

BMW E46 318i M43, from 08.2001r.

Originally mounted steering wheel (with a airbag for two plugs):

Pic. 1



Steering wheel to be mounted (along with the radio control and cruise control):

Pic. 2



For start disconnect the battery, loosen the clamp using wrench nr 10, will prevent us to receive the AIRBAG error after disconnecting the wires from it (after the surgery it is advisable to wait a few minutes before proceeding with further work).

Then we take to dismantle the old wheel of the car. Set the controls at the point of the most rearward of the driver and also the lowest.

Rotate the steering wheel to 90 °, then we take to be loosening AIRBAG. AIRBAG is screwed two screws on the steering wheel. To unscrew it, use the T30 Torx key.

Pic. 3



After unscrewing the first screw rotate steering wheel of 180 ° and unscrew the screw on the other side.

After this operation pull the AIRBAG from the steering wheel:

Pic. 4



Take out all the wires from the steering wheel, these wires do not fit to the new steering wheel.

Another point is unscrewing the steering wheel. To do this, use a key 16th

Pic. 5



Pull the steering Wheel,

Pic. 6



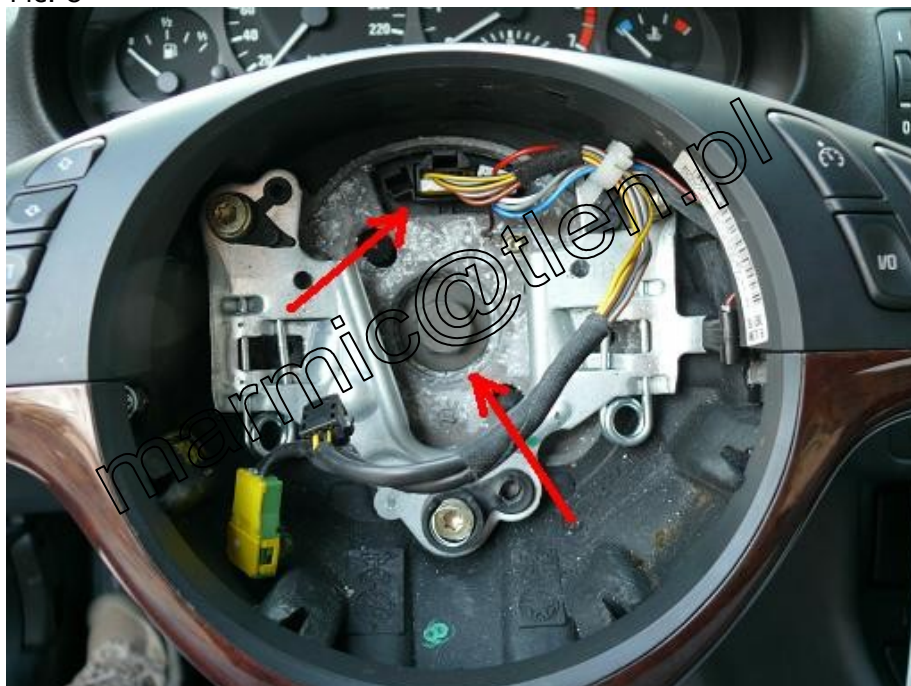
and we assume the new. Important here is to agree to cut the steering wheel and steering column (Pic.7).

Pic. 7



Tighten the steering wheel to the column, and then attaches the cable,

Pic. 8



And to the AIRBAG

Pic. 9



Then push the AIRBAG in the steering wheel - slams got going, here already do not tighten any screws.

The next step is to get the plug from the other side of the AIRBAG tape.

To do this, remove the cover of the steering column.

At the beginning of a Phillips screwdriver, remove the screw at the top of the cover.

Pic. 10



Then press the top cover to the left and right sides, first in step 1 and after that in step 2, while pulling it up.

Pic. 11



Then in the lower cover should find two clamps, which are kept lower cover. To relieve their, push internal pins for the inside.

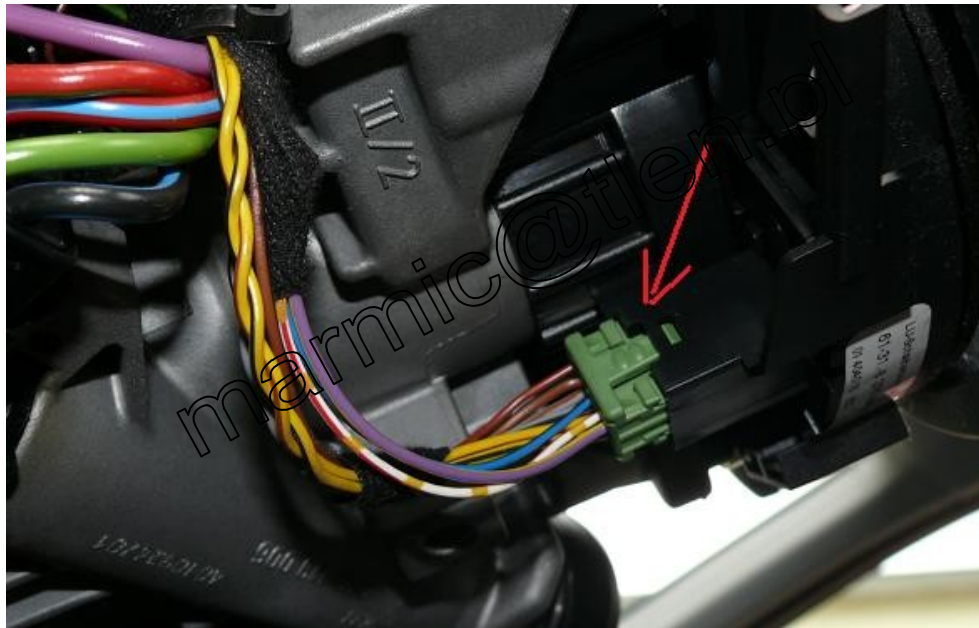
Pic. 12



Once the pins are inside, release the steering lock blockade and take off the bottom cover.

