

## HOW TO CONVERT TO NEGATIVE GROUND

### Converting Your Jaguar to Negative Ground

If you want to fit modern electronics such as a CD player or the latest "electronic" or solid state, SU fuel pumps are polarity sensitive. They may fry themselves if connected to opposite polarity.

1st Reverse the battery connections so the negative cable becomes the ground. May require a new cable or some re-arranging of the battery.

Polarize the generator. Use a jumper wire from a hot source (such as the starter solenoid) and brush it twice against the "F" terminal on the back of the generator. The "F" (or "field") terminal is the smaller of the two. If the terminals on the generator are spade type, it might be easier to remove the "F" wire for better access. This procedure can also be accomplished by simply jumping between the A and F terminals at the control box. Use a screwdriver, or wire and simply brush against these terminals twice.

The ignition coil on a positive-ground car will be labelled SW (for ignition "switch") and CB (for "contact breaker," or the wire that goes to the distributor). Simply reverse these connections so that the SW post is connected to the distributor and the CB post is connected to the ignition switch.

**Ammeter/Voltmeter:** Reverse the leads or the unit will read backwards.

### Fuel pump

Original fuel pumps are not polarity sensitive and will continue to work properly with no wiring change. However, nearly any aftermarket electronic fuel pump would be polarity sensitive, and you would need to switch the wires. Additionally, if a new fuel pump has been installed at some prior time, the replacement unit may be polarity sensitive. The original fuel pump had bare contact points. Later replacement pumps had a capacitor across the contact points for arc suppression. This is a small metal can with a single wire on each end, similar to the "condenser" capacitor in the distributor. Such capacitors may have been installed other places in the car for radio noise suppression. These are also not polarity sensitive, and these fuel pumps do not need any wiring change.

The picture below shows a capacitor type fuel pump on the left and a diode type fuel pump on the right. More recent replacement type fuel pumps may have a diode across the points for arc suppression, and these are polarity sensitive and do require an internal change. Powering these up with reverse polarity can blow the diode, either open circuit or shorting to ground. The diode is usually a tubular lump of plastic with two wires coming from the end(s). These pumps commonly have a bump on the end cover to allow space for the large diameter diode, but some may just have a taller cover and still be flat on the end.

Positive earth fuel pumps originally have a blue tape around the body or sealing the joint between the cover and the body of the pump, and the red lead of the diode connects to the points contact blade (as shown in the picture). Negative earth units originally have a red tape, and the black lead of the diode connects to the points contact blade.

