

Fitting factory Cruise control on Ducato/Jumper/Boxer X250 2.2l (Visteon DCU-102 ECU)

The following document is based on a spanish forum thread at <https://www.furgovw.org/foro/index.php?topic=344112>

Materials Needed



1. Cruise control Lever, (Scrapyard from Ducato/muso/idea/new chroma)
2. Cables (0.5mm multi color)
3. ECU connector to use the pins, or partnumber 1078843 from Conrad.com)
4. Insulating tape
5. Connector for the Cruise Control lever (partnumber 1078829 at Conrad.com)

TE Connectivity Crimp contact | Conrad.com

TE Connectivity Socket enclosure | Conrad.com

Preparations

- Disconnect the battery
- Remove Fusesbox cover, 3 screws
- Remove the black cover under steering wheel, 4 torx screws

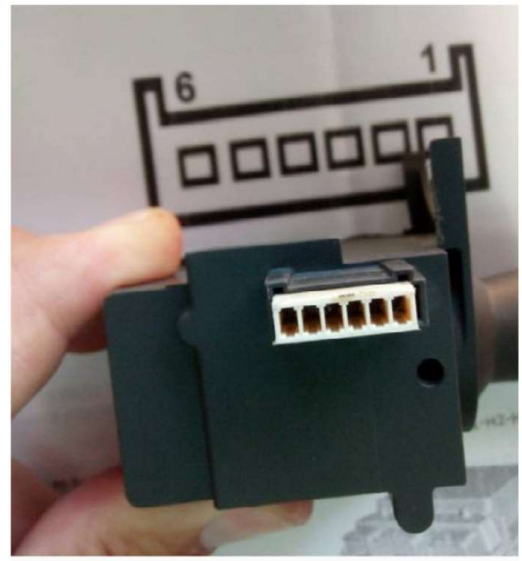


- Cut the cover to make room for the CC lever:



Installing the CC lever

On the CC lever, we will use 5 of the 6 pins. According this illustration and diagram:



Pin Lever	Pin ECU	Function
1	H3	RES
2	PIN 13 AV CONNECTOR (BLUE) -> FUSE 51	+12v
3	Empty	none
4	H4	on/off speedcontrol
5	H2	set -
6	H1	set +

!Make sure to note that what color cable to what pin at this point.

Just Slide in the lever, should click in place

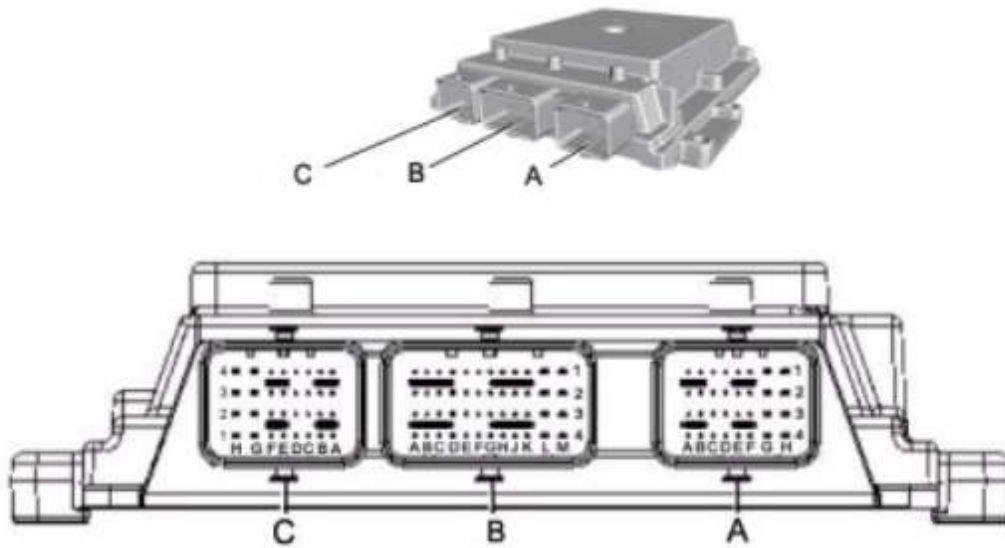


Run cables to engine compartment > there is a black rubber cable entry you can use to run cable:



