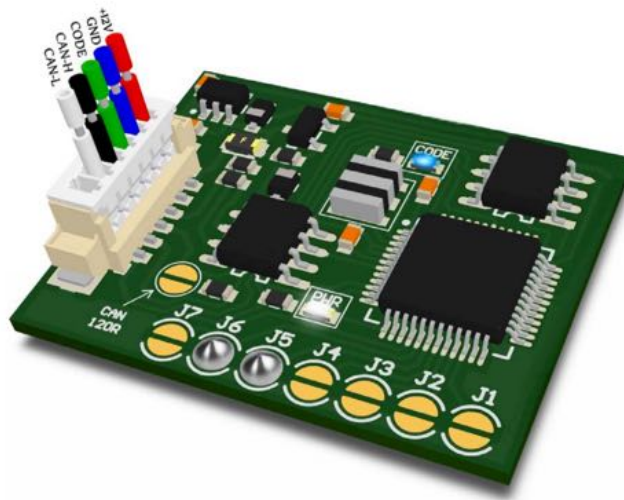




OF68 - Universal Emulator



No car will ever surprise you!
You will no longer need to refer your customers to other workshops.
You have the choice of 68 programs.

You can use this emulator unlimited number of times for both testing purposes or it can be left in a car permanently.
Program selection is effected by soldering jumpers from J1 to J7.
To connect the emulator, please refer to specific installation manual.

squ OF68 - Universal Emulator Programs:

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Universal squ OF48 Emulator includes

42 immo programs

18 seat occupancy sensor programs

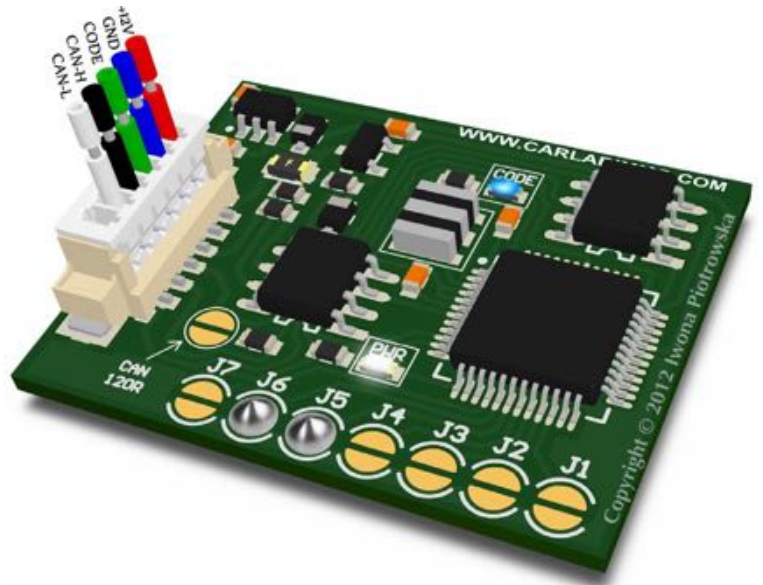
8 tachometer tester programs

- no jumpers – diagnostic mode - it flashes every second
- VW Automatic, EDC15, EDC16 and ME7 if used before – does not flash
 - adjusting to the ECU – flashing 0,1 sec
- after adjusting it lights constantly and blinks every other second

VW automatic immo OFF (single use)

In Universal squ OF68 Emulator
solder jumpers J5 and J6

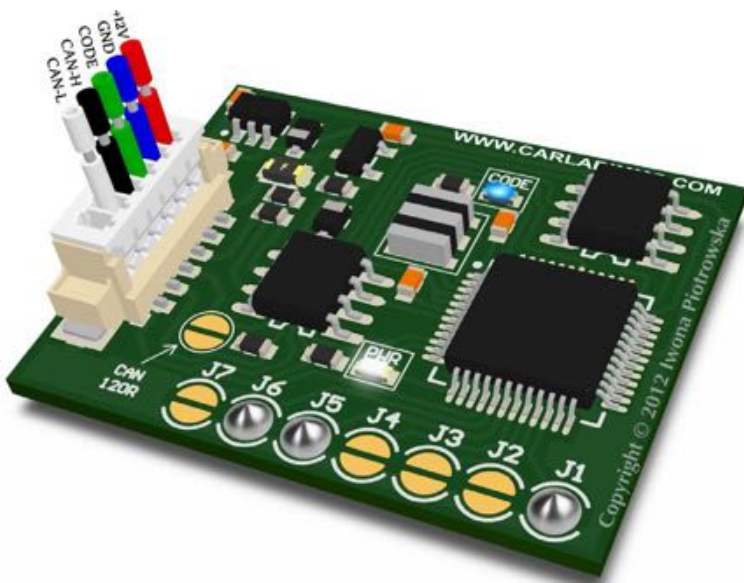
Available as Universal squ Emulator
program no:1



VW automatic immo ON (single use)

In Universal squ OF68 Emulator
solder jumpers J1, J5 and J6

Available as Universal squ Emulator
program no:2



**VW automatic immo OFF or ON programs
are single use and can only be used in one car!**

USE

TDI EDC16 CAN + K-line **TDI EDC15** **Gasoline Bosch ME7**

Tested on the following electronic control units:

TDI EDC16 CAN + K-line

- 0 281 011 145 VW Passat B5 2.0 TDI, 2006 - mechanical ignition switch
- 0 281 011 258 VW Touareg 2.5 TDI, 2003 - 2010
- 0 281 011 364 Audi A3 1.9 TDI, 2004
- 0 281 011 383
- 0 281 011 385
- 0 281 011 568 VW T5 2.5 TDI, 2006 - 2007
- 0 281 011 843 VW Golf V 2.0 TDI, 2004
- 0 281 011 844 VW Touran 2.0 TDI, 2004
- 0 281 011 855 VW T5 1.9 TDI, 2003
- 0 281 011 856 VW T5 1.9 TDI, 2005
- 0 281 011 882 VW Caddy 1.9 TDI, 2006
- 0 281 011 883 Skoda Octavia 1.9 TDI, 2004 - 2010
- 0 281 011 900
- 0 281 011 945
- 0 281 011 946 VW Touran 1.9 TDI, 2006
- 0 281 011 907 VW Touran 2.0 TDI
- 0 281 012 220 VW Golf V 1.9 TDI, 2005
- 0 281 012 390 VW Caddy 1.9 TDI, 2003 - 2010
- 0 281 012 696 Seat Alhambra, VW Sharan 2.0 TDI, 2005 - 2010
- 0 281 012 698 Skoda Superb 2.0 TDI, 2006
- 0 281 012 762 VW T5 1.9 TDI, 2006r. - 2010
- 0 281 012 792
- 0 281 012 113 Audi A4 2.0 TDI, 2008
- 0 281 012 545 Audi 1.9 TDI, 2007
- 0 281 012 546 Audi 1.9 TDI, 2006
- 0 281 012 654 Audi 2.0 TDI, 2005
- 0 281 012 270 Audi 3.0 TDI A6 Quattro
- 0 281 013 228 VW Jetta 2.0 TDI, 2007
- 0 281 013 299 Skoda Octavia 2.0 TDI, 2005 - 2011
- 0 281 013 302 VW Touareg 2.5 TDI, 2005 - 2010
- 0 281 013 311 VW Passat 2.0 TDI, 2005 - 2009
- 0 281 013 440 VW Passat CC 2.0 TDI, 2005 - 2009
- 0 281 013 606 VW Golf V 1.9 TDI, 2006
- 0 281 013 177 Audi A6 2.7 TDI, 2007

0 281 014 004
0 281 014 044 VW Touran 1.9 TDI, 2006 - 2010
0 281 014 049 VW T5 2.5 TDI, 2007
0 281 014 064 VW Golf 1.9 TDI, 2006 - 2008
0 281 014 128 VW Touran 1.9 TDI, 2006 – 2010
0 281 014 136 Skoda Octavia 1.9 TDI, 2006 - 2010
0 281 014 891 VW T5 2.5 TDI, 2009
0 281 014 384 Audi A6 2.7 TDI, 2007
0 281 015 175 VW Caddy 1.9 TDI, 2008

TDI EDC15

Capacity 1.2 1.4 1.9 2.5

From 2000 to 2004, some vehicles from 2006 to even 2008 (except Audi with coded pump)

Gasoline Bosch ME7

Capacity 1.4 1.8 2.0 2.4 2.6 2.8 3.0 3.5 4.2

0 261 201 144 VW Golf V 1.4 2002 - 2006
0 261 204 873 Audi A4/ VW Passat 1.8 1999
0 261 204 893 Audi A4 2.4 Quattro 2001
0 261 207 360 VW Bora 2.0 2000 - 2005
0 261 206 123 Passat 2.8 2000
0 261 206 019 Audi A8 4.2 2000
0 261 207 534 Seat Leon 1.8 20V 2002

16-pin OBD2 socket



1. Connect all the wires to the OBD2 socket

2. TURN IGNITION ON AND WAIT 20 SECONDS

3. When ignition is turned on, connect the emulator's plug to the emulator's PCB. Once connected, blue LED flashes fast and after several seconds the LED should emit a constant light and blink every other second

4. Turn ignition OFF and disconnect emulator



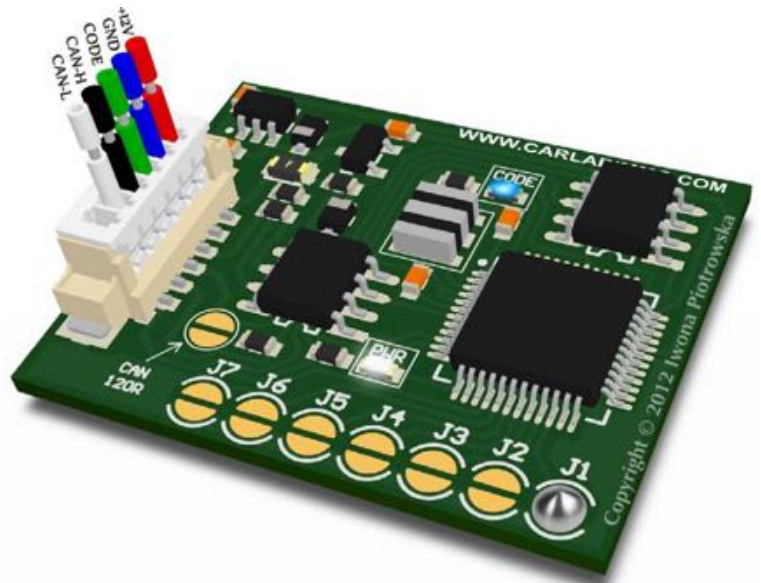
Programs no. 1 and 2 enable the emulator to automatically remove immo from a car by identifying ECU type and selecting a relevant program.

Attention! Selection of programs no.1 and 2 eliminates the possibility to use the remainder of the programs from 6 to 15.

VW without CAN

**In Universal squ OF68 Emulator
solder jumper J1**

Available as Universal squ Emulator
program no:1



USE

W1 and W2 systems up to around 2001 EDC15 and 5-socket LT28/LT35 ECUs - when the chassis numbers are not entered - even up to 2006 diesel and gasoline Ford cars with VW systems (the VW symbol is visible on the ECU).

Connecting in place of the original immobiliser or instrument cluster.

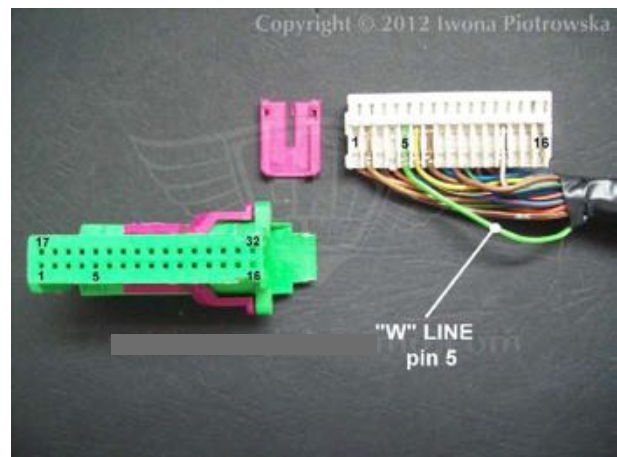
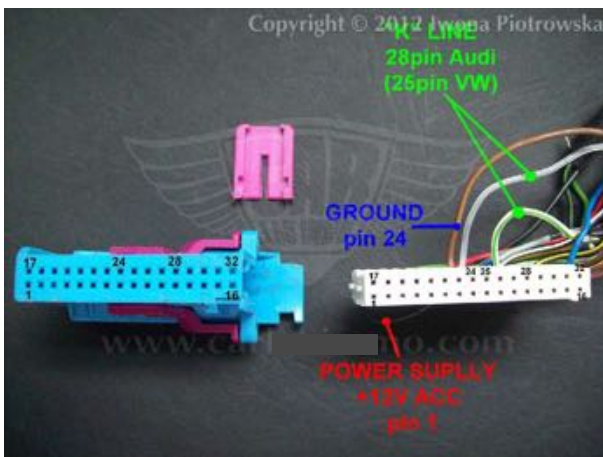
If you cannot start the car, you need to fit the emulator to ECU.

If the emulator is not working, then connect the power supply of the emulator to +12V through the reset button.

Disconnect immo and connect W line with K line to have a diagnosis.

Cars with immobiliser integrated in instrument cluster as of 1998

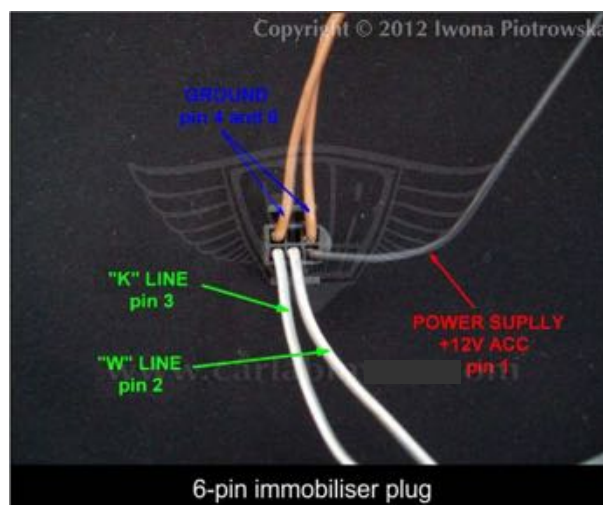
Connection diagram examples

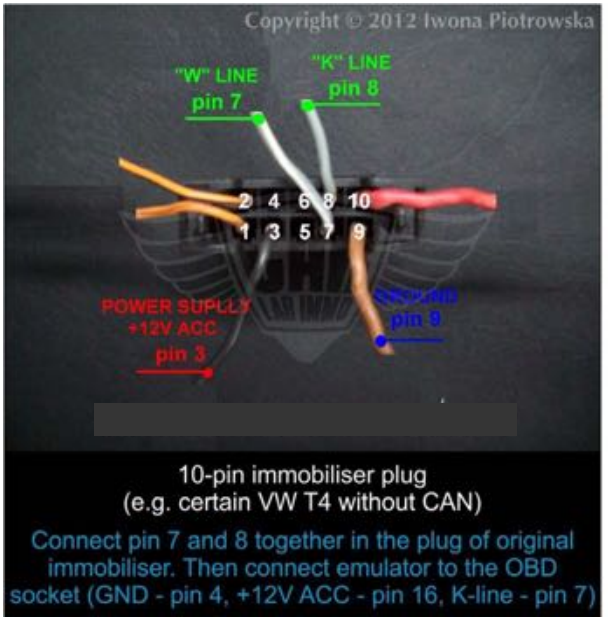
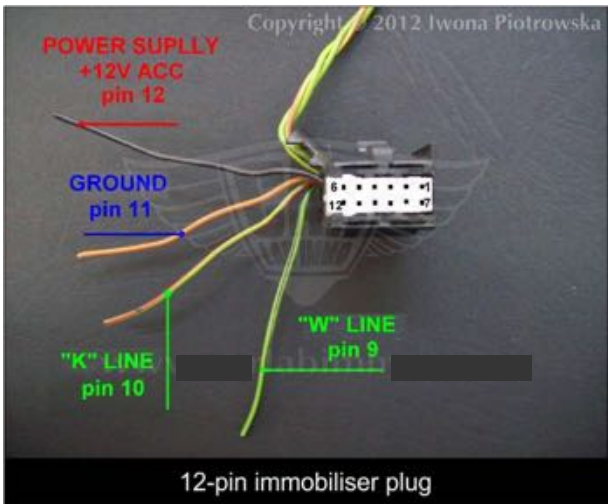
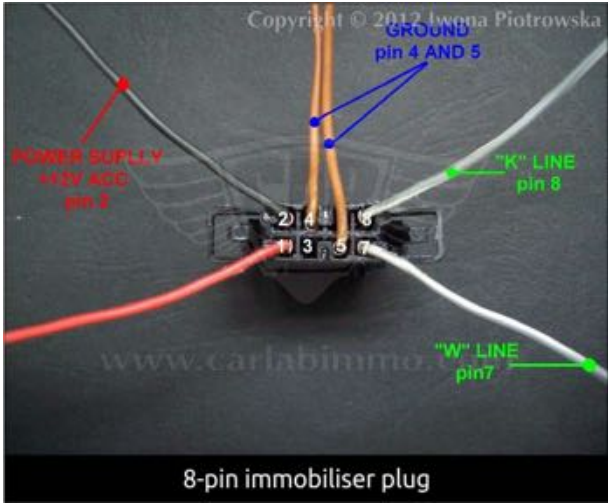


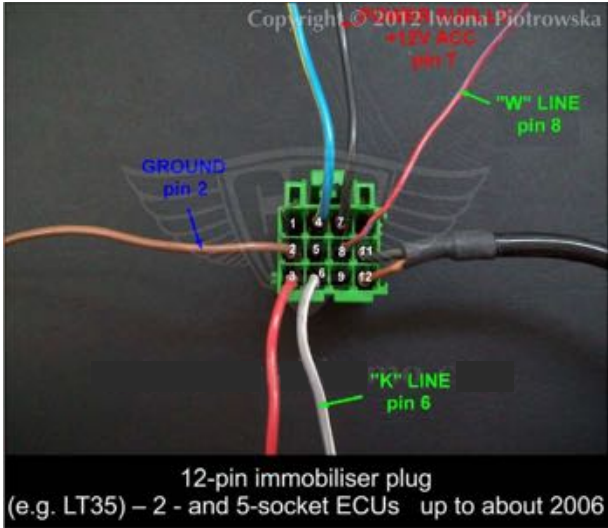
Cut K-line and W-line off the instrument cluster!!!

Cars with separate immobiliser

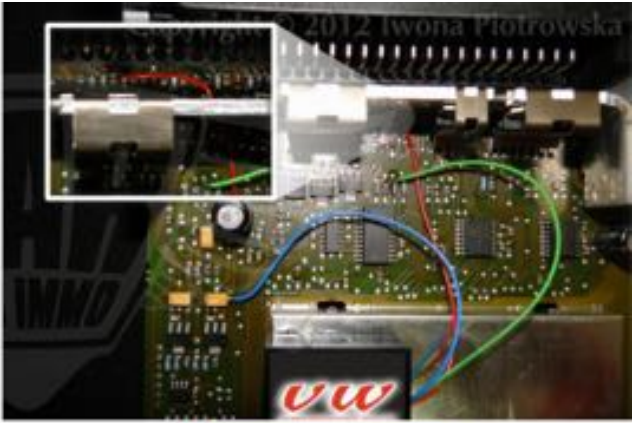
Connection diagram examples







Connecting emulator to ECU

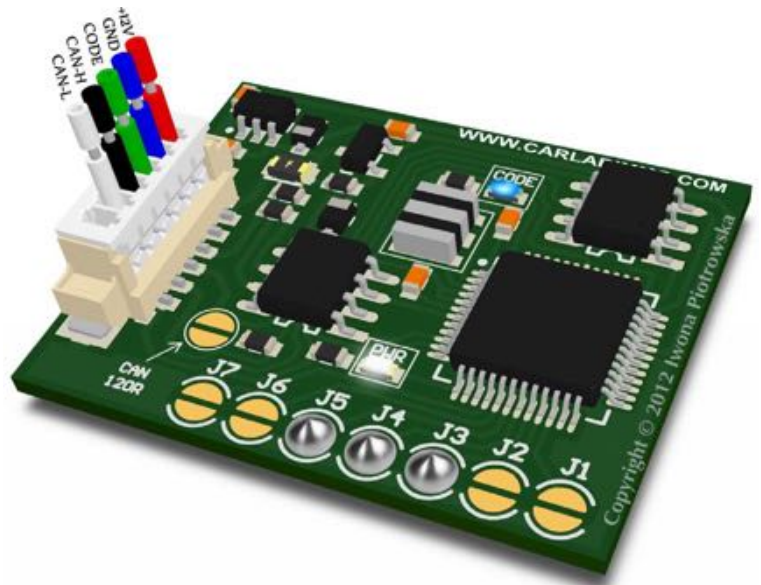


- +12V ACC 38 pin
- GND 1 pin
- line W 43 pin

VW Hitachi

**In Universal squ OF68 Emulator
solder jumper J3, J4 and J5**

Available as Universal squ Emulator
program no:4



USE

Audi A6 2.8 gasoline Hitachi ECU
Engine code – AAH



Connecting emulator to ECU



+12V connector D - 8 pin

GND connector D - 1 pin

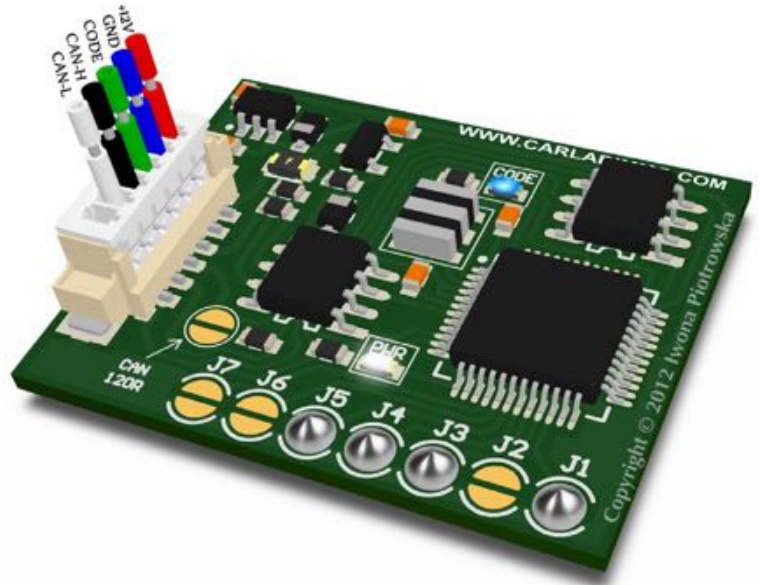
W-line connector C - 12 pin

Unplug the immo and connect W-line with K-line to have a diagnosis.

VW Valve Code

**In Universal squ OF68 Emulator
solder jumpers J1, J3 and J5**

Available as Universal squ Emulator
program no: 5

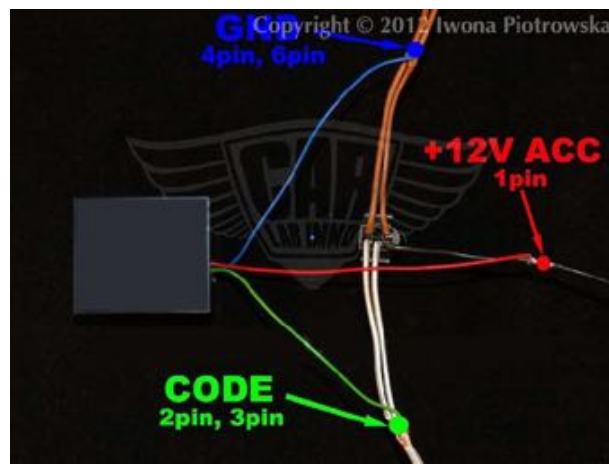


Connecting in place of the original immobiliser

+12V ACC	red
GND	blue
W-line	green

Unplug immo and connect W-line with K-line to have a diagnosis.

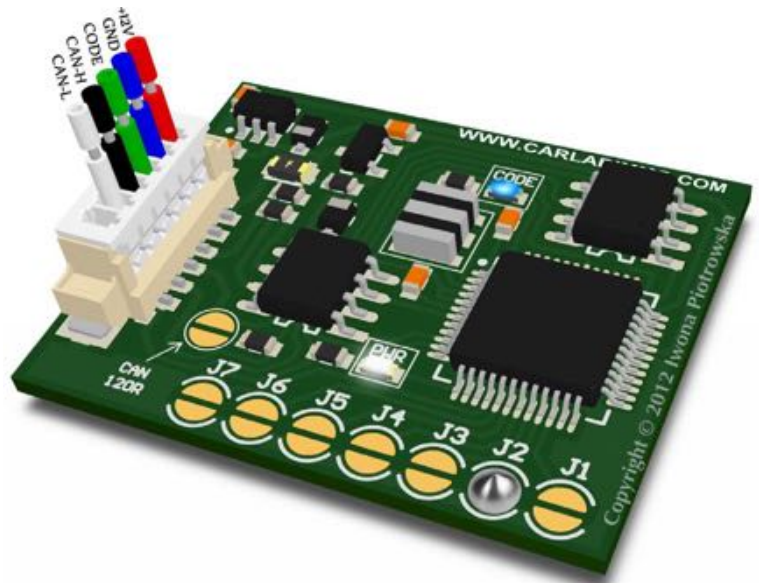
Connecting emulator to the 6-pin plug of the immobiliser



VW EDC15 immo OFF (single use)

In Universal squ OF68 Emulator
solder jumper J2

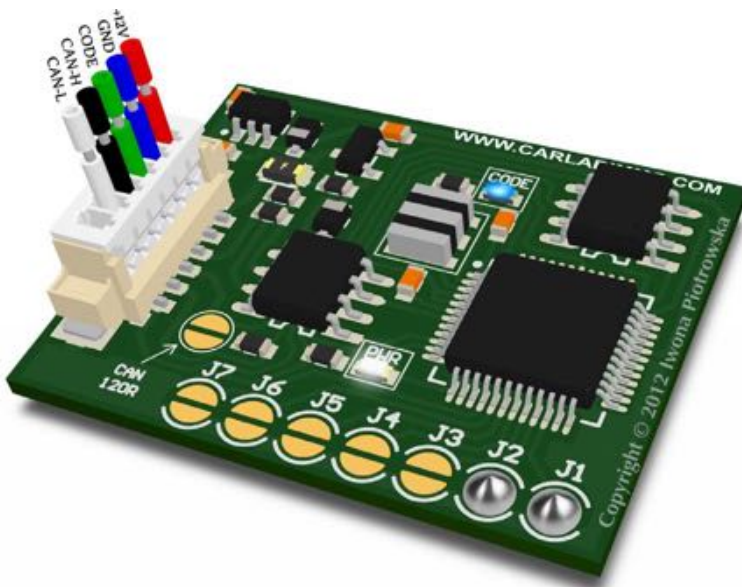
Available as Universal squ Emulator
program no:6



VW EDC15 immo ON (single use)

In Universal squ OF68 Emulator
solder jumpers J1 and J2

Available as Universal squ Emulator
program no:7



**VW EDC15 immo OFF or ON programs
are single use and can only be used in one car!**

This emulator replaces damaged immobiliser, instrument cluster or a car key.
Immo gets removed once the emulator is connected to the OBD socket.
In the case of losing car keys or car theft, you will be able to drive to the nearest car garage

USE

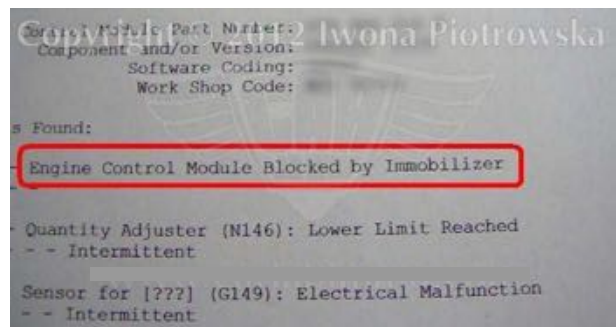
VW EDC15 immo emulator – W2 and W3 systems, diesel engines from 2000 to 2004, some to 2006, and even 2008 (except Audi with coded pump)

Suitable for vehicles with 2-socket ECUs



Engine capacity

1.2 TDI 1.4 TDI 1.9 TDI 2.5 TDI



Before using the emulator, check if there is a connection between ECU and OBD2

You can use a VW EDC15 emulator in the following situations

When getting an **Engine Control Module Blocked by Immobiliser** fault when making connection with ECU with a diagnostic interface or if your car starts and then dies

16-pin OBD2 socket

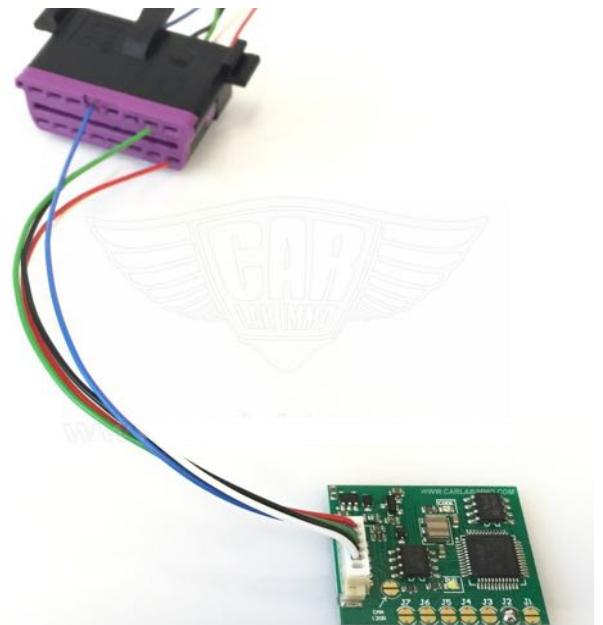


1. Connect all the wires to the OBD2 socket

2. TURN IGNITION ON AND WAIT 20 SECONDS

3. When ignition is turned on, connect the emulator's plug to the emulator's PCB. Once connected, blue LED flashes fast and after several seconds the LED should emit a constant light and blink every other second

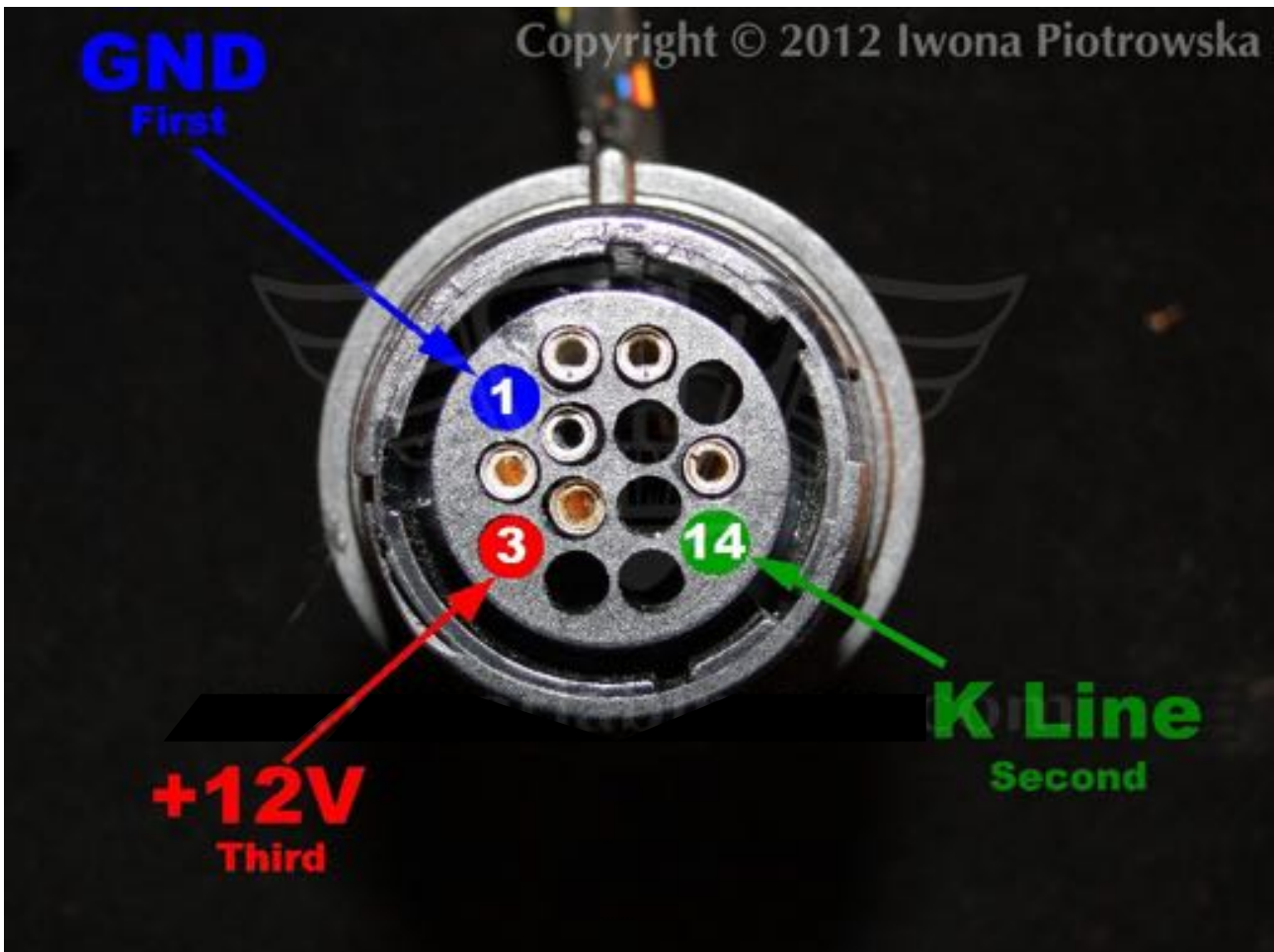
4. Turn ignition OFF and disconnect emulator



VW EDC15 emulator does not remove immo due to a program change to flash memory in ECU:

EDC15 Audi A6 2.5 TDI V6 2003
8E0 907 401 M 0 281 011 255

14-pin socket in LT

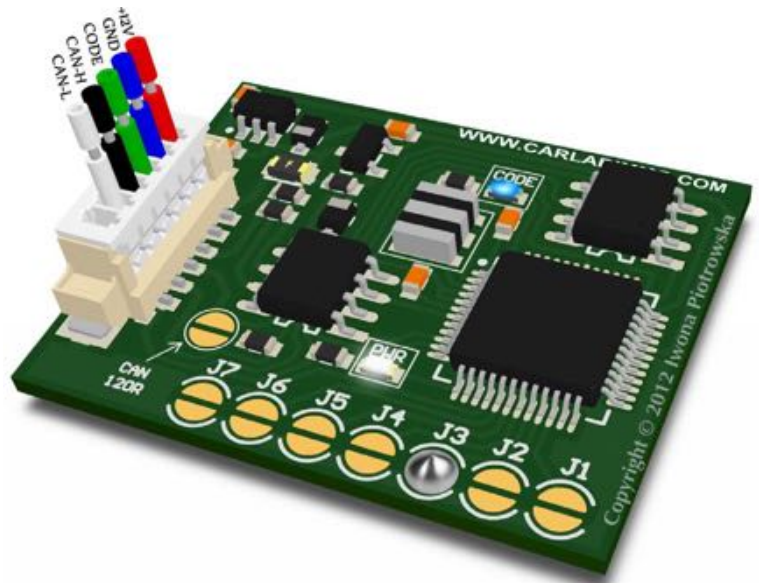


Fitting procedure of emulator is the same as for the OBD2 socket

VW EDC16 K-line immo OFF (single use)

In Universal squ OF68 Emulator
solder jumper J3

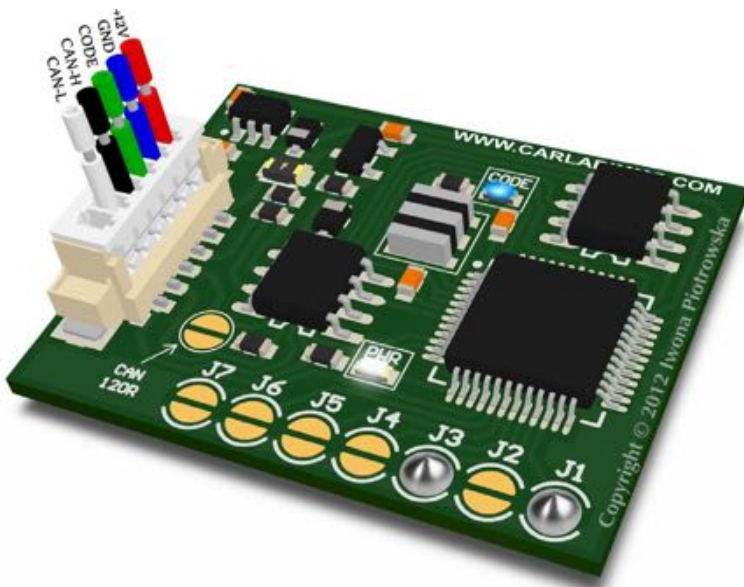
Available as Universal squ Emulator
program no:8



VW EDC16 K-line immo ON (single use)

In Universal squ OF68 Emulator
solder jumpers J1 and J3

Available as Universal squ Emulator
program no:9



**VW EDC16 K-line immo OFF or ON programs
are single use and can only be used in one car!**

This emulator replaces damaged immobiliser, instrument cluster or a car key.
Immo gets removed once the emulator is connected to the OBD socket.
In the case of losing car keys or car theft, you will be able to drive to the nearest car garage

USE

EDC16 K-line – immo OFF
and
EDC16 K-line - immo ON
(turning immo back on is impossible for certain ECUs)

Tested ECUs:

0 281 011 XXX

0 281 011 856 VW T5 1.9 TDI, 2005
0 281 011 568 VW T5 2.5 TDI 2006/2007
0 281 011 883 Skoda Octavia 1.9 TDI 2004 - 2010
0 281 011 855 VW T5 1.9 TDI 2003
0 281 011 258 VW Touareg 2.5 TDI 2003 - 2010
0 281 011 145 VW Passat B5 2.0 TDI 2006 - mechanical ignition switch

0 281 012 XXX

0 281 012 762 VW T5 1.9 TDI 2006 - 2010
0 281 012 390 VW Caddy 1.9 TDI 2003 - 2010
0 281 012 698 Skoda Superb 2.0 TDI 2006
0 281 012 696 Seat Alhambra, VW Sharan 2.0 TDI 2005 - 2010
0 281 012 792
0 281 012 220 VW Golf V 1.9 TDI 2005

0 281 013 XXX

0 281 013 440 VW Passat CC 2.0 TDI 2005 - 2009
0 281 013 302 VW Touareg 2.5 TDI 2005 - 2010
0 281 013 311 VW Passat 2.0 TDI 2005 - 2009
0 281 013 606 VW Golf V 1.9 TDI 2006
0 281 013 299 Skoda Octavia 2.0 TDI 2005 - 2011
0 281 013 228 VW Jetta 2.0 TDI 2007

0 281 014 XXX

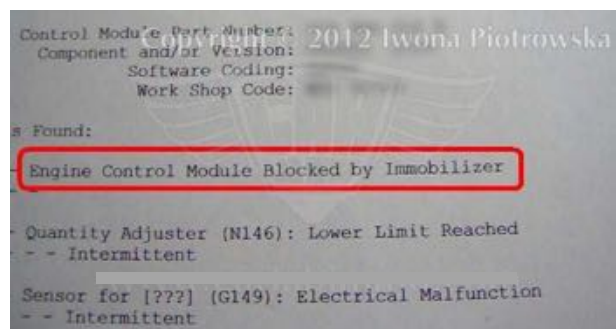
0 281 014 044 VW Touran 1.9 TDI 2006 - 2010
0 281 014 004
0 281 014 064 VW Golf V 1.9 TDI 2006 - 2008

- 0 281 014 128 Touran 1.9 TDI 2006 - 2010
- 0 281 014 136 Skoda Octavia 1.9 TDI 2006 - 2010
- 0 281 014 064 VW Golf V 1.9 TDI 2009

0 281 015 XXX

- 0 281 015 175 VW Caddy 1.9 TDI 2008

Suitable for vehicles with 2-socket ECUs



Before using the emulator, check if there is a connection between ECU and OBD2

You can use a VW EDC16 K-line emulator in the following situations

When getting an **Engine Control Module Blocked by Immobiliser** fault when making connection with ECU with a diagnostic interface or if your car starts and then dies

16-pin OBD2 socket

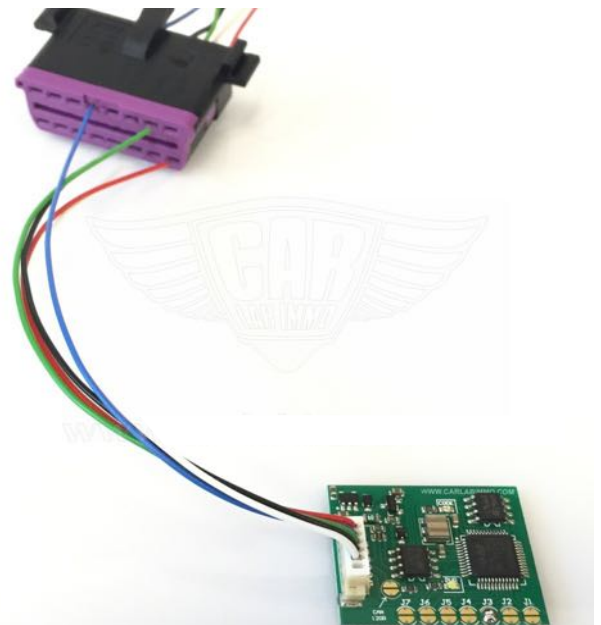


1. Connect all the wires to the OBD2 socket

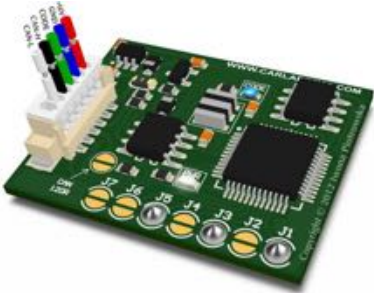
2. TURN IGNITION ON AND WAIT 20 SECONDS

3. When ignition is turned on, connect the emulator's plug to the emulator's PCB. Once connected, blue LED flashes fast and after several seconds the LED should emit a constant light and blink every other second

4. Turn ignition OFF and disconnect emulator



VW EDC16 with CAN 1.9 2.0 TDI immo OFF (single use)



**In Universal squ OF68 Emulator
solder jumpers J1, J3 and J5**

Available as Universal squ Emulator
program no:10

VW EDC16 with CAN 1.9 2.0 TDI immo ON (single use)



**In Universal squ OF68 Emulator
solder jumpers J2, J3 and J5**

Available as Universal squ Emulator
program no:11

VW EDC16 with CAN 2.7 3.0 TDI immo OFF (single use)



**In Universal squ OF68 Emulator
solder jumpers J1, J2, J3 and J5**

Available as Universal squ Emulator
program no:12

VW EDC16 with CAN 2.7 3.0 TDI immo ON (single use)



**In Universal squ OF68 Emulator
solder jumpers J4 and J5**

Available as Universal squ Emulator
program no:13

VW EDC16 with CAN 1.9, 2.0, 2.7, 3.0 TDI immo OFF or ON programs are single use and can only be used in one car!

