

## ETS-Pro Center Diff Torque Split Controller for R32 R33 R34 Skyline GT-R

### Full-Race ETS-Pro installation into R32 GTR

I run a high powered track only R32 GTR and have been left wanting more than the factory ATESSA (with piggyback controller) has been providing for me thus far. After reading about the ETS-Pro both on gtr.co.uk and here on SAU I got in touch with Geoff and Jon from FULL-RACE and ordered my ETS-Pro. Well, that was June – since then life got in the way, and I have finally found the time to dust off the GTR and fit the ETS-Pro prior to my next race event, Legend of the Lakes this weekend in Mt Gambier, SA.

I will stress there are many ways to install the ETS-Pro, I have chosen my methods based on convenience, simplicity of installation, and the ability to test and experiment with the system (hence the location I chose for the G sensor). Hopefully the tutorial below can help those of you wishing to install the ETS-Pro in your R32 GTR, and I will return with feedback on its performance after the weekend for those of you interested in how well the system works.

DISCLAIMER: Installation guide below is just that, a GUIDE. If you follow it and upon first startup your car instantaneously combusts and burns to the ground – SAU and I accept no responsibility.....

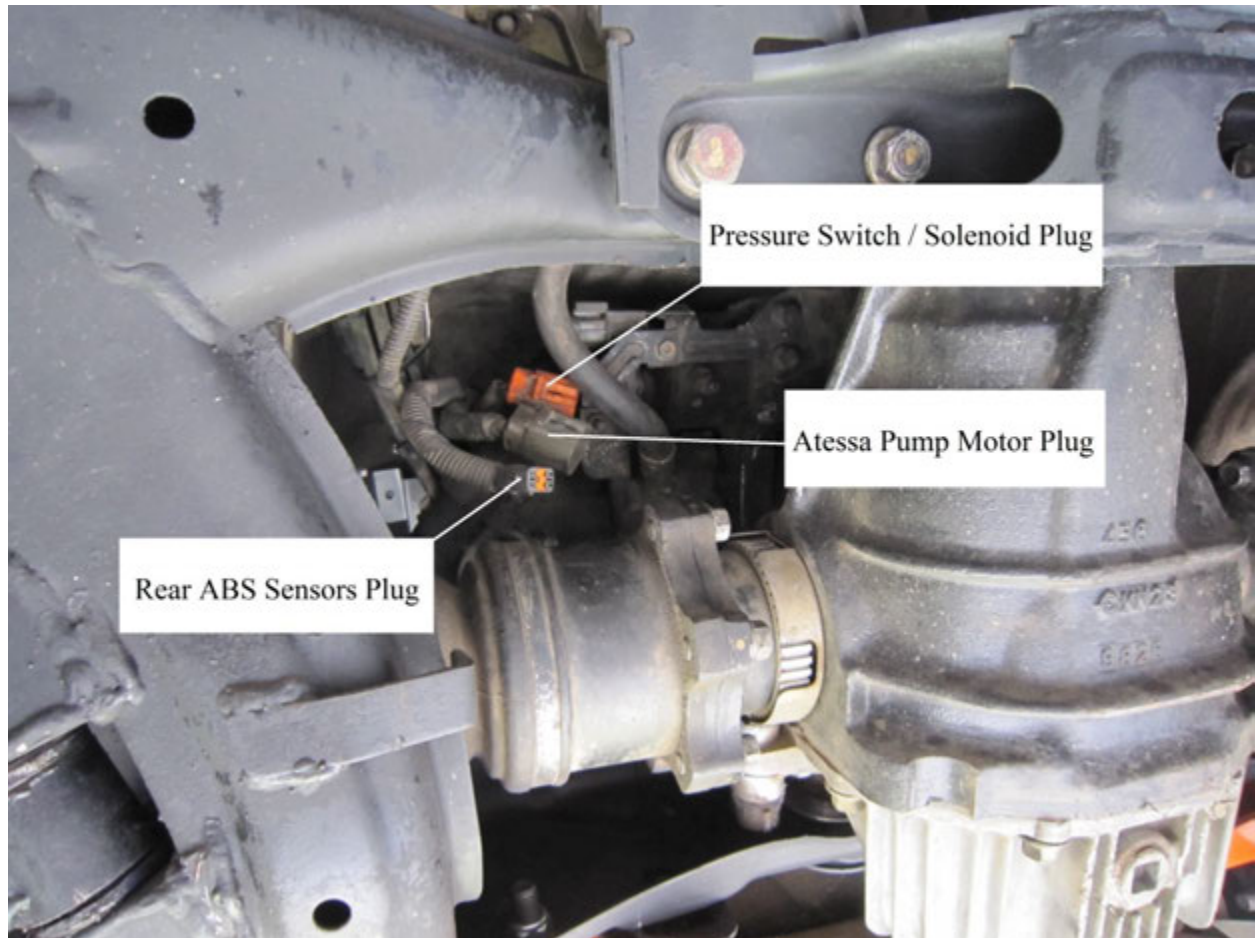
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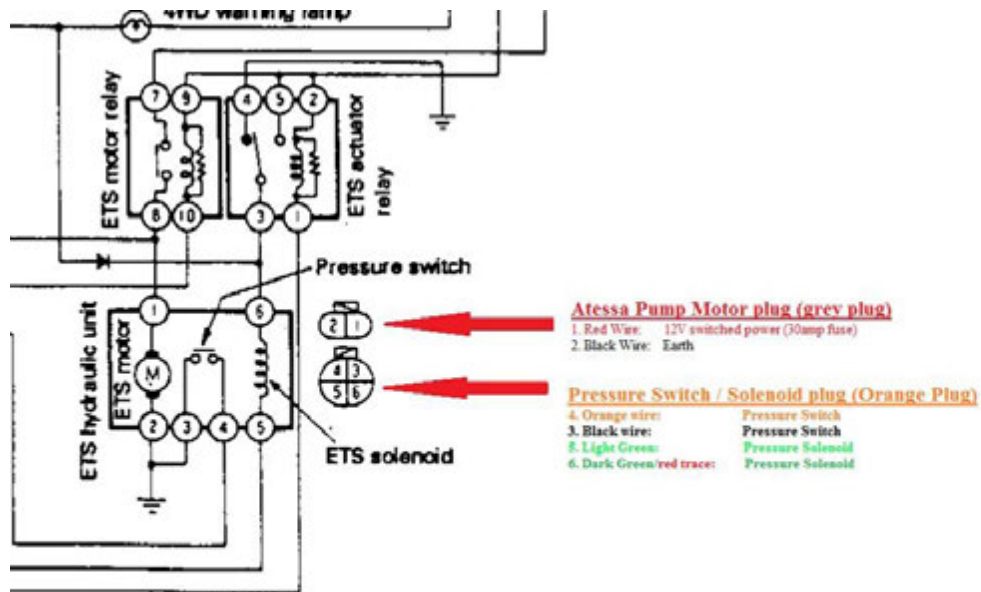


Well packed, you will find the ETS-Pro and its associated ancillaries, and the USB tuning cable.

## **Installation:**

The following pictures are of the Atessa Pump assembly plugs above the rear diff. These contain the wiring for the Atessa pump motor, solenoid and pressure switch. For this particular installation, all we are concerned with are the SOLENOID wires – which are LIGHT GREEN and DARK GREEN/RED trace. NB – you don't need to disconnect these wires above the diff, this was included FYI. You only need to find the applicable wires in the loom at the front of the boot. Of course, if your car has different coloured wires, then you may need to trace them to the plugs pictured.

