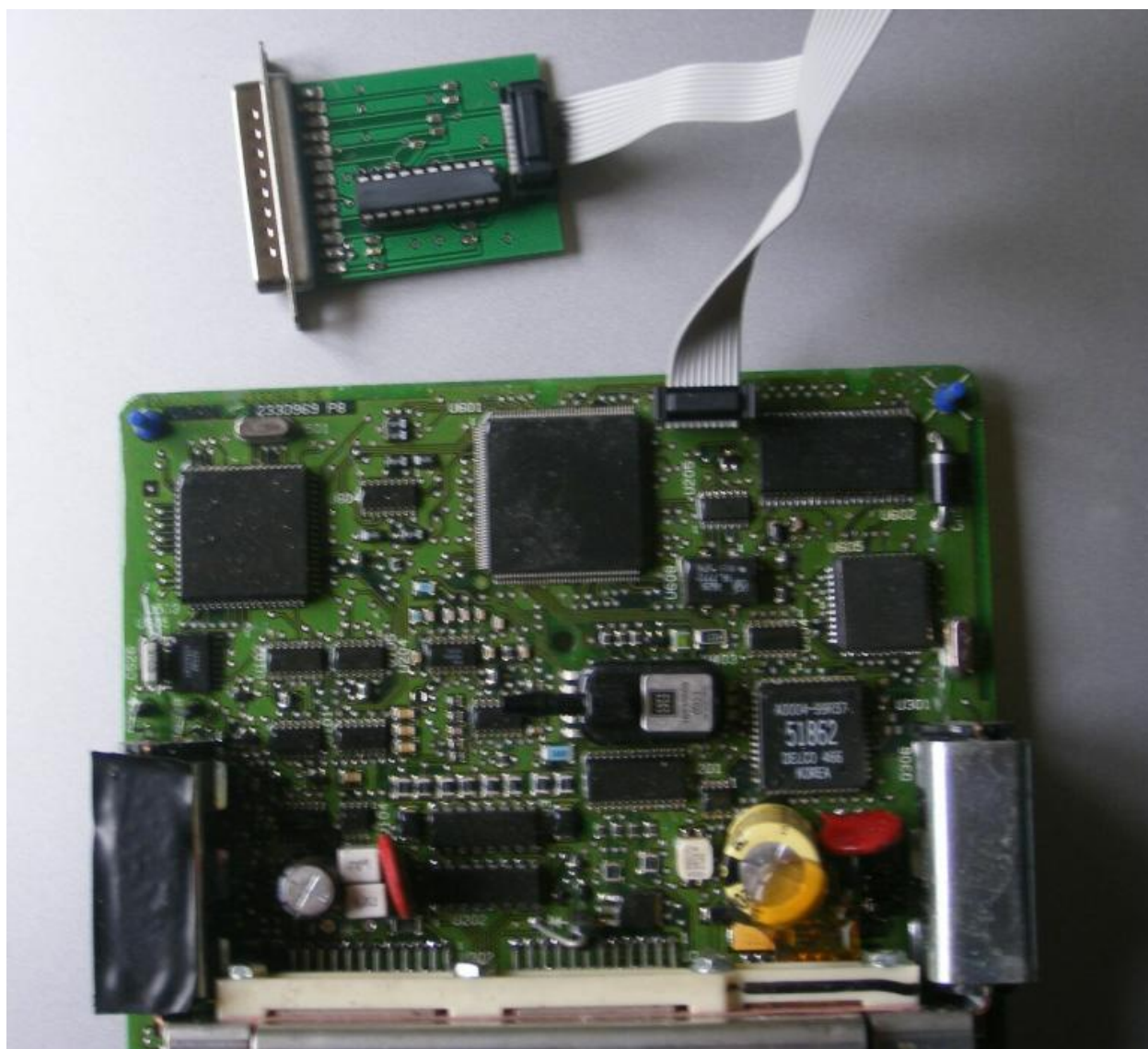


BDM MC32xxx Programmer

For chip tuning ECU SAAB, OPEL, VUAXHALL, LAND ROVER, LAMBORGHINI, LOTUS and others.

BDM Programmer for chip tuning ECU with MCU Motorola MC6832xxx through socket BDM.

