

Electronic Cruise Control for Honda VFR 1200F, FD &  
Crosstourer by:

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**Installation Manual**

**v.8 11-11-2018**

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### **Introduction and Disclaimer:**

The ECC - electronic cruise control is a microcontroller based device designed to intercept the throttle by wire signal and therefore take control of your throttle. Installation of anything that controls the throttle of a motor vehicle is potentially dangerous and therefore every step in this Installation manual MUST be followed carefully. The installation MUST be performed by qualified technicians only. If any aspect of the installation is unclear and should you have any questions, please contact the manufacturer using email address provided on the page 1, prior to installation.

**By reading and following these instructions and installing the ECC, the customer accepts all terms and conditions set out in this document and takes full responsibility for the products use and any potential liabilities associated there with.**

It is the customer's sole responsibility to comply with laws pertaining to after-market parts on public roads. The ECC manufacturer and any other components manufacturer used in this kit and any other person referenced within this document and/or having participated in the creation of this document, assume no legal responsibilities or liabilities, whether to the vehicle, components, persons, or property's, that may result from the use of, or servicing of a vehicle on which this product has been installed, or to any other vehicles, persons, property's, regardless of whether or not this product has any involvement directly or indirectly, and/or whether or not this product has been properly installed. The installers, user and/or persons attempting to install this product assume all liabilities whether to persons, property's, self and/or others. This legal disclaimer is acknowledged by persons, users, riders who install this product, ride on a vehicle on which this product has been installed, and/or who use this document or any associated product parts, whether or not the products are purchased in whole or in part, received as a gift or award, and/or by any means of obtaining this product.

The electronic cruise control has not been approved by any motorcycle manufacturer. Customer is solely responsible for any type of Approval or Certificate of Conformity required by the authorities in their country. The manufacturer of the ECC cannot and shall not provide any help or input regarding the product road homologation.

## WARRANTY, RETURNS, LEAD-TIME, SHIPPING

**1 year warranty** for all components excluding the control switch mechanical damage and the normal wear of the buttons/switches. Customer must install the product in no more than **30 days** from the date of purchase otherwise the warranty is **VOID**. All problems and warranty claims must be reported to the manufacturer **IMMEDIATELY** and via e-mail and to the **Manufacturer ONLY** – not complying with these warnings will **VOID** the warranty.

The module's enclosure is sealed permanently – any attempt of opening the enclosure will result in a permanent damage to the enclosure and will void your warranty.

The switch assembly is encapsulated in a black electronics specific resin and cannot be opened - any attempt of opening the switch will result in a permanent damage to the switch and will void your warranty.

After submitting a warranty claim it is up to **manufacturer to decide** either the claimed components shall be repaired or replaced – by **default** all parts are subjected to **REPAIR** unless otherwise stated. **Repair time** may vary depending on the type of repair or availability of parts required for repair and it may take up to 30 days.

Buyer pays return shipping – please contact the manufacturer before sending anything back.

The manufacturer shall not and cannot refund any labor costs required to install this product.

Every kit is build up to customer specification therefore there are absolutely **NO RETURNS ACCEPTED**.

Every kit is tested 3 times before shipment therefore production **LEAD-TIME is always 5 business days minimum** after cleared payment.

E-mail support shall be provided at no cost – response time is usually somewhere between 1-2 hours during normal working time(EU zone). Telephone support is not provided.

By default all kits are shipped with POST FLAT RATE TRACKED PRIORITY. Please contact the manufacturer prior ordering should you want to use another shipping method.

## Getting Started:

Disconnect your battery. Remove the seat, side fairing, fuel tank, air-box, ECU and the plastic cover for EVAP tank located under the fuel pump (and over the rear shock). Under the battery you will find the 2PIN rear brake switch connector which is the end of the ECC harness.

**Make sure your battery is in good condition and the voltage reads 12,6V MINIMUM!**

Required tools:

- set of tools required to dismantle the vehicle – see the OEM manual.
- wire side cutters
- soldering gear
- heat shrink tubes (only LITE) and insulation tape
- cable zip ties
- insulation stripping tool (knife).

**Below the picture of the complete kit:**



Component list:

- ECC module with 24 pin connector
- Vehicle specific wire harness
- Control switch assembly with 8 pin connector

## Safety functions:

- minimal engaging speed ~35 kph
- maximal engaging speed ~240 kph
- automatic disengagement under ~30kph
- automatic disengagement over ~250kph
- overshot and undershot margin of memorized speed: -75% and +150%,

***Example: memorized speed is 100 kph. If you accelerate manually (adjusting the throttle by hand) over 150 kph the system will disengage. If you decelerate under 75 kph the system will disengage as well.***

- acceleration with hand with rate above 10 km per second will disengage the system.
- the system will never open the throttle more than 40%
- over revving the engine abnormally – 50% rpm above of memorized speed.
- pressing button no 1 – ON/OFF button will disengage the system
- pressing the clutch or brake lever or by switch to NEUTRAL or 1st gear (manual transmission only) will disengage the system.
- pressing any button for more than 20 seconds will disengage the system
- any short circuit within the switch assembly and any drain above 50mA will disengage the system
- any module total power consumption above 250mA will disengage the system
- any vehicle voltage drop below 10V will disengage the system.
- the ECC monitors the brake signal. If the brake light bulb is burnt or there's a problem with the signal or your LED rear lamp – the ECC will not work.

**Note: please be sure your battery is in good condition. The GREEN will not light up if the battery voltage is below 12V. You may experience “surging” in operation when the voltage drops below 12,3V.**

FOR YOUR OWN SAFETY NEVER OPERATE THE CRUISE CONTROL IN THE RAIN OR IN ANY OTHER WET OR SLIPPERY ROAD CONDITION. IT IS ALSO NOT RECOMMENDED TO USE THE CRUISE CONTROL IN HEAVY ROAD TRAFFIC SITUATIONS.

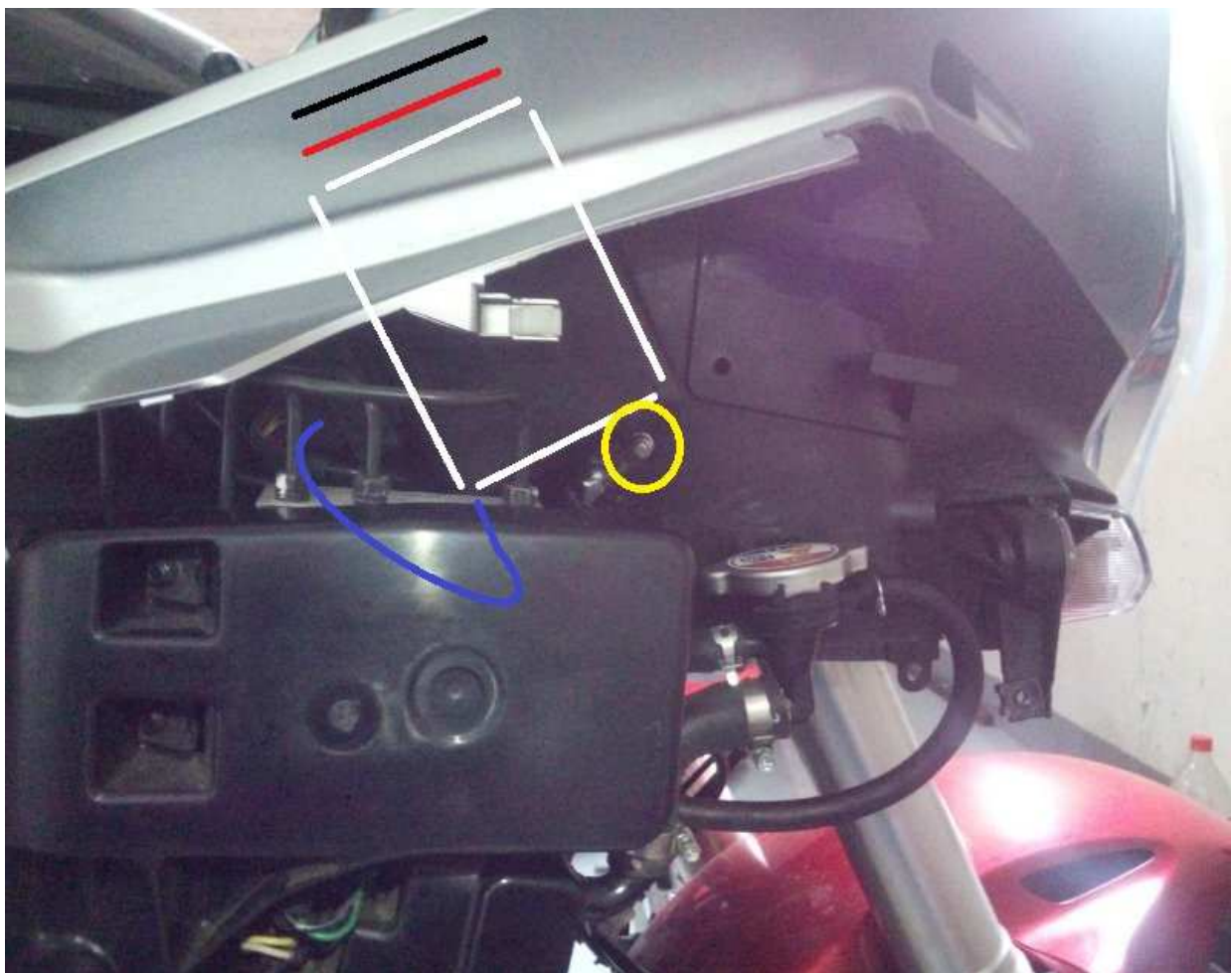
**PLEASE MAKE SURE TO CHECK THE FUNCTIONALITY OF ECC BEFORE ASSEMBLING YOUR MOTORCYCLE BACK TOGETHER – IF SOMETHING SEEMS TO BE WRONG PLEASE EMAIL THE MANUFACTURER ASAP.**

The ECC module (white lines) will fit just over the ABS modulator. It's tight there but it will fit. You may need to cut out the left hand mounting TAB from the module's enclosure – feel free to use side cutters.