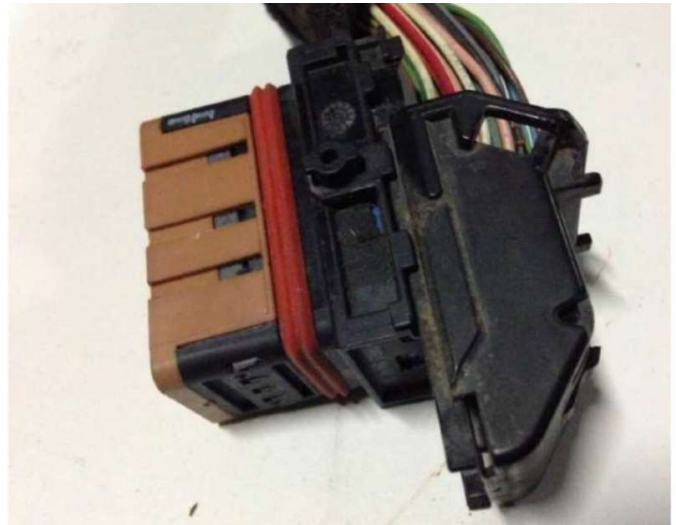
Engine compartment preparations

- Remove the driver's side headlight (3 screws and 3 M10 bolts)
- Remove the ECU cover, two M10 screws
- Disconnect the A and B connectors from the ECU

