

DVR2-D Regulator & Cut-out for Dynastart Field to Live (Type A) with 8 Amp current limit

Introduction

The DVR2-D (formerly DVR2-S) is a high quality 'solid state' electronic dynamo regulator for Siba & Bosch Dynastarters. Some of the key benefits of fitting a DVR2-D to the classic vehicle user are (in no particular order):

- ◆ Brighter, more stable lighting (steady ammeter reading)
- ◆ Reliable charging from lower engine speed, without overcharging
- ◆ Easier starting due to greater battery power
- ◆ Longer battery and bulb life
- ◆ Lower maintenance (no adjustments to regulator cut-out and less battery topping up)
- ◆ Fits inside original 3 bobbin controllers with Regulator and Cut-out bobbin removed, to maintain original appearance

DRL has made every effort to ensure a robust and reliable design, using up to date components assembled using dependable 'surface mount' technology. Housed in a neat aluminium case. Compact size, electrically rugged and fault tolerant, with superior heat transfer to keep the circuitry cool for enhanced reliability.



DVR2-D for Dynastarts



Overheated Siba 3 bobbin controller

Protection features

The 8 Amp current limit circuitry protects the regulator and expensive dynastarter from excessive drain due to faulty wiring or a low or failing battery for example. The DVR2-D is protected against voltage spikes from the dynamo or on the battery line and reversed polarity output of the dynamo. Experience has shown that these features are essential. Protection against accidental reverse connection of the battery is ensured by fitting a fuse in the line from the regulator output (51/30/B+). Fitting a fuse is good practice. See the following schematic diagram for recommended position. It may be a good idea to mount the fuse beneath the controller unit, out of sight. If fitted directly in the battery to terminal 51/30 the fuse will blow when operating the starter. A 10 Amp fuse is recommended. The DVR2-D will tolerate short circuiting at its output.

Fitting

The DVR2-D unit is 38 x 38 x 25 mm and is designed to fit in the original Siba or Bosch control box case. The original regulator and cut-out bobbins are removed, leaving the starter solenoid in place. The unit only produces a low level of heat. The unit has a central 5mm internal thread on the face opposite the label.

Before fitting the regulator we recommend confirming that your dynastart gives a good output of the correct polarity. This is easily done by running the engine slowly, with the generating field winding earthed and monitoring the unregulated output, which should reach 12 V at a fast idle.

Connections

Seek the assistance of an auto-electrician if unsure about any aspect of fitting.

Disconnect the battery before connecting!

Connect the four leads as follows:

