

**TRUCK, PANEL, LIGHTWEIGHT, SURVEY, FFR, WINCH, MC2
– LAND ROVER 110 4X4**

TECHNICAL DESCRIPTION

This instruction is authorised for use by command of the Chief of Army. It provides direction, mandatory controls and procedures for the operation, maintenance and support of equipment. Personnel are to carry out any action required by this instruction in accordance with EMEI General A 001.

INTRODUCTION

General

1. This EMEI contains the technical description of items specific to the Truck, Panel, Lightweight, Survey, FFR, Winch, MC2 – Land Rover 110 4x4. Generic technical description information applicable to the Land Rover cab/chassis is contained in EMEI Vehicle G 102 – Truck, Utility, Lightweight and Truck, Utility, Lightweight, W/Winch, MC2 – Land Rover 110 4x4.

Associated Publications

2. Reference may be necessary to the latest issue of the following documents:
- a. Defence Road Transport Instructions (DRTI);
 - b. GM 120, Record Book for Service Equipment – Army;
 - c. Complete Equipment Schedules (CES) – SCES 012040 Truck, Panel, Lightweight, Survey, FFR, Winch, MC2 – Land Rover 110;
 - d. EMEI Electrical P 41 Decade – Generator, Engine Accessory, 28 V, 100 A;
 - e. EMEI Vehicle A 008-1 – The Vehicle Part, Technical Inspection of ‘B’ Vehicles, Trailers, Motorcycles and All Terrain Vehicles (ATV) – Inspection for Useability;
 - f. EMEI Vehicle A 029-3 – Vehicles – General, Servicing of B Vehicles, Trailers, All Terrain Vehicles (ATV) and Motor Cycles – General Instruction;
 - g. EMEI Vehicle G 10 Decade;
 - h. EMEI Vehicle G 12 Decade;
 - i. EMEI Vehicle G 189-8 – Truck, Lightweight and Truck Light – All Types – Land Rover 4x4 and 6x6, Location and Restriction on the Use of the Power Distribution Box – General Instruction;
 - j. Repair Parts Scale – 02190 (Truck, Utility, FFR); and
 - k. Repair Parts Scale – 02192 (Truck, Panel, Lightweight, Survey, FFR, Winch).

Maintenance Supply Item (MSI) Identification

3. Table 1 contains the locations of identification numbers on the MSI.

Table 1 Location of Identification Numbers on Maintenance Supply Items

Serial	ID Number Type	Location
1	Chassis No.	Right-hand side of the chassis, forward of the spring mounting turret
2	Chassis Nameplate	Left-hand seat box in the cabin
3	Engine No.	Left- hand side of the engine block
4	Injection Pump ID	Side of the pump
5	Transmission & Transfer Case	Rear of the transfer case
6	Front Axle No.	Adjacent to the axle breather
7	Rear Axle No.	Adjacent to the axle breather

