

**TRUCK, CARGO, LIGHT, MC2, CREW CAB, FFR, WINCH – LAND ROVER 110 6 X 6
LIGHT GRADE REPAIR**

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.

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INTRODUCTION

1. This EMEI contains procedures for removing, dismantling, repairing, assembling and installing various components of the Truck, Cargo, Light, MC2, Crew Cab, FFR, Winch models. Where applicable, instructions for the adjustment, lubrication and minor servicing of these items are included.



Do not use adhesive tapes to seal fuel or oil openings. The adhesive tape is soluble in fuel or oil and can cause contamination. Remove temporary covers before assembling.

2. Prevent dirt and foreign objects from entering any component by placing clean temporary coverings over all exposed openings, including hoses, tubes and lines.



Before removing any electrical system components, disconnect the battery leads and power supply cables.

3. When disconnecting electrical connectors, hoses and fittings, remove clamps, as required, to gain slack and avoid damage to connectors and fittings.

4. Discard all used gaskets, seals, cotter pins, tab washers, lock pins, key washers and lock washers. Discard all contaminated fuel and lubricants drained from the truck.

5. Use only those fuels and lubricants specified in the Servicing Instruction, EMEI Vehicle G 209, the User Handbook and this EMEI when replenishing fuel or lubricants.

6. Any fastenings or fittings being tightened to prescribed torques are to have dry, clean threads unless otherwise specified. When specified, thread sealants are to be applied to dry, clean, oil free threads.

7. The engine cooling system contains Nalcool corrosion inhibitor in water at a ratio of 1:12.



Precautions should be taken prior to carrying out repairs which include painting, sanding, scraping or welding. Refer to EMEI Workshop D 701 – Repair Policy for Equipment Painted in Polyurethane Paint.

8. This vehicle is painted in polyurethane paint.

Associated Publications

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

- a. Defence Road Traffic Instructions;
- b. Complete Equipment Schedules (CES):
 - (1) SCES 12143Truck, Cargo, Light, MC2, Crew Cab, Winch;
 - (2) Equipment Kit SCES 12166.....Equipment Kit, Vehicular Truck, Light, MC2;
- c. Block Scale 2406/31 – Special Tools for RAEME – B Vehicles – Truck, Utility and Truck, Light, MC2 (Land Rover Model 110);
- d. EMEI Vehicle A 029 – Servicing of B Vehicles, Trailers, Motorcycles, Stationary Equipment, Auxiliary and Small Engines;
- e. EMEI Vehicle A 291-5 – General Service B Vehicles Tyre Guide – Operating Instructions;
- f. EMEI Vehicle A 459-2 – Hydraulic Brake Fluid Deterioration, Miscellaneous Instruction;

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- g.** EMEI Vehicle G 203 – Truck, Cargo, Light, Winch, MC2, Land Rover 110 6X6 – Light Grade Repair;
- h.** EMEI Vehicle G 209 – Truck, Cargo, Light, MC2 – Landrover 110 6X6, All Types – Servicing Instruction;
- i.** EMEI Vehicle G 260 – Truck, Cargo, Light, MC2, Crew Cab, Winch – Land Rover 110 6x6, Parakeet – Data Summary;
- j.** EMEI Vehicle G 262 – Truck, Cargo, Light, MC2, Crew Cab, Winch – Land Rover 110 6x6, Parakeet – Technical Description;
- k.** EMEI Vehicle G 264-1 – Truck, Cargo, Light, MC2, Crew Cab, Winch – Land Rover 110 6x6, Parakeet – Medium and Heavy Grade Repair;
- l.** EMEI Workshop D 210 – The Use of Fibreglass Reinforced Plastics for the Repair of Equipment;
- m.** EMEI Workshop D 701 – Repair Policy for Equipment Painted in Polyurethane Paint; and
- n.** RPS 02219.

WARNING

All industrial safety work practices and equipment operating and maintenance instructions pertaining to this EMEI are to be adhered to.

The handling, storage and use of chemical substances are to be in accordance with MOHS, MSDS and EMEI Workshop series requirements.

Identification Numbers

- 10.** The location of identification numbers on components of the vehicle is described in Table 1.

Table 1 Location of Identification Numbers

Serial	Identification Number	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 cab
3	Engine number	Left hand side of the engine block
4	Injection pump identification	Side of the pump
5	Transmission and 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	Intermediate axle number	Adjacent to the axle breather
9	Rear axle number	Adjacent to the axle breather
10	Air compressor	Front outer mounting plate

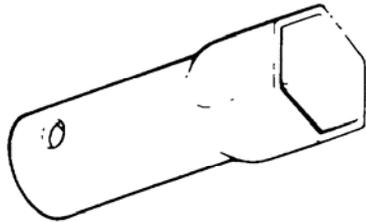
Special Tools and Gauges

- 11.** The special tools, gauges and apparatus required are listed in Table 2 and illustrated in Figure 1.

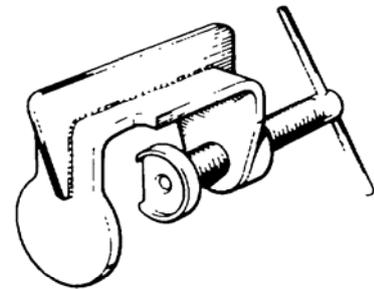
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Table 2 Special Tools

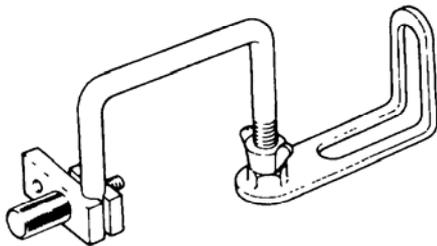
Serial	Part No.	NSN	Item Name
1	RO606435A	5120-66-128-4322	Hub adjusting spanner.
2	18G672	5120-99-820-6918	Disc brake piston compressor.
3	RO530106	5220-66-128-4307	Bracket, dial gauge indicator.



RO606435A
HUB ADJUSTING SPANNER



18G672
DISC BRAKE PISTON COMPRESSOR



RO530106
DIAL GAUGE INDICATOR BRACKET

Figure 1 Special Tools

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Lubricants

12. The lubricants used with the vehicle are identified in Table 3.

Table 3 List of Lubricants

Serial	Equipment	Lubricant	Capacity (Litres)
1	Engine (including filters)	OMD-115	8.5
2	Transmission	OMD-115	2.7
3	Transfer case (with PTO)	OMD-115	5.8
4	Front axle	OEP-220	1.7
5	Intermediate axle	OEP-220	2.6
6	Rear axle	OEP-220	2.3
7	Swivel pin housings	Molytex Grease	EP00 Sachet
8	Brake master cylinder	OX (Aust) 8	Fill to level
9	Clutch master cylinder	OX (Aust) 8	Fill to level
10	Power steering system reservoir	OX-46	1.25
11	Fanbelt jockey pulley	XG-274	As required
12	Wheel bearings	XG-274	As required
13	Winch cable	Rocol wire rope lube NSN 9510-66-150-1763	As required
14	Radiator inhibitor	Nalcool	As required (1:12 ratio)
15	Clutch pedal trunnion	XG-274	As required
16	Speedometer cable	XG-274	As required
17	Propeller shaft	XG-274	As required
18	Winch drive line	XG-274	As required
19	Parking brake adjuster	XG-274	As required
20	Windscreen wiper drive cable	XG-274	As required
21	Winch	OEP-220	2.1
22	Air compressor	XG-274	As required

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ENGINE – GROUP 1

Air Compressor

13. **Removal.** Remove the compressor as follows:
- a. Disconnect the battery.
 - b. Slacken the hose clamp securing the remote breather flexible hose to the compressor manifold pipe.
 - c. Remove the hose.
 - d. Slacken the pinch bolt (refer Figure 2) securing the idler pulley lever to the drive shaft tube.
 - e. Rotate the idler to allow the drivebelt to be removed.
 - f. Suitably secure the compressor drive pulley.
 - g. Remove the retaining bolt and lock washer.
 - h. Discard the washer.
 - i. Remove the pulley off the shaft and discard the roll pin.
 - j. Slacken the U-bolt adjacent to the compressor.
 - k. Carefully remove the compressor and shaft out of the drive shaft tube.
 - l. Using an Allen key, remove the two grub screws securing the drive shaft to the compressor crankshaft.
 - m. Remove the drive shaft and the key from the crankshaft.

