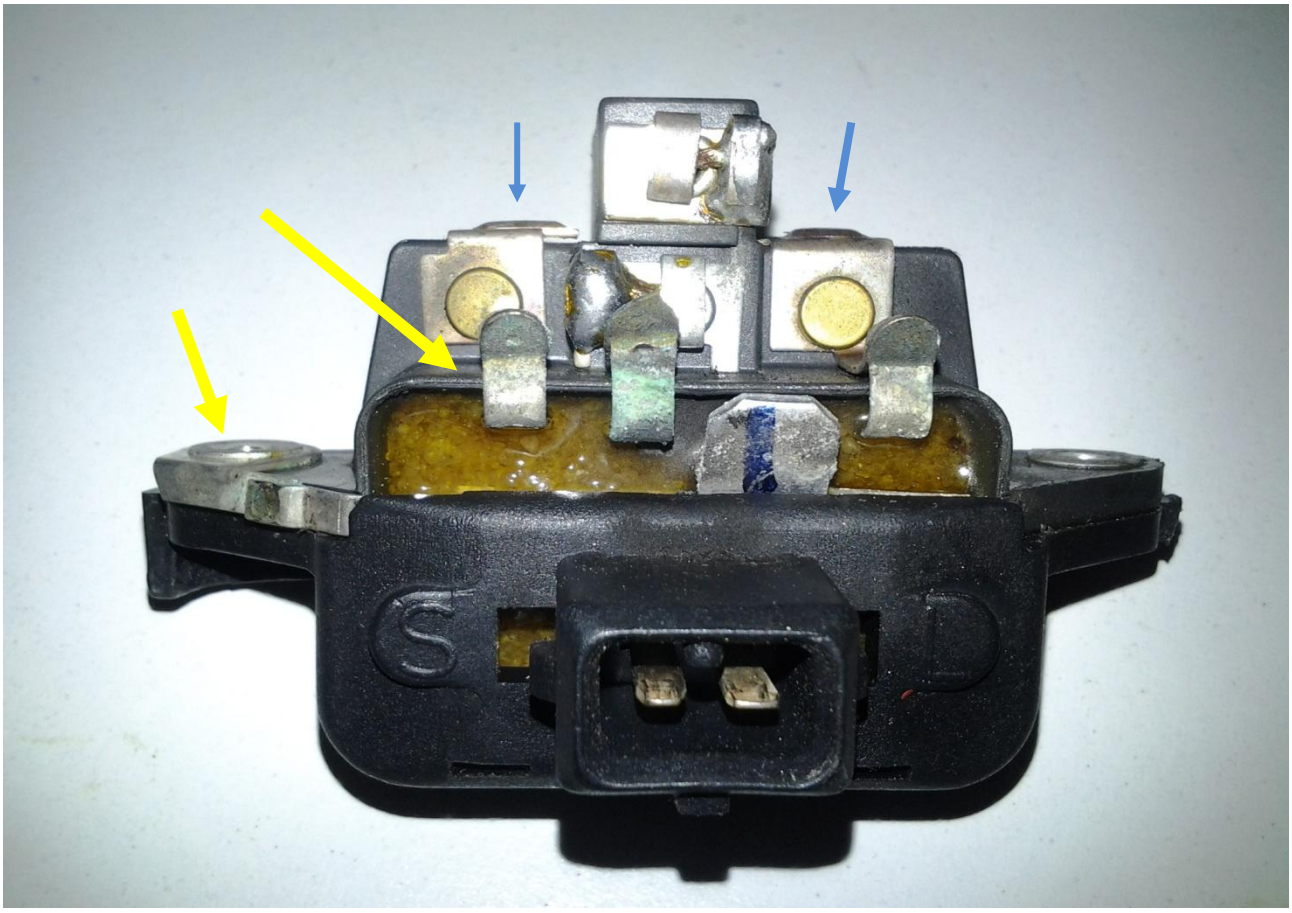
This page describes how to convert an internal regulator fitted to Bosch (-type typically found on a lot of Australian model cars For conversion to a ZM4 Smart Regulator our objective is to isolate the earth brush (rear most brush) to allow the field control to be handled by the smart regulator.



I have modified these successfully in the past and kept the ignition light feature (L pin)

So I am guessing a bit here and you will need to check with your multimeter to ensure that you can pick up voltage from one of the tongues inside the alternator to ensure that you excite the alternator.

You can still use the plug and lead if you want the ignition light facility but make sure you cut the S wire coming out of the plug.

You need to cut any earth strap that goes up to the regulator or brushes, see arrow and I am pretty sure that the other yellow arrow is the link you need to cut going into the regulator itself. Work out which brush is seeing the voltage on the yellow arrow tag and this will indicate to V+ brush. Then it is simply a matter of soldering a wire on the other V- brush and that connects to the ZM4 field. I normally run a short 150mm wire out the back of the alternator and then use a bullet type connector to make it easy to take the alternator on and off in service without a long wire attached.

Once you have it all hooked up you can check your success by doing the following

Remove the field wire from ZM4 and with engine idling, briefly (2-4 seconds) hold the alternator field wire to earth. Note: you will get a spark. You will hear the engine load up and the output voltage should quickly go towards 16v+