

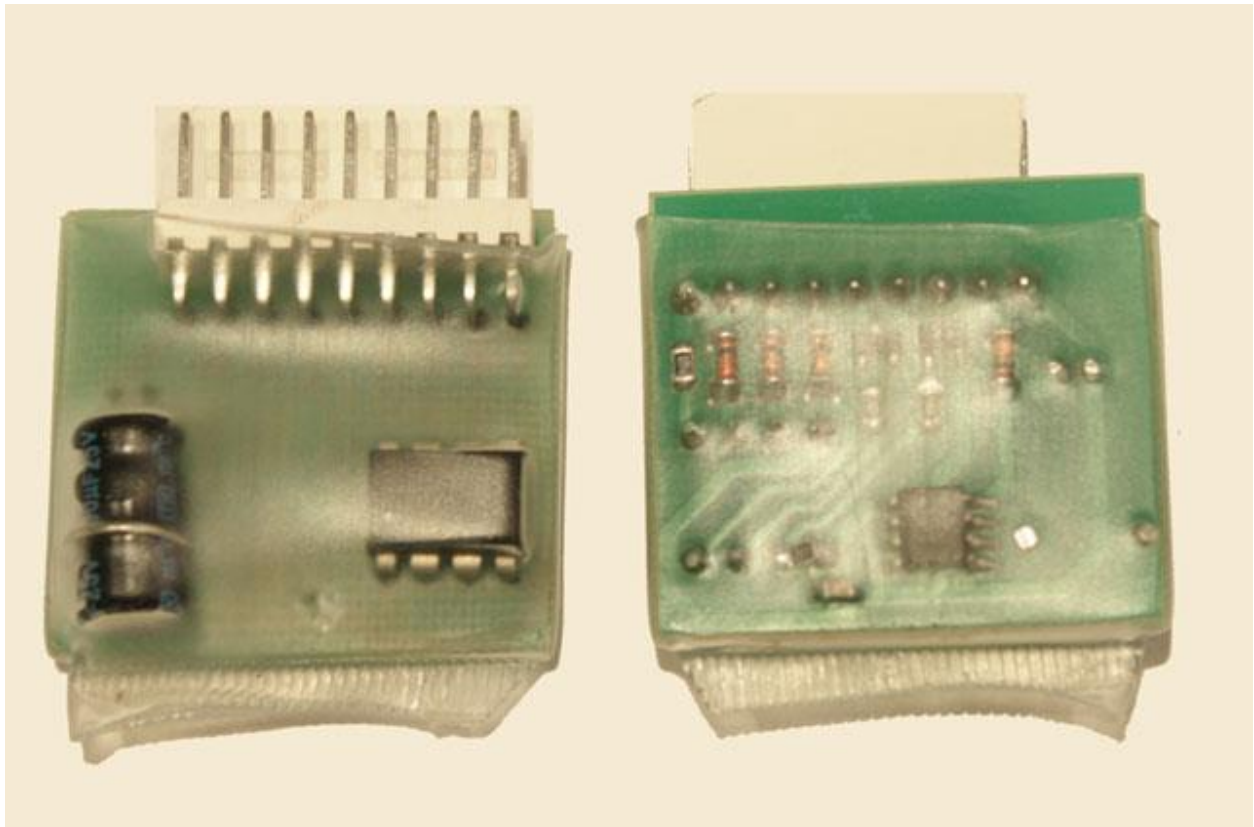
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Overview

Version 3.1

Toyota 4 Runner VSC(Vehicle Stability Control) OFF Module



This is tiny additional module which could be **easily installed** to Toyota 4 Runner and make the truck more flexible on off-road. It provides the same abilities which have post 2008 owners and, for some

unknown reasons, unavailable for early modifications. It is designed to work with momentary like button for switching off VSC (Vehicle Stability Control).

What does VSC do?