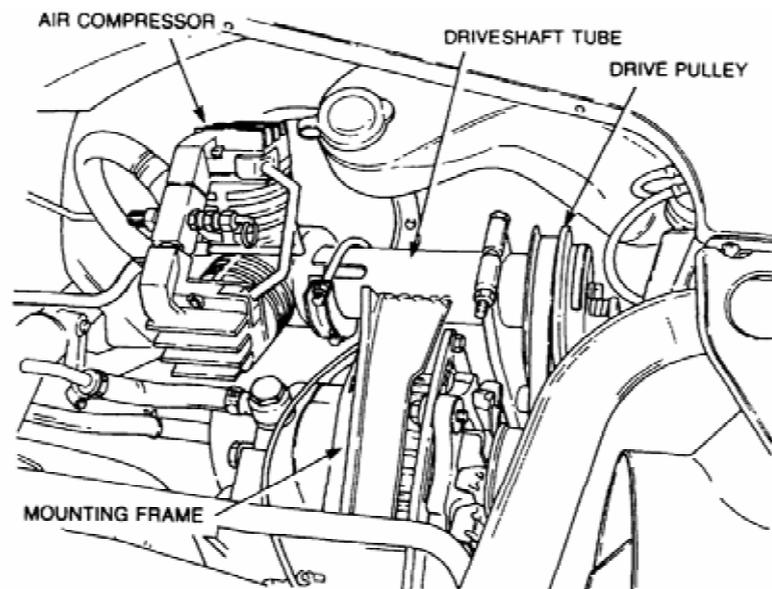


Figure 2 Air Compressor Removal

14. **Installation.** Install the compressor as follows:
- a. Install the key on the compressor crankshaft.
 - b. Align the keyway in the drive shaft with the key and install the drive shaft.
 - c. Install and securely tighten the two grub screws to secure the drive shaft.
 - d. Insert the compressor and drive shaft through the drive shaft tube, ensuring that the shaft bearing is not dislodged and that the compressor housing is fully installed in the tube.
 - e. Align the compressor to the correct position.
 - f. Tighten the U-bolt (adjacent to the compressor) securely.

- g. Fit a new roll pin onto the drive shaft.
- h. Install the drive pulley.
- i. Using a new lock washer, install and tighten the retaining bolt securely.

NOTE

Ensure that the drive pulley is correctly aligned.

- j. Install the drivebelt onto the drive and idler pulleys.
- k. Rotate the idler pulley lever and check the tension of the belt by applying moderate thumb pressure to the longest span of the belt.
- l. When a belt deflection of 7–12 mm has been obtained, tighten the pinch bolt ensuring that the idler pulley lever is unable to move.
- m. Connect the remote breather flexible hose to the compressor manifold pipe and tighten the hose clamp securely.
- n. Connect the battery.

Air Compressor Fault Finding

15. The air compressor fault finding is detailed in Table 4.

Table 4 Air Compressor Fault Finding

Serial	Symptom	Probable Cause	Action
1	No air pressure.	Stuck or worn valves.	Replace valves.
		Worn piston and rings.	Report.
		Manifold O-ring damaged.	Replace.
		Relief valve faulty.	Clean and adjust.
		Air hose damaged.	Replace.
		Drive belt loose.	Adjust.
2	Slow delivery.	Clogged air cleaners.	Clean.
		Drive belt loose.	Adjust.
		Stuck or worn valves.	Replace valves.
		Worn piston and rings.	Report.
3	Noisy operation (compressor).	Worn connecting rod bearings.	Report.
		Worn crank-pin.	Report.
		Worn gudgeon pin.	Report.
		Worn main bearings.	Report.
4	Noisy operation (driveline).	Worn clutch bearing.	Replace.
		Idler pulley bearing worn.	Replace.
		Drive shaft bearings worn.	Replace.
5	Mounting bracket loose.	Mounting bolts loose.	Tighten.
		Bracket cracked.	Report.

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ELECTRICAL – GROUP 15

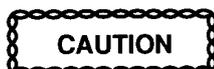
Wiring Harness

16. **General Precautions.** Exercise the following precautions when working on the wiring harness:



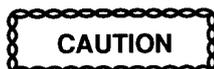
Arcing wires to earth, to determine if the wire is live, will destroy solid state components.

- a. Use suitable testing meters or circuit testers to trace or locate faults and check circuits.
- b. After tracing electrical faults, before carrying out any electrical repairs, disconnect the batteries, negative terminals first.



Failure to disconnect the alternators will cause the transistors and diodes to fail as a result of current flow throughout the chassis when arc welding.

- c. Before carrying out any electrical arc welding on the vehicle, disconnect the batteries and both alternators.



Reversing battery polarity will cause serious damage.

- d. When installing the batteries, ensure that the terminals are connected to the correct posts.

NOTE

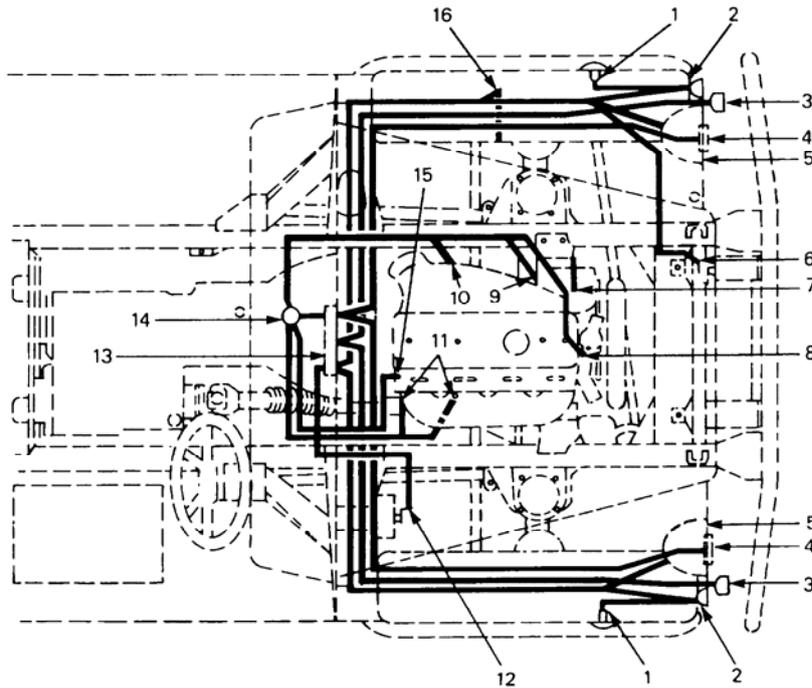
All electrical wiring in the vehicle is colour coded for identification and reference. If necessary, refer to the wiring diagram in EMEI Vehicle G 203, in conjunction with the relevant illustration, when identifying/replacing a wiring harness.

