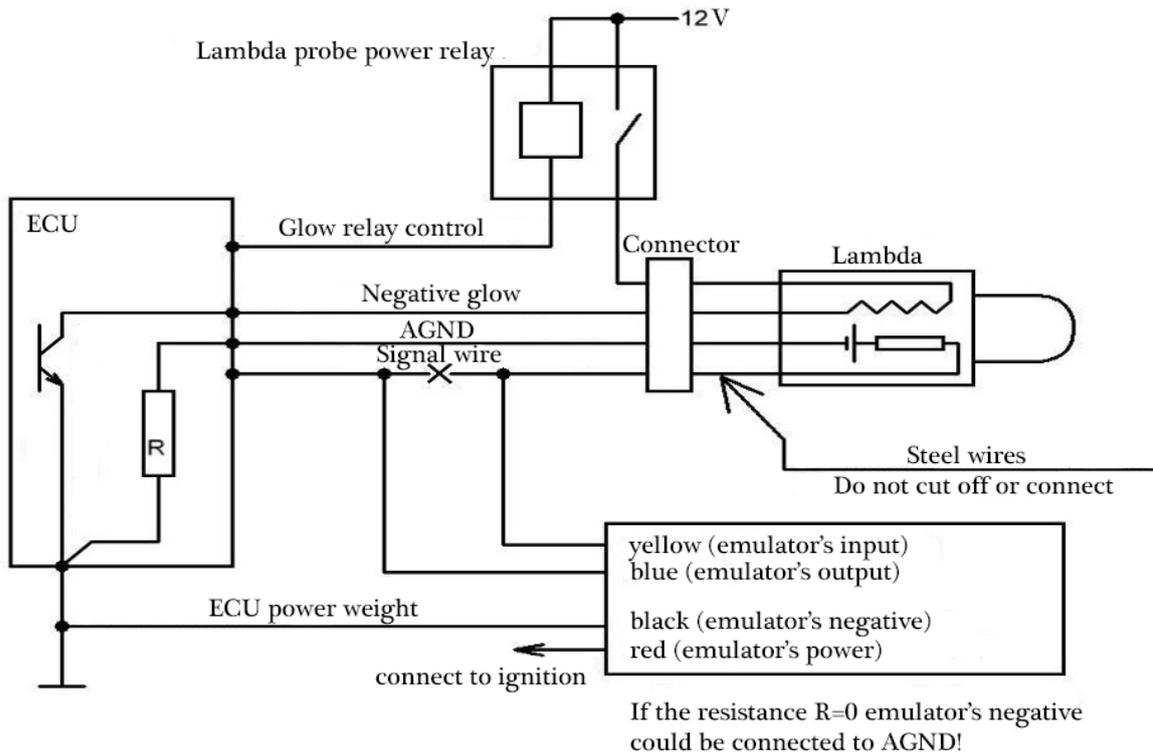


If the resistance over 2 Ohm use P0420-Off
or connect black wire P0420-Off 4pin to ECU block as close as possible!
If there is the resistance use P0420-Off universal 5 pin!
Emulator's powering should be taken from ignition
In some types of vehicles the glow goes off!

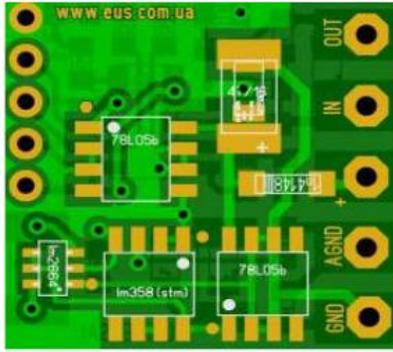


P0420-Off 4pin

This type of chip is for most cars with zirconium lambda sensors/ zirconia oxygen sensor. While installing it is necessary to check up the ground (AGND) on the negative output of a lambda sensor. 1. In case of high resistance, the negative wire of the emulator should be connected to the negative power cable as close as possible to the ECU block. 2. If the analog ground (AGND) check is correct then the negative wire of the emulator connects to it. If the first lambda probe is zirconium, the signal could be fed to the emulator from the first lambda sensor. This kind of configuration does not request the installed catalyst and the second lambda sensor. They are excluded from operation. Only the presence of glow is required from the second lambda sensor. If the catalyst cannot be removed it is necessary to check the integrity of the device with probe camera or by installing a t-piece with a pressure sensor on the first lambda probe.