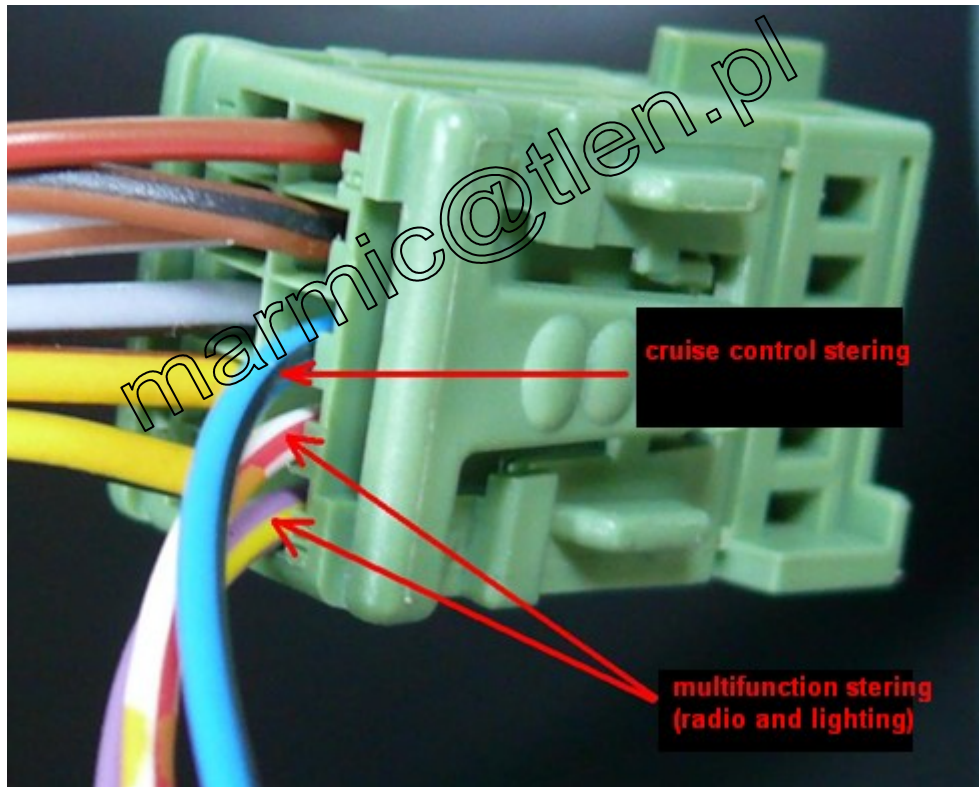
Then we have access to the AIRBAG tape and we can pull out from it the green plug.

Pic. 13



In this plug should be missing 3 pins (8, 9, 10), which must be completed.

Pic. 14



This can be done using household ways, or buying ready wires in the BMW (20E for 3 cables, it's average worthwhile.)

After completing the plug, is assume to the tape again.

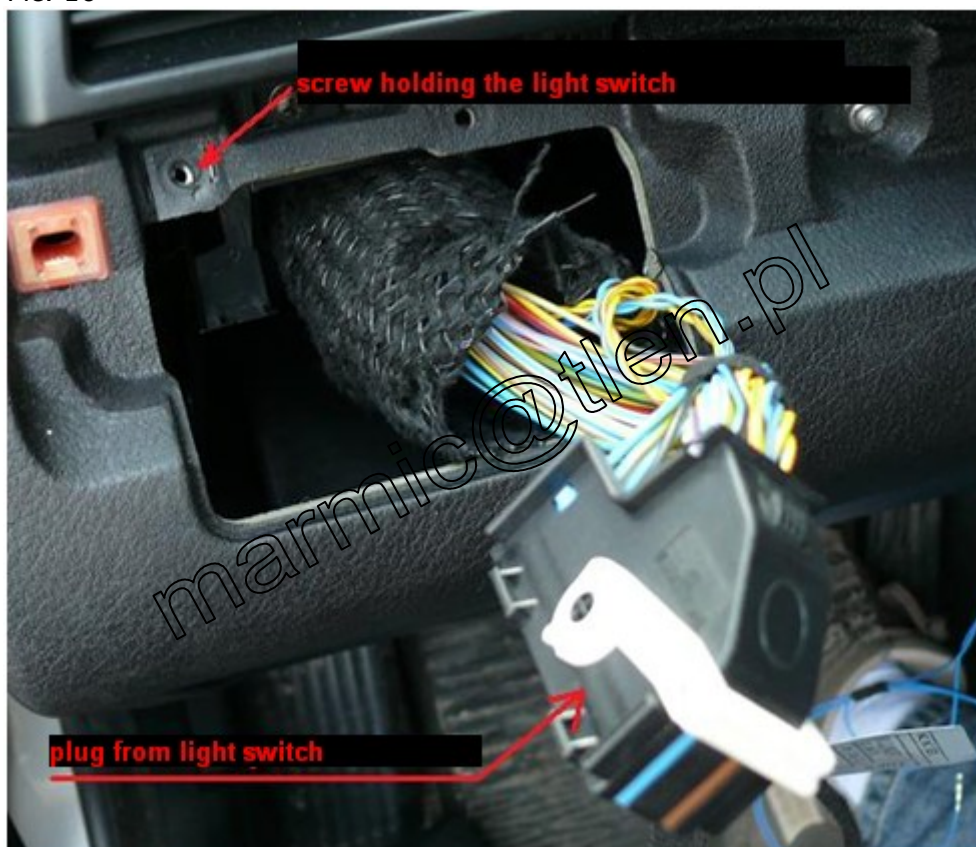
The next step is to connect the wires from 9 and 10 pin from green plug to the plug from the light switch. For starters, remove the decorative strips on the switch, just slightly undermine it - strip is mounted on the squeeze.

Pic. 15



Then remove the light switch, he is depending on the model mounted on one or two screws. Then pull the switch (which is pretty deep.) Detachable plug from the switch.

