

Peugeot 306 GTI-6/Rallye Engine Bay Earth Bonding Kit Fitting Instructions

Kit contents:
2x Bonding leads
Cable ties
Fixings
Instructions



Introduction:

It is a well known and documented fact that efficient bonding of any electrical circuit will provide optimum electrical performance and suppress most electrical interference that may disturb control systems and audio signals. Tests have been carried out and many of the popular performance and race part suppliers can provide such bonding kits that are quite cheap and simple to fit to most cars but at a cost.

As an electrical engineer that specialises in EMC and LVD (Electro Magnetic Compatibility and Low Voltage Directive) testing I have carried out some tests of my own using a specialist machine tester that conforms to EN 60204 to see just how good the car is before fitting of a bonding kit then after.

Two tests were carried out:

- **Voltage drop (UPE) measurement** – Required by EN60204 and measures volt drop between the two points and is measured in volts. (Test is at 10A for 10 seconds)
- **Resistance (RPE) measurement** – Not required by EN60204 but is for DIN VDE 0701. This measures the resistance between the two points and is shown in Ohms. (Test is at 10A for 10 seconds)

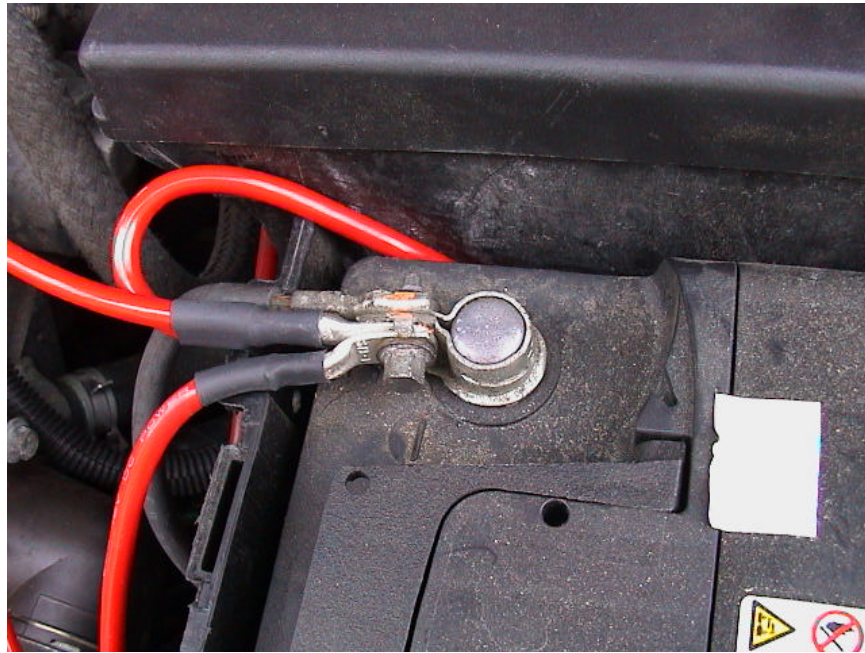
Results of testing:

With the battery +Ve disconnected measurements were taken from the battery –Ve terminal to each of the bonding points to be used. *Results are as follows:*

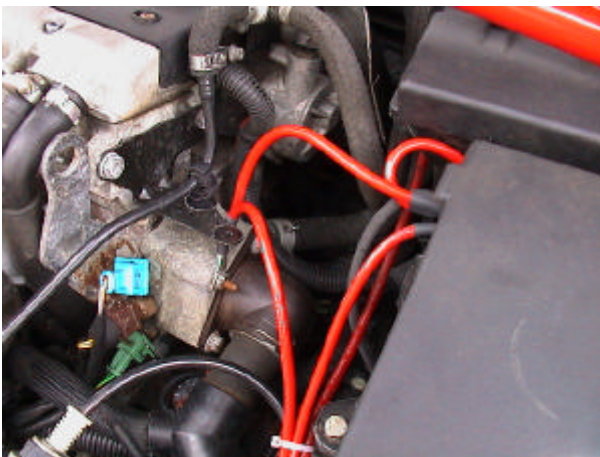
Position	Before		After	
	UPE (V)	RPE (Ohms)	UPE (V)	RPE (Ohms)
RH Strut	0.05	0.01	0.00	0.00
Thermostat	0.22	0.01	0.00	0.00
Throttle-body	0.28	0.04	0.02	0.00
Engine bracket	0.14	0.02	0.00	0.00
Manifold	0.25	0.02	0.02	0.00
Rear bulkhead	0.15	0.01	0.00	0.00

Instructions:

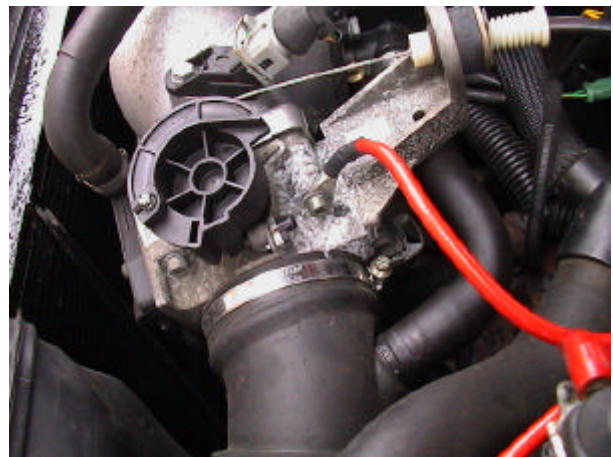
1. Disconnect battery +Ve and cover the terminal to stop accidental contact with the new cables or tools
2. Remove battery -Ve fixing nut and fit the two new leads as shown below (You may need to open up the retaining clips over the screw to get the fixing screw out)