VSC (Vehicle Stability Control) helps prevent wheel slip and loss of traction by reducing engine power and applying brake force to the wheels that need it. Front wheel slip can occur when the front wheels lose traction during cornering and begin to drift toward the outside of the turn. Rear wheel slip can occur when the rear wheels lose traction and cause the vehicle to slide around. Toyota's VSC monitors your steering angle and the direction your vehicle is actually travelling and senses when your front or rear wheels begin to slip. When it senses this loss of traction or slip, VSC reduces engine power and applies braking to the individual wheels that need it to help correct the slip and keep the vehicle in the intended path.

Source: [Toyota Safety Page](#)

Problem area

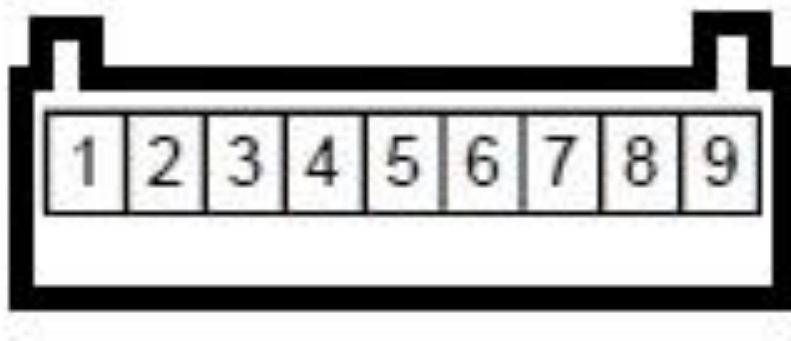
We will not object that VSC is very useful add-on for every day driving, but there are several situations when lack of switching it off is critical. Imagine long raise with dirt, snow or sand which old good truck can easily overcome again. Unfortunately, you cannot do it with VSC as it will cut throttle in the middle. Another example is pulling out on a busy street from gravel with 2WD. When your back wheels hit the street the inside wheel slips a bit and vsc cut throttle what is not good at all. Finally, if you simply want to have some fun spinning all 4 wheels on a beach or snow you will have to switch VSC off somehow. Toyota 4 Runner VSC switches off with locking central differential, but it makes 50/50 traction distribution per axles. Moreover, you cannot do it quickly while driving.

Solution

Most of vehicles have VSC off switch (Toyota FJ Cruiser, Toyota 4 Runner starting from 2009, etc.). **This unit introduces this ability for Toyota 4 Runner 2003-2009 years.**

Description

Connector



Wires

Wires			Description
1		ORANGE	LED (+)
2		BROWN	OFF pulse (-) from center diff lock button
3		YELLOW	To VCS OFF LED (-)
4		GREEN	ON/OFF pulse (-)
5		GREY	To center diff lock LED (to connector). Max 300 mA.
6		WHITE	To center diff lock LED (bundle). Max 300 mA.
7		VIOLET	VSC. Max 300 mA. 4,5 mA in normal mode.
8		RED	Power (+).8-16V. Max 3 mA.
9		BLACK	Ground (-)

When device is OFF:

- Grey and White wires are connected.

When device is ON:

- Grey and White wires are disconnected.
- Violet is connect with Blue

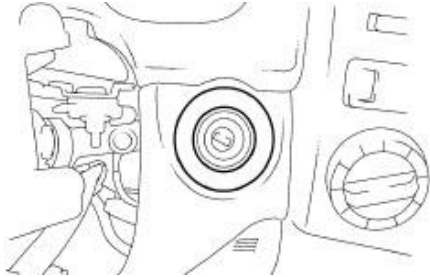
Device switches on if:

- There is (-) pulse on Green and there is no (-) on Yellow

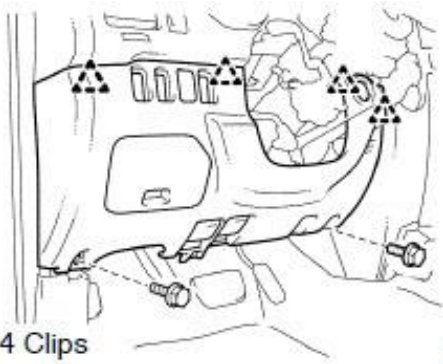
Device switches off if:

- There is no (+) on Red
- There is (-) pulse on Green and device is on
- There is (-) pulse on Brown

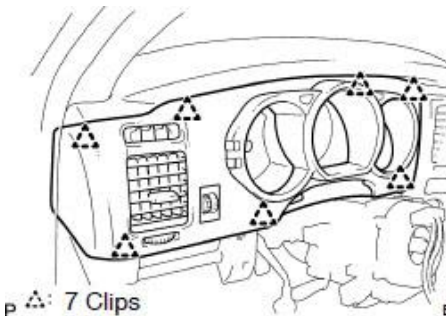
Install instructions



1. Remove instrument panel finish plate



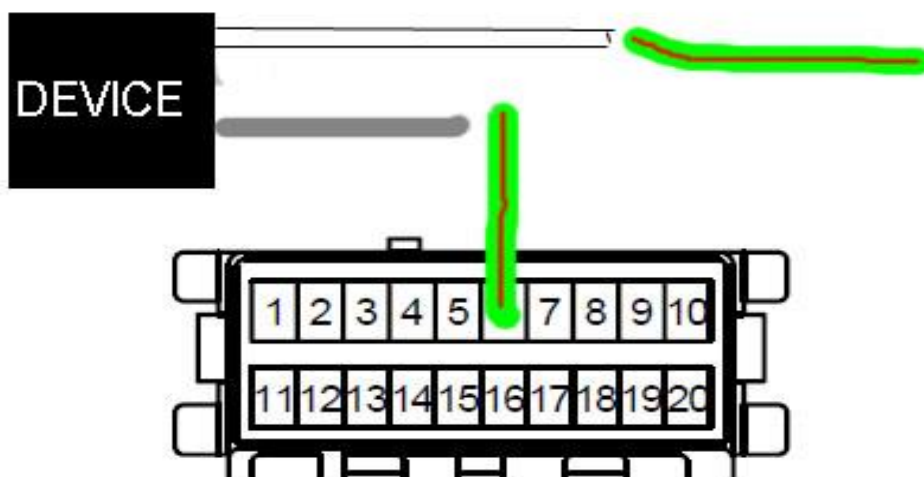
2. Remove the 2 bolts.
3. Disengage the 4 clips.
4. Disconnect the connectors and lower the instrument panel finish panel. (You do not need to remove it completely, but you might to have better access)