17. **Location of Harnesses.** The location of the wiring harnesses is as follows:

- a. The position of the front wiring harnesses is shown in Figure 3.
- b. The schematic diagram of the cabin wiring is shown in Figure 4.
- c. The position of the rear wiring harnesses is shown in Figure 5.

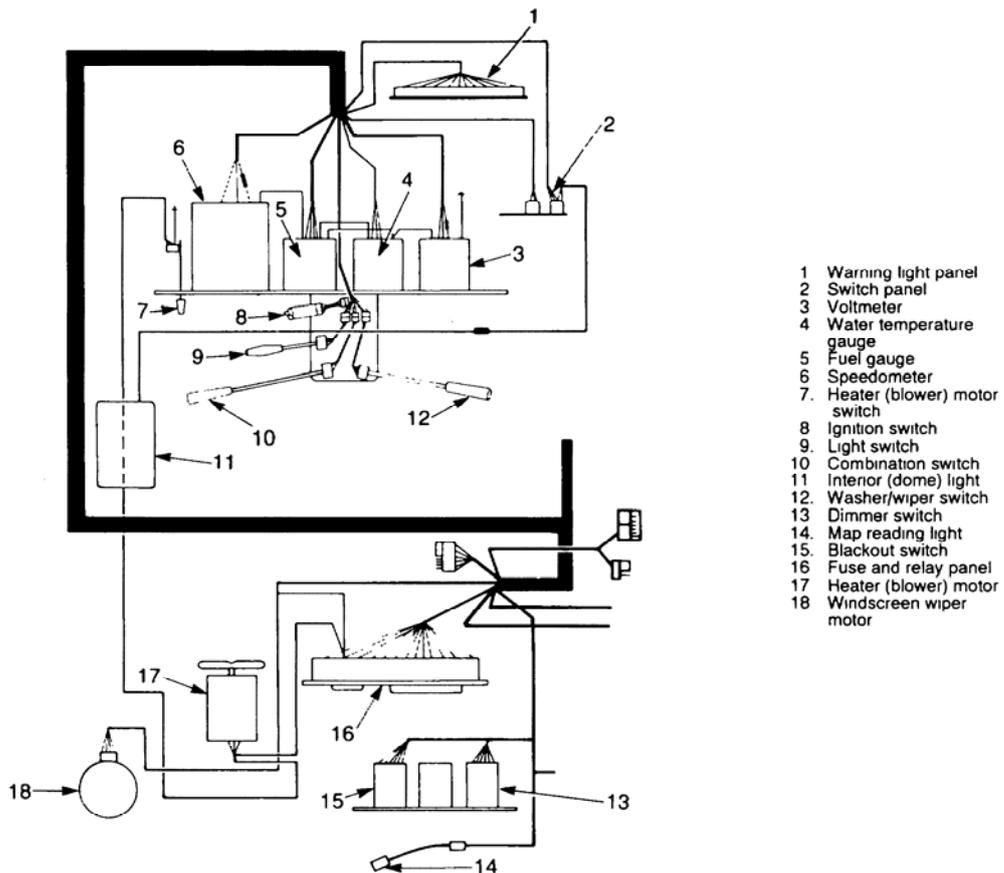
Wiring Diagram

The vehicle wiring diagrams are shown in Figure 26.



- | | | |
|------------------------|---------------------------------|--------------------------|
| 1 Repeater light | 6 Horn | 11 Oil pressure switches |
| 2 Indicator/park light | 7 Earth strap | 12 Brake master cylinder |
| 3 Reduced head lights | 8 Water temperature sender unit | 13 Fuse and relay panel |
| 4 Blackout lights | 9 Alternator | 14 Multi-pin connector |
| 5 Headlights | 10 Starter motor | 15 Glow plugs |
| | | 16 Pad wear indicator |

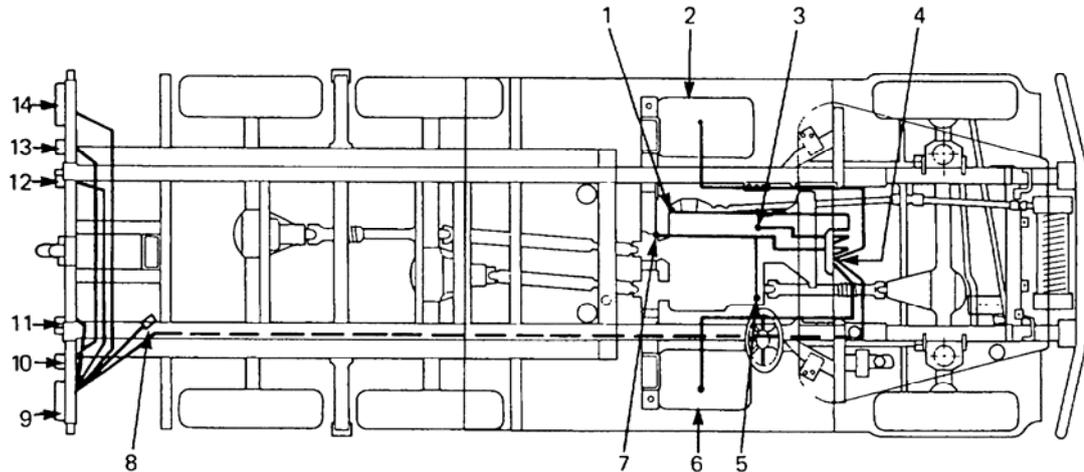
Figure 3 Front Wiring Harness



- | |
|--------------------------------|
| 1 Warning light panel |
| 2 Switch panel |
| 3 Voltmeter |
| 4 Water temperature gauge |
| 5 Fuel gauge |
| 6 Speedometer |
| 7 Heater (blower) motor switch |
| 8 Ignition switch |
| 9 Light switch |
| 10 Combination switch |
| 11 Interior (dome) light |
| 12 Washer/wiper switch |
| 13 Dimmer switch |
| 14 Map reading light |
| 15 Blackout switch |
| 16 Fuse and relay panel |
| 17 Heater (blower) motor |
| 18 Windscreen wiper motor |

Figure 4 Cab Wiring

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- | | | |
|-----------------------------------|--|--|
| 1. PTO warning light switch | 6. Fuel tank | 11. Power outlet socket |
| 2. Fuel tank | 7. 6WD warning light switch | 12. NATO socket |
| 3. Reverse light switch | 8. Convoy light | 13. Blackout light left hand side |
| 4. Fuse and relay panel | 9. Tail light assembly right hand side | 14. Tail light assembly left hand side |
| 5. Diff lock warning light switch | 10. Blackout light right hand side | |

Figure 5 Rear Wiring Harnesses

Electrical-Alternator Fault Finding

18. The electrical-alternator fault finding is detailed in Table 5.

Table 5 Electrical-Alternator Fault Finding

Serial	Symptom	Probable Cause	Action
1	Alternator not charging.	Worn or slack belt.	Tighten or replace.
		Worn or dirty brushes.	Clean or replace.
		Rotor faulty.	Replace alternator.
		Poor connection in charging circuit.	Rectify.
		Open circuit or faulty field diode.	Replace alternator.
		Defective regulator.	Replace regulator.
		Rectifier diode(s) defective.	Replace alternator.
2	Irregular charging.	Worn or slack belt.	Tighten or replace.
		Worn or dirty brushes.	Clean or replace.
		Rectifier diode(s) defective.	Replace alternator.
		Open or short-circuited stator.	Replace alternator.
		Defective regulator.	Replace regulator.
		Poor connection in charging circuit.	Rectify.
3	Over charging.	Defective regulator.	Replace regulator.
		High resistance or poor connection in regulator sensing line.	Rectify.
		Loose battery terminals.	Rectify.
4	Alternator noisy.	Defective bearings.	Replace alternator.
		Loose fan or pulley.	Rectify.
		Loose alternator mountings.	Rectify.
		Defective rectifier.	Replace alternator.
		Short circuited stator.	Replace alternator.