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ELECTRICAL SYSTEM DETAIL

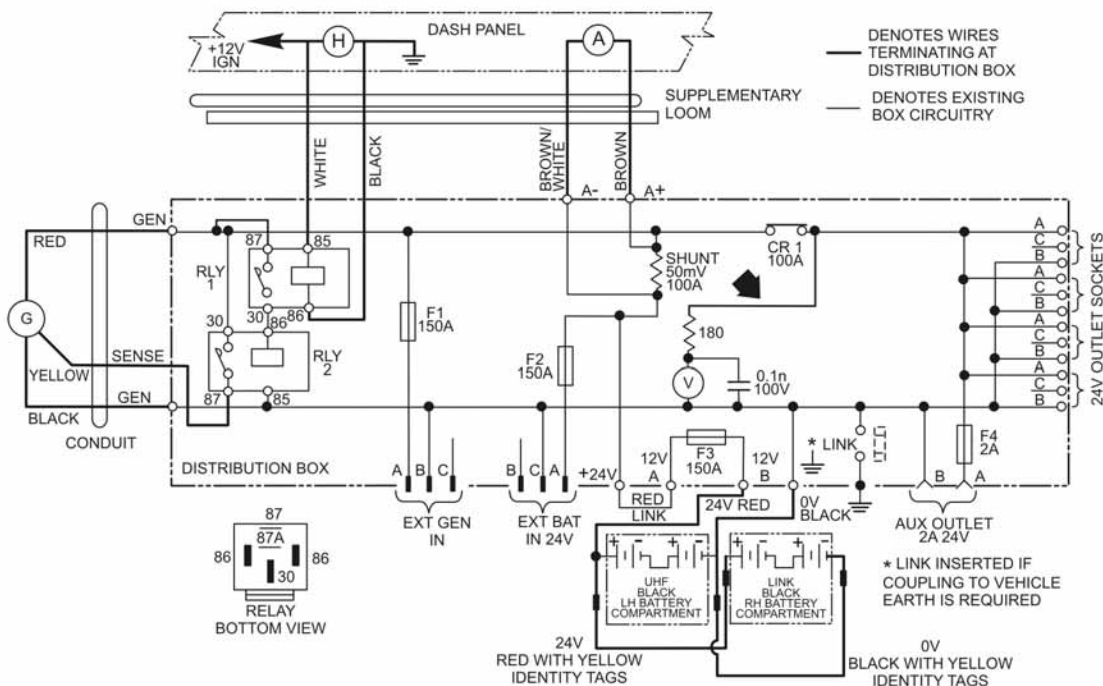
4. The vehicle utilises a 12 V electrical system for engine starting and vehicle lighting. Two completely independent 24 V electrical systems are fitted to operate the radio equipment. The 24 V system batteries are installed in two compartments in front of the rear axle. The 24 V circuit diagram is shown in Figure 1.

Alternator

5. The vehicle is fitted with a Generator, Engine Accessory, 28 V, 100 A (NSN 2920-66-095-0364). For a detailed description of the alternator, refer to EMEI Electrical P 412.

Wiring Harness

6. In addition to the two main wiring harnesses, a third wiring harness is utilised to enable the 28 V, 100 A alternator and radio equipment to function.



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Figure 1 24-volt Circuit Diagram

Batteries

7. There are two separate compartments each containing two 12 V batteries connected in series. The two pairs of batteries are then connected in parallel with each other and the power distribution box.

Hour Meter

8. An hour meter is fitted to the dashboard centre console and provides an accurate record of the engine running hours.

Ammeter

9. An ammeter is fitted to the dashboard centre console and provides a check on the charge rate and performance of the alternator.

Interior Lamp

10. An interior lamp is installed in the rear compartment and is provided with a red and clear lens to enable the radio equipment to be used in blackout or normal conditions. The light is operated by a three-way switch fitted adjacent to the clear lens.

Forced Air Ventilator

11. A forced air ventilator is fitted to the left side of the upper body behind the passenger seat (Figure 2). The ventilator has the following specifications:

- a. a 24-volt three-speed electric motor fitted with two impellers;
- b. a four-position control switch;
- c. a removable filter; and
- d. two variable outlet ducts.

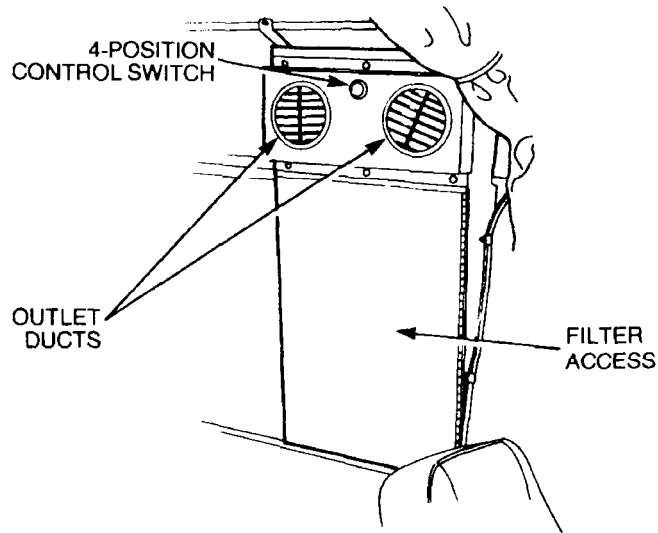


Figure 2 Forced Air Ventilator

Power Distribution Box (PDB)

