

TRUCK, ELECTRONIC REPAIR AND TRUCK COMSEC REPAIR, LIGHT, MC2 – LAND ROVER 110 6X6

DATA SUMMARY

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.

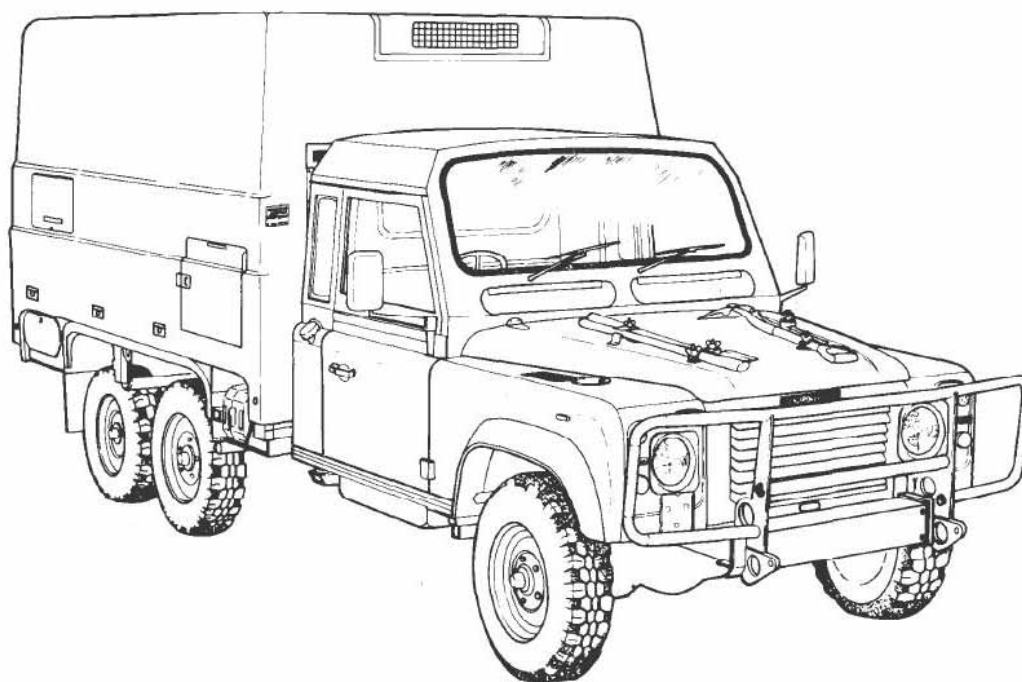


Figure 1 Truck, Electronic Repair and Truck COMSEC Repair, Light, MC2 – Land Rover 110 6x6

General

1. This EMEI lists basic data for the Truck, Electronic Repair (ERV) and Truck COMSEC Repair, Light, MC2 – Land Rover 110 6x6, as shown in Figure 1.
2. **Role.** The role of the ERV and COMSEC vehicles is to provide an environmentally-controlled work station for two tradesmen to carry out repairs on electronic components by utilising the specialist equipment, tools, machinery and spare parts stowed within the vehicle.

Detail

3. Dimensions

- a. Height:
 - (1) Laden 2 560 mm
 - (2) Unladen..... 2 590 mm
- b. Length 6 001 mm

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- c. Width:
 - (1) Mirrors Extended 2 440 mm
 - (2) Mirrors Collapsed..... 2 185 mm
- d. Shipping Cubage 33.57 m³
- e. Module:
 - (1) Length – Internal 3100 mm
 - (2) Width – Internal 2 085 mm
 - (3) Height – Internal 1 800 mm
 - (4) Width of Rear Door..... 740 mm
 - (5) Height of Rear Door..... 1 600 mm
 - (6) Height of Module Floor From Ground:
 - (a) Laden 710 mm
 - (b) Unladen..... 740 mm
 - (7) Weight of Module (Unladen) 1 700 kg
- f. Wheelbase:
 - (1) Front Axle to Intermediate Axle 3 040 mm
 - (2) Front Axle to Rear Axle 3 940 mm
- g. Track:
 - (1) Front..... 1 698 mm
 - (2) Rear 1 698 mm
- h. Ground Clearance:
 - (1) Unladen 215 mm
 - (2) Limiting Feature..... rear differential housings
- i. Pintle Hook Height:
 - (1) Unladen 730 mm
 - (2) Laden..... 700 mm