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BODY – GROUP 17

Front Seat

19. **Replacement.** Replace the front seat as follows:

- a. Slide the passenger's seat frame rearwards.
- b. Remove the two-hexagon head bolts at the front of the frame (refer Figure 6).
- c. Slide the seat frame forwards.
- d. Remove the two hexagon-head bolts at the rear of the frame.
- e. Lift the seat assembly off the seat riser and out of the vehicle.

NOTE

The procedure for the removal of the driver's seat is identical.

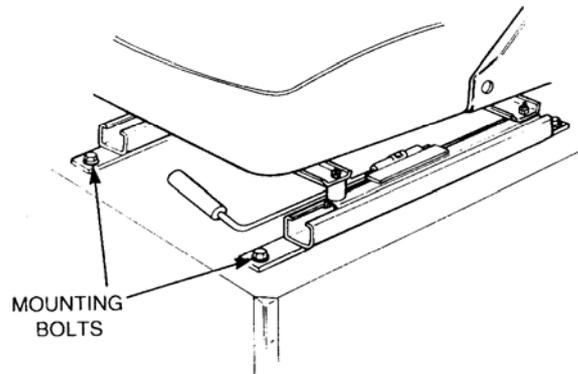


Figure 6 Front Seat Replacement

- f. Slide the seat frame rearwards and position the seat frame on the seat base or riser.
- g. Install the four hexagon-head bolts and tighten the bolts securely.

Rear Seat Frame

20. **Replacement.** Replace the seat frame as follows:

- a. Remove the two nuts, flat washers, bolts and spring washers securing the front feet of the seat frame to the crossmember (refer Figure 7).
- b. Remove the two nuts, flat washers, bolts and spring washers securing the rear legs of the seat frame and the rear seat squab frame to the crossmember (refer Figure 7).

CAUTION

The seat frame is heavy. Assistance is required during the removal/replacement procedure.

- c. Slide the seat frame forward so that the rear feet clear the rear seat squab frame feet.
- d. Remove the seat frame from the vehicle.
- e. Lift the new seat frame into the vehicle and position the seat frame feet just forward of the mounting positions.
- f. Move the seat frame rearwards (sliding the rear feet underneath the rear seat squab frame feet) and align the seat frame mounting holes with the mounting holes in the crossmembers.
- g. Install the four spring washers, bolts, flat washers and nuts securing the rear seat frame to the crossmembers and tighten them securely.

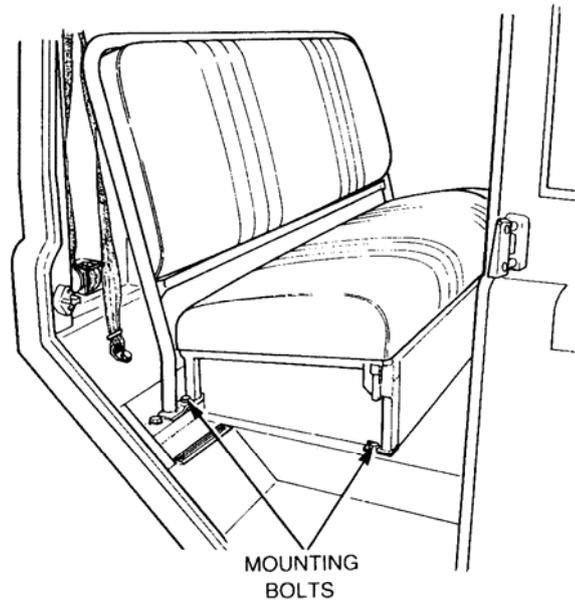


Figure 7 Rear Seat Frame Mountings

Rear Seat Cushion and Base

21. Replacement. Replace the seat cushion and frame as follows:

- a. Release the rear seat locking catches and raise the rear seat cushion to its maximum opening position.
- b. Support the seat in the open position with two suitable lengths of timber at either end of the seat base.
- c. Remove the fifteen countersunk screws, washers and Nyloc nuts securing the seat cushion and base to the seat frame hinges (refer Figure 8).
- d. Discard the Nyloc nuts.
- e. Remove the seat from the vehicle.

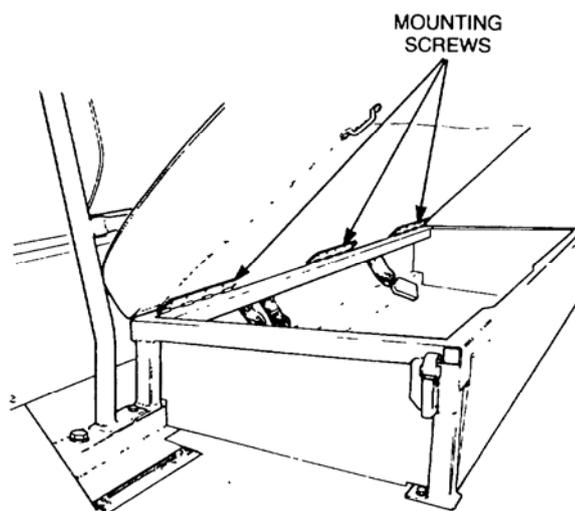


Figure 8 Rear Seat Cushion and Base Mountings

- f. Position the new rear seat cushion and base in the vehicle.
- g. Align the mounting holes with the seat frame hinge mounting holes.
- h. Insert a mounting screw in each of the outer hinges to maintain alignment.
- i. Support the seat in the open position with two suitable lengths of timber at either end of the seat base.

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- j. Install the fifteen countersunk screws, washers and new Nyloc nuts securing the rear seat cushion and base to the seat frame hinges.
- k. Tighten the nuts securely.
- l. Lower the rear seat and apply the locking catches.

Rear Seat Hinge

22. **Replacement.** Replace the seat hinge as follows:

- a. Remove the rear seat frame (refer to paragraph 20).
- b. Release the rear seat locking catches and raise the rear seat to its maximum opening position.
- c. Support the seat in the open position with two suitable lengths of timber at either end of the seat base.
- d. Remove the five countersunk screws, washers and Nyloc nuts from the hinge to be replaced.
- e. Discard the Nyloc nuts.
- f. Using a suitable drill fitted with a 4 mm bit, remove the five rivets securing the faulty hinge to the seat frame.
- g. Remove the hinge (refer Figure 9).

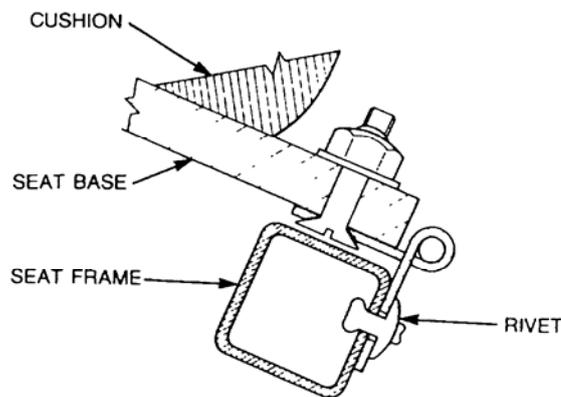


Figure 9 Rear Seat Hinge Replacement

- h. Position the new hinge on the seat frame and secure it with five rivets as shown in Figure 9.
- i. Locate the hinge on the rear seat cushion and base and secure it with five countersunk screws, flat washers and new Nyloc nuts.
- j. Tighten the nuts securely.
- k. Lower the rear seat and apply the locking catches.

