

Nippon-Denso

The purpose of this modification is to allow the MOBI-ARC's PWM regulator to control the alternator. The Nippon-Denso's regulator and brush-holder assembly will be removed and replaced with a "dummy" regulator and brush-holder assembly. An external regulator will be fitted to the vehicle allowing standard regulation of the alternator without the control unit present. While the MOBI-ARC is present, the MOBI-ARC's PWB regulator will control alternator output both in the welding and the charging phases. Read through these pages before undertaking modification. People not mechanically inclined may choose to have a local alternator re-builder facilitate this modification.



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This is a general representation. Your alternator may be slightly different.

Replacement parts required for this modification & installation:



Terminal Block 46-82201



Brush-holder Assembly 39-8202



41-82303 Brush-holder Seal



Rear cover
46-82451



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F540HD Regulator
(EFI configuration)



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46-82807 Repair
Harness



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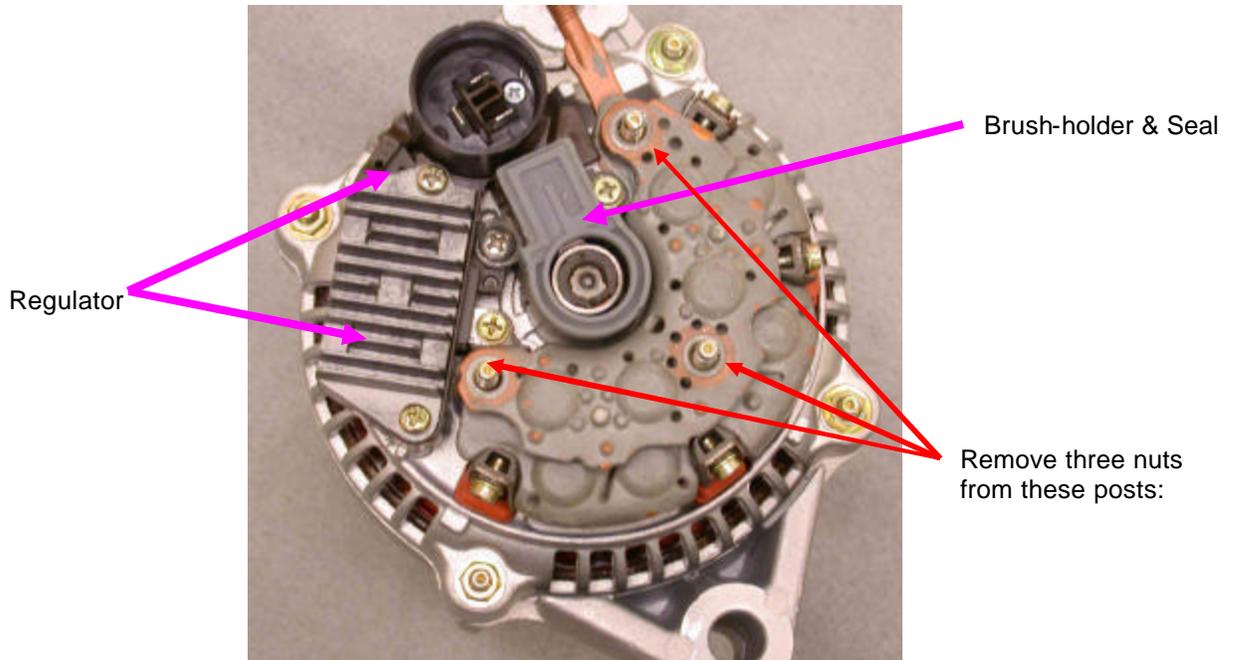
W145-15 Repair
Harness