Pic. 16



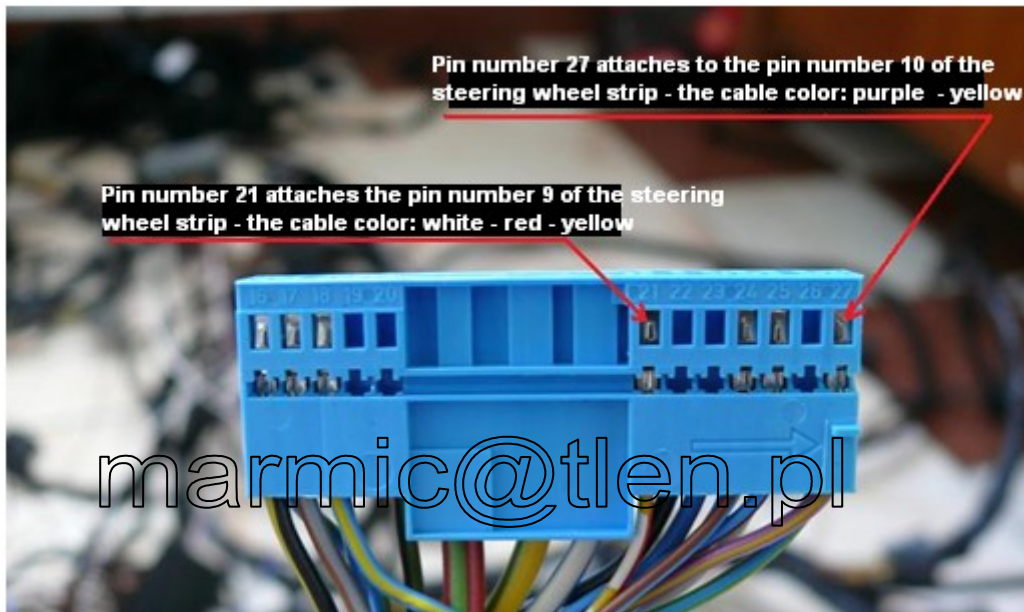
Now drag the cables previously added to the AIRBAG tape into the light switch. We need to add here 2 of the three added wires from the pin 9 and 10.

Linking is as follows:

No 9 pin in the plug AIRBAG strap , we connect with the pin 21 in the lights plug.

No 10 pin in the plug AIRBAG strap, we connect with the pin 27 in the lights lights.

Pic. 17



Turn back light switch and from now we can control the radio from our steering wheel ☺

The next stage of our work is to connect the cruise control. With this is a little more work To think about the assumption cruise control in M43 we need to purchase the following things:

Stepper motor to control throttle:

Pic. 18



Cruise control controller:

Pic. 19



You also need cables with connectors, and the clutch pedal sensor. I personally managed to purchase a wires from the english version (a lot of english cars is now transported to Poland for a parts). It's a bit confusing, as some cables are too short, but you can obviously get around this little problem (see further description of assembly).

My captured wires was as follows:

Pic. 20



I described the whole process on the basis of english wires, however, if anyone possessed the same plugin can easily do the whole procedure using your own cables.

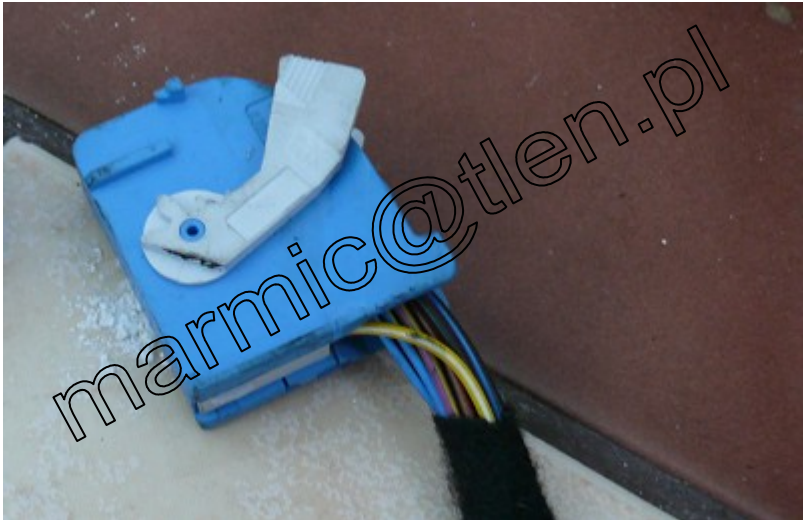
First we need to separate the wires, on which we depend.
We start from the plug into the stepper motor:

Pic. 21



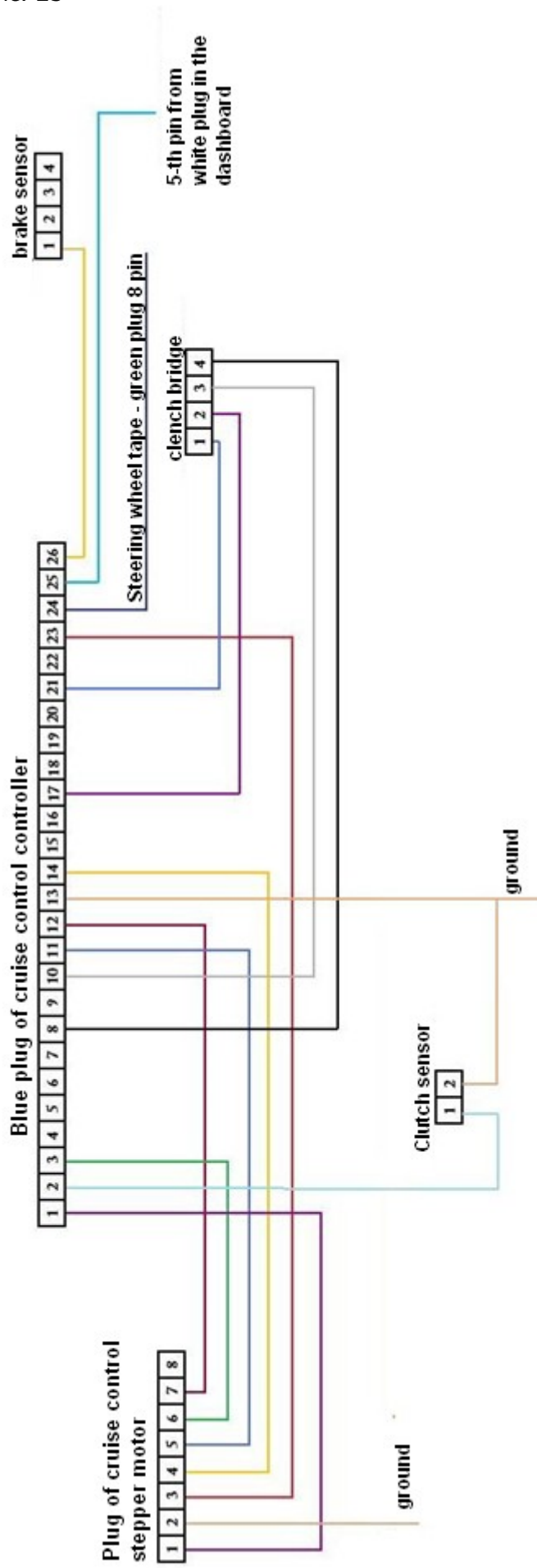
All the wires go to the blue plug – it's a plug to Cruise control controller Pic.19 (that greatly simplifies the task). In the next step go to plug cruise control controller. It looks as follows:

Pic. 22



Further connecting the plug wires coming out of cruise control controller are shown in the diagram below:

Pic. 23



Colors of the cables look as follows.