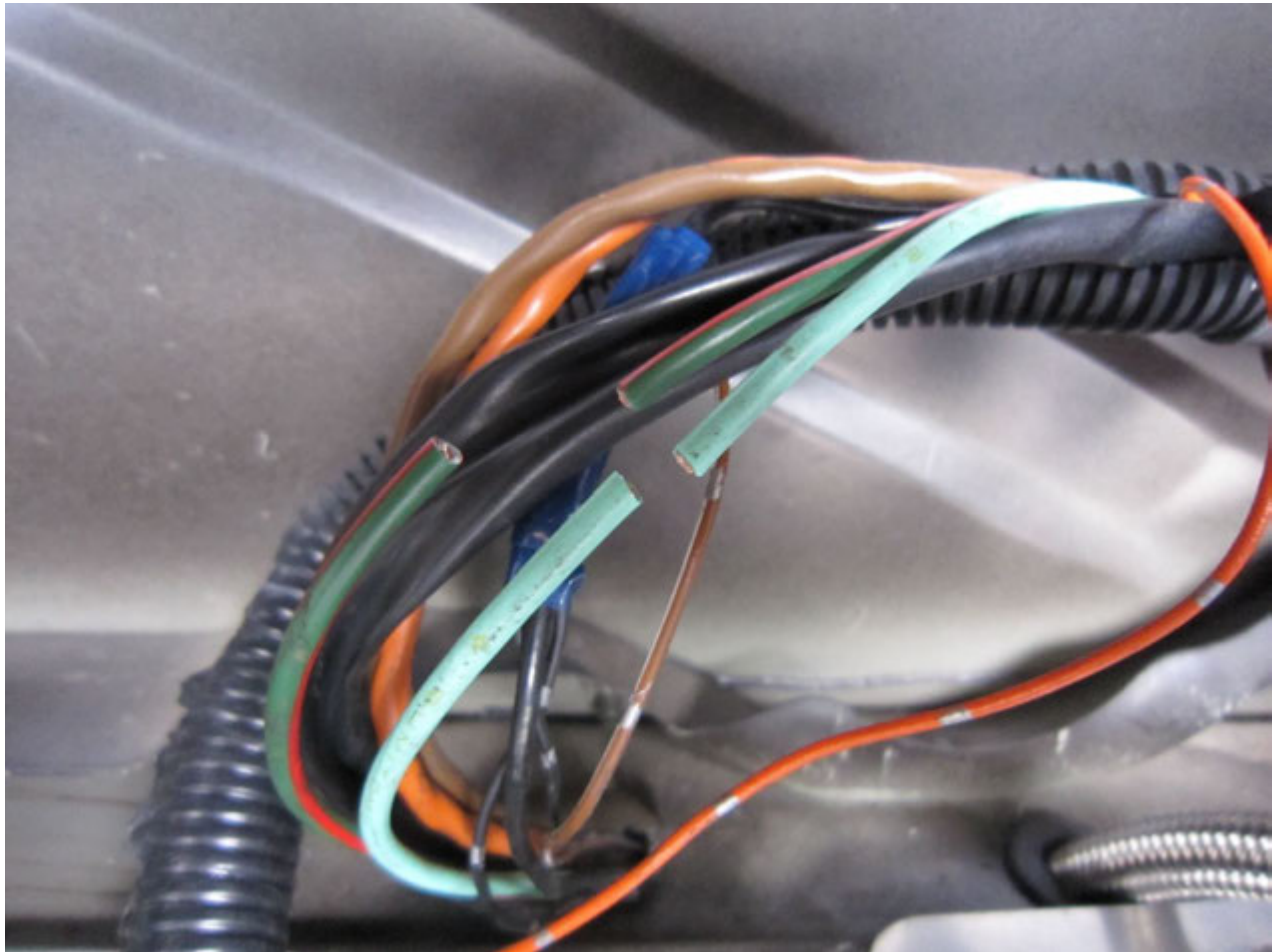




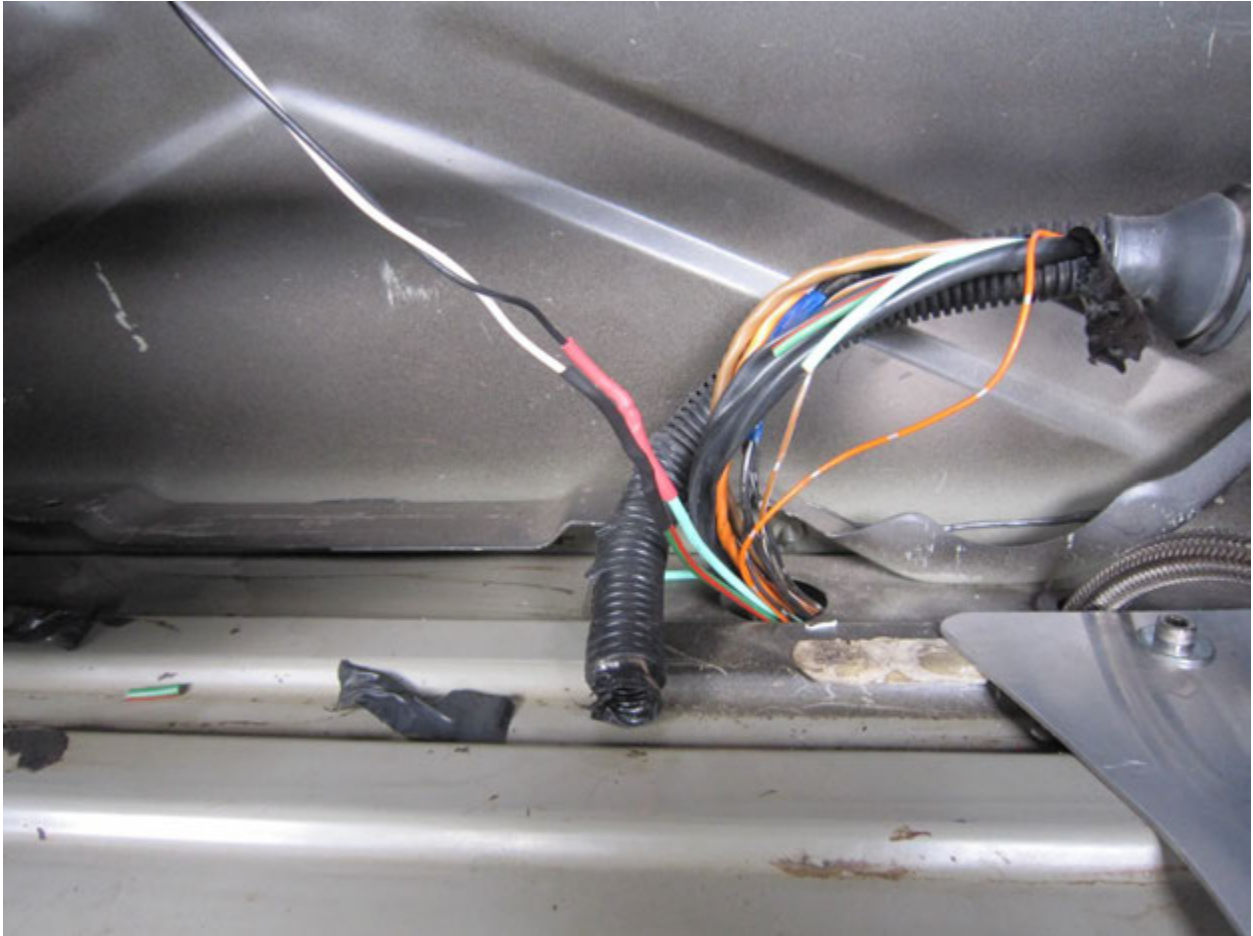
Rb26 ETS wiring diagram



Shows tracing the wires back to the loom at the front of the boot space.