Trionic 5 - Motorola	MC 68332	Opel, Saab, Vauxhall
Trionic 7 - Motorola	MC YQQCU	Opel, Saab, Vauxhall
Trionic 8 - Motorola	MC 68377	Opel, Saab, Vauxhall
MEMS3 - Motorola	MC 68336	Land Rover
Campi 01- Motorola	MC 68376	Lamborghini, Lotus



BDM programmer socket

DSDO 1	• •	2	VDD
DSDI 3	• •	4	H RESET (PORTS)
VF1 (FREEZE) 5	• •	6	GND
DSCK 7	• •	8	GND
S RESET (BERR) 9	• •	10	NC

This is the standard BDM-port pinout

NC 1	• •	2	S RESET (BERR)
GND 3	• •	4	DSCK
GND 5	• •	6	VF1 (FREEZE)
H RESET (PORTS) 7	• •	8	DSDI
VDD 9	• •	10	DSDO

On the most ECU Boards the location of pin 1 of the BDM-port pads are not marked in any way. This application note will demonstrate how you can estimate the location of Pin1 of the BDM-port pads in the very most cases. The figure on the right shows the Motorola (TM) standard pinout of the BDM-port:

Regarding the pinout of the standard BDM-port it is obvious that two of them are grounded. These are the pins 3 and 5. So the pin 1 is above them. Which of the pads are grounded you can find out simply using an ohmmeter or a diode - tester.

Finally let us demonstrate this again in the next three steps using a SMD footprint of the BDM-port pads:

1st. step:

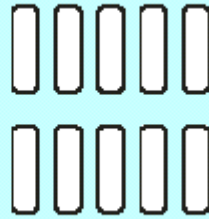


Fig. 2: This the typical arrangement of the BDM pads.

2nd. step:



Fig. 3: Then estimate which pads are grounded

3rd. step:

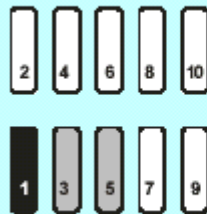
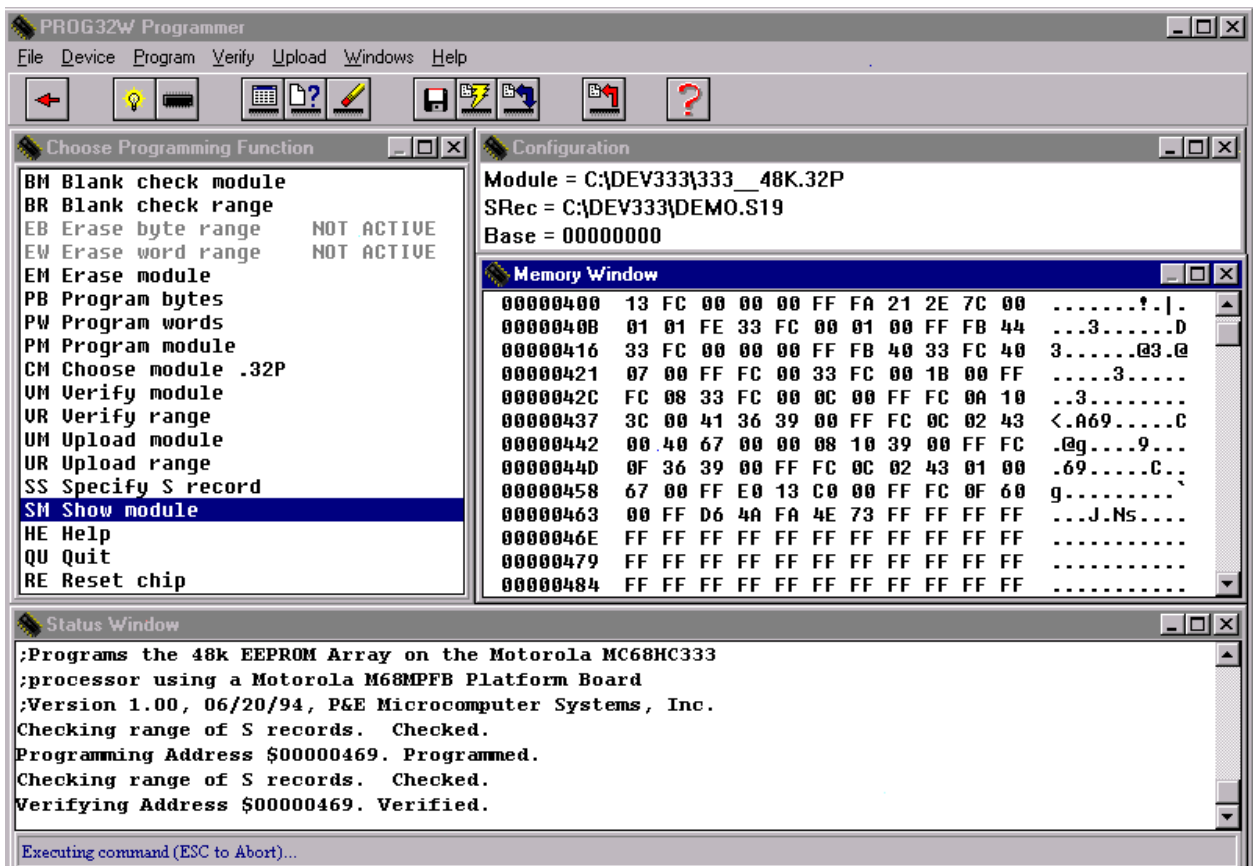
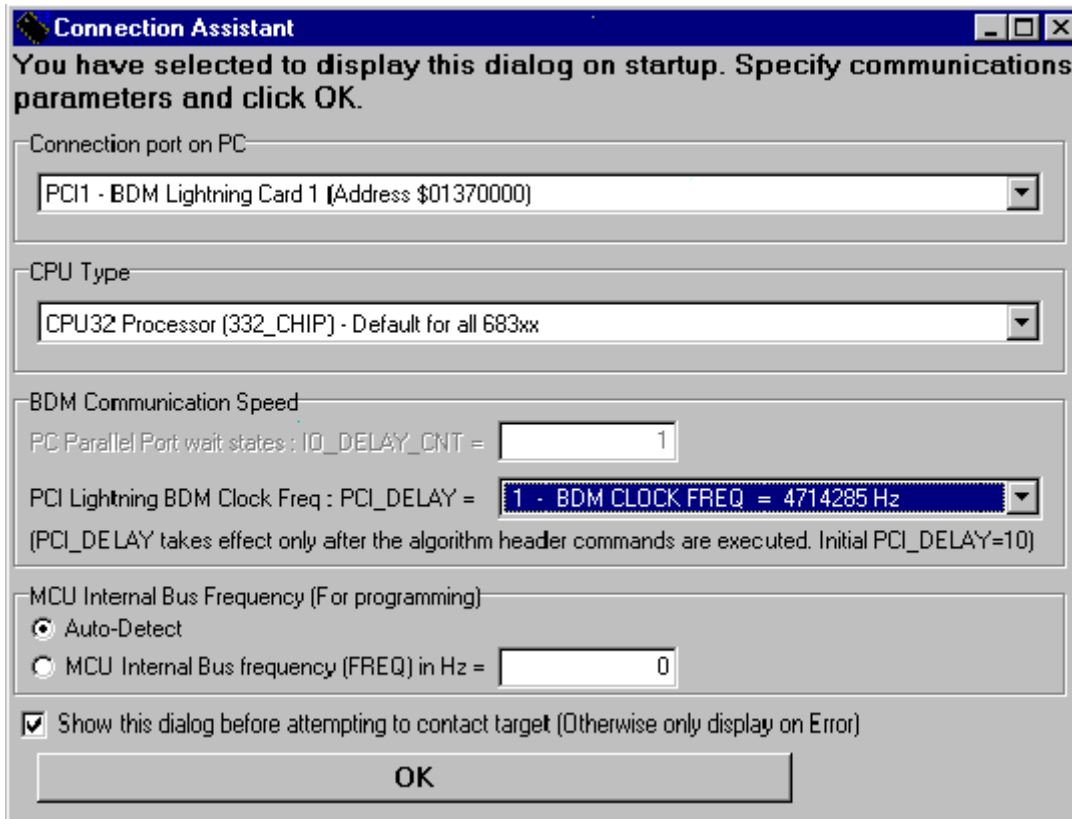
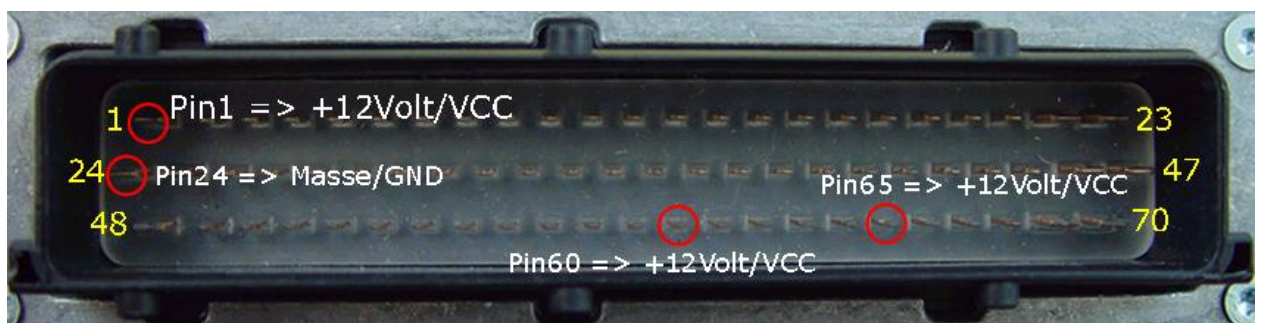
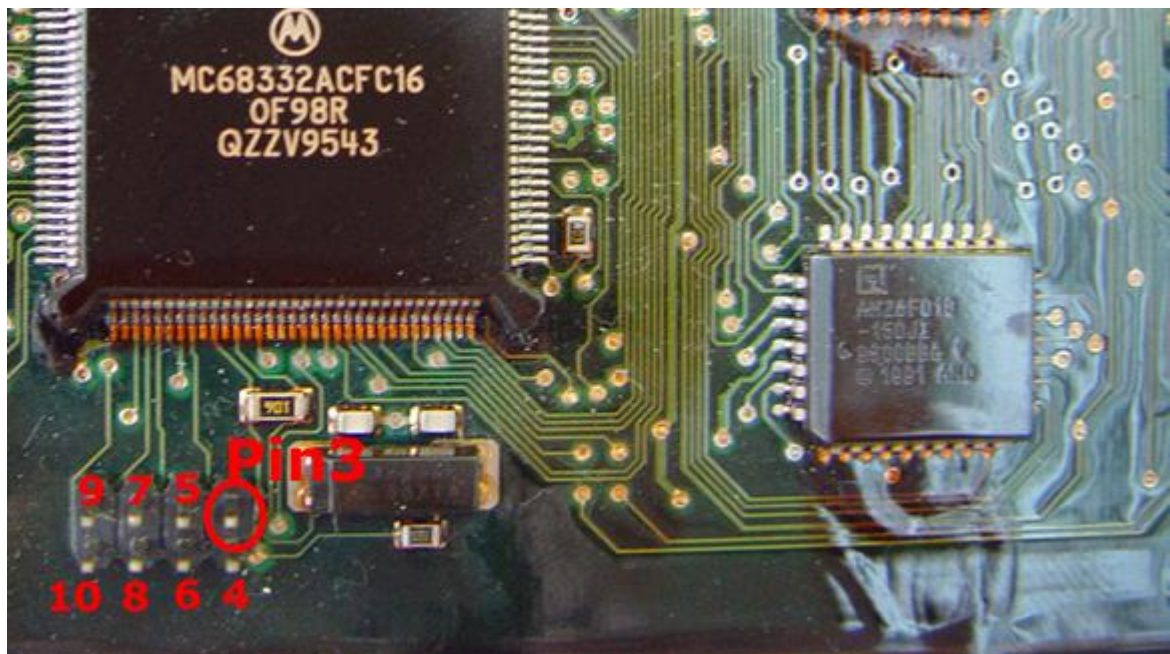