Stepper motor plug:

Tab. 1

PIN	Color
1	YELLOW - VIOLET
2	BROWN
3	BLACK - RED
4	YELLOW - WHITE
5	BROWN - BLUE
6	BLACK - GREEN
7	BLACK - BLUE
8	-----

Cruise control controller plug:

Tab. 2

PIN	Color
1	YELLOW - VIOLET
2	BLUE - BROWN
3	BLACK - GREEN
4	---
5	---
6	---
7	---
8	BLACK
9	---
10	BLACK - WHITE
11	BROWN - BLUE
12	BLACK - BLUE
13	BROWN - BLACK
14	YELLOW - WHITE
15	---
16	---
17	WHITE - VIOLET
18	---
19	---
20	---
21	BLUE - RED
22	---
23	BLACK - RED
24	BLUE - BLACK
25	BLUE - YELLOW
26	VIOLET - YELLOW

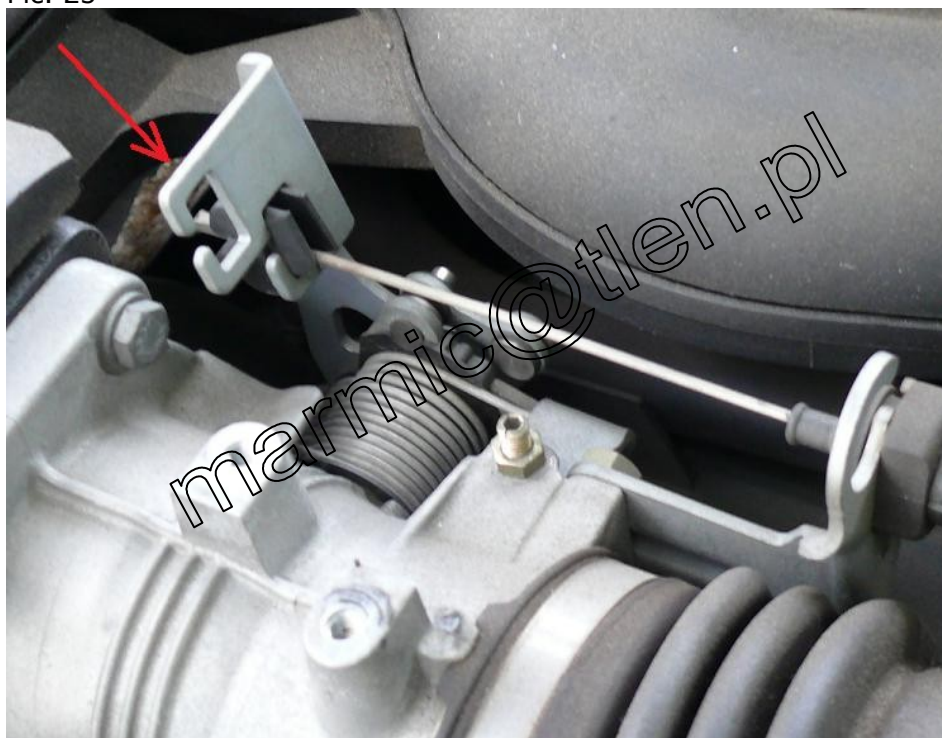
With the prepared wires we go to the car.

At the beginning should be mounted throttle control stepper motor. Remove the two screws holding the throttle cover.

Pic. 24



Pic. 25



Then mount the cord from stepper motor:

Pic. 26



Stepper motor mount nearby to the air filter:

Pic. 27



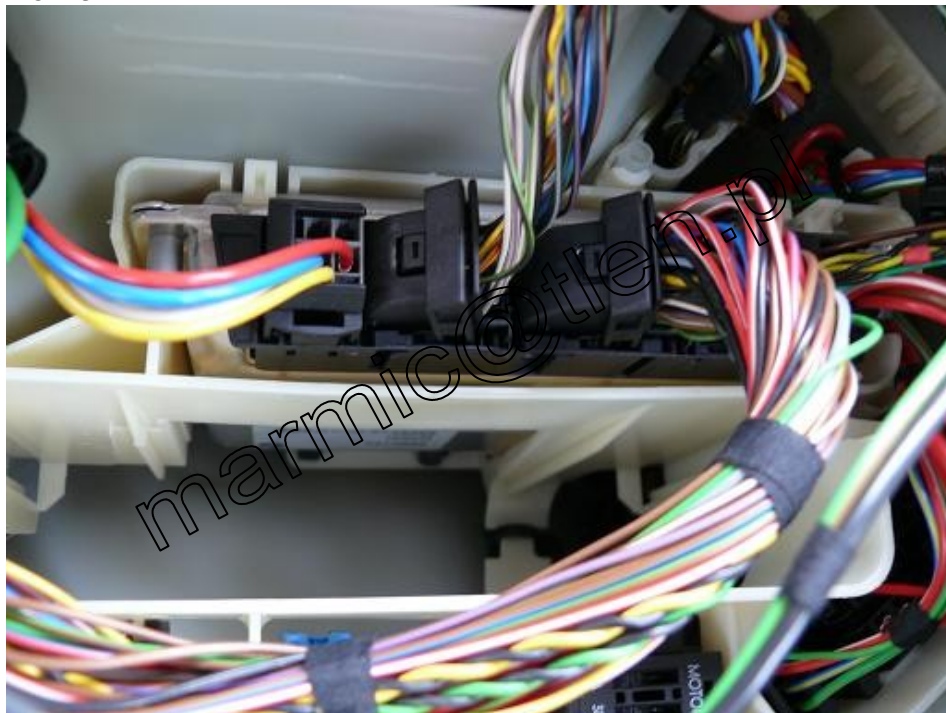
Then placed in the right place cruise control controller. Originally, it should lie in a drawer behind the glove box. I am due to the fact that I had a wire from the english car, had to extend the wires, or find another location for the controller. I took advantage of the second option and decided to place the controller by the engine controller. It is located in the engine compartment.

In my case there was a free place that I decided to use.