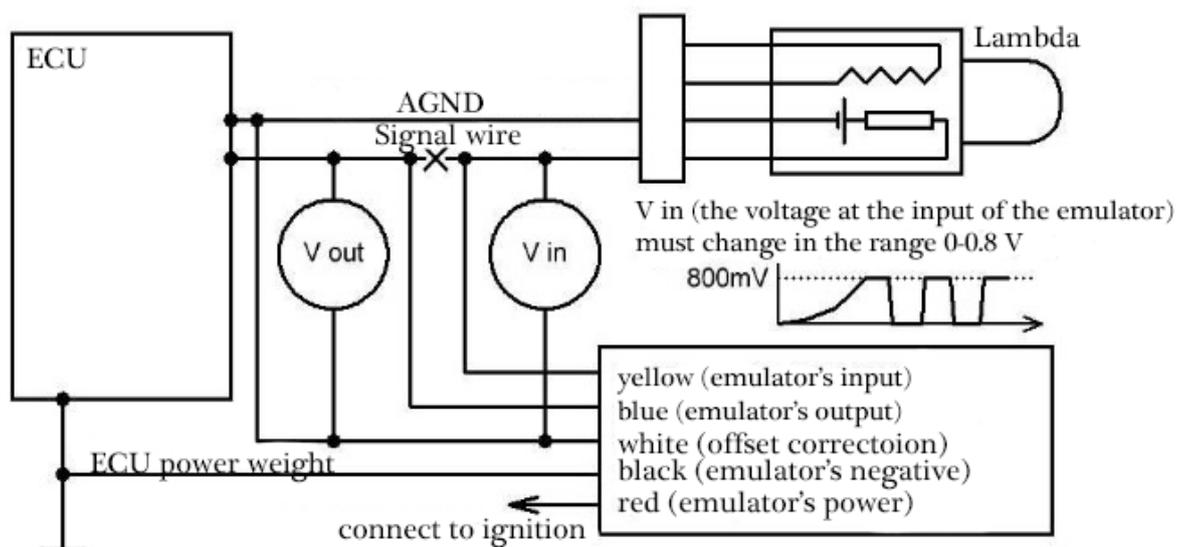
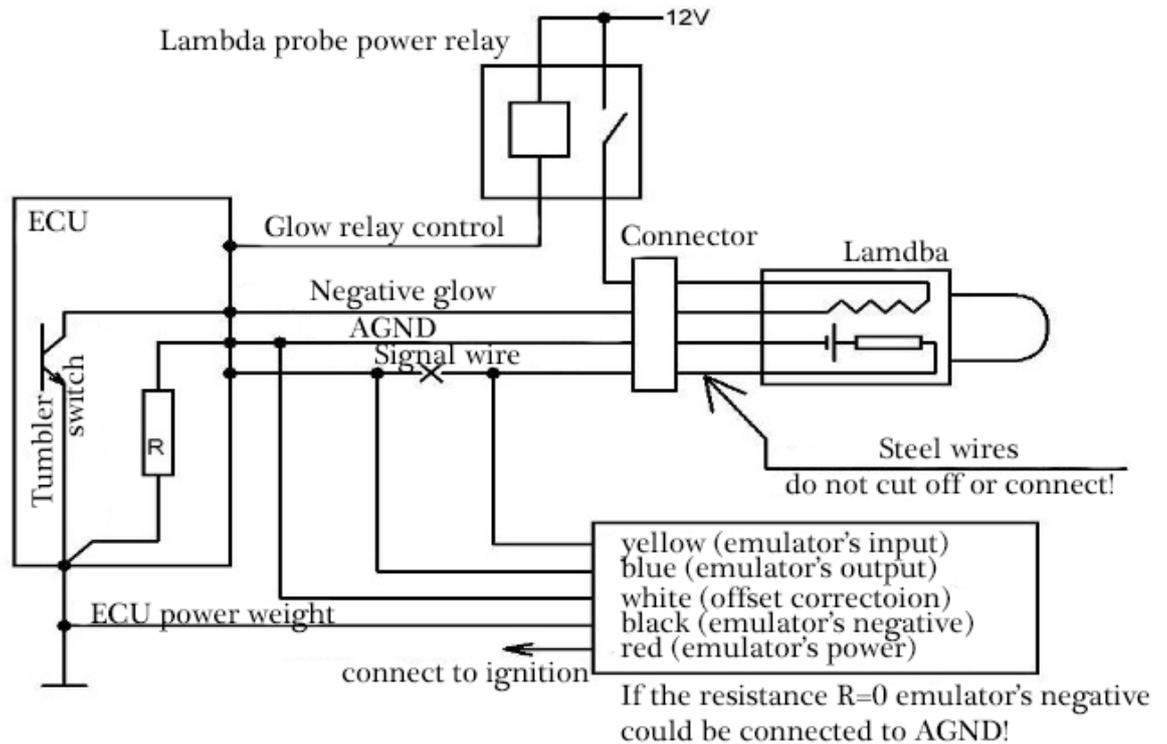
V out (the voltage at the output of the emulator)
after heating the second lambda probe V out must be in the range 650-750 mV
raise the speed to 3000 and release the accelerator. The value V out must be 0 mV