You want to align the enclosure parallel to the fairing – red and black lines. You can fix the module using the provided M5 screw but you would need to drill the hole (yellow circle).

You can use some double sided tape or some Velcro straps if you do not want to drill anything.

Before doing anything double check to make sure the module does not interfere with ABS modulator or side fairing. Fish the harness under the frame neck along with the ABS modulator wires – blue line. You may loosen the M8 ABS modulator bolts for a better access – 12mm socket. Start with 2PIN connector, the 4PIN and 6PIN so the 24PIN ECC connector remains – that big connector will not fit under the frame neck so you can start only from the outside.

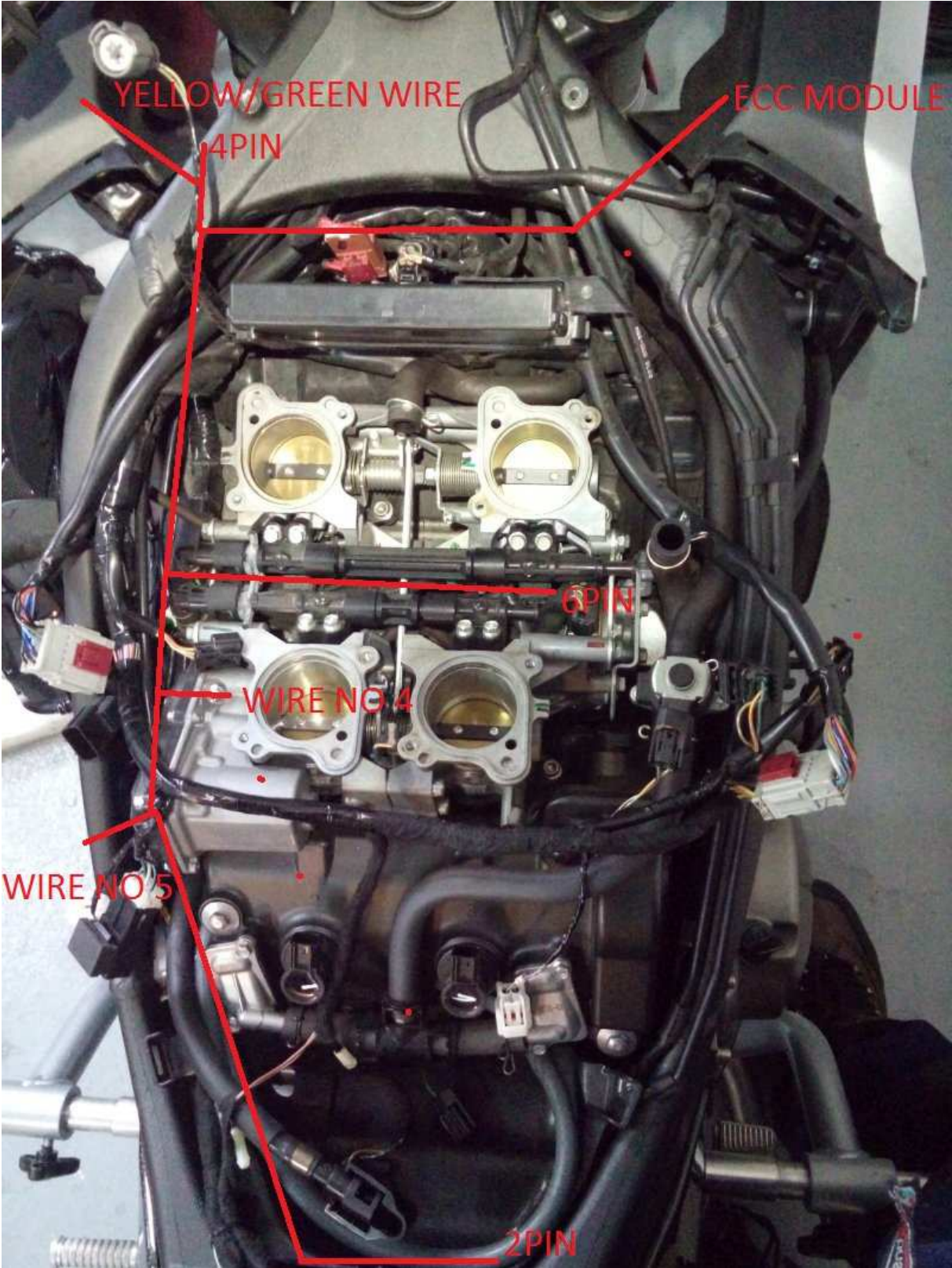




The enclosure should fit similar to the example as shown below. Removing the right mirror mounts (two nuts) can help loosen the fairing enough to be able to fit the enclosure into the space behind the ABS modulator.

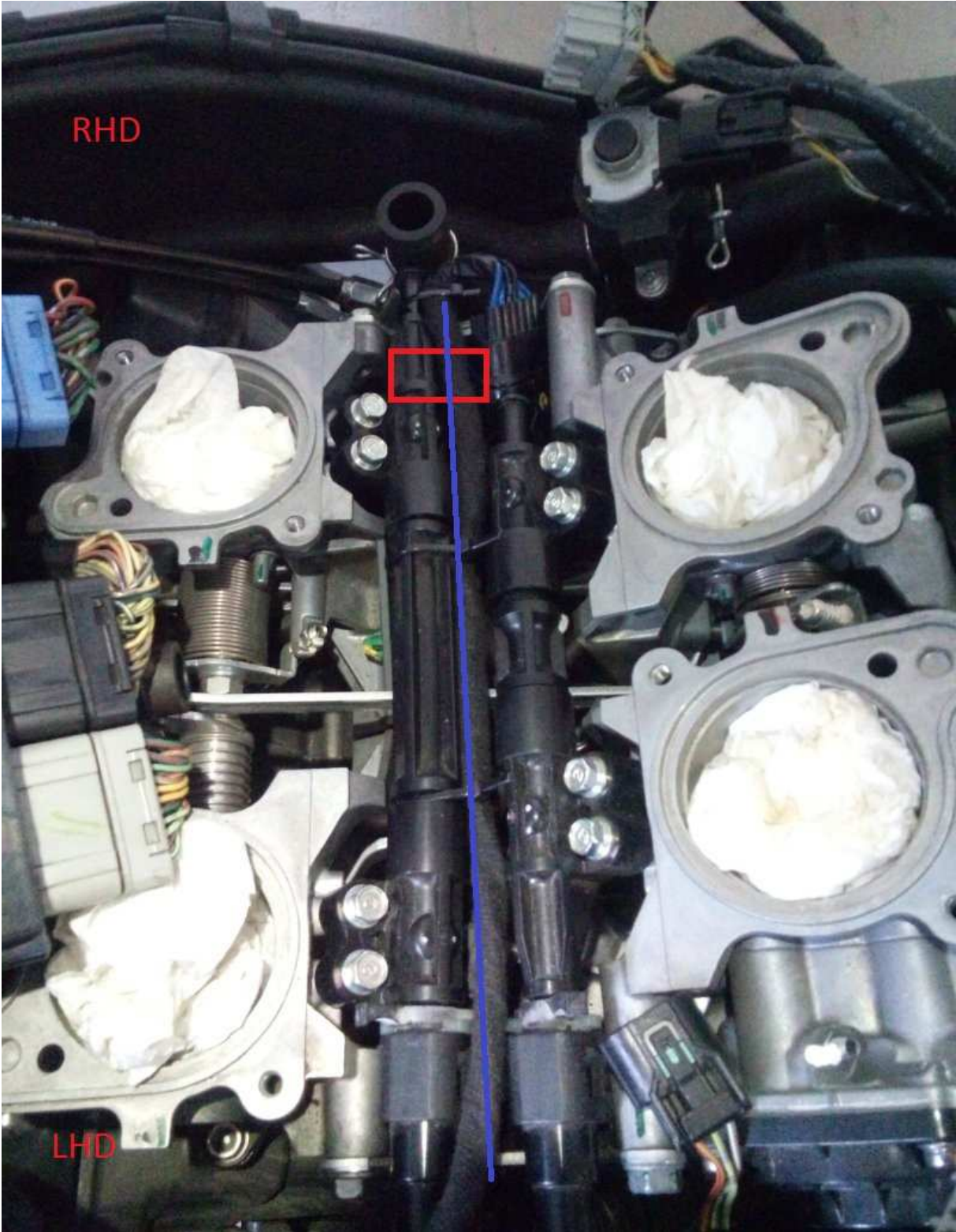


The basic harness layout:



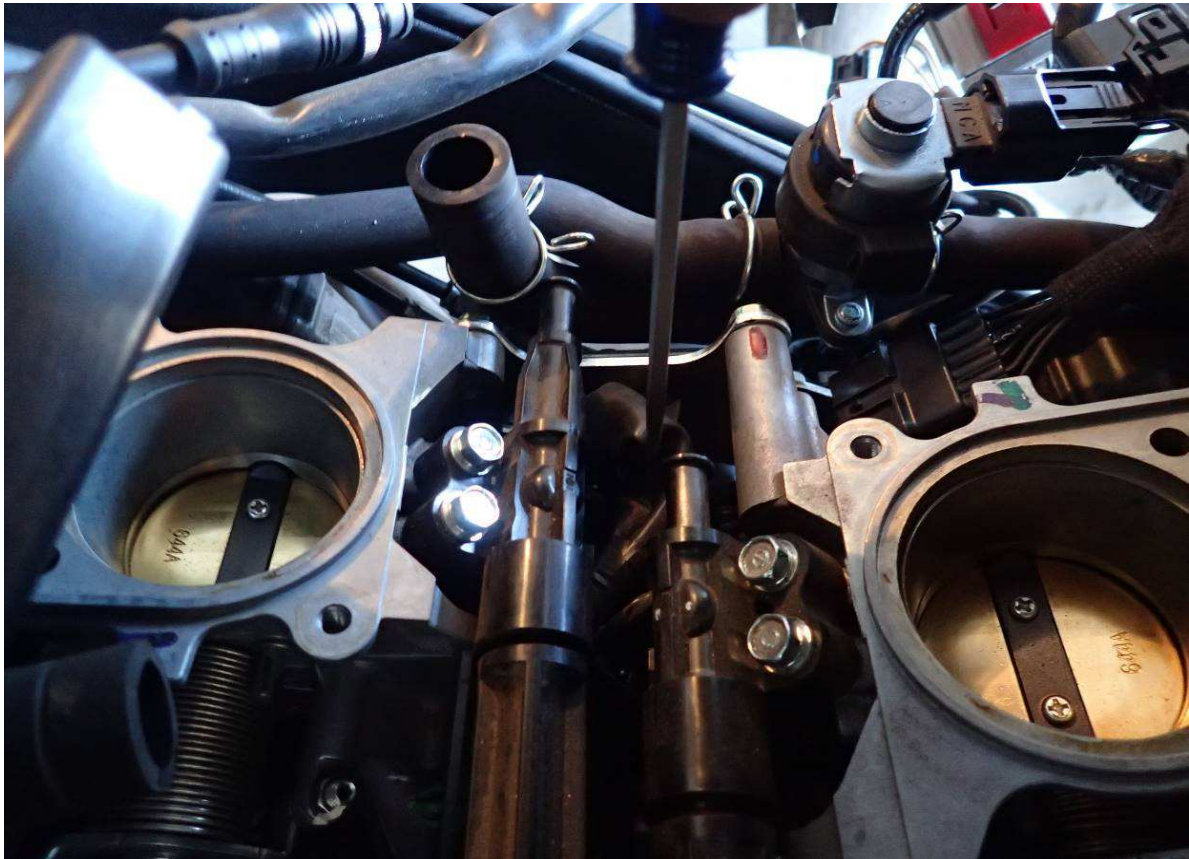


Locate the 6PIN throttle accelerator connector (red rectangle) and unplug it. Intercept this connector with the new harness and 6PIN male and female connector. Route the 6PIN connector harness as shown (blue line) and fix it to the fuel rail as pictured. Use some zip ties to secure the harness. Make sure it will not interfere with throttle body linkage:



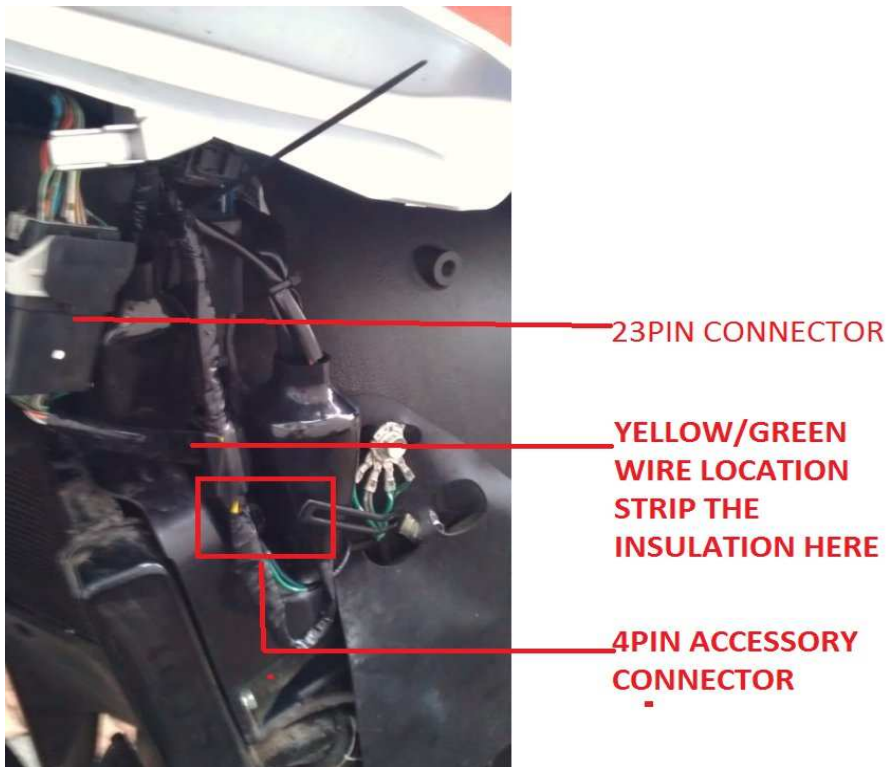
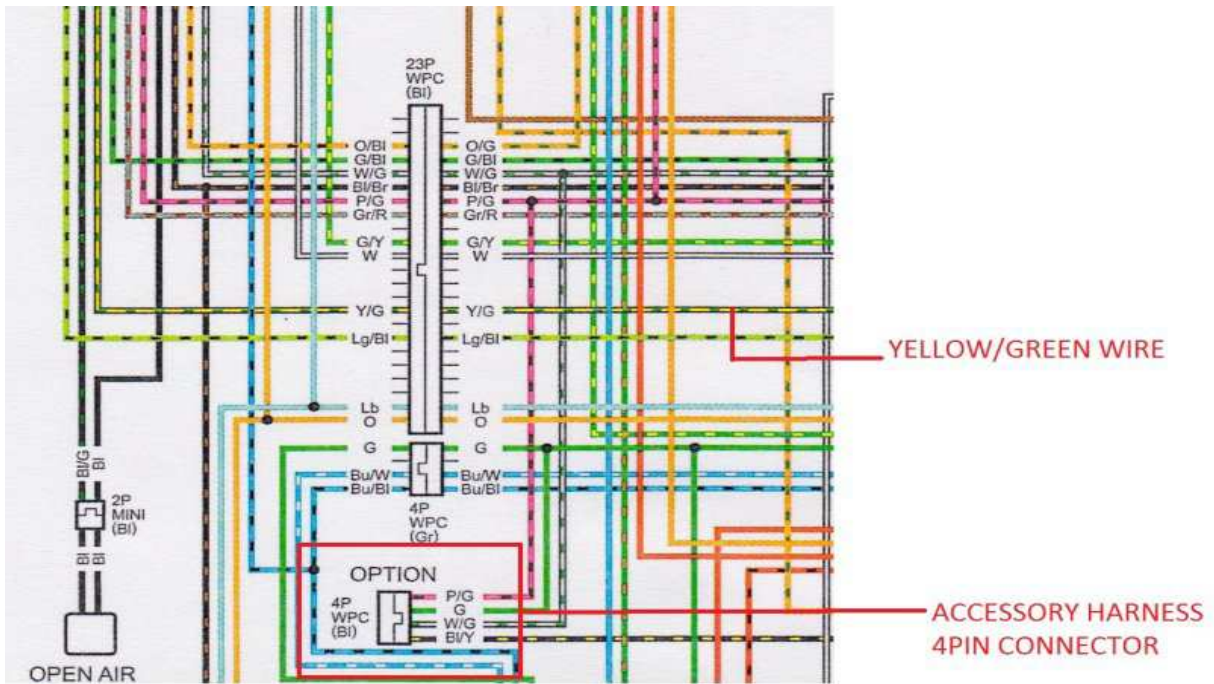


Pictures of 6PIN location and connector shown below.