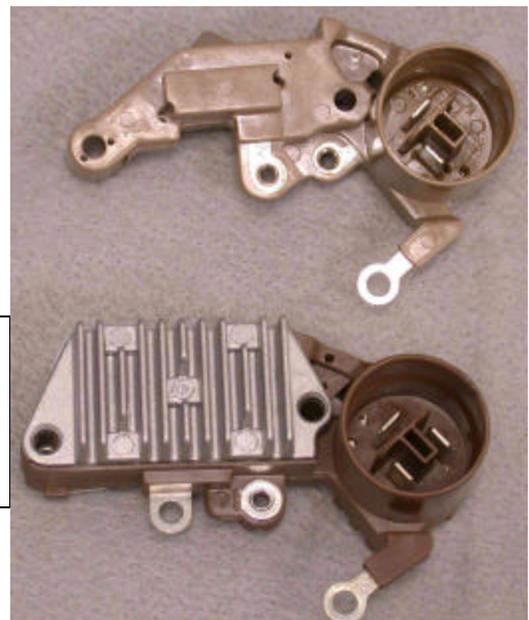
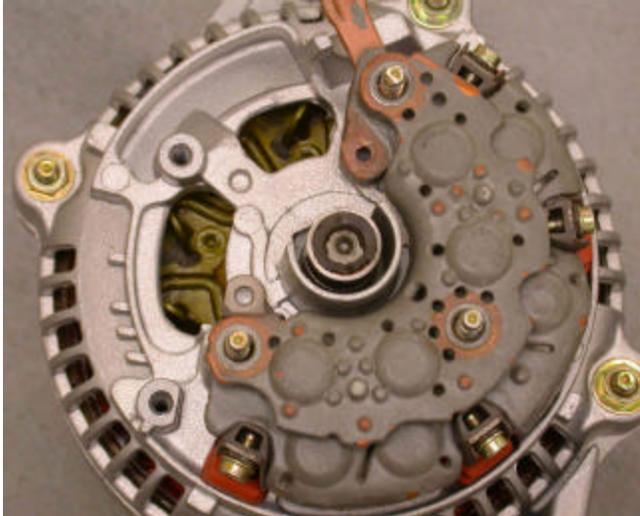
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46-2809 Repair Harness
(EFI configuration)

When the three nuts are removed (identified by the red arrows), the alternator's rear cover can be removed and this is what it should look like.

