

REMOVE AND REFIT AUXILIARY INVERTER (KEB)

Remove

 Ensure the Ignition switch is OFF, remove keys from the vehicle and place in a secure location at least 2 metres from the vehicle

Caution: Please wait 30 minutes after the vehicle power system has been switched off to allow any power stored within the inverter capacitors to have been discharged.

Warning: ALWAYS ensure the correct PPE is worn when working on, or with HV components.

- 2. Disconnect both the negative and positive battery cables see LV Battery Disconnection
- 3. Remove both Master Service Disconnect plugs (MSDs) see Master Service Disconnect Remove/Refit
- 4. Raise the vehicle using a suitable lifting apparatus while complying with lifting weight restrictions to a safe working height
- 5. Locate the DC/DC converter under the vehicle (the DC/DC is mounted in a block with the KEB)



 Undo and remove the two HV security brackets and disconnect the KEB



7. Remove the HV cable into the side of the KEB (undo the torx screw T20)





8. Disconnect the connectors from front of the BMS and KEB



9. Release the cable clip from the BMS housing and move loom to the side



10. Clamp off the two cooling hoses to the KEB and remove. Be ready the catch any residual coolant



11. Clamp off and disconnect the two DC/DC coolant hoses via the release tags on the connections. Be prepared to catch residual coolant



- 12. Support the DC/DC with suitable transmission jack
- 13. Undo the 4 DC/DC mount bolts (one in each corner) careful not to drop/lose the rubbers



14. Slowly lower the DC/DC a few inches to gain access to the earth bus bar



15. Undo and remove the second earth connection in (this is the earth for the KEB)



16. Undo and remove the two bolts securing the earth bus bar and place bus bar out the way



- 17. Lower DC/DC down further to gain access and undo the KEB securing bolts
- 18. Lift off the KEB and lower the DC/DC to a safe level to lift from the jack
- 19. Place DC/DC in a clean secure workstation







Refit 37 Mins

- 1. Place DC/DC back onto the stand
- 2. Raise DC/DC up to a level that you can refit the KEB use thread lock tighten to 48 Nm
- 3. Refit earth bus bar and tighten to 23 Nm
- 4. Refit KEB earth cable and tighten to 23 Nm
- 5. Making sure all washers and rubbers are in the correct location, raise the DC/DC back into its position
- 6. Resecure the DC/DC with the four bolts, use thread lock and tighten to 48 Nm
- 7. Refit the two DC/DC coolant hoses (push fit)
- 8. Refit the two KEB coolant pipes and tighten clamps to 7 Nm
- 9. Refit all front electrical connectors
- 10. Refit the three HV connectors on the side
- 11. Refit the two HV connector security brackets
- 12. Confirm all connections are sound
- 13. Lower vehicle and top up coolant as necessary
- 14. Fit relevant PPE
- 15. Refit MSDs
- 16. Refit 24V battery link
- 17. Confirm vehicle safe and remove PPE
- 18. Key on vehicle and scan/clear any faults
- 19. Check and confirm no leaks from cooling system
- 20. Test the vehicle and confirm all ok