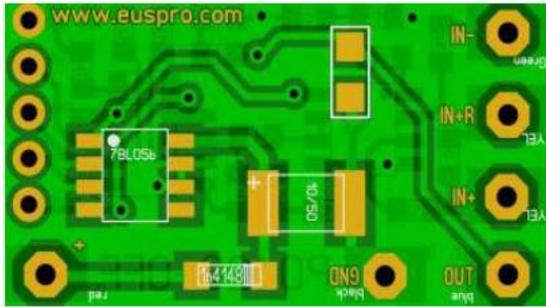
P0420-Off universal 5 pin

P0420-Off universal 5 pin is for cars in which the lambda's negative has an offset. Completely reconstructs the offset and misalignment voltage (Mitsubishi, Dodge, Chrysler). Works only with zirconium lambda probes. If the first lambda sensor is zirconium, the signal could be fed to the emulator from the first lambda sensor. This kind of configuration does not request the installed catalyst and the second lambda sensor. Only the presence of glow is required from the second lambda sensor. If the catalyst

cannot be removed it is necessary to check the integrity of the device with probe camera or by installing a t-piece with a pressure sensor on the first lambda sensor.



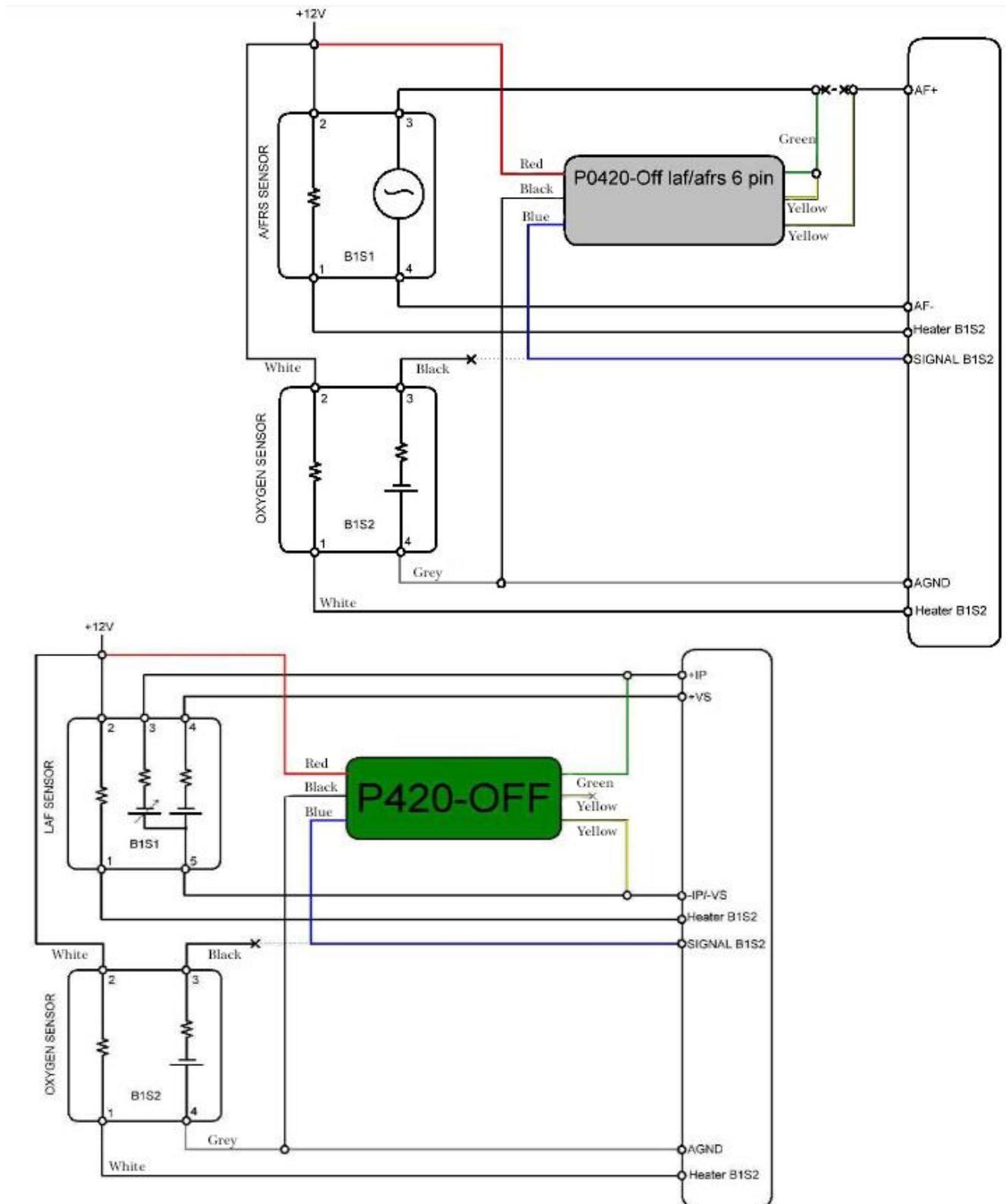
V out (the voltage at the output of the emulator)
after heating the second lambda probe V out value must be in the range 650-750 mV
raise the speed to 3000 and abruptly release the accelerator. The V out value must be 0 mV

