

Ecliptech gear change indicator Installation – KTM 950 SM



I have installed this handy device on my bike as my experience so far has been riding high revving fours, I am unable to judge exactly where in the rev range I am, and so fitting this device has taken the guess work out of riding the bike. I have added the images and text below to the installation details found in the instruction manual, as I like the comfort of seeing exactly what I should be doing in step by step images. If you are about to fit this device, I can highly recommend it and I hope that these details help, however as ever please use this information at your own risk.

By the way this job is dead easy (this is coming from a person who hates electrics) and all the stripping of body parts below is only so that you can hide the wiring and keep it out of harm's way. If you wanted to botch this job, you could have it installed in 10 mins max. Anyway, here is how I did it;

1/ Remove the four black Philips headed screws from the black dashboard panel.

2/ Remove the two ally allen headed bolts located at the bottom of the dashboard, these hold the headlight assembly in place – this is not strictly necessary but I found that it gave more room to work in. Once you have removed the two bolts the headlight unit can be tilted forward as in the image below; The lower part of the dash is located onto two pins which you can easily lift the dash off, I then put some material (rags) on top of the front mudguard to allow the headlight unit to rest without scratching the paint.



3/ Next you will need to open up the drain hole in the top of the dash panel to allow the three wires and connectors to be fed through. I would recommend that you use insulation tape to protect the top lip of this panel from any accidental damage from the drill when it is being used. I used an started with a 3mm bit and worked up to an 8mm bit, which will enlarge the drain hole enough to fit the wires through. Once you have completed this clean up the area around the hole ensuring that it is neat and then poke the 3 wires through. At this stage leave the display unit loose on the dashboard.

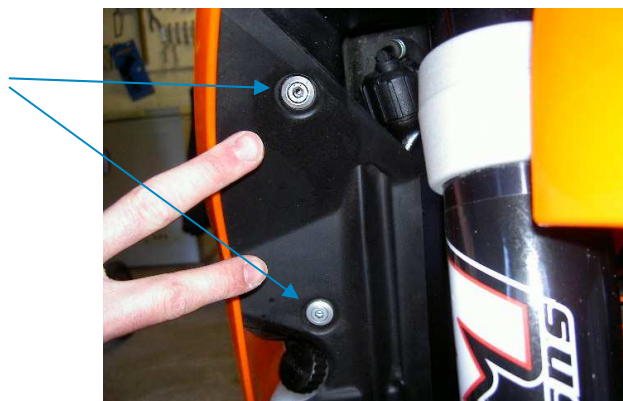
4/ You are now looking for 4 spare wires complete with spade connectors, two of them have stickers ACC1 and two are marked ACC2, you are looking for the ACC2 (RED/BLACK) and the ACC2 (BROWN). I had trouble finding the stickers as they are small, if you see the 10amp stickers on the wire sheaths, you will find the ACC stickers underneath. The wires you are looking for are shown below;



Connect the Shift-I BLACK/RED to the ACC2 RED/BLACK
Connect the Shift-I BLACK to the ACC2 BROWN

- You only have one wire to connect now, however this needs to be connected to either the rear ignition coil (the connection that goes onto the rear spark plug) or the correct wire on the ECU, I opted for the rear ignition coil as I didn't want to mess with the ECU. The only issue with this is that you need to remove the fuel tank to get full access. Do not worry it is dead easy, as follows.

5/ Remove the two allen bolts that hold the offside expansion tank cover in place;



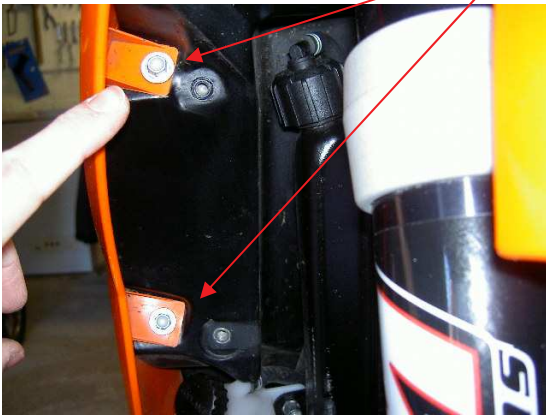
6/ Remove the three allen bolts that hold the inside horn cover in place;



