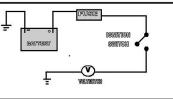
#### Taken from TVMGOC newsletter September 2013

# FITTING AN VOLTMETER

Fitting an Voltmeter to your classic MG can tell you if the battery is charging or discharging.

*This will provide you with valuable advance warning of impending breakdown!* 

So this is how to fit one, good luck.



## **Voltmeter Wiring Diagram (Typical)**



#### (1) Fit the Gauge.

This Smiths instrument passes through a 52mm diameter hole and fixes to the rear of the instrument pod by a bracket and a pair of knurled nuts. You may decide to fix them last, depending on the space available.

### (2) Be Positive.

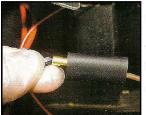
Locate a positive polarity feed, controlled by the ignition switch. Cut a suitable length and grade of wire to size and thread it to the gauge, referencing step 5. attach the other end to the gauge.





Attach a connector to a new wire's end and fix it to a reliable earth supply. Join a suitable connector to the other end.





#### (4) Plan for More.

As several gauge illumination bulbs also required an earth supply on MG's, a male bullet connector was soldered to the other end of the wire and pressed into a 4-way female bullet connector.

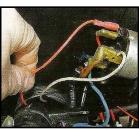
(5) Complete the Circuit. Provide the earth supply, by connecting another section of wire to the instrument. In this case, a bullet connector was soldered to the one end and pressed into the 4-way unit.



(6) Bullet to Wire. Instrument backlighting is provided by a bulb, fitted in a plastic holder. You will need to fit the appropriate connectors bullet types of which were used in this case, to each end of the holder's two wires.



(7) Find the Source. To illuminate the gauges when the lights are activated, identify which positive feed on the light switch becomes live., when the car lights are on.



(8) Passing Through. From the source of the feed, fit a new wire to the 4way connector.



(9) Light Feed. Another 4-way connector was fitted, to the supply. Up to two more gauge backlight bullets can be powered from this. The male bullet connector, from the wire leading to the panel light switch (if fitted)



(10) Backlight Earth. Connect the instruments backlight bulb earth wire into the earth feed's. Reconnect the battery and check the backlights and the instruments work.



(11) Mount the Gauges.

Avoid drilling into your car's original fittings, unless you have to. In this case, the gauge's support plate can be screwed to the cars fascia.



(12) Final Checks.

With the battery reconnected again, check the instrument reading with the ignition on and as many electrical accessories activated as possible. Start the engine and note the different readings.