Pic. 28



Pic. 29



Pic. 30



When the controller is already adequately positioned, you should proceed to drag the cables. At the beginning you need to plug the cables in the throttle control motor. Then drag it to the controller. We leave only one brown wire, which we join with the mass point, located next to the left turn signal.

Pic.31



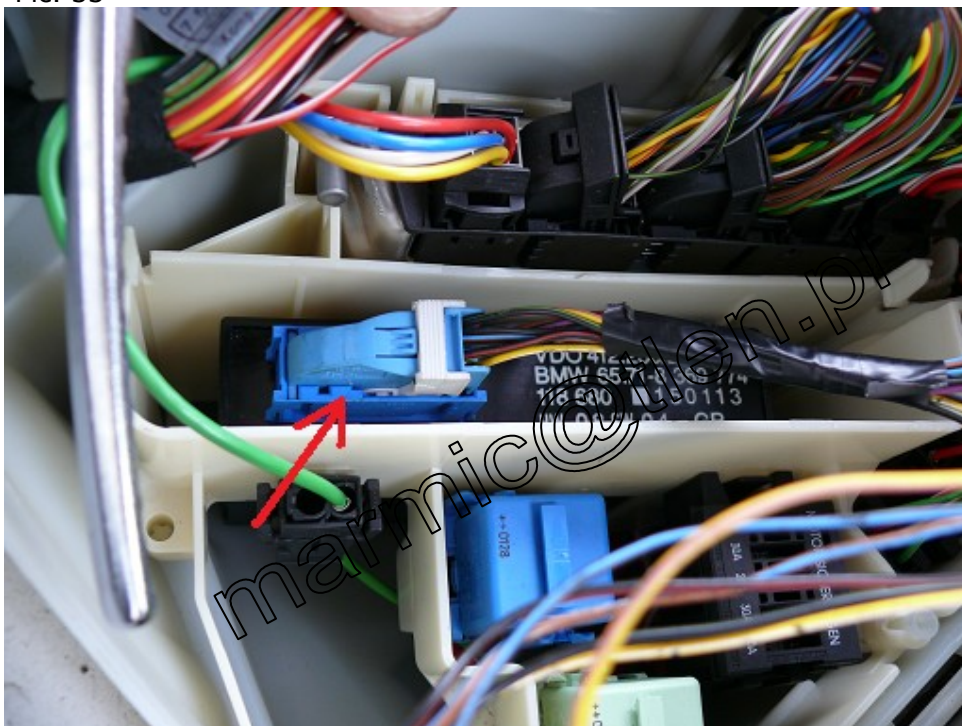
As for the rest of the wires is that we need to drag wires through the gasket that connects the engine compartment with controller storage.

Pic. 32



When you drag wires, we can stick the cruise control plug into the controller.

Pic. 33



The next step is to drag the wires into the cabin of the car. You can use the slot located in the controller compartment.

However at the beginning, remove the cover in the car under the steering column. Open the small compartment under the steering wheel and remove two screws in the upper part.

Pic. 34



Pull out compartment, and then unscrew the whole lid. Unscrew the screws and fasteners as follows:

Pic. 35



Pic. 36



Then look deeper, you may see a gap through which we can drag the wires:

Pic. 37



Pull the wires from the controller to the cabin. Then we have to separate the wires into two groups. One group stay under the steering wheel, while the second will be dragged under the glove box.

The first group (under the steering column) consists of the following wires:

Tab. 3

No pin in the cruise control controller plug	Wire color
2	BLUE – BROWN
13	BROWN – BLACK
24	BLUE – BLACK
25	BLUE – YELLOW
26	VIOLET – YELLOW

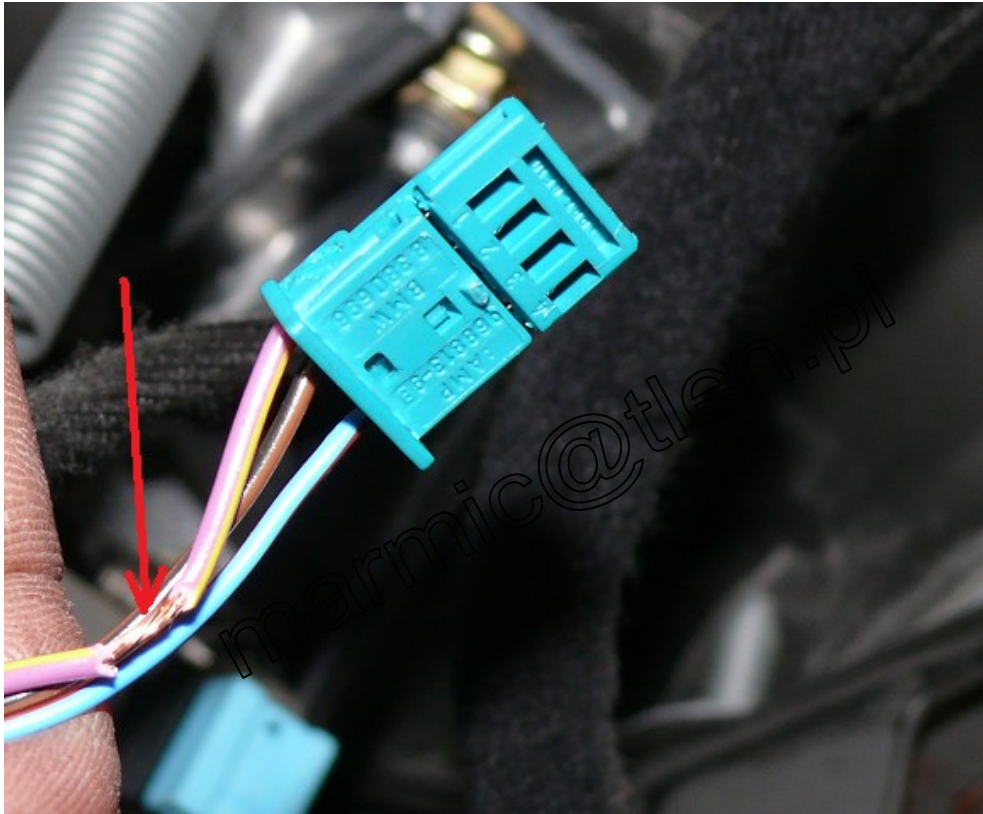
These wires must be connected as follows.