This emulator replaces damaged immobiliser, instrument cluster or a car key.

Immo gets removed once the emulator is connected to the OBD socket.

In the case of losing car keys or car theft, you will be able to drive to the nearest car garage

Suitable for vehicles with 2-socket ECUs

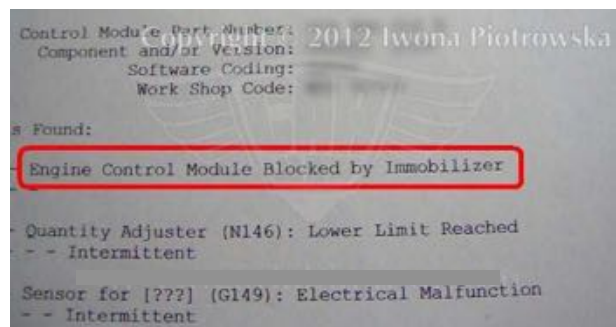


Before using the emulator, check if there is a connection between ECU and OBD2

You can use this emulator in the following situations

When getting an **Engine Control Module Blocked by Immobiliser** fault when making connection with ECU with a diagnostic interface or if your car starts and then dies

+12V ACC	red
GND	blue
CAN-L	white
CAN-H	black



USE

EDC16 with CAN 1.9 2.0 TDI – immo OFF
and
EDC16 with CAN 1.9 2.0 TDI - immo ON
(turning immo back on is impossible for certain ECUs)

Tested ECUs:

0 281 012 XXX

0 281 012 113 Audi A4 2.0 TDI 2008
0 281 012 545 Audi 1.9 TDI 2007
0 281 012 546 Audi 1.9 TDI 2006
0 281 012 654 Audi 2.0 TDI 2005

EDC16 with CAN 2.7 3.0 TDI – immo OFF
and
EDC16 with CAN 2.7 3.0 TDI - immo ON
(turning immo back on is impossible for certain ECUs)

Tested ECUs:

0 281 012 270 Audi A6 Quattro 3.0 TDI
0 281 013 177 Audi A6 2.7 TDI 2007
0 281 014 384 Audi A6 2.7 TDI 2007

16-pin OBD2 socket



1. Connect all the wires to the OBD2 socket

2. TURN IGNITION ON AND WAIT 20 SECONDS

3. When ignition is turned on, connect the emulator's plug to the emulator's PCB. Once connected, blue LED flashes fast and after several seconds the LED should emit a constant light and blink every other second

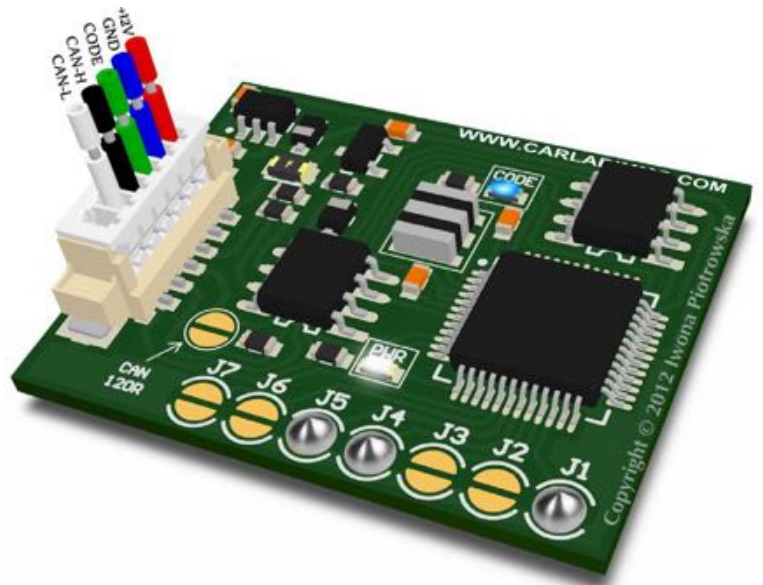
4. Turn ignition OFF and disconnect emulator



VW ME7 immo OFF (single use)

**In Universal squ OF68 Emulator
solder jumpers J1, J4 and J5**

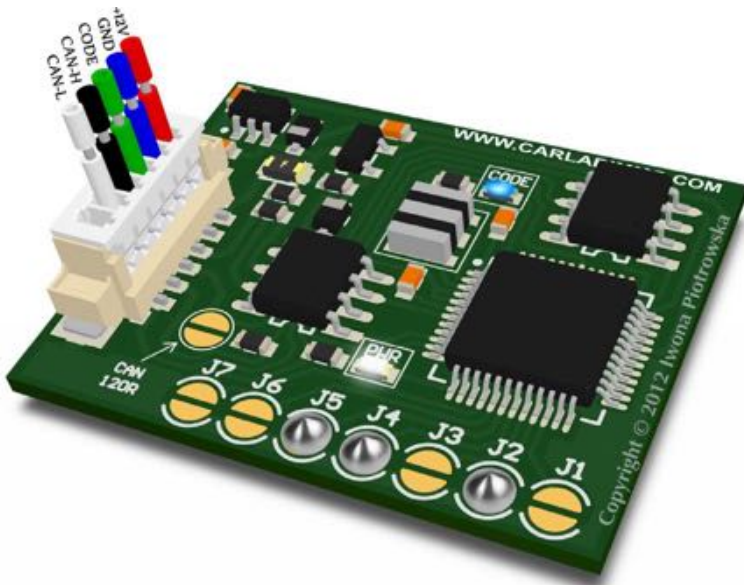
Available as Universal squ Emulator
program no:14



VW ME7 immo ON (single use)

**In Universal squ OF68 Emulator
solder jumpers J2, J4 and J5**

Available as Universal squ Emulator
program no:15



**VW ME7 immo OFF or ON programs
are single use and can only be used in one car!**

This emulator replaces damaged immobiliser, instrument cluster or a car key.

Immo gets removed once the emulator is connected to the OBD socket.

In the case of losing car keys or car theft, you will be able to drive to the nearest car garage

USE

VAG group vehicles with 2-socket Bosch ME7 ECUs

1.0 1.4 1.8 2.0 2.4 2.6 2.8 3.0 3.5 4.2
from 1999 to about 2008

Tested ECUs:

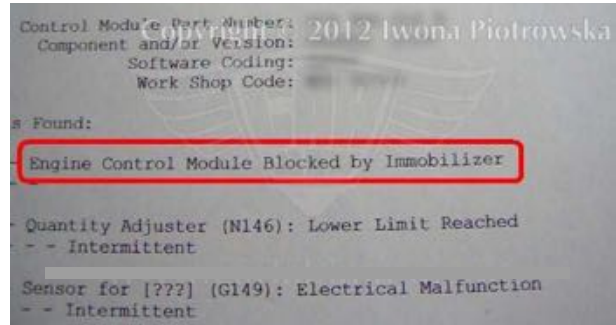
0 261 201 144 VW Golf V 1.4 2002 - 2006
0 261 204 873 Audi A4/ VW Passat 1.8 1999
0 261 207 360 VW Bora 2.0 2000 - 2005
0 261 206 123 VW Passat 2.8 2000
0 261 206 019 Audi A8 4.2 2000
0 261 207 534 Seat Leon 1.8 20V 2002

Suitable for vehicles with 2-socket ECUs





- +12V ACC red
- GND blue
- K-line green



Before using the emulator, check if there is a connection between ECU and OBD2

You can use a VW ME7 emulator in the following situations

When getting an **Engine Control Module Blocked by Immobiliser** fault when making connection with ECU with a diagnostic interface or if your car starts and then dies

16-pin OBD2 socket

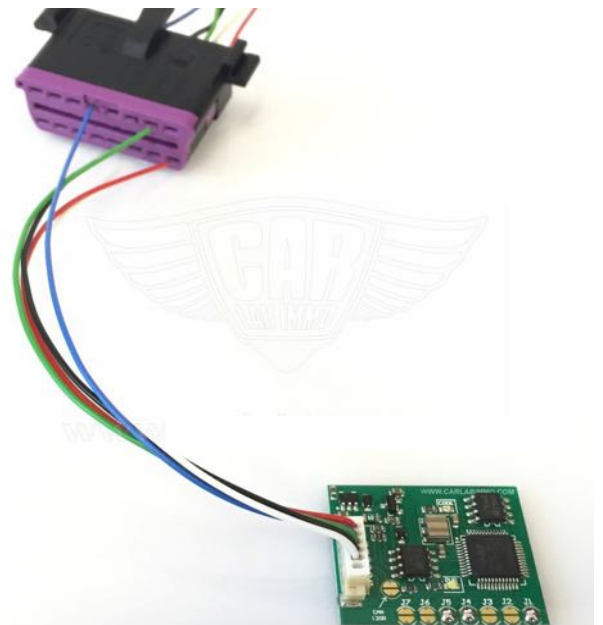


1. Connect all the wires to the OBD2 socket

2. TURN IGNITION ON AND WAIT 20 SECONDS

3. When ignition is turned on, connect the emulator's plug to the emulator's PCB. Once connected, blue LED flashes fast and after several seconds the LED should emit a constant light and blink every other second

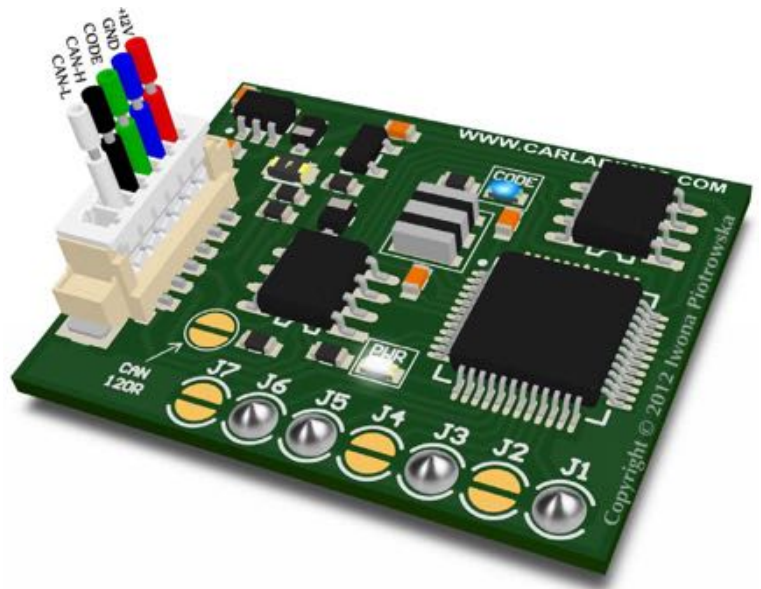
4. Turn ignition OFF and disconnect emulator



BMW

In Universal squ OF68 Emulator
solder jumpers J1, J3, J5 and J6

Available as Universal squ Emulator
program no:16

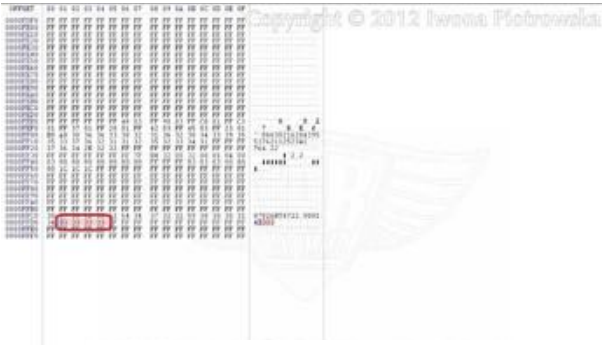


USE

BMW E36 1.6 Gasoline Bosch 0 261 203 660 ECU

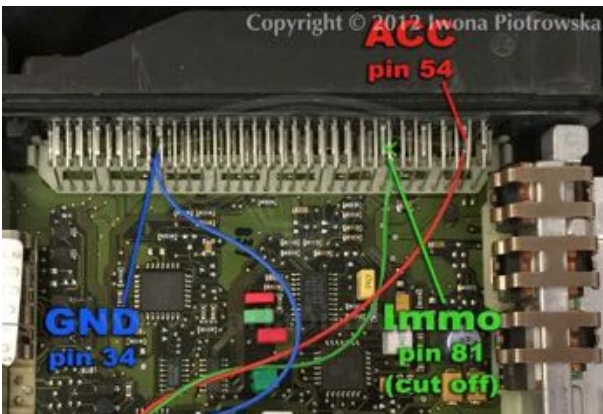


Find and read **27C512** eprom in ECU.
Save the original dump file and then remove the label from the eprom and use UV eraser.



In 27C512 eeprom
write 33 33 33 33 values
in addresses from 1FFD1 to 1FFD4

**Write from 1FFD1 to 1FFD4
values 33 33 33 33 .**



- GND pin 34
- +12V ACC pin 54
- immo line pin 81 (cut off)

**Cut off immo line marked in the picture and disconnect EWS.
In order to start the starter you need to join two pins of starter's relay!**

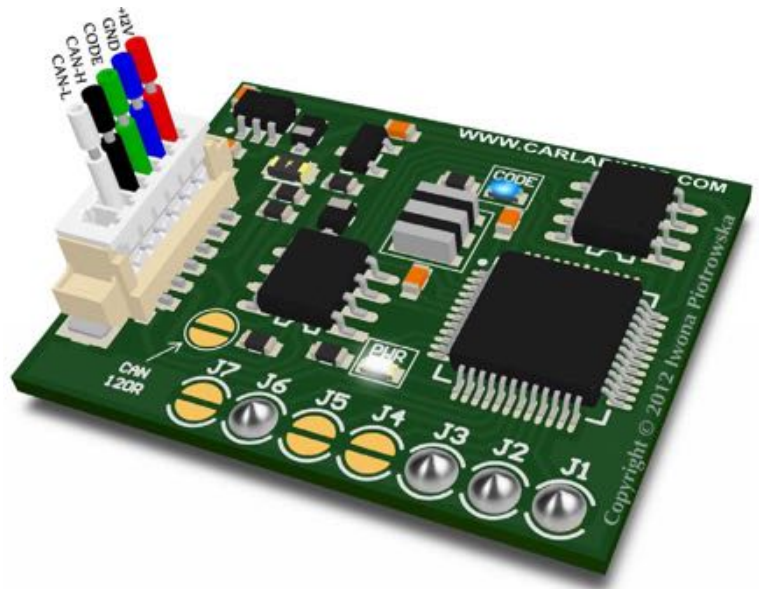
Connection diagram example



Chrysler

**In Universal squ OF68 Emulator
solder jumpers J1, J2, J3 and J6**

Available as Universal squ Emulator
program no:17



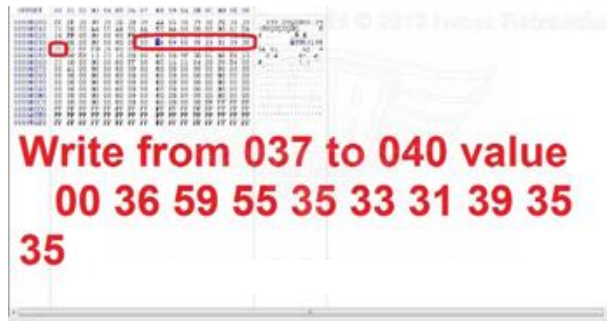
USE

**Chrysler Voyager
Dodge Caravan
Jeep Cherokee
2.5TD 1999-2001**



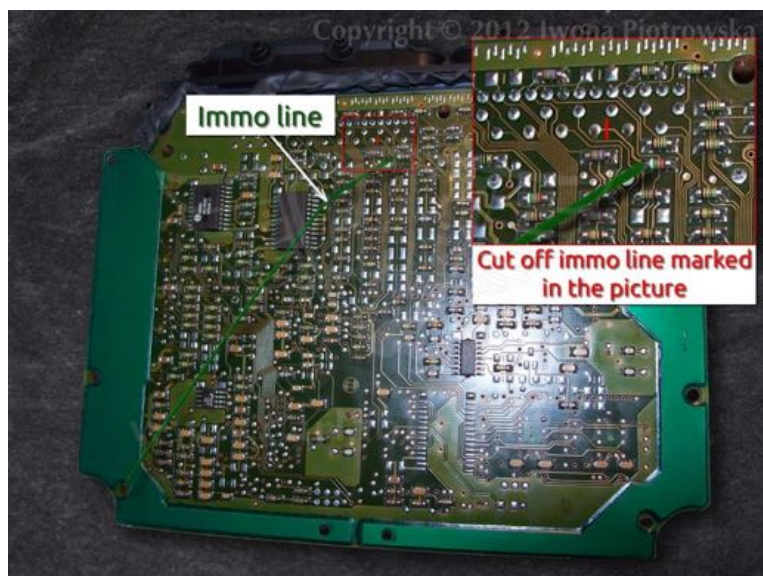


Find **24C02** memory in ECU



In 24C02 memory
write **00 36 59 55 35 33 31 39 35** and **35** values
in addresses from **037** to **040**

Connection diagram examples

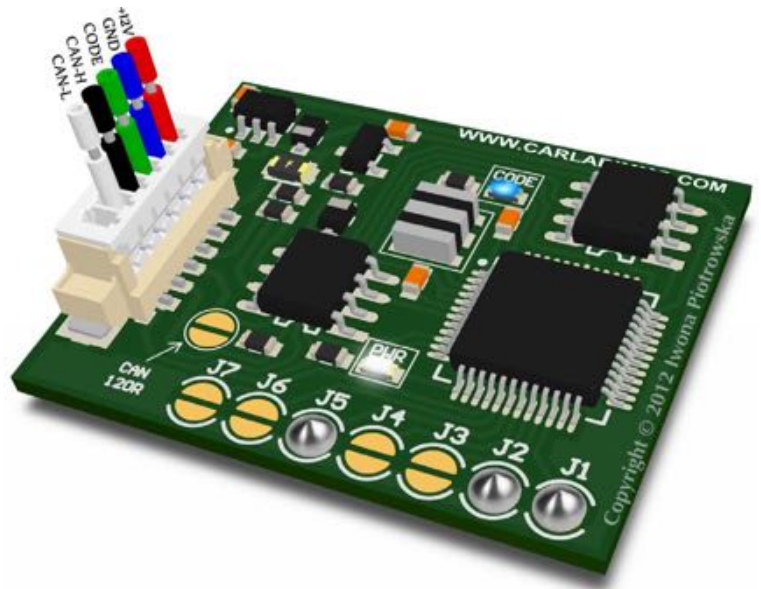


Cut off immo line marked in the picture

Citroen, Peugeot with CAN

**In Universal squ OF68 Emulator
solder jumpers J1, J2 and J5**

Available as Universal squ Emulator
program no:18



USE

EDC16 1.4 1.6 HDI with CAN
EDC15 HDI with CAN

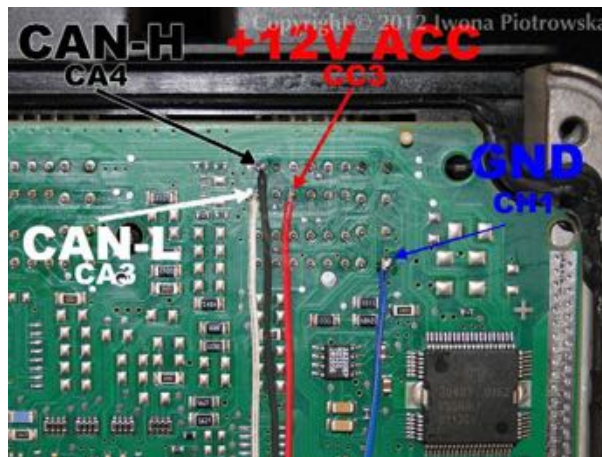
EDC16 ECUs with CAN
1.4 HDI and 1.6 HDI



This emulator requires modification of **95160** or **95320** memory in addresses **060 080 0A0** or more:

060	B6 F3 B2 30 01 04 FD 40
080	82 92 17 04 54 38 FD E4
0A0	97 E1 A6 36 AB C7 FB F8
860	B6 F3 B2 30 01 04 FD 40
880	82 92 17 04 54 38 FD E4
8A0	97 E1 A6 36 AB C7 FB F8
1060	B6 F3 B2 30 01 04 FD 40
1080	82 92 17 04 54 38 FD E4
10A0	97 E1 A6 36 AB C7 FB F8
1860	B6 F3 B2 30 01 04 FD 40
1880	82 92 17 04 54 38 FD E4
18A0	97 E1 A6 36 AB C7 FB F8

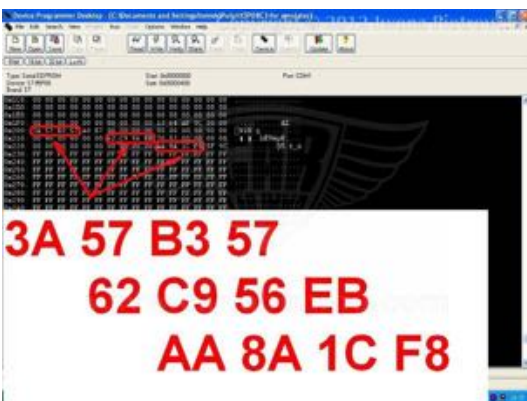
Connecting emulator to ECU



EDC15 HDI with CAN



This emulator requires modification of **5P08C3** memory in addresses shown below:



In 200-203 values write:
3A 57 B3 57

In 216-219 values write:
62 C9 56 EB

In 22A-22D values write:
AA 8A 1C F8

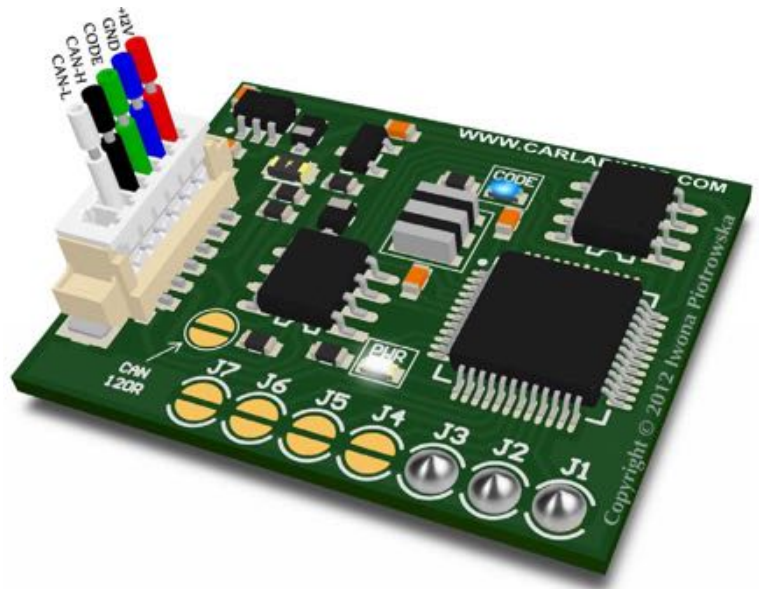
Connecting emulator to ECU



Daewoo 1

**In Universal squ OF68 Emulator
solder jumpers J1, J2 and J3**

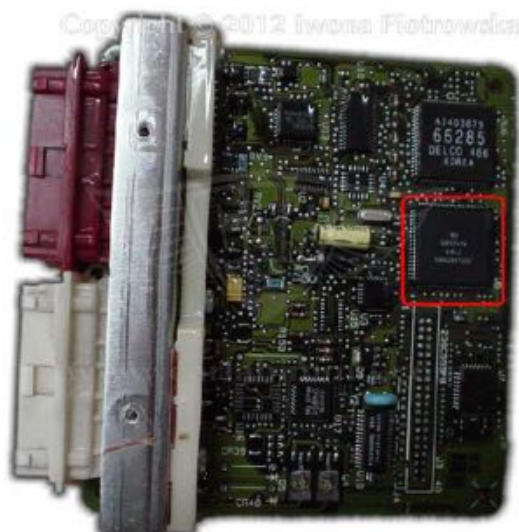
Available as Universal squ Emulator
program no:19



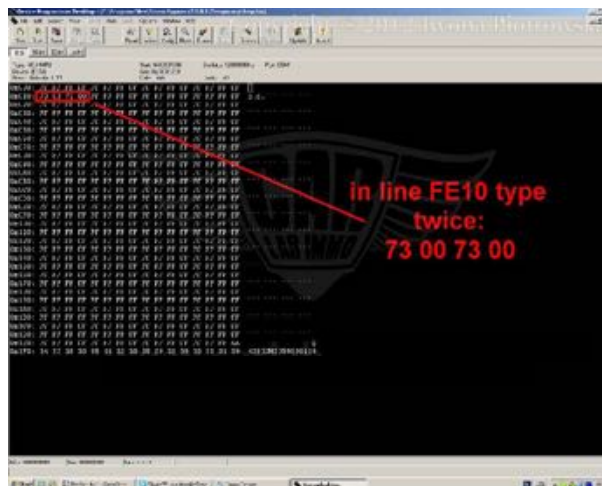
USE

ECUs with white - red sockets and ECUs with blue sockets

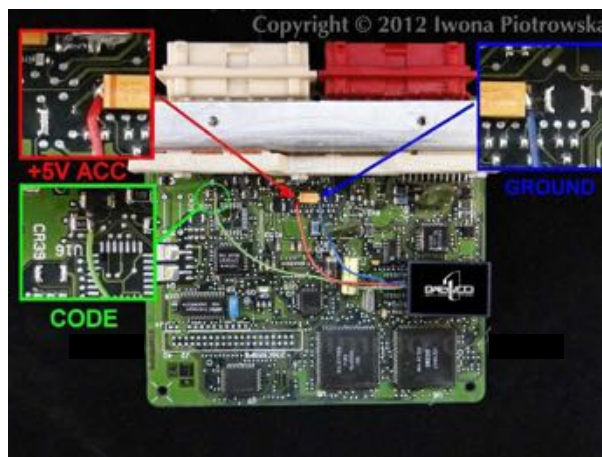
ECU with white – red socket



This emulator requires modification of **Motorola HC11F1** processor located in ECU.



In address 10, write value **73 00 73 00** twice



Once you modified Motorola, connect emulator to the ECU as pictured.

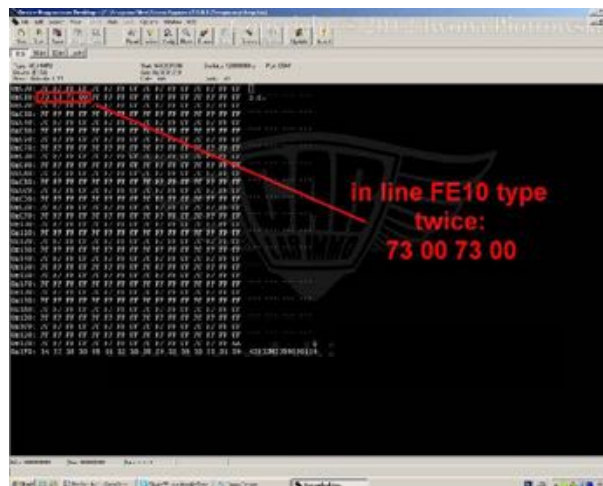
Before connecting the emulator, it must be precisely insulated with insulation tape and the original immobiliser must be disconnected!!!

In case of problems with starting the car, disconnect power supply (+12V) in ECU and connect +12V ACC in place of power supply.

ECU with blue socket



This emulator requires modification of **Motorola HC11F1** processor located in ECU



In address **FE10**, write value **73 00 73 00** twice

Once you modified Motorola, connect emulator to the ECU as pictured.

+5V VCC leg 11 of DELCO 9621 unit

GND GND of resonator (quartz)

Code leg 1 of DELCO 9621 unit

Disconnect immo or cut off pin B7 from ECU

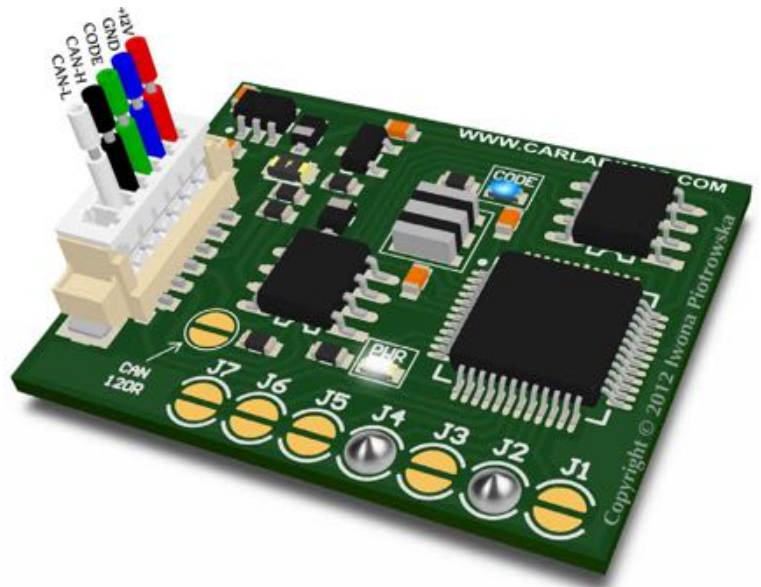
Before connecting the emulator, it must be precisely insulated with insulation tape and the original immobiliser must be disconnected!!!

In case of problems with starting the car, **disconnect power supply (+12V) in ECU** and connect +12V ACC in place of power supply.

Daewoo 2

**In Universal squ OF68 Emulator
solder jumpers J2 and J4**

Available as Universal squ Emulator
program no:20

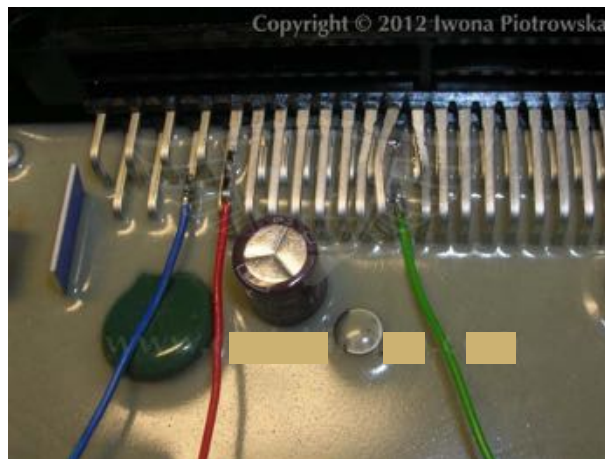


This device self-learns ECU code

USE

**Matiz SIEMENS ECU
Matiz KEMSCO ECU
Tacuma KEMSCO ECU
Chevrolet Spark D32 ECU 0.8ccm 38kW
Lanos hybrid ECU 1.4 OHC
Rezzo hybrid ECU 2.0 16V 89kW DOHC
Kalos SIRIUS D42 ECU 1.2
Chevrolet Aveo 4R ECU 1.2 8V**

Matiz SIEMENS ECU



Connecting emulator to ECU

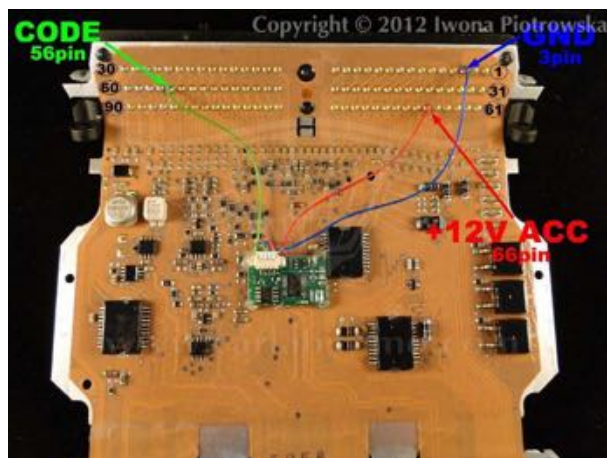
Power	32 pin (or pin 24 ACC)
GND	3 pin
Immo	11 pin

Cut off pin 11 from wiring in the car !!!

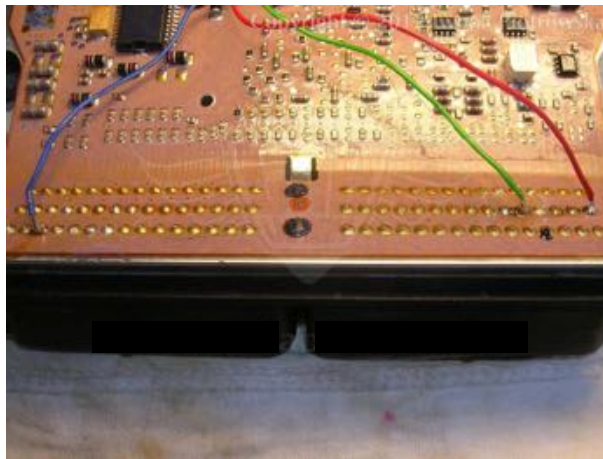
Matiz KEMSCO ECU



Connecting emulator to ECU



Tacuma KEMSCO ECU

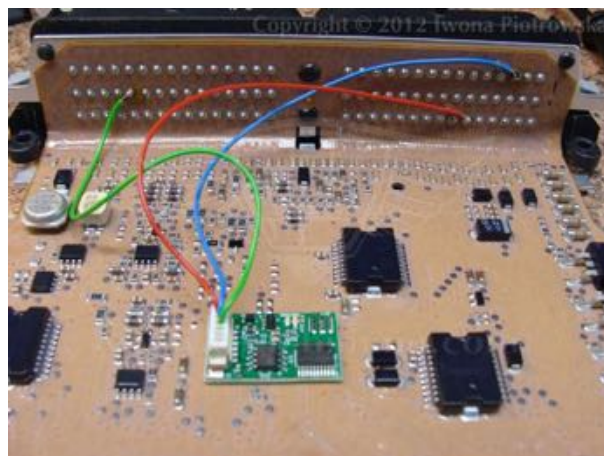


Connecting emulator to ECU

Power	60 pin
GND	3 pin
Immo	56 pin

Cut off pin 56 from wiring in the car!!!