5. Disengage the 7 clips.
6. Disconnect the connectors and remove the instrument cluster finish panel.



7. Remove the 3 screws marked red.
8. Loosen the 2 bolts marked green and remove the combination meter assy.

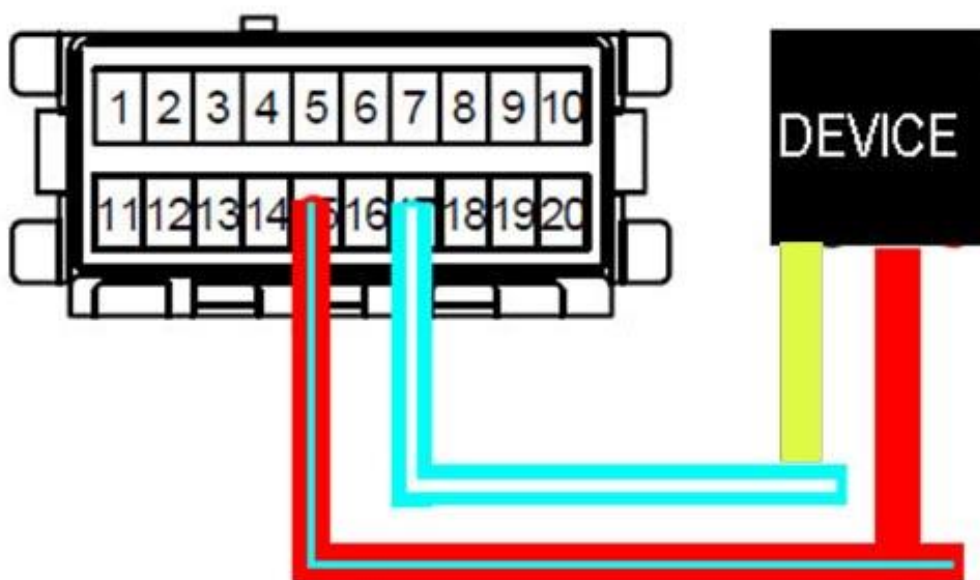


8. Cut Green/Red wire from 6 pin of marked connector.
(Pins are numbered as if you are looking in front of the connector.)
NOTE: The unit itself does not produce any heat, BUT, it would not work when it is heated over 40C. Make sure that you installed the unit far from heater tubes. I recommend to place it near the fuse box.
9. Connect Grey wire from the device to connector part of cut wire.

10. Connect White wire from the device to part of cut wire which goes inside a bundle.

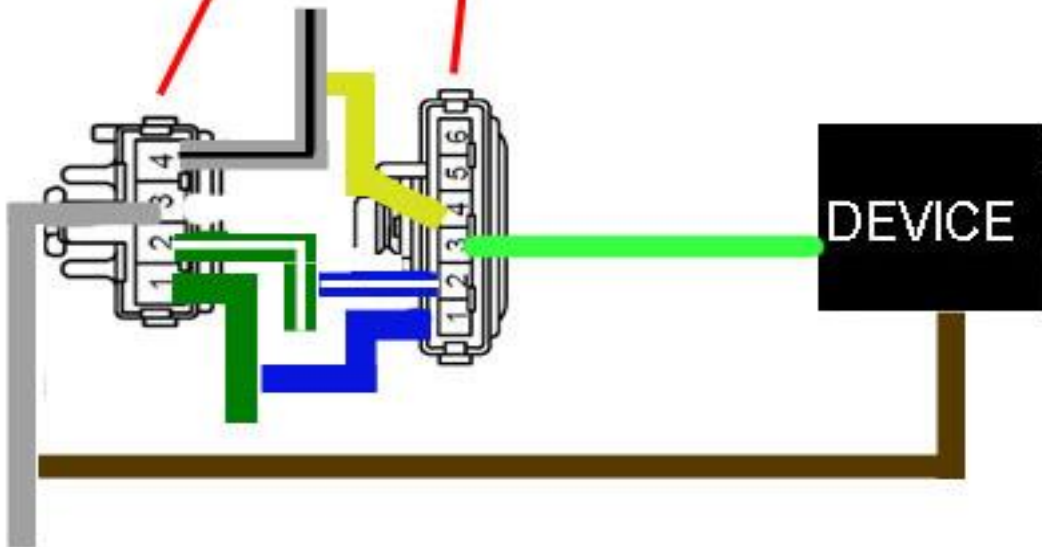
NOTE: That is important that Grey wire goes to the connector. Do not change Grey and White wires with each other. It will make device works incorrectly.

NOTE: That is the only wire which should be cut. Other connections will be done without cutting stock routine.



11. Connect Red wire from the device with Red/Blue wire from 15 pin of marked connector.

12. Connect Yellow wire from the device with Blue/White wire from 17 pin of marked connector.



13. Connect Brown wire from the device with Grey wire from 3 pin of Center Diff Lock button connector.

14. Connect Green wire from the device with Yellow wire from 3 pin of VSC OFF Button.

NOTE: You can use any button which commutates Green wire from the device with Ground. It should be short-time pulse commutation without locking (like it is done for Center Diff Lock button). We recommend to use FJ button (84988-35070) and its connector (90980-10933).

NOTE: 90980-10933 connector does not contain wires by default that is why wires color could be different to the picture above.

If you use FJ button:

15. Connect Blue wire from 1 pin with Green wire from 1 pin of center diff lock connector.

16. Connect Blue/White wire from 2 pin with Green/White wire from 2 pin of center diff lock connector.

NOTE: (15) and (16) are required for button lightening only.