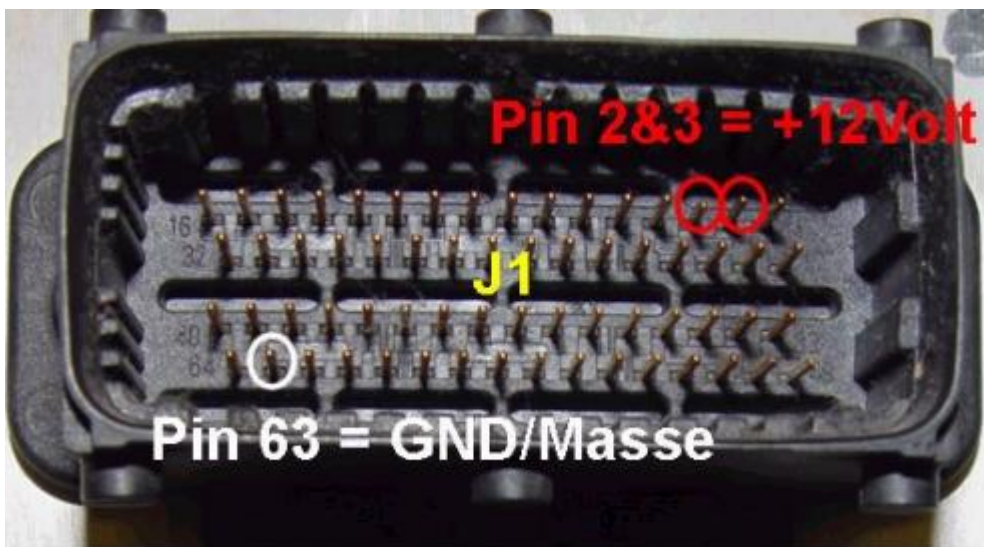
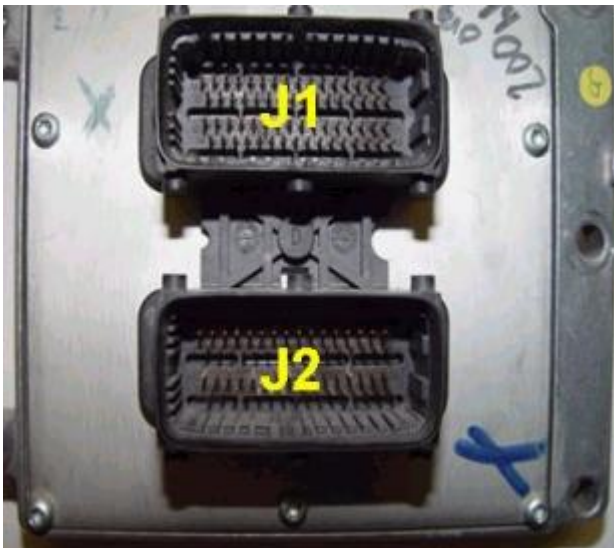
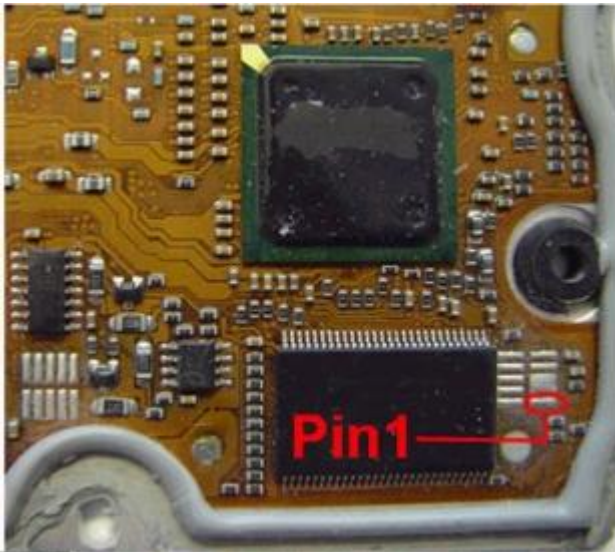
Fig. 4: The pin1 is left of the two grounded pins, as agreed.