Chevrolet Spark D32 ECU 0.8ccm 38kW

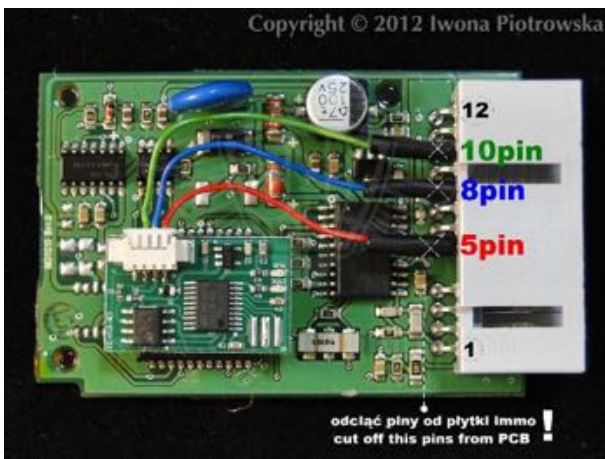


Connecting emulator to ECU

- Power** 66 pin
- GND** 3 pin
- Immo** 56 pin



**Lanos hybrid ECU 1.4 OHC
and
Rezzo hybrid ECU 2.0 16V 89kW DOHC**



Connect emulator to the socket of disconnected immobiliser:

Power	5 pin
GND	8 pin
Immo	10 pin

Or connect it to ECU socket

Power	18 pin (socket - K)
GND	39 pin (socket - M)
Immo	32 pin (socket - K)

Cut off pin 32 from wiring in the car!!!



Kalos SIRIUS D42 ECU 1.2



Connecting emulator to ECU

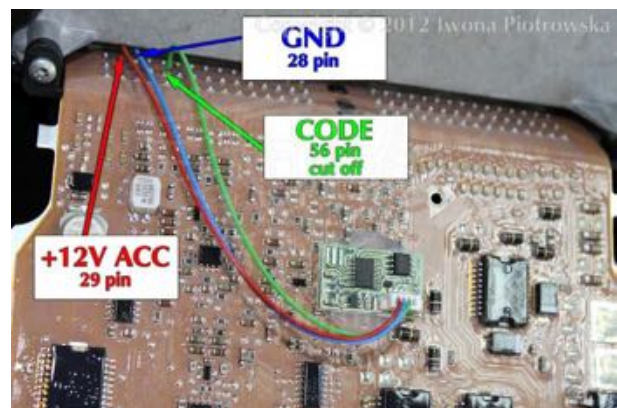
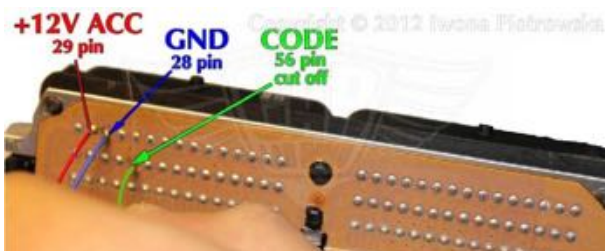
Power 29 pin

GND 28 pin

Immo 56 pin

Cut off pin 56 from wiring in the car!!!

Chevrolet Aveo 4R ECU 1.2 8V



Connecting emulator to ECU

Power 29 pin

GND 28 pin

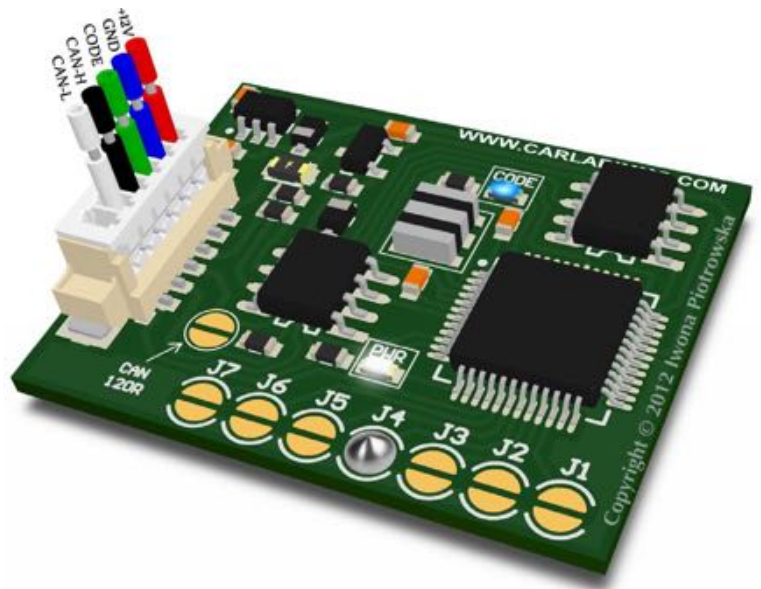
Immo 56 pin

Cut off pin 56 from wiring in the car!!!

Fiat without CAN

**In Universal squ OF68 Emulator
solder jumper J4**

Available as Universal squ Emulator
program no:21



USE

Fiat, Citroen, Peugeot diesel
2-socket ECU

Alfa, Fiat, Lancia
1.9 Jtd 2.4 Jtd 5-socket ECU

IAW49F
Fiat Bravo 1.6 16V

IAW 4AF
Fiat Seicento, Panda 1.1 8V

Lancia Kappa 2.0i 16V Turbo
0 261 203 792

Lancia Kappa 2.0i 20V
0 261 203 670

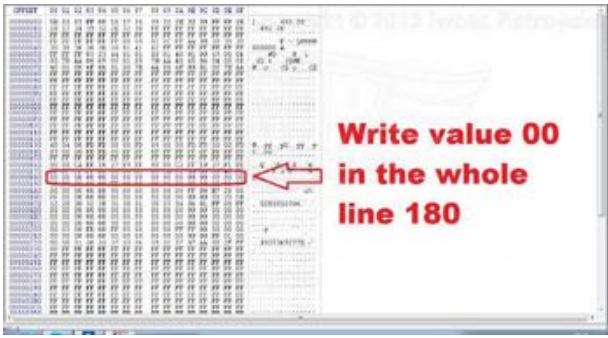
Lancia Kappa 2.4i 16V
0 261 203 669

Lancia Kappa 3.0i 24V
0 261 203 482

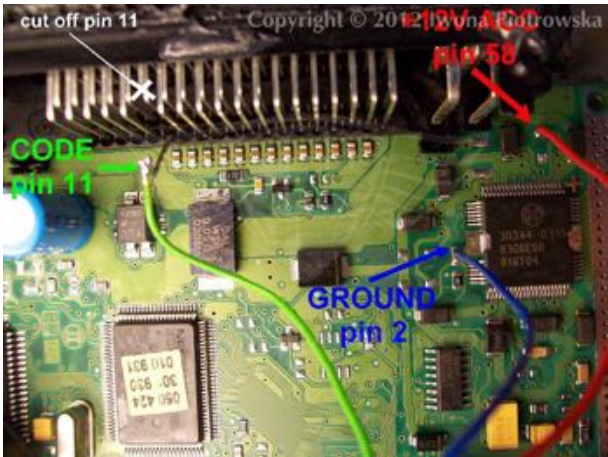
Fiat, Citroen, Peugeot diesel 2-socket ECU



After modifying 5P08C3 memory in line 180 into 00 values, connect emulator in place of the original immobiliser



Connecting emulator to ECU



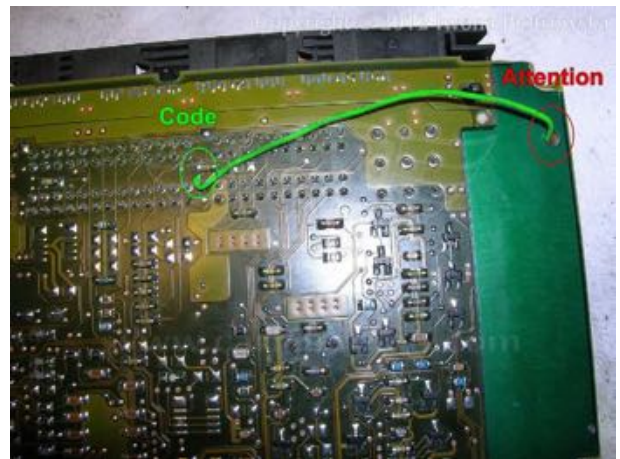
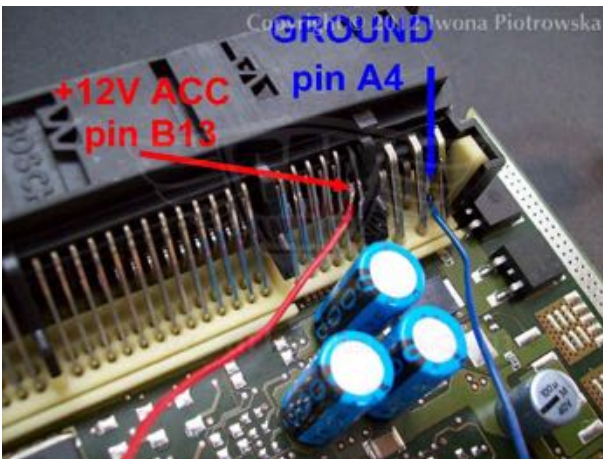
Alfa, Lancia, Fiat 1.9 Jtd 2.4 Jtd 5-socket ECU



In addresses from 1EA to 1F9, change these values into 00 in 24C04 memory



Connecting emulator to ECU



- ACC B.13 pin
- GND A.4 A.5 A.6 pin
- Code C.13 pin (cut off)

ATTENTION!

When putting ECU back together, put a piece of cardboard on the wire making sure not to tighten it firmly in this area. Alternatively, break off a piece of clamp holder and drag the cable over to the other side



IAW49F
Fiat Bravo 1.6 16V



Find memory **95040** in ECU
and then program it according to picture
below

Address	Value	Comment
000000	00 00 00 00	
000001	00 00 00 00	
000002	00 00 00 00	
000003	00 00 00 00	
000004	00 00 00 00	
000005	00 00 00 00	
000006	00 00 00 00	
000007	00 00 00 00	
000008	00 00 00 00	
000009	00 00 00 00	
00000A	00 00 00 00	
00000B	00 00 00 00	
00000C	00 00 00 00	
00000D	00 00 00 00	
00000E	00 00 00 00	
00000F	00 00 00 00	
000010	00 00 00 00	
000011	00 00 00 00	
000012	00 00 00 00	
000013	00 00 00 00	
000014	00 00 00 00	
000015	00 00 00 00	
000016	00 00 00 00	
000017	00 00 00 00	
000018	00 00 00 00	
000019	00 00 00 00	
00001A	00 00 00 00	
00001B	00 00 00 00	
00001C	00 00 00 00	
00001D	00 00 00 00	
00001E	00 00 00 00	
00001F	00 00 00 00	
000020	00 00 00 00	
000021	00 00 00 00	
000022	00 00 00 00	
000023	00 00 00 00	
000024	00 00 00 00	
000025	00 00 00 00	
000026	00 00 00 00	
000027	00 00 00 00	
000028	00 00 00 00	
000029	00 00 00 00	
00002A	00 00 00 00	
00002B	00 00 00 00	
00002C	00 00 00 00	
00002D	00 00 00 00	
00002E	00 00 00 00	
00002F	00 00 00 00	
000030	00 00 00 00	
000031	00 00 00 00	
000032	00 00 00 00	
000033	00 00 00 00	
000034	00 00 00 00	
000035	00 00 00 00	
000036	00 00 00 00	
000037	00 00 00 00	
000038	00 00 00 00	
000039	00 00 00 00	
00003A	00 00 00 00	
00003B	00 00 00 00	
00003C	00 00 00 00	
00003D	00 00 00 00	
00003E	00 00 00 00	
00003F	00 00 00 00	
000040	00 00 00 00	
000041	00 00 00 00	
000042	00 00 00 00	
000043	00 00 00 00	
000044	00 00 00 00	
000045	00 00 00 00	
000046	00 00 00 00	
000047	00 00 00 00	
000048	00 00 00 00	
000049	00 00 00 00	
00004A	00 00 00 00	
00004B	00 00 00 00	
00004C	00 00 00 00	
00004D	00 00 00 00	
00004E	00 00 00 00	
00004F	00 00 00 00	
000050	00 00 00 00	
000051	00 00 00 00	
000052	00 00 00 00	
000053	00 00 00 00	
000054	00 00 00 00	
000055	00 00 00 00	
000056	00 00 00 00	
000057	00 00 00 00	
000058	00 00 00 00	
000059	00 00 00 00	
00005A	00 00 00 00	
00005B	00 00 00 00	
00005C	00 00 00 00	
00005D	00 00 00 00	
00005E	00 00 00 00	
00005F	00 00 00 00	
000060	00 00 00 00	
000061	00 00 00 00	
000062	00 00 00 00	
000063	00 00 00 00	
000064	00 00 00 00	
000065	00 00 00 00	
000066	00 00 00 00	
000067	00 00 00 00	
000068	00 00 00 00	
000069	00 00 00 00	
00006A	00 00 00 00	
00006B	00 00 00 00	
00006C	00 00 00 00	
00006D	00 00 00 00	
00006E	00 00 00 00	
00006F	00 00 00 00	
000070	00 00 00 00	
000071	00 00 00 00	
000072	00 00 00 00	
000073	00 00 00 00	
000074	00 00 00 00	
000075	00 00 00 00	
000076	00 00 00 00	
000077	00 00 00 00	
000078	00 00 00 00	
000079	00 00 00 00	
00007A	00 00 00 00	
00007B	00 00 00 00	
00007C	00 00 00 00	
00007D	00 00 00 00	
00007E	00 00 00 00	
00007F	00 00 00 00	
000080	00 00 00 00	
000081	00 00 00 00	
000082	00 00 00 00	
000083	00 00 00 00	
000084	00 00 00 00	
000085	00 00 00 00	
000086	00 00 00 00	
000087	00 00 00 00	
000088	00 00 00 00	
000089	00 00 00 00	
00008A	00 00 00 00	
00008B	00 00 00 00	
00008C	00 00 00 00	
00008D	00 00 00 00	
00008E	00 00 00 00	
00008F	00 00 00 00	
000090	00 00 00 00	
000091	00 00 00 00	
000092	00 00 00 00	
000093	00 00 00 00	
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000095	00 00 00 00	
000096	00 00 00 00	
000097	00 00 00 00	
000098	00 00 00 00	
000099	00 00 00 00	
00009A	00 00 00 00	
00009B	00 00 00 00	
00009C	00 00 00 00	
00009D	00 00 00 00	
00009E	00 00 00 00	
00009F	00 00 00 00	
0000A0	00 00 00 00	
0000A1	00 00 00 00	
0000A2	00 00 00 00	
0000A3	00 00 00 00	
0000A4	00 00 00 00	
0000A5	00 00 00 00	
0000A6	00 00 00 00	
0000A7	00 00 00 00	
0000A8	00 00 00 00	
0000A9	00 00 00 00	
0000AA	00 00 00 00	
0000AB	00 00 00 00	
0000AC	00 00 00 00	
0000AD	00 00 00 00	
0000AE	00 00 00 00	
0000AF	00 00 00 00	
0000B0	00 00 00 00	
0000B1	00 00 00 00	
0000B2	00 00 00 00	
0000B3	00 00 00 00	
0000B4	00 00 00 00	
0000B5	00 00 00 00	
0000B6	00 00 00 00	
0000B7	00 00 00 00	
0000B8	00 00 00 00	
0000B9	00 00 00 00	
0000BA	00 00 00 00	
0000BB	00 00 00 00	
0000BC	00 00 00 00	
0000BD	00 00 00 00	
0000BE	00 00 00 00	
0000BF	00 00 00 00	
0000C0	00 00 00 00	
0000C1	00 00 00 00	
0000C2	00 00 00 00	
0000C3	00 00 00 00	
0000C4	00 00 00 00	
0000C5	00 00 00 00	
0000C6	00 00 00 00	
0000C7	00 00 00 00	
0000C8	00 00 00 00	
0000C9	00 00 00 00	
0000CA	00 00 00 00	
0000CB	00 00 00 00	
0000CC	00 00 00 00	
0000CD	00 00 00 00	
0000CE	00 00 00 00	
0000CF	00 00 00 00	
0000D0	00 00 00 00	
0000D1	00 00 00 00	
0000D2	00 00 00 00	
0000D3	00 00 00 00	
0000D4	00 00 00 00	
0000D5	00 00 00 00	
0000D6	00 00 00 00	
0000D7	00 00 00 00	
0000D8	00 00 00 00	
0000D9	00 00 00 00	
0000DA	00 00 00 00	
0000DB	00 00 00 00	
0000DC	00 00 00 00	
0000DD	00 00 00 00	
0000DE	00 00 00 00	
0000DF	00 00 00 00	
0000E0	00 00 00 00	
0000E1	00 00 00 00	
0000E2	00 00 00 00	
0000E3	00 00 00 00	
0000E4	00 00 00 00	
0000E5	00 00 00 00	
0000E6	00 00 00 00	
0000E7	00 00 00 00	
0000E8	00 00 00 00	
0000E9	00 00 00 00	
0000EA	00 00 00 00	
0000EB	00 00 00 00	
0000EC	00 00 00 00	
0000ED	00 00 00 00	
0000EE	00 00 00 00	
0000EF	00 00 00 00	
0000F0	00 00 00 00	
0000F1	00 00 00 00	
0000F2	00 00 00 00	
0000F3	00 00 00 00	
0000F4	00 00 00 00	
0000F5	00 00 00 00	
0000F6	00 00 00 00	
0000F7	00 00 00 00	
0000F8	00 00 00 00	
0000F9	00 00 00 00	
0000FA	00 00 00 00	
0000FB	00 00 00 00	
0000FC	00 00 00 00	
0000FD	00 00 00 00	
0000FE	00 00 00 00	
0000FF	00 00 00 00	

Write value FF
from 09C to 1FF



Connecting emulator to ECU

Cut off pin 13 from wiring in the car !!!

Lancia Kappa 2.0i 16V Turbo
0 261 203 792



ACC 37 or 27 pin

GND 14, 19, 24 pin

Code 55 pin



Connect immo line to **pin 55**.
Disconnect immo. Connect **A6** and **A5**
together.

**To have diagnosis, the immo line must
be made in the reset button.**

This device self-learns ECU code

Lancia Kappa 2.0i 20V 0 261 203 670



ACC 37 or 27 pin

GND 2, 14, 19, 24 pin

Code 55 pin

To have diagnosis, the immo line must be made in the reset button.
Connect **A6** and **A5** together.

This device self-learns ECU code

Lancia Kappa 2.4i 16V 0 261 203 669



Connect immo line to **pin 55**. Disconnect immo. Connect **A6** and **A5** together.
To have diagnosis, the immo line must be made in the reset button.

ACC	27 pin
GND	19 pin
Code	55 pin

This device self-learns ECU code

Lancia Kappa 3.0i 24V
0 261 203 482



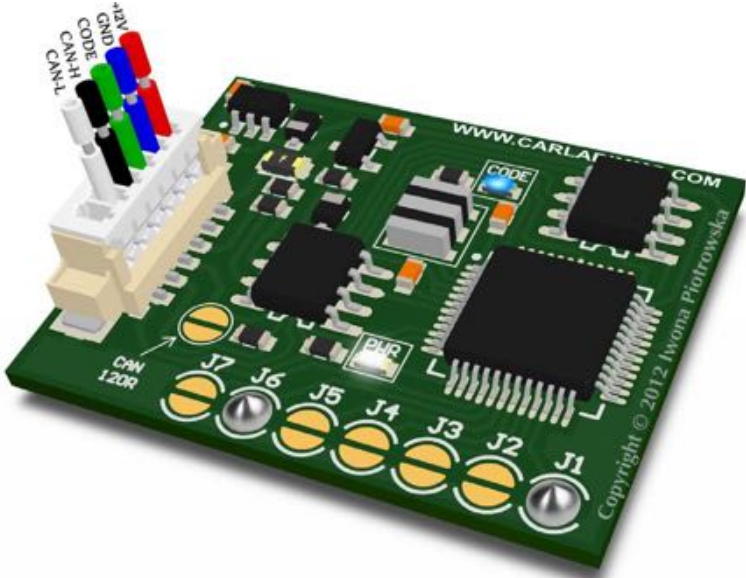
Connecting emulator to ECU

ACC	56 pin
GND	55 pin
Code	88 pin

Fiat with CAN

In Universal squ OF68 Emulator
solder jumpers J1 and J6

Available as Universal squ Emulator
program no:22

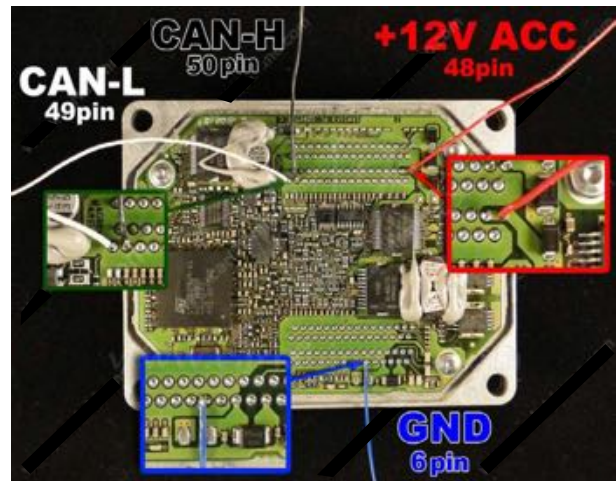


USE

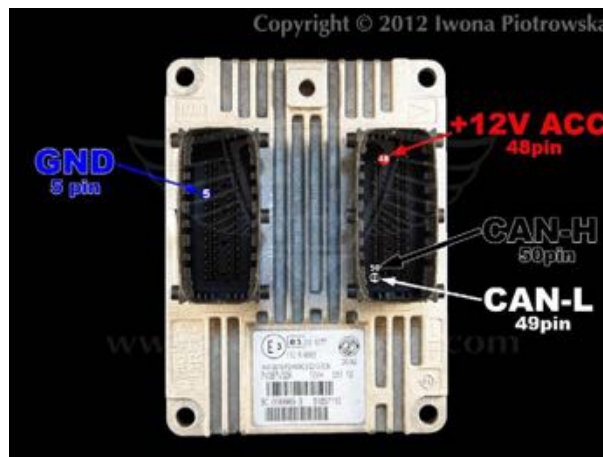
Fiat with CAN 5SF and 6F3 ECU



Connecting emulator to 5SF ECU



Connecting to ECU socket

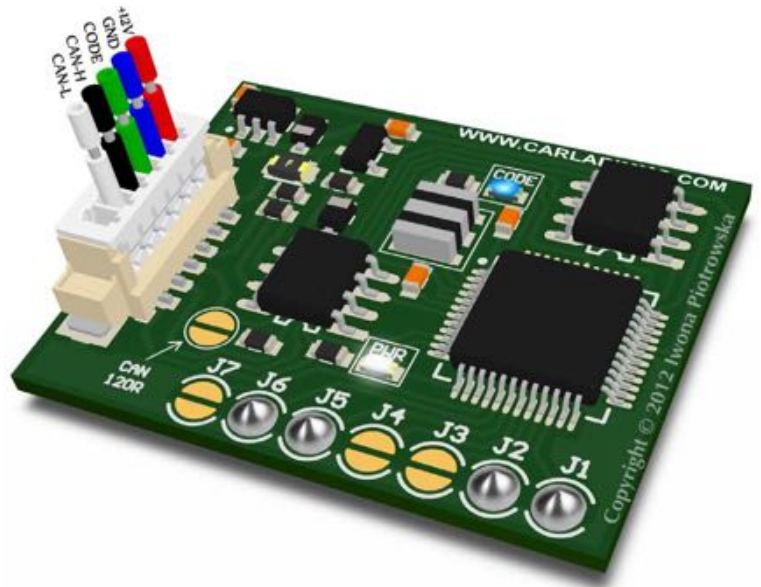


- +12V ACC 48 pin
- GND 5 or 6 pin
- CAN-L 49 pin
- CAN-H 50 pin

FSO Polonez

In Universal squ OF68 Emulator
solder jumpers J1, J2, J5 and J6

Available as Universal squ Emulator
program no:23



USE

FSO Polonez 1.6GSi

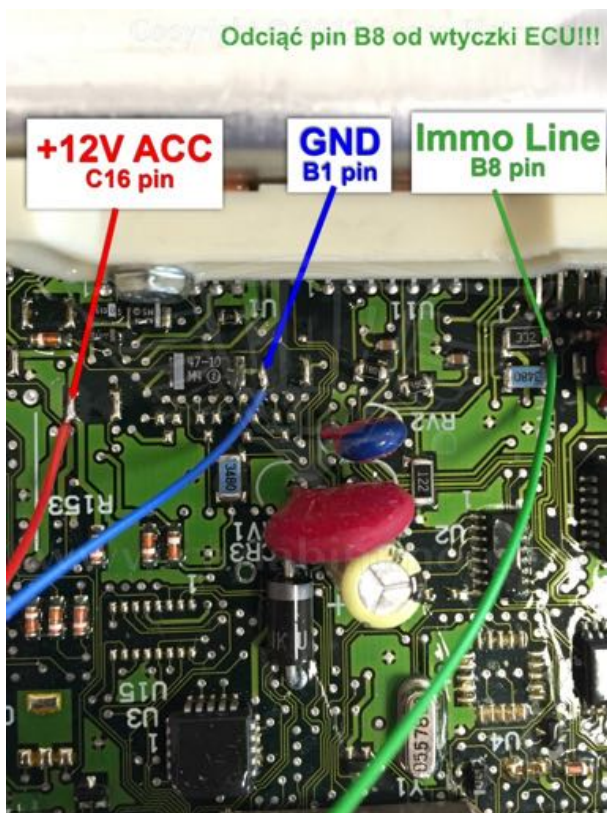


DELCO DAFZ ECU



Find Motorola **HC11F1** processor in ECU

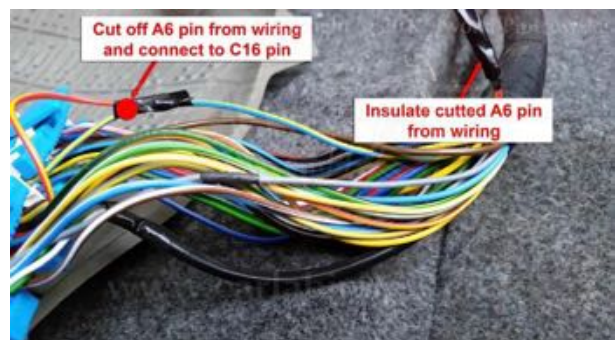
In the addresses from **120** to **121**, write **3E 62** values



Connecting emulator to ECU

+12V ACC	red
GND	blue
Immo	green

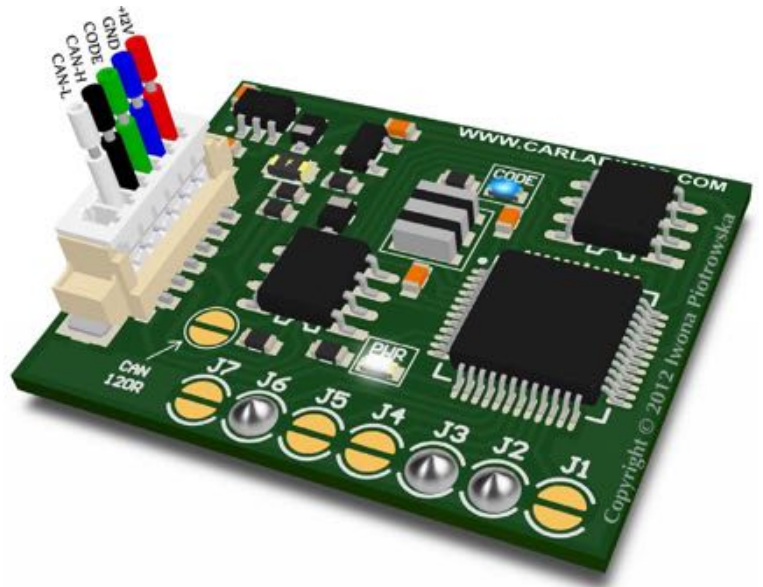
Cut off pin B8 from ECU plug!



Honda

In Universal squ OF68 Emulator
solder jumpers J2, J3 and J6

Available as Universal squ Emulator
program no:24

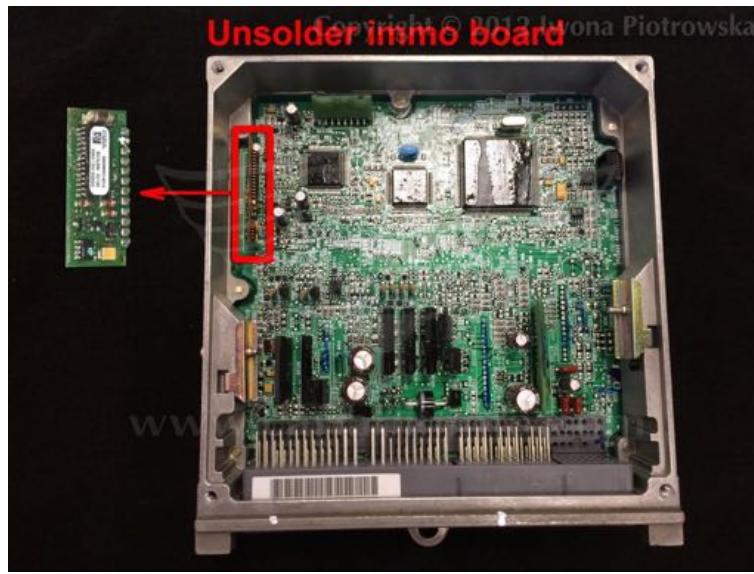


USE

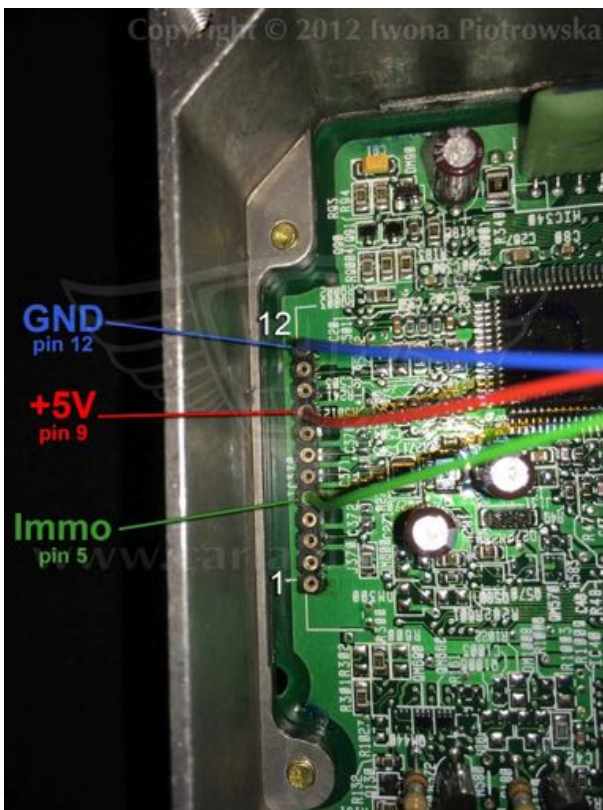
Honda: Accord, CRV, Civic and other
(production year 1999 - 2002)



The emulator only works with ECU that has got immo board equipped with 28-pin processor with a label



Unsolder this immo board as shown in the picture above



In the place of the immo board, solder in the emulator



Example connection diagram of **Honda emulator**

Example connection diagram of **Universal Julie emulator**



Before starting the car, disconnect the plug from immo box!!!



ECU Bosch M4.6.1
0 261 204 830

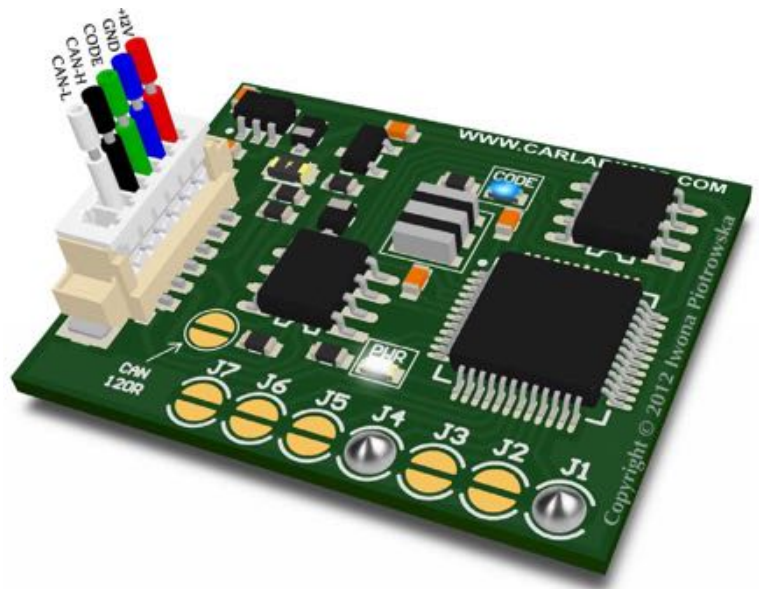
Honda Accord
1.6i 1999 year



Kia Sportage 2.0 TD

In Universal squ OF68 Emulator
solder jumpers J1 and J4

Available as Universal squ Emulator
program no:25



USE

Kia Sportage 2.0 TD
ZEXEL ECU immo with remote control



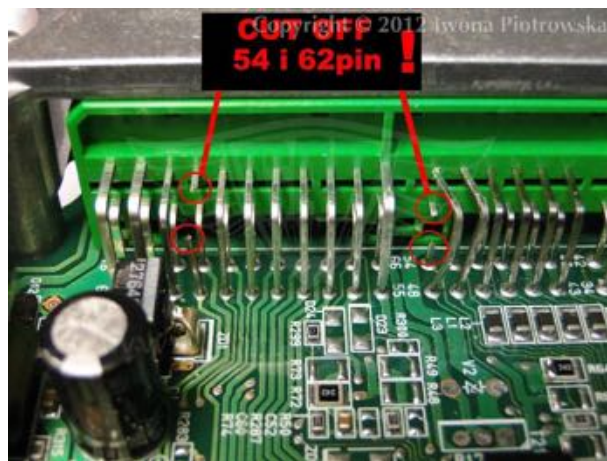
ECU is located under the floor mat at the front of the passenger-side footwell.



Connecting emulator to ECU



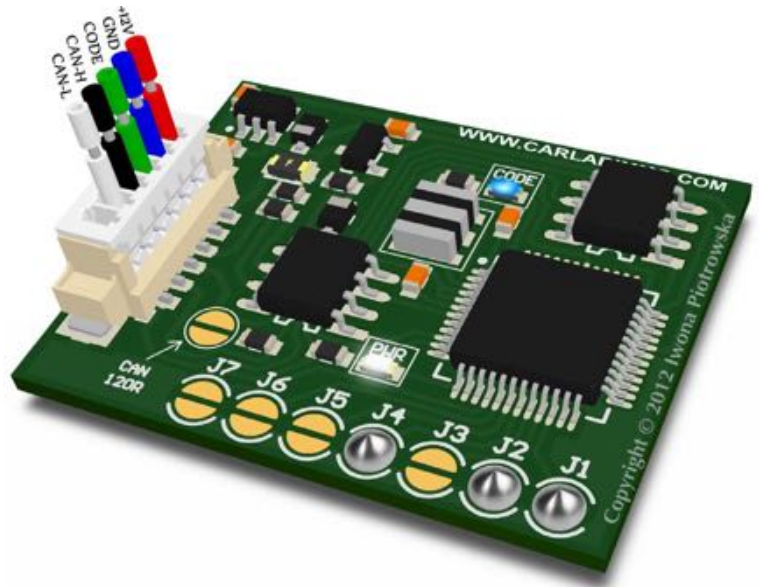
- Power supply red
- GND blue
- Immo green



Mercedes CR without CAN infrared

In Universal squ OF68 Emulator
solder jumpers J1, J2 and J4

Available as Universal squ Emulator
program no:26



USE

INFRARED IMMO
with 12-pin module + 2-pin CAN
where only CAN L is connected (there is no CAN H).
Green and red LED flash in the mirror.