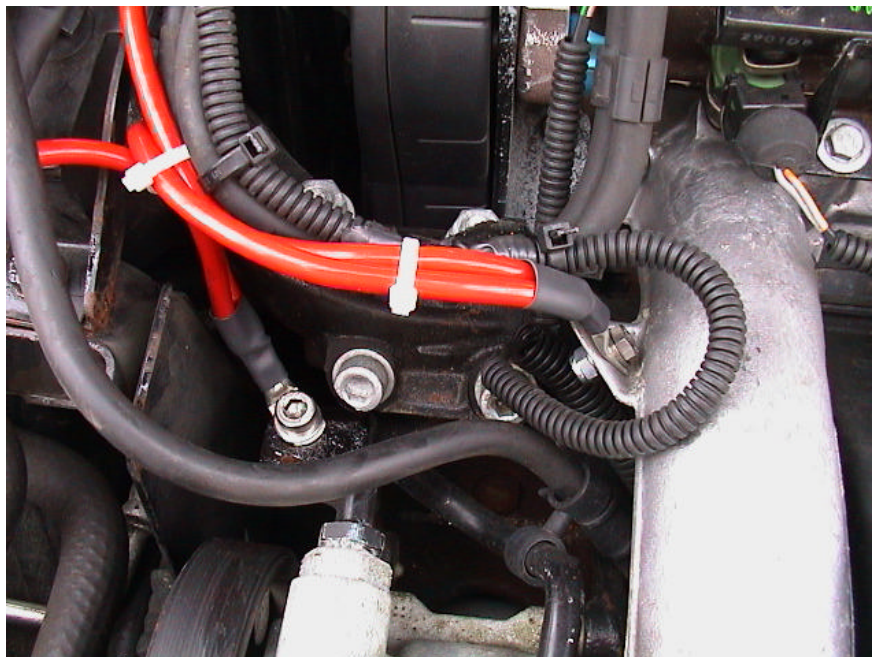
3. Connect the cable terminals as shown below



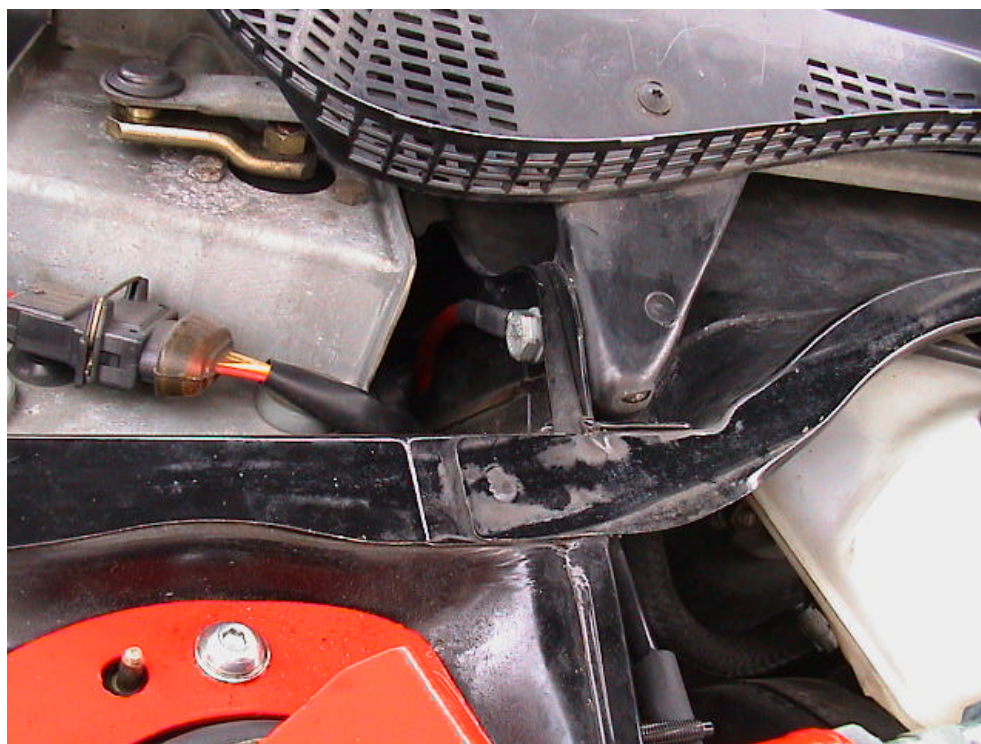
Thermostat stud. (Remove the nut and slide crimp over the stud)



Throttle body (remove screw and fit cable)



Fit the cable to the bracket shown using the supplied M8 bolt. (This may be a bit rusty and need tapping out/cleaning) Also fit the other cable to the manifold lug using the M6 screw, washers and nut provided.



Rear bulkhead near wiper motor. (Cable is fed through an access hole under the panel)

4. Cable tie the cables up as required
5. Reconnect the battery.
6. Remove the paper identification markers on the terminals.