Trionic5



Trionic8



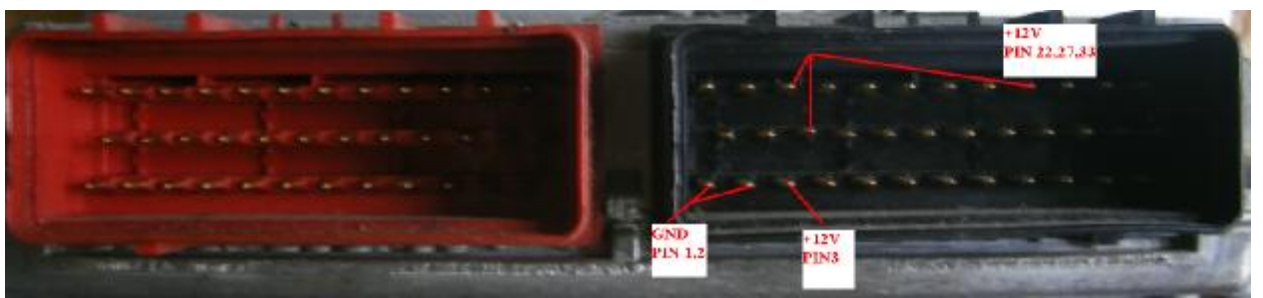
Campi 01S



Campi 02S



MEMS3



Trionic7