Lucas 55 pins 1-socket ECU 2.2 Diesel

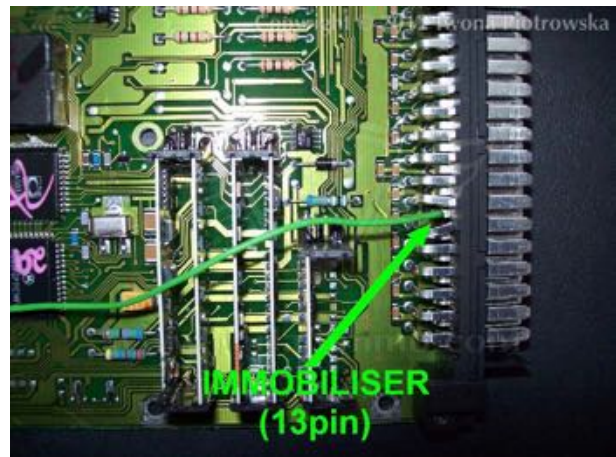
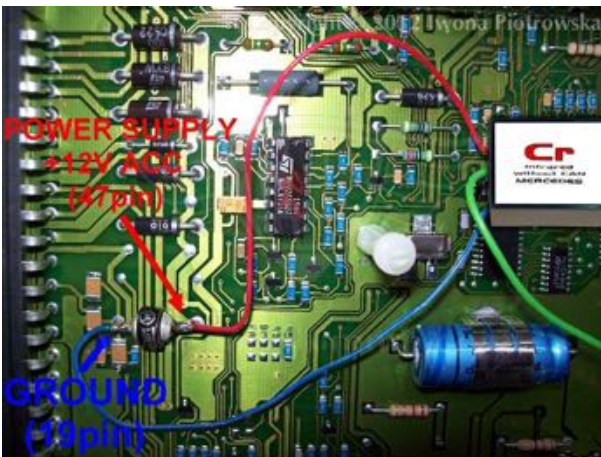
SIEMENS hybrid ECU
1.8 2.0 2.3 gasoline

BOSCH hybrid ECU
2.0 gasoline

Lucas 55 pins 1-socket ECU 2.2 Diesel Mercedes E-class W210



Connecting emulator to ECU



ACC	47 pin
GND	19 pin
Immo white with a green stripe	13 pin

Cut off pin 13 in the ECU and pins 5 and 6 in the immo module. Then, connect emulator. In the mirror and in the door handle area LEDs do not flash.

SIEMENS hybrid ECU 1.8 2.0 2.3 gasoline

**Mercedes C-class W202 1.8 gasoline
SIEMENS hybrid ECU no. 018 545 41 32**



Connect emulator instead of infrared immo with 12-pin module + 2-pin CAN, which is located under the floor mat at the front of the passenger-side footwell.



GND and ACC in the 12-pin plug of immobiliser:

ACC 9 pin

GND 1 pin

Immo Connect it to 2 pin plug of immobiliser

Cut off pin 5 and 6 in immo module, then LEDs do not flash in the mirror.

Mercedes Vito 2.0 and 2.3 gasoline SIEMENS hybrid ECU

2-socket ECU with vacuum hose,
9-pin immo, remote control locking and unlocking.

Connecting in place of original immobiliser

ACC	7 pin - black with grey strap
GND	2 pin - brown
Immo	5 pin - blue with violet strap

BOSCH hybrid ECU 2.0 gasoline

Mercedes C-class W202 2.0 gasoline
BOSCH hybrid ECU no. 0 261 200 614



GND and ACC in the 12-pin plug of immobiliser

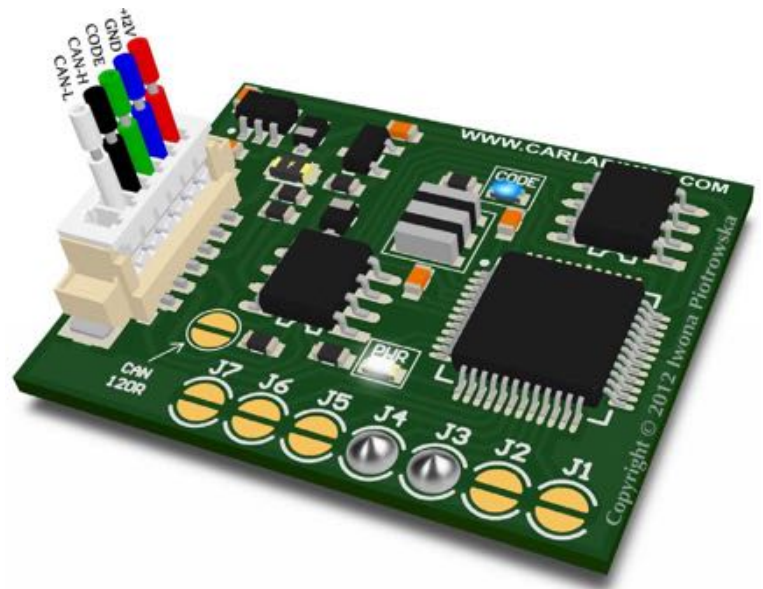
ACC	9 pin
GND	1 pin
Immo	Connect it to 2 pin plug of immobiliser

Cut off pin 5 and 6 in immo module, then LEDs do not flash in the mirror

Mercedes CR1 with CAN WSP

**In Universal squ OF68 Emulator
solder jumpers J3 and J4**

Available as Universal squ Emulator
program no:27



USE

**Vito 2.2 Cdi
5-socket ECU**

**A-class 1.7 Cdi
5-socket ECU**

**EDC 1-socket ECU
2.5TD 2.9TD 3.0TD
with mechanical and electronic ignition switch**

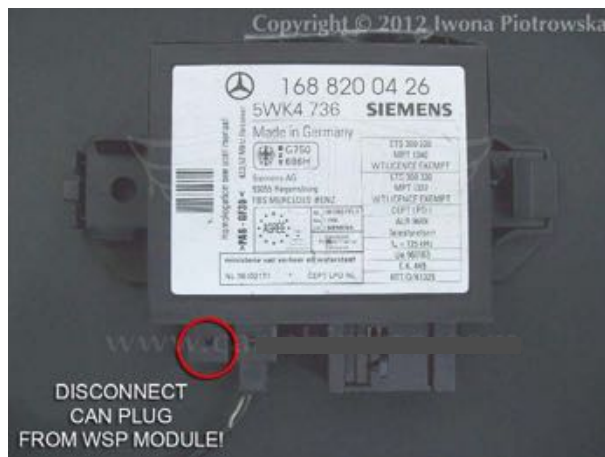
Bosch ECU with HC11E9

**E-class Lucas 4-socket ECU
with mechanical and electronic ignition switch**

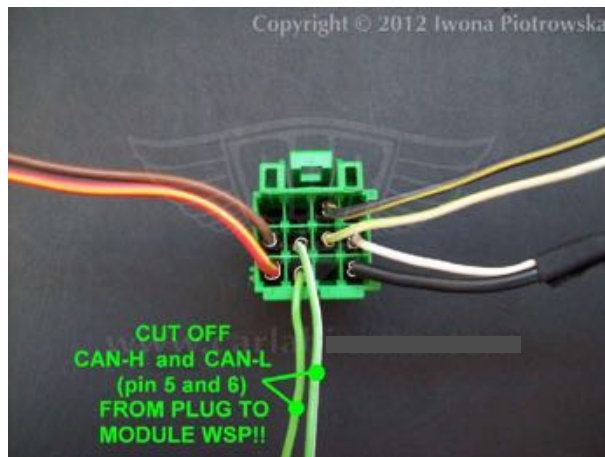
**A-class VDO MSM ECU
1.4 1.6 1.9 gasoline**

When emulator is connected, disconnect CAN from original immo!

A-class VDO MSM ECU
1.4 1.6 1.9 gasoline



Vito 2.2 Cdi 5-socket ECU



Vito 2.2 Cdi 5-socket ECU



In Mercedes Vito 2.2 Cdi, the starter does not turn, there is **START ERROR** on the instrument cluster

ECU is located on the passenger side



Connecting emulator to ECU

- ACC 2.13 pin**
- GND 1.04 1.05 1.06 pin**
- CAN-L 2.12 pin**
- CAN-H 2.11 pin**

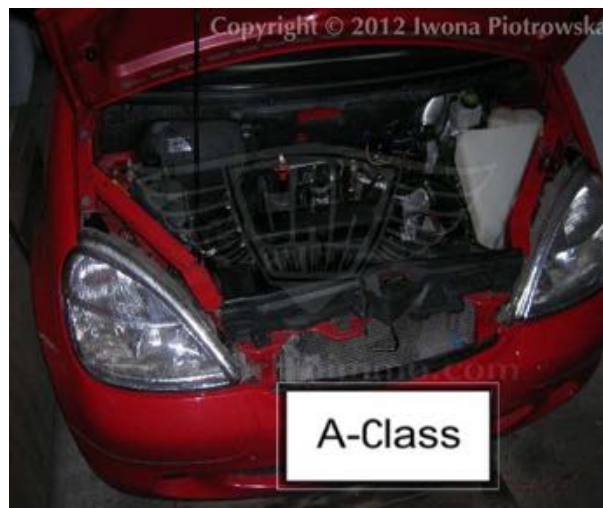
Find **24C04** memory



In address **1EE** to **1F9**, enter values **2A 4E 00 00 FF FF 00 9C D4 13 56 01**

Disconnect CAN from WSP!!!

**A-class 1.7 Cdi
5-socket ECU**



In Mercedes A-class 1.7 Cdi, the starter does not turn,
there is **START ERROR** on the instrument cluster

ECU is located under the bonnet on the left side behind the engine covered with plastic

Connecting emulator to ECU

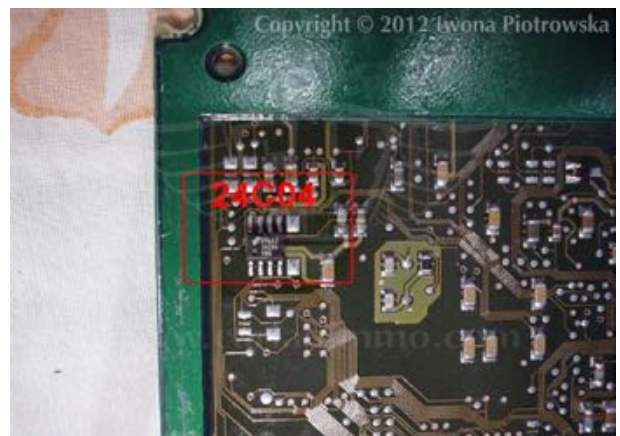
ACC **2.13 pin**

GND 1.04 1.05 1.06 pin

CAN-L 2.12 pin

CAN-H 2.11 pin

Find **24C04** memory



In the address **1EE** to **1F9** enter values **2A 4E 00 00 FF FF 00 9C D4 13 56 01**

Disconnect CAN from WSP!!!

**EDC 1-socket ECU
2.5TD 2.9TD 3.0TD
with mechanical and electronic ignition switch**

C-class 2.5 TD
Sprinter 2.9 TD
E-class 3.0 TD



In early 1-socket ECU types, you need to find **24C02** memory marked as **B58** or **24C04** memory

In address **38** and **39** write **2A 4E** values and
in address **3F** to **42** write **9C D4 13 56** values

Connecting emulator to EDC 1-socket ECU

CAN H and CAN L from the choke.
GND and power from diode.

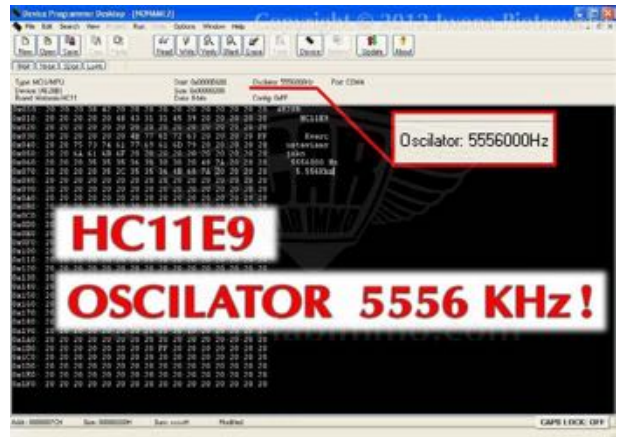


If there are problems to start the car, add ACC onto pin 13 of ECU
(take it from second leg of diode). Then, cut off pin 13 from the ECU plug

Disconnect CAN from WSP!!!

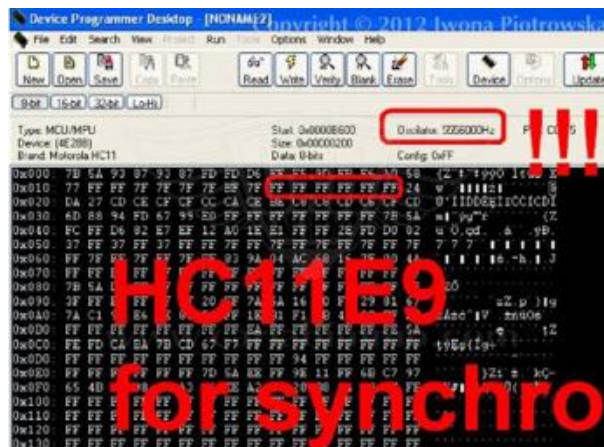
Bosch ECU with HC11E9

There is Motorola **4E28B HC11E9 52PLCC** in ECU



Before reading content, set oscillator at 5556000Hz!

1st CHANGE



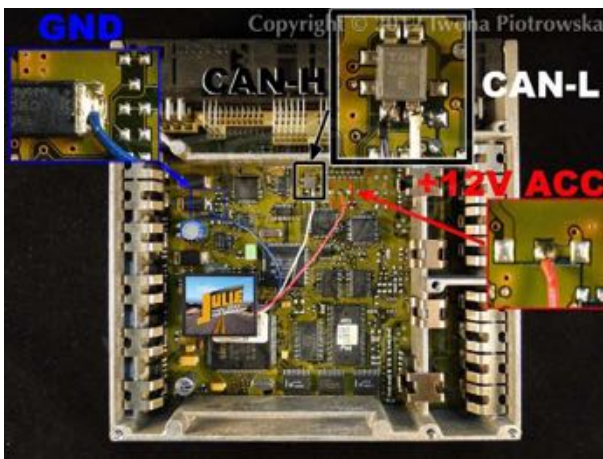
In addresses from **019** to **01E** (ETL 619 to 61E), write **FF** values

2nd CHANGE



In addresses from **029** to **02E** write **FF** values

Connecting emulator to ECU



+12V ACC	A2 pin
GND	A3 pin
CAN-L	D12 pin
CAN-H	D11 pin

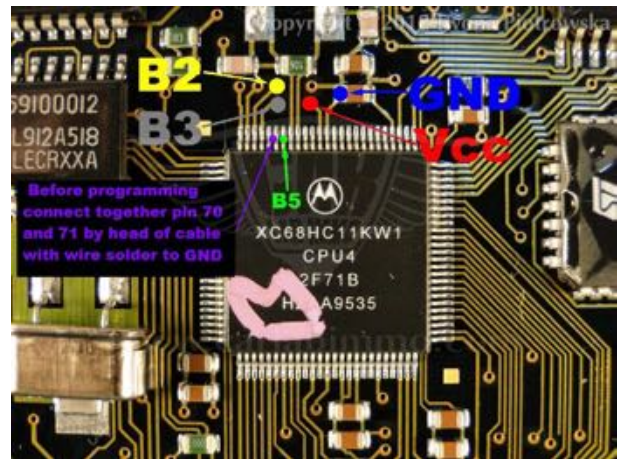
After connecting the emulator, you need to carry out personalization with **HTT** or **Star Diagnosis** diagnostic tools. After starting the engine, you must run the car for 60 seconds for coding to be completed.

E-class Lucas 4-socket ECU with mechanical and electronic ignition switch

Mercedes E-class 2.0 diesel 1996
Lucas A0195459432 ed013 sw25.96 fd30.96

ECU is located in the engine compartment on the passenger side

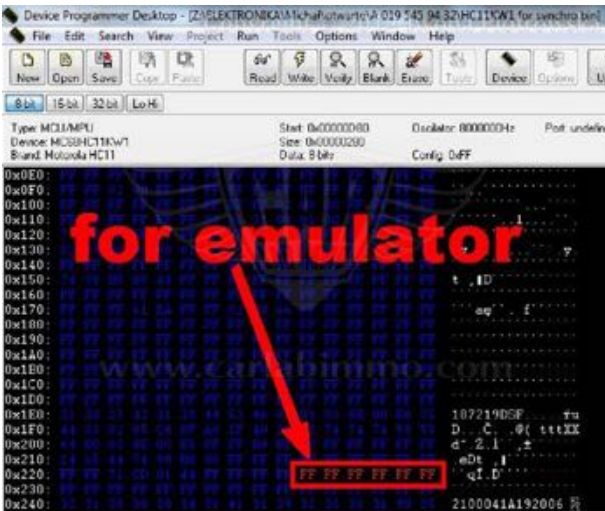
Motorola **HC11KW1** quartz **8MHz** – connection of **X-Prog** programmer to Motorola



Before a getting connection to processor you have to connect pin 70 and 71 together with a needle.
Solder the wire to the needle that you then connect to GND.

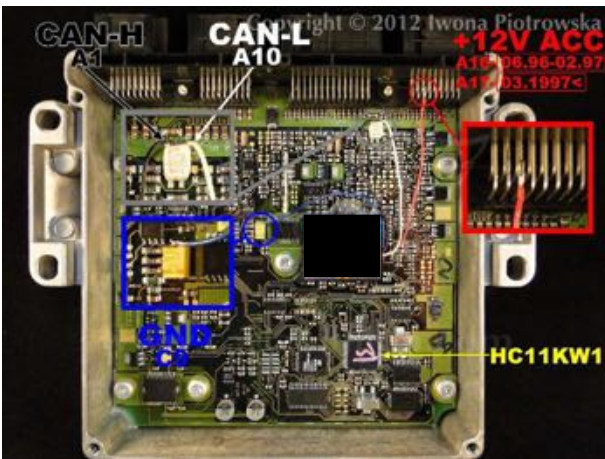
pin 63	VSS ground	GND
pin 64	VDD +5V	A3 pin
pin 69	reset	B5
pin 70	Mod B to GND	B4
pin 71	Mod A to GND	GND
pin 72	RXT	B3
pin 73	TXD	B2

Change to **HC11KW1** processor



In address from **22A** to **22F** write **FF** value

Connecting emulator to ECU



- +12V ACC A16 pin**
- GND C9 pin**
- CAN-L A10 pin**
- CAN-H A1 pin**

After connecting the emulator, you need to carry out personalization with **HTT** or **Star Diagnosis** diagnostic tools. After starting the engine, you must run the car for 60 seconds for coding to be completed.

Disconnect CAN from WSP!!!

A-class VDO MSM ECU 1.4 1.6 1.9 gasoline



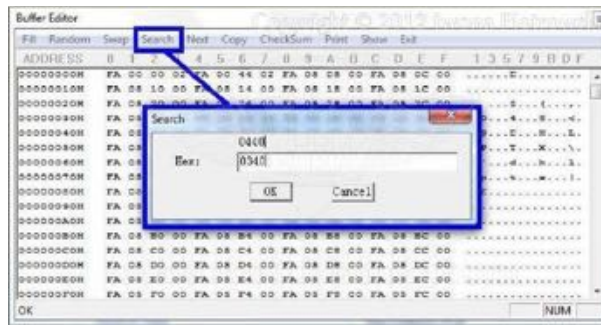
ECU is located on the air delivery pipe together with with Air Mass Flow Sensor



Connecting emulator to ECU

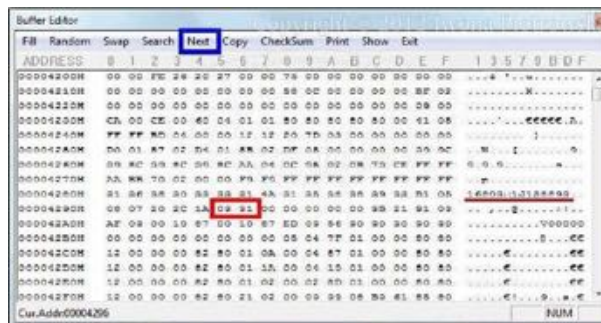
- +12V ACC** red
- GND** blue
- CAN-L** white
- CAN-H** black

To read and make changes to memory, use **Wellon** programmer



Once **29F200** (44pin) flash memory is read, write **03 40** (or **04 40**) value in search window

All **03 40** (or **04 40**) values which you will find under chassis number, change into **03 01** (or **04 31**)



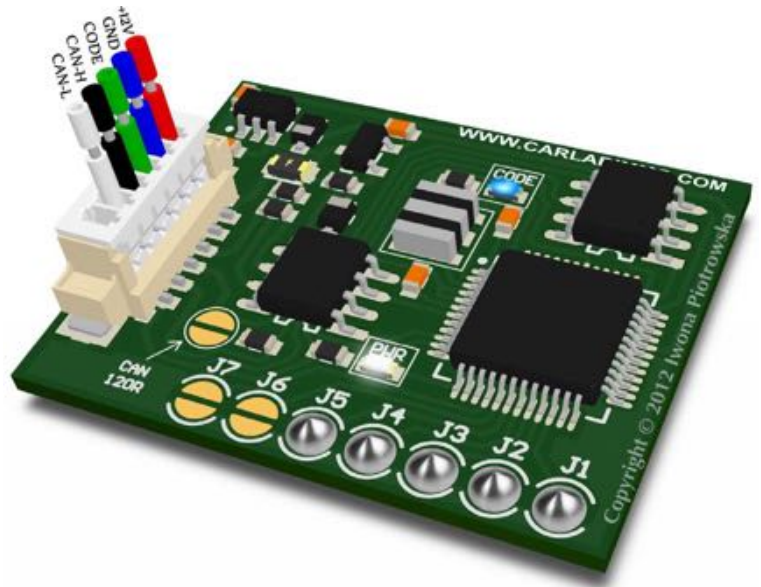
After soldering, you carry out personalisation with the **Star Diagnosis**.

Disconnect CAN from WSP!!!

Mercedes CR1 with CAN EZS

In Universal squ OF68 Emulator
solder jumpers J1, J2, J3, J4 and J5

Available as Universal squ Emulator
program no:27



USE

Mercedes 2-socket (white) VDO ECU
with memory 24C02

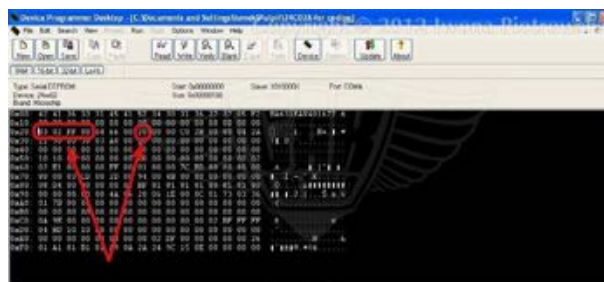


Find **24C02** eeprom in ECU



FOR CODING

In the addresses from **050** to **053** write **02 03 00 FF** values, and in address **055** write **20** value in **24C02** eeprom



FOR CODING

or in addresses from **020** to **023** write **02 03 00 FF** values, and in address **027** write **20** value in **24C02** eeprom



Connecting emulator to ECU

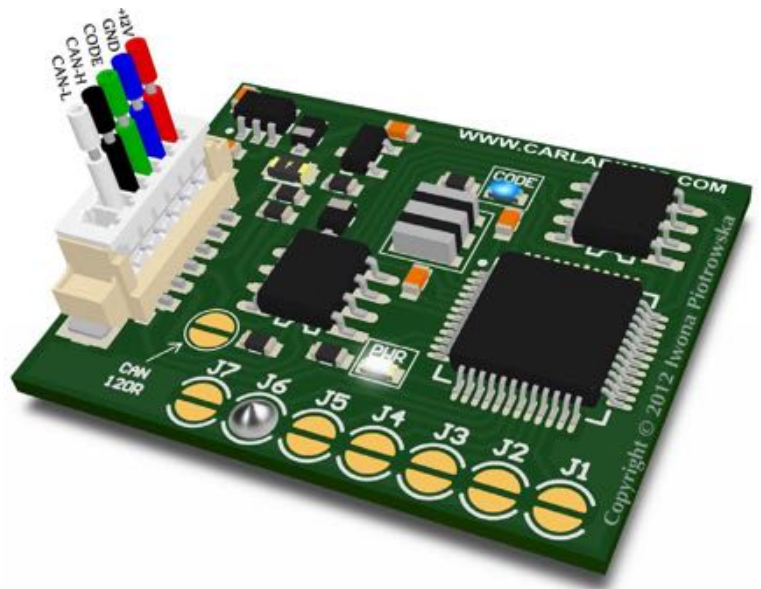
+12V ACC	39 pin
GND	33 pin
CAN-L	from choke
CAN-H	from choke

After connecting the emulator, you need to carry out personalization with **HHT** or **Star Diagnosis** diagnostic tools. After starting the engine, you must run the car for 60 seconds for coding to be completed.

Mercedes CR1 with CAN infrared

**In Universal squ OF68 Emulator
solder jumpers J6**

Available as Universal squ Emulator
program no:29



USE

**Mercedes 2-socket (black) VDO ECU
with X24C01 memory**

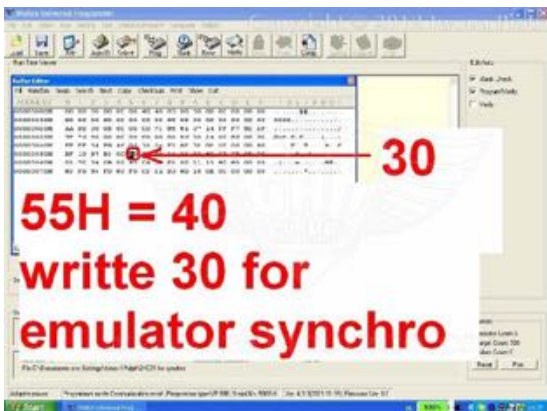
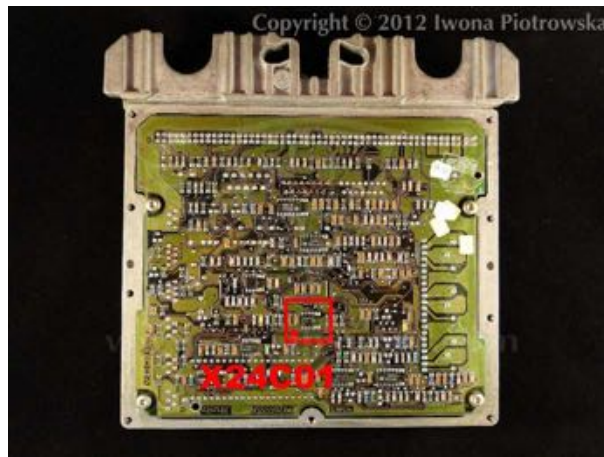
**Mercedes 2-socket (yellow) VDO ECU
with X24C02 memory**

**Mercedes 2-socket Bosch ECU
with B58 (24LC02) memory**

Mercedes 2-socket (black) VDO ECU with X24C01 memory

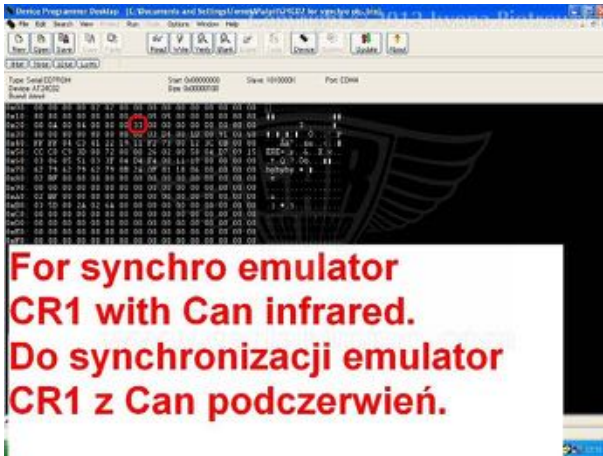


Find **X24C01** eeprom



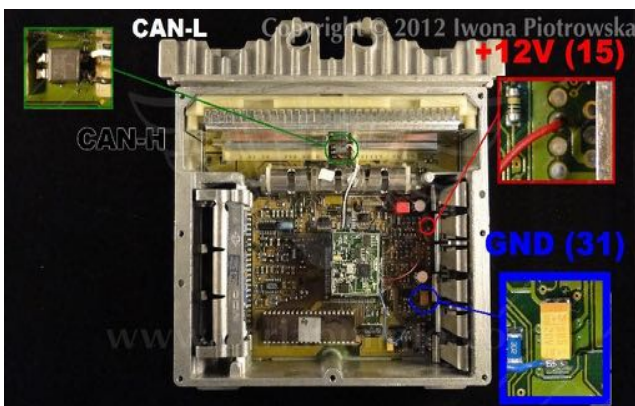
In address **055** write **30** value

Back to the Contents



In address **027** write **33** value in **X24C02** eeprom

Connecting emulator to ECU



- +12V ACC** 39 pin
- GND** 33 pin
- CAN-L from choke
- CAN-H from choke

After connecting the emulator, you need to carry out personalization with **HHT** or **Star Diagnosis** diagnostic tools. After starting the engine, you must run the car for 60 seconds for coding to be completed.

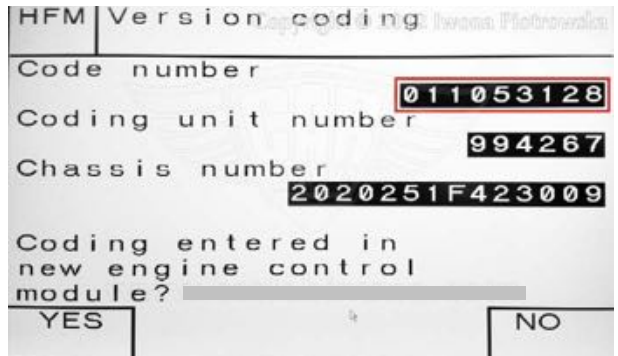
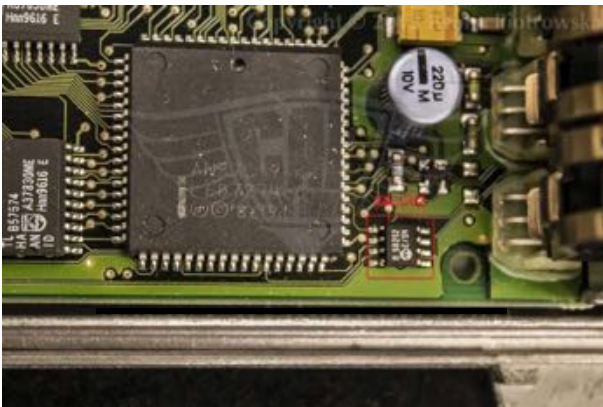
Mercedes 2-socket Bosch ECU with B58 (24LC02) memory



Before the eeprom's change read code number from the ECU - see photos below

To program the **24LC02** microchip use the X-prog programmer and then use the Julie emulator with J6 jumper solder. At last make the synchro with Starr Diagnosis

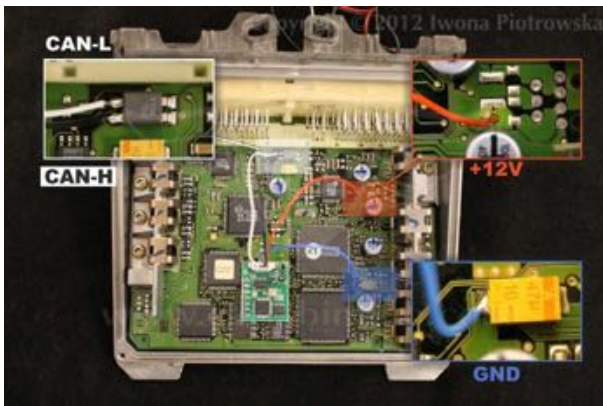
In the ECU find **B58 (24LC02)** eeprom



In address **01A** write **33** value in **24LC02** eeprom

Write value 33 !!!

Connecting emulator to ECU



+12V ACC 40 pin

GND 33 pin

CAN-L from choke

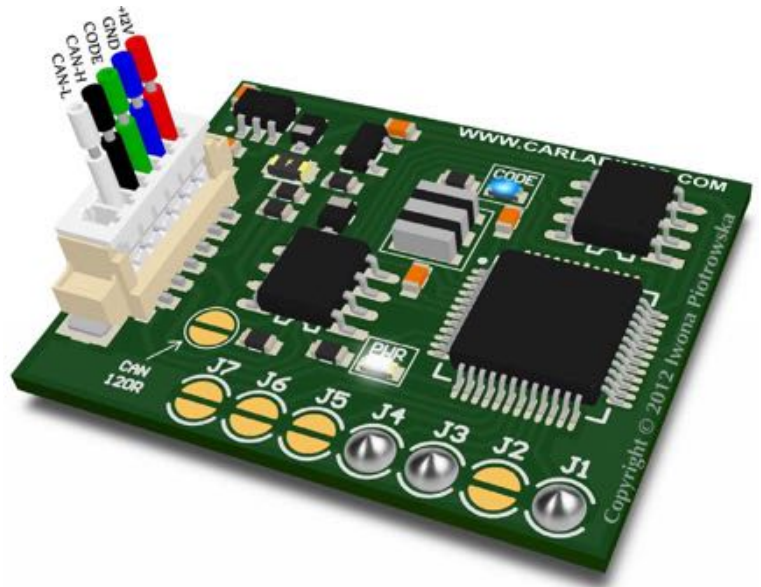
CAN-H from choke

After connecting the emulator, you need to make personalization with **HHT** or **Star Diagnosis** diagnostic tools. After starting the engine, you must run the car for 60 seconds for coding to be completed.

Mercedes CR2 with CAN WSP

**In Universal squ OF68 Emulator
solder jumpers J1, J3 and J4**

Available as Universal squ Emulator
program no:30

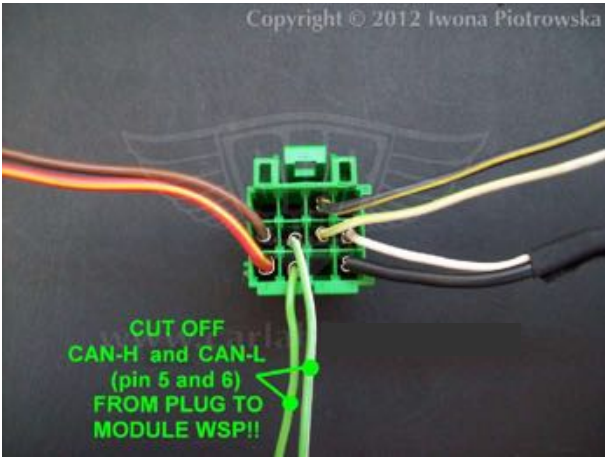


USE

Sprinter 2.2 Cdi and 2.7 Cdi

ML 2.7 Cdi 5-socket – automatic start

Also suitable for 2.7 and 3.2 with electronic ignition switch – automatic start

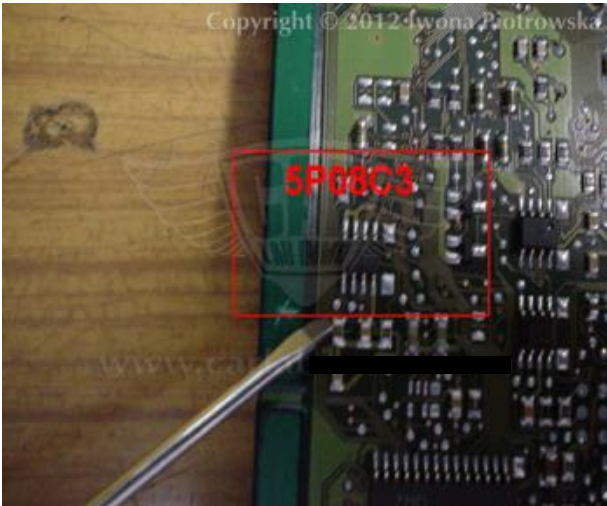


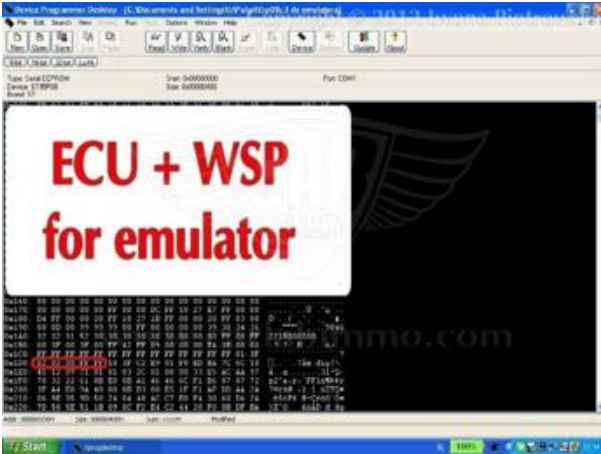
When emulator is connected, disconnect CAN from original immo!

Connecting emulator to ECU



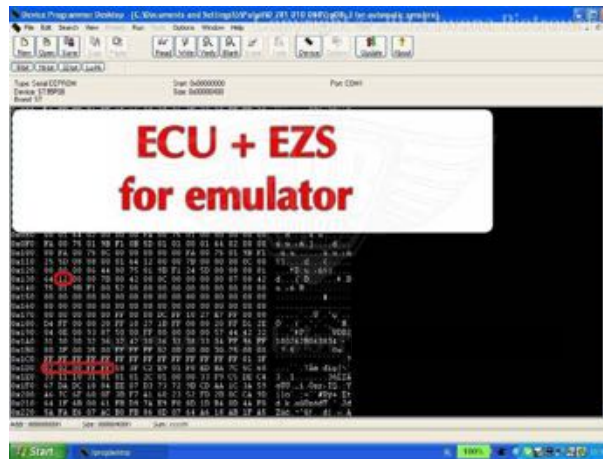
Find 5P08C3 memory





In addresses from **1D0** to **1D4** write **02 02 00 FF FF** values that will start the car automatically

If you have an electronic ignition switch, the following changes should be made to **5P08C3** memory

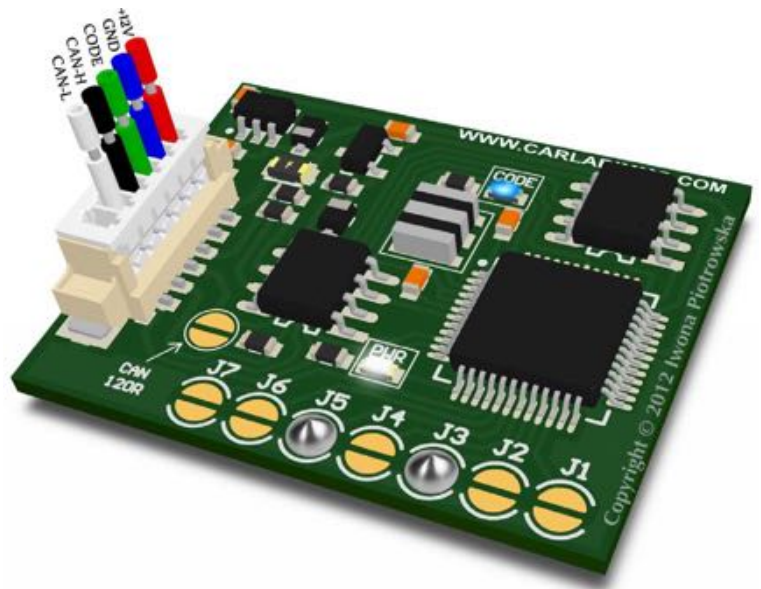


In address **131** write **12** value and from **1D0** to **1D4** write **02 02 00 FF FF** values

Mercedes ESL – steering wheel column lock emulator

In Universal squ OF68 Emulator
solder jumpers J3 and J5

Available as Universal squ Emulator
program no:31



Warning!!!