12. The PDB (Figure 3) is installed in the rear compartment to enable auxiliary radio equipment and batteries to be connected. The PDB is provided with the following connections and controls:

- a. a 100 A ON/OFF circuit breaker;
- b. four 24 V Cannon socket outlets;
- c. an external battery Cannon socket inlet;
- d. an external generator Cannon socket inlet;
- e. an auxiliary 24 V Cannon socket outlet, together with a 2 A fuse;
- f. a voltmeter to monitor battery conditions; and
- g. five internal 150 A fuses (two spare).

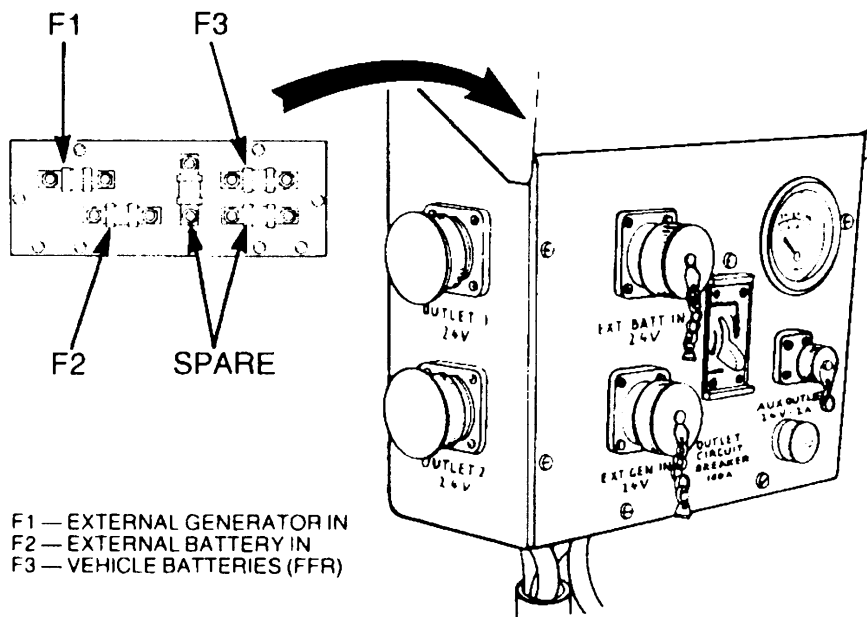


Figure 3 Power Distribution Box Hour Meter

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BODY

13. The vehicle's body consists of the following three box sections (Figure 4):
 - a. an engine compartment;
 - b. a two-door open back cab; and
 - c. a one-door type rear section with a hard top and a tropical roof.
14. The rear section contains two double inward facing seats and a distribution box.