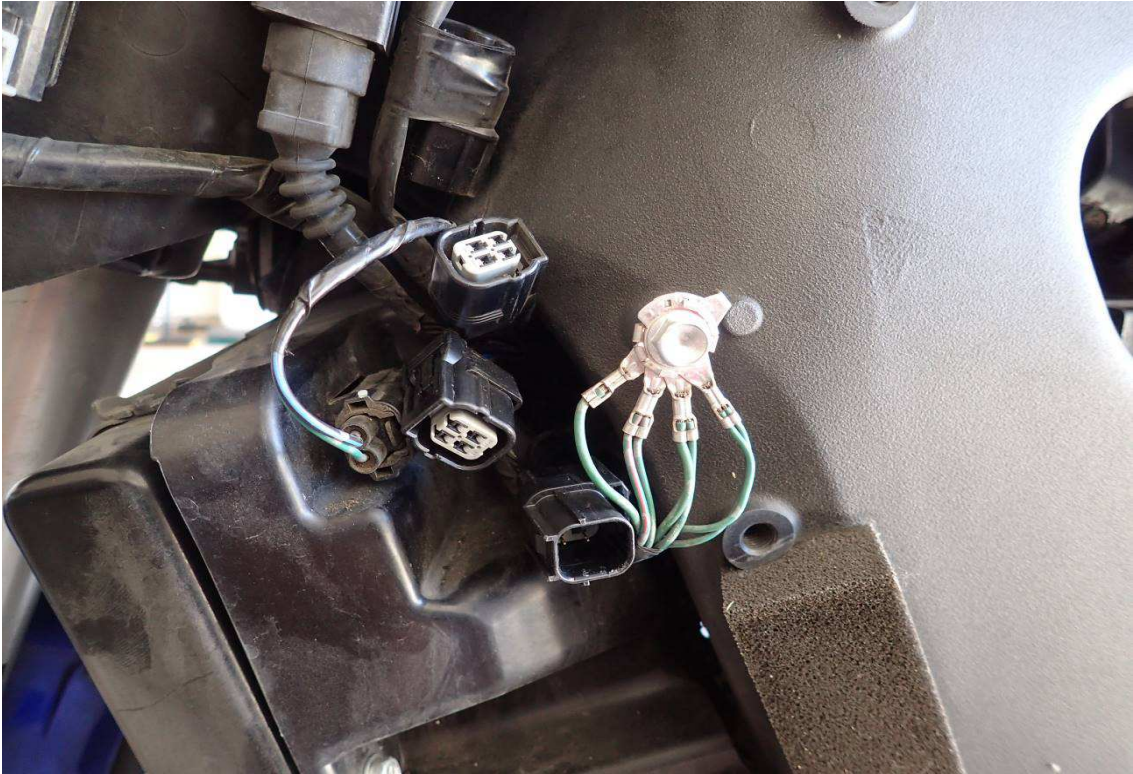
Route the 4PIN connector under the LHD side of the frame neck to meet the OEM accessory harness 4PIN connector. This connector will also intercept and bypass the OEM connector. You will find the yellow/green wire along that connector. This wire needs to be soldered with the OEM Y/G wire from the 23PIN connector that is located under the LHD side fairing.

Diagram view:





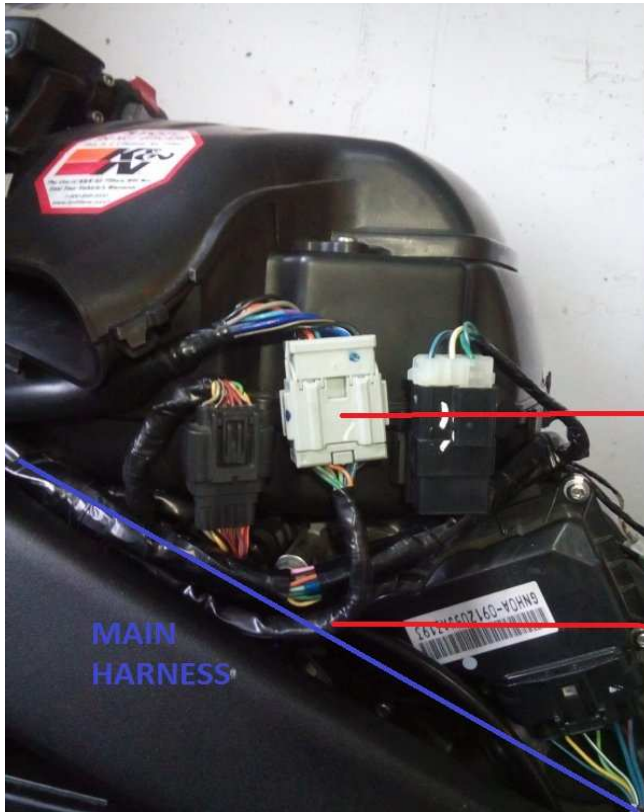
Picture of unplugged OEM connector which needs to be intercepted with 4PIN connectors from the CC harness also shown.



Picture of 23PIN OEM connector shown. The yellow/green wire which needs to be soldered to the second wire from the right (red arrow).



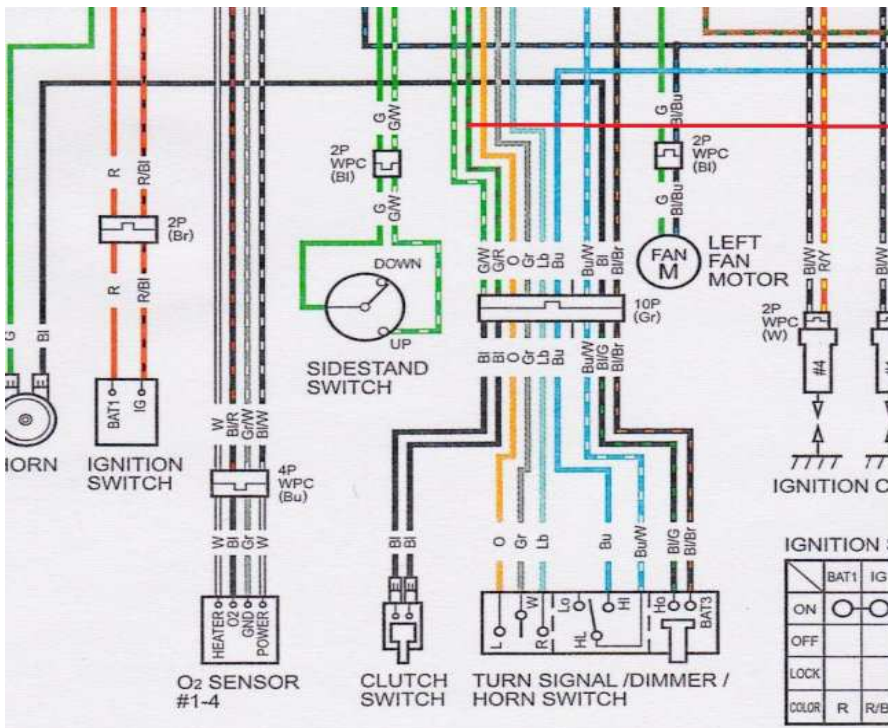
Locate the 10PIN gray LHD handlebar switch connector. It's located on the left side of the airbox **NOT FOR DCT**:



**10PIN GRAY LHD handlebar connector.**

**This is where wire No 4 goes. Strip the insulation here.**

Solder the wire No 4 with the **GREEN/RED** wire shown on the diagram. 2016 and up Crosstourer models may use **GREEN/BLACK** wire instead **GREEN/RED**.