Rear Seat Locking Catch

23. **Replacement.** Replace the locking catch as follows:

- a. Release and disconnect the faulty locking catch from the seat base staple.
- b. Remove the two nuts, screws and flat washers securing the locking catch to the seat frame.
- c. Remove the locking catch and discard the Nyloc nuts.
- d. Noting the position of the flat washers (refer Figure 10), remove the two screws and washers securing the locking staple to the rear seat cushion and base.
- e. Remove the locking staple.

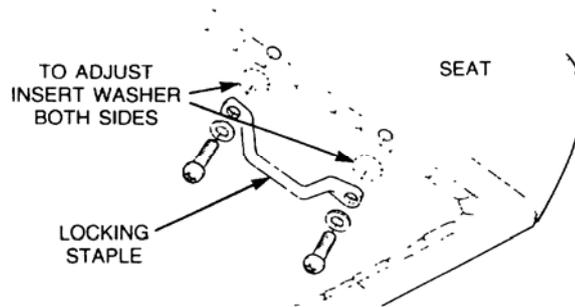


Figure 10 Rear Seat Locking Staple Replacement

- f. Position the new locking staple on the rear seat base board.
- g. Install the two mounting screws and flat washers in the same position from which they were removed.
- h. Tighten the screws securely.
- i. Position the locking catch on the rear seat frame.
- j. Secure the locking catch with the two screws, flat washers and new Nyloc nuts.
- k. Engage the staple with the catch and close the catch.

NOTE

If the catch will not engage adjust the staple (refer to paragraph 24).

- 24. Adjustment.** Adjust the staple as follows:

- a. Remove the locking staple mounting screws and washers.
- b. Remove the staple.
- c. To adjust the staple height, add or subtract washers (in equal amount on both sides of the locking staple) between the cushion base and the staple (refer Figure 10).

Rear Seat Centre Head Restraint

- 25. Removal.** Remove the centre head restraint as follows:

NOTE

Four spacers are fitted between the cab trim and the cab rear wall. Removal of the centre head restraint frame mounting bolts may dislodge the spacers. Ensure that the spacers are in position prior to replacing the mounting bolts.

- a. Remove the four bolts, plain washers, rubber washers and Nyloc nuts securing the centre head restraint mounting frame to the cab.
- b. Remove the frame from the cab wall (refer Figure 11).
- c. Discard the rubber washers and the Nyloc nuts.
- d. Remove the six screws securing the centre head restraint to the mounting frame.
- e. Remove the head restraint.

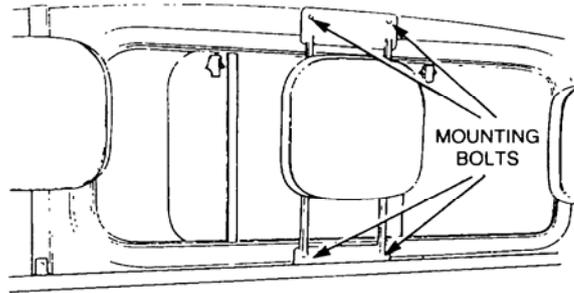


Figure 11 Rear Seat Centre Head Restraint Removal

26. **Installation.** Install the centre head restraint as follows:
- Position the head restraint on the mounting frame and secure it with the six mounting screws.
 - Tighten the screws securely.
 - Position the mounting frame on the cab wall and insert the four mounting bolts fitted with a plain washer.
 - Install the four new rubber washers, the remaining plain washers and new Nyloc nuts.
 - Tighten the mounting nuts firmly.

Rear Seat Side Head Restraint

27. **Replacement.** Replace the side head restraint as follows:
- Remove the three mounting nuts, plain washers and rubber washers securing the side head restraint to the cab wall (refer Figure 12).
 - Discard the rubber washers and the Nyloc nuts.
 - Remove the side head restraint from the cab wall.
 - Slide the packing grommet off the central mounting bolt and discard the grommet.

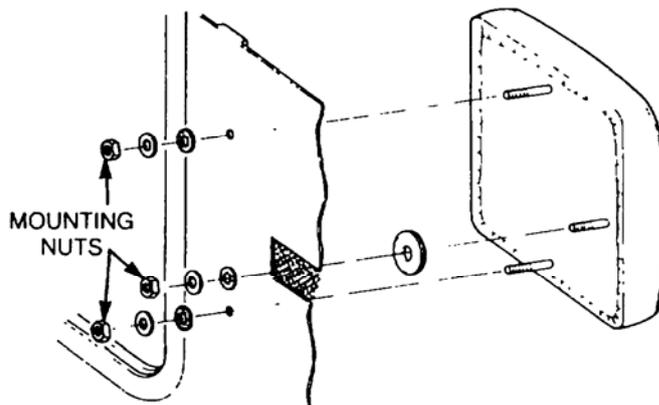


Figure 12 Rear Seat Side Head Restraint Replacement

Rear Side Door

28. **Removal.** Remove the rear door as follows:
- Remove the lock nut securing the door check link.
 - Support the door and remove the lock nuts that secure the door to the B pillar.
 - Remove the special plastic washers and bolts.
 - Remove the door.
 - Place the door on a clean workbench with a soft protective covering to prevent damage to the door surface.

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29. **Disassembly.** Disassemble the rear door as follows:

- a. Prise the plastic cover (refer Figure 13) from the window winder handle.

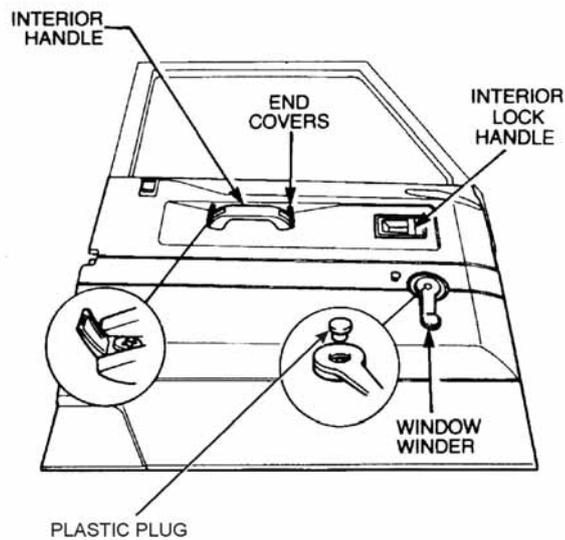


Figure 13 Window Winder Handle Removal

- b. Remove the securing screw.
c. Remove the handle.
d. Using a small screwdriver, prise the end covers from the interior handle (refer Figure 13).
e. Remove the screws.
f. Remove the handle from the door.
g. Remove the plastic escutcheon from the lock button by depressing the locking tab with a small screwdriver (refer Figure 14).

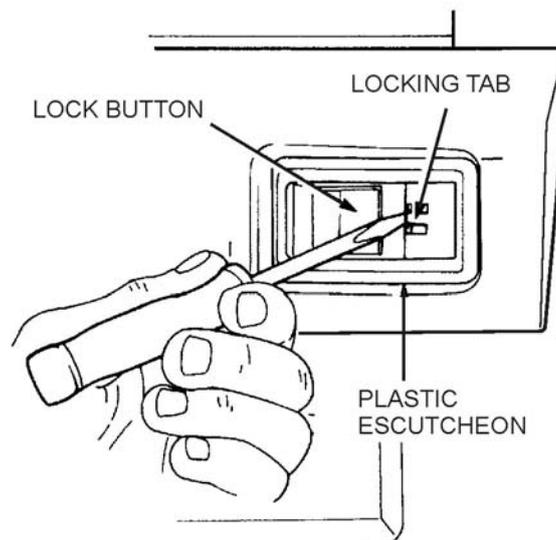


Figure 14 Door Lock Button Escutcheon Removal

- h. Remove the screws securing the interior lock handle escutcheon (refer Figure 14).
i. Remove the escutcheon.
j. Carefully prise the plastic trim fasteners from around the edge of the door trim, removing the corner fasteners first.