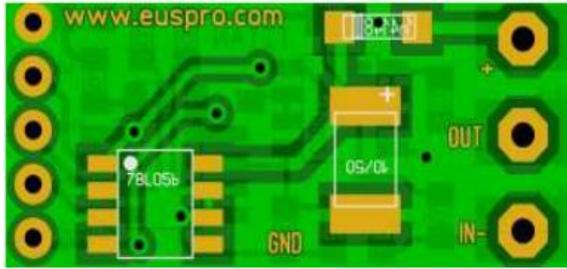


P0420-Off laf/afrs 6 pin

This emulator is needed in order to exclude the fixed catalyst or the defective second lambda sensor from the operation. The whole voltage circuit is only needed from the second lambda probe. This emulator has a built-in converter that changes the broadband lambda sensor signal into a zirconia probe, then it receives the signal as a working catalyst. It is supplied instead of the

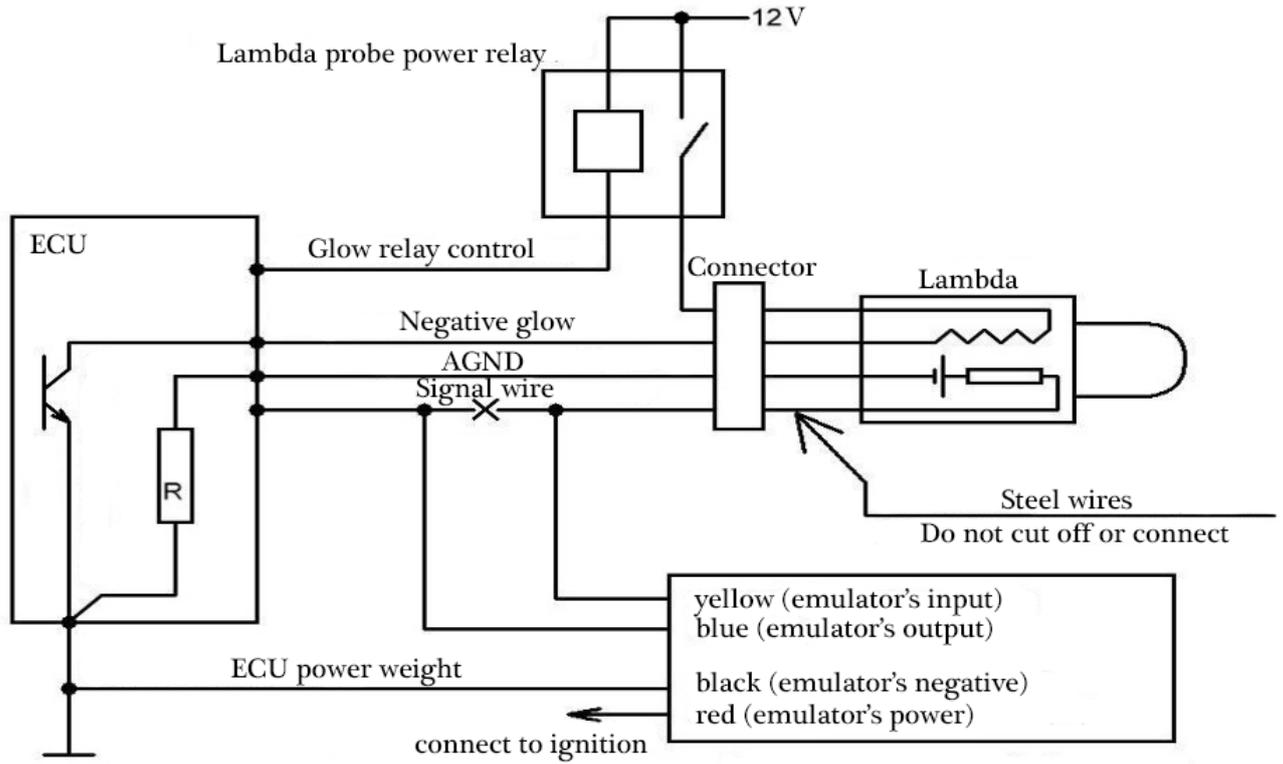
signal of the second lambda sensor.





P0420-Off titan 4 pin

Compatibility with titanium oxide lambda sensor. Often can be found on *Subaru, Volvo, Peugeot, Audi, Honda*. Programming on special firmware T4, T5.



If the resistance $R=0$ emulator's negative could be connected to AGND!