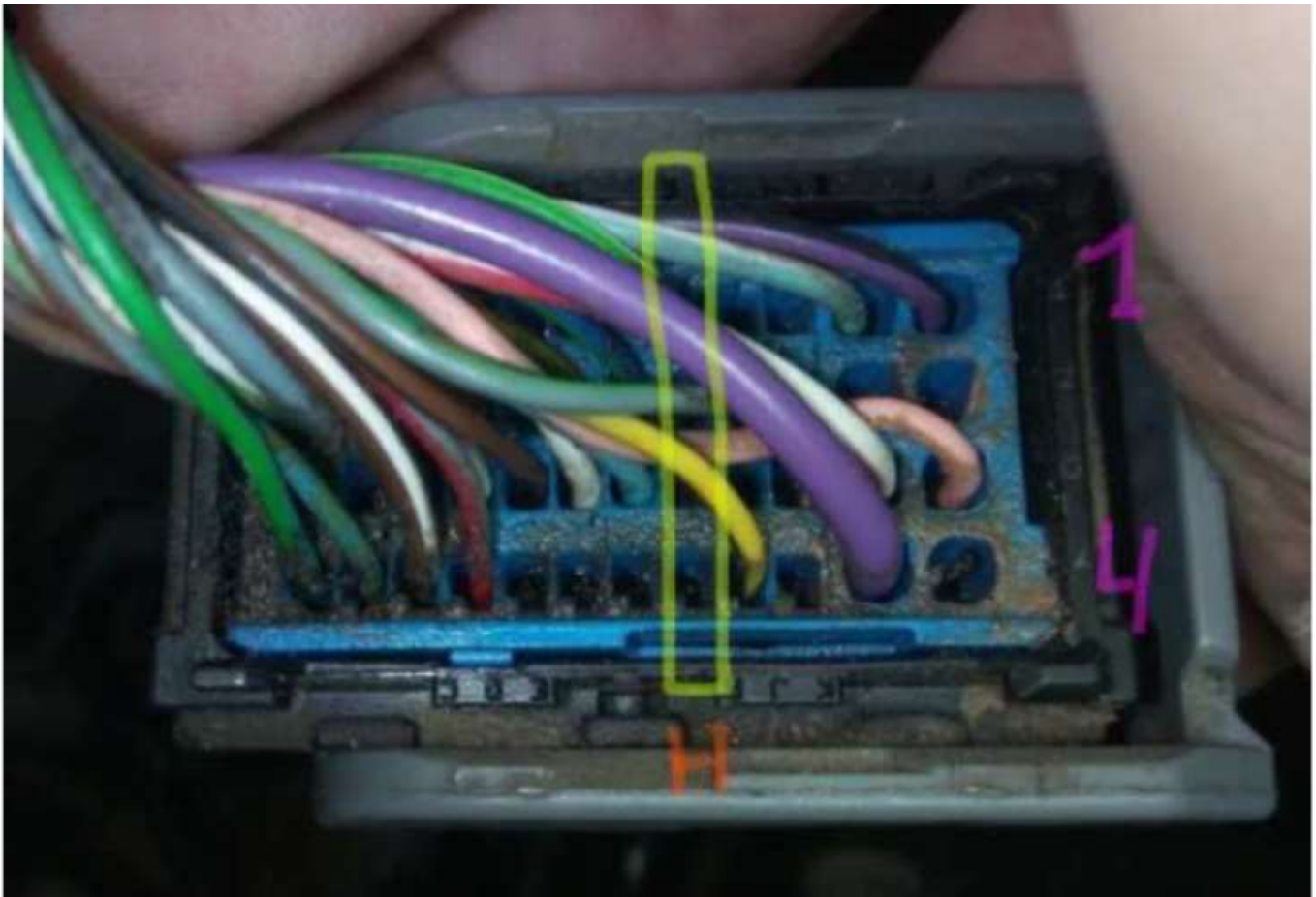


Connecting to the ECU

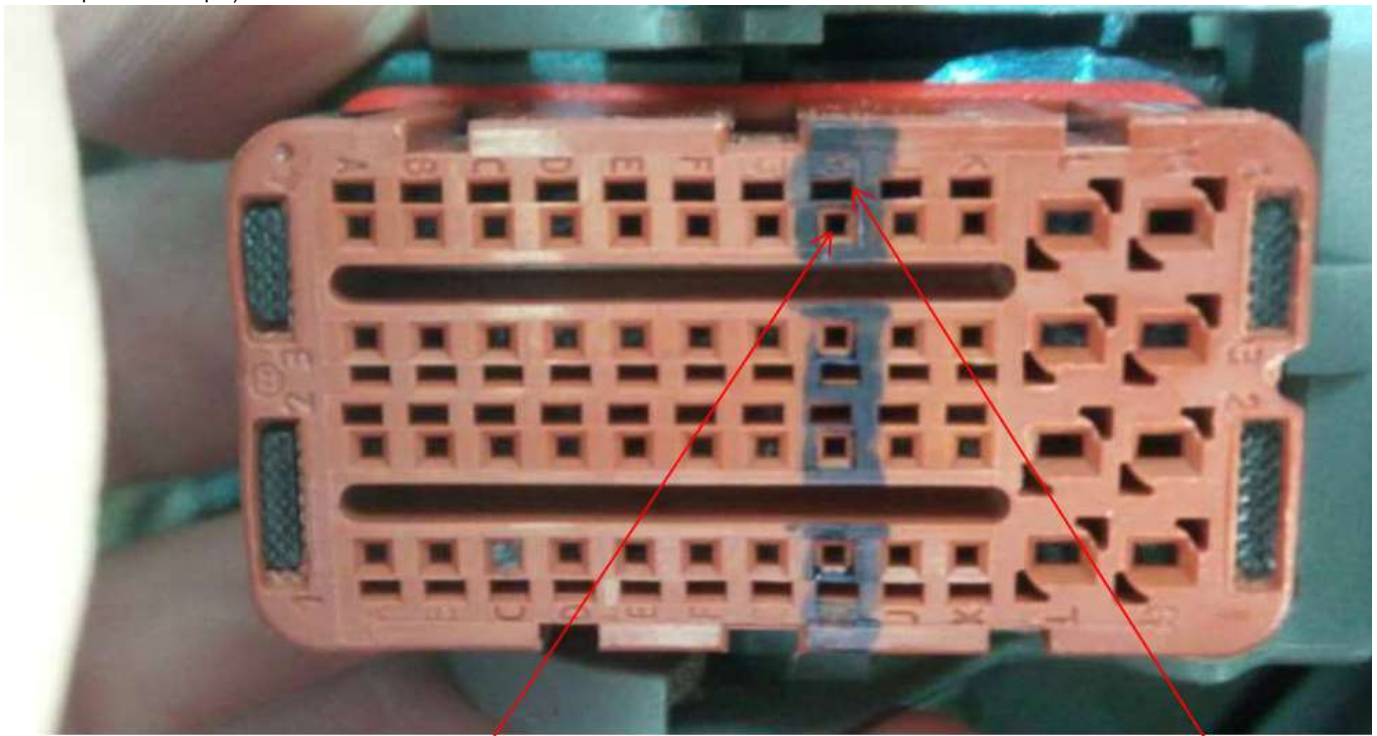
- Using a flat screwdriver, lift the cover and push out the guide:



- We locate the H row and verify the pins are indeed free

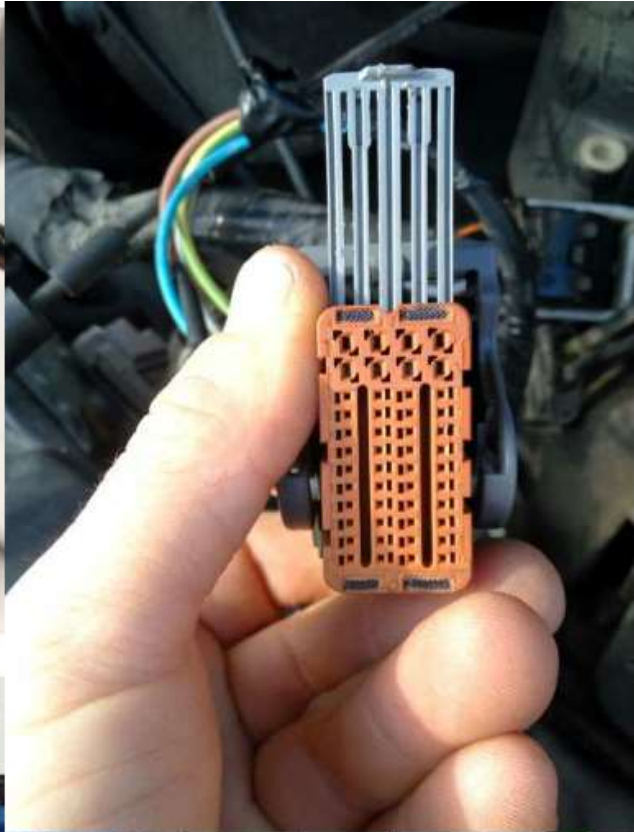


- In case we later need to push out a pin, we can push in the rectangular holes as show here: (Square is the actual pin, rectangular is to push out the pin)



- Remove the guide from connector B so we can insert the pins, be sure to insert the right orientation. This can be approached in several ways:

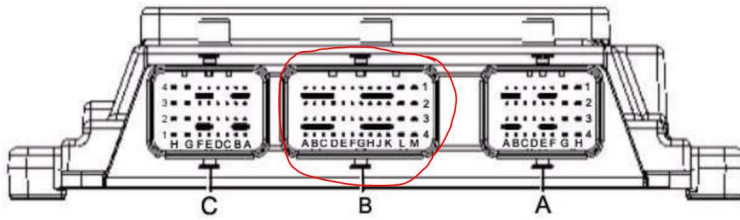
- a. Use the pins from Conrad and crimp on cables,
- b. Use the pins from a old ECU wire harness, and connect the wires a few cm after the pin.
- c. Solder on the connector as the Spanish guy did here



- Insert the pins according to the previous table:

Pin Lever	Pin ECU	Function
1	H3	RES
2	PIN 13 AV CONNECTOR (BLUE) -> FUSE 51	+12v
3	Empty	none

4	H4	ON
5	H2	set -
6	H1	set +



H1 – Cruise control: Set +
H2 – Cruise control: Set -
H3 – Cruise control: Resume
H4 – Cruise control: On

- Once we are sure the pins are installed correctly, we close the guide, mount the cover and reconnect connector A and B to the ECU.