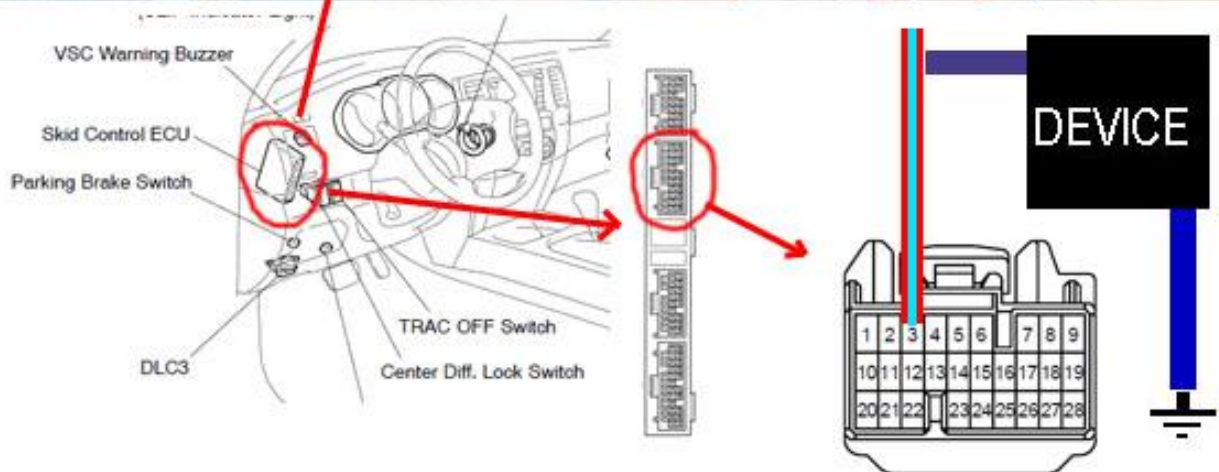
17. Connect Yellow wire from 4 pin with Ground.

NOTE: You can connect it with White/Black wire from 4 pin of center diff lock connector.

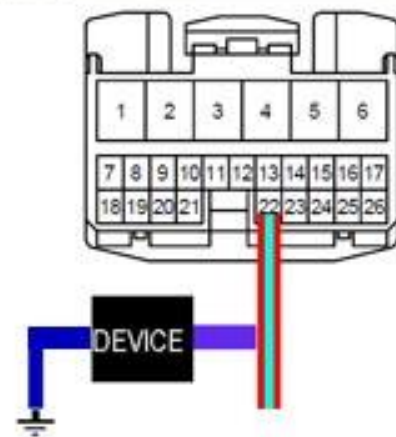
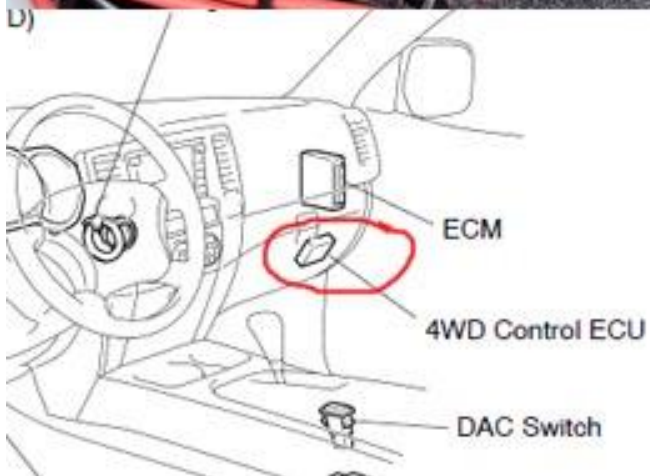
18. Connect Green wire from the device with 3 pin of the button.

NOTE: Starting from 2005 Skid Control CPU is located into the hood space. Due to that, 19(a) step is applicable for older models only. 19(b) is applicable for 2003-2006 models. Starting 2007 4WD ECU was slightly relocated (refer 19c). Please, choose appropriate step according to the truck age.