Cable No. 2 from table 3 should connect to the clutch pedal sensor. The second outgoing cable from the clutch pedal sensor plugs need to be connected to the cable 13 in table 3. Is the earth that should stick in the collective ground of item. It is located just below the steering column with the main wiring harness. We have a clutch sensor, so you need to get on with the brake sensor. This sensor, in contrast to the clutch pedal sensor, of course, we have mounted in the car series. Thus, cable 26 from table 3 attaches to the wire of the same color in the cube brake pedal sensor.

Pic. 38



Pic. 39



Once we have connected the brake pedal sensor, we take the other two wires. We start with the cable 24 from the table 3. Connect it to the 8 pin green plug entering to the AIRBAG tape (Pic. 13 and Pic. 14). That leaves us one more cable 25 tab. 3. This cable should be connected to one of the plugs of dashboard. Since this pin is not in the plug, we can not get at the wire in it. Thus, we need to take off the dashboard. Unscrew the two screws at the top of the dashboard.

Pic. 40

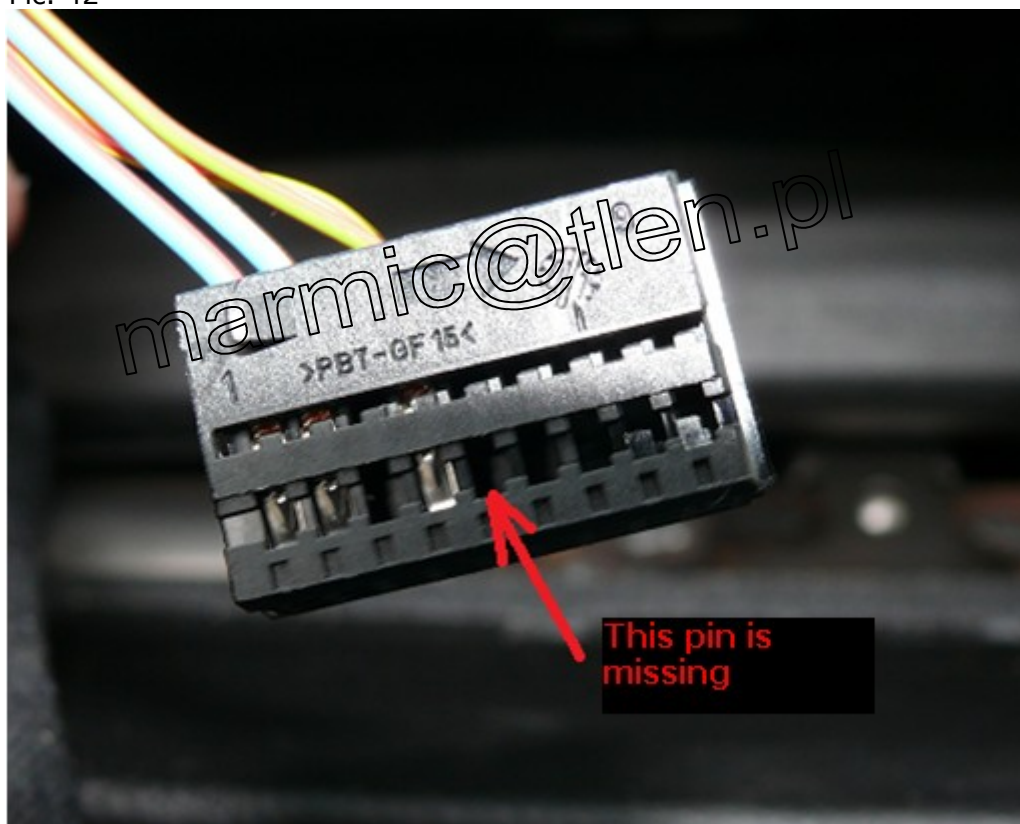


Then lightly undermine the upper part of the dashboard, and then eject them. We are interested in the white plug, located on the left side of clocks. Disconnect it from the dashboard. Here we are interested of pin 5 in the white plug. We must do it by plugging the wire No 25 from table 3

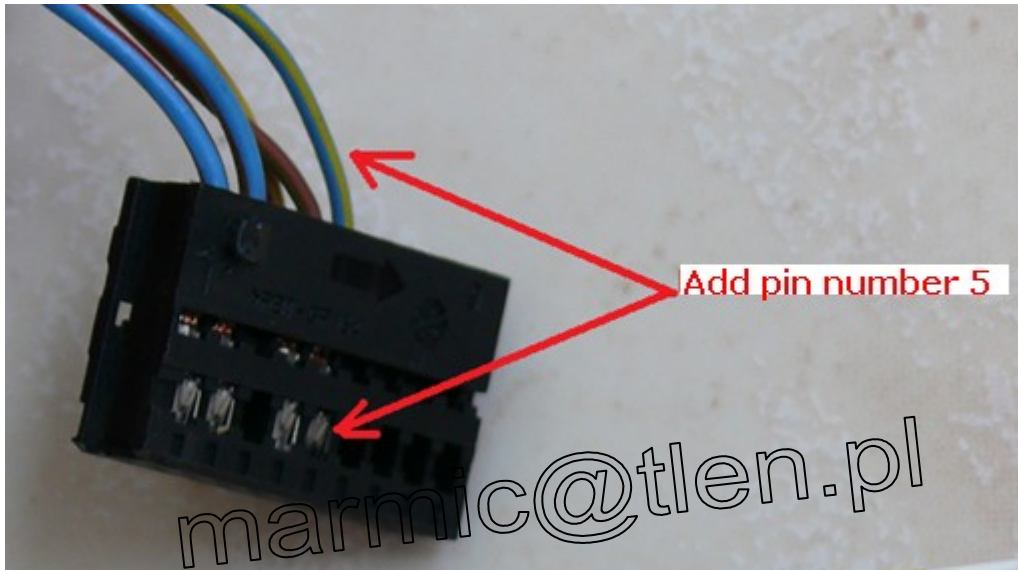
Pic. 41



Pic. 42



Pic. 43



After adding 5 pin, we can put together the dashboard in place.

Now we have to connect 4 more wires. Wires should be drag to the fuses box. For starters, remove the glove box. Open it and pull the two tabs holding the moving part of the glove box:

Pic. 44



Pic. 45



Then unscrew the four screws under the glove box.