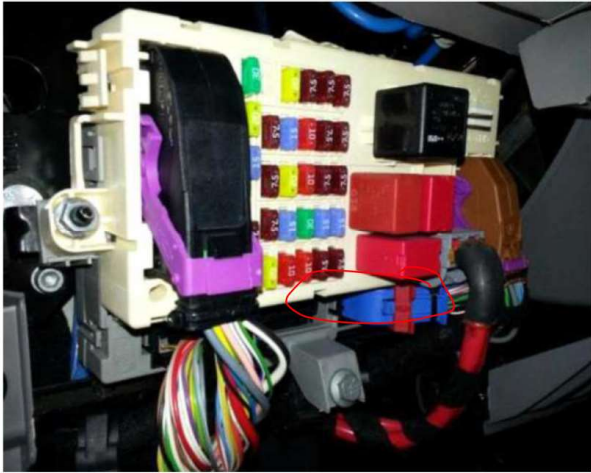
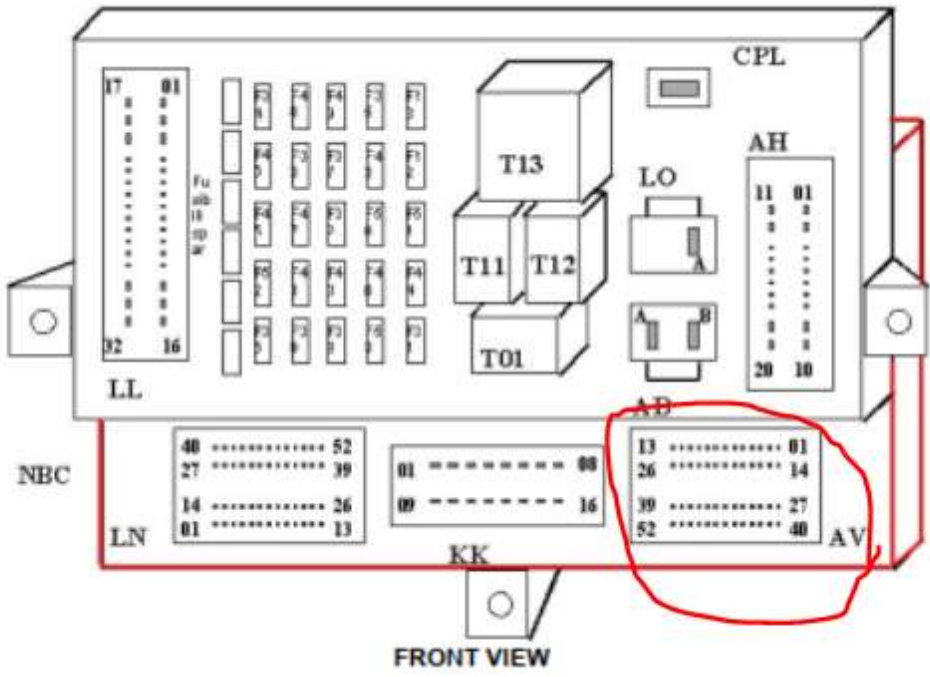
Connect ignition feed

There are several ways to approach this. I personally used clutch ignition feed with a 1a fuse. But can also be connected to Fuse f51, f35 etc.

	FUSES	A
F12	RH low-beam headlamp	10
F13	LH low-beam headlamp/headlight alignment corrector	10
F31	+ Key for control unit relay coils engine compartment CVM, body computer node NBC	7,5
F32	Minibus internal lights (emergency)	10
F33	Rear power socket	15
F34	Not present	-
F35	Cruise Control, reversing lights, sensor. H ₂ O diesel	7,5
F36	+30 control unit for door locking/unlocking CGP door management control unit	20
F37	Brake lights control CLA (N.O.), THIRD BRAKE LIGHT, NQS instrument panel node	10
F38	+30 for internal relays NBC	10
F39	NRR, diagnosis socket EOBD, CSA, CAV, CCT, A/C control, Webasto timer	10
F40	LH rear heated window, mirror defroster on driver's side	15
F41	RH rear heated window, mirror defroster on passenger side	15
F42	+Key for NFR, NAS, NYL, CLA (N.C.)	7,5
F43	Windscreen wiper	30
F44	Cigar lighter, front power socket	20
F45	Controls on DDC driver's door, controls on CDC passenger door	7,5
F46	Not present	-
F47	Power windows, driver's side	20
F48	Power windows, passenger side	20
F49	+ Key for NSP, CSP, CSS, LSS, CAV, car radio, NCV, LIGHT. HEAT. controls SEATS, driver's side power window, aux board, parking video camera	7,5
F50	+Key NAB	7,5
F51	+Key CSG, CCT, NBC	7,5
F52	+Key for CCO optional wired control unit relay coil	7,5
F53	NQS, rear fog lamp	7,5