Red to ammeter/battery, **51/30/B+**

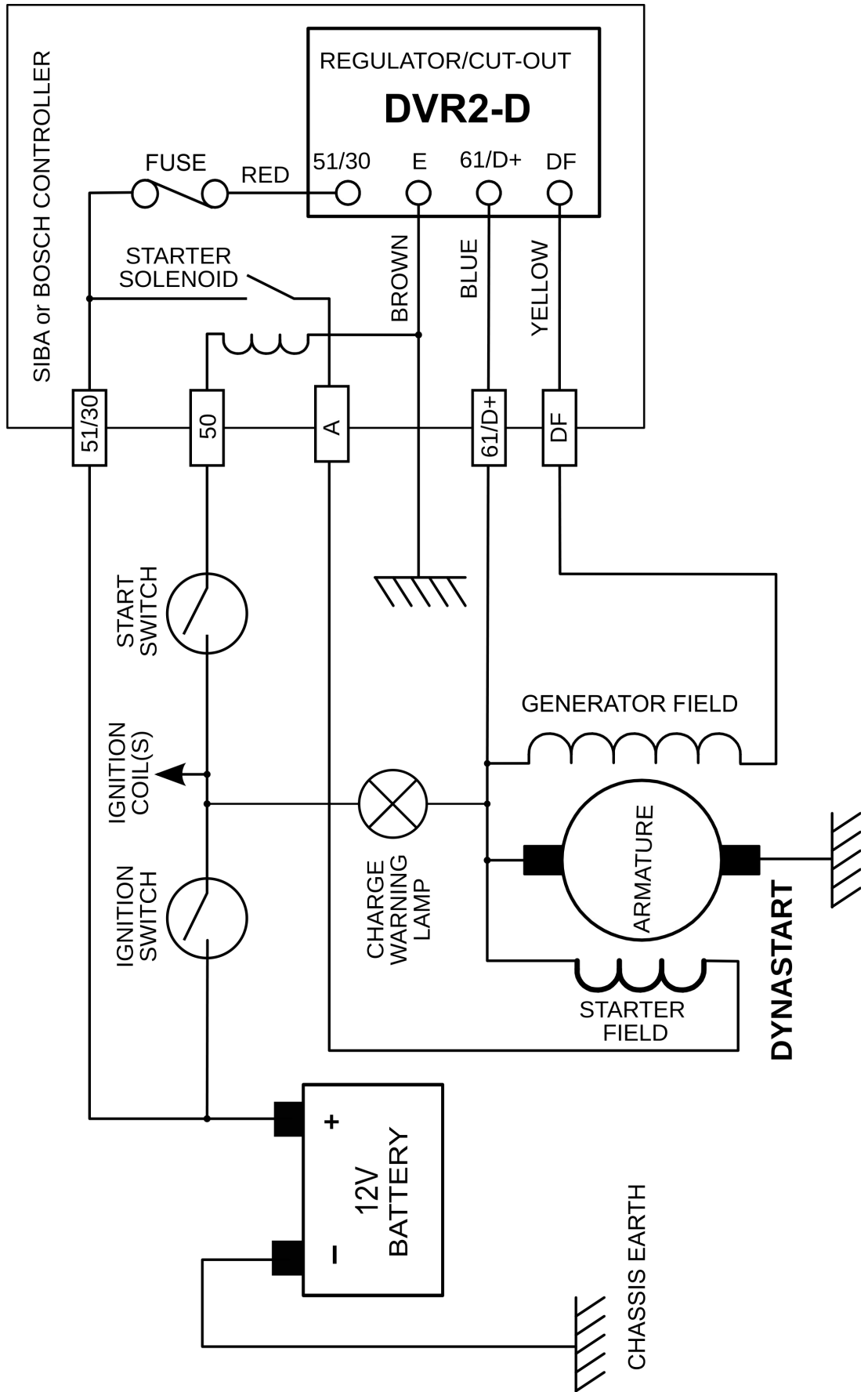
(via 10 Amp fuse for best protection)

Yellow to Field, **DF**

Blue to Dynamo out, **61/D+**

Brown to Earth / chassis or frame

Reconnect battery!



Typical Connections Diagram for DVR2-D showing key features

Other Notes

- ◆ Disconnect or remove any field resistor which may be fitted under the control box case or elsewhere (wire-wound item connected to field terminal). Ensure that the field wire of the dynamo goes to the F terminal of the DVR2-D, and that no other wire is connected. *Failure to do so may result in overcharging and possible damage to equipment.*
- ◆ The resistance of the dynastart's generator field winding (the finer wire one) *must* be greater than 2.5 ohms
- ◆ The metal case of the DVR2-D is not connected to the 'earth' lead. If the earth connection via the lead is lost the dynamo output voltage will not be regulated.
- ◆ Do not use with battery types other than Lead-Acid (includes wet & gel types)
- ◆ Visit our website for other practical information

Guarantee

The DVR2-D is guaranteed for one year from purchase against manufacturing defects, but not for faults caused by improper fitting or use. If a fuse is not fitted as described above any claim for damage may be rejected.

**If in any doubt about fitting this electronic regulator correctly
seek the assistance of a competent person!**



75 Titchfield Park Road, Fareham, Hants PO15 5RN

UK Reg. No. 07295701, Tel: +44 (0)1489 880552

<http://www.dynamoregulators.com>

e-mail: dvr@dynamoregulators.com