- k. Remove the trim (refer Figure 15).

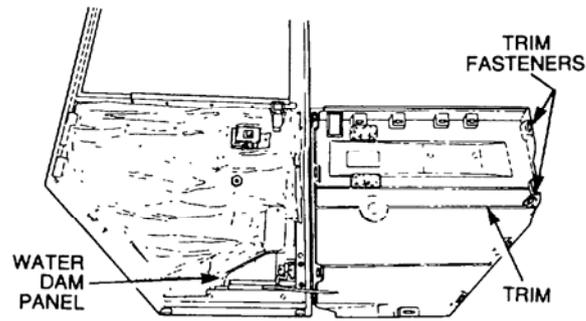


Figure 15 Rear Side Door Trim Removal

- l. Remove the adhesive tape and plastic sheet from the door.
- m. Temporarily fit the window winder handle to allow the window to be lowered approximately half way.
- n. Disconnect the clips and link rods from the interior door lock button, the lock button link at the lock assembly and the interior lock release link rod at the lock (refer Figure 16).
- o. Remove the three hexagonal-head screws securing the inner panel.
- p. Slide the panel towards the lock assembly to disengage the window regulator roller.
- q. Remove the panel.

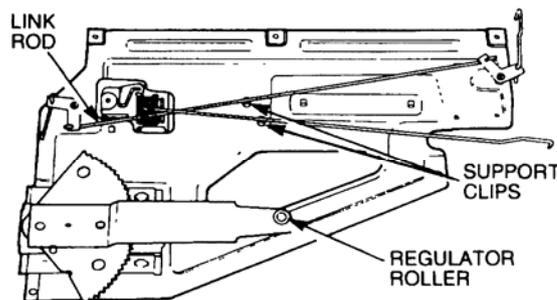


Figure 16 Rear Side Door Inner Panel Removal

- r. Remove the four screws and washers securing the regulator assembly to the panel.
- s. Remove the regulator.
- t. Remove the pins from the centre of the bell crank lever pivots (refer Figure 17).
- u. Remove the bell cranks and link rod.
- v. Remove the two screws securing the interior lock handle.
- w. Remove the handle.
- x. Disconnect the outer handle link rod from the handle.
- y. Remove the three countersunk screws securing the lock assembly to the door and remove the lock.

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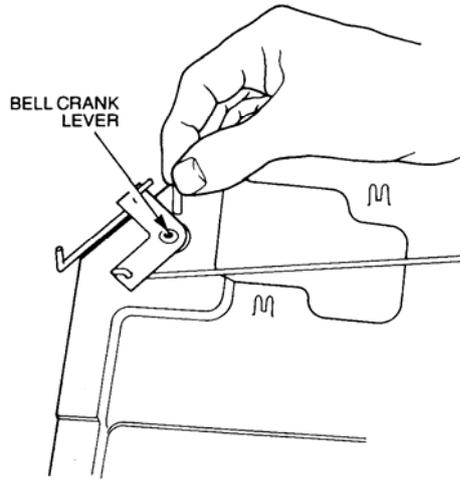


Figure 17 Link Rod Bell Crank Pivot Removal

- z.** Remove the screws securing the outer door handle to the door (refer Figure 18).
- aa.** Remove the handle and gaskets.

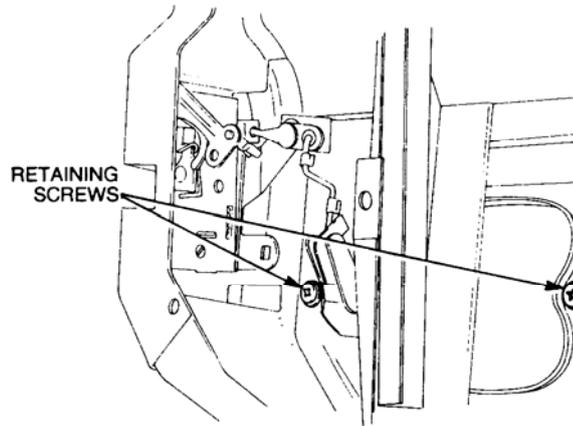


Figure 18 Rear Door Lock Removal

- bb.** Loosen the nuts securing the door check link to the door (refer Figure 19).

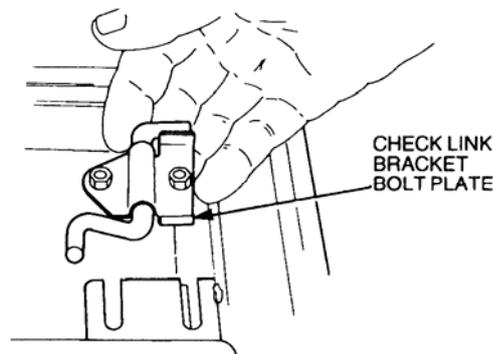


Figure 19 Check Link Bracket Removal

- cc.** Remove the bracket and bolt plate as an assembly.
- dd.** Remove the recessed screws securing the lower ends of the window channels to the door frame (refer Figure 20).

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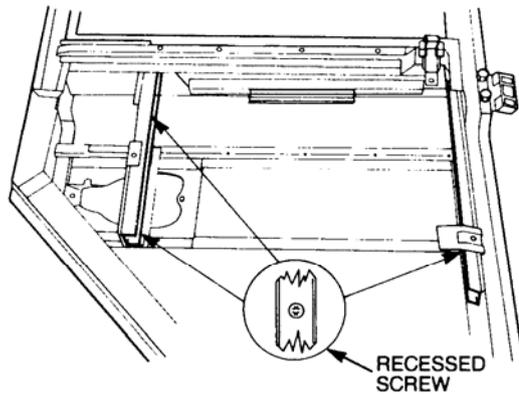


Figure 20 Window Channel Screws Removal

- ee. Using suitable pliers, bend the stop tab retaining the check link.
- ff. Remove the link.
- gg. Carefully bend back the bracket at the lower end of the forward channel (refer Figure 21).
- hh. Lift the lower edge of the glass.

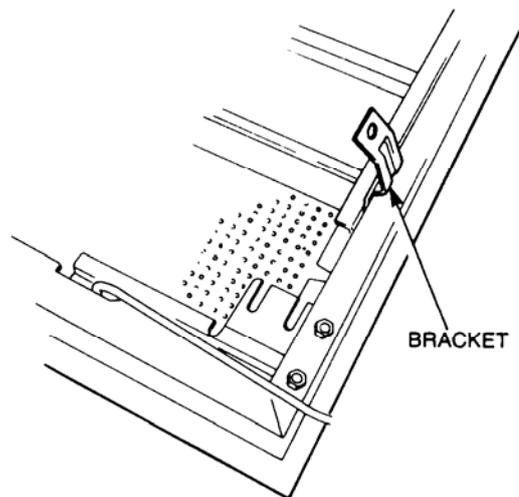


Figure 21 Window Glass Removal

- ii. Slide the window down and out of the channels.
- jj. Remove the inner and outer waist seals from the door flanges (refer Figure 22).