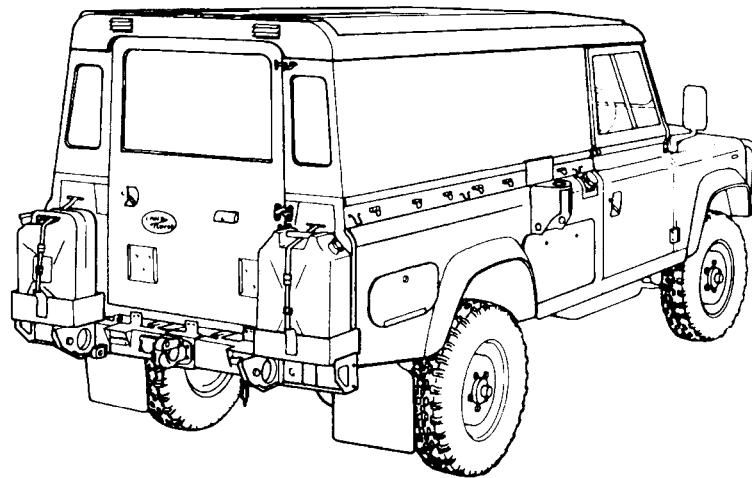
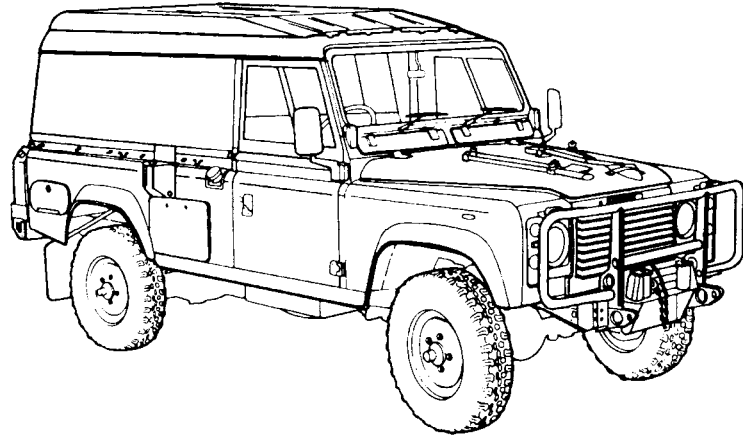


Figure 4 Body

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Rear Body

15. The rear body and roof is constructed from pressed aluminium panels bolted and riveted to a steel frame. Access to the rear inward facing seats is provided by opening the one-piece steel frame door, which is hinged to the rear body. The rear body is secured to the chassis by four mounting brackets and is also secured by bolts to the rear cross member. A tropical roof of fibre glass construction is attached to the roof panel by pop rivets. The tropical roof provides an insulated space above the roof panel (Figure 4).

16. A toolbox is incorporated on each side of the rear body, located to the rear of the wheel arch (Figure 5). Each toolbox is equipped with a hinged lockable lid, which provides storage for the hydraulic jack and the vehicle's toolkit. A wheel arch trim is positioned over each wheel arch and secured to the side panels by plastic rivets.

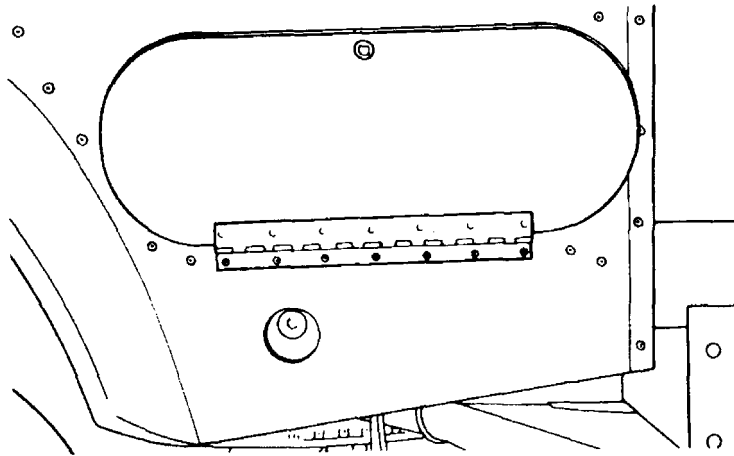


Figure 5 Tool Box and Wheel Arch Trim – Left Side

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END

Distribution List: **VEH G 16.4 – Code 1** (Maint Level)
(Sponsor: CGSVSPO, Light B Vehicle Section)
(Authority: ECO CGSVSPO 120/10)