

Landrover V8 Electronic Ignition

Replacement Modification Engineering Change Instruction

~~General~~ Engineering Authority (Date)

1. **Introduction.** Although the replacement programme is under way for the Land Rover V8, there is still a requirement to maintain some vehicles within operational units until a replacement is identified. Parts can not be obtained for the Mallory electronic ignition currently fitted, to this end an interim solution is to fit a Mallory twin points system.
2. **Estimated Man-hours to Perform.** 3 hours.
3. **Priority.** Group 2.
4. **Modification to be applied to.** All Land Rover V8 with ignition faults, which are unreparable due to the unavailability of repair parts.
5. **Item Affected.** NSN 2920-98-AXO-0509, Kit, Electronic Ignition System.
6. **Action Required.** RNZALR workshops authorised to carry out medium grade repairs are to action this modification when the repair parts are unavailable.
7. **Drawings Required.** All drawings /diagrams required are included in this instruction.
8. **Stores Required.** The stores required are supplied in a modification kit as listed at Table 1. RNZALR Wksps are to purchase Item 1, Table 1, from Segedin Auto Spares Auckland, Attention Shane Johnson, 0800 800 385. "NZ Army V8 Landrover Distributor Modification". Item 3, Table 1 purchased from any electronics wholesaler.

Table 1 – Stores Required

| Ser | NSN | Designation | Qty |
|-----|------------------|-------------------------------------------------------------------------------|-----|
| 1 | | NZ ARMY V8 LANDROVER DISTRIBUTOR KIT | 1 |
| 2 | 5945 98 107 9589 | LOAD SHEDDING RELAY | 1 |
| 3 | | 6.8 OHM 100 WATT RESISTOR (AVAILABLE LOCAL PURCHASE, MUST HAVE COOLING FINS.) | 2 |

9. **Stores Removed.** Stores removed are listed at Table 2.

Table 2 – Stores Removed

| Ser | NSN | Designation | Qty |
|-----|------------------|----------------------------------|-----|
| 1 | 2920 01 390 5148 | COIL, IGNITION | 1 |
| 2 | 2920 01 390 6277 | REV LIMITER, ASSY | 1 |
| 3 | 2920 01 390 6279 | ELECTRONIC IGNITION CONTROL UNIT | 1 |
| 4 | 2920 98 DAA 8776 | OPTO-ELECTRONIC BASE PLATE | 1 |
| 5 | 5340 98 204 1695 | COVER ACCESS | 1 |

10. **Special Tools, Jigs and Fixtures.** Nil.

Detail

11. **Modification Procedure:**

a. **Electronic Control Unit:**

- (1) Rotate engine to TDC No 1.
- (2) Remove electronic control box (ECU) from L/H fender.
- (3) Remove all components from ECU base plate leaving rubber feet.
- (4) Mount 1x load shedding relay on upper left of base plate.
- (5) Mount 2x 6.8 ohm resistors on lower left with connectors facing down.
- (6) Mount Ignition coil on base plate with mounting bracket on centre line of base plate
- (7) Wire components as per Fig. 1 Wiring and Layout Template.
 - (a) Use black wire from one battery only (12 Volt) to relay terminal 30/51.
 - (b) White Ignition feed wire is connected to relay terminal 85.
 - (c) Relay terminal 86 is ground.
 - (d) Relay terminal 87 is connected to resistors.
 - (e) Resistors are connected to Coil positive terminal and negative to common connection of points and capacitor in distributor.

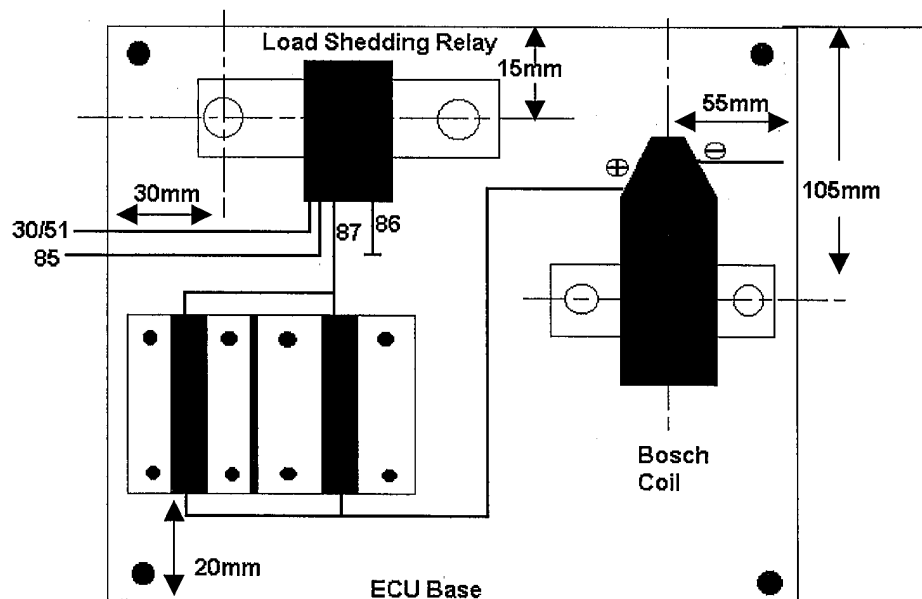


Figure 10 – Wiring and Layout Template.

- (8) Re-mount base plate on L/H fender.

b. **Distributor:**

- (1) Remove distributor.
- (2) Remove Cap, Rotor, Optical switch and Vacuum advance canister.
- (3) Remove base plate grub screws then remove base plate
- (4) Remove rotor cam.
- (5) Inspect centrifugal weight advance assembly. If unserviceable replace weights and springs from kit. Set up advance curve as per NZ P98 B 279-38.
- (6) Refit cam and secure.
- (7) Fit dual points ignition points plate.
- (8) Install points set and set gap to 0.022 inch each
- (9) Insert 30 mm screw through wiring harness hole in distributor body with an insulation bush on each side of distributor body, with dual points wired to inside end and capacitor wired to outside end.
- (10) Refit vacuum canister to distributor body using right hand screw to mount capacitor to distributor. Refit vacuum canister arm to points plate.
- (11) Refit distributor into engine, Static time.
- (12) Start engine and tune to NZ P98 B 279-38.

12. **Recording of Modification.** This modification is to be recorded in the Vehicle Record Book (AB54) as " Mod B 270- FITTING OF DUAL POINTS IGNITION SYSTEM".

13. **Financial Detail.** All costs associated with embodying this modification are to be charged as a normal repair quoting Classification Code 6699.