Due to possible construction changes of cars, check signals with multimeter in the ECU plug before connecting the device.

It does not replace the new steering locks with NEC!



Type 1 ESL
W202, W208, W210



Type 2 ESL

W203, W209, W211, Vito 639, W906 (Sprinter II, VW Crafter)

It works with ignition switches numbered



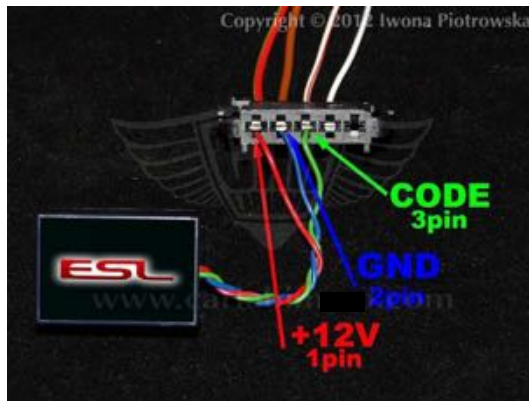
208 545 00 08	208 545 01 08
208 545 02 08	208 545 03 08
210 545 00 08	210 545 01 08
210 545 02 08	210 545 03 08



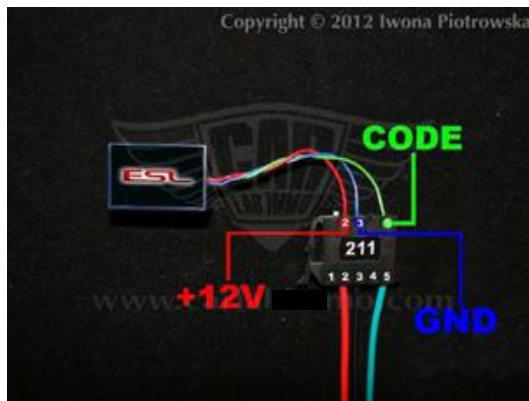
639 545 05 08

It self-learns code of the electronic ignition—plug and play

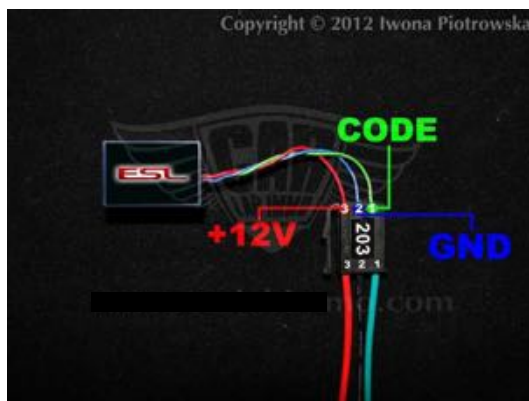
Connecting to ESL:
Mercedes-Benz W202, W208, W210



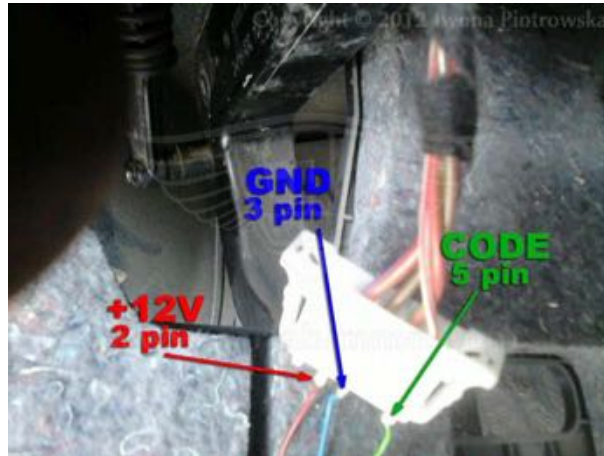
Connecting to ESL:
Mercedes-Benz W209, W211



Connecting to ESL:
Mercedes-Benz W203



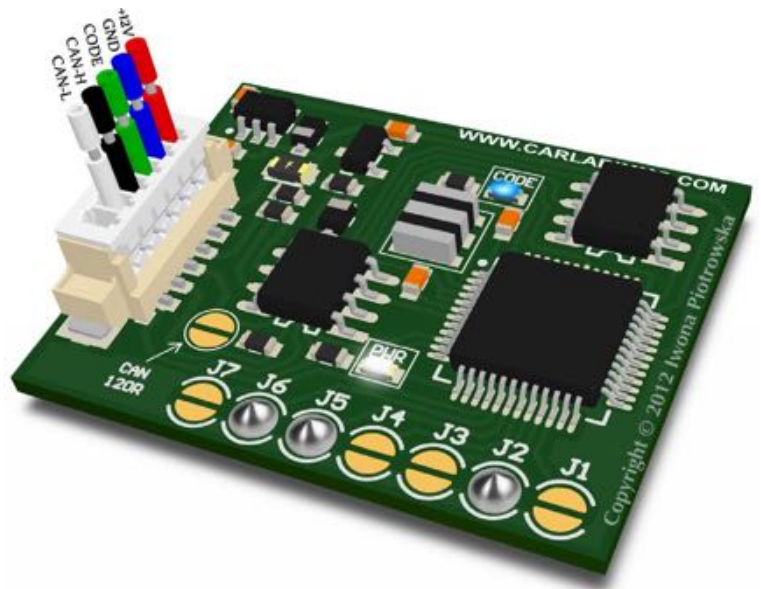
Connecting to ESL: Mercedes-Benz Vito 639



Mercedes ESL 2 – steering wheel column lock emulator

**In Universal squ OF68 Emulator
solder jumpers J2, J5 and J6**

Available as Universal squ Emulator
program no:32



Warning!!!

**Due to possible construction changes of cars, check signals with multimeter in the ECU plug
before connecting the device.**

ESL 2 emulator enables you to verify correct functioning of EZS

It works with ignition switches numbered



A 906 545 01 08
A 906 545 64 08
A 906 545 49 08
A 906 545 40 08



639 545 01 08
639 545 05 08
203 545 05 08
203 545 01 08
203 545 03 08



208 545 00 08	208 545 01 08
208 545 02 08	208 545 03 08
210 545 00 08	210 545 01 08
210 545 02 08	210 545 03 08

It self-learns code of the electronic ignition—plug and play



ESL

W906 (Sprinter II, VW Crafter), W639,
W211, W209, W203

ESL

W202, W208, W210

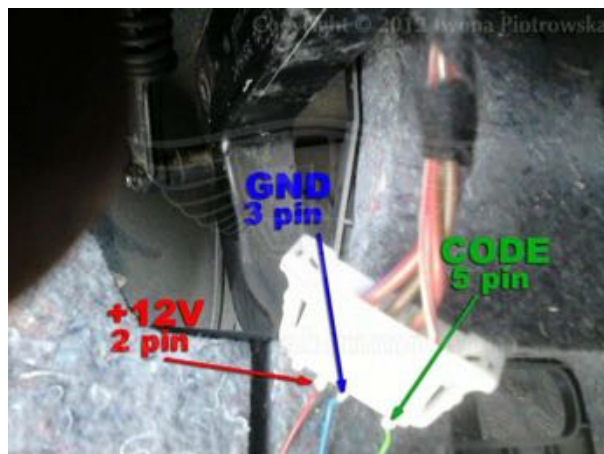
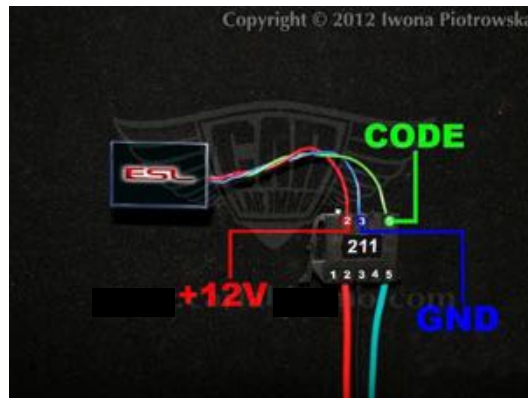
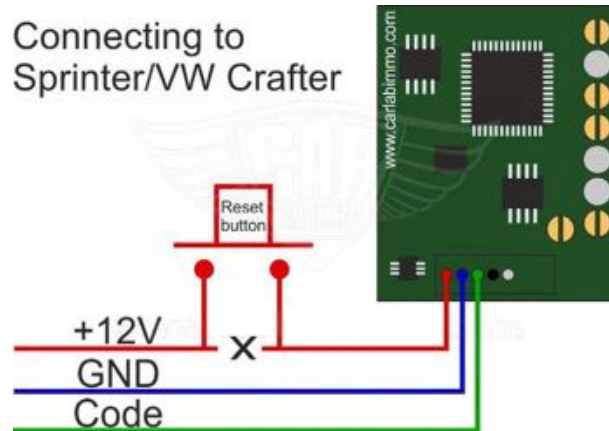


Connecting to ESL:

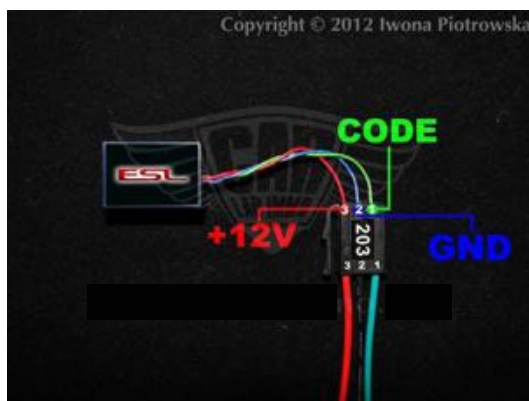
W906 (Sprinter II, VW Crafter), W639, W211, W209, W203

Attention!

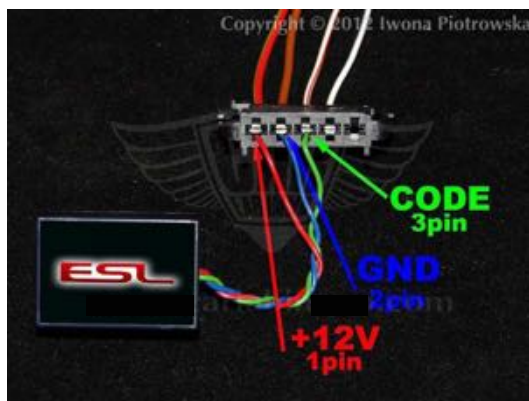
If the ESL plug is missing +12V ACC, then you connect the emulator to +12V VCC. For this purpose, it is best to build a reset button at one point of +12V VCC wire.



Connecting to ESL: Mercedes-Benz W203



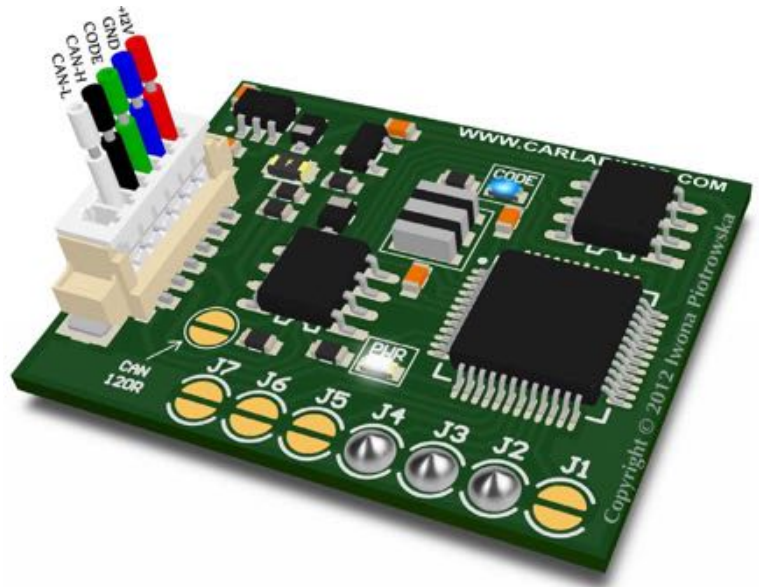
Connecting to ESL: Mercedes-Benz W202, W208, W210



Nissan NATS 4 and 5

**In Universal squ OF68 Emulator
solder jumpers J2, J3 and J4**

Available as Universal squ Emulator
program no:33



USE

ECU from 2000 to 2002 - NATS 4 and 5 immo

2.2 and 2.7 diesel 5-socket ECU with 24C04 memory

1.5 gasoline Hitachi MEC with 93C46 and 93C56 memory

1.8 and 2.0 gasoline Hitachi MEC with 93C56 memory

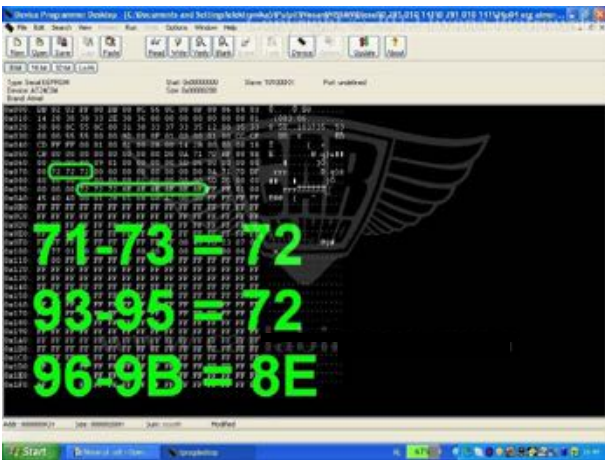
1.4 gasoline Bosch with 24LC02 memory

Models: [Almera](#), [Almera Tino](#), [Micra](#), [Primera](#), [Terrano](#)

2.2 diesel 5-socket ECU with 24C04 memory



Find 24C04 eeprom memory



In addresses
from 071 to 073 write 72 value
from 093 to 095 write 72 value
from 096 to 09B write 8E value

Connecting emulator to ECU

If your car doesn't start connect a red wire to +12V DC.



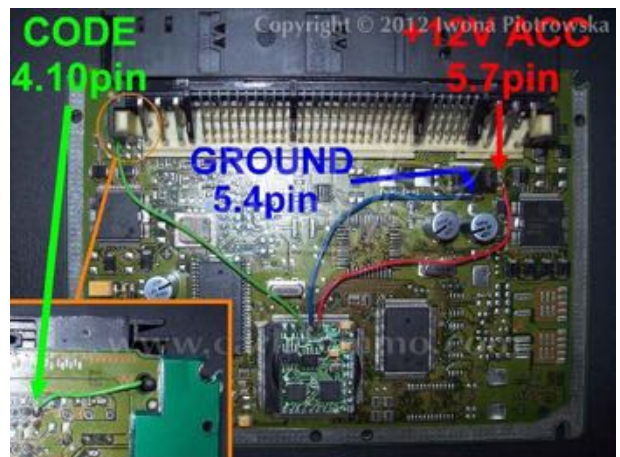
2.7 diesel 5-socket ECU with 24C04 memory



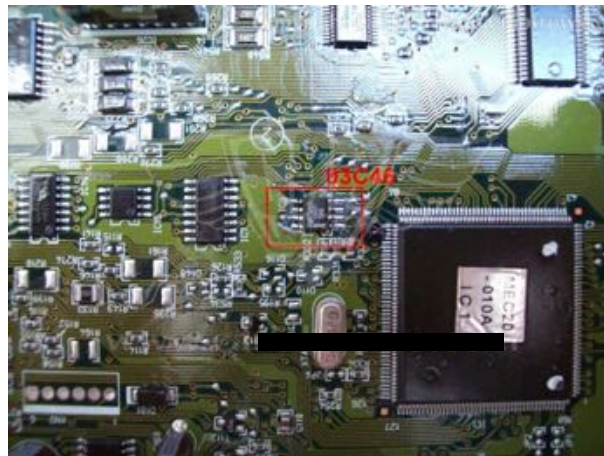
In addresses
from **0AC** to **AE** write **72** values
in **0CF** write **72** value
from **0D0** to **0D7** write **72 72 8E 8E 8E**
8E 8E 8E values

Connecting emulator to ECU

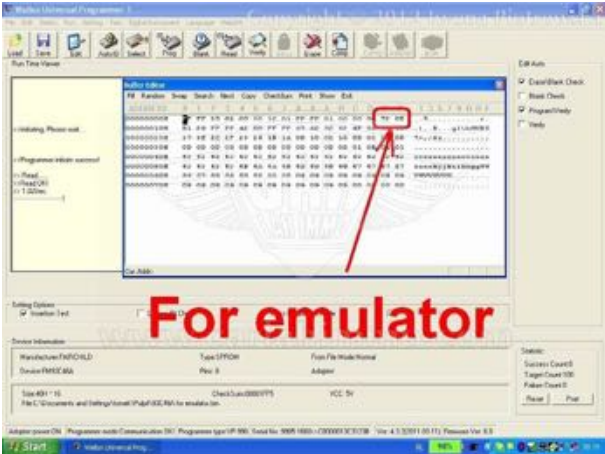
If your car doesn't start connect a red wire to +12V DC.



1.5 gasoline Hitachi MEC with 93C46 memory



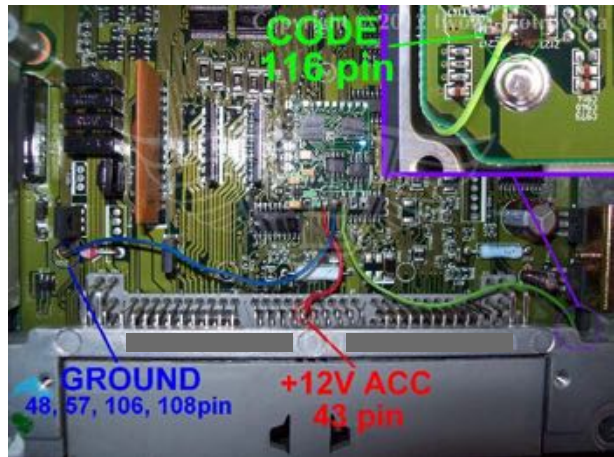
Find **93C46** eeprom memory



In address from **00E** to **00F** write **7E 8E** or **8E 7E** values

Connecting emulator to ECU

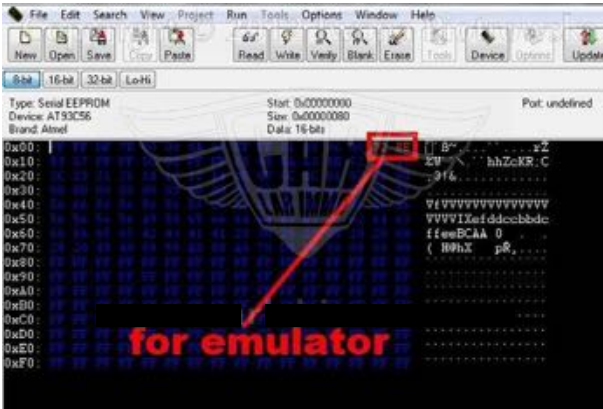
- +12V ACC 43 pin**
- GND 108 pin**
- Code 116 pin**
cut off from the plug in ECU



1.5 1.8 2.0 gasoline Hitachi MEC with 93C56 memory



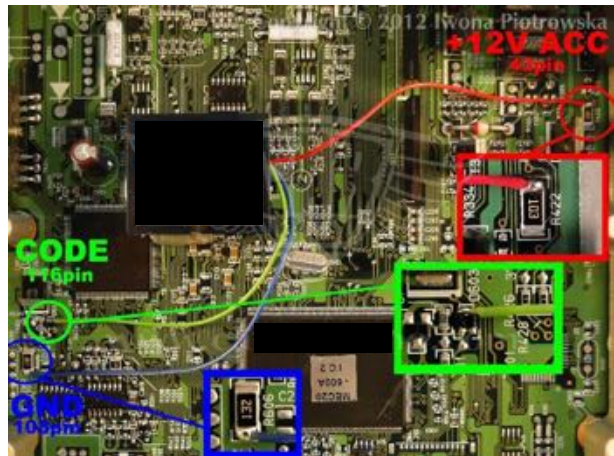
Find **93C56** eeprom memory



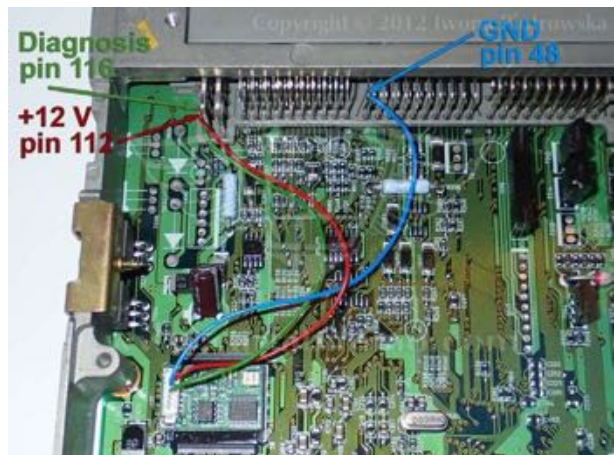
In address from **00E** to **00F** write **72 8E** or **8E 72** values

Connecting emulator to ECU

- +12V ACC 43 pin**
- GND 108 pin**
- Code 116 pin**
cut off from the plug in ECU



Connecting emulator to ECU for Nissan Primera 2001 2.0 16V 140PS



BLAUPUNKT 9345 radio with 25160 memory

Upload memory content (look at “bin” folder in cd) and connect up the radio, wait out the countdown of 50 seconds. Then when CODE shows up please enter code **8361** and confirm with UP ARROW button

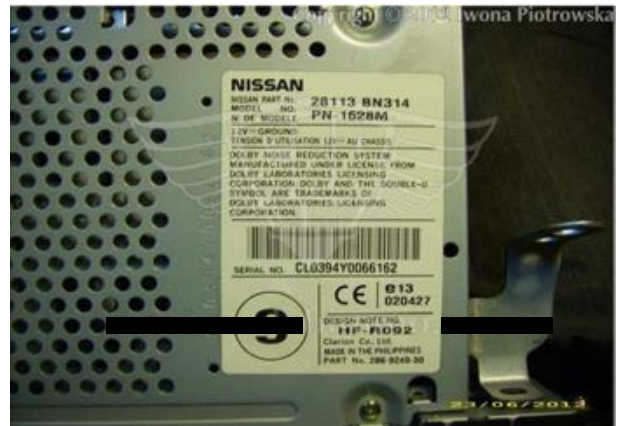
Important!

When you enter incorrect code, it will cause the radio lock to turn on for 50 minutes



CLARION PN-1628M radio with f93C46 memory

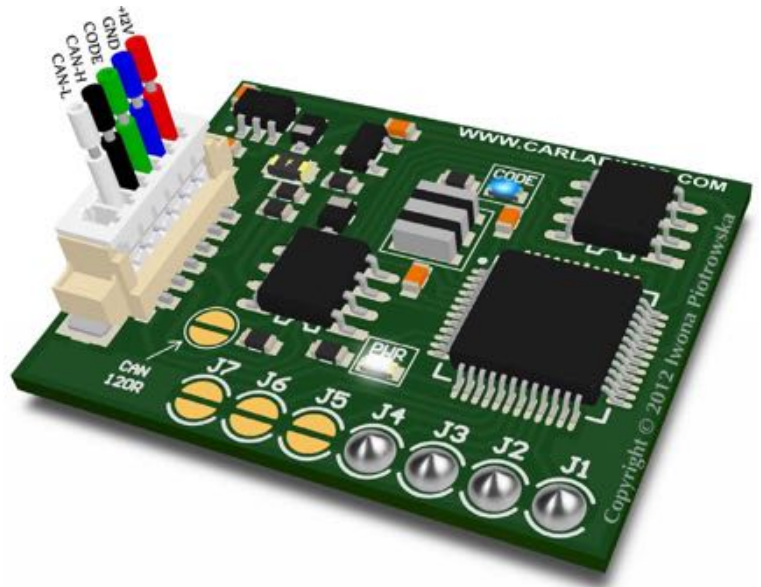
Upload memory content (look at “bin” folder in cd) and connect up the radio, wait out the countdown of 50 seconds. Then when CODE shows up please enter code **1111** and confirm with UP ARROW button.



Opel immo with HC05

**In Universal squ OF68 Emulator
solder jumpers J1, J2, J3 and J4**

Available as Universal squ Emulator
program no:34

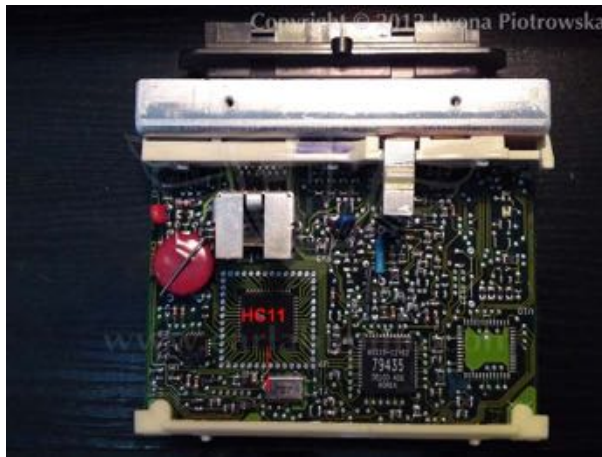


USE

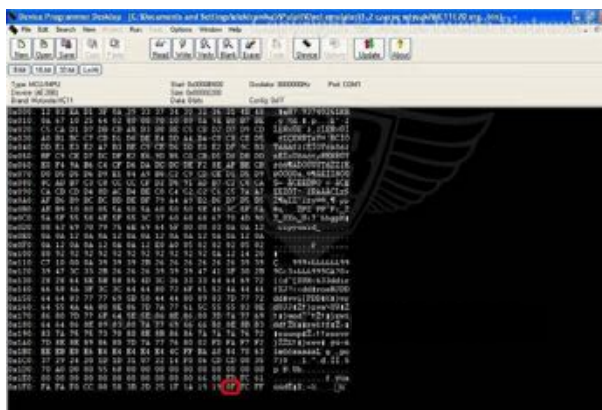
1.2 and 1.4 gasoline 2-socket (black) ECU with Motorola HC11E20 processor

2.0 2.2 and 2.5 gasoline with 24C02 eeprom memory

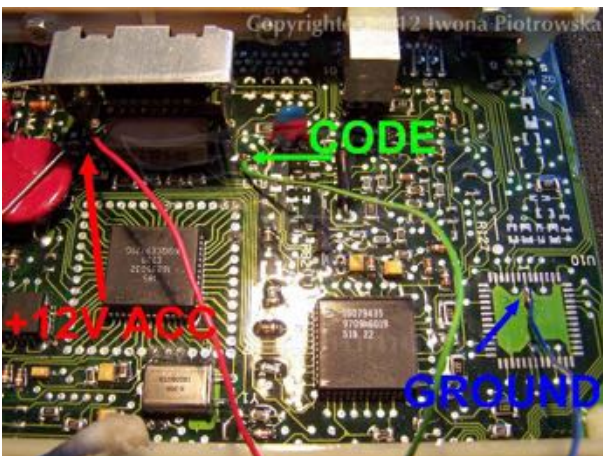
1.2 and 1.4 gasoline 2-socket (black) ECU with Motorola HC11E20 processor



Find Motorola **HC11E20** processor



In address **1FD** write **0F** value



Connecting emulator to ECU

+12V ACC red

GND blue

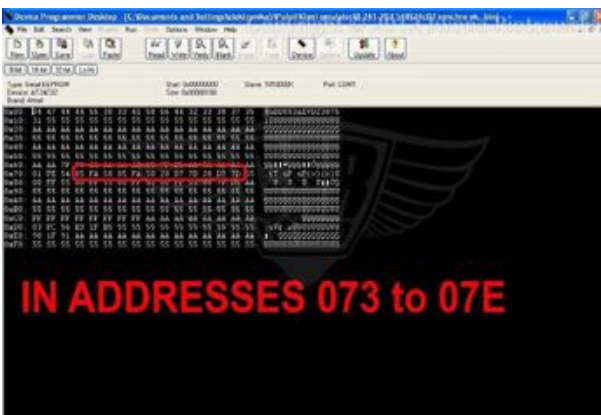
Immo green

Disconnect immo and connect pin 6 with 7 in the wiring of immo plug to eliminate troubles with speed signal

2.0 2.2 and 2.5 gasoline with 24C02 eeprom memory



Find **24C02** eeprom memory



In addresses from **073** to **07E** write
05 FA 50 05 FA 50 28 D7 7D 28 D7 7D
values



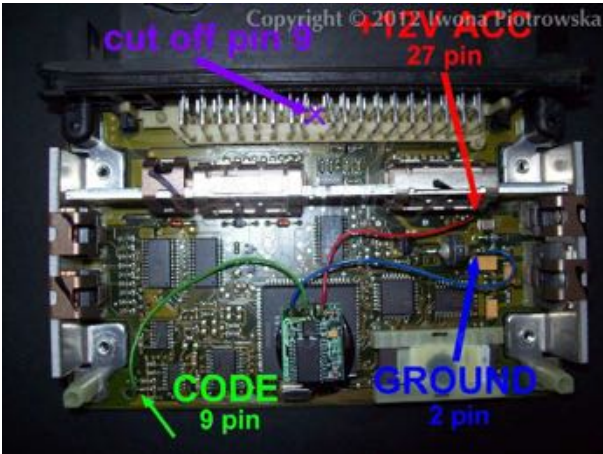
Connecting emulator to ECU
(2.0 2.2 gasoline)

+12V ACC 37 pin

GND 2 pin

Immo 9 pin

Disconnect immo and connect pin 6 with 7 in the wiring of immo plug to eliminate troubles with speed signal



Connecting emulator to ECU (2.5 gasoline)

+12V ACC	27 pin
GND	2 pin
Immo	9 pin

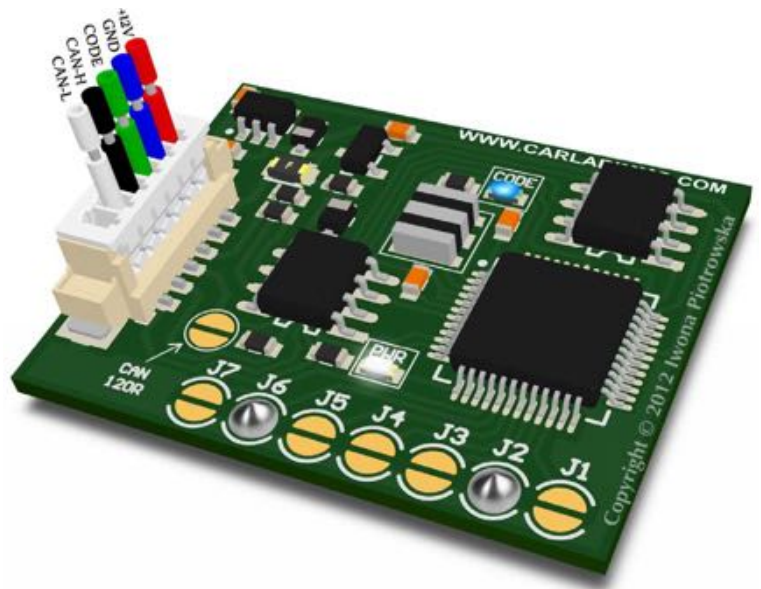
Disconnect immo and connect pin 6 with 7 in the wiring of immo plug to eliminate troubles with speed signal

Renault with CAN

In Universal squ OF68 Emulator
solder jumpers J2 and J6

Available as Universal squ Emulator
program no:34

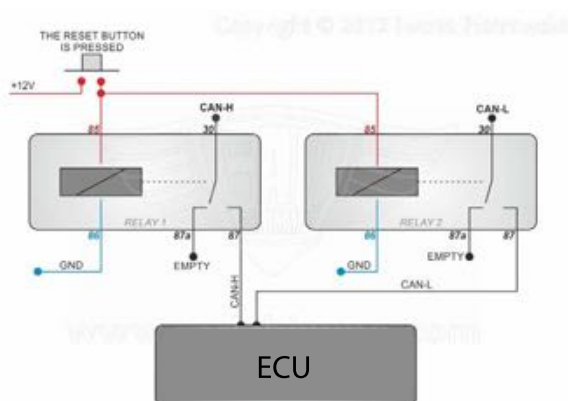
*If you have older version without ESL2
programme, you have to solder jumpers J1, J2
and J6*



USE

- SIRIUS 32 with CAN
- SIRIUS 34 with CAN
- 3-socket DELPHI ECU with CAN - 95080 memory
- 3-socket BOSCH EDC15 ECU with CAN - 5P08C3 memory
- EMS 3132 with CAN
- EMS 3134 with CAN

Disconnect plug from immo (UCH)!



Attention!

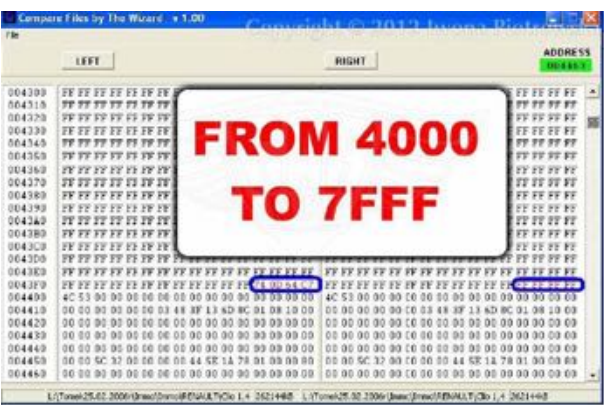
If your car doesn't start use reset button
and two relays like the picture on the
left.

**Firstly you need to press the reset
button. Secondly turn the ignition on.
Thirdly release the reset button and
now you can start the car.**

SIRIUS 32 with CAN



Find **29F200** or **29F400** flash memory in ECU

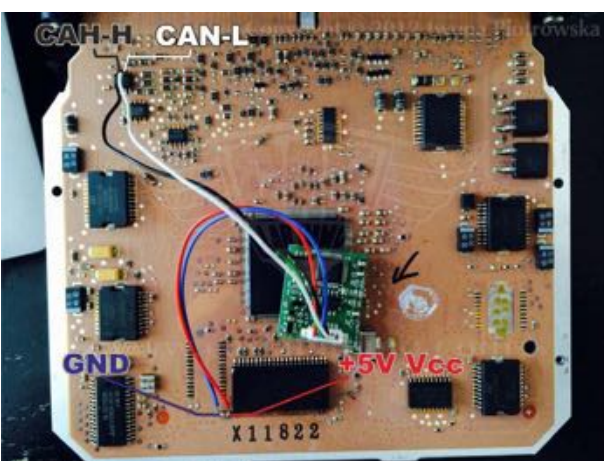


In the addresses from **4000** to **7FFF**, find all **64 C7** or **54 D7** values and change these values and two units before them into **FF FF FF FF**

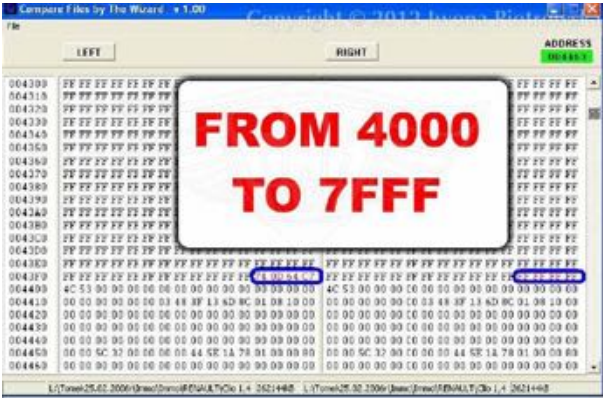
Repeat it in the whole map from **4000** to **7FFF!!!**

In order to start the starter you need to join two pins of starter's relay!

SIRIUS 34 with CAN



- CAN H** 7th leg of transducer
- CAN L** 6th leg of transducer



In the addresses from **4000** to **7FFF**, find all **64 C7** or **54 D7** values and change these values and two units before them into **FF FF FF FF**

Repeat it in the whole map from **4000** to **7FFF!!!**

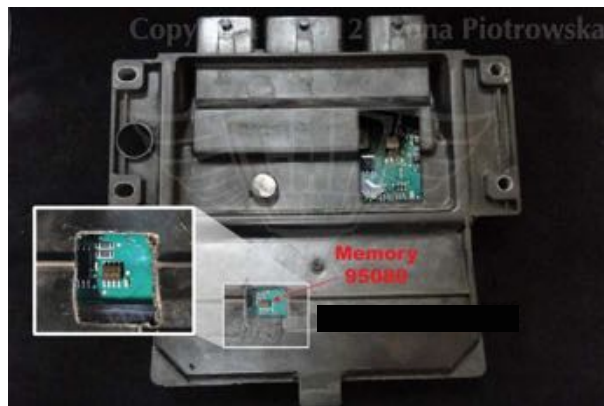
In order to start the starter you need to join two pins of starter's relay!

