

November 2021

Ford Ranger/Raptor/Everest & Mazda BT-50 Battery Replacement

Late model Ford Rangers & Mazda BT-50's have a large power distribution block attached to the positive battery terminal (circled in yellow below). This block contains 2 fuses and a number of power take off points for the vehicle.



This block appears to be robust, and the M6 & M8 studs used also suggest this however the base structure is moulded from plastic. All of the studs are retained and located by the plastic base and are not designed for high torque loads. Unfortunately the nuts are often over-tightened which can cause cracks or a failure when removing them.



Battery Replacement

It is necessary to remove one of these bolted connections to create enough clearance for battery replacement in these vehicles.

Fig. 1 details the connections which need to be removed using the number sequence shown.

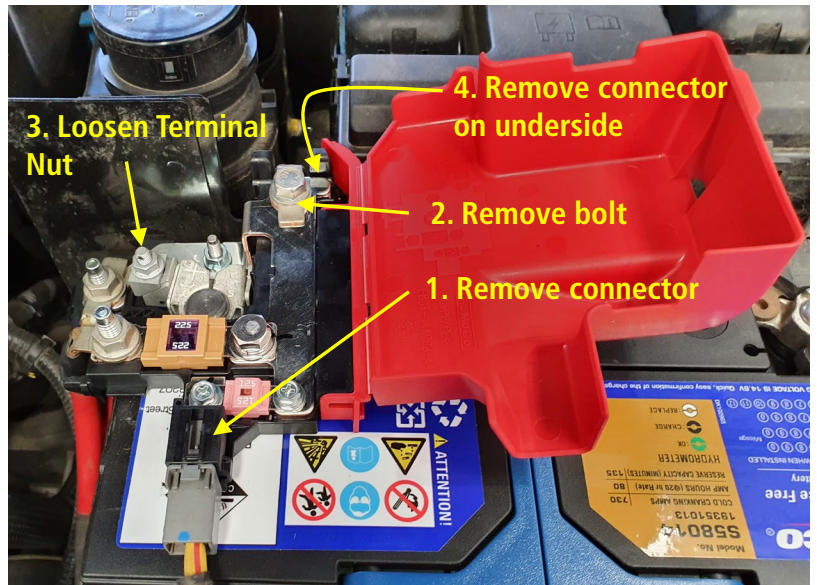


Figure 1 – Connection removal sequence



Figure 2 – Rotate Power Block away from battery

Fig. 3 shows what can happen when the retaining nuts have been previously over tightened. In this case when the stud broke off it also destroyed the 225A Maxi Fuse.

This issue is well known by OEM dealers and the aftermarket service industry. The only solution when a failure occurs is to purchase a new Power Distribution Block from a Ford or Mazda dealer. The Ford part number is GB3Z 14526A, and it will cost around \$140.

The following video takes you through the steps to replace the battery in these vehicles <https://www.youtube.com/watch?v=7Dinuk9Yr08&t=207s>

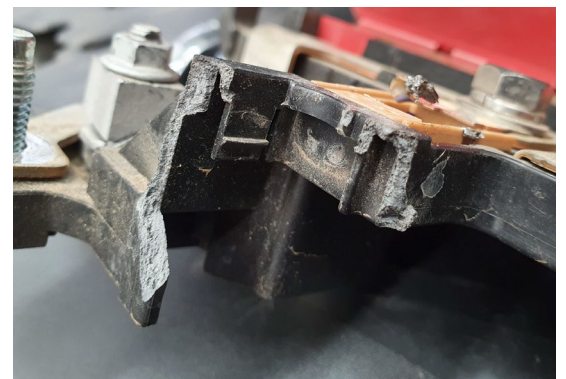


Figure 3 – Stud failure