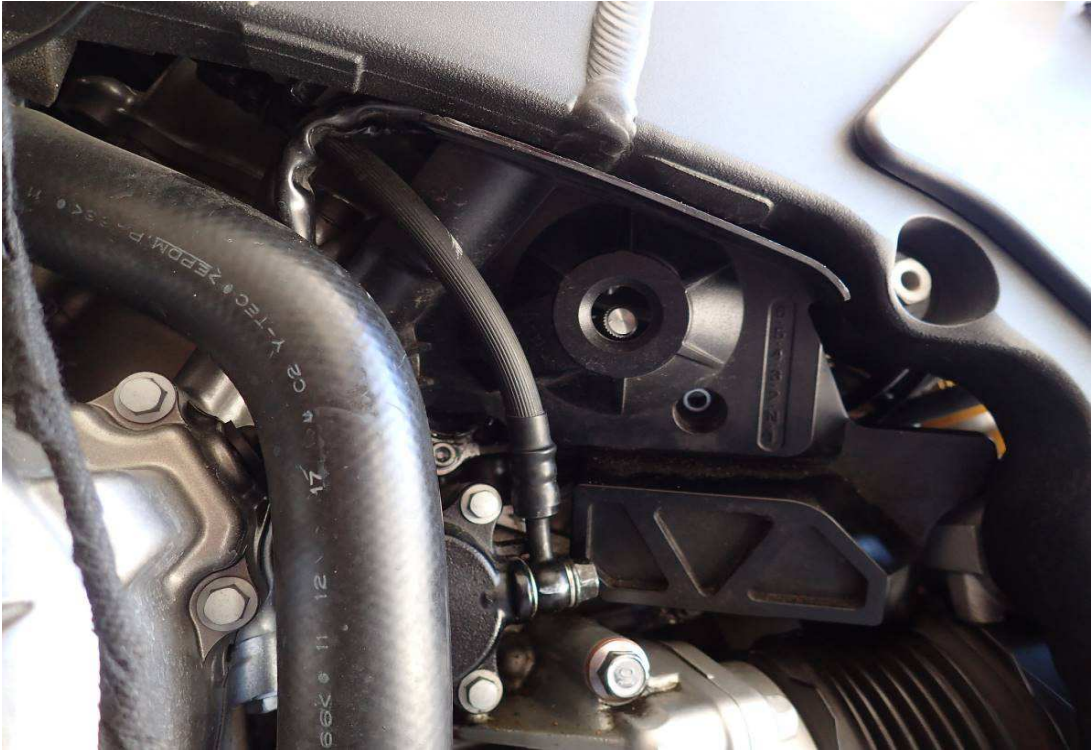


**GREEN/RED WIRE solder with WIRE No 4**

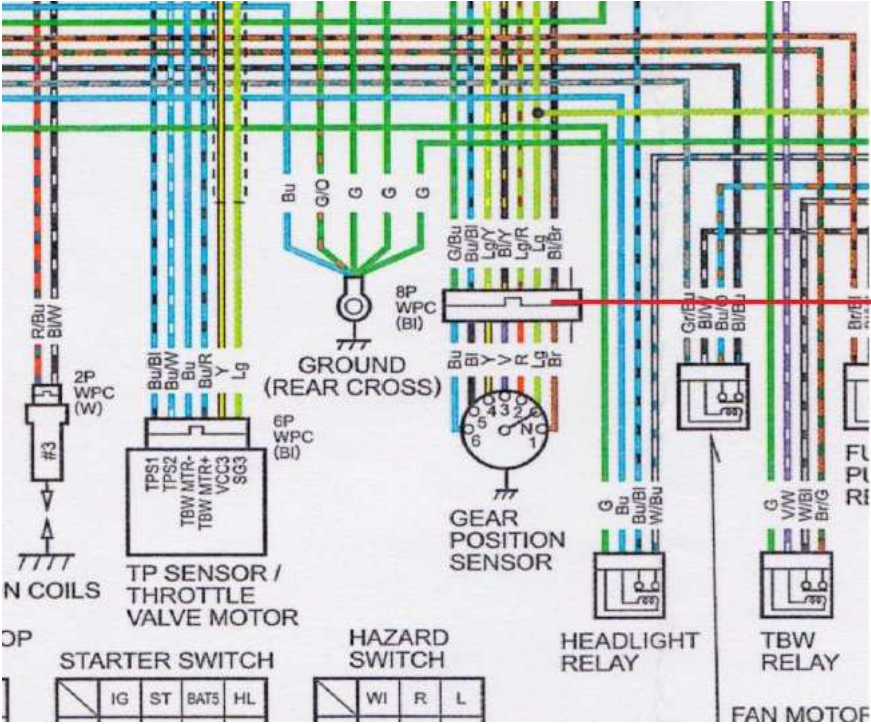
	BAT1	IG
ON	○	○
OFF		
LOCK		
COLOR	R	R/BI



Locate the 8PIN gear switch indicator located on the LHD frame member. You need to remove the gear shifter linkage from the gear shift shaft cover. Pulling the cover down and out top first is the easiest way to remove the cover.



Strip the insulation and solder the wire No 5 with the BLACK/BROWN or BROWN depending on which side of the joint you will chose – male or female. Diagram below:



**BLACK/BROWN  
WIRE to solder  
with WIRE No 5**

Finally fish the 2PIN harness (blue line) under the EVAP tank cover attaching it to the brake steel line, just over the rear shock absorber and route it under the frame to meet the rear brake switch 2PIN connector located under the battery tray:



Intercept the 2PIN connector:





Mount the ECC switch on the handlebar and route the 8-PIN mini round connector along the clutch/brake line, trough the LHD or RHD frame neck and connect it with the ECC main harness.

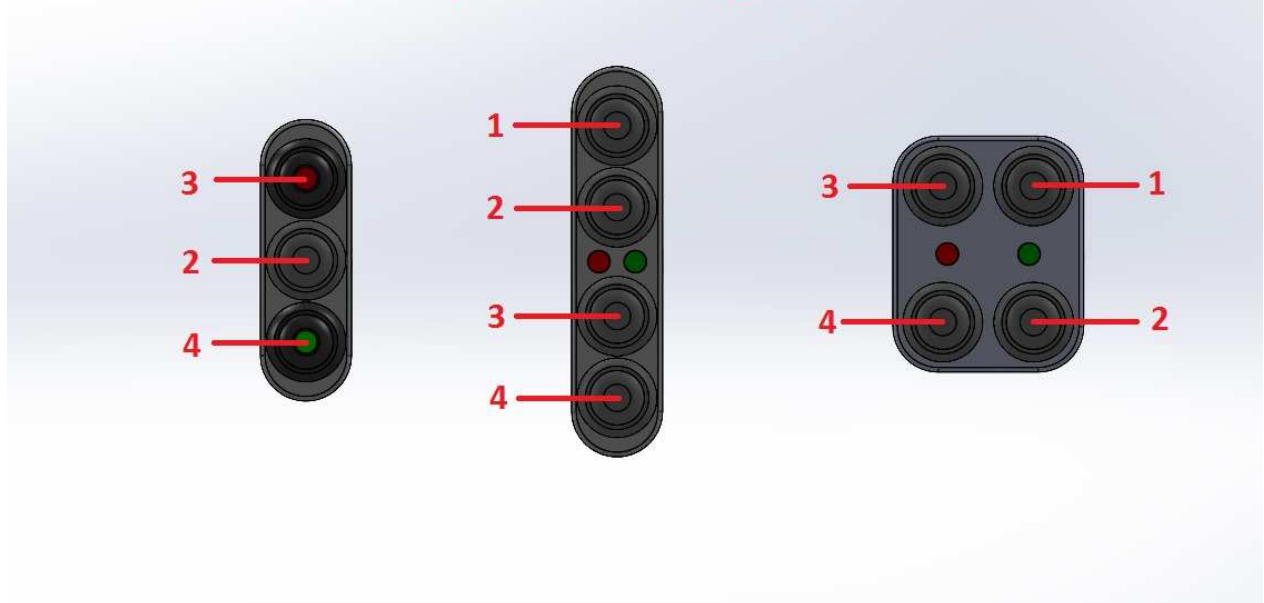
**Left hand operated switch:**



**Right hand operated switch:**



### Layout for LHD configuration:



### Control switch functions:

**Switch 1:** ON/OFF – simple here. When ON the GREEN LED will go on.

**Switch 2:** Memory button – while riding and with speed memorized, press and hold for min. 5s to set your favorite speed. ~50 kph as default. For example: if 100 kph was memorized, every time you tap this button the system will always go to 100 kph no matter if you ride slower or faster.

**Switch 3:** SET speed and also increase. Single TAP will engage the ECC and the RED LED will go on. When memorized single TAP and the speed will increase +2kph. TAP and HOLD and the speed will increase by +10 kph.

**Switch 4:** RESTORE and decrease speed. After disengaging the ECC either by using brake or clutch, by fault or safety function this button will restore the LAST memorized speed. When memorized it works as decrease button as well, accordingly to the SET button – single TAP -2 kph and Tap and HOLD -10 kph.