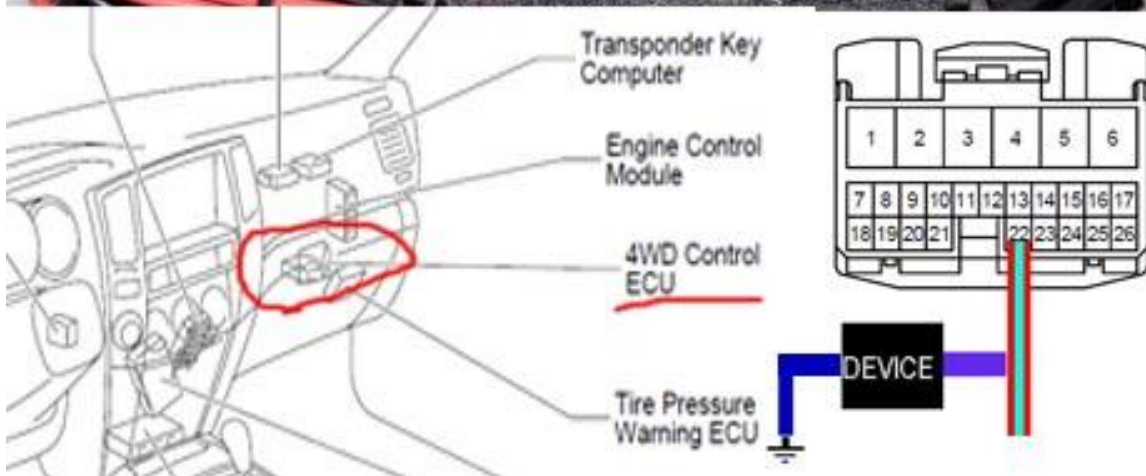
19(a). For 2003-2005 models (refer picture below):
Connect Violet wire from the device with Red/Blue wire from 3 pin of marked connector.



19 (b). For 2003-2006 models (refer picture below):
Connect Violet wire from the device with Red/Blue wire from 22 pin of marked connector.

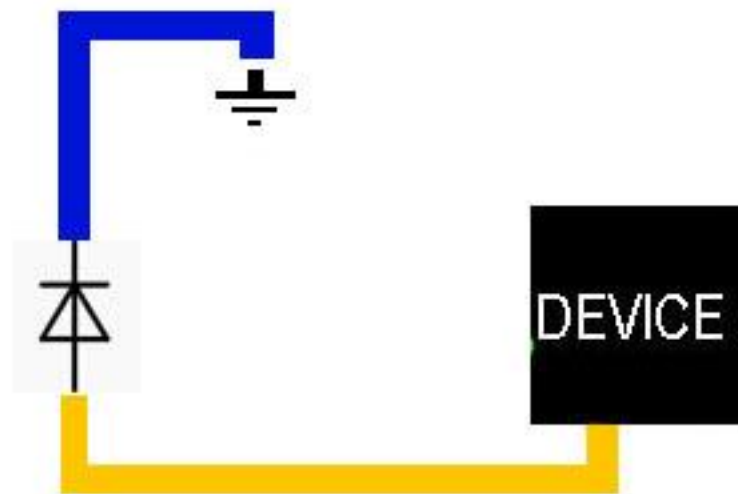


19(c). For 2007 models (refer picture bellow):
Connect Violet wire from the device with Red/Blue wire from 22 pin of
marked connector.



20. Connect Blue wire from the device to Ground.

NOTE: You might use any ground point. We used the point marked in blue.



21. (Optional) Install indication LED. We installed it below the button using 3mm drill.

22. (Optional) Connect Orange wire from the device to Orange wire of the LED (+).

DO NOT CONNECT ORANGE WIRE TO +12V! IT WILL BURN THE DEVICE!

23. Connect Blue wire of the LED (-) to Ground.

NOTE: If you decided not install the LED you should isolate Orange wire.

NOTE: Do not connect to the Orange wire other types of LED or lamp.