

## **POLARITY CHANGE**

### **by Dave DuBois**

To change the polarity of any positive ground vehicle (T series MG, MGA, Magnette or early MGB) to negative ground, proceed as follows:

1. Reverse the leads to the battery such that the negative terminal is connected to ground.
2. Reverse the primary leads to the ignition coil (i.e. the leads to the terminals marked either + and - or SW and CB).
3. If the vehicle is equipped with an ammeter (T series and Magnette), reverse the leads to the ammeter.
4. In the case of the 65 - 67 MGB it is necessary to reverse the pickup leads to the tachometer and have the tachometer rewired for negative ground. To reverse the pickup leads, look for the white wire that loops through the pickup adapter on the back of the tachometer (the white wire comes out of the harness, loops through the adapter and goes back into the harness). Mark the incoming wire in two places, about an inch apart with some colored tape; mark the outgoing wire the same way with some different colored tape. Cut both wires between the points marked by the tape, strip and splice the wires to the wires with opposite colored tape. Insulate the splices with tape or shrink sleeving.

Note: The tachometer will have to be changed internally to operate in a negative ground environment as follows: To reverse the power wire and earth wire inside the unit, it is necessary to remove the chrome ring, the glass face and the glare shroud. The chrome ring is usually removed with great difficulty by prying the tabs with a small screwdriver, then rotating until the tabs can fit through the slots in the case. Remove the two screws on the back of the unit that hold the internals to the case (not the two whose heads fit in holes in the case), and allow those internals to drop carefully into your hand. Don't bend the needle! The spade terminal is the power connection. Just next to this is the earth connection. A resistor is soldered to one of these connections, and a green wire to the other. Unsolder these ends of the green wire and the resistor from their current positions. Re-solder the green wire to where the resistor was connected, and the resistor to where the green wire was connected. Reassemble the unit after cleaning the glass.

5. If the fuel pump has been transistorized, if it is a late production pump with a diode installed, have it rewired for negative ground.
6. If there is any auxiliary equipment installed in the car (CB, Radio, Stereo, after market electronic tachometer, etc.), they will need to be replaced or, if they are a dual polarity unit, the power and ground leads will have to be switched.
7. Remove both leads from the generator. Connect a 12 gauge jumper wire to the field (small) terminal of the generator. Quickly touch the other end of the jumper wire to the terminal of the starter solenoid that has the battery cable coming to it two or three times (wire should be touched

to the battery terminal just long enough to produce a spark). Disconnect the jumper wire from the generator and reconnect the original wires to their respective terminals.

8. At this point, the polarity (ground) has been changed and the car can be started.

If you have any questions, call me, Dave DuBois, at 360-479-0462 after 10:00 a.m. PT or contact me at [SUFuelPumps@donobi.net](mailto:SUFuelPumps@donobi.net).