

HOW TO CONVERT FROM GENERATOR TO ALTERNATOR

Minis built up to 1969 (i.e. MKI & MKII) were positive ground; MKIII and onwards were built negative ground. In any case it is advisable to check since your car might have been changed by a previous owner.

The polarity of the alternator can not be changed, so if the alternator you got does not conform to your car, you must change your car. The existing car polarity can be checked by looking at the battery to determine which of the battery leads go to ground.

The ACR series alternators are self contained units; their outputs are as follows: 15ACR-20 AMPS; 16ACR-34 AMPS; 17ACR-43 AMPS; 18ACR & 20ACR-45 AMPS; 22ACR & 25ACR-55 AMPS.

Alternators come in either polarity, however most later ones are negative ground, in which case the alternator will have a "+" sign next to one of its large output terminals.

VEHICLE POLARITY CHANGE (IF NECESSARY)

To reverse polarity turn the battery round and swap the terminals on the battery cables. This will cause problems with tachs, radios, or other electronic accessories.

ALTERNATOR FITTING

Bolt the unit on in place of the generator, noting that you have removed two wires from the generator (a thick one and a thin one). Push the thick wire with the large connector on either of the large spade connectors (usually marked "S" or "+") on the alternator. The small wire goes on the terminal marked "IND" or "WL" .

DYNAMO CONTROL - BOX REMOVAL

Locate terminal "E" on the control box. Disconnect the single black wire as this wire isn't used.

Locate terminal "F" . Remove the brown/green wire.

Locate terminal "D" . Remove the brown/yellow or plain yellow wire, and connect it to the brown/green wire disconnected from terminal "F" in step 2 above. Insulate the connection.

Remove the remaining wires from terminals "AL" ; "A" and "D", connect them all together. Insulate the connection.

What you've accomplished is this: the thin wires from "D" and "F" now feed the ignition warning light; the black ones from "E" is a ground; and the remaining ones from "AL", "A" and "D" all connect together take the output from the alternator and feed it to the headlight switch and to the battery. As you may have noticed the alternator probably has two large spade terminals, as mentioned "+" and "S", these are both the same and can improve your system by putting in an additional cable between the spade terminal on the alternator and the starter solenoid. On the solenoid this extra cable should be connected to the same terminal as the main battery cable (not the starter motor feed). Use only thick heavy wire (e.g. size 65). This will make the system more efficient by reducing the voltage drop, specially when the alternator is putting out a lot of AMPS. If required, a radio interference suppresser, 1UF capacitor, can be connected between the "S" or "+" terminals to ground.

PARTS NEEDED

Alternator; alternator mounting bracket (it's longer than the one for the dynamo-since the alternator is much shorter); maybe a new fan belt; battery clamps, insulating tape.