3-socket DELPHI ECU with CAN - 95080 memory



Connecting emulator to ECU

Find **95080** memory



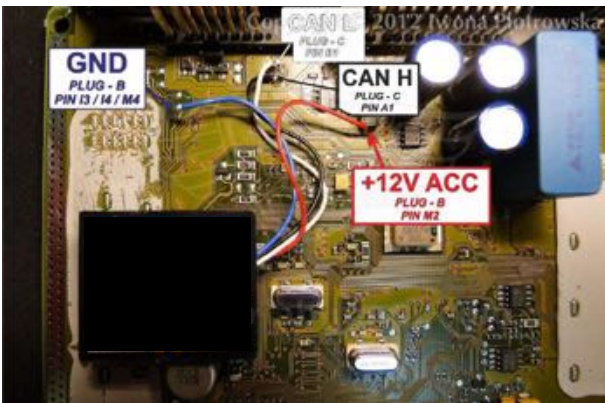


In address from **00** to **01F** write **00** value

3-socket BOSCH EDC15 ECU with CAN - 5P08C3 memory

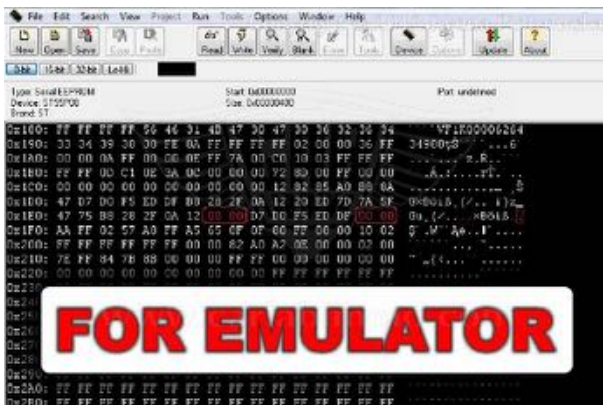


Connecting emulator to ECU





Find **5P08C3** memory



In address from **1E7** to **1E8**
and from **1EE** to **1EF** write **00 00** values

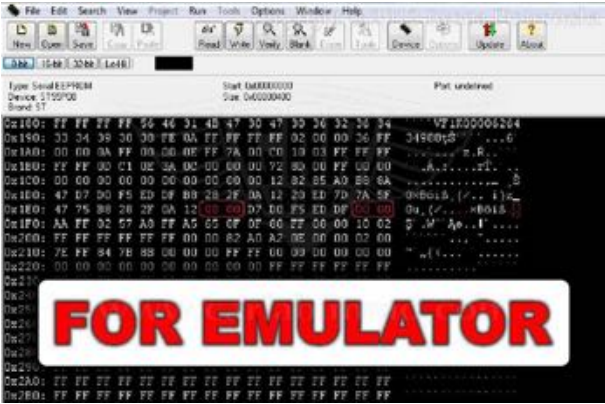
Other EDC15 ECUs



Connecting emulator to ECU



Find **5P08C3** memory



In address from **1E7** to **1E8** and **1EE** to **1EF** write **00 00** values

It is possible to disconnected CAN from 1,A

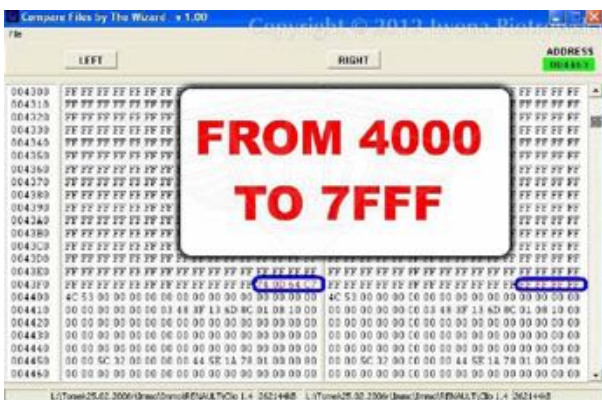
EMS 3132 with CAN



Connecting emulator to ECU



Find **29F200** flash



In the addresses from **4000** to **7FFF**, find all **64 C7** or **54 D7** values and change these values and two units before them into **FF FF FF FF**

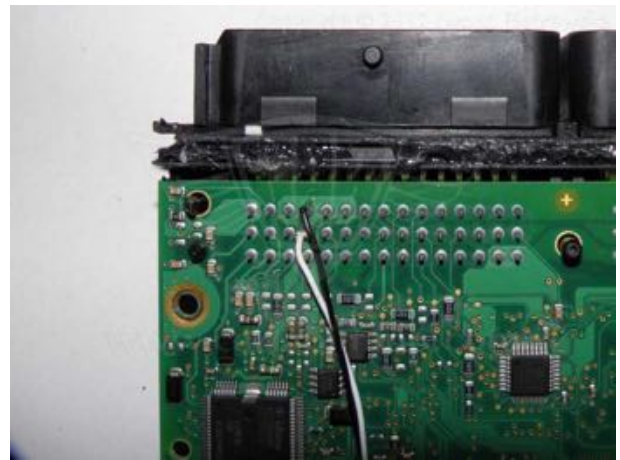
Repeat it in the whole map from **4000** to **7FFF!!!**

Every time you want to start the car, you have to turn the keys in the ignition **TWICE** before it starts!

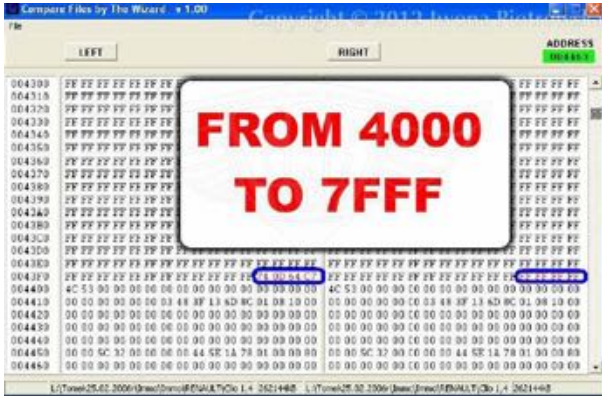
EMS 3134 with CAN



Connecting emulator to ECU



Find **29F400** flash



In the addresses from **4000** to **7FFF**, find all **64 C7** or **54 D7** values and change these values and two units before them into **FF FF FF FF**

Repeat it in the whole map from **4000** to **7FFF!!!**

Every time you want to start the car, you have to turn the keys in the ignition **TWICE** before it starts!

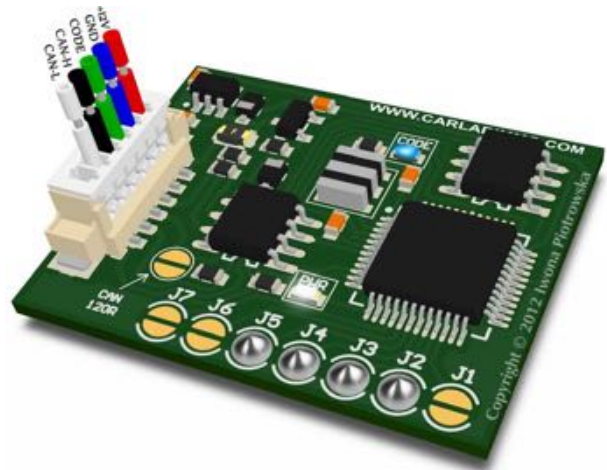
Tested on vehicles:

- SIRIUS 32 - Clio 1.2 8V 2001**
- Renault Megane II / Clio II 1.5 DCI**
- Renault Traffic 1.9DCI 2004**
- Nissan Primastar 1.9 DCI 2001 - 03**
- Opel Vivaro 1.9DCI /2.5DCI 2004**
- Renault Master 2.5DCI 2002**
- Renault Laguna II 1.9DCI/ 2.2DCI**
- Renault Megane II 1.9DCI**

Renault without CAN

**In Universal squ OF68 Emulator
solder jumpers J2, J3, J4 and J5**

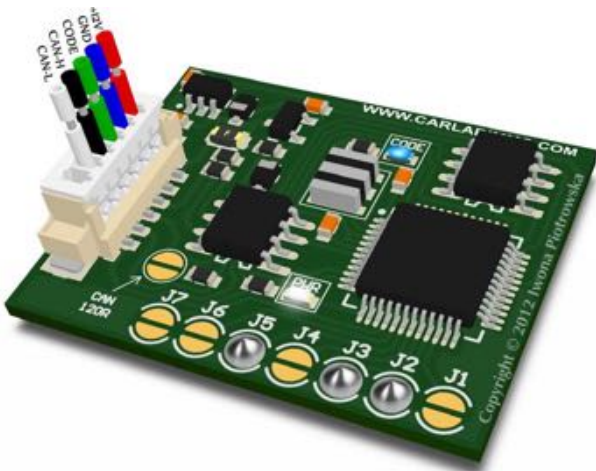
Available as Universal squ Emulator
program no:36



Renault without CAN old ECUs

**In Universal squ OF68 Emulator
solder jumpers J2, J3 and J5**

Available as Universal squ Emulator
program no:37



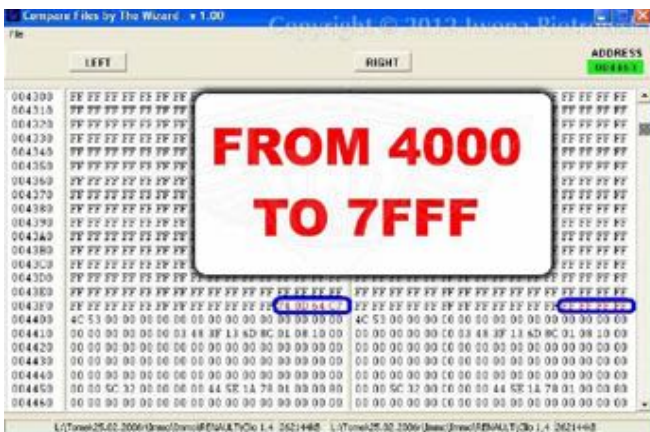
USE

- Sirius 32 without CAN
- Sirius 34 without CAN
- EMS 3132
- 1.9 2.2 and 2.5 DCi without CAN
- 1.5 DCi without CAN
 - 1.9 DTi 1 plug
 - 1.9 DTi 2 plugs
 - 1.9 diesel DCU3
 - 2.8 TD
- 3.0 gasoline 1 plug
- Volvo S40 and V40 – 1.9TD (Bosch 0 281 001 906 ECU)

Sirius 32 without CAN



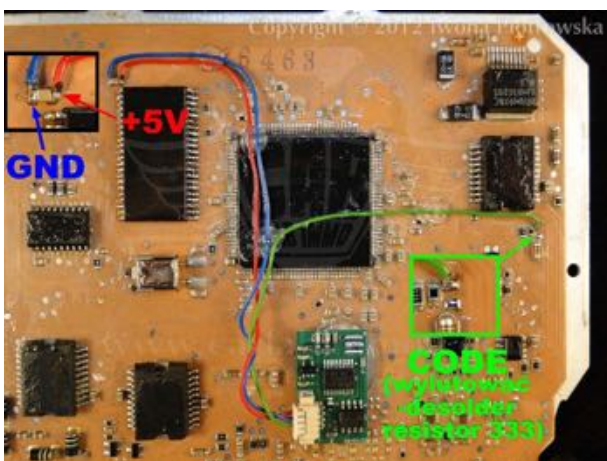
Find 29F200 or 29F400 flash



In the addresses from 4000 to 7FFF, find all values 64 C7 or 54 D7 and change these values and two units before them into FF FF FF FF

Repeat it in the whole map from 4000 to 7FFF !!!

Connecting emulator to ECU



Take power and GND for the emulator from the capacitor

Connect Code signal after desoldering a 333 resistor

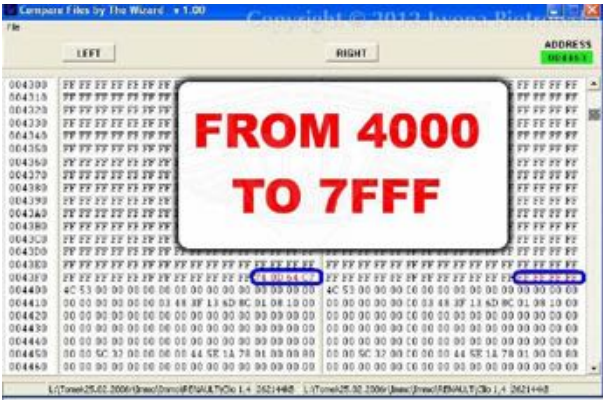
If there is **A82C250 CAN transducer** on the plate in the ECU, then the emulator will not work in this ECU!!!



Sirius 34 without CAN



Find **29F200** or **29F400** flash



In the addresses from **4000** to **7FFF**, find all values **64 C7** or **54 D7** and change these values and two units before them into **FF FF FF FF**

Repeat it in the whole map from **4000** to **7FFF** !!!

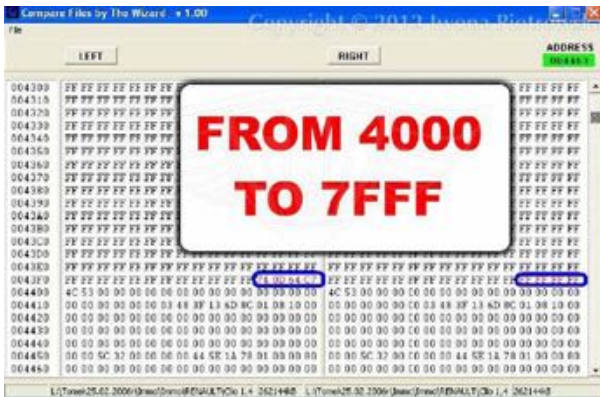


Take power for the emulator from the capacitor at the flash

EMS 3132



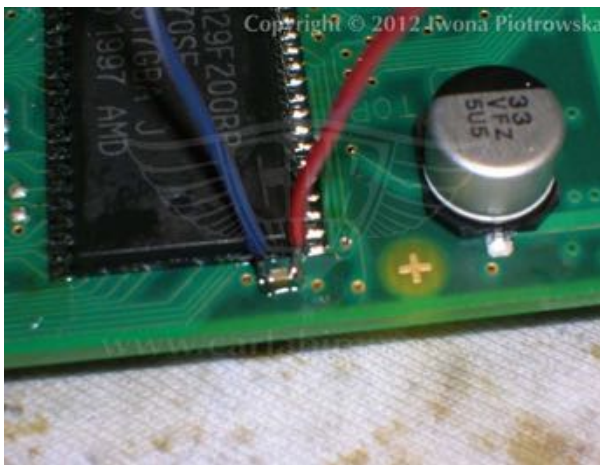
Find **29F200** or **29F400** flash



In the addresses from **4000** to **7FFF**, find all values **64 C7** or **54 D7** and change these values and two units before them into **FF FF FF FF**

Repeat it in the whole map from **4000** to **7FFF** !!!

Take power for the emulator from the capacitor at the flash.



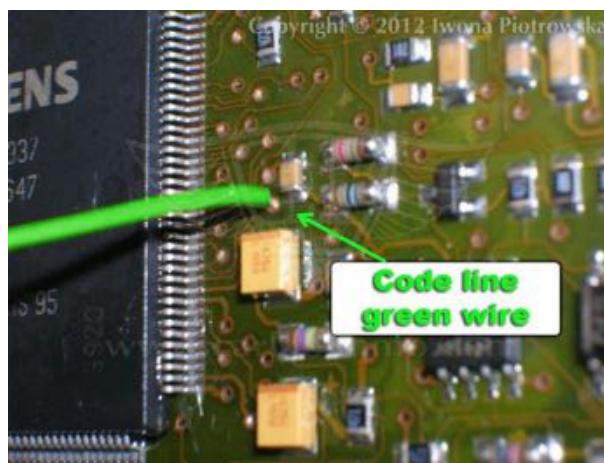
Connect emulator as pictured after unsoldering the capacitor.

Connect it to the point which leads to the processor.

1.9 2.2 and 2.5 DCi without CAN



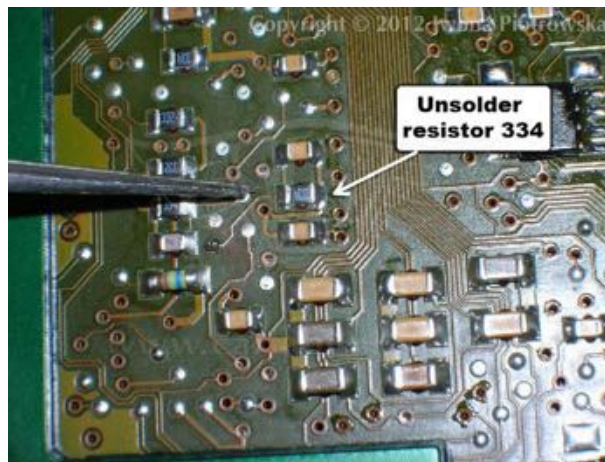
In **5P08C3** memory
in the addresses:
003E 003F 0040 0041
and
0044 0045 0046 0047
change these values into **FF**



In ECU, solder immo line (code) of emulator to the point as pictured



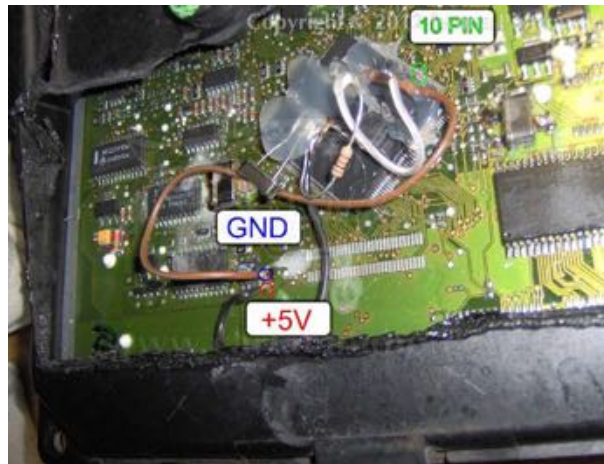
Take power for the emulator from the capacitor on the ECU plate



Unsolder 334 resistor

Turn on the ignition for 30 seconds, then turn it off for 30 seconds and repeat the procedure a few times

1.5 DCi without CAN



Car without tachometer

Replace **25080** content and connect emulator.

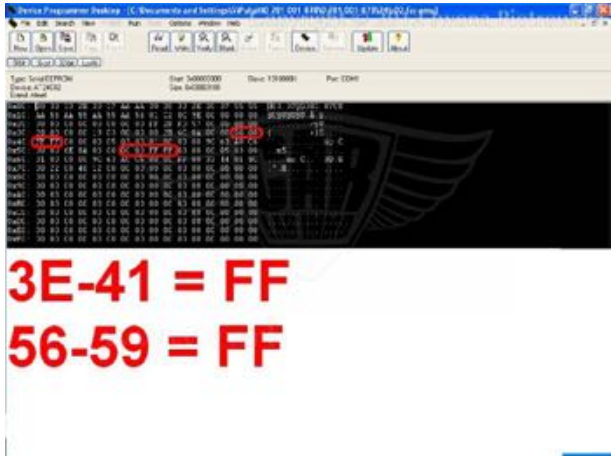
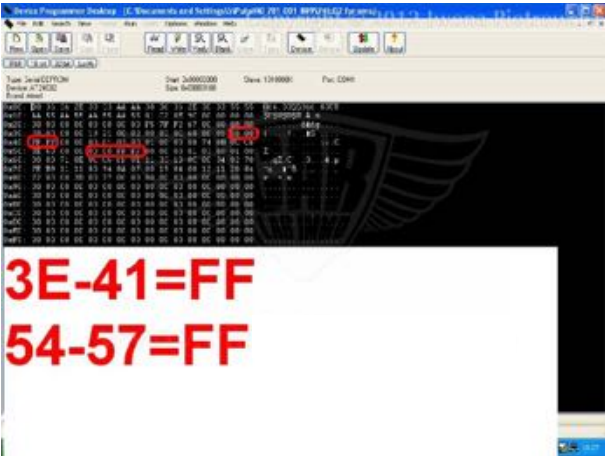
10 pin of processor is immo line as pictured, which must be raised.



Take power from the capacitor at the memory.

Code injectors and settings with Clip or Launch.

1.9 DTi 1 plug

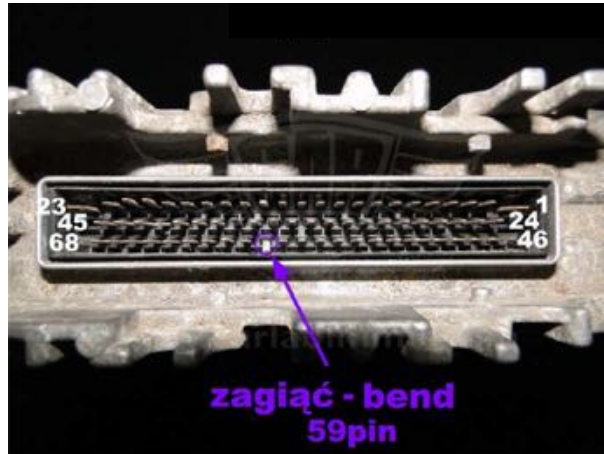


Connecting emulator to ECU



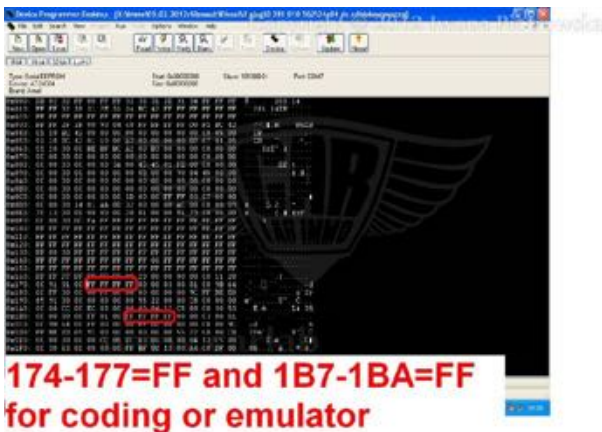
Connect the immo line of emulator to pin 59 of ECU.

Connect GND and ACC to diode in the ECU.



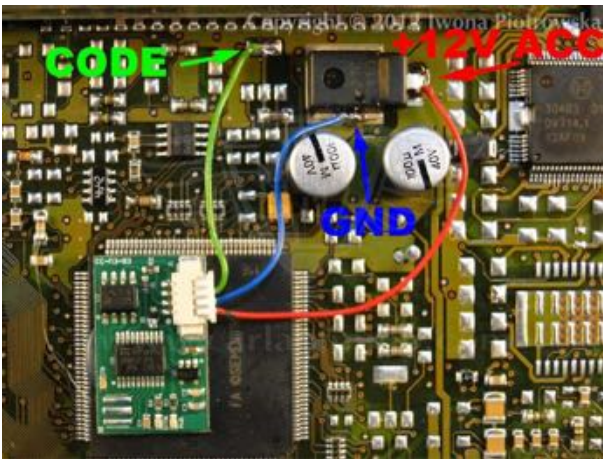
Bend pin 59 in ECU socket

1.9 DTi 2 plugs



In the addresses from **174** to **177** and **1B7** to **1BA** change these values into **FF FF FF FF** in **24C04** memory

Connecting emulator to ECU



ACC	81 pin
GND	4 and 5 pin
Immo	15 pin

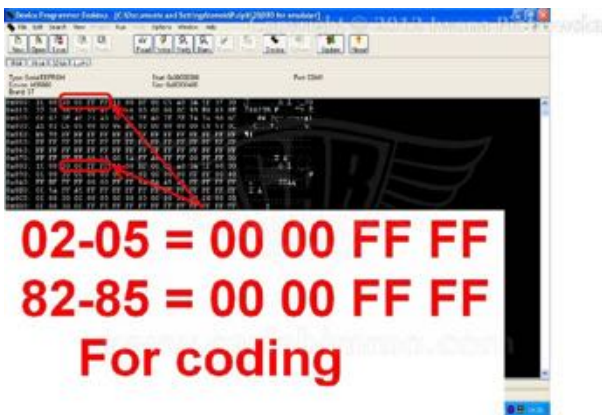


Cut off pin 15 from wiring!!!

1.9 diesel DCU3



Renault Kangoo 1.9 Diesel 2001



In addresses from **02** to **05** and **82** to **85** change these values into **00 00 FF FF** in **95080** memory



Connecting emulator to ECU

+5V VCC from capacitor

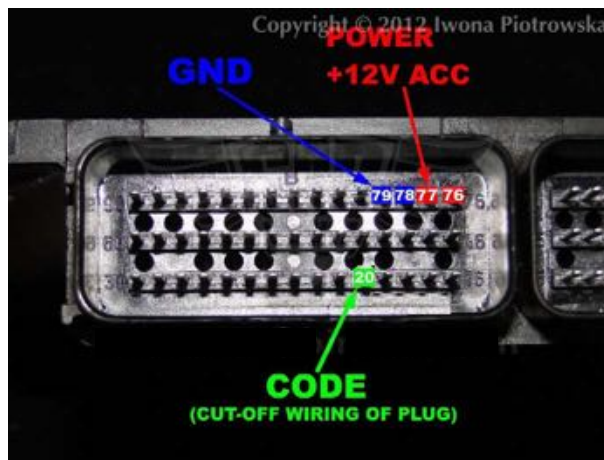
GND 79 pin

Code 20 pin



Pin 20 must be bent in socket or cut off from the car wiring.

Connecting emulator to ECU



+12V ACC 76 or 77 pin

GND 78 or 79 pin

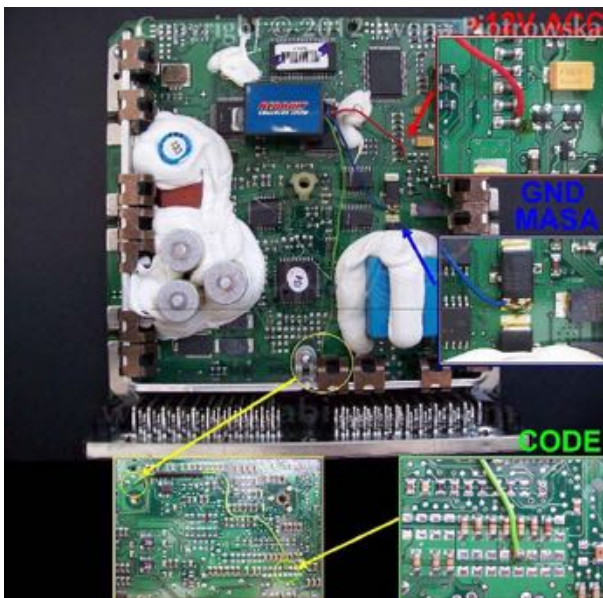
Code 20 pin Cut off wiring from ECU plug

2.8 TD (Renault Mascott)

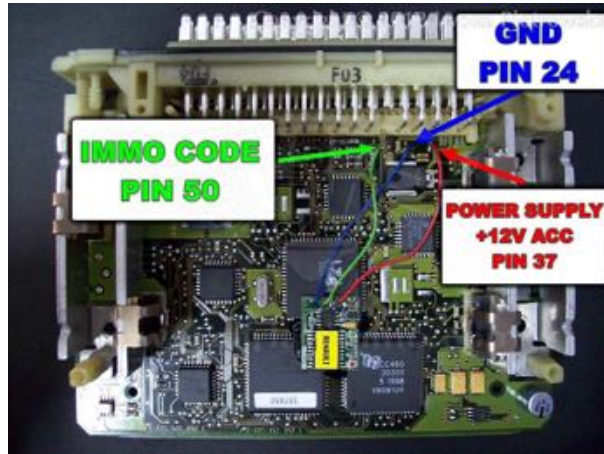


In addresses from **040** to **1FF** change these values into **FF** in **24C16** memory

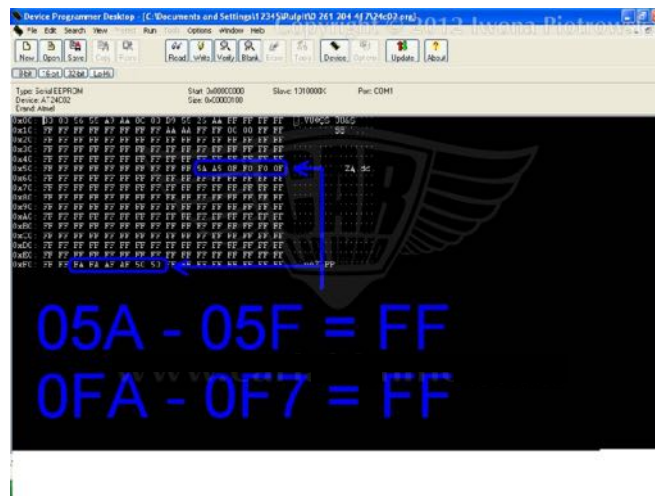
Connecting emulator to ECU



3.0 gasoline 1 plug with 24C02 memory (Renault Laguna)



Cut off pin 50 from ECU!!!



In addresses from **05A** to **05F** and from **0F2** to **0F7** change these values into **FF** in **24C02** memory

**Volvo S40 and V40 – 1.9TD (Bosch 0 281 001 906 ECU)
MSA 15.5-5.40**



OFFSET	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	
00000000	39	37	32	2E	31	34	AA	AA	39	37	32	2E	31	34	55	55	972.1400972.1400
00000010	AA	55	AA	55	AA	55	AA	55	01	C2	06	A4	00	00	00	00	SUSUSUSU A H
00000020	00	00	00	00	00	00	00	00	FF	9F	59	48	00	00	00	00G2 H
00000030	0B	16	00	00	00	00	00	00	00	27	42	5D	00	00	00	00B1
00000040	FF	FF	00	00	00	01	00	00	01	00	00	00	88	77	12	C6v.C
00000050	40	5D	00	00	00	00	FF	FF	00	00	00	01	00	00	01	00#)
00000060	00	00	89	74	17	C5	FF	01	13	11	01	A4	39	00	17	00Sw.C
00000070	50	00	12	11	40	A0	06	00	53	76	00	02	31	11	11	31	P @ Sw 1 1
00000080	B4	28	D0	46	93	77	14	11	42	B6	7E	49	EE	88	5A	8D	(YF v. B#-11 ZT
00000090	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000A0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000B0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000C0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000D0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000E0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	
000000F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	

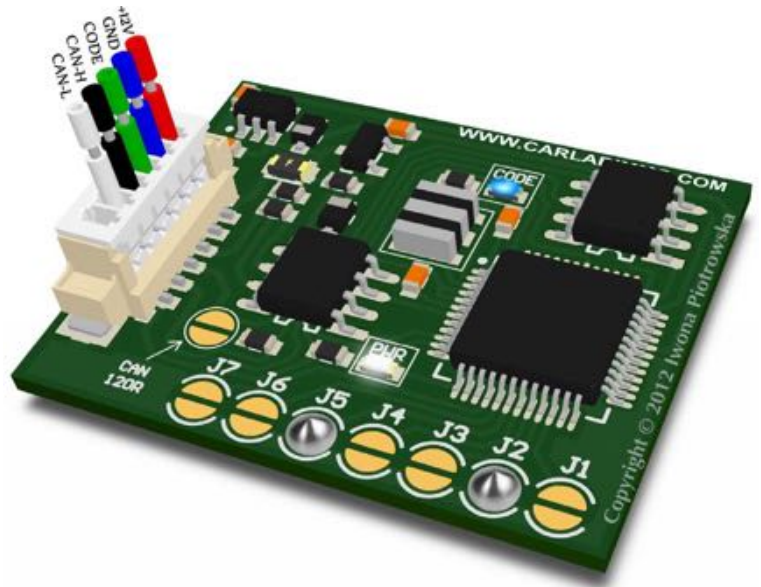
In addresses from **03F** to **041** and from **054** to **057** change these values into **00 00 FF FF** in **24C02** memory

03F - 041 = 00 00 FF FF
054 - 057 = 00 00 FF FF

Suzuki with X24C01 memory

**In Universal squ OF68 Emulator
solder jumpers J1 and J5**

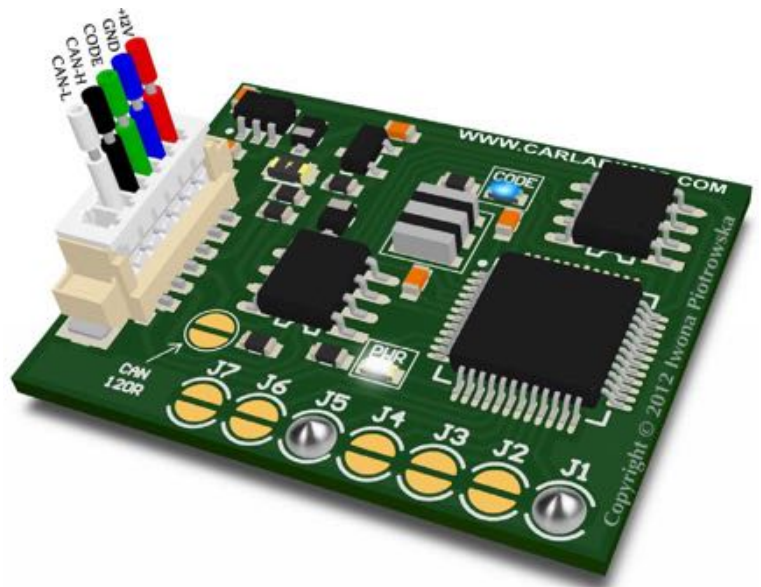
Available as Universal squ Emulator
program no:38



Suzuki with OKI memory

**In Universal squ OF68 Emulator
solder jumpers J1 and J5**

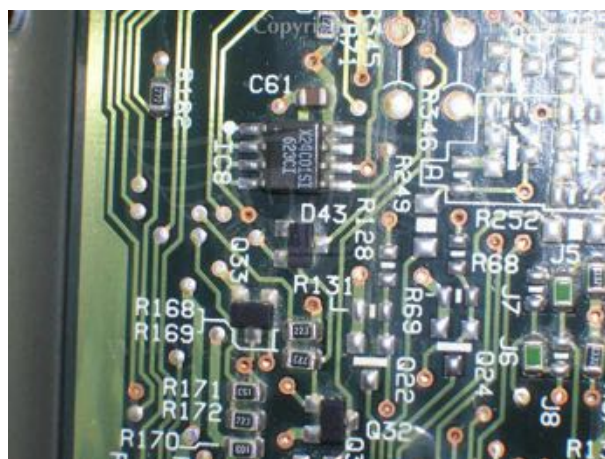
Available as Universal squ Emulator
program no:39



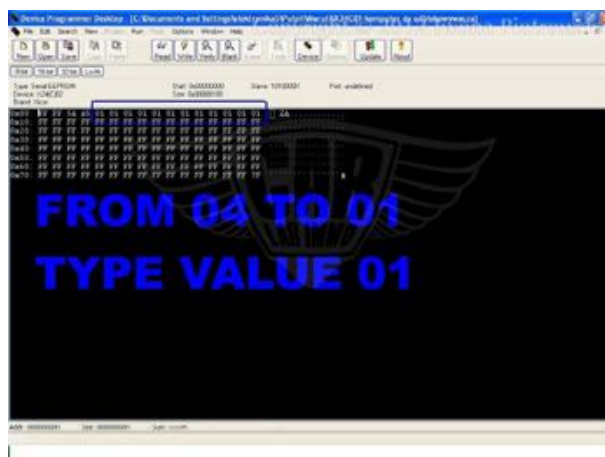
* Sometimes, X24C01 and OKI programs work interchangeably

USE

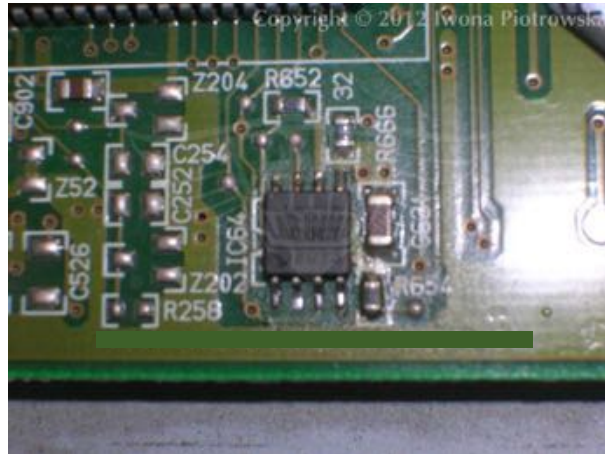
ECU with X24C01 memory
ECU with OKI memory read as 93LC56