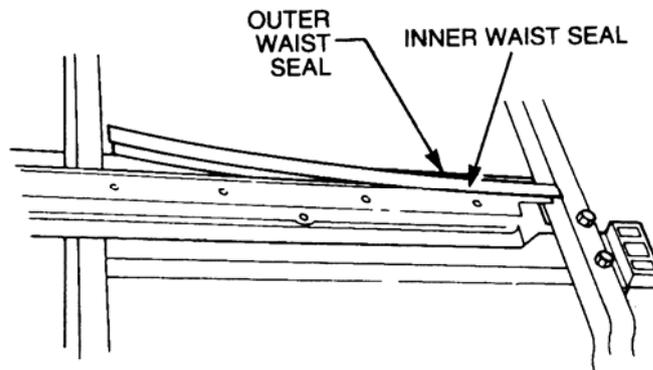


Figure 22 Window Waist Seals Removal

- kk. Slide the rear channel from the division channel.

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- ll.** Remove the screw securing the top of the division channel to the top of the door frame.
- mm.** Remove the channel and spacers.
- nn.** Remove the nuts, washers and screws securing the quarter window retention bracket to the frame (refer Figure 23).

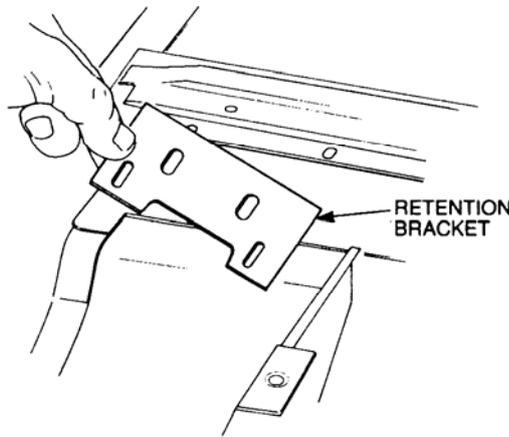


Figure 23 Quarter Window Retaining Bracket

- oo.** Remove the bracket.
- pp.** Pull the forward channel from the glass (refer Figure 24).

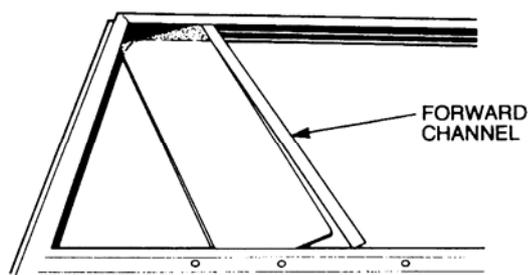


Figure 24 Quarter Window Glass Removal

- qq.** Remove the glass.
- rr.** Remove the screws securing the top and rear quarter window channels to the frame.
- ss.** Remove the channels.
- tt.** Remove the screws securing the top and forward window channels to the frame.
- uu.** Remove the channels, plastic filler strips, spacer and corner piece.
- vv.** Remove the screws and washers securing the interior door lock button to the door frame (refer Figure 25).
- ww.** Remove the assembly.

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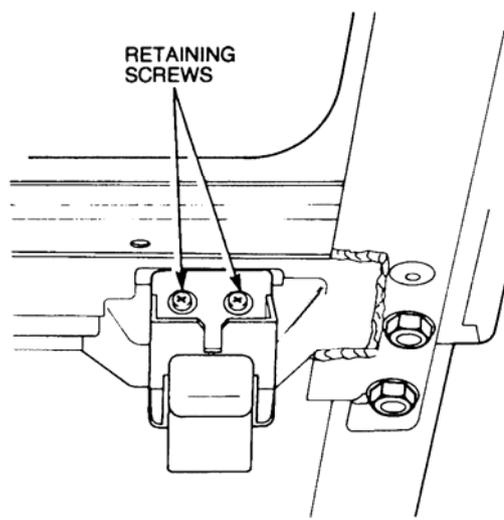


Figure 25 Interior Door Lock Button Removal

- 30. Reassembly.** Reassemble the rear side door as follows:
- a. Install the interior door lock button and secure it with the screws and washers (refer Figure 25).
 - b. Install the top, rear and forward plastic fill channels and two corner pieces on the door frame.
 - c. Install the quarter window channel with the open end uppermost.
 - d. Secure the rear channel to the frame with the two screws.
 - e. Install the top quarter window channel and carefully slide the glass into place.
 - f. Push the forward channel onto the glass.
 - g. Fit the quarter division channel.

NOTE

Ensure that it is correctly located on the window channel and in the slot provided in the top of the door frame.

- h. Secure the top of the channel with the screw.
- i. Install the quarter window retaining bracket (refer Figure 23).

NOTE

Ensure that the bracket is pushed hard against the window lower channel.

- j. Fit the screws, new lock washers and nuts, then tighten them securely.
- k. Fit the forward and top window channels together with the shims.
- l. Install the upper screws and tighten them securely.
- m. Install the rear window channel into the division channel.

NOTE

Ensure that the channel is pushed fully into the top of the door frame.

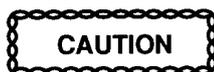
- n. Position the window glass into the window channels, then raise the glass to the top of the door.
- o. Align the lower channel mounting holes in the frame and secure it with the screws (refer Figure 20).
- p. Install the door check link into the slide and bend back the stop tab.
- q. Bend the inner panel mounting (refer Figure 21) back into position.
- r. Install the inner and outer waist rail seals on the door flanges (refer Figure 22).

- s. Fit the new rubber gaskets to the door handle and install the handle on the door.
- t. Install the screws.

NOTE

Ensure that the longest screw is fitted towards the front of the handle.

- u. Install the door lock assembly in the door frame (refer Figure 18).
- v. Secure it with the countersunk screws.
- w. Connect the link rod to the outer door handle and secure it with the clip.
- x. Position the window regulator on the inner panel and secure it with the screws and washers.
- y. Fit the internal door handle and link rod to the door frame.
- z. Insert the screws and tighten them securely.
- aa. Press the link rod into the support clip (refer Figure 16).
- bb. Install the bell crank levers and link rods onto the inner panel.
- cc. Press the securing pins into the pivots and press the intermediate link rod into the upper support clip.
- dd. Position the inner panel on the door frame and ensure that the window regulator roller engages in the window lift channels.
- ee. Fit the top screws and the lower rear screw and washer, then tighten them securely.
- ff. Install the door check link torsion bar and bracket assembly (refer Figure 19).
- gg. Tighten the nuts securely.
- hh. Fit the water dam panel (refer Figure 15) and secure it with the screw and washer.
- ii. Fit the hexagonal-head screw and washer, that secures the dam to the inner panel.
- jj. Lightly smear a suitable grease into the window lift channel.
- kk. Install the plastic sheet onto the door using new adhesive tape as required.
- ll. Position the door trim on the door, then secure it with the plastic fasteners.
- mm. Install the interior lock handle trim and secure it with the screw.



Do not over tighten the screw.

- nn. Install the window winder handle and escutcheon and secure them with the screw.
 - oo. Press in the plastic cover.
 - pp. Fit the grab handle and secure it with the screws.
 - qq. Clip the end covers into place.
- 31. Installation.** Install the rear side door as follows:
- a. Support the door and position the hinges.
 - b. Install the bolts.
 - c. Fit the special plastic washers towards the door frame and install the lock nuts.
 - d. Tighten the lock nuts securely.
 - e. Ensure that the door lock aligns with the striker plate and, if necessary, slacken the bolts that secure the hinges to the B pillar, then retighten them.
 - f. Install the check link into the bracket and secure it with a new lock nut.