4. Mass

- a. Unladen:
 - (1) Front Axle 1 700 kg
 - (2) Intermediate Axle..... 1 475 kg
 - (3) Rear Axle 1 475 kg
 - (4) Total 4 650 kg
- b. Maximum Loading:
 - (1) Front Axle 1 750 kg
 - (2) Intermediate Axle..... 2 100 kg
 - (3) Rear Axle 2 100 kg
 - (4) Total 5 600 kg

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- c.** Design Limit Loading:
 - (1)** Front Axle 1 900 kg
 - (2)** Intermediate Axle..... 2 050 kg
 - (3)** Rear Axle 2 050 kg
 - (4)** Total (Not to Exceed)..... 5 700 kg

5. Wheels and Tyres

- a.** Wheels..... 6F by 16, 1 piece, 5 stud, ventilated disc
- b.** Tyres and Tyre Pressures in accordance with EMEI Vehicle A 291-5

6. Engine

- a.** Manufacturer/Type..... Isuzu 4 BD1 TRB-G series
- b.** Number of Cylinders 4 in-line
- c.** Power (Nett)..... 90 kW at 3 000 rpm
- d.** Torque (Nett)..... 314 N.m at 2 200 rpm
- e.** Firing Order..... 1-3-4-2
- f.** Capacity 3.856 L
- g.** Compression Ratio 17:1
- h.** Turbocharger..... water-cooled, Garrett, model ATD-T25
- i.** No Load Maximum 3 600 ± 100 rpm
- j.** Engine Dry Weight:
 - (1)** With 24 V alternator 350 kg
 - (2)** Without 24 V system 322.5 kg

7. Transmission

- a.** Manufacturer Land Rover
- b.** Type model LT95A
- c.** Gear Ratios:
 - (1)** First 4.069:1
 - (2)** Second..... 2.448:1
 - (3)** Third 1.505:1
 - (4)** Fourth..... 1.000:1
 - (5)** Reverse 3.664:1

8. Transfer Case

- a.** Manufacturer Land Rover
- b.** Type two-speed
- c.** Ratios:
 - (1)** High Range 0.996:1
 - (2)** Low Range 3.321:1

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9. Front Axle

- a. Manufacturer Land Rover
- b. Type.....heavy-duty, spiral bevel
- c. Ratio4.7:1

10. Intermediate Axle

- a. Manufacturer GKN/Salisbury
- b. Type..... heavy-duty, Salisbury 8HA
- c. Ratio4.7:1

11. Rear Axle

- a. Manufacturer GKN/Salisbury
- b. Type..... heavy-duty, Salisbury 8HA
- c. Ratio4.7:1

12. Steering

- a. ManufacturerAdwest
- b. Type.....integral power-assisted worm and roller
- c. Ratio17.5:1
- d. Lock to Lock3.5 turns
- e. Power Steering Pump Isuzu gear driven

13. Electrical System

- a. Type of System (Vehicle)..... 12 V
- b. Type of System (Module)..... 24 V
- c. Number of Batteries (Vehicle) one 12V
- d. Number of Batteries (Module) two 12V
- e. Capacity (Nominal – Vehicle)..... 98 Ah
- f. Capacity (Nominal – Module)..... 93 Ah
- g. Terminal Grounded negative

14. Charging Systems

- a. 12 V Alternator (Vehicle):
 - (1) Manufacturer Hitachi
 - (2) Type 12 V, 70 A, negative earth
- b. 24 V Alternator (Module):
 - (1) Manufacturer Bosch
 - (2) TypeBXU 2455, 24V, 55 A, negative earth

15. Transformers

- a. Manufacturer Star Delta
- b. Type..... stepdown 240 V to 24 V
- c. Type (COMSEC only)..... stepdown 240 V to 110 V

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16. Battery Charger

- a. Manufacturer (ERV) Arlec
- b. Type model PS 924
- c. Manufacturer (COMSEC) Evans Deakin Industries
- d. Type Echidna

17. Air Conditioner Motor

- a. Manufacturer Teco
- b. Type model BECY-100L, 240 V, single phase, 50 Hz
- c. Output 2.2 kW at 1 500 rpm

18. Air Conditioner Condenser Fans

- a. Manufacturer AMC
- b. Type 24 V, 270 mm diameter extractor fans

19. Air Conditioner Compressor

- a. Manufacturer Sanden
- b. Type gyrating spiral SD-708
- c. Displacement 129 cc
- d. Number of Cylinders 7
- e. Maximum Allowable Continuous Revs (Normal Operating Conditions) 6 000 rpm