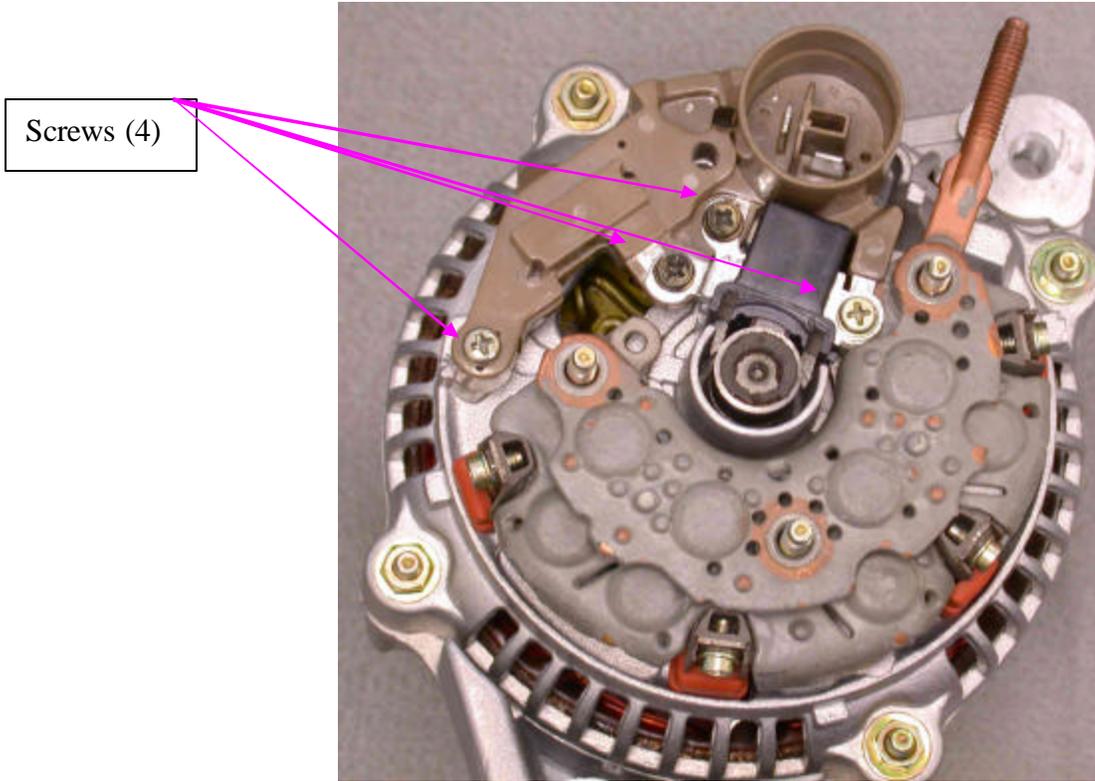


Using a Phillips screwdriver, remove the screws that secure the regulator and brush-holder assemblies. When complete the alternator should look like the picture below:



In the picture to the right, on top is the "dummy" regulator, bottom is the original regulator which has been removed.

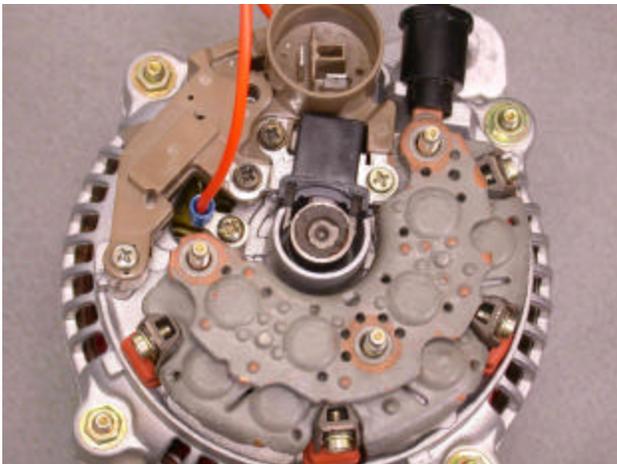
Install the “dummy” regulator and brush-holder. Note that the original brush-holder is not mated to the “dummy” regulator and holes will not line up. Use the provided “dummy” regulator #46-82201 and brush-holder assembly #39-8202. Once all the screws have been replaced, the alternator should look like the picture below:

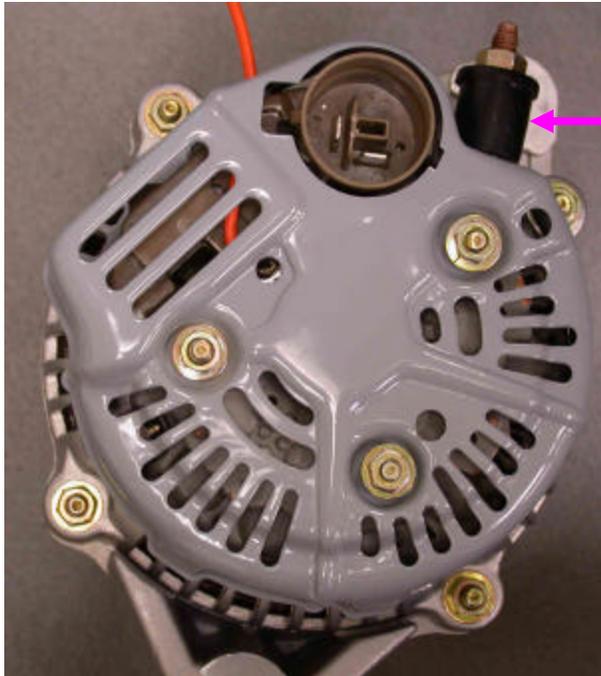


Replace brush-holder rubber gasket.

Add separate orange wire as indicated for Carbuerated setup only.

DO NOT USE ORANGE WIRE FROM 10-PIN HARNESS





Insulator

Replace alternator's rear cover. Be sure the black insulator is present on the battery output post. Once alternator's rear cover is in place, tighten the three nuts securing the cover. Once completed, it should look like the picture to the left:

ALTERNATOR MODIFICATION IS COMPLETE.