Here is what the spanish guy did:

In the fusebox under steering wheel, we connect pin 2 of the CC lever to **empty pin 13** of the blue connector (Connector AV)



Testing

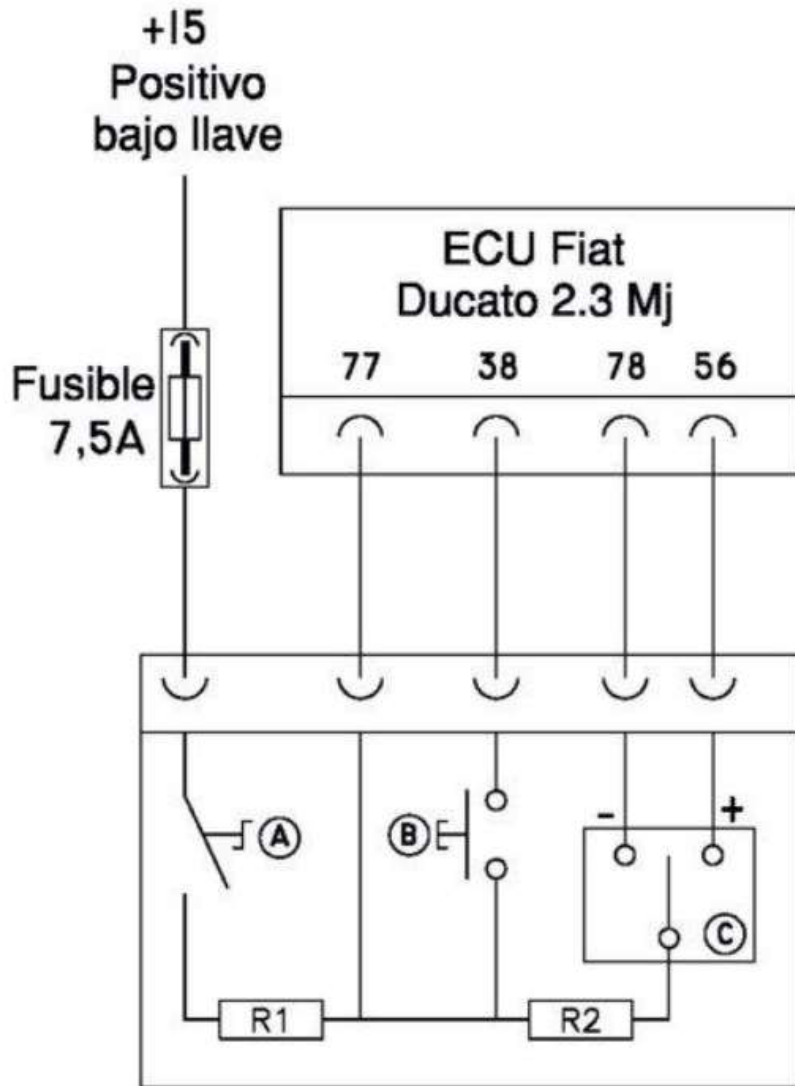
Now we can reconnect the battery, and test the CC by pushing "ON" button, and look for the green light:



If everything went well, we can reassemble the covers, headlight etc,

Extras

Here is the actual schematic of the CC lever switch:



Caja de Control provisional

- Ⓐ Interruptor On/Off
- Ⓑ Pulsador
- Ⓒ Mando elevalunas
- R1 Resistencia 300 Ohm.
- R2 Resistencia 200 Ohm.