7/ Remove the outer trim hex bolts (x 2)



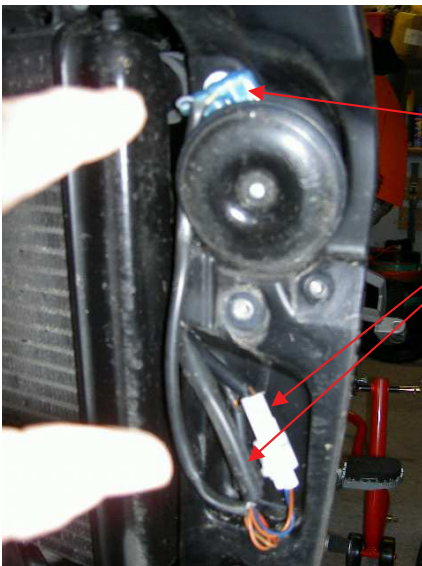
7a/ Remove the outer trim bolts (x 2)



(Panel removed, now clean the flies off)

8/ Repeat this for the inside panel.

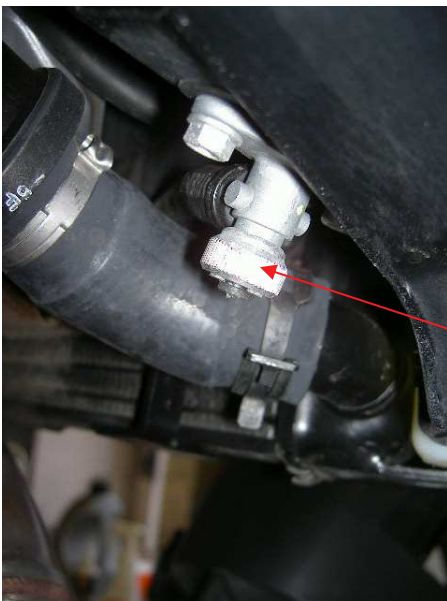
9/ Remove the wires to the horn (taking note which connector the yellow wire goes on), and the other two relay connectors that you will find behind the panel you have just removed;



10/ Switch off the onside fuel tap, this is found at the bottom leading edge of the fuel tank, simply turn the screw until it stops, then disconnect the fuel pipe from it. You will need a pair of pliers for this, be prepared for a small amount of fuel to flow from the pipe;



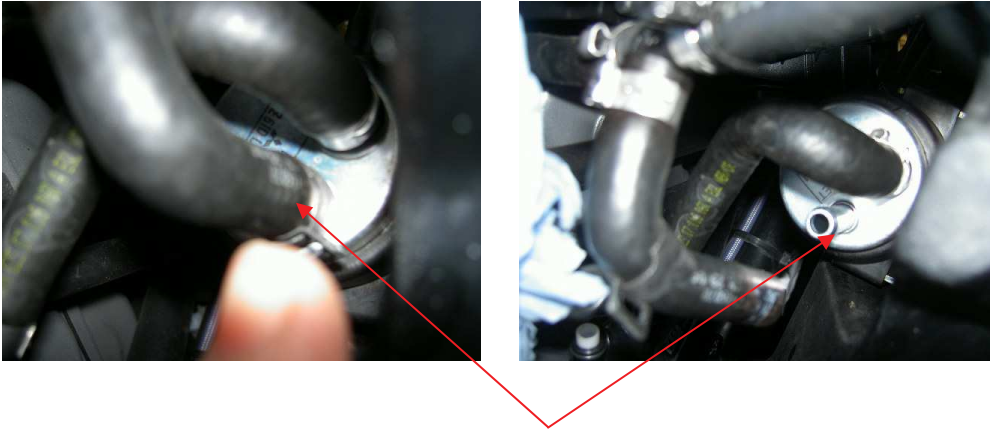
11/ Switch off the offside fuel tap, this is found at the bottom leading edge of the fuel tank, simply turn the screw until it stops, then disconnect the fuel pipe from it. You will need a pair of pliers for this, be prepared for a small amount of fuel to flow from the pipe;