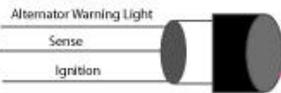
Nippon-Denso

Toyota, Fuel Injection

F540HD Reg.

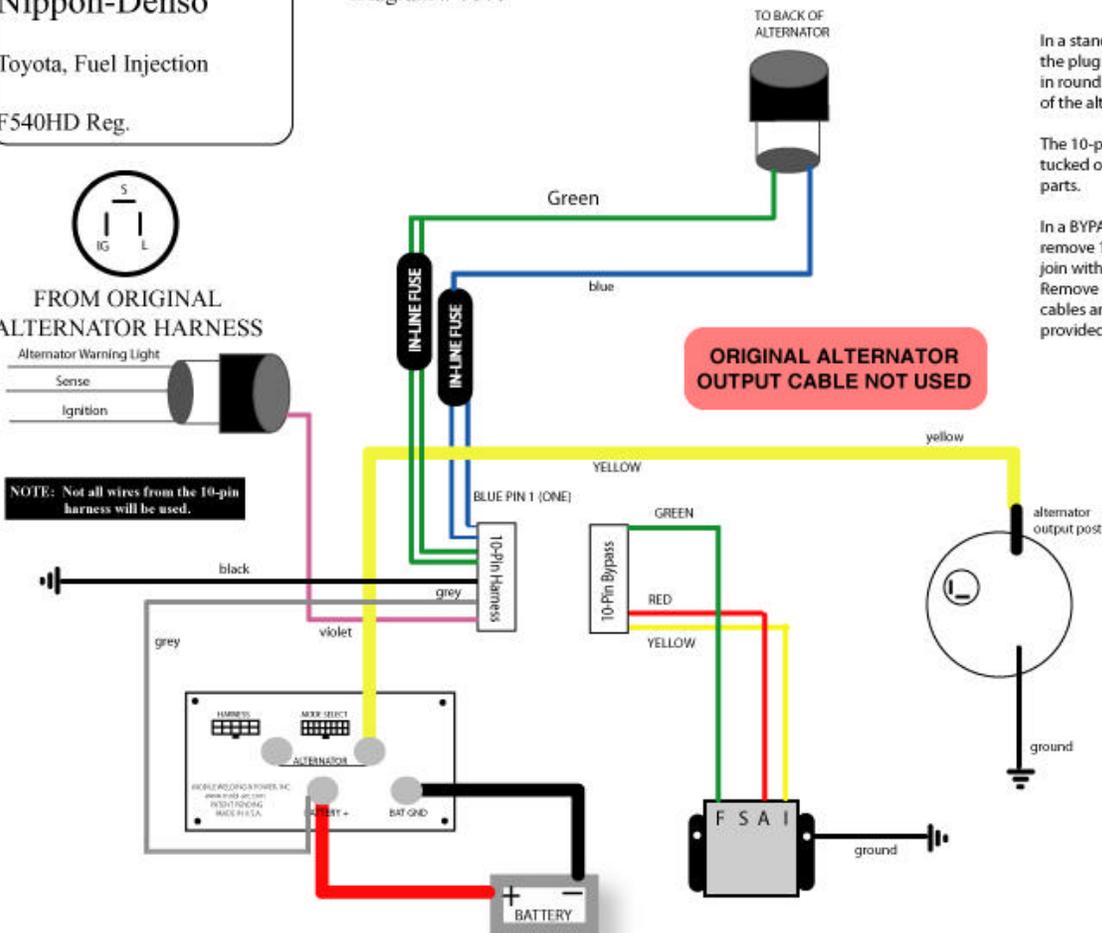


FROM ORIGINAL ALTERNATOR HARNESS



NOTE: Not all wires from the 10-pin harness will be used.

Diagram # 7010



In a standard configuration, the plug will be inserted in round receptacle on the back of the alternator.

The 10-pin BYPASS plug will get tucked out of the way of moving parts.

In a BYPASS configuration, remove 10-pin harness plug and join with 10-pin BYPASS plug. Remove #4 red & yellow cables and join together on bolt provided in BYPASS Kit.

DIAGRAM #7020