Pic. 46

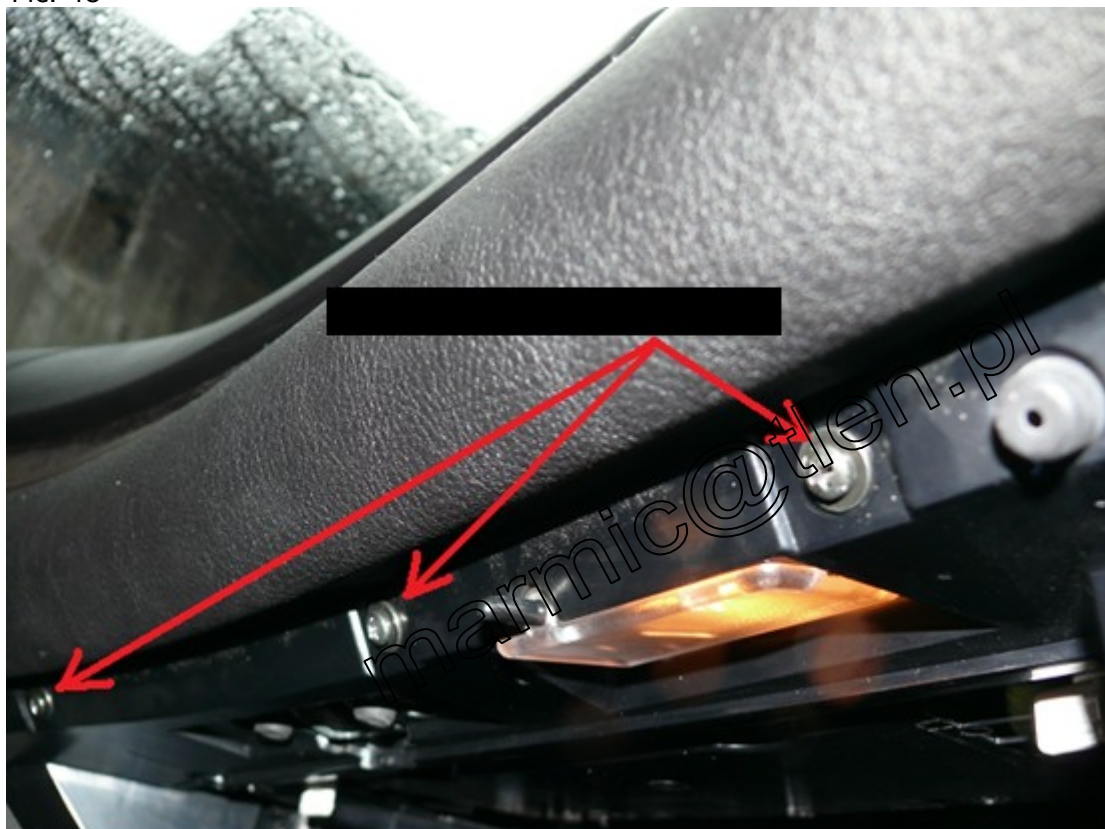


Pic. 47



Now pull the lower part of the glove box.
The next step is removal of the upper part of the glove box. Unscrew following screws:

Pic. 48



Pic. 49



Pic. 50



Pic. 51

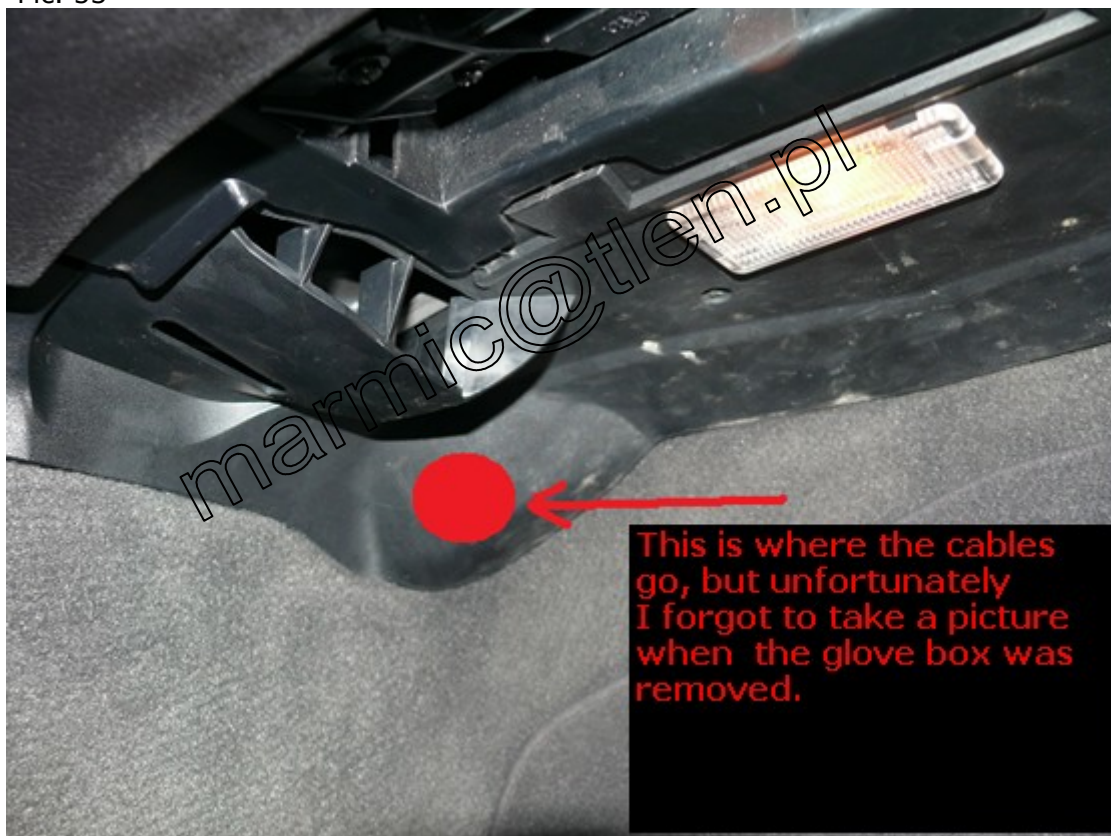


Pic. 52



After removing the glove box you can drag the 4 wires from the cruise control. They pass the pedals and the central tunnel, in the bottom spot.

