

BOOST BOX INSTALATION GUIDE

Although this guide shows fitting instructions for the Discovery TD5, the Defender TD5 models will be the same, but the Engine ECU is located under the drivers seat instead.



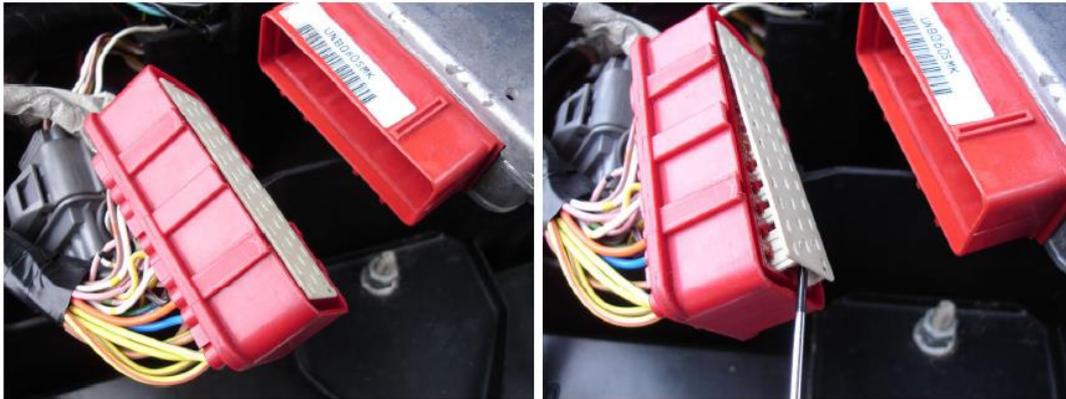
Remove the Plastic Battery/ECU cover, and undo the Battery lead to chassis Earth retaining nut with a 10mm Spanner.



Now lift the Battery Earth cable off the chassis earth post, then undo the engine ECU retaining screw.



Tilt the ECU up and lift out. Rest the ECU, upside down on top of it's housing.



Take the Red ECU plug off its socket. There is a retaining clip on the other side of the plug, which you will need to press down to release it. Using a small screwdriver, gently prise off the white plastic cover, to expose the terminals.

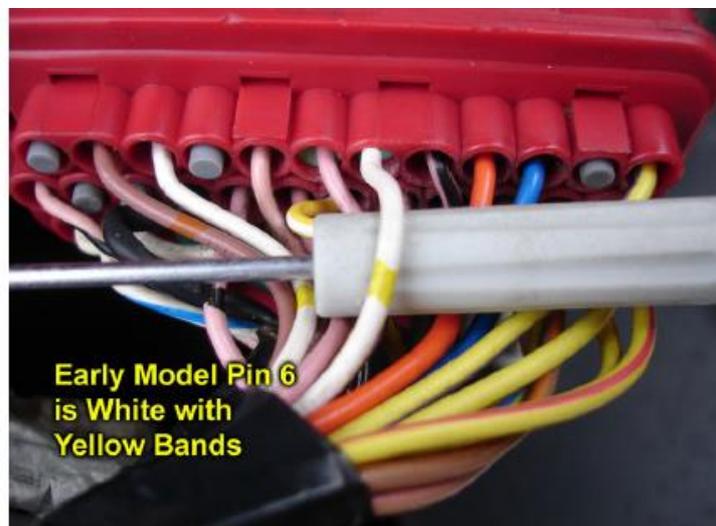


Once you've removed the plastic cover, you'll see all of the connectors in the plug. Each of these connectors are held in place with a small plastic retainer. Looking at the inset picture (connector removed for clarity) you'll see the retainer quite clearly.

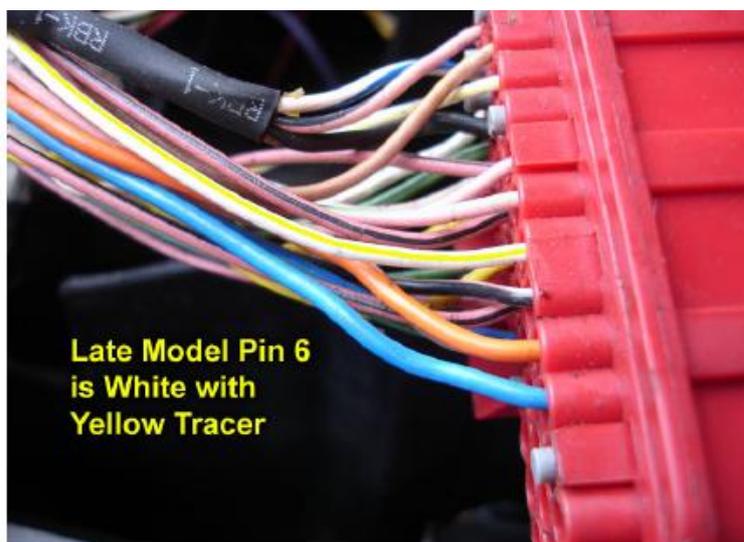
Now we need to identify the pin which needs to be removed. We are looking for Pin 6, which is located on the bottom row of the plug.

As our plug is upside down, it is therefore at the top. Counting from Right to Left, starting at 1, count the pin numbers (including pins not in use) up to 6. This will be a White wire with a Yellow marking. The markings on the wire will vary depending on the year of manufacture of your vehicle. Examples of early and late model wiring is shown below.

Early vehicles have the following wire type0 WHITE wire with YELLOW BANDS.



Later vehicles have the following wire type0 WHITE wire with YELLOW TRACER.



NOTE: On both wiring types, Pin 10 also has the same coloured wire! Don't mix them up!!!

