This page describes how to convert an internal regulator fitted to Valeo alternators. The actual shape and plug connections differ slightly however the task is the same. For conversion to a ZM4 Smart Regulator our objective is to isolate the earth brush (rear most brush) to allow the field control to be handled by the smart regulator.

1/ Dig out all the potting mixture and expose the terminals as per above

2/ Separate the outer two terminals so that they are not touching

3/ Using a multi meter check which brush is common with the brush + and this terminal, this is the positive side

4/ The opposite brush is the ZM4 field brush and by checking the continuity with the newly disconnected terminal as above you will need to solder a wire to this terminal, make the wire about 180mm long

5/ Reassemble the alternator ensuring to protect the newly installed wire against chaffing and any rotating components.

6/ Connect via a joiner block the new wire to the FIELD terminal on the ZM4