Pic. 53



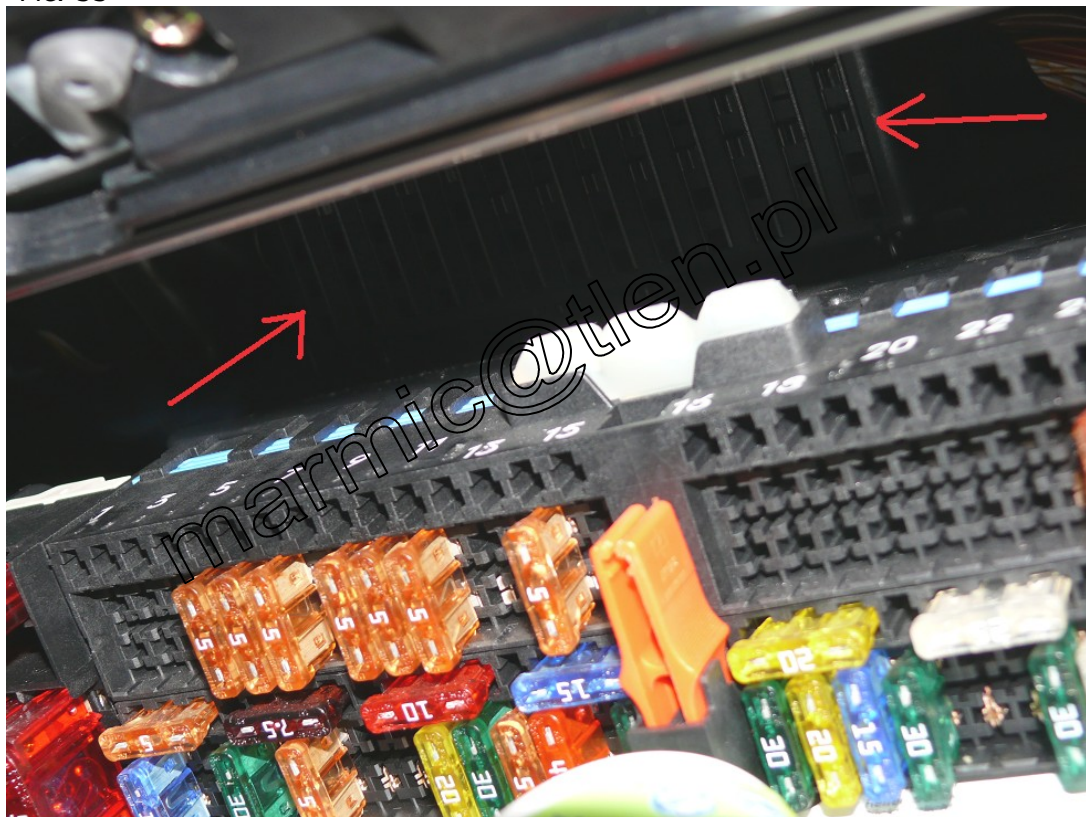
Now open the fuse bog latches turning 45 degrees.

Pic. 54



We are interested in cable assembly points located above the fuses.

Pic. 55



To remove the assembly points, you should catch them from two sides and then push. When it jump out slowly pull out the wires.

We are interested of the following wire colors:

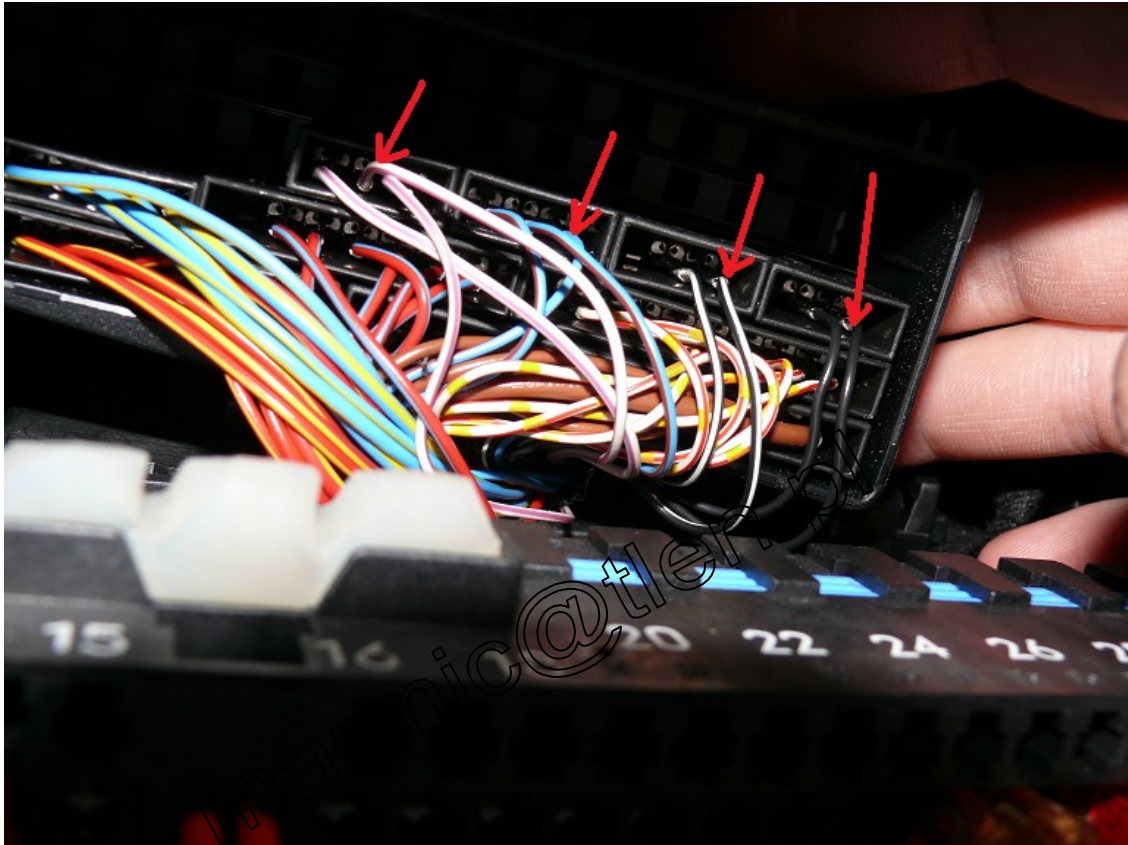
No 8 tab. 1 – color black

No 10 tab. 1 – color black – white

No 17 tab. 1 – color white – violet

No 21 tab. 1 – color blue – red

Pic. 56



Put all parts back in the car, isolates newly added wires and connect the battery.
Launch the engine and check if it works.
There was nothing to us but enjoy the cruise control. ☺

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The author is not liable for damage caused during installation. This is only the information content.