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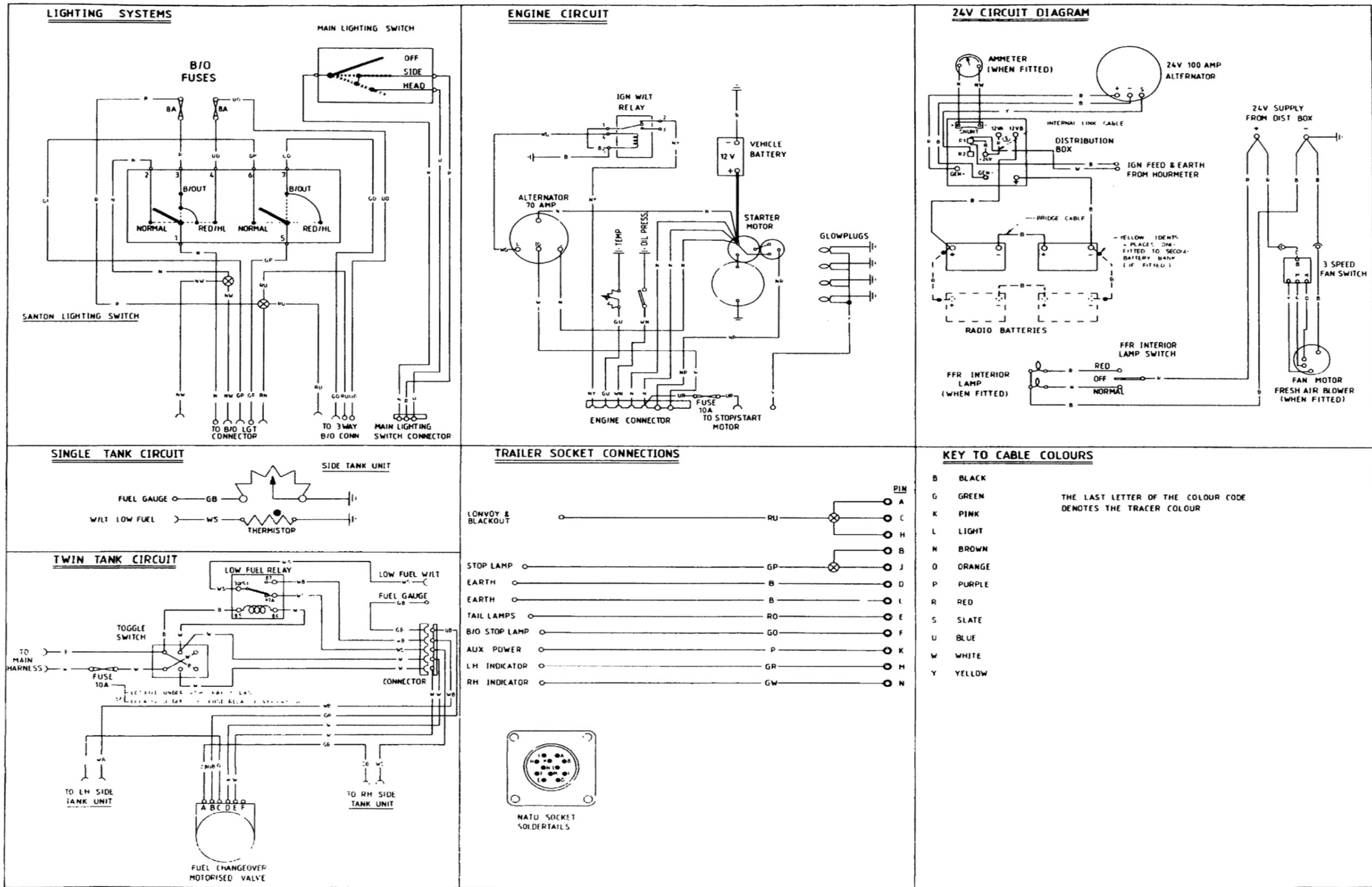


Figure 26 Wiring Diagram (Sheet 2 of 3)

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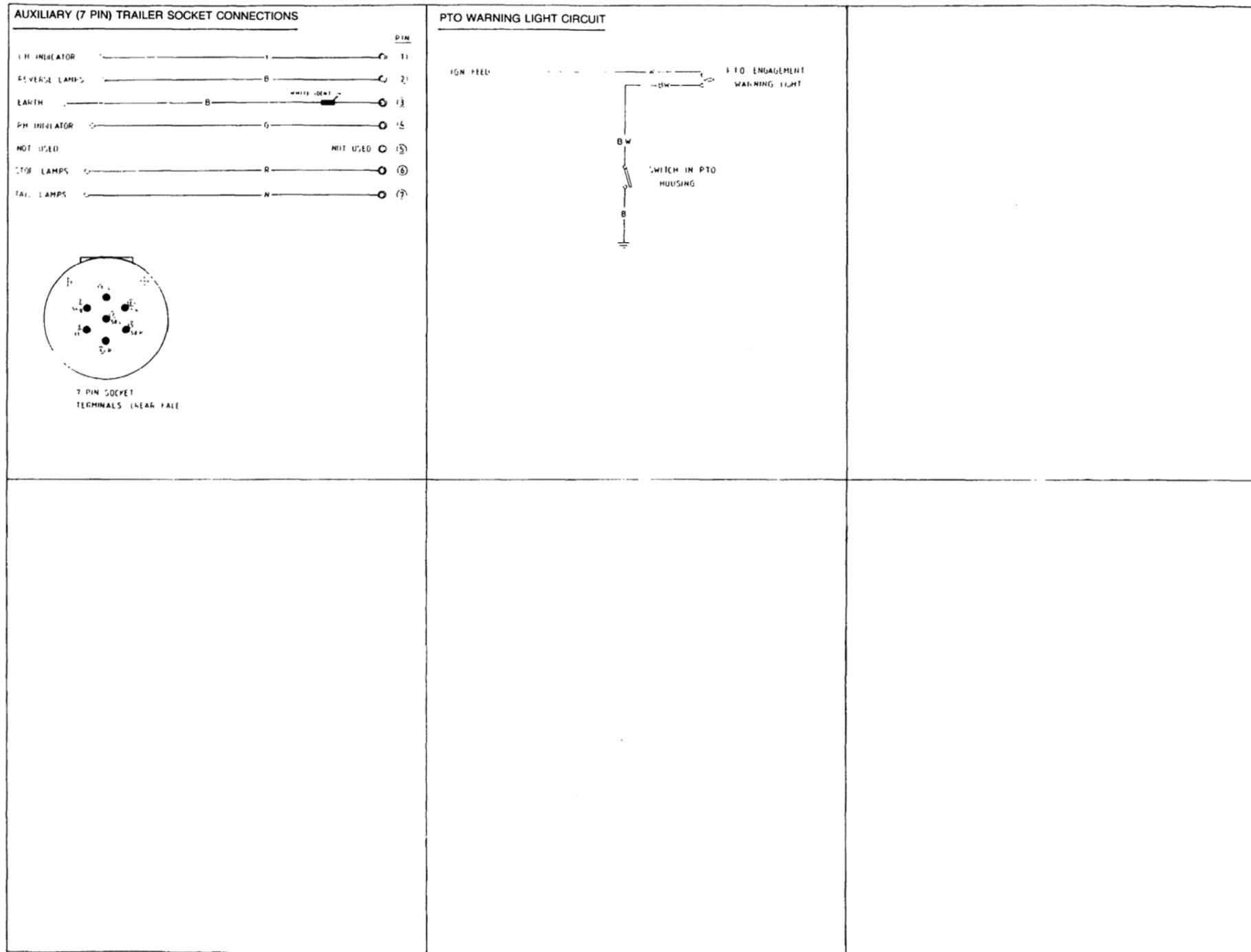


Figure 26 Wiring Diagram (Sheet 3 of 3)

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Distribution List: **VEH G 20.7 – Code 2** (Maint Level)
(Sponsor: LV SPO, Light B Vehicles)
(Authority: TRAMM)