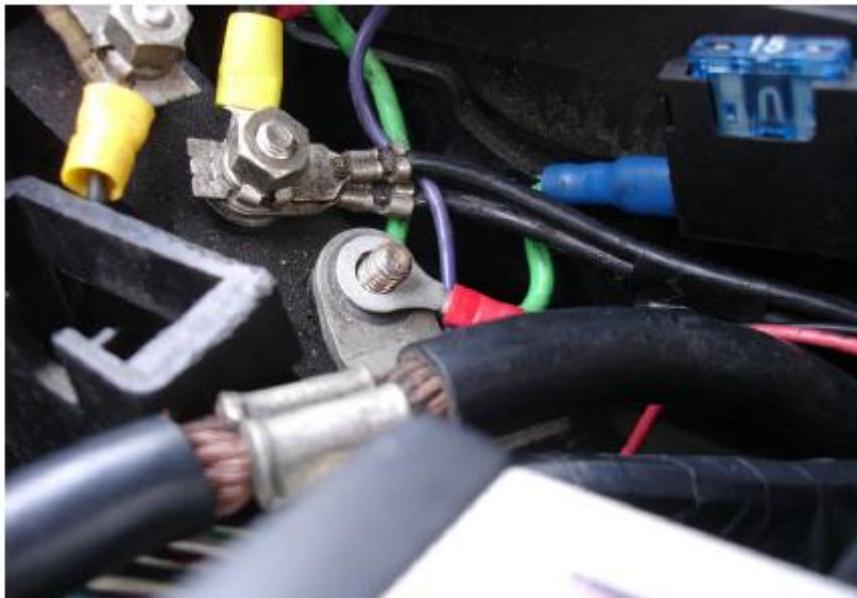


Now we are confident we have the right wire, using a very small screwdriver, or a pin, release the connector from the plug by prising gently on the small retainer (Left). Once the connector has been released, pull it right out of its hole (Middle). Now put the (White) Female type connector from the TD5 BOOSTER into this hole. Push it right in and you should hear or feel a click as it locates. Give it a gentle tug, and it should stay put (Right).

Take the (white) male lead from the TD5 BOOSTER with the heat shrink tubing, and push the White/Yellow cable you took out of the red plug, in to mate up with the Male connector. Once you're happy it's pushed in all the way, you need to shrink this plastic tubing to seal the join and also to prevent it coming loose.

You can use something such as a gas cigarette lighter. Take care not to let the flame touch any of the plastic. Heat shrink tubing is quite sensitive to heat, so you should only have to flash the heat over it a few times for it all to contract. As an additional precaution, you could wrap this connection with some electrical insulating tape.

You need to connect the Earth wire from the TD5 BOOSTER to a suitable chassis earth point. The ideal location for this is on the chassis earth point you've just put the battery lead onto. Don't forget to fasten it down with the 10mm nut.



TURBO ADJUSTMENT

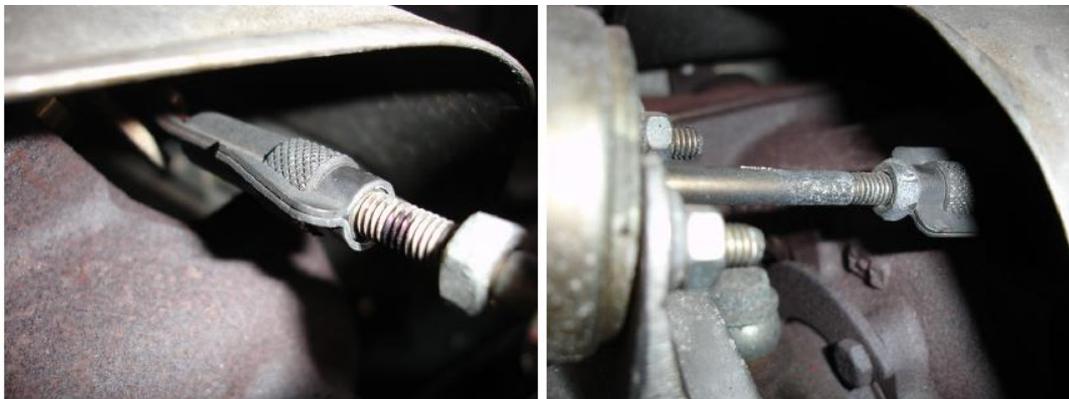
Now that all the electrics are in place, and assuming you have a standard specification turbocharger, we need to adjust the wastegate actuator, to allow extra boost to be generated.

It is YOUR responsibility to gauge whether your engine will take the increase in power this device will give. If your engine is tired, please make your adjustment less than that specified in this guide. Failure to do this may rapidly decrease your engine's lifespan!

Undo the locknut on the Turbo Wastegate Actuator rod, and then measure between 5mm and 7mm from the adjustment collar and mark the threads. This 5mm – 7mm adjustment will be more than adequate for normal road usage. If you have a turbo boost gauge, you should aim for an optimal boost of about 18psi at the inlet manifold. This would read about 20psi at the turbo outlet, due to pressure drop across the intercooler. Do not be tempted to wind it in a bit more, as damage could result. You have been warned!



You need to turn the knurled adjuster on the actuator, in order to make your adjustment. However, it can be quite stiff so to prevent damage to the diaphragm inside the wastegate actuator, clamp the actuator rod in place with some mole grips. If the knurled adjuster is tight, use some pliers to turn it. You could use a squirt of wd40 as well, but be prepared for some smoking when it all gets hot!!!



Once you have wound the adjuster up to the mark you had made on the actuator rod (approx 5mm), tighten the locknut back against the collar to prevent it from moving.

READY TO GO....