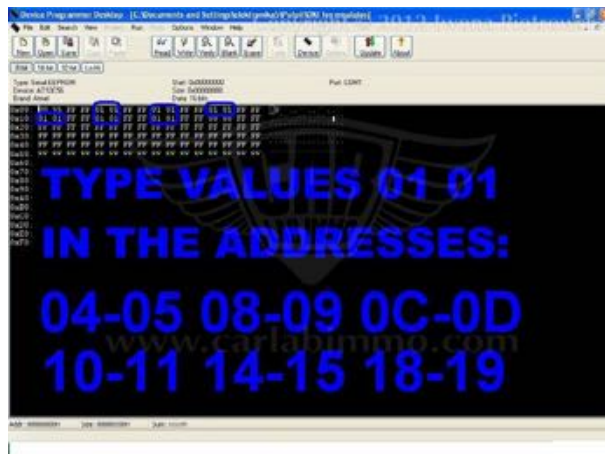
Find **X24C01** eeprom memory



In address from **04** to **0F** write **01** value



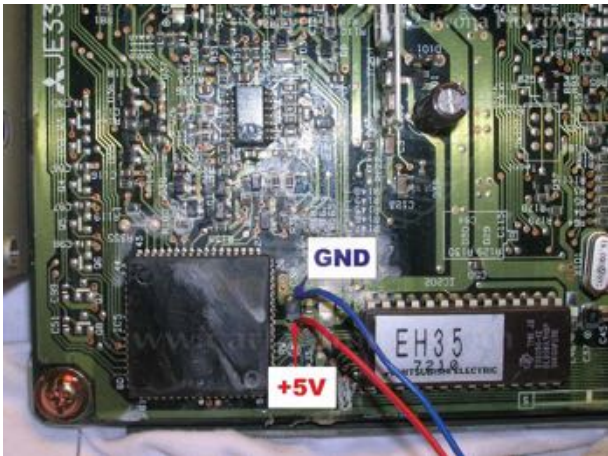
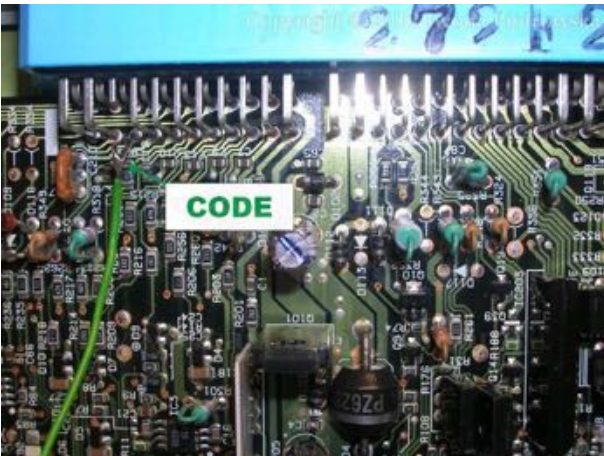
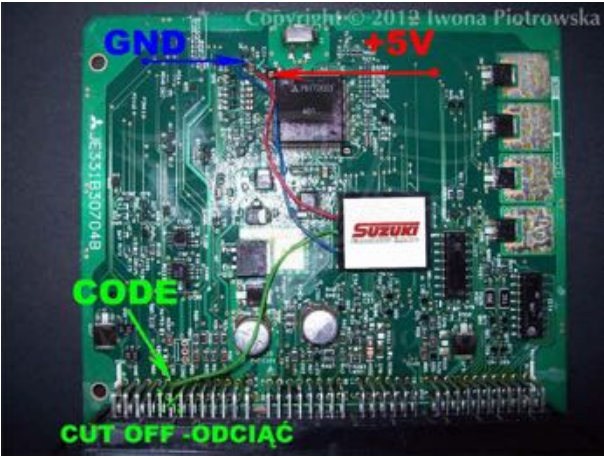
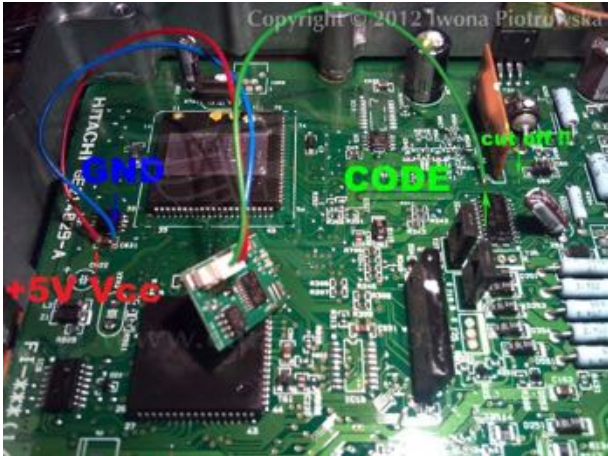
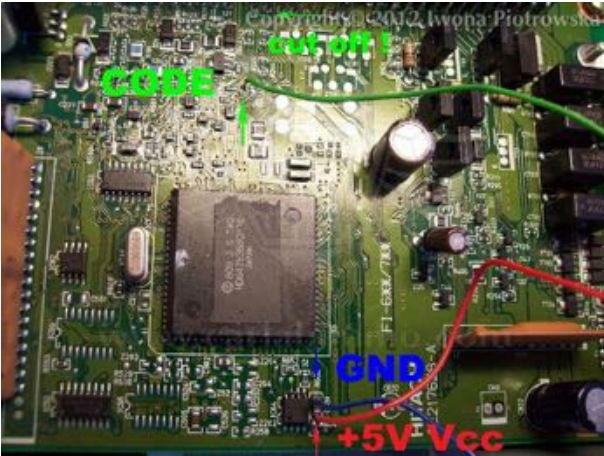
Find eeprom memory,
read and save as **93LC56**

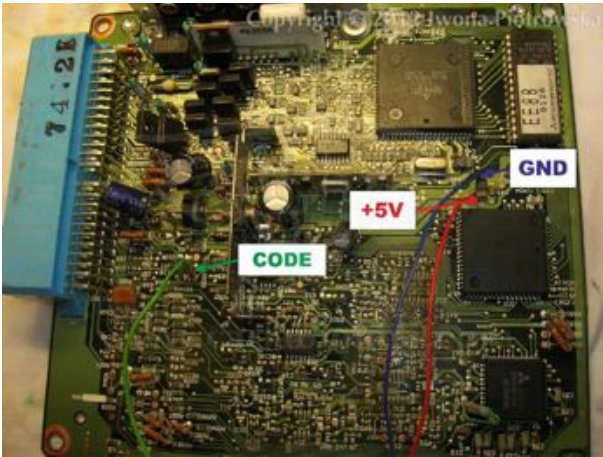


In **OKI** eeprom memory
write **01 01** values in addresses:

04 - 05 08 - 09 0C - 0D
10 - 11 14 - 15 18 - 19

Connection diagram examples





Immo line e.g. socket B pin 15

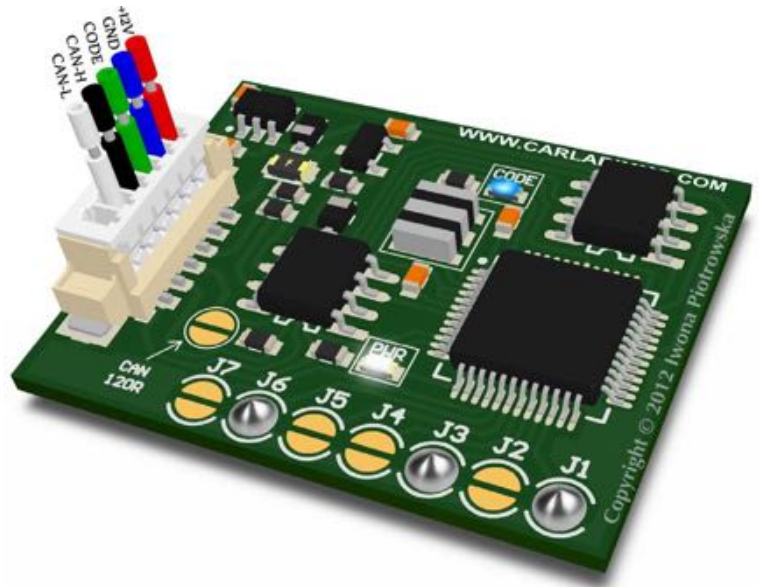
In different ECU types, the immo line can be in different pins. You check connection between ECU pin and pin 9 of 16-pin OBD socket with a multimeter.

Power supply 5V from capacitor near memory.

Suzuki with 93C56 memory

**In Universal squ OF68 Emulator
solder jumpers J1, J3 and J6**

Available as Universal squ Emulator
program no:40



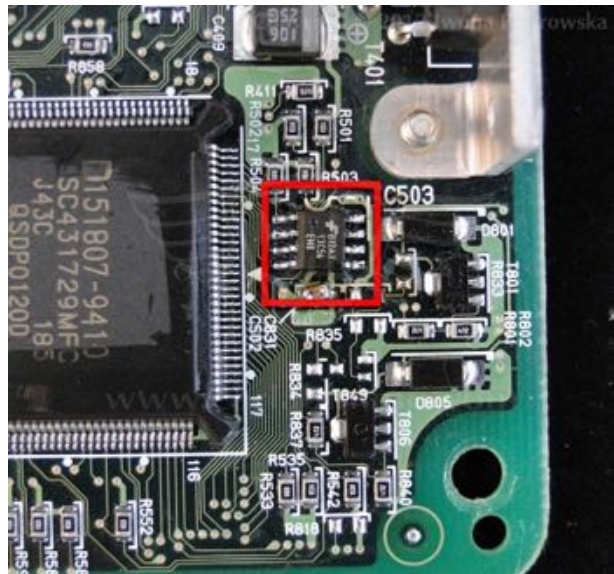
USE

Denso metal ECU box with 93C56 memory and 29F200 flash

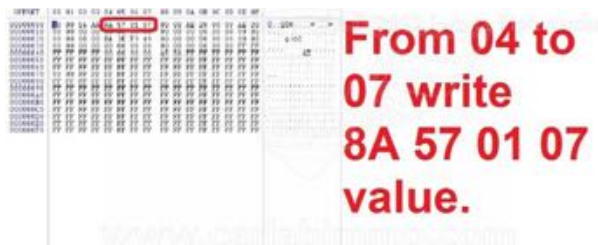
Denso plastic ECU box with 93C56 memory and 29F200 flash

The car must have 4C or 4D key.

Denso metal ECU box with 93C56 memory and 29F200 flash



Find **93C56** memory in ECU



In **93C56** memory
write **8A 57 01 07** values in addresses from **04** to **07**

Connection diagram examples

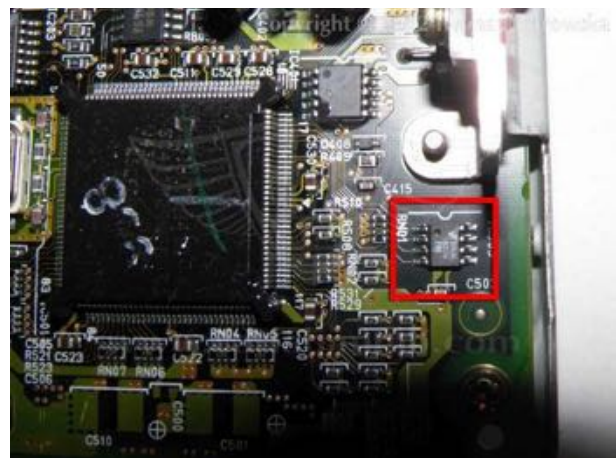


Immo line e.g. socket C pin 7

In different ECU types, the immo line can be in different pins. You check connection between ECU pin and pin 9 of 16-pin OBD socket with a multimeter.

Disconnect immo box!

Subaru Justy 1.3 4WD 2000/2001



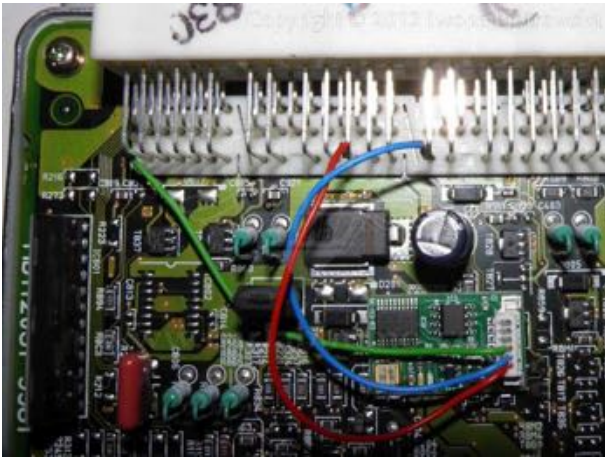
Find **93C56** memory in ECU

8A 57 01 07

OFFSET	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00000000	00	00	84	A1	8A	57	01	07	00	00	8C	51	00	00	8C	51
00000010	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
00000020	00	00	08	00	A1	58	04	68	FF	FF	FF	FF	FF	FF	FF	FF
00000030	FF	FF	FF	FF	FF	FF	FF	FF	00	00	00	00	00	00	FF	FF
00000040	00	00	00	00	00	00	00	00	AS	5A	FF	FF	FF	FF	FF	FF
00000050	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000060	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000070	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000080	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
00000090	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000A0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000B0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000C0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000D0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000E0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
000000F0	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF

In **93C56** memory
write **8A 57 01 07** values in addresses from **04** to **07**

Connection diagram examples



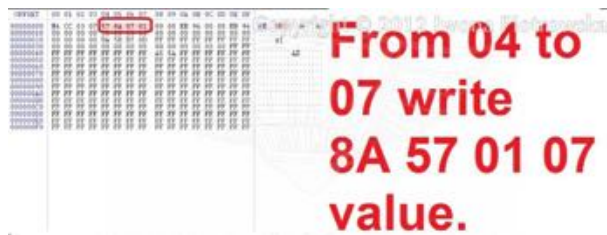
Disconnect immo box!



Denso plastic ECU box with 93C56 memory and 29F200 flash



Find **93C56** memory in ECU



In **93C56** memory write **8A 57 01 07** values in addresses from **04** to **07**

Connection diagram example



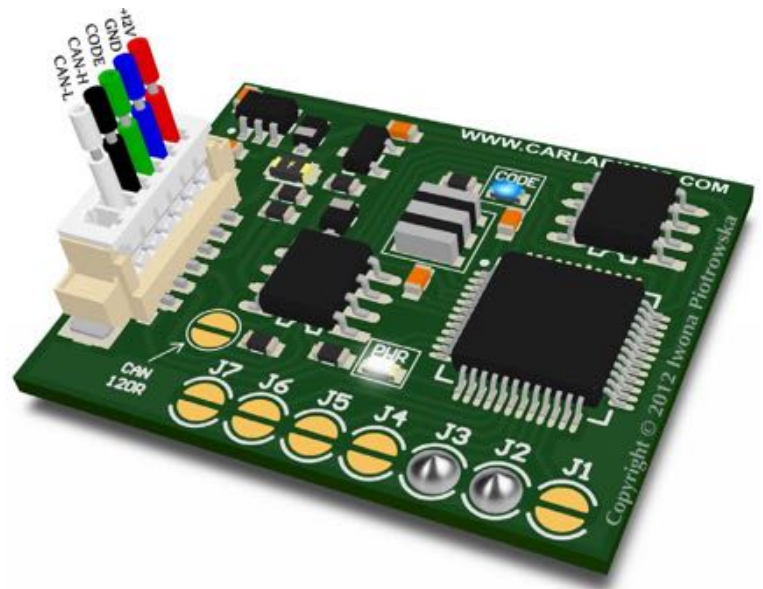
Disconnect immo box and connect emulator to the immo's box plug

- GND 1 pin
- Immo line 2 pin
- +12V ACC 3 pin

TMS 374 – Citroen, Peugeot, Renault

In Universal squ OF68 Emulator
solder jumpers J2 and J3

Available as Universal squ Emulator
program no:41



EMULATOR'S POWER +5V

USE

Renault ECU with TMS374 processor

Siemens Fenix 5
Sagem Safir 1
Sagem Safir 2

Citroen, Peugeot ECU with TMS374 processor

Sagem SL96
Magnetti Marelli 1AP20, 1AP40, 1AP41, 1AP43, 1AP80, 1AP81, 1AP83, 1AP90

Volvo with TMS374 processor

Siemens Fenix 5
(Volvo V40/S40 1,8i 1996-1999 ECU S113727100C_VOLVO, 30850998-01)
Siemens (Volvo V40/S40 1,8i 1996 ECU
S113716100C, HOM7700860924)

Before removing immo, cut the immo cable off the ECU plug

Sagem SL96 – 48 pin

Magnetti Marelli 1AP - pin 48 and 27

Fenix5 1.4 and 1.6 - 37 pin, Fenix5 1.8 and 2.0 - 35 pin

Sagem Safir1 35-pins – 30 pin

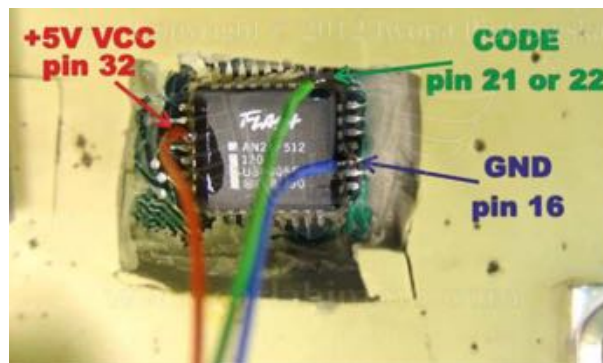
Sagem Safir2 55-pins - 37 pin

Siemens Fenix 5 S113727100C – Volvo 1.8 55 pins – 35 pin

Siemens S113716100C – Volvo 1.8 55 pins – 35 pin

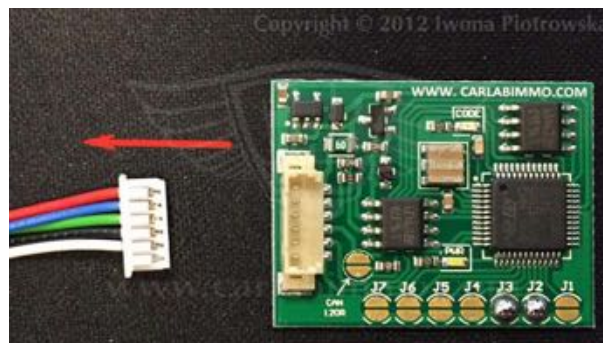
IMMO REMOVAL PROCEDURE

After cutting the immo cable off, find **pin 22** of **28F512** or **29F010** flash or **pin 21** of **27C512** or **29C512** eeprom in ECU. Solder green wire onto either of the pins depending on memory type.
Solder GND onto pin 16 and solder power supply +5V VCC onto pin 32.



Turn the ignition on for one minute

Then, turn the ignition off and wait 5 seconds. Next turn the ignition on and wait 5 seconds (repeat this action 7 times)



Disconnect the plug from emulator and check if car starts.

If you have a problem with removing immo from the ECU

- disconnect „minus” battery for approx. 30 seconds before starting this procedure again,
- during the procedure turn the starter several times

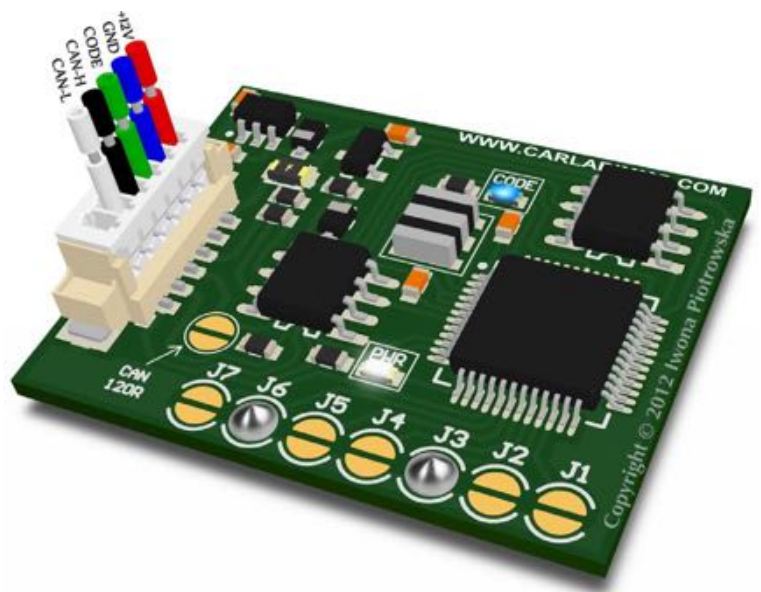
PINOUT IN MEMORY



Yamaha

**In Universal squ OF68 Emulator
solder jumper J3 and J6**

Available as Universal squ Emulator
program no:42



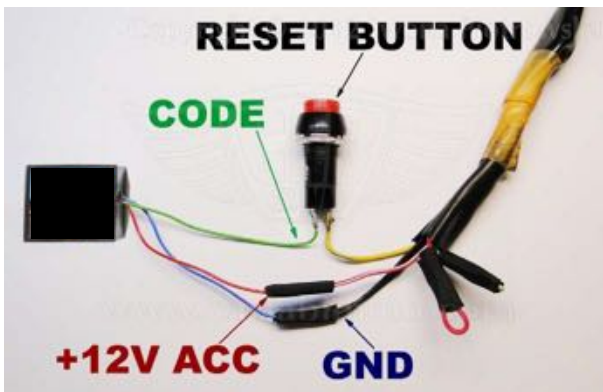
USE

**Yamaha motorbikes
and scooters from 2004 to 2010**

**YZF R1 / YZF R6
FZ6 N / FZ6 S
T-MAX
X-MAX
V-MAX
and others**



Connecting Emulator to the wiring is presented in the pictures below:



You connect code line by pressing the RESET button. In order to start the motorbike you firstly need to press and hold the RESET button, then turn the ignition and then release the RESET button. Now you can start the engine.

The wires:

Red with green stripe and grey - cover with insulation tape



If a fuel pump does not work during turning the ignition, this is a symptom of immobiliser malfunction.

In such an event, you can use this emulator.

ATTENTION!!!

This emulator can only be used for testing purposes or to verify accurate functioning of AirBag system.

This emulator cannot remain in your car as a replacement for new seat occupancy mat

The emulator needs to be connected to the plug under the passenger seat instead of original seat occupancy sensor.

There are 3 cables

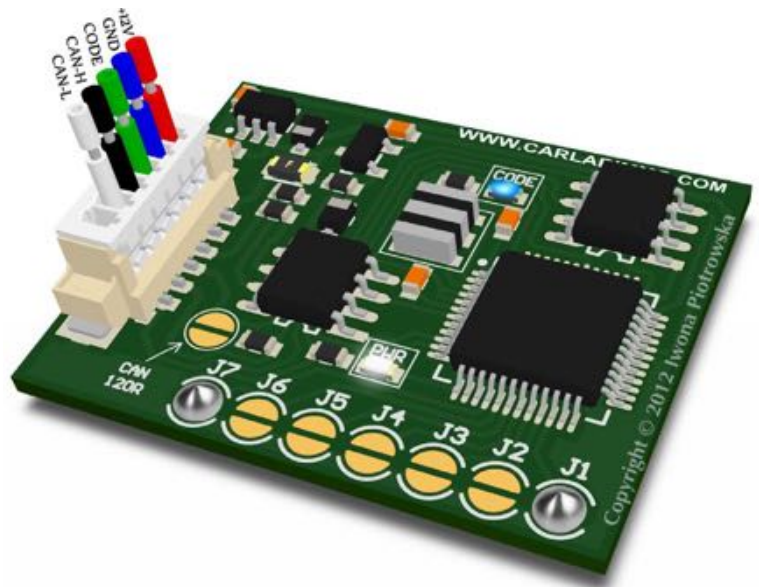
+12V ACC	red
GND	blue
Digital signal	green

Before connecting the emulator, use multimeter to check signals on pins in the plug!

No.1 BMW – *without installed child seat*

**In Universal squ OF68 Emulator
solder jumpers J1 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no: 1)



USE

Attention!

If still, after installation of the emulator, your car signals unfastened passenger seatbelt fault, then put in a resistor in place of seatbelt sensor.

For E90, use 680 Ω

For E60, use 510 Ω

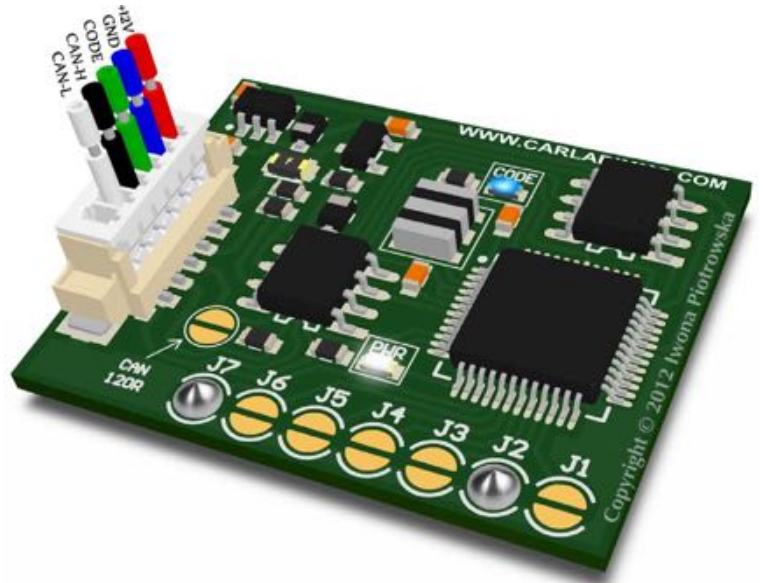
Europe from 2007 to 2010

E60 , E63 , E64 , E65 , E70 , E71 , E81 , E90 , E92 , E93

No.2 Mercedes - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumpers J2 and J7**

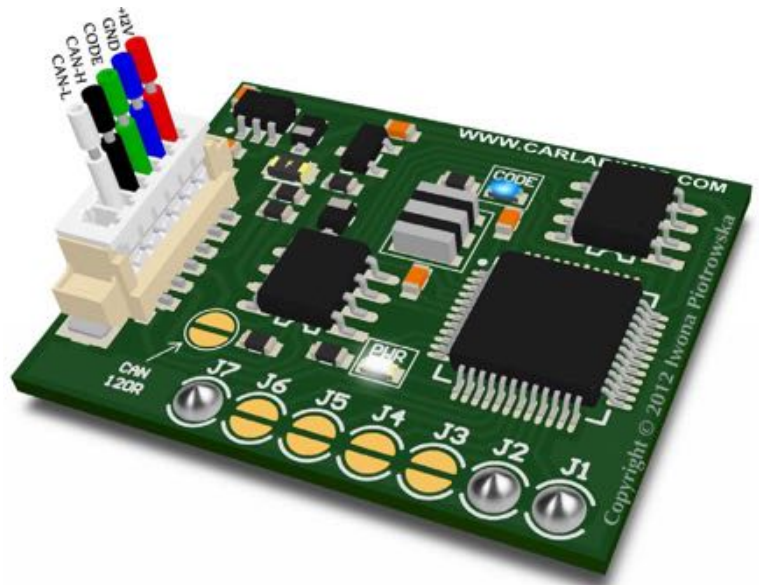
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:2)



No.3 Mercedes - *with installed child seat*

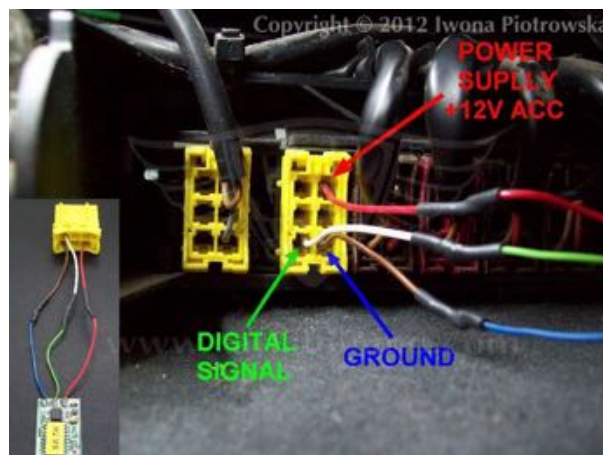
**In Universal squ OF68 Emulator
solder jumpers J1, J2 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:3)



USE

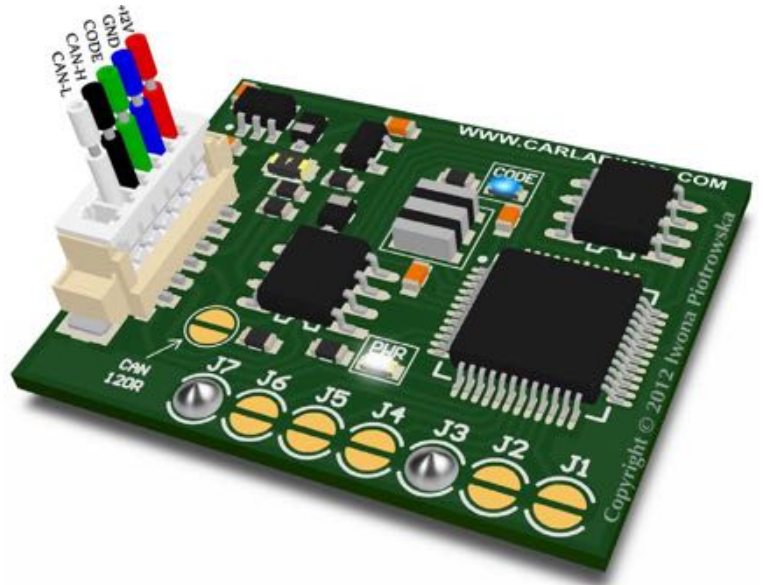
- E-class W211 from 2002 to 2004 with Temic airbag controller
- S-class W220 from 2003 to 2005



No.4 Mercedes - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumper J3 and J7**

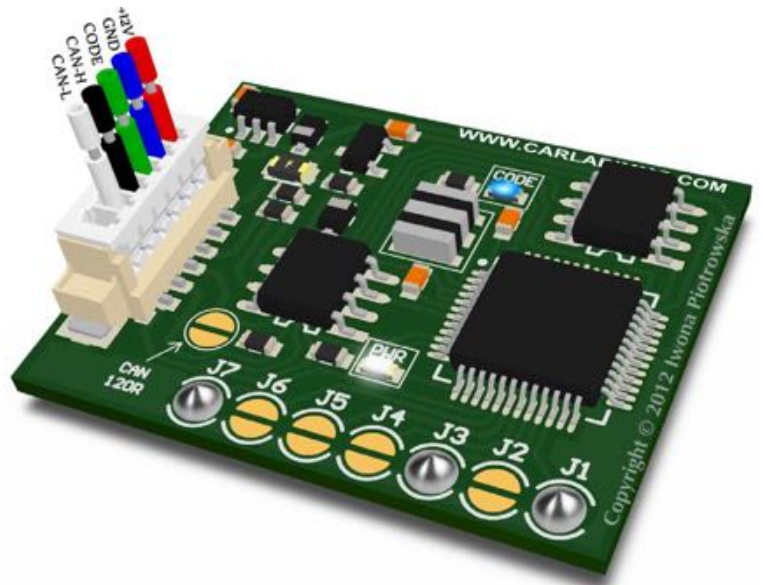
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:4)



No.5 Mercedes - *with installed child seat*

**In Universal squ OF68 Emulator
solder jumper J1 J3 and J7**

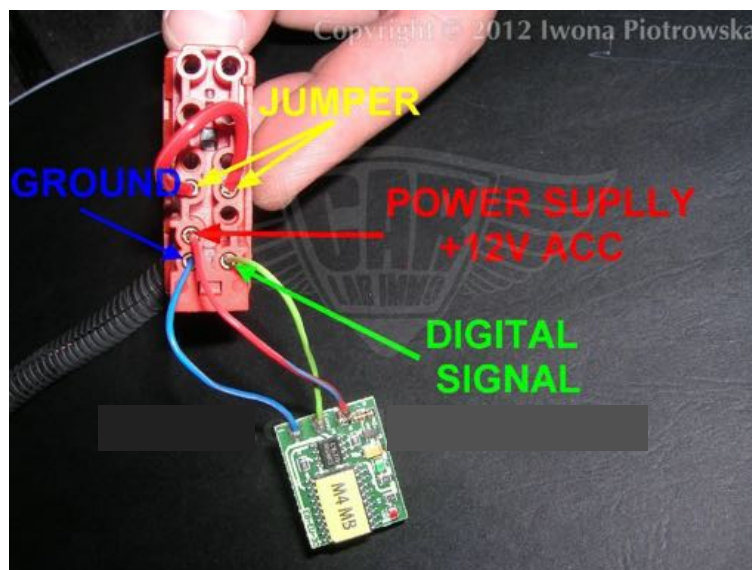
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:5)



USE

- A-class W168 from 1997 to 2001
- C-class W202 from 1999 to 2001
 - Vito W638 up to 2003
- ML 1999 with TRW airbag controller
- E-class W210 up to 1999, before lifting with airbag OFF indicator

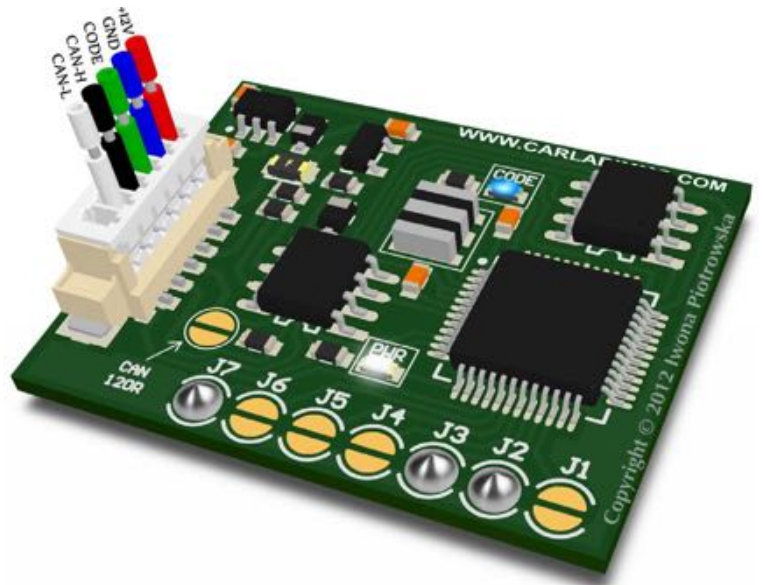
After correctly connecting the emulator, SRS/AIRBAG fault on instrument cluster goes off without necessity to delete the code of faults.



No.6 Mercedes - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumper J2, J3 and J7**

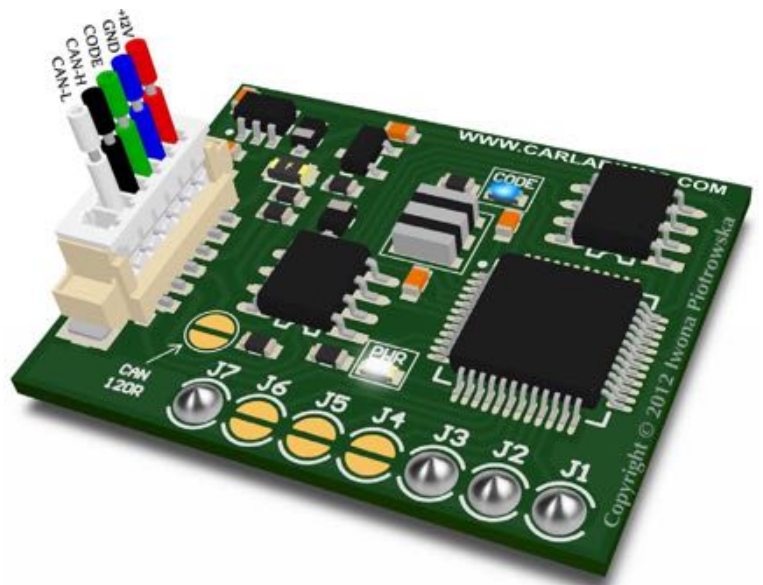
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:6)



No.7 Mercedes - *with installed child seat*

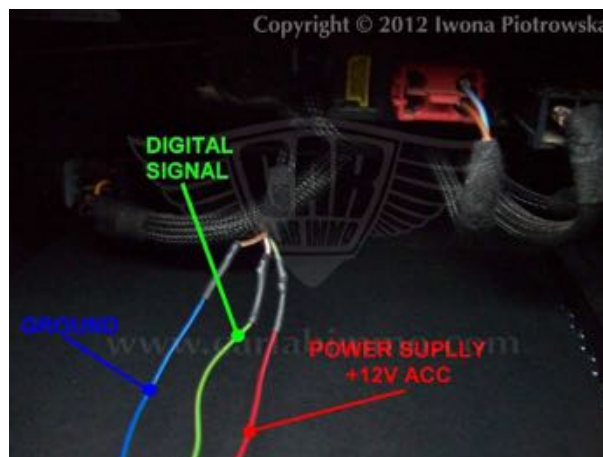
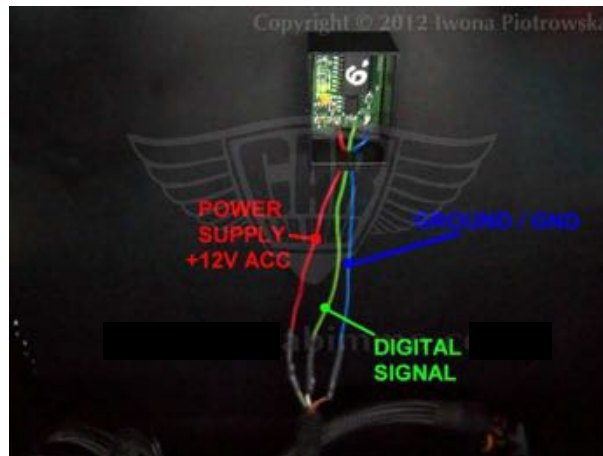
**In Universal squ OF68 Emulator
solder jumper J1, J2, J3 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:7)



USE

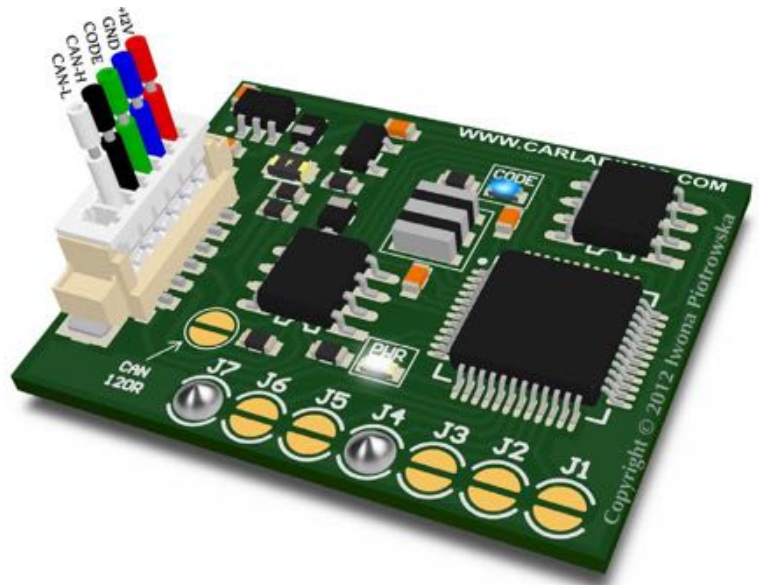
- E-class W210 from 1999 to 2003 with airbag OFF indicator after lifting
 - Vito W639 from 2002 to 2005
 - ML W163 from the year 2000
- A-class W168 from 2002 to 2005
- S-class W220 from 2000 to 2003
 - C-class W203 up to 2005
 - CLK W209
 - Vaneo



No.8 BMW - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumper J4 and J7**

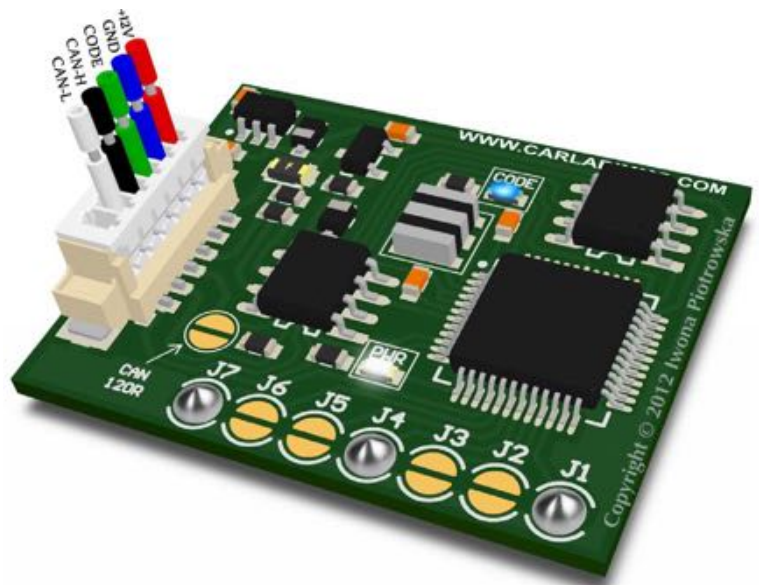
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:8)