12/ Now disconnect the main fuel line (this can be found on the onside of the front cylinder), this has a quick-disconnect button it, simply press and pull apart;



13/ Also located under the fuel tank on the on-side of the bike is the fuel pump, this is mounted vertically. You will need to remove the fuel line as shown, again you will need a pair of pliers for this;



14/ Nearly there, some guides recommend that you remove the fuel tank vent from the tank, however I just removed the tank cap and rested it on the bars whilst I removed the tank.

15/ Now remove the seat (I won't detail this) and remove the rear fuel tank retaining bolt, as shown below;



16/ Once the rear fuel tank retaining bolt has been removed, the rear of the tank can be lifted slightly which will then enable the tank to be pushed backwards enough to clear the pivot that the front of the tank is held down by. The tank can then be lifted clear of the bike, paying attention that the fuel pump and pipe work do not foul the frame of the bike. I put some matting on the floor to place the tank on and since the fuel cap is still on the bike it is advisable to put some sort of improvised bung into the tank mouth.

17/ Now you should connect the extension for the rear ignition wire PURPLE/WHITE and following logic feed this down the side of the headstock (where you will see the other wires going) and route it along the bike frame to the rear ignition coil. I have added an image below of my wire routing, but I don't know if it is very clear, however I tie wrapped the wire to the main wiring loom which goes through the frame.

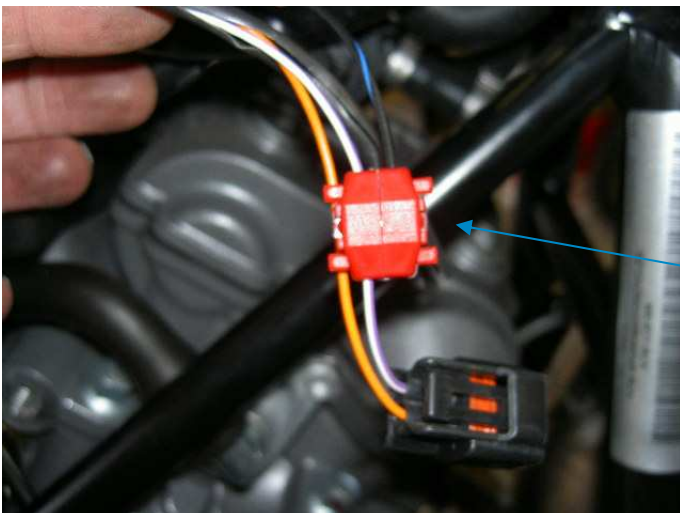


(Black & Blue Shift-I wire can just be seen tie wrapped to the main loom)

18/ Next locate the rear ignition coil (attached to the spark plug), release the connection – it is a press release so press down on the raised part and it pull off easily, do not force it! Once this has been removed it should look something like this;



19/ You now need to locate the Purple/White wire coming out of the ignition loom and strip back enough of the wiring cover to allow you to get to the wire. Then using the supplied jointing connector, join up the ignition wire and the Shift-I wire. Which should end up looking like this;



Re-attach the ignition connector to the ignition coil ! Before you leave these wires ensure that they will not rub or vibrate against anything that could affect the connection.

20/ Now you just need to stick the Shift-I unit onto the dash area, after remembering to clean the area that you are going to stick it to. The adhesive pads are very good so pick your location well and stick it right, first time!

Congratulations, you have completed the installation. You now need to reverse everything that you have just done – I bet putting it all back is loads quicker, now that you know what you are doing !

21/ You will now need to follow the set up instructions for the unit, obviously we do not have rev counters to check the idle speed against, but I found that you need to set the unit up with the calibration value of 1, as the first light was coming on a 2000rpm. I expect it will be the same for all 2 cylinder KTM's.

Enjoy,

Phil.

[philw135](#)

UK KTM Forum

<http://www.ktmforum.co.uk/showthread.php?t=27087>