TRUCK, UTILITY, LIGHTWEIGHT, FFR AND TRUCK, UTILITY, LIGHTWEIGHT, 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 the electrical system of the Truck, Utility, Lightweight, FFR and Truck, Utility, Lightweight, FFR, Winch, MC2. For all other detail of the truck refer EMEI Vehicle G 102.

Associated Publications

2. Reference may be necessary to the latest issue of the following documents:

a. EMEI Vehicle A 029 — Servicing of B Vehicles, trailers, motor cylces, stationary equipment, auxiliary and small engines;

b. EMEI Vehicle G 10 Decade;

c. EMEI Vehicle G 11 Decade;

d. EMEI Electrical P 412 — Generator, Engine Accessory 28 V dc, 100 A;

e. Repair Parts Scale - 02190 (Truck, Utility, FFR); and

f. Repair Parts Scale - 02191 (Truck, Utility, FFR, Winch).

Identification Numbers

3. Table 1 lists the locations of identification numbers.

Table 1 Location of Identification Numbers

Serial	ID Number Type	Location
1	Chassis number	Right-hand side of the chassis, forward of the spring mounting turret
2	Chassis nameplate	Left-hand seat box, in the cabin
3	Engine number	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	Torque limiter	On rear end of the drive plate
7	Front axle number	Adjacent to the axle breather
8	Rear axle number	Adjacent to the axle breather

DETAIL

Electrical System

4. The vehicle utilises a 12 V electrical system for engine starting and vehicle lighting. An independent 24 V electrical system is fitted to operate the radio equipment (Para 10). The batteries for the 24 V systems are installed in two compartments in front of the rear axle.

Alternator

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

Wiring Harness

6. The wiring harness for the vehicle (Figure 1) includes the following:

a. a 12 V ignition system; and

b. two independent 24 V Battery banks connected in parallel producing a 24 V, 100 A capability for the communication equipment.

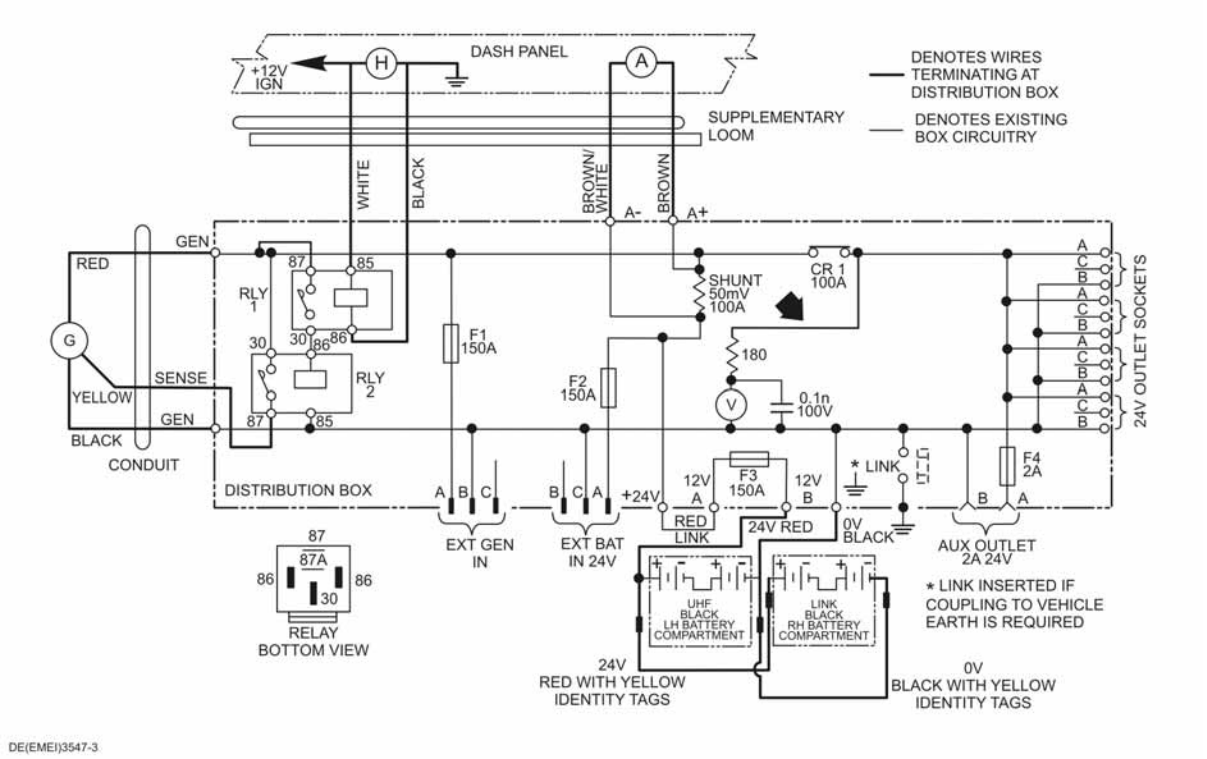

Figure 1 Wiring Harness

Power Distribution Box (PDB)

7. The PDB (Figure 2) 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).

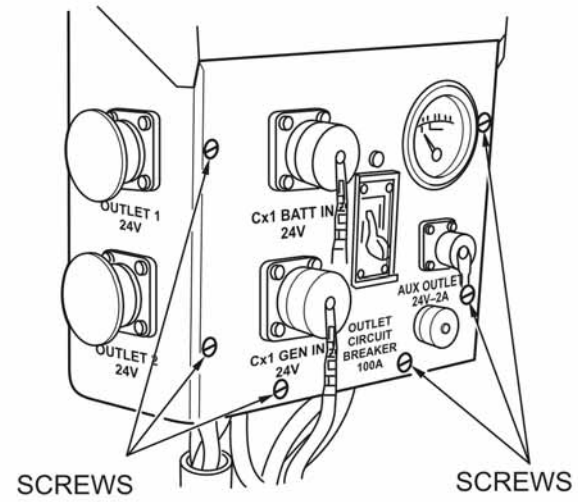

Figure 2 Power Distribution Box Hour Meter

Interior Lamp

8. 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.

Batteries

9. There are two separate compartments each containing two 12 V batteries connected in series (24 V). The two pairs of batteries are then connected in parallel with each other and the power distribution box.

Hour Meter

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

Ammeter

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

END

Distribution List: **VEH G 16.1 – Code 1** (Maint Level)
(Sponsor: LV SPO, Lt B Vehicles)
(Authority: TRAMM)