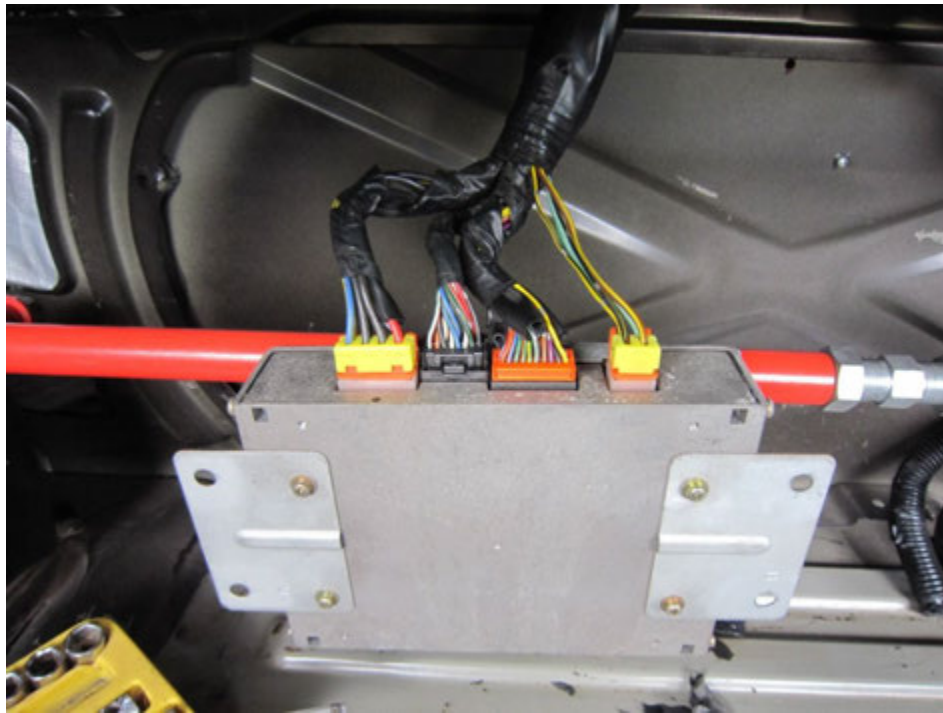
Locating the required Solenoid wires and cutting them for the installation of the black and white ETS-Pro wires



ETS-Pro Black and White Solenoid wires installed. According to the install instructions it does not matter which way around you connect the black and white wires to the solenoid wires.