No.9 BMW - *with installed child seat*

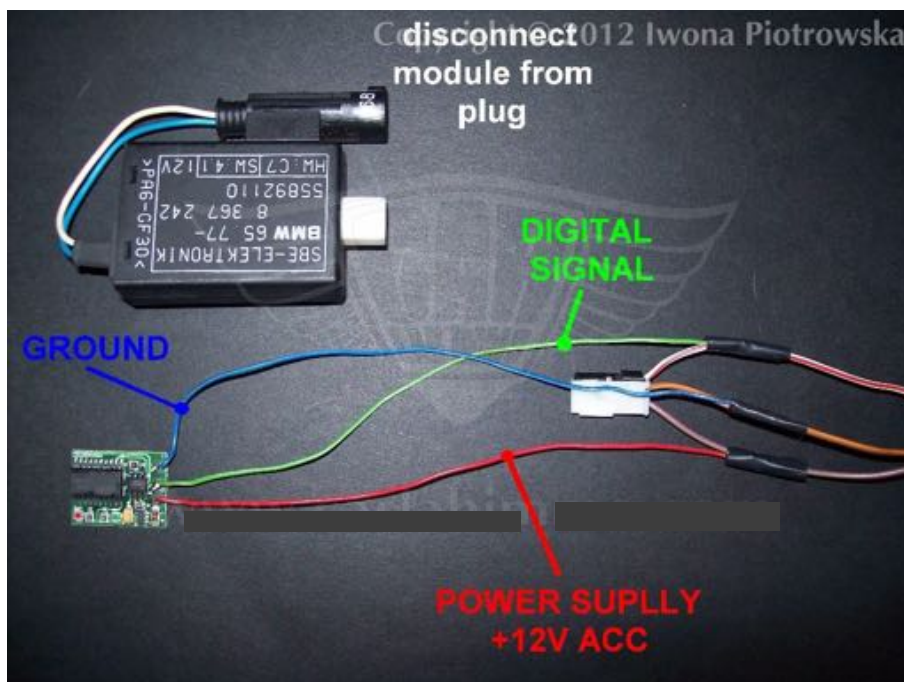
**In Universal squ OF68 Emulator
solder jumpers J1, J4 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:9)



USE

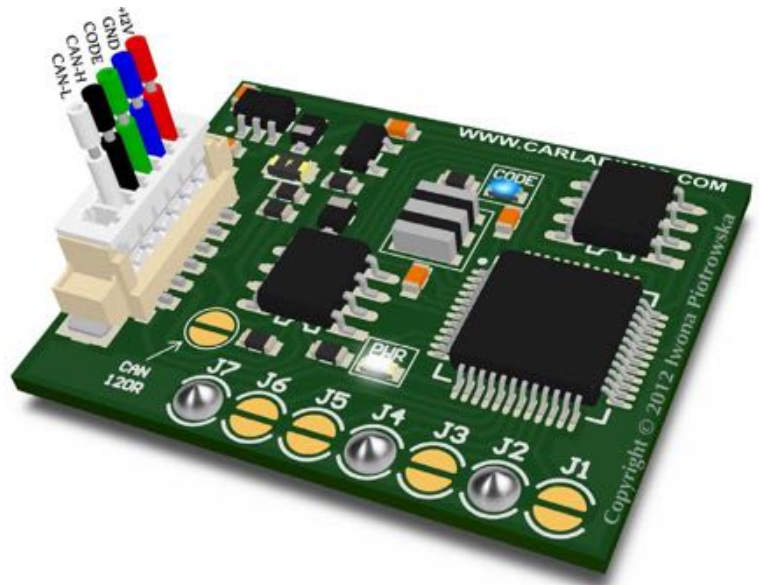
Models from 1997 to 2003:
E31, E36, E38, E39, E46, E53,
Models from 2003 to 2007:
E60, E63, E65, E87, E90



No.10 Mini Cooper - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumper J2, J4 and J7**

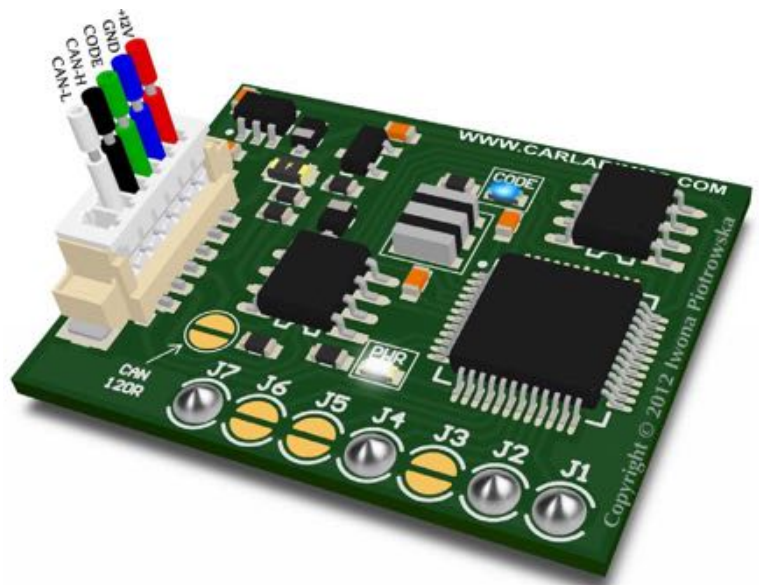
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:10)



No.11 Mini Cooper – *with installed child seat*

**In Universal squ OF68 Emulator
solder jumpers J1, J2, J4 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:11)



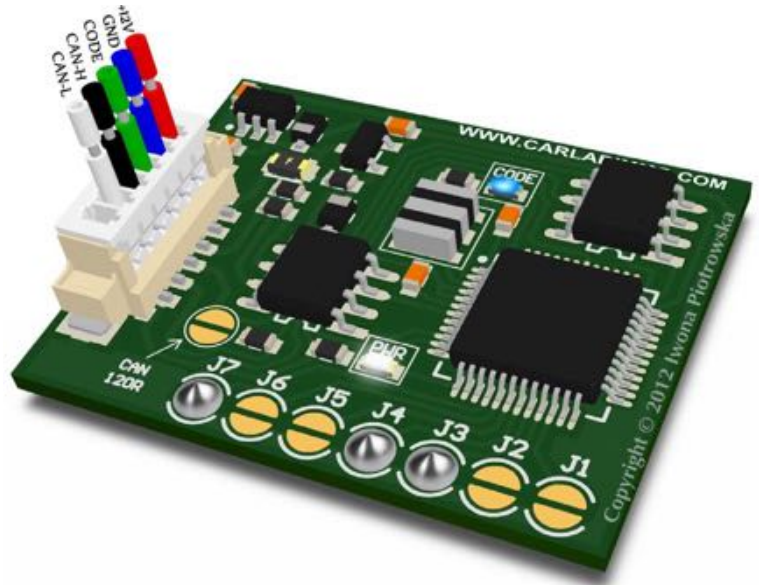
USE

Mini Cooper from 2002 to 2005

No.12 Mazda - *without installed child seat*

In Universal squ OF68 Emulator
solder jumpers J3, J4 and J7

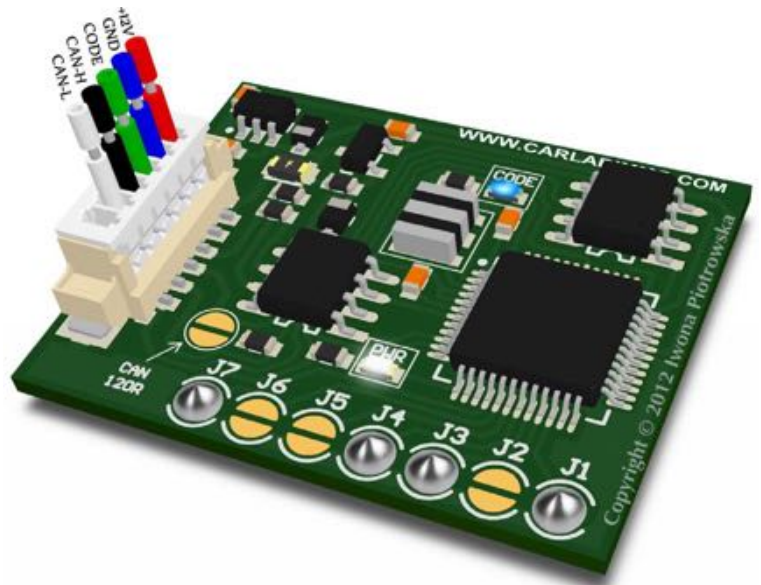
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:12)



No.13 Mazda - *with installed child seat*

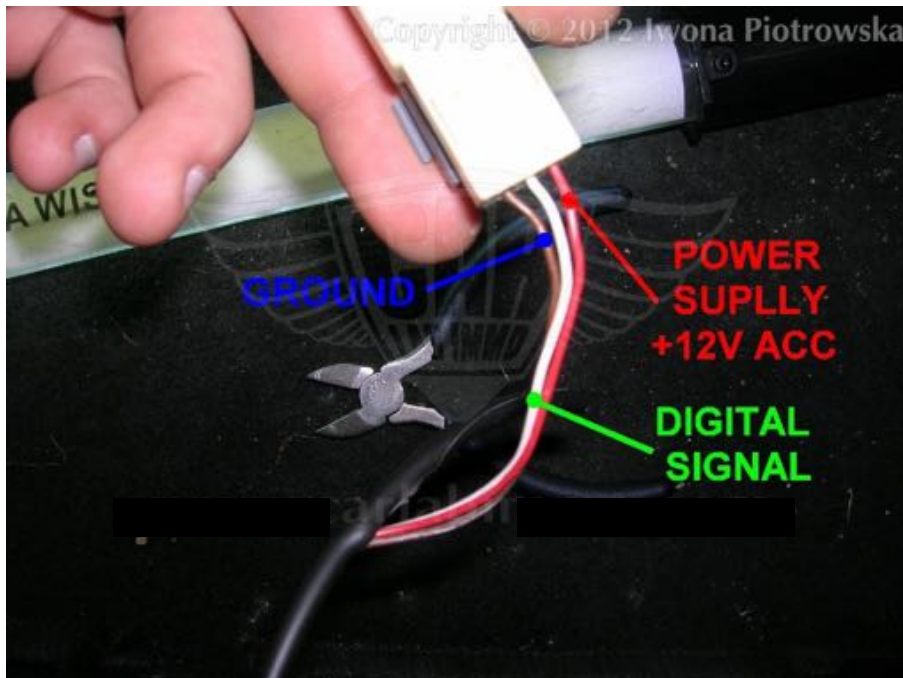
In Universal squ OF68 Emulator
solder jumpers J1, J3, J4 and J7

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:13)



USE

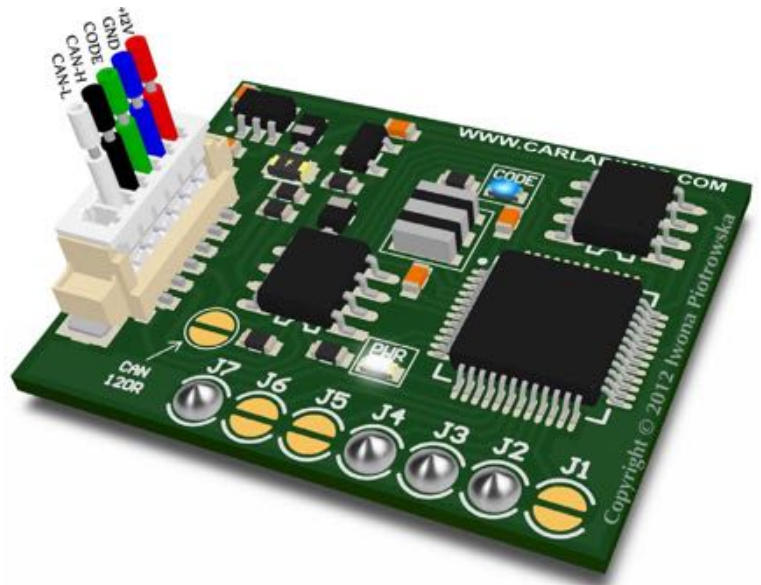
- Premacy
- MX-5
- 626
- 323
- 6



No.14 Fiat Stilo - *without installed child seat*

**In Universal squ OF68 Emulator
solder jumper J2, J3, J4 and J7**

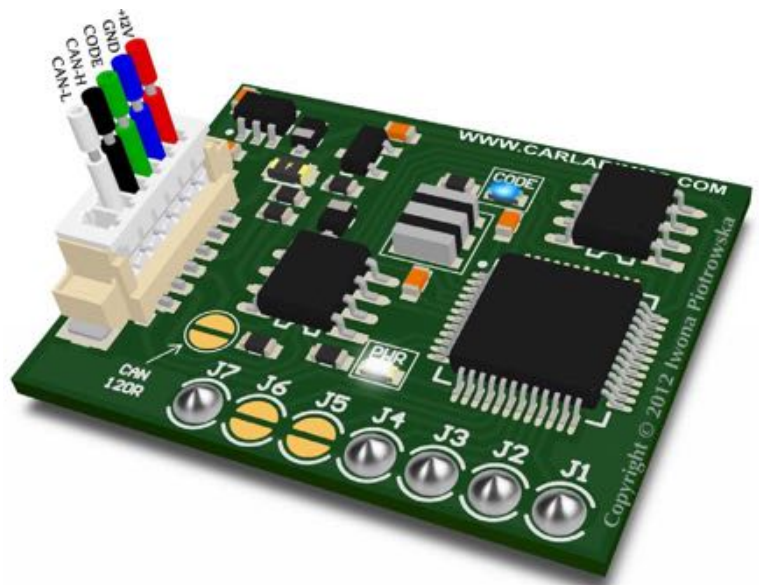
Available as Universal squ Emulator
(Seat Occupancy Sensor program no:14)



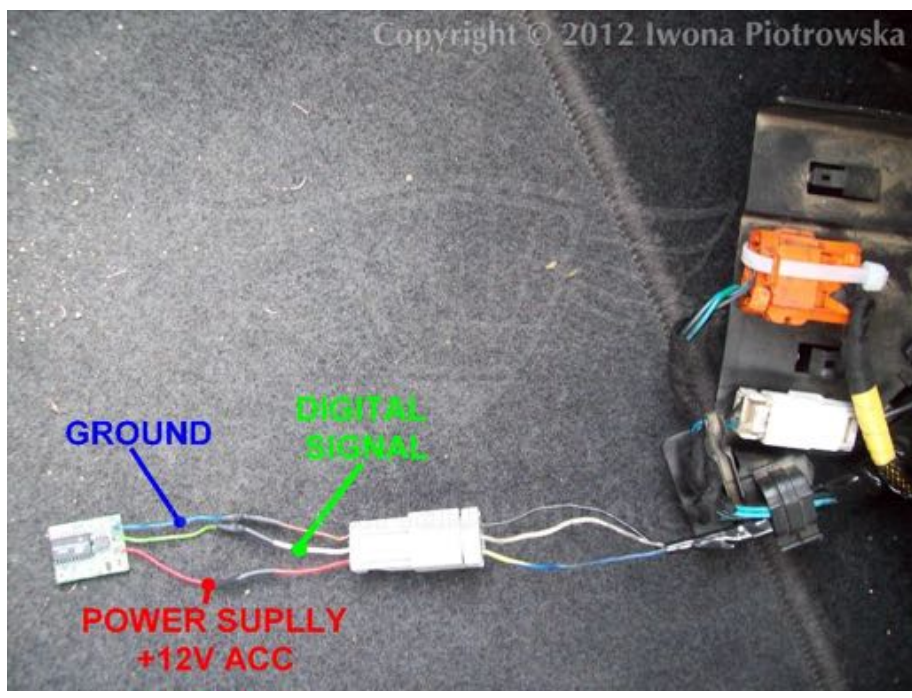
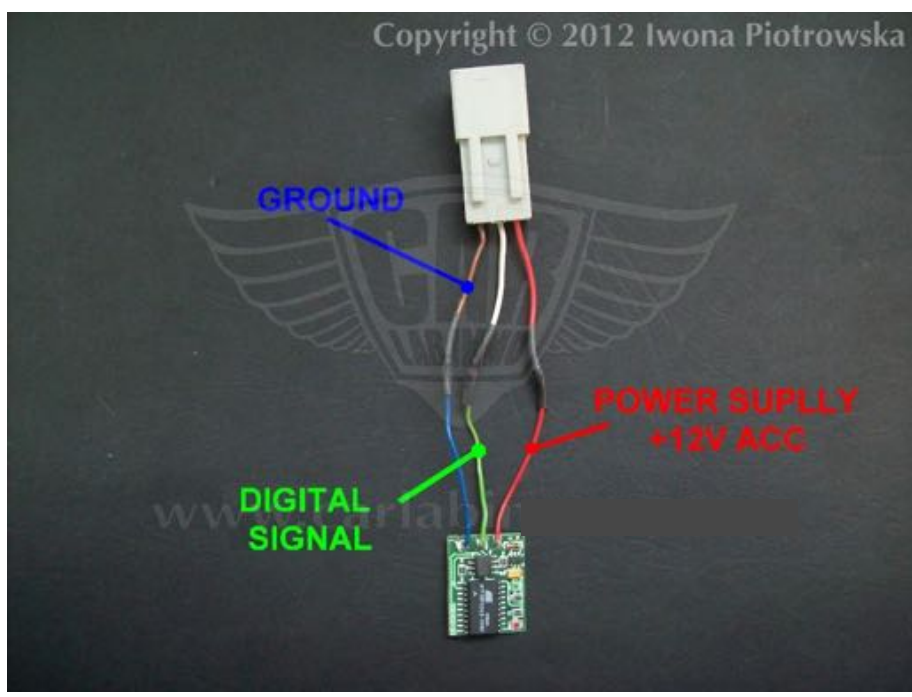
No.15 Fiat Stilo - *with installed child seat*

**In Universal squ OF68 Emulator
solder jumpers J1, J2, J3, J4 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:15)



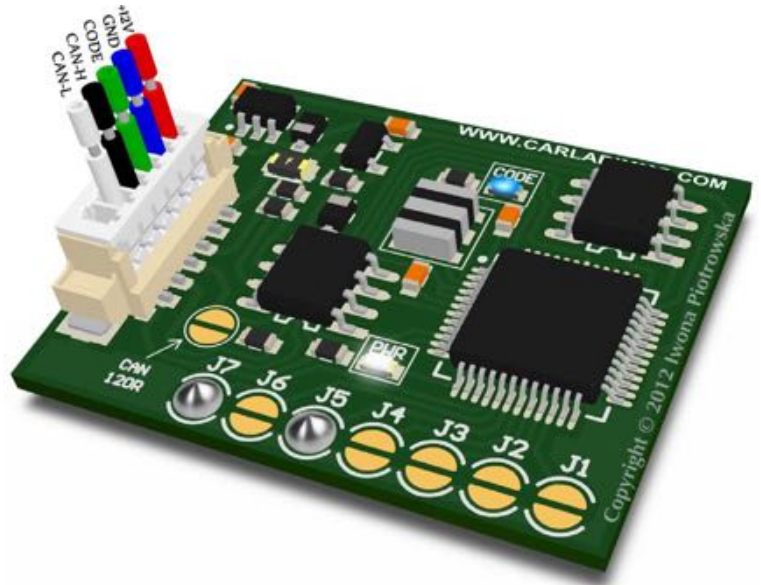
USE
Fiat Stilo



No.16 Mercedes

**In Universal squ OF68 Emulator
solder jumpers J5 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:16)



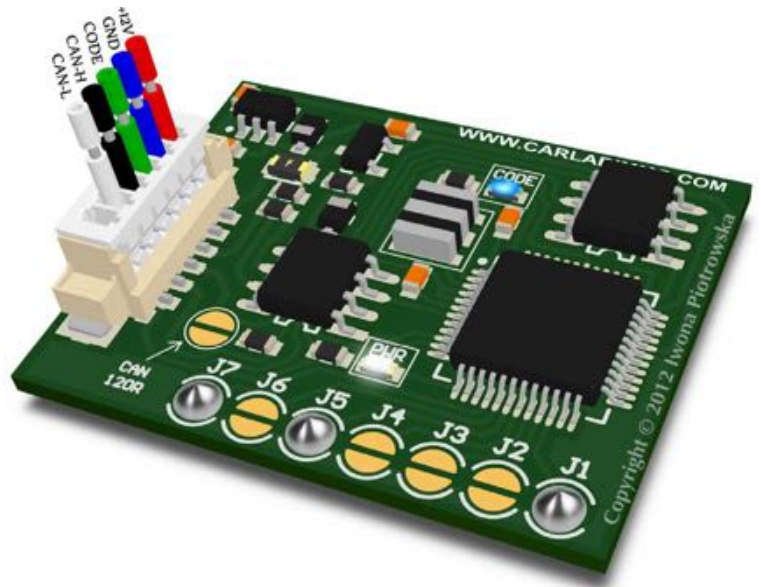
USE

- E-class W211 from 2004 to 2007 Temic
- SL W230 models the year 2004 only
- SLK W171 from 2004 to 2011

No.17 Mercedes

**In Universal squ OF68 Emulator
solder jumpers J1, J5 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:17)



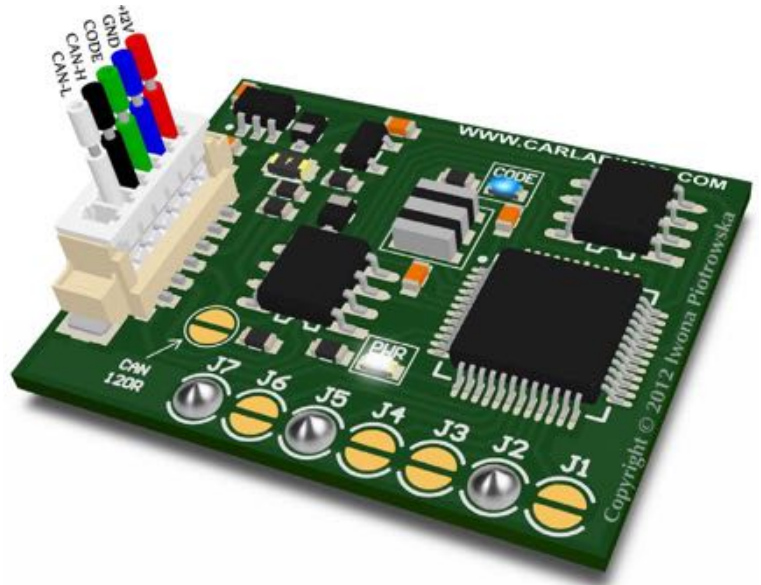
USE

- E-class W211 from 2003 to 2007 Bosch controller
- C-class W203 from 2006 to 2007
 - CLS W219 from 2005 to 2010
 - CLK W209 from 2006 to 2009
- S-class W220 from 2002 to 2005
- S-class W221 the year 2006 only

No.18 Mercedes

**In Universal squ OF68 Emulator
solder jumpers J2, J5 and J7**

Available as Universal squ Emulator
(Seat Occupancy Sensor program no:18)



USE

E-class W211 from 2002 to 2003 with airbag control unit:

Temic - 002 820 35 26

Bosch - 002 820 29 26, 0 285 001 441

Tachometer tester programs

USE

You can use it to turn on the instrument cluster on the table in order to diagnose faults. After connecting the emulator to instrument cluster, most of instrument cluster segments are displayed making it easier to locate damaged areas.

Emulator is reusable!

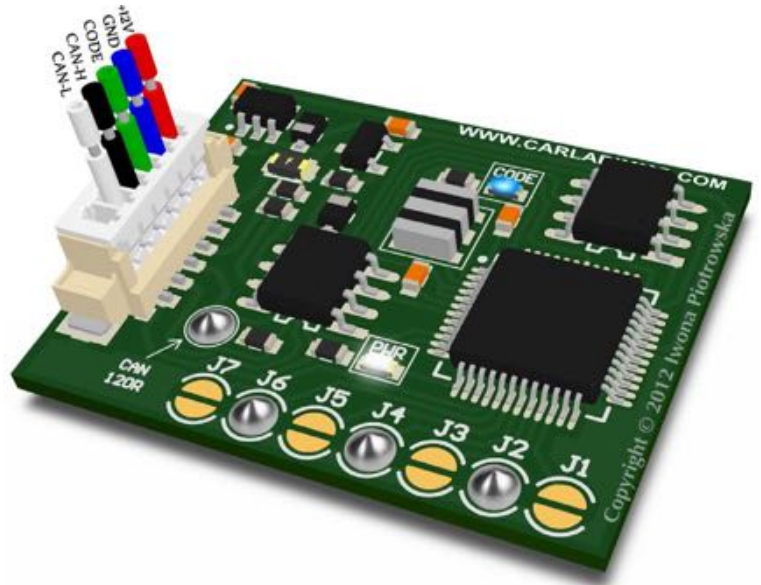
Tested on tacho:

Audi Q7 and A6
Citroen C4 Picasso
EMF Display
Renault Kangoo 3 Display
Renault Scenic II, Espace IV Tacho
Renault Scenic II Full
Renault Scenic III + Navi
VW Passat B6

Audi Q7 and A6

In Universal squ OF68 Emulator
solder jumpers CAN120R, J2, J4 and J6

Available as Universal squ Emulator
(Tachometer tester program no:1)



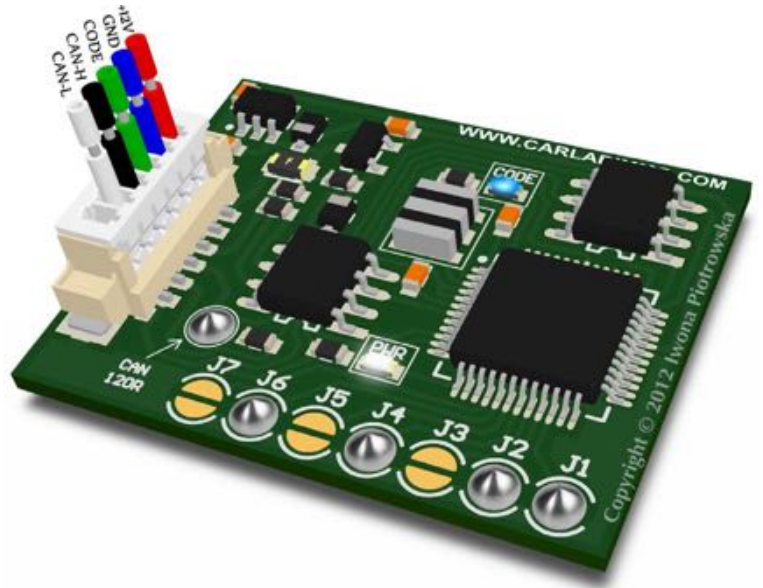
Connecting to grey socket

+12V ACC	15 pin
GND	14 pin
CAN-L	1 pin
CAN-H	2 pin

Citroen C4 Picasso

**In Universal squ OF68 Emulator
solder jumpers CAN120R, J1, J2, J4 and J6**

Available as Universal squ Emulator
(Tachometer tester program no:2)



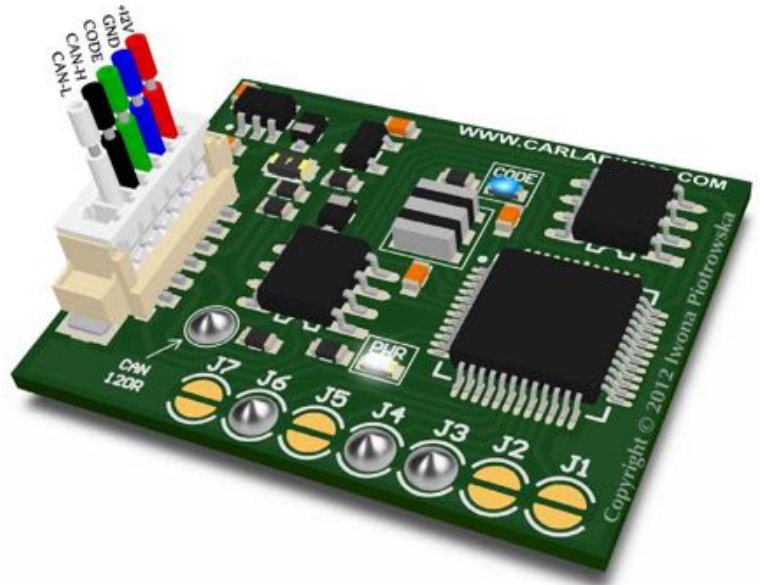
Connecting to yellow socket

+12V ACC	26 pin
GND	23 pin
CAN-L	13 pin
CAN-H	9 pin

EMF Display

**In Universal squ OF68 Emulator
solder jumpers CAN120R, J3, J4 and J6**

Available as Universal squ Emulator
(Tachometer tester program no:3)



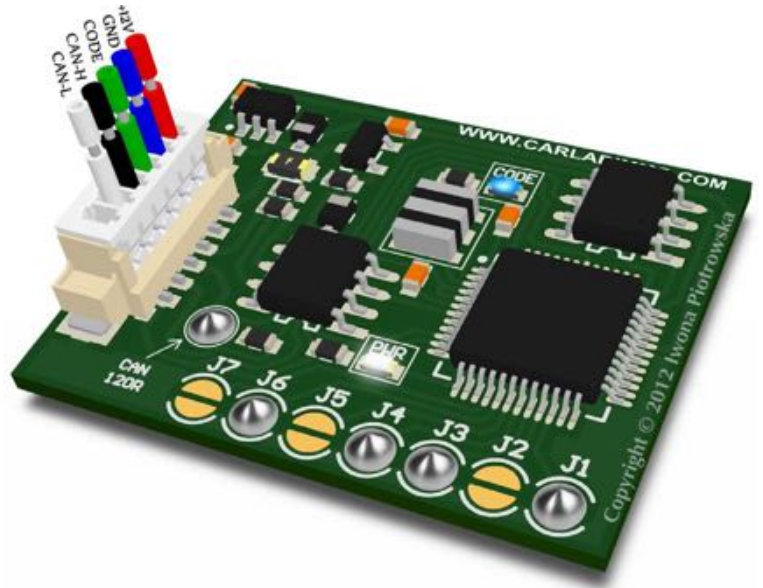
Connecting to brown socket

+12V ACC	1 pin
GND	3 pin
CAN-L	7 pin
CAN-H	9 pin

Renault Kangoo III Display

In Universal squ OF68 Emulator
solder jumpers CAN120R, J1, J3, J4 and J6

Available as Universal squ Emulator
(Tachometer tester program no:4)



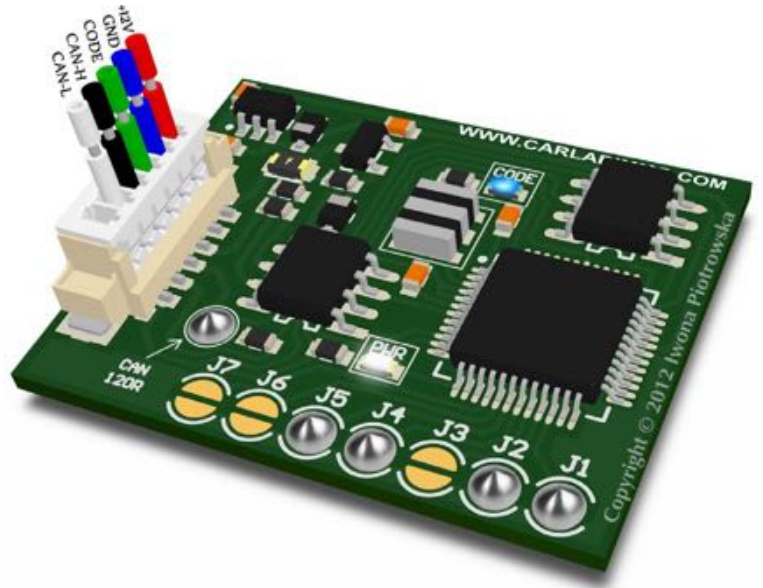
Connecting to display socket

+12V ACC	3 pin
GND	12 pin
CAN-L	15 pin
CAN-H	16 pin

Renault Scenic II, Espace IV Tacho

In Universal squ OF68 Emulator
solder jumpers CAN120R, J1, J2, J4 and J5

Available as Universal squ Emulator
(Tachometer tester program no:5)



Connecting to grey socket

+12V ACC 1 pin

GND 2 pin

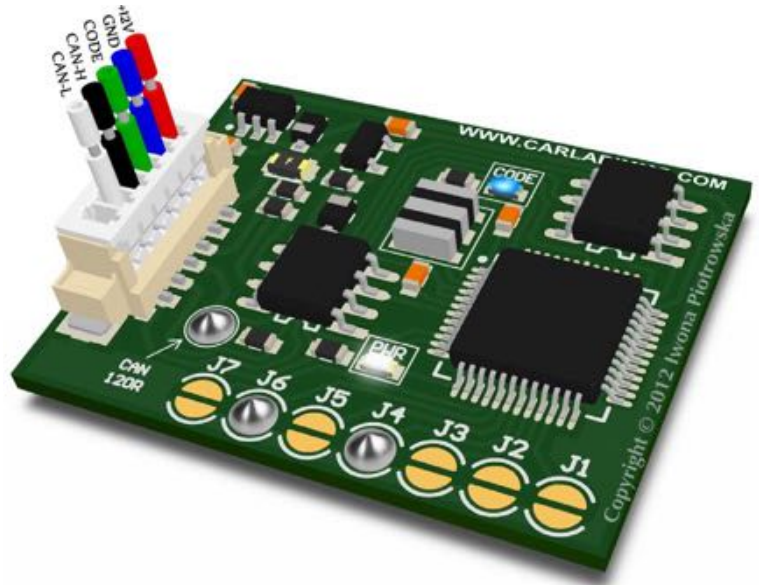
CAN-L 29 pin

CAN-H 30 pin

Renault Scenic II, Espace IV Full

In Universal squ OF68 Emulator
solder jumpers CAN120R, J4 and J6

Available as Universal squ Emulator
(Tachometer tester program no:6)



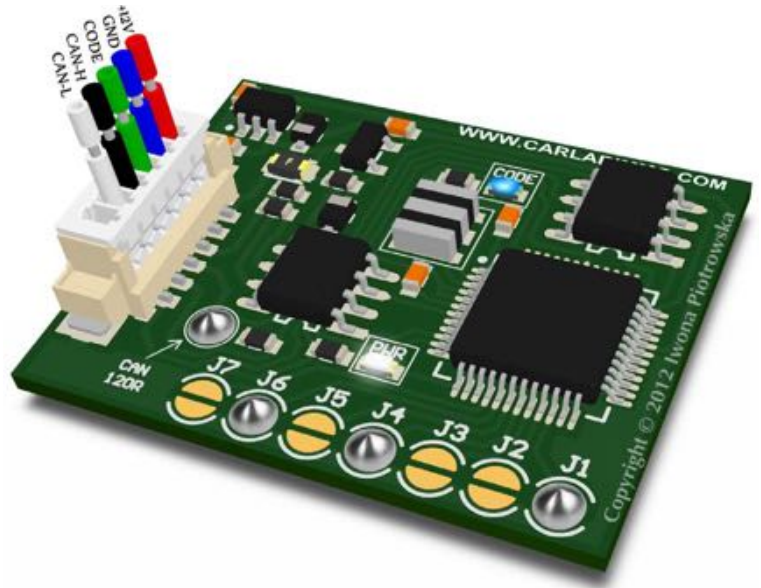
Connecting to grey socket

+12V ACC	1 pin
GND	2 pin
CAN-L	29 pin
CAN-H	30 pin

Renault Scenic III + Navi

In Universal squ OF68 Emulator
solder jumpers CAN120R, J1, J4 and J6

Available as Universal squ Emulator
(Tachometer tester program no:7)



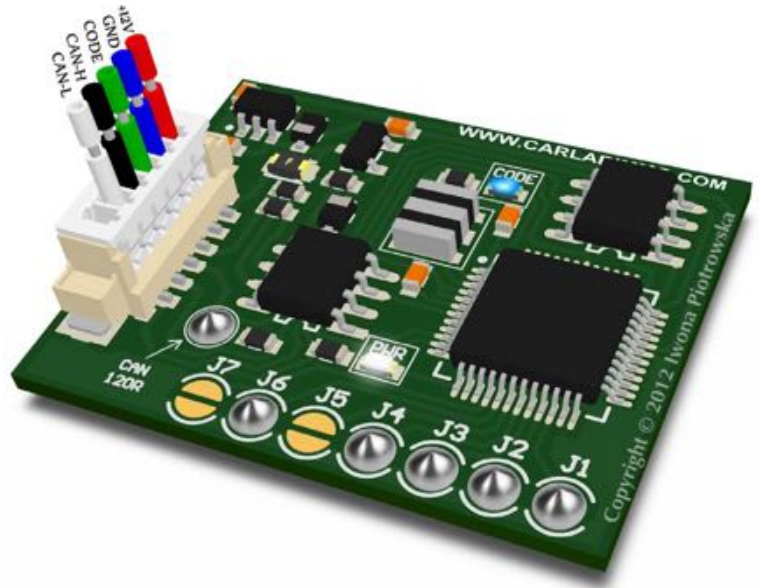
Connecting to grey socket of tachometer

+12V ACC	2 pin
GND	3 pin
CAN-L	11 pin
CAN-H	12 pin

VW Passat B6

**In Universal squ OF68 Emulator
solder jumpers CAN120R, J1, J2, J3, J4 and J6**

Available as Universal squ Emulator
(Tachometer tester program no:8)



Connecting to blue socket

+12V ACC	31 pin
GND	16 pin
CAN-L	29 pin
CAN-H	28 pin

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