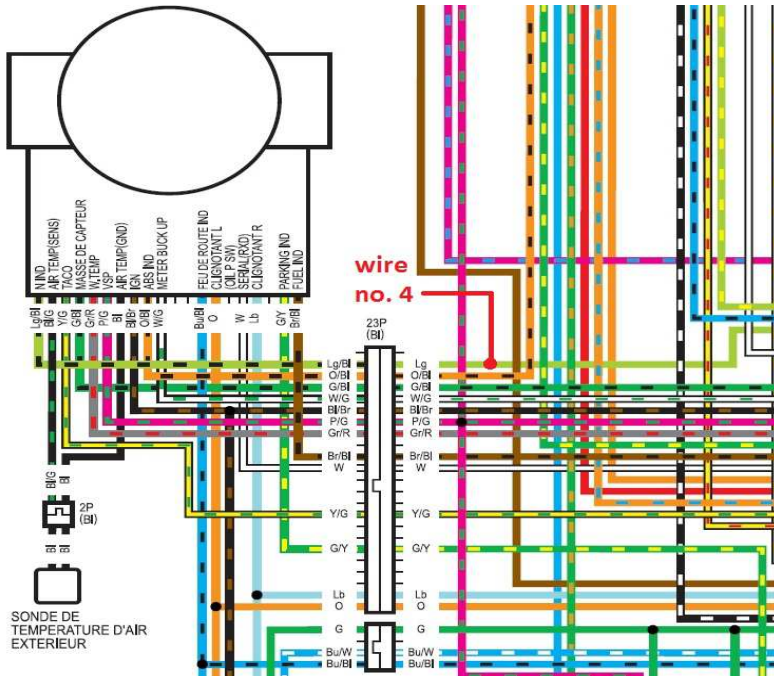
**GREEN LED** – system ON

**RED LED** – system engaged

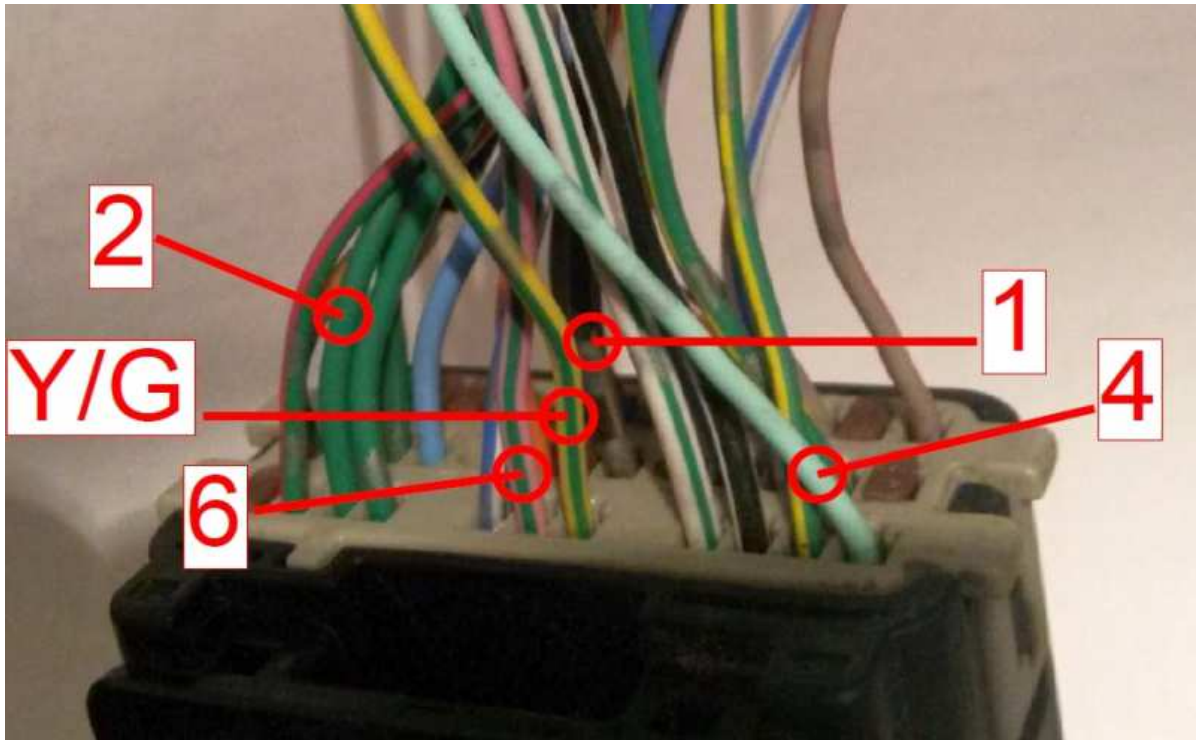


## DCT APPENDIX

DCT does not use the wire no. 5. The wire no. 4 goes to the Lg wire (light green) located in the 23P connector. 23P connector was mentioned in the Y/G wire section – it's located under the LHD middle side fairing. Below the picture of a Lg wire on a diagram:



Below the picture of 33P Crosstourer connector(VFR has a 23p virtually the same looking connector). Lg wire marked with no. 4:



## LITE version appendix

There are no 2, 4, and 6p connectors included in this kit. Location of the module is the same. There are 12 wires to solder for manual transmission and 11 for DCT. There are only 2 wires that you need to cut apart. The rest should be joined together(splice joint). You do not need to remove the air box, EVAP canister bottom cover. The fuel tank does not need to be removed as well but removing the tank and the air box might give you a better access. Below the LITE harness:



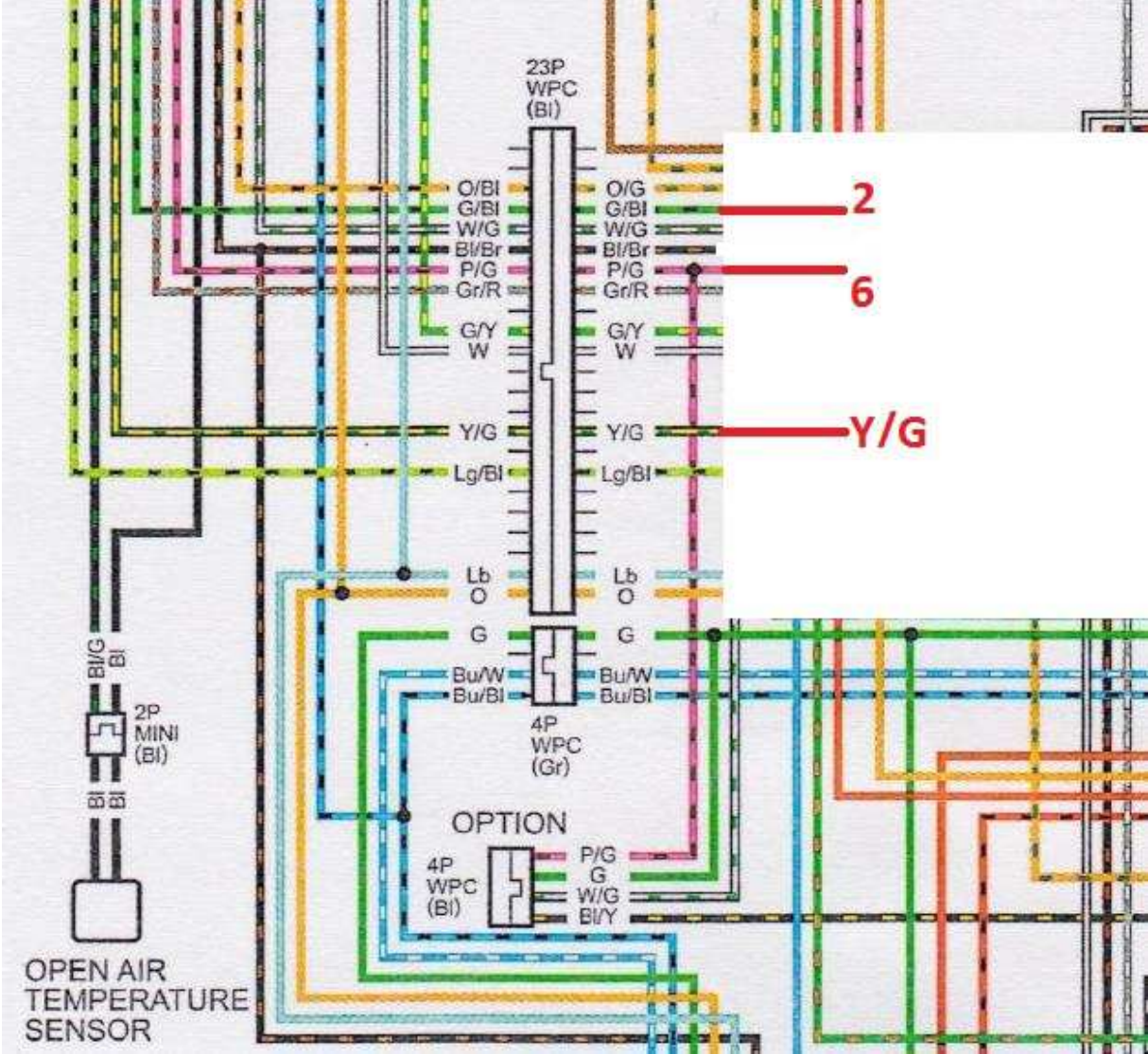
The wires are labeled with numbers every 60mm as pictured:





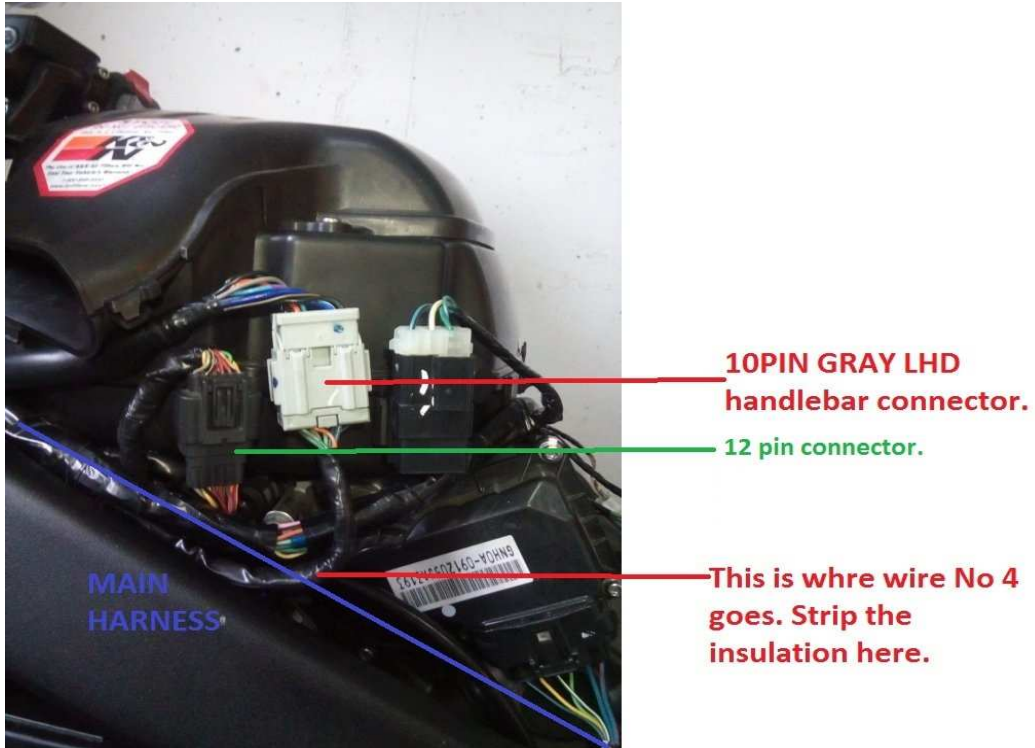
Numbers as follow on the diagram - **wires 2,6 and Green/Yellow** at the 23/33p connector.

As noted before, strip the insulation and solder them together – do not cut them. After soldering use some good quality insulation tape to cover the joints. Use the MALE side of the connector – the one that comes from main harness.

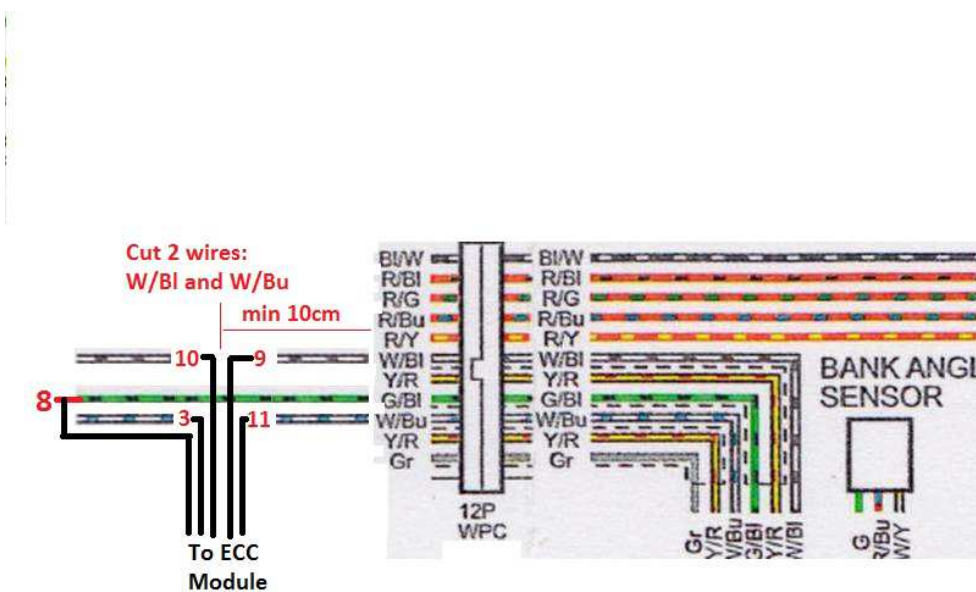


## Wires 3,8,9,10, 11.

Locate the 12 pin injectors connector located on the left side of the air box. Below pictured connector:



You need to cut 2 wires as pictured below. Use good quality heat shrink tubes and insulation tape. Strip the insulation from G/Bl wire and join the wire no. 8 as pictured below.



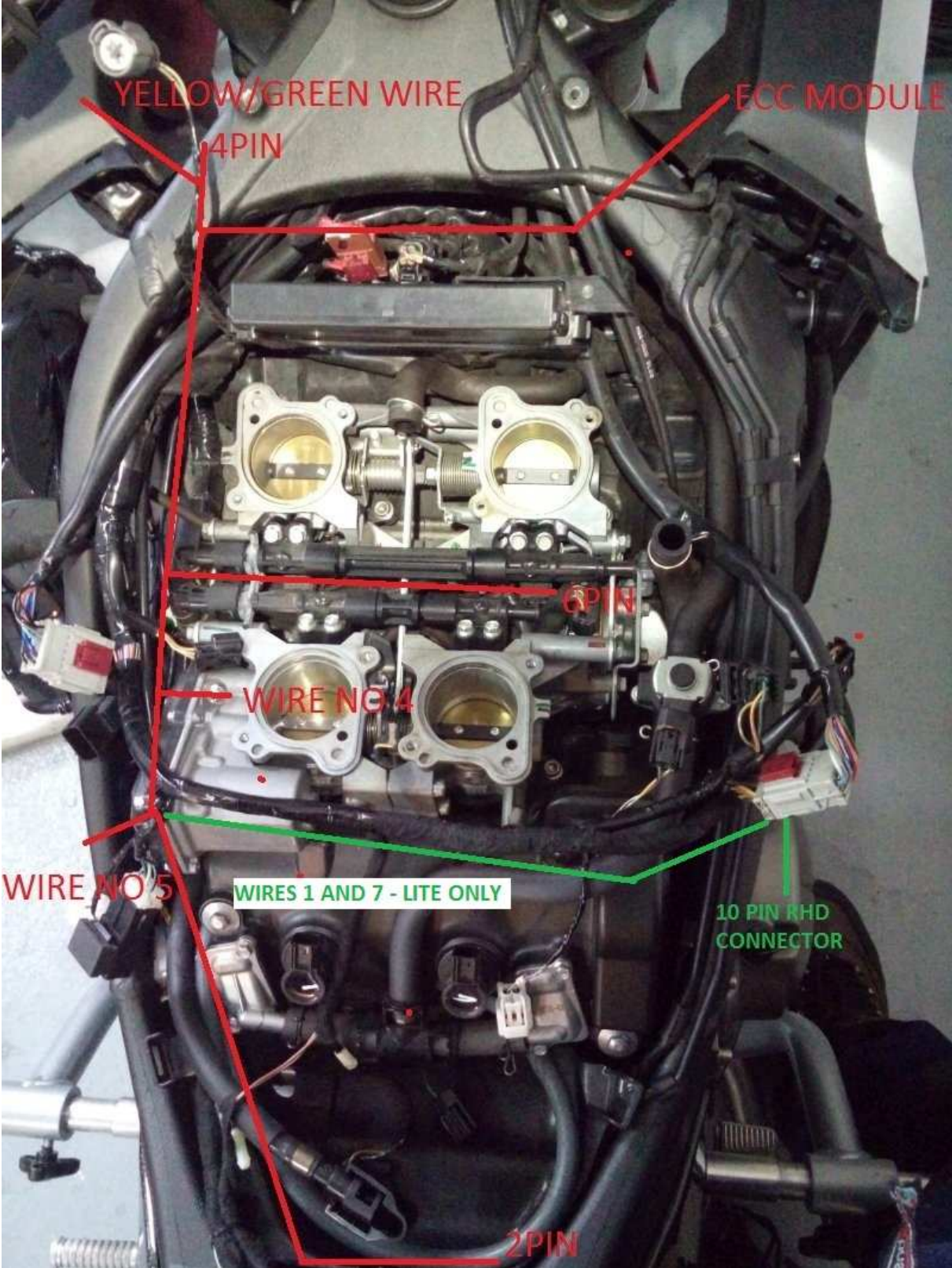
Below the example picture of the LITE installation – wires 3, 8, 9, 10, 11:



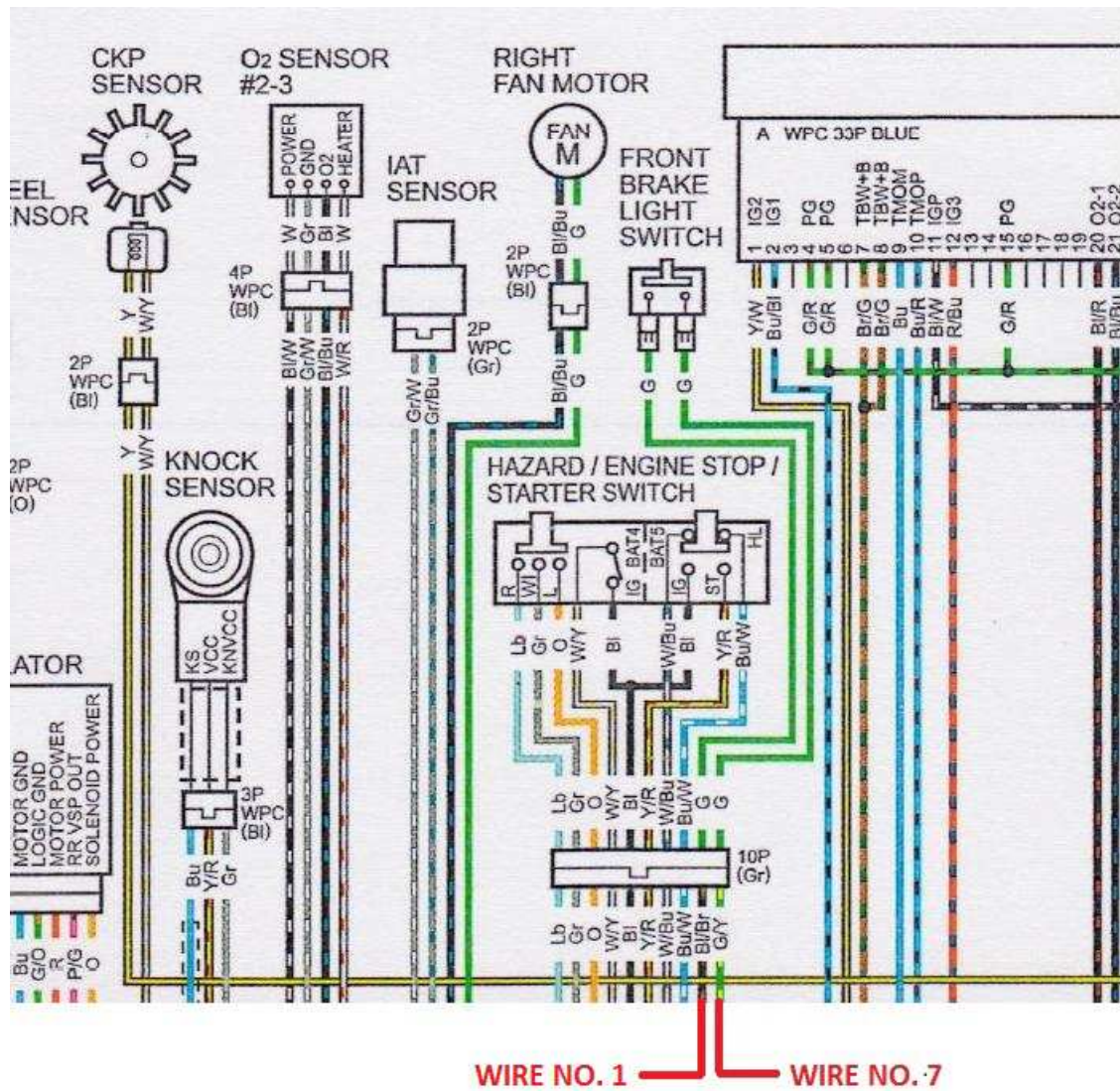


Wires 4 and 5 are installed in the same manner as described in the first part of the manual.

The last wires to address: numbers 1 and 7. Locate the 10p RHD connector located on the air box. It looks the same as 10p LHD connector described before. Below the location of 10p RHD:



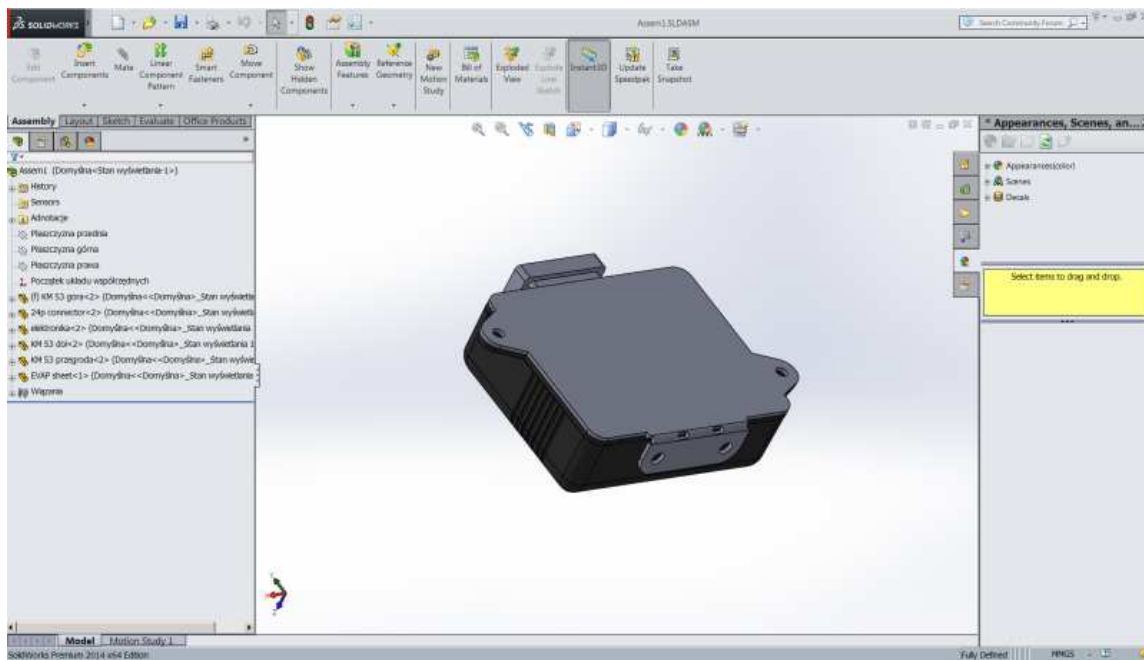
Wires 1 and 7 on the electrical diagram. Solder the wire together with G/Y and Bl/Br wires:





## Crosstourer Appendix:

The location for Crosstourer module is different. The module fits under the gas tank where the EVAP canister sits. This means if you have an EVAP system installed it needs to be removed (**please check your model PRIOR PURCHASE IN THIS REGARD**) – alternatively use another(custom) module location. The module is attached to the plastic heat shield using a special sheet bracket and two M6 screws. CAD view:



Below the location of the module (with bracket):



Changes to the harness are minimal. The Crosstourer uses a different accessory connector therefore the version with "connectors included" does not have a 4p connector.

2 more additional wires needs to be soldered – the lack of a 3<sup>rd</sup> connector is recompensed with a special module bracket to keep the price at the same level. If you do not want a bracket then the final price is reduced by **10€**. Below the basic Crosstourer harness layout:







The Crosstourer manual control switch is the same with no changes. The switch comes with special extenders as the brake master cylinder is located farther apart from OEM switch assembly. Below the pictures with and without extenders:



## **Troubleshooting:**

### **The ECC will not stay engaged and the SET button sometimes does not react:**

Your battery will need to be replaced soon. The bike will seem to operate normally, starts good and works good. The problem will be even more noticeable if you have any electrical extras installed like: light bars, heated seat or vest, and high power charger etc. Try to turn everything off and it should help.

Why this is happening? It's a safety function. Normal system voltage is 12,6 V and when the engine is running it's about 14 V or more. ECC is protected from too high and too low voltage. The ECC reads voltage as a reference and it will not work under 12 V (and even below 12,3 V). The reason is the brake signal - the most important and the main factor to disengage your ECC - is a VOLTAGE signal and it must be STRONG and CLEAR - otherwise the ECC may not see this and will never disengage the system.

ECC will also not work if there's any problem with your brake light - whenever brake bulb (not important for X as it has LED's but first VFR1200 models were equipped with brake light bulb) or your LED light will lose the contact to the GROUND.

### **The MIL (trouble) light blinks after installation:**

ECC itself will NEVER cause any trouble codes (MIL) - even if the module will be damaged.

The first thing to check: your ECC module needs to be connected (main, 24p connector). Your bike will not work without MODULE connected anymore after installing the extra harness.

The second thing to check: you might have forgotten the MAP sensor. It's connected to the AIR-BOX, at the bottom on the LHD side. It has 3p connector and the small hose. Check both.