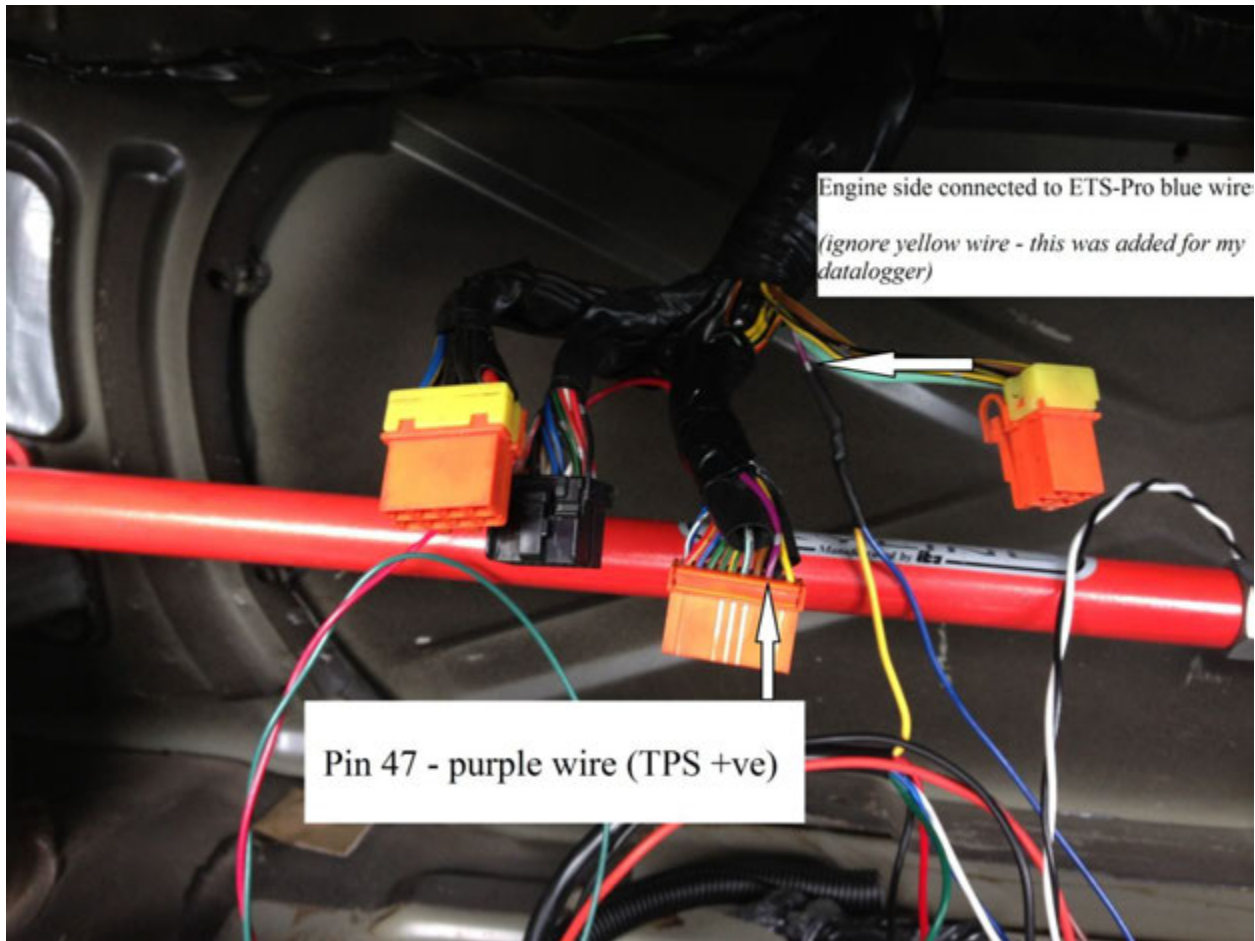
## Factory ETS Control unit

Located under parcel shelf on passenger side of boot.



Second plug in from RHS locating the TPS +ve wire. This will need to be connected to the ETS-Pro BLUE wire





ETS-Pro blue wire connected to the TPS +ve wire (pin 47). Ignore the yellow wire; this was installed to add to my data logger for TPS.





Blue wire/white trace – 10amp fused ignition 12V for the ETS control unit. I chose to splice off of this power wire to power the ETS-Pro. It may cause the factory 10amp fuse to blow, time and testing will tell. If you aren't lazy like me then you could find other switched 12V source and install 10amp fuse inline as per the instructions. After reinstalling the Factory ETS Control Unit, I grounded the green ETS-Pro wire on one of the mounting posts (chassis ground). You can also see the purple TPS +ve wire here after I had cut it.