20. Fuel and Lubricants

- a. Fuel:
 - (1) Type Diesel
 - (2) Capacity two 62 L tanks
- b. Cooling System:
 - (1) Type water (8% Nalcool Maximum Inhibitor)
 - (2) Capacity 12.8 L
- c. Engine (Including Filters):
 - (1) Type SAE Grade 40 (OMD-115)
 - (2) Capacity 8.5 L
- d. Axles:
 - (1) Front Swivel Pin Housing:
 - (a) Type EP-00
 - (b) Capacity 375 mL
 - (2) Front Axle:
 - (a) Type OEP-220
 - (b) Capacity 1.7 L
 - (3) Intermediate Axle:
 - (a) Type OEP-220
 - (b) Capacity 2.3 L

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- (4) Rear Axle:
(a) Type OEP-220
(b) Capacity 2.6 L
- e. Transmission:
(1) Type SAE Grade 40 (OMD-115)
(2) Capacity 2.7 L
- f. Transfer Case (Without Power Take-off):
(1) Type SAE Grade 40 (OMD-115)
(2) Capacity 3.2 L
- g. Brake and Clutch Fluid:
(1) Type OX(Aust)-8
(2) Capacity fill to level
- h. Steering Box (including reservoir):
(1) Type OX46
(2) Capacity 1.25 L
- i. Chassis Lubrication:
(1) Type XG-291
(2) Capacity as required
- j. Wheel Bearings:
(1) Type XG-291
(2) Capacity as required
- k. Air Conditioner:
(1) Type R134A
(2) Capacity as required
- l. Air Conditioner Compressor:
(1) Type OM-70
(2) Capacity 0.135 L

21. Brakes

- a. Parking Brake cable-operated, transmission drum brake
b. Foot Brake servo-assisted hydraulic dual system with front and rear disc brakes

22. Performance

- a. Forging Depth (Unprepared) 500 mm
b. Turning Circle:
(1) Between Kerbs 16.8 m (nominal)
(2) Between Walls 17.2 m (nominal)
c. Ramp Breakover Angle:
(1) Unladen 148°
(2) Laden 152°
(3) Limiting Feature chassis rail

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- d. Angle of Approach:
 - (1) Unladen 45°
 - (2) Laden 41°
 - (3) Limiting Feature tie-down points
- e. Angle of Departure:
 - (1) Unladen 33°
 - (2) Laden 30°
 - (3) Limiting Feature tie-down points
- f. Gradeability (Cross-country) Both Directions 60% gradient (31° slope)
- g. Range of Operation:
 - (1) First Class Roads approximately 600 km
 - (2) Second Class Roads approximately 480 km
- h. Fuel Consumption Target:
 - (1) Highway Laden 22 L per 100 km
 - (2) Second Class Laden 27 L per 100 km
- i. Maximum Towed Load 2 000 kg

23. Trailer Facilities

- a. Socket Type NATO 12-pin
- b. Pintle Hook fully rotating
- c. Brakes no facility

24. Miscellaneous

- a. Bridge Classification 6
- b. Module Fibreglass Repair Manufacturer JAKAB Industries Pty Ltd

25. Point of Contact

National Fleet Manager (NFM)
 Lt B Vehicles, CGSVSPO
 DPM 7, Defence Plaza Melbourne
 661 Bourke Street
 MELBOURNE VIC 3000
 Tel: (03) 9282 7391

26. Associated Information

- a. SIGC:
 - (1) ERV 2320-0105
 - (2) COMSEC 2320-0150
- b. NSN:
 - (1) ERV 2320-66-128-5310
 - (2) COMSEC 2320-66-128-7681
- c. RPS:
 - (1) ERV 02210
 - (2) COMSEC 02222

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- d. SCES:
 - (1) ERV..... 12126
 - (2) COMSEC 12166
- e. ILSL..... ALI MM 10-29
- f. User Handbook:
 - (1) ERV..... 7610-66-128-5939
 - (2) COMSEC 7610-66-140-6215
- g. EMEI Vehicle A 291-5..... General Service B Vehicle Tyre Guide
- h. EMEI Vehicle G 252..... Technical Description
- i. EMEI Vehicle G 253..... Light Grade Repair
- j. EMEI Vehicle G 254-1..... Medium and Heavy Grade Repair
- k. EMEI Vehicle G 203..... Light Grade Repair
- l. EMEI Vehicle G 204-1..... Medium Grade Repair
- m. EMEI Vehicle G 204-2..... Heavy Grade Repair
- n. EMEI Vehicle G 209..... Servicing Instruction

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END

Distribution List: **VEH G 20.4 – Code 1** (Maint Level)
(Sponsor: CGSVSPO, Light B Vehicle Section)
(Authority: ECO CGSVSPO 120/10)