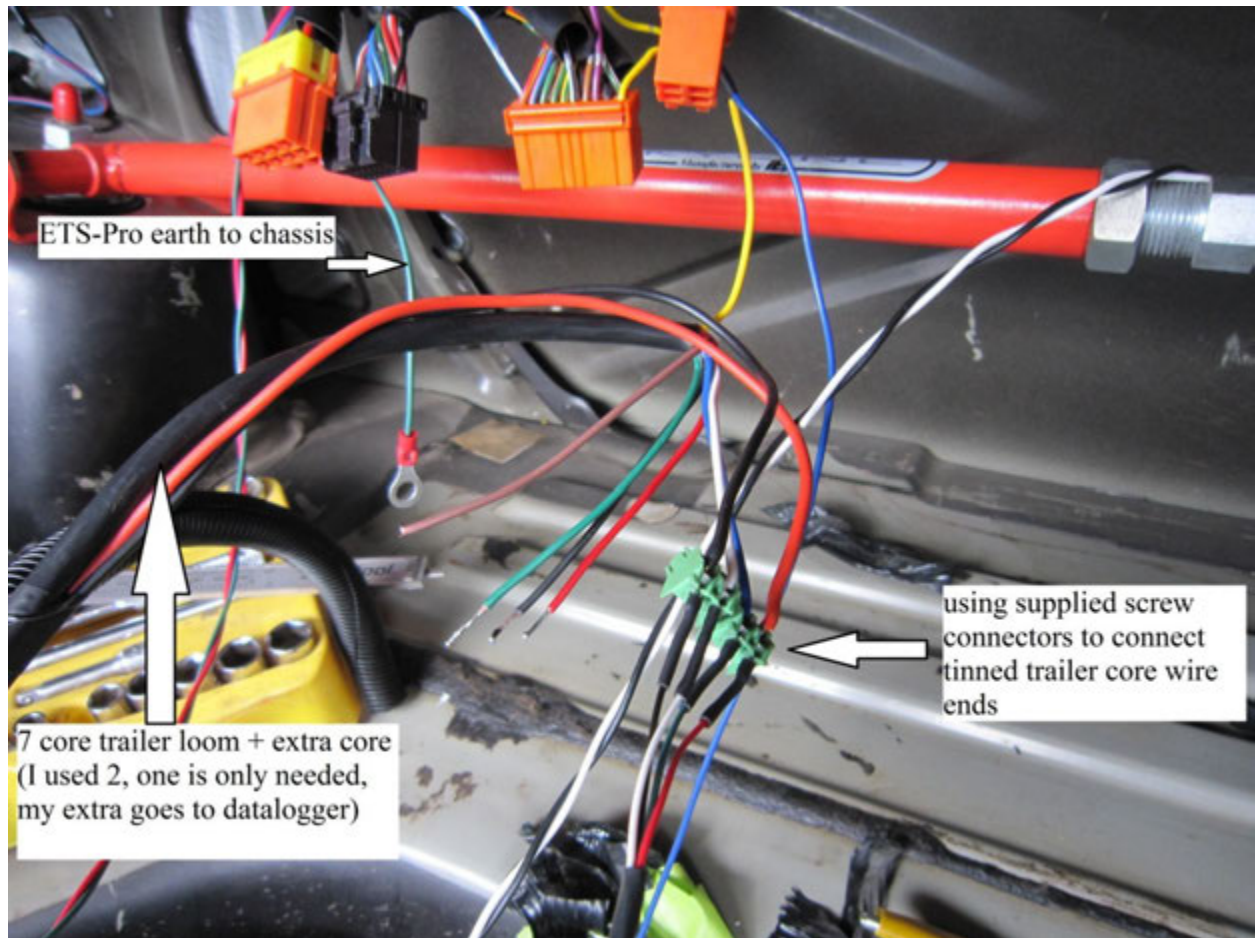
### G sensor / ETS-Pro control unit

I chose to double sided tape / triple zip tie the G sensor to the small raised flat section at the front of the boot floor. Reasons are, I am experimenting with the G sensor response with the yawing moment present when the car oversteers. Theory is the G sensor will experience a greater reduction in G force when the car oversteers in this position vs the factory location. In the future I will experiment with its location using the datalogs I take during each event. As for the ETS-Pro control unit, I double sided tape and zip tied to the HICAS control unit (which is disabled in my car). Easy.



## Switches

I bought some 7 core trailer cable to run for the switches on my dash. This will cover the 7 wires required for the Adjustment control knob and Mode switch button. I then added another single core to use for the brown 'e-brake cutout wire'. I simply used a red guarded switch to be able to switch this wire between ground or open circuit. This will give you a 2WD switch on the dash.



Tip: Be careful when soldering the wires to the switches – the Adjustment control knob installs from the back of the dash panel, and the Mode switch button installs from the front of the dash panel. Save yourself the heartache of having the wires soldered and heatshrunk only to find the switch won't go in.





LOG

FRONT DRIVE

BRAKE WATER



POWER

PUMP

G/BOX DIFF.

DIFF. BIAS

MAP

FRONT

REAR





From here you are ready to test the system IAW the ETS-Pro instruction guide.

Hopefully this install guide has been of help – I will report back with my